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Your Eyes and Ears on the Organized Electric Markets
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# Offshore Wind Industry Looks for Next Gust of Support

*By Jason Fordney*

ANNAPOLIS, Md. — A senior federal official told offshore wind energy developers last week that the Trump administration supports their cause as the industry looks to build momentum after putting the first U.S. project into service last year.

"I can attest to the fact that offshore wind is very much a part of the portfolio of energy that [new Department of Interior leaders] have come on board to promote," Bureau of Ocean Energy Management Acting Director Walter Cruickshank told dozens of at-

Continued on page 40


*US Wind*

# Westar Shares Fall as Kansas Regulators Block Great Plains Energy Deal

*By Rich Heidorn Jr. and Amanda Durish Cook*

Shares of Westar Energy fell 8% Thursday after Kansas regulators rejected as too risky and too expensive the company's planned sale to Great Plains Energy.

The Kansas Corporation Commission voted 3-0 to reject the $12.2 billion deal, announcing it at the end of the day Wednesday.

Westar shares, which had ended Wednesday at $55.11, dropped to $50.87 Thursday but won back some of the loss Monday, closing at $51.86. Shares of Great Plains, the parent company of Kansas City Power and Light, were unchanged, closing Monday at $29.51.

### Price Too High

"The commission is not opposed to mergers as evidenced by its approval of two acquisitions within the past six months," the commission's order said. "As one of the intervenors notes, in many ways a merger between GPE and Westar makes sense, but for one insurmountable obstacle — the purchase price is simply too high."

The commission said that based on their

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# Heated Start for CAISO CRR Reform Initiative

*By Robert Mullin*

Financial traders made clear last week that they won't give up CAISO's congestion revenue rights (CRR) auctions without a fight, sparring with the ISO's internal Market Monitor at the first meeting to discuss the auctions' revenue shortfalls.

At a contentious meeting of the Congestion Revenue Rights Analysis Working Group on April 18, the CAISO Department of Market Monitoring was unyielding in its position that the auctions should be scrapped and replaced with a bilateral swap market that doesn't burden California ratepayers. The department said ratepayers have paid more than $560 million since 2012 to cover the shortfalls, receiving only 49 cents of every dollar paid out.

Opponents of the initiative complained in January that it lacks widespread stakeholder support. (See *CRR Initiative Elicits Mixed Reviews from CAISO Participants*.) In comments filed with the ISO earlier this year, the Western Power Trading Forum (WPTF) criticized it as the Monitor's "pet project."

### Who Owns the Transmission System?

The Monitor has argued that the main

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## GCPA Conference Coverage:



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10837 Deborah Drive ▣ Potomac, MD 20854 ▣ (301) 299-0375 ▣ info@rtoinsider.com ▣ www.rtoinsider.com ▣

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### Editorial

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

Production Editor
Michael Brooks 301-922-7687

Contributing Editors
Julie Gromer 215-869-6969
Peter Key 484-463-8359

**MISO** Correspondent
Amanda Durish Cook 810-288-1847

**SPP/ERCOT** Correspondent
Tom Kleckner 501-590-4077

**ISO-NE/NYISO** Correspondent
Michael Kuser 802-681-5581

**CAISO/West** Correspondent
Robert Mullin 503-715-6901

**PJM** Correspondent
Rory D. Sweeney 717-679-1638

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# IN THIS WEEK'S ISSUE

## GCPA Spring Conference

# CEO Panel Discusses Cybersecurity, Integrating Renewables

*By Tom Kleckner*

From left to right: Bear, Berberich, Magness, Jones and Brown. | © *RTO Insider*

HOUSTON — The CEOs' roundtable has become one of the top draws at the Gulf Coast Power Association's Spring Conference, and this year was no different. Bill Magness (ERCOT) moderated an April 19 panel that included John Bear (MISO), Steve Berberich (CAISO), Nick Brown (SPP) and Brad Jones (NYISO). The five discussed the state of wholesale markets, grid operations, implementing federal and state statutes and regulations, and cybersecurity readiness.

"We have renewable portfolio standards by states, tax incentives for wind," Bear said. "That has a big impact on our marginal costs, especially in Illinois, and that has put a lot of pressure on coal plants and nuclear plants there. Rather than talk about state issues and state subsidies, we've got to talk about all the issues together, because they're colliding. They're coming to a head."

Berberich agreed, saying that as CAISO has installed more solar and wind capacity, it needs to find ways to harness their power. "If we don't use a distributed generating asset in our market, we're going to have to duplicate them on the central system, and they cost too much," he said. "As a grid operator, I'm sure we can all agree storage is a valuable resource. It's the most flexible resource you can get. We have to be concerned about all system costs, because I think system costs are one of these things that can stop decarbonization."

Distributed generation also was on the mind of Magness, who said if ISOs and RTOs are going to accommodate those resources onto their systems, "We have to chart that path for the aggregators.

"We have to show them what type of generation we need. We have to show them how we price them and how we dispatch them. We have to show these providers how we'll monitor their performance," Magness said.

Among the challenges the CEOs share is forecasting variable resources.

"I've been fascinated with the success we've had in forecasting [wind energy]," Brown said. SPP has integrated 16 GW of wind into its footprint, with penetration levels exceeding 54%. "That success has come from the granular nature of the forecasting. We're taking multiple data points in each counting. That amount of data is massive, but that's just the tip. As many have postulated, solar will be the next wind. If you look at our footprint, the solar will be laid over the wind. The next question is, where will it go?"

Jones said NYISO has made progress on the challenge of quantifying rooftop solar. "We're actually taking real-time data right now off of 10% of the rooftop panels statewide," he said. "We're rolling that through a forecasting tool, which looks at each [transmission] zone across the state. We're having incredible results with that now."

Asked about the Department of Energy's recent announcement of a study on renewable energy's effect on baseload generation, Berberich said, "I'd say it's a short study. I could probably do it in about an hour." (See "Perry Orders Study on How Renewables Affect Baseload," *Federal Briefs*.)

"Natural gas took the first bite out of coal and nuclear; that's not going to change," he continued. "When you inject zero-cost renewables, it's going to crush capacity costs. So, there you go. There's the report."

**"I'd say it's a short study. I could probably do it in about an hour."**

**CAISO CEO Steve Berberich, on Energy Secretary Rick Perry's ordered study on renewables**

### Cybersecurity Concerns

Brown addressed the grid's security, using the military's drilling with live ammunition as an example.

"We talk about the grid being such a huge national resource and yet, in my view, we're not really taking any steps to prevent [physical] attacks because of the money involved," he said. "The concept in many of our states is there's only so much spare equipment that meets that used-and-useful test. A utility is not going to get recovery on that, which kind of boggles my mind. We're not, in my view, taking adequate steps to build the infrastructure to be able to respond."

### Community Choice Aggregation

Looking into the future, Berberich said Pacific Gas and Electric could be losing as much as 40% of its load to community choice aggregators, which draws into question the entire utility model. "These aggregators are generally communities, towns, cities and counties that want to procure their own energy and get out from under the incumbent utility," he said. "Many of them are associated with cleaner, greener energy, but there's the broader issue here of just choice. Should the utilities be in the retail business? Because all this load is coming off anyway."

## GCPA Spring Conference

# Overheard

HOUSTON —The Gulf Coast Power Association's 2017 Spring Conference last week attracted around 400 attendees for discussions on energy storage, ERCOT transmission policies, the future of energy policy under President Trump and the changing generation mix in the U.S. and Alberta, Canada. Here's some of what we heard.

### NRG's Gutierrez Offers Solutions for ERCOT Market

NRG Energy CEO **Mauricio Gutierrez** delivered the opening keynote address, professing the company's passion and commitment to ERCOT and the desire for a structure "that is sustainable and provides the benefits of competition to businesses and consumers here in Texas."

Gutierrez said he was concerned about price formation in the ERCOT market, the growth of renewables and what he called the preference for transmission over market solutions in the planning process. "There's a lack of balance in transmission planning policy, which undermines wholesale prices and which will eventually overwhelm the competitive retail market and consumers," he said.

Gutierrez's solutions? Improve the operating reserve demand curve's price signal with a locational component; include marginal losses in ERCOT prices; minimize the use of out-of-market actions; address mitigation rules for reliability-must-run units; and balance transmission investment with market-based solutions.

"When you mitigate RMR units, you're suppressing prices exactly when it's not supposed to. It interferes with the market's ability to meet reliability needs," Gutierrez said.

"I tend to be transparent when it comes to the ERCOT market and very forthcoming," he said. "I always like to polarize the conversation, because it brings out the essence of the issue. The more open and transparent we have that conversation, the quicker we'll get to the right answer. We cannot afford to keep dancing around."

Mike Skelly and Maryam Sabbaghian Brown | © *RTO Insider*

### Unwinding Environmental Regulations Won't Be Easy

Jeff Holmstead, a partner with the Bracewell law firm who headed the EPA's Office of Air and Radiation from 2001 to 2005, opened a panel discussion on Trump's first 100 days as president by taking the audience back to the morning after his November election, joking: "You probably woke up to a surprise. Who would have thought California would legalize recreational marijuana?"

Sempra Energy's vice president of federal government affairs, Maryam Sabbaghian Brown, was more serious. "It's been made clear, and the president has made clear, that reforming the Clean Power Plan is a top priority. This administration is very focused on delivering on that campaign promise," she said.

But it won't be easy, said Brown, who served as an energy and environment adviser to House Speakers John Boehner and Paul Ryan. "There are the delays we're seeing in nominations for second- and third-tier executives for the agencies that do a lot of the work involved in unwinding these rules," Brown said. "There needs to be a recognition that there will be a lot of time involved in doing this work. It doesn't happen with a simple wave of the wand for mechanical and legal reasons."

"The big challenge is getting through the years and years of regulatory processes," said Clean Line Energy President Mike Skelly, whose company is working to secure approvals of five different high-voltage transmission lines across multiple states. "We've gotten there with one project, and we're close to the finish line with another. I cannot overstate the difficulty of multistate approvals. Every day is a mad dash."

Skelly agreed with the Trump administration's push for a $1 trillion infrastructure bill, which may include some public-private partnerships.

"Energy ... doesn't carry the public price tag that water, bridges and highways do. Those are direct expenditures," said Skelly, an unsuccessful Democratic congressional candidate in 2008. "I think Democrats will get behind it. In the sense you need a bipartisan vote on infrastructure, transmission may fit in. It's not a huge universe type of project."

"First, you have to recognize the unifying nature of energy and environmental policy within the Republican Congress," Brown said. "Health care and tax reform are taking up the greater part of the oxygen in Washington, D.C. It's difficult to get consensus on those issues within the Republican conference, but energy and environmental policy presents a real contrast to those issues in that it is a unifier for their conference, and it can also be a bipartisan issue. I think there's a real opportunity to advance policies that support the energy business."

Skelly was less optimistic about the tax credits for wind and solar energy, which are due to begin phasing out this year. (See *Solar to Shine Under ITC Extension*.)

"We've been in many discussions with the leadership and others in Congress and the administration, and it's like, 'A deal is a deal. You guys agreed to phase these out.' You never know, but you feel like the decision's been made."

*Continued on page 5*

# GCPA Spring Conference

## Overheard

*Continued from page 4*

Addressing FERC, which is one commissioner short of a quorum and also has Colette Honorable facing the end of her term this summer, Brown said the commission will likely defer more responsibility to the states and grid operators.

"We're still waiting for the formal FERC nominations, but it seems as though the new commissioners are not coming in with a preconceived federal agenda as we saw with the [George W.] Bush and Obama administrations," she said. "It will be perhaps more reactive, and give a lot of deference for the states to do what they want to do. That's not to say we won't see involvement from the federal government, but the states and ISOs are going to continue to lead in their spaces."

### Canadian ISO Takes on Environmental Challenges


Alberta Electric System Operator CEO **David Erickson** described his own challenges with governmental change in Canada and the resulting effect on the ISO's market, which is home to the country's oil sands production. AESO has been operating an energy-only market, under a right-leaning, business-friendly Progressive Conservative party government that has controlled the province for decades.

When the New Democratic Party took control following the 2015 elections, Erickson said AESO — which relied on coal for 62% of its power production last year — was forced to determine how to phase out coal-fired generation by 2030.

"The new government wanted to do something in a more aggressive way. It wanted to do things quicker," he said. "We came to the conclusion an energy-only market was not sustainable unchanged. There was too much investment needed in thermal power plants, too big of an influx of renewables that push down the price and impair that [thermal] investment."

AESO is now transitioning to a capacity market to ensure reliability and price stability. It supports the government's Climate Leadership Plan.

"We'll replace two-thirds [of coal energy] with wind and [the remainder] with natural gas," Erickson said. "That's our only choice. We did not want power to be a business disincentive for the province or start losing business to other states because of power issues."

### Desires of Consumers, Commercial Customers Changing Generation Mix

As part of a panel discussing how consumers can drive changes in wholesale and retail power markets, Chris Hendrix, director of markets and compliance for Wal-Mart Stores, agreed that renewable power is squeezing out conventional power sources.

"Why are the large corporations doing it?" he asked. "It really comes down to they're getting pressured by investors, owners, customers and employees, or a combination of those, to green up their footprint. Instead of greenwashing it, they're going out and buying green power."

**Maura Yates**, co-CEO of Mothership Energy Group, a group of women-owned energy solutions companies, agreed. "They're being driven to procure for a number of reasons," she said. "It's now a value stream for the corporation. We're seeing loads influence the power market. It's a really telling thing that loads today are buying based on subjective and objective values."

Asked whether the demand for customer choice might lead to further deregulation, Hendrix said the push to deregulate goes in ebbs and flows. "It looks like we'll get it nationwide, then it falls apart," he said. "Now you see California talking about full and open retail competition. A lot of it is driven not only by the large industrials, but retail customers who want to have a say in where their generation comes from."

"Another reason is the transparency," Yates said. "There is so much more transparency in the deregulated space than there is in the regulated space. That makes it so much easier to charge 20 cents/kWh" in the latter, she said.

Mike Sullivan, CEO of Texas retailer Champion Energy Services, said no one should assume renewable energy and storage technologies will lead to migration away from the grid.

"If people knew what they wanted, that might expedite that," he said. "But the fixed costs are there. You can't fight city hall, and you damn sure can't fight the utilities."

### Storage 'Commercial Right Now'

A panel devoted to energy storage and related "technology enablers" agreed that as costs continue to come down, the industry will only become more familiar with storage devices and more open to their use.

"When you're planning systems five years out, the culture makes it very hard to get planners to look at storage, because they're very technical," Electric Transmission Texas President Kip Fox said. "As they become more familiar with storage technology, we're starting to see these applications for batteries rather than traditional transmission solutions."

"This is very commercial right now," argued Kiran Kumaraswamy, market development director for AES Energy Storage. "There's no need to do research and development and promotion projects. It's always cheaper than what you think the cost is. Even though we talk about storage in isolation, adding storage to the system helps you operate your facilities much more efficiently. We're optimizing price patterns on the overall grid. That's something AES has seen in every market we have entered, whether it's PJM [or] the Chilean market."

*— Tom Kleckner*

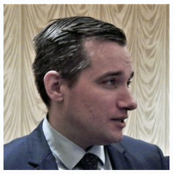
Mike Sullivan and Chris Hendrix | © *RTO Insider*

# GCPA Mexico Electric Power Market Conference

## Mexico's Power Market Continues to Gain Strength

*By Tom Kleckner*

HOUSTON — Mexican policymakers said last week their country is moving steadily in its efforts to inject competition into its electric industry but acknowledged its 2018 presidential campaign is bringing fears of uncertainty.



Kicking off the Gulf Coast Power Association's second annual summit on the Mexican market, **Jeff Pavlovic**, managing director of electric industry coordination for Mexico's Ministry of Energy (SENER), briefed his audience on the country's fledgling energy market.

In a matter of years, he said, Mexico has begun a short-term energy and ancillary services market, a capacity balancing market, long-term auctions for energy, capacity and clean-energy certificates, and bilateral transactions. Medium-term auctions are scheduled to be conducted in October and a financial transmission rights auction in November, with the clean energy certificate market beginning next year.

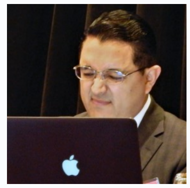
"The fact that we're getting a bilateral market up and running is a big deal," Pavlovic said. "We don't want to centralize decisions … so the development of a bilateral contract market is important."

He said the FTR manual is up for final approval and will soon be published for all market participants. One change participants will see is in credit requirements, which were previously published at 250 pesos/MWh (about $13.29).

"We heard loud and clear that that was too high and would scare away all participation," Pavlovic said. "We need to get smarter in the new manual and with a new scheme. Each FTR will be valued on expected value and its variability."

He took a minute to brag about the volume and diversity of the market's first two long-term auctions, which resulted in approximately $6.6 billion of total investment. Pavlovic said the auctions acquired solar and wind capacity equal to 171% of the previous 18 years' additions. In the meantime, SENER continues to transition responsibility for the market to Mexico's Energy Regulatory Commission (CRE).

"The ministry will eventually hand over the keys to the car to the CRE," he said. "We tried to move the most volatile rulemakings out of the ministry to the more stable place, which is the CRE. We'll do it for the next several months because we can do it more quickly, but we will move that to CRE by the end of the year."



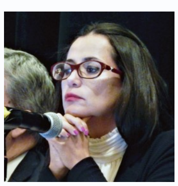
It wasn't that long ago that the Comisión Federal de Electricidad (CFE), the state-owned electric monopoly, dominated every aspect of the market. There are still issues to be worked out, CRE Commissioner **Guillermo Zuñiga** said.

"One of the main issues is the Tariff," he said. "We're working on the costs of the [CFE] legacy plants … and their allocated costs. Subsidies may come later.

"Before reform, subsidies were embedded in CFE's financial statements. You couldn't tell the size of the requirements' subsidies, because it was in the belly of the monopoly. We want transparent subsidies."

### Explaining the Benefits of Market Participation

CFE Calificados, the former monopoly's qualified supplier, in November completed the market's first hedge contract with Frontera Mexico Generacion, a subsidiary of power generator Fisterra Energy. It didn't come easy, resulting from months of work and meetings throughout the country.



"We try to educate and explain to the final customer," said CFE Calificados CEO **Katya Somohano**, who has helped complete several power purchase agreements. "One of the lessons is to move from fixed contracts to where the customer benefits from a change in gas prices. We've been very keen showing that and telling customers how it works.

"We spent about two years going around the country. We spent three to four hours explaining the market and the risks. One of the lessons is to move from fixed contracts to where the customer benefits from a change in gas prices. Experience is something very important. If they make the move, they'll be in the market for three years, by law. We explain that. The Tariff is at such an [advanced] level that some, not all, customers will be in a better position in the market."

"Four or five years ago, I would have called the market very regulated with not a lot of opportunities," said Juan Guichard, director of competitive qualified supplier Ammper Energia. "We have come a long way in a brief amount of time. I see it as an execution of what has been designed. To be here in Houston, talking about the Mexican energy market, is proof of that."

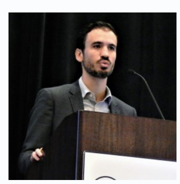
### Political Uncertainty Cast Cloud over Market

During the GCPA's first summit on the Mexican Market last year in Mexico City, Nick Panes, a senior partner with local consulting firm Control Risks, made predictions about the U.S. presidential election. Like many pundits, he was wrong.

"We're living with the political reality of certain events that happened last November," he said, apologetically. "We're living in a global, bilateral political reality. The key issue for us has always been that planning and careful consideration of the issues one is going to face will help avoid unnecessary delays."

Panes said the key issues to market success have not changed: legal and regulated risk, community relations, human resources and capital, the rule of law and transparency, and — especially in northern Mexico — security.

"For many years — perhaps justifiably, perhaps not — security has dominated the headlines around Mexico," he said. "Our line, as last year, is that it does not represent an insurmountable obstacle to investing and operating in Mexico. It is going to be a critical political issue going forward. In certain parts of the country, [security] has deteriorated, and it is likely not to improve going forward into 2018" when Mexico holds its national elections.



**Adrian Katzew**, CEO of clean-energy developer Zuma Energía, said next year's election is already creating challenges.

"Those of us with intermittent resources may have to buy certificates in some years because the wind is not blowing," he said. "We need the system to be healthy. To be healthy, the projects need to become reality. We need certainty. One of my concerns is some of these not be able to mature. [Competitors] will point to the industry and say, 'See, prices are too cheap. Clean energy can't be this cheap.'"

## CAISO NEWS

# Spring Oversupply Lifts CAISO Curtailments

## 'Duck Curve' Dips Ahead of Expectations

*By Robert Mullin*

CAISO is curtailing an increasing volume of renewable generation this spring as the ISO sees its "duck curve" already dipping to levels not forecast to occur until 2021.

Compounding the issue is an unusually high snowpack coming after years of drought that had previously undercut California's hydroelectric output, making more room for solar.

"Everything's kind of playing out the way we had expected, maybe just a little bit faster," Mark Rothleder, the ISO's vice president for market quality and renewable integration, said during an April 19 meeting of the Energy Imbalance Market (EIM) Governing Body.

### All-Time Low

"We've seen net load levels of 10,386 MW" — an all-time low, Rothleder said. "This is about four years ahead of the schedule of where we expected to be" when the ISO first introduced the duck curve in 2013.

"Net load" represents system load minus the combined output from utility-scale wind and solar resources. The ISO cares about those three components because they all represent variable factors, Rothleder explained. Where system operators once had to track and balance only load, they must now deploy dispatchable resources to balance whatever portion of the load is not being served by renewables.

The all-time-low net load figure cited by Rothleder occurred on April 9. It was also off the charts of the original graph, which only forecasted out to 2021 (see graph).

"When we put the duck out a few years ago, we probably didn't factor in the effects of behind-the-meter solar as much as we're actually seeing play out," Rothleder said.

CAISO estimates that its balancing authority area contains about 5,000 MW of rooftop solar capacity, which reduces system load during daylight hours.

Rothleder pointed out that the duck curve is also intended to illustrate the sharp daily ramps needed from dispatchable resources as solar output starts to wane as residential load ticks upward in the evening. In December, the ISO observed a 13,000-MW three-hour ramp about four years ahead of expectations.

### Deeper, Longer, Steeper

"Looking forward, we should continue to expect that the belly of the duck is going to get deeper and that the evening ramps will get longer and steeper as well," Rothleder said.

At about 11,000 MW of net load, the ISO has "to start stacking up what other supply is already on the system that you can't move," Rothleder explained. In California, that means about 2,000 MW of nuclear, 1,000 MW of qualifying facilities under the Public Utility Regulatory Policies Act and — "in a good year" — around 6,000 MW of hydroelectric output.

With snowpack levels in the Sierra Nevada mountains currently at about 180% of normal, and California's drought officially declared over, this is a very good year for hydro.

In leaner times, the steady growth of California's solar capacity conveniently substituted for the decline in hydro, Rothleder said. Now the two must compete, with hydro curtailments limited by flood control needs and environmental restrictions on spilling water over dams.

"You're now getting into a condition where you have an excess amount of energy and you have to do something with it," Rothleder said.

One key response has been exporting to neighboring BAAs through the EIM, which last month helped the ISO avoid more than 100 GWh of renewable curtailments.

"And if we run out of that ability, we effectively get to the point where we have to curtail, whether it be economic curtailment through bids on the wind and solar resources to dispatch down, or manual curtailment because we ran out of bids," he said.

### 80 GWh Curtailed in March

CAISO curtailed about 80 GWh of renewable generation in March, nearly double the curtailments during the same month last year. So far this year, curtailments have occurred in 31% of all five-minute dispatch intervals, compared with 21% last year and 16% in 2015, the ISO estimates.

EIM Governing Body member Valerie Fong asked how the curtailments were allocated across the ISO's market.

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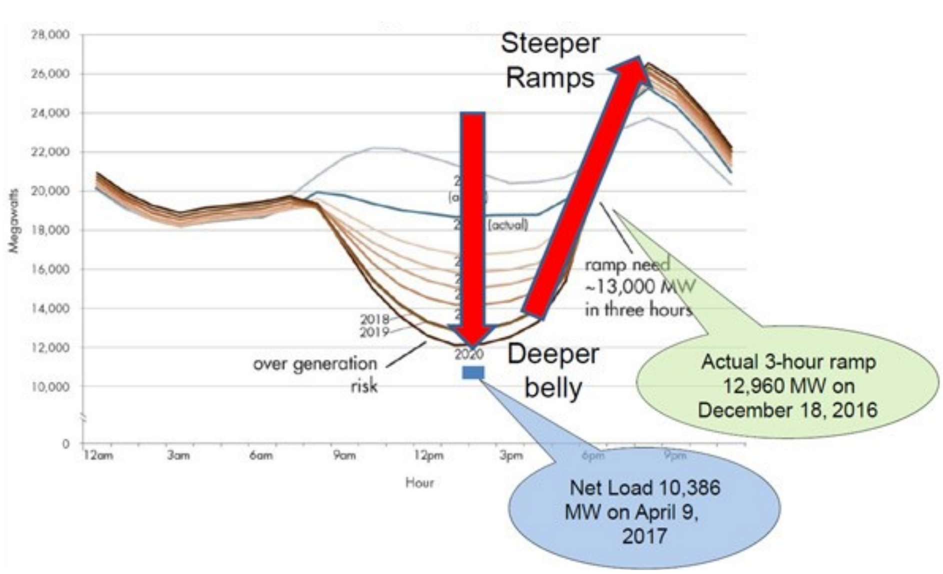



Recent events have put CAISO "net load" effectively off the original "duck curve" chart, with load served by dispatchable resources falling to levels not forecast to occur until 2021. | *CAISO*

## CAISO NEWS

# Spring Oversupply Lifts CAISO Curtailments

### 'Duck Curve' Dips Ahead of Expectations

Continued from page 7

"It's not an allocation," Rothleder replied. Rather, resources are curtailed based on what price they offer into the market. Renewable resources frequently bid in at negative prices because of other compensation derived from renewable energy certificates and tax credits.

"The one that's bidding -$15 will be dispatched down first before [a resource bidding] -$30," Rothleder said.

#### Is Storage an Answer?

Body Chair Kristine Schmidt asked whether there were any developments related to energy storage that could help reduce curtailments.

Rothleder said "the proposition of storage is an ongoing question" in which CAISO market participants must determine when curtailments reach a level that warrants investment in "higher-cost" storage solutions.

"When does that threshold get crossed? I don't think we're there at the current levels" of curtailments, Rothleder said.

Sara Edmonds, general counsel with PacifiCorp Transmission, pointed out that the ISO's own numbers show that curtailment avoidance through the EIM this year is lower than last (see graph).

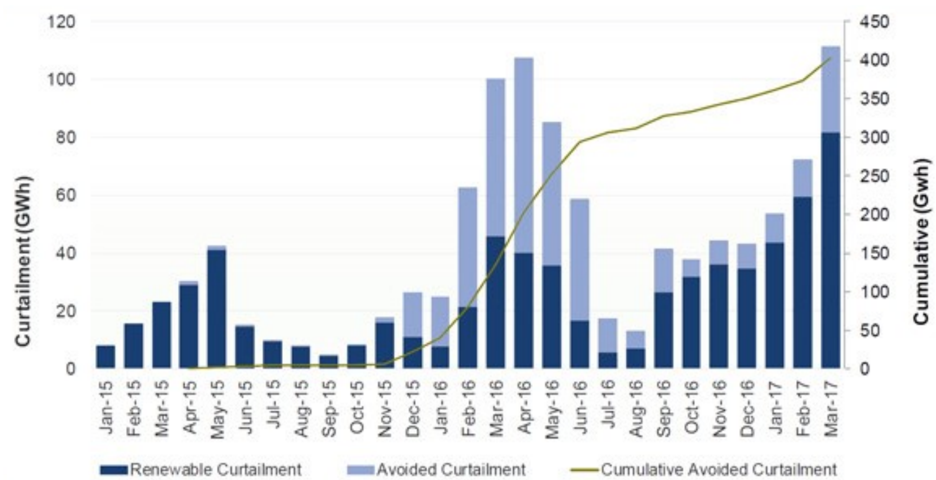
"I'm still trying to understand that myself," Rothleder said. "There could be various reasons."

One potential reason is that supply conditions across the West are different from previous years, with snowpack high in other regions as well.

A second possibility: EIM participants could be changing the way they deploy resources, reducing the potential for downward dispatch in their own balancing areas.

A third: The inclusion of Arizona Public Service and Puget Sound Energy in the EIM last October could be altering the dynamic of the market.

"So I don't have the full explanation," Rothleder said. "I think we'll see how things continue to play out over the rest of the spring and summer — and especially with other hydro conditions throughout the West."




Graph indicates how the EIM has helped CAISO avoid renewable curtailments this year, although avoided curtailments are down from previous years. | *CAISO*

# Heated Start for CAISO CRR Reform Initiative

Continued from page 1

beneficiaries of the existing auction structure are financial speculators rather than load-serving entities or generators. Its objective is "to not have ratepayers offer financial swaps at a zero-dollar reservation price," said Ryan Kurlinski, manager of the department's analysis and mitigation group.

"If there were no CRRs, no auction, no allocation, who would get the [congestion] rent? Transmission ratepayers," said Roger Avalos, a lead analyst with the Monitor. "Who would get the auction revenues? Ratepayers."

"You're making that as a conditional statement upon this alternate universe you've created, but you don't know that's actually what would happen through the course of policy decisions," countered Seth Cochran, manager of market affairs and origination at DC Energy, which trades CRRs and other financial instruments tied to the power and natural gas markets.

Neil Huber, an energy trader with XO Energy, took issue with the fact that the Monitor was using the terms LSEs and ratepayers "interchangeably." He contended that "we would all agree that the LSE may be paying for the underfunding" of the auctions, but that use of the term "ratepayer" seemed "politicized" within the context.

Kurlinski explained that transmission developers recover their capital costs through CAISO's transmission access charge, which is charged to metered load — a cost that LSEs pass directly to their customers.

"So that's where we're getting to the concept of ratepayers ultimately paying for this physical transmission, and therefore they have the rights to revenues generated from those assets in the day-ahead market — which are the congestion rents," Kurlinski said.

"Everything in the [auction] balancing account is passed to ratepayers, not the shareholders of LSEs," Avalos added.

Michael Rosenberg, principal trader with ETRACOM, questioned the assumption that the transmission system is effectively owned by ratepayers.

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# CAISO News

## Heated Start for CAISO CRR Reform Initiative

Continued from page 8

"Right now, it's not clear to me, after all this discussion, why that transmission congestion revenue belongs to — quote-unquote — transmission ratepayers or ratepayers, and why the current market mechanism is inferior," Rosenberg said.

### CRRs Benefits to Ratepayers

In a presentation to the group, Abram Klein of Appian Way Energy Partners said that "CRRs are not bad for consumers — it's really the opposite."

"And what matters for consumers is not how much money they're getting from the CRRs, but what's the premium and the cost to certain load in the competitive wholesale market," Klein said.

In a well-designed market, he said, CRRs actually lower risk premiums for serving wholesale load, which brings down forward prices. The upshot: Consumer costs are ultimately reduced by the increased transparency and liquidity provided by CRR auctions, he said.

Klein said the auctions will become increasingly important as California moves toward more retail choice through the growth of community choice aggregators, which will rely on CRRs to keep their forward prices in check.

Doug Boccignone, a consultant representing Silicon Valley Power, the CCA for Santa Clara, noted that CCAs are eligible to participate in the ISO's CRR allocations after effectively taking over the role of their host utilities. "They have all the rights and obligations that any other LSE has," he said.

Boccignone added that LSEs appear to be participating in the auctions to unwind their own allocation positions rather than to acquire more CRRs.

### Other Markets for Hedges?

Klein said that although congestion costs are relatively small — representing just 2% of the cost of serving load — the CRRs are "a crucial piece because they are really embedded in the LMP market design." Eliminating the CRR auction would remove "one of the pillars" of the market, he said.

Ellen Wolfe, a consultant speaking for the WPTF, said that LSEs indirectly benefit from the CRR auctions through deals made "more efficient" by access to CRRs outside the allocations.

"A seller cannot necessarily transact with a buyer well unless there is some way to hedge, and those deals become more efficient with the ability to hedge well, and the CRRs in a nodal market allow that process," Wolfe said. Without the auction, there's no way for third parties to get hedges, she said.

"I don't think that we're in any way talking about eliminating all markets for these kind of financial hedges," Kurlinski said. "I think the purpose of this initiative is, 'What are the options for replacing the current CRR auction? Does it have to be this CRR construct? Does it have to be the ISO deciding how many of these financial swaps to offer up?'"

"Another market can evolve if there's actually demand for these hedges," Kurlinski said. He said such a market wouldn't be liquid today because the ISO is selling a "huge quantity" of what are effectively financial swaps at a zero-dollar reservation price.

"Nobody else is going to be able to come in and compete with that," Kurlinski said.

### Need for Root Cause Analysis

Wolfe said the Monitor seems to be concerned that when revenues are sold for below-market value that "there's some kind of transfer of wealth" and that there's no remedy available to address that.

"Along the way, there's been no real explicit investigation of the root causes of why those CRR clearing prices are less than day-ahead congestion and what's driving" the discrepancy between auction revenues and CRR payouts, Wolfe said.

Kolby Kettler of energy and commodities trader Vitol encouraged market participants to consider the "intangible" transparency benefits of the CRR auctions. The transparency behind auctioned CRRs is used by lenders to price their financing to energy project developers, Kettler contended.

"Do they pull up the CRR price and use that as it is? Maybe not," Kettler said. "But it goes into consideration and it reduces the premiums back to load based on this information. So that's something we need to take into consideration. It's very hard to quantify some of those things."

The intangible benefits do exist, agreed Alan Wecker, market design analyst at Pacific Gas and Electric. But he offered a significant qualification.

"It's just that the magnitude of the loss is so large that it causes me to want to have a better way to make those intangible benefits tangible," Wecker said. "Without that, it's so ethereal that it's really hard for us to agree that no change needs to be made or that the changes don't need to be that massive."

## CAISO NEWS

# EIM Governing Body OKs Charter Expansion, Retains Schmidt

*By Robert Mullin*

Energy Imbalance Market (EIM) Governing Body members on Wednesday approved a measure that would give them increased power to make changes to the market's governing charter.

CAISO's Board of Governors still has final say over the measure, which revises the charter by granting the Governing Body "primary" authority over "substantive" changes to the charter.

Schmidt

ISO approval didn't appear in doubt based on discussion during an April 19 meeting at which the body also approved a new term for member Kristine Schmidt and named Doug Howe the new chair. "I think this is where the charter needs to be," CAISO senior counsel Greg Fisher said.

Howe

The provision would require that substantive modifications be first presented to the body for its "advisory" input, similar to the role body members play regarding CAISO market rule changes that also affect the EIM. Changes approved by the body would advance to the consent agenda of the ISO board, which reserves the option to consider any decisions. (See *EIM Charter Changes Would Give Governing Body More Power*.)

The proposal would also allow the Governing Body to initiate any modifications to those areas of the charter dealing with the EIM's Body of State Regulators (BOSR) and Regional Issues Forum (RIF), two West-wide groups established by the ISO to monitor and provide feedback on the EIM's activities.

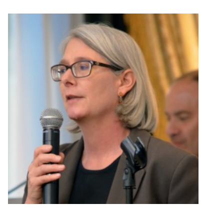
CAISO management initiated the changes at the request of Governing Body Chair Kristine Schmidt, who sought to clarify the body's role in altering the charter — something not spelled out in the document itself.

"Through conversations when we had the Body of State Regulators and the Regional Issues Forum meetings in Las Vegas, the question kept coming back about who approves the charter changes," Schmidt said.

She added that "in my head, I thought the EIM Governing Body would have the primary authority over" the charter based on what was spelled out in the EIM's "guidance document." That document — the creation of which was recommended by the EIM's stakeholder Transitional Committee — defines the lines of decisional authority between the Governing Body and the ISO board over matters affecting the EIM operation and policies.

> ***"I want to welcome you to three more years of captivity."***
>
> **Doug Howe to Kristine Schmidt, EIM Governing Body**

Schmidt took the issue to CAISO CEO Steve Berberich and General Counsel Roger Collanton, who agreed with her that "given the spirit and intent" of the guidance document, "there seems to be a place for the EIM Governing Body to have the primary decision authority over certain parts of that charter," especially those sections related to the BOSR and RIF, she said.



Rendahl

BOSR Chair Ann Rendahl, a member of the Washington Utilities and Transportation Commission, threw her group's weight behind the charter revisions.

"I appreciate the effort by the ISO staff and Chair Schmidt and the Governing Body in focusing on the charter," Rendahl said. "We support the changes."

The ISO board is expected to vote on the charter revisions during its May 1 meeting.

### Schmidt to Remain as Howe Takes Chair

Fong

Also in the meeting, the Governing Body voted to keep Schmidt within its ranks — this time for a full term.

"I want to welcome you to three more years of captivity," fellow body member Howe joked after the group took the vote. The five-member body also elected Howe — currently the group's vice chair — to be its leader after Schmidt declined to seek another term as chair. Valerie Fong will assume the position of vice chair.

Schmidt's reappointment was recommended earlier this month by an EIM nominating committee consisting of regional stakeholders — the same panel that initially selected her for the role after an extensive vetting process. (See *EIM Panel Backs Schmidt for 2nd Governing Body Term*.)

While Governing Body members typically serve for three years at a time, the EIM's charter calls for staggered terms. A random selection process administered when the group was first seated last year left Schmidt with a one-year stint scheduled to end this July.

Although she actively sought another term on the body, Schmidt turned down another term as chair. "I just feel that there are four other people here who are so qualified and so fantastic as leaders, and also body members. I wanted to make sure that others had the opportunity to play this role" as chair, she said.

"You did an incredible job of getting us on track here and getting us organized … and we're very fortunate that you stepped up for our first year," Fong said.

In speaking about his own elevation to the position of chair, Howe said he could not resist a "good pile-on" in lauding Schmidt's previous work in the role.

"I think most of you have seen Kristine in action over this past year, and more dedication and more effort would be hard to find in anyone," Howe said. "It is going to be a daunting task to live up to her standard."

## CAISO News

# LA Creating Community Choice Aggregator to Compete with SoCalEd

*By Robert Mullin*

Electricity customers in Los Angeles County will soon have the option to purchase their power from a new publicly run supplier that will obtain more of its energy from renewable resources.

The county's Board of Supervisors voted 5-0 last week to establish a community choice aggregator (CCA) that will directly compete with Southern California Edison for the region's retail, commercial and industrial customers.

The supervisors authorized initial spending of $10 million to launch the Los Angeles Community Choice Energy (LACCE) Authority, with 80% of those funds slated for procuring power, and the balance used for covering administrative costs.

The new CCA will serve electricity users in the county's unincorporated areas, as well as incorporated cities without a municipal utility, such as Long Beach, South Pasadena and Torrance. Customers in participating areas will be automatically enrolled in the program but can opt out and maintain service with SoCalEd.

Customers of the municipally owned Los Angeles Department of Water and Power, Pasadena Water and Power and Burbank Water and Power will not be eligible to make the switch.

The motion voted upon by the board said the initiative will "bring significant environmental and financial benefits to the region, and reflects the growing state- and nationwide trend toward providing customer choice in the provision of electricity."

A report presented to the board last year showed that a countywide CCA would be financially viable and could provide customers power that is cheaper and "significantly greener" than that delivered by SoCalEd, an investor-owned utility serving much of the region. The county would aim to purchase 50% its energy from renewable resources, nearly double that of SoCalEd. That would reduce countywide greenhouse gas emissions by 850,000 metric tons — or 9%, the county estimates.

"There are few, if any, single actions that the county could take that would have such a large and immediate impact" on the environment, the county's Chief Executive Office said in a report issued earlier this month.

SoCalEd said it maintains a "neutral" position on CCAs.

The county expects to roll out the CCA's operations in three phases starting in January 2018, when the LACCE Authority will begin delivering electricity to county-run facilities in unincorporated areas.

Phase two will kick off in July 2018 with the CCA offering service for commercial, industrial and municipal customers in unincorporated areas and cities that elect to become initial participants in the authority, a move that is expected to bring on about 200,000 new accounts.

A third phase launched in 2019 would begin providing service to approximately 1.5 million residential customers.

County officials began exploring the creation of an electricity provider last year. California currently has eight CCAs, with seven more scheduled to begin operations this year. A 2002 state law enabled the creation of CCAs, which rely on the existing distribution system to deliver electricity to customers.

Growth of CCAs is one factor prompting California energy officials to reconsider the idea of instituting retail choice in the state's electricity market, an effort that was abandoned in the aftermath of the 2000/01 Western Energy Crisis. (See *California to Reconsider Retail Choice*.)

## ISO-NE NEWS

# ISO-NE Study Projects Impact of $64/ton Carbon Price

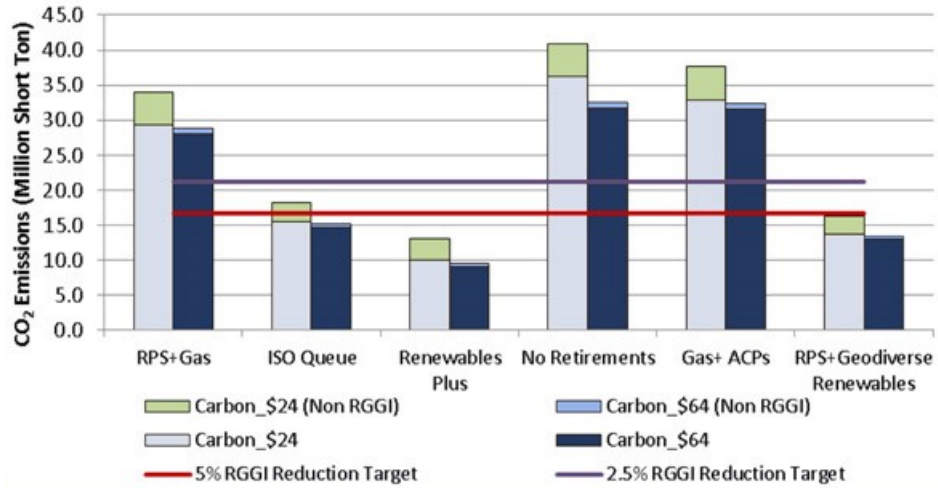
By Michael Kuser

WESTBOROUGH, Mass. — A new analysis by ISO-NE shows that increasing carbon allowance prices from $24/short ton to $64/short ton would boost the region's LMPs by more than 30% under all six scenarios studied.

The RTO added the new sensitivity in response to stakeholders who said the $24/short ton (2015 $) allowance price used in an earlier version of the 2016 Economic Study was too low to drive the investments needed to meet greenhouse gas reduction goals. The $64 figure is based on the federal government's estimated social cost of carbon.

Michael Henderson, ISO-NE director of regional planning and coordination, presented the results of the revised study to the Planning Advisory Committee on April 19.

The Regional Greenhouse Gas Initiative emissions cap — 91 million short tons in 2014 — is set to drop by 2.5% annually through 2020. Some activists have called on RGGI to double the cuts to 5% per year. Most of the six scenarios studied failed to meet those targets.




Annual New England CO2 emissions — 2030 unconstrained | *ISO-NE*

Dan Pierpont, manager of external affairs for CPV Towantic, asked about the "pricing effects of RGGI goal-busting performance," while an unidentified woman participant on the phone said she wanted "RGGI-threatening scenarios clearly delineated in the executive summary for state policymakers."

### New Names for Numbered Scenarios

In place of the six numbered scenarios in the earlier draft study, Henderson said, "we've given nicknames to the scenarios so they'll be intuitively obvious." The new names are:

1. **RPS + Gas**: Physically meet renewable

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## ISO-NE News

# ISO-NE Study Projects Impact of $64/ton Carbon Price

Continued from page 12

portfolio standards and replace generator retirements with natural gas (combined cycle units). It fails to meet the RGGI targets regardless of whether transmission constraints are modeled or not.

2. **ISO Queue**: Physically meet RPS and replace generator retirements with new renewable/clean energy. It meets the 5% RGGI reduction only in the transmission-unconstrained model and then only using the $64/ton carbon adder.
3. **Renewables Plus**: Physically meet RPS; add renewable/clean energy, energy efficiency, solar PV, plug-in electric vehicles and storage; and retire old generating units. It meets the RGGI targets under all sensitivities.
4. **No Retirements** (beyond Forward Capacity Auction 10): Meet RPS with resources under development and use RPS alternative compliance payments (ACPs) for shortfalls; add natural gas units. It fails to meet the RGGI targets under all sensitivities. It shows the highest LMPs assuming a $64/ton carbon price, averaging $69.70/MWh including transmission constraints.
5. **Gas + ACPs**: Meet RPS with resources under development and use ACP, and replace retirements with natural gas. It does not meet the RGGI targets under any sensitivity. It shows the highest LMPs under a $24/ton sensitivity, at $52.63 (transmission constrained).
6. **RPS + Geodiverse Renewables**: Scenario 2 with a more geographically balanced mix of on/offshore wind and solar PV. It meets the RGGI targets under the $64/ton sensitivity but fails under the $24/ton transmission-constrained model. It had the lowest LMPs of all six scenarios under all sensitivities, averaging $34.12/MWh ($24/ton) and $44.21/MWh ($64/ton) with transmission constraints modeled.

"Clearly, scenarios with the heavier renewable elements, scenarios 3, 6 and 2, show the lowest $CO_2$ emissions," Henderson said. "As far as load-serving entities go, there is no change in the scenario order: The least expensive remains least, and the most expensive remains most."

Scenario 2 shows the biggest decrease in LMPs when transmission constraints are relieved, a difference of almost $22/MWh assuming $64/ton carbon.

LMPs for scenarios 4 and 5 show virtually no change with the transmission constraints modeled because they have little congestion, Henderson said.

### 25-MW Threshold

Henderson noted that the study applies carbon allowance prices to all generating units in New England — including those below the 25-MW threshold employed by RGGI.

Ignoring the carbon prices for smaller units could actually increase emissions, Henderson said, because high emitting small units, such as biomass, would be dispatched more often.

"The new methodology is important, for when you raise carbon prices — if you do nothing to affect the resource dispatch order — you have no effect on emissions," Henderson said. "As the resource mix changes and you end up with a greater amount of zero-emission resources, overall

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## ISO-NE NEWS

# Planning Advisory Committee Briefs

### 'Something Has to Give' on Pipeline Delays

WESTBOROUGH, Mass. — Although the Marcellus Shale is currently producing about 19 Bcfd of natural gas, it remains a challenge to get that gas to New England, Tom Kiley, CEO of the Northeast Gas Association, told the ISO-NE Planning Advisory Committee on Wednesday.

"What we're seeing now is that while projects have FERC approval, they are being denied permits by state agencies," said Kiley, whose group represents gas distribution and transmission companies, and LNG importers.

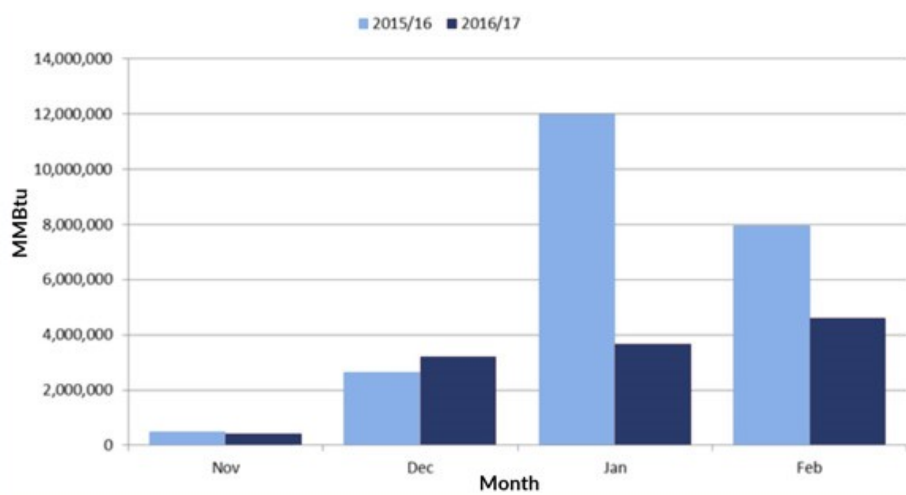
"Projects are often being delayed one or more years — even with federal permits in hand, even with contract commitments," Kiley said in a presentation.

Kiley cited National Fuel Gas' response to the New York State Department of Environmental Conservation's April 7 decision to deny water quality permits for its Northern Access pipeline. "National Fuel made a very strong statement, so we're hoping that this pushback will lessen the resistance to new pipelines," Kiley said. "Something has to give."

In the statement, CEO Ronald J. Tanski said any impact of the pipeline construction on water quality would be "temporary and minor."

"These construction activities would certainly have less effect than either exploding an entire bridge structure and dropping it into Cattaraugus Creek (Route 219) or developing and continuously operating a massive construction zone in the middle of the Hudson River (Tappan Zee Bridge) for a minimum of five years, both NYSDEC-approved projects," Tanksi continued.

He said the state is attempting to create "a new standard that cannot possibly be met by any infrastructure project in the state that crosses streams or wetlands, whether it is a road, bridge, water or an energy infrastructure project."




LNG deliveries to New England pipelines | *ISO-NE*

### ISO-NE Embeds Behind-the-Meter PV in Load Forecasting

ISO-NE planners will capture about three-quarters of the region's behind-the-meter solar PV in their 2017 capacity, energy, loads and transmission (CELT) load forecast, Manager of Load Forecasting Jon Black said.

The RTO began forecasting BTM PV in 2014 in response to concerns that its rapid growth would not be captured within the long-term load forecast, which relies on historical load trends. The RTO has contracted with Quantitative Business Analytics for PV production data at five-minute intervals from more than 9,000 installations in New England.

"We're taking a lesson from Germany, where they don't have telemetrics on every source, but a representational subset," Black said during an update on the RTO's ef-

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# ISO-NE Study Projects Impact of $64/ton Carbon Price

*Continued from page 13*

emissions decrease."

The completed study is "on track" for publication in the second quarter, and a natural gas analysis will be announced at the May or June PAC, he said.

### Study of Other Options Requested

David Ismay, senior attorney for the Conservation Law Foundation, gave a presentation asking the RTO to develop and price at least two new scenarios for generation and transmission that could reduce emissions to or below the levels of Scenario 3 at a lower cost.

"By developing a range of least-cost options for such public policy-compliant futures, the result of a Least-Cost, Emissions-Compliant System Topologies Study could be used to test the ability of market reforms to deliver the desired results of the market-policy integration that is the goal of both the ongoing [New England Power Pool] Integrating Markets and Public Policy (IMAPP) effort as well as FERC's recently opened Docket No. AD17-11," Ismay said in a letter to Henderson.

Henderson replied that the RTO "requires specificity in any suggested economic study and will not invent a new system."

Doug Hurley of Synapse Energy Economics offered to help Ismay and the CLF develop the right metrics for their request. Other participants spoke up to support Ismay's use of the PAC forum to address his and the foundation's concerns.

## ISO-NE NEWS

# Planning Advisory Committee Briefs

*Continued from page 14*

forts.

Black said that RTO staff used the last five years of data. "Before 2012, PV was insignificant, just background noise," he explained. He used the same term — "noise" — to describe the scale of storage of PV-generated energy today and explain why the grid operator does not yet have projections for storage growth or its potential load impact.

For forecast year 2017, the CELT's net load projections includes 479 MW of "embedded" PV, which represents 83% of the PV indicated by the forecast for the year. The RTO predicts that the embedded PV — 1.6% of load for 2017 — will rise to nearly 3% of load by 2026.

"Some people think we're just subtracting something off the load forecast, but separate component forecasting requires reconstituting the element to have an accurate PV reading on net load data," Black said.

He also said separately forecasting and accounting for BTM PV as the RTO is doing will provide protection against the risk of under-forecasting load if the timing of the summer peak shifts later in the day as PV output diminishes, or if growth in BTM PV slows down from its recent pace.

### Eversource to Build Control House at Mount Tom

Eversource Energy and ISO-NE told the PAC they support a $7.7 million project to keep the Mount Tom switchyard and build a control house.

Eversource's Carl Benker gave a presentation on the plan, a response to Dynegy's announcement that it will retire its 146-MW coal-fired Mount Tom Generating Station on June 1, 2018, and demolish the facility.

Because the three 115-kV transmission lines to which the plant is connected (line 1039 to Midway, 1447 to Pineshed and 1428 to Fairmont) will remain in service, the protective relays, controls and a DC control power source located within the plant must be relocated.

A previously recommended solution that would reconfigure the three 115-kV lines would be less than half the cost at an estimated $3.7 million, but ISO-NE and Eversource no longer support it because it would expose Pineshed to an additional N-1 contingency that would result in disconnecting all of the line's load.

ISO-NE and Eversource also considered and rejected three other options ranging from $9 million to $10.1 million.

### ISO-NE Post-Winter Review: Uneventful

The RTO's resource adequacy engineer, Mark Babula, said system operations over the winter months were "relatively uneventful," but he advised the PAC that fuel security will be an issue in future, as will pending generation retirements.

The Winter Reliability Program was instrumental in augmenting liquid fuel security for the region.

Eighty-four generating units participated in the program to procure back-up oil supplies, burning 114,000 barrels and leaving more than 3 million barrels left in inventory eligible for compensation at a cost of $31.2 million (at $10.21/barrel).

Six assets provided 23 MW of interruption capability through the demand response program at a cost of $70,500. The RTO dispatched the assets once, between 6:39 and 8 a.m. on Jan. 10.

Two generators participated in the LNG program, which will cost $291,000 (171,000 MMBtu at $1.70/MMBtu).

Asked why LNG deliveries to New England pipelines showed such a sharp decline from last winter, especially in January, Babula had a one-word answer: economics.

"We … didn't see gas go above eight bucks this winter," he said. "Henry Hub has been like $3. Pipeline gas is always cheaper than LNG."

According to FERC's 2016 State of the Markets report, Algonquin Citygate prices averaged $3.10/MMBtu for all of 2016, a 35% reduction from 2015. Henry Hub prices averaged $2.48/MMBtu, down 5%, while Transco Zone 6-NY dropped 42% to $2.19/MMBtu. (See *FERC: Gas Continued to Dominate in 2016*.)

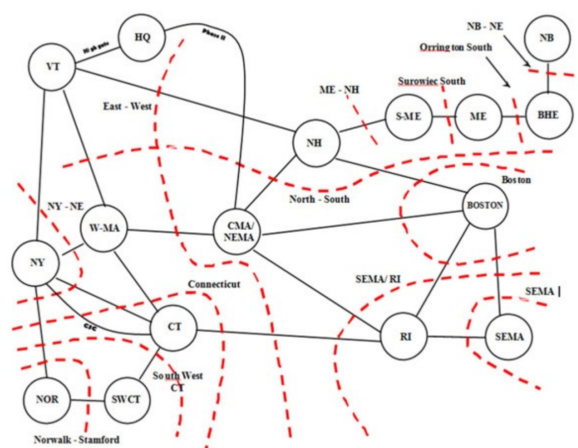
Next winter will be the last for the reliability program, which will be replaced in June 2018 with the Pay-for-Performance market design. The new design will increase penalties for generators that fall short of capacity commitments and provide bonuses for those that overperform.

Babula said that the 15 to 20 critical notices or operational flow orders issued by natural gas pipelines this winter — all related to extreme weather — were typical for winter. There also were six unplanned pipeline outages, all related to compressor station outages.

The region benefited from expanded gas capacity as Spectra Energy put the final piece of its 342,000 Dth/d Algonquin Incremental Market project into service on Jan. 7. Tennessee Gas Pipeline's Connecticut Expansion project (72,000 Dth/d) was delayed until 2018, however.

On March 27, FERC gave Algonquin Transmission permission to begin construction on the Connecticut portion of its Atlantic Bridge gas project connecting points in New Jersey and New York with New England and Canada's Maritime provinces (CP16-9). The commission granted a certificate of public convenience and necessity for the project in January. (See *Atlantic Bridge Project Approved by FERC*.)

*— Michael Kuser*




New England subarea model | *ISO-NE*

## ISO-NE NEWS

# Court Rebuffs New England TOs, Upholds FERC ROFR Order

*By Michael Kuser*

The D.C. Circuit Court of Appeals last week rejected challenges to FERC Order 1000 by New England Transmission Owners and state officials (15-1139).

The TOs had challenged FERC's March 2015 ruling on ISO-NE's Order 1000 compliance filing, in which the commission ordered the removal of the right of first refusal in the Transmission Operating Agreement among ISO-NE and the TOs (ER13-193, ER13-196). Emera Maine acted as lead petitioner, with independent transmission developer LS Power Transmission opposing the TOs as lead intervenor.

The second part of the ruling rejected a petition by the state officials complaining that FERC's ISO-NE compliance order violated state sovereignty.

### TOs' Challenge

The TOs asserted that FERC's orders were inconsistent with its past decisions, that the commission applied the wrong legal standard for measuring whether the *Mobile-Sierra* presumption had been overcome, and that the commission ignored the evidence before it.

The April 18 ruling by a three-judge panel, authored by Judge Robert L. Wilkins, disagreed with the TOs on both counts.

The court rejected what it termed the TOs' "invitation to don blinders" in making a narrow interpretation of *Mobile-Sierra*, which requires the commission to "presume a contract rate for wholesale energy is just and reasonable," prohibiting it from rejecting the contract unless it finds that the rate "seriously harm[s] the public interest."

It also dismissed the TOs' contentions that the commission identified no evidence to support its conclusion that the ROFR harmed the public interest by inhibiting transmission development and that it ignored the contrary evidence submitted by ROFR defenders.

The TOs introduced evidence that ISO-NE had placed $4.7 billion in new transmission facilities in service and had another $5.7 billion in projects in development. That, the TOs said, proved that the ROFR did not harm the public interest.

The court said the TOs based their argument "on the faulty premise that economic theory cannot provide the basis for FERC's decisions."

The commission confronted the evidence of transmission development "head-on," the court said. The commission said the ROFR "continues to threaten the public interest by avoiding expected efficiencies and cost savings and makes the need to foster competitive practices more acute."

The court said the commission explicitly rejected the inference that "the incumbent transmission owners are sufficiently developing projects under the existing framework with their current rights of first refusal." While the TOs' claim of a functioning market with the ROFR "may be plausible," the contrary conclusion drawn by the commission is also plausible, the judges said.

"Where the evidence might support more than one rational interpretation, 'the question we must answer ... is not whether record evidence supports [the petitioner's] version of events, but whether it supports FERC's,'" the court ruled.

### NESCOE Ruling

The second part of the ruling rejected a petition by the New England States Committee on Electricity and agencies from five of the six states it represents: Connecticut, Massachusetts, New Hampshire, Rhode Island and Vermont. The state petitioners claimed that in its ISO-NE compliance order,

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## ISO-NE NEWS

# Court Rebuffs New England TOs, Upholds FERC ROFR Order

*Continued from page 16*

the commission went beyond Order 1000 and "impermissibly altered the balance of responsibility and power as between state governments and ISO-NE."

The five states insisted that Order 1000 requires not only a process to identify transmission needs driven by public policy requirements and evaluate potential transmission solutions that could meet those needs, but also selection of whichever project is the most efficient or cost-effective. They also contended that the Federal Power Act does not grant FERC authority over "the means by which states meet their own public policy mandates."

The court rejected the argument as an objection to Order 1000's entire regional planning and cost allocation scheme, which assigns ISO-NE the role of planning for the region's transmission needs.

"Order No. 1000 established a regional planning process that is agnostic as to the provenance of the transmission needs, whether resulting from population growth or federal public policy or state public policy," the ruling said. "The division of roles between ISO-NE and the states poses no jurisdictional problem for FERC. ISO-NE has no role in setting public policy for the states. ISO-NE considers transmission needs that arise from a variety of sources, one of which is the public policy requirements chosen by federal and state officials."

The court said the states misread the word "select" in Order 1000.

The commission said Order 1000 and subsequent rehearing orders were intended to clarify which entity must control each step of the process and that there is no requirement that ISO-NE "must select ... a transmission solution to address every identified transmission need driven by a public policy requirement."

If a solution is selected, however, FERC said it "must be selected by ISO-NE rather than by NESCOE."

"In light of these clarifications by the commission," the court concluded, "there is no inconsistency with Order No. 1000."

### 'Off Ramp'

NESCOE General Counsel Jason Marshall found some solace in the adverse ruling. "While the court denied our petition, its ruling provides an interpretation that we have long sought: that ISO New England is not required to select a policy-driven project as part of the Order 1000 process," he said in a statement. "This is an important potential 'off ramp' and clarification, which helps to prevent costly projects from being selected for development that states do not view as advancing their policies or that are not in the interest of consumers.

"We are still reviewing the court's ruling and have not made a determination at this point regarding further review," he added.

## MISO News

# MISO Planners Looking at 3 La. Projects, Overlay 'Skeleton'

*By Amanda Durish Cook*

CARMEL, Ind. — MISO transmission planners last week outlined three possible congestion-busting projects in Louisiana and a "skeleton" of potential projects from a long-term overlay study.

The overlay study, which used the MISO Transmission Expansion Plan 2017 futures, is designed to identify long-term transmission needs under a shifting resource mix, including possible paths for a line to link MISO South and MISO Midwest.

Preliminary results using an existing fleet projection show several 345-kV line additions in MISO Midwest, a handful of 500-KV lines in — and one leading into — MISO South, and a couple of new 230-kV lines in the Dakotas. (See *MISO Begins 3-Year Tx Overlay Study*.)

The policy regulations future shows a few of the 230- and 500-kV lines in the existing fleet future swapped for 345-kV ratings. The accelerated alternative technologies future depicts a large network of 765-kV lines in MISO Central, including two 765-kV paths connecting MISO South, and a direct current line across North Dakota and Minnesota in addition to the proliferation of 345-kV lines in MISO Midwest and 500-kV lines in MISO South.

Hecker

MISO cautioned that "no conclusion has been reached on whether or how many projects may ultimately be recommended by the 2019 targeted completion date."

Some stakeholders asked why MISO created preliminary overlays using MTEP 17 at all, when MTEP 18 futures consensus is close. Lynn Hecker, manager of expansion planning, said the RTO will begin examining MTEP 18's distributed and emerging technology and see if the fourth future's assumptions suggest the need for additional projects.

### Louisiana Projects

Meanwhile, MISO's MTEP 17 Market Congestion Planning has produced three possible projects in MISO South: one market efficiency project and two economic projects.

All three project candidates are near the West of the Atchafalaya Basin (WOTAB) load pocket in southwest Louisiana and MISO's control area in eastern Texas. No other areas in MISO South met the RTO's criteria for a possible project; the annual congestion planning study focused exclusively on South this year.

The projects are:

- A new $122.7 million, 500-kV line from Hartburg to Sabine in southeastern Texas with a 500-kV substation and new 500/230-kV transformer at Sabine. The lone market efficiency project candidate has a 1.28 benefit-to-cost ratio;
- A $2.8 million uprate of the Sam Rayburn-Fort Creek-Turkey Creek-Doucett 138-kV line in southeastern Texas with a 7.45 B/C ratio; and
- A half-million-dollar upgrade of terminal equipment at southwestern Louisiana's Carlyss substation that would increase the current 230/138-kV autotransformer capacity to 300 MVA at a 15.97 B/C ratio.

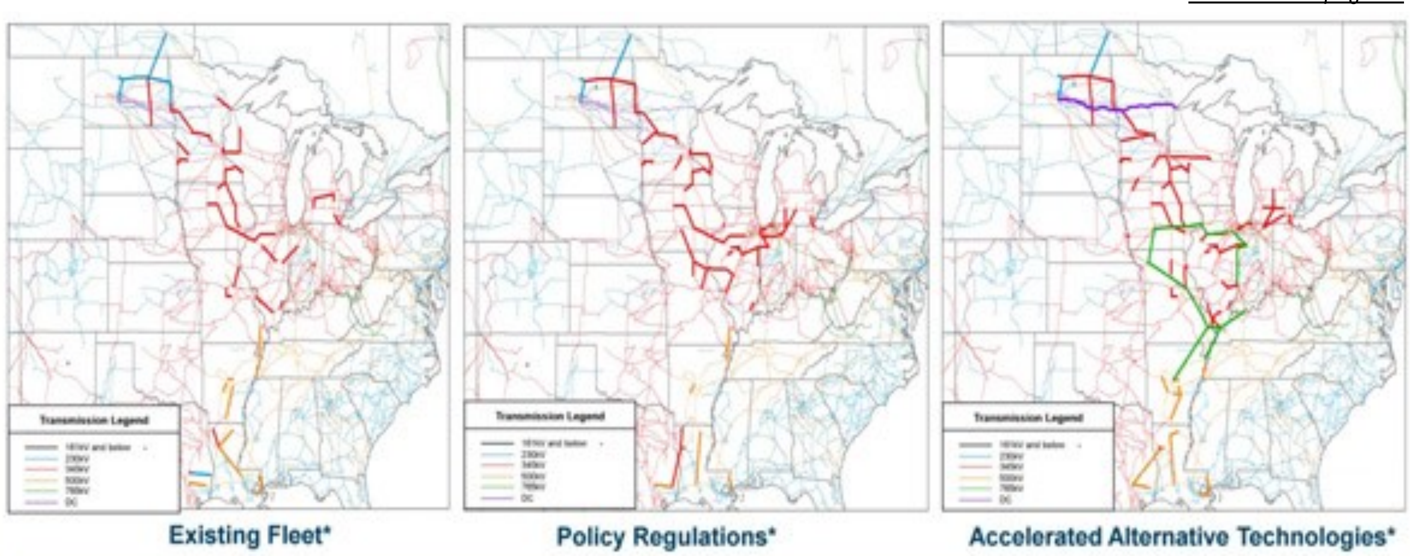
Arash Ghodsian, MISO manager of economic studies, said project candidates should be finalized by July.

### Footprint Diversity Study

On the other hand, the RTO's footprint diversity study, specifically designed to identify transmission for transfers between MISO Midwest and MISO South, will spend extra time in the suggestion-gathering step.

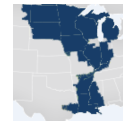
Ghodsian said 26 of the 32 stakeholder-

Continued on page 19




MISO transmission overlay preliminary results | *MISO*

# MISO NEWS



## Planning Advisory Committee Briefs

### Removal of Temporary Suspensions will Provide Generators Flexibility, RTO says

CARMEL, Ind. — MISO is planning to eliminate temporary suspensions of generating resources, a move the RTO says will provide resource owners more flexibility.

The existing Attachment Y suspension status requires that owners supply MISO with a return date. Under the new rules, the status would be reduced to a binary option: on or off.

Fewer options actually translate into greater flexibility for resource owners, MISO adviser Joe Reddoch told stakeholders at the April 19 Planning Advisory Committee meeting. He said generation owners will now be able to enter a catch-all "economic shutdown" period using an Attachment Y, giving them time to evaluate options over a planning year before rendering a final decision to retire.

The decision point will align with the Planning Resource Auction, with interconnection service intact for a full planning year after a notice to go offline is submitted. If approved by FERC, the new process will be added to MISO's Tariff.

The same planning yearlong rescission period will apply to system support resources whose status has been lifted by MISO.

"Once a generator submits an Attachment Y retirement notice, they cannot change their minds. If they do, they have to re-enter the interconnection queue," Reddoch said of MISO's current process.

Reddoch added that MISO's current six-month suspension timeline is "a bit cumbersome" with multiple filing deadlines. He also said that suspension notices can sometimes "mask" lost megawatts because MISO assumes suspended resources will eventually come back online.

The changes stem from the Independent Market Monitor's 2013 State of Market Report recommendation that MISO improve alignment between its Attachment Y process and the PRA timeline. The Monitor said that an Attachment Y unit that participates and clears in the PRA should be allowed to "defer the effective date of retirement." (See "Aligning Attachment Y Process with PRA," *MISO South-to-Midwest Transfer Limit Upped for 2017/18 PRA*.)

Once an Attachment Y request is submitted, MISO will carry out an Attachment Y retirement reliability study as usual, but with one added feature: Upon completion of the study, MISO will publicly post study results. Some stakeholders expressed concern at the heightened transparency.

Indianapolis Power and Light's Lin Franks said publicly posting the results might inadvertently create a panic in some companies that have not publicly announced plans to retire.

"You may understand that you're trying to take a middle ground, but the guy at the plant [losing his job] doesn't understand that," Franks said.

"That's fair enough," Reddoch replied.

Other stakeholders asked MISO to consider deferring public results of Attachment Y until the new decision point

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## MISO Planners Looking at 3 La. Projects, Overlay 'Skeleton'

Continued from page 18

submitted ideas involved connecting South and Midwest through coordination with neighboring regions.

He said MISO is seeking more projects that it can implement alone, asking stakeholders to focus only on suggestions that would connect one substation to another.

"Maybe let's take it a notch higher and look for more technical discussion," Ghodsian said.

### MTEP 18 Futures

MISO said the four MTEP 18 futures generally received stakeholder support.

The RTO revealed proposed futures in early April, introducing a distributed and emerging technology 15-year future that captures more localized siting and storage. (See *MISO Introduces Distributed Energy Future for 2018 Tx Planning*.)

MISO has not studied anything like this future before. It envisions new renewables largely serving their local resource zones while rising storage capability — hitting 2 GW by 2032 — is placed near buses and two-thirds of all solar additions are distributed energy resources. The RTO usually assumes one-third of all new solar additions are distributed for planning purposes.

Policy studies engineer Matt Ellis admitted that the RTO isn't modeling all combinations of possibilities and said nine stakeholders submitted about 13 suggested futures themselves, but he added that MISO's proposed four futures "capture the highest and lowest bookends" and said stakeholders have indicated support.

"We do agree with stakeholders that we're not studying all combinations, but we want this to be feasible. How many can

Continued on page 20

# MISO News

## OMS May Add Voice to Pseudo-Tie Fracas

By Amanda Durish Cook

Organization of MISO States members will vote via email on whether to file comments in the Independent Market Monitor's complaint over PJM's pseudo-tie proposal (EL17-62).

At an OMS Board of Directors meeting April 20, staffer Marcus Hawkins said if the group agrees to file comments, the focus would be on MISO generators that pseudo-tie into PJM. The Monitor asked FERC on April 6 to eliminate pseudo-ties. (See *Pseudo-Tie Feud Rises as Patton, NYISO Protest PJM Proposal*.)

The OMS Seams Working Group has been discussing the filling with Monitor David Patton, Hawkins said, and the group could draft comments by this week. If approved by members, the comments by the working group would be edited by the board before they are filed at FERC in early May.

"Right now, it looks like the group is leaning towards supporting some of the issues Dr. Patton has raised in his complaint," Hawkins said.

### Closed Session Procedure Outlined

OMS members have drafted a procedure for entering closed sessions during public meetings.

Sam Mabry of the Mississippi Public Utilities Staff said OMS's governance group has suggested that notification of closed session requests be circulated a few days before the meeting with an explanation of the need. If an objection is raised, the OMS Executive Committee would decide by simple majority if the topic deserves a closed session, OMS members decided.

OMS President and Indiana Utility Regulatory Commissioner Angela Weber said the new notice system need not be used to discuss personnel matters and commercially sensitive materials, which are already closed session matters per organization bylaws. Weber also agreed that closed sessions should extend to discussions covered by attorney-client privilege after Texas Public Utility Commissioner Ken Anderson raised the issue.

David Carr of the Mississippi Public Service Commission pointed out that OMS bylaws state that such information "may" be covered in closed session, so even those topics do not require closed sessions in all cases.

Weber said OMS is only looking to clear up when a closed session is used to discuss "gray matters."

"I was uncomfortable with motions [for closed session] during meetings," Weber explained.

Weber raised the need for a more specific closed session procedure after expressing concern in February that OMS used closed sessions too liberally to discuss FERC filings. (See *Commissioners Ask MISO to Share Tx Project Cost Data*.)

## Planning Advisory Committee Briefs

Continued from page 19

deadline, but Reddoch said early warning is key when planning for retirements.

"When you keep things confidential, it's hard to talk about upgrades or projects that are needed when we can't talk about why those projects might be needed," Reddoch said. "If you don't start on upgrades early enough, and a plant does retire, you might have reliability issues. Our thinking is you want to get started early on the timeline if these things require a number of years to complete."

WPPI Energy's Steve Leovy suggested that Franks' company could initiate MISO's optional nonbinding Attachment Y study. Franks said IPL had gone through the "horrible" process and does not want to repeat it. "Okay, that sounds like another issue," Leovy said.

The Environmental Law & Policy Center's Justin Vickers said his firm supported MISO's stepped-up transparency, saying that posting study results would assist in preparations and be "good for the footprint."

Joe Reddoch | © RTO Insider

MISO will take stakeholder feedback on proposed Tariff changes through May 10.

### 48 Competitive Tx Contenders in 2017/18

MISO is reviewing qualifications of 48 transmission developers that submitted documentation to become or renew their status as competitive developers for this year's planning cycle, the same number as last year. The exercise is likely to be moot, however, as MISO is not expected to announce a competitive project this year.

*— Amanda Durish Cook*

## MISO Planners Looking at 3 La. Projects, Overlay 'Skeleton'

Continued from page 19

we actually study and do the in-depth sensitivities on?" he said at the April 19 Planning Advisory Committee meeting.

Stakeholders also asked if MISO would change any of its nuclear assumptions given the recent bankruptcy filing by Westinghouse Electric, which has threatened the completion of new nuclear plants in Georgia and South Carolina. All MTEP 18 futures assume zero nuclear retirements.

"All [existing nuclear plants] have licenses through the study period. So that's where we landed at, but we're open to revising that," Ellis said.

MISO will hold a more in-depth conversation at the July PAC meeting, he said.

# MISO News

## Planning Subcommittee Briefs

### MISO Asks Stakeholders to Consider System Adjustments in Non-Transmission Alternatives BPM

CARMEL, Ind. — MISO last week presented a strawman proposal for non-transmission alternatives that includes redispatch, load shed, reconfiguration and remedial action schemes.

The Planning Advisory Committee is currently working on Business Practices Manual 020, which outlines the process for considering non-transmission alternatives. (See “Rules on Non-Transmission Alternatives Ready for PAC Review,” *MISO Planning Subcommittee Briefs*.)

At the April 18 Planning Subcommittee meeting, MISO officials provided details of the alternatives:

- The generation redispatch option would require an evaluation to “demonstrate that there are sufficient generation units that are available to provide the incremental capacity necessary to maintain loadings and voltages within applicable [ratings], without reliance on any single unit,” MISO proposed. The RTO said no more than 10 individual units or 1,000 MW will be used in any redispatch plan. Candidates for redispatch include all network resources and energy resources, and participating generators must have a distribution factor of greater than 3%. Before using a redispatch plan that requires decommitting a resource, the RTO said it will evaluate reliability and voltage without the unit. MISO will also exclude non-dispatchable units and nuclear generation from possible redispatch solutions.
- Load shed will be allowed when local planning criteria permits, MISO said. The RTO committed to flagging constraints that result in load shed of 1,000 MW or more for potential physical upgrades.
- System reconfiguration will be allowed as a corrective plan, MISO said, unless reconfiguration places noninterruptible load on a transmission radial “such that a single contingency would interrupt service to multiple customers, the reconfiguration results in opening of more than a single transmission line or the reconfiguration results in transmission flows to be routed through sub-transmission or distribution facilities.”

  “All three of these come from current, real-time operating procedure,” engineer Patrick Jehring said.
- Remedial action schemes will use language pulled directly from NERC, with existing schemes allowed as acceptable corrective action plans. New schemes will be evaluated on a case-by-case basis. The evaluation will include expected frequency of need for a RAS and comparison of costs to install and maintain it compared to the cost of a transmission upgrade. “Remedial actions schemes must be far cheaper than a new line,” Jehring said.

Jehring also said most of the strawman was borrowed from existing MISO standards, but that the RTO still wants stakeholder suggestions. He asked for written feedback by May 5.

“How much risk to the load-serving capability is acceptable on the planning horizon?” Jehring asked stakeholders.

In response, they expressed concerns in particular on load shedding as a non-transmission alternative option.

Consultant Roberto Paliza of Indianapolis said MISO should be transparent when it identifies specific solutions. Paliza added that too much load shed to resolve contingencies can cause a concern and could make transmission construction more appealing. Planning Subcommittee liaison Jeff Webb agreed. “If the solution is load shed, we should be explaining why that is acceptable,” Webb said.

NRG Energy’s Tia Elliott asked if MISO could gather all transmission owners’ individual load shed criteria and consolidate it into a single document. “It varies across the footprint from transmission owner to transmission owner,” she said. “Not understanding what those variables are makes it difficult for stakeholders to make an informed decision.”

Jehring said MISO already posts such planning criteria, though not consolidated, on its website.

### MISO Unveils MTEP 17 Transfer Analysis

As part of its 2017 Transmission Expansion Plan, MISO outlined a proposed analysis on a half-dozen MISO transfers.

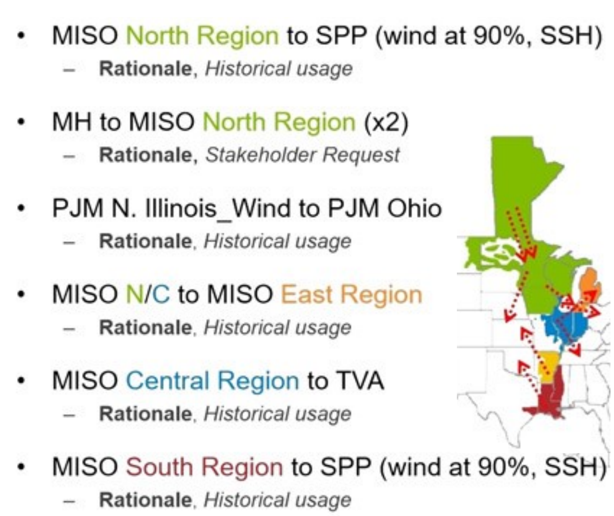
This year, MISO is proposing to study transfers between MISO North and SPP; two transfers from Manitoba Hydro to MISO North; wind resources in Northern Illinois to Ohio (both PJM territories) using MISO transmission in Indiana; MISO North and Central to MISO East; MISO Central to the Tennessee Valley Authority; and MISO South to SPP.

Scott Goodwin, MISO transfer analysis engineer, asked for stakeholders to review the transfer selection.

This year, MTEP studies include the usual base reliability and economic studies along with a trio of specialized studies: the multi-year regional transmission overlay study, a generation retirement study and the footprint diversity study, which could identify an alternative to using SPP transmission for transfers between MISO North and MISO South. (See “Studies Could Assist in Relieving North-South Constraint,” *MISO Planning Advisory Committee Briefs*; “Generators Identified in MISO Retirement Analysis,” *MISO Planning Subcommittee Briefs*.)

MTEP 17’s scope will be finalized in December.

*— Amanda Durish Cook*




Proposed MTEP 17 transfers | *MISO*

## NYISO NEWS

# NYPSC Order Seeks to Refine, Standardize DR Programs

*By Michael Kuser*

The New York Public Service Commission voted Thursday to maintain current incentive payment rates for utilities' dynamic load management (DLM) programs through 2017 while ordering the companies to standardize their enrollment processes and approving other changes that the commission said would "ease DLM program enrollment and participation."

Approved in 2014, New York's DLM initiatives include:

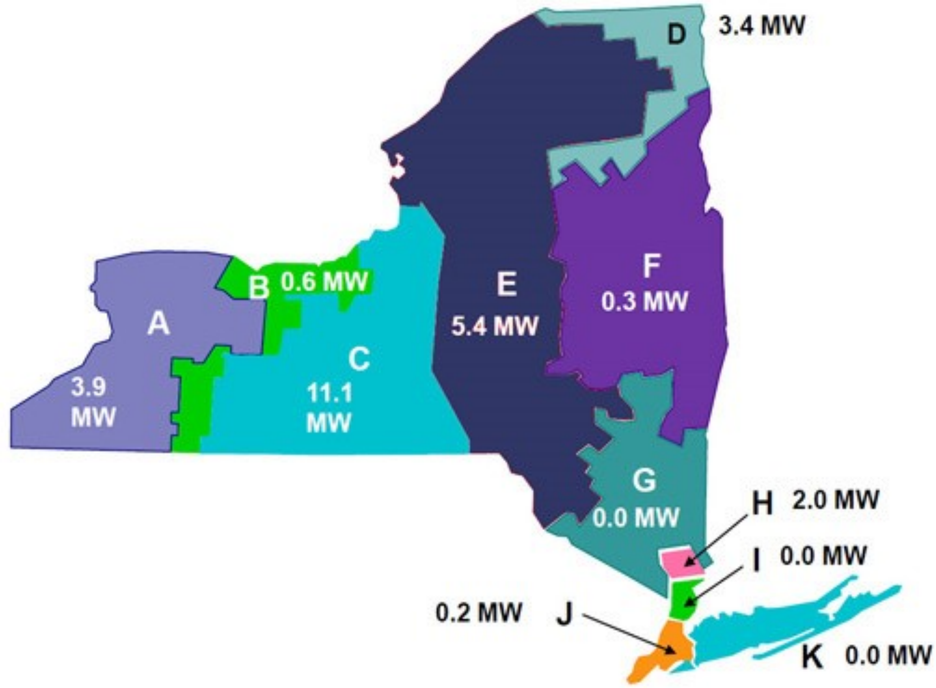
- A peak load-shaving commercial system relief program (CSRP), which is called 21 hours in advance of a need for load relief, as determined by day-ahead load forecasts;
- A distribution load relief program (DLRP) to support local reliability, called two hours in advance during contingencies and system emergencies; and
- A direct load control (DLC) program, which allows utilities to cycle residential and small commercial customers' air conditioning and other controllable loads.

In their December 2016 annual reports on the programs, Central Hudson Gas & Electric, Niagara Mohawk Power and Orange and Rockland Utilities proposed changes. New York State Electric and Gas and Rochester Gas and Electric did not seek changes.

Before calling a vote on the order, which was included in the consent agenda, Interim Commission Chair Gregg Sayres asked for any comments. Only one other commissioner remains on the PSC following the March resignation of Chairman Audrey Zibelman and the retirement of Commissioner Patricia Acampora: Commissioner Diane Burman, who spoke up.

She said she voted no on some aspects of the demand response cases last year out of "a concern that the commission take a more holistic approach."

However, Burman said there was a need to act now to set the DR rules for the summer 2017 capability period, which runs from May 1 through Sept. 30. "There needs to be regulatory certainty," she said. "If we delayed action here it could mean changes being made mid-period or not at all."




Emergency Demand Response Program megawatts by load zone, May 2016 (total: 26.9 MW) | *© RTO Insider*

### Incentive Changes Deferred to 2018

While maintaining the current incentive payments for 2017, the commission said it will consider changes for 2018 based on the results of marginal cost of service (MCOS) studies and the Value of Distributed Energy Resources proceeding initiated in March. (See *NYPSC Adopts 'Value Stack' Rate Structure for DER*.)

"Avoided [transmission and distribution] infrastructure costs constitute the majority of the benefits applicable to DLM programs," the commission said. "DLM program incentive payment rates are directly influenced by the [benefit-cost analysis] relying on those benefits, and the MCOS studies used by the utilities to determine the per-kilowatt cost of avoided T&D for use in the BCA. Therefore, the MCOS studies are critical to determining if the DLM programs are being administered in a cost-effective manner, and if changes to such program incentive payment rates are justified."

The commission said the MCOS studies are being reviewed and may be changed as part of the Value of DER proceeding.

### Central Hudson

In addition to rejecting Central Hudson's request to significantly lower CSRP incentive rates, the commission also rejected its proposal to eliminate its DLC program, which the company said has no participants (15-E-0186).

As it had in 2016, the commission also rebuffed Central Hudson's request to remove the month of May from the capability period. The company said curtailments are unlikely during May, noting that the maximum demand experienced during the month has not exceeded 88% of the annual peak demand for the last decade. But the commission said "a lack of historic peak load conditions does not preclude future heat waves in May," and that a change "would

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## NYISO NEWS

# NYPSC Order Seeks to Refine, Standardize DR Programs

Continued from page 23

detract from tariff uniformity."

The regulators approved the company's proposal to increase the trigger for calling CSRP events to 97% of the summer peak forecast load from the current 92%.

The company said that the large number of events called in its service territory using the 92% threshold "led to less than optimal participant performance" in 2016, the commission noted. The 97% trigger would capture the top 10 load hours during the summer and would result in about three events each summer, the company said.

"Although the commission established a consistent 92% CSRP dispatch threshold for all of the utilities in the 2016 DLM order, experience during the 2016 summer capability period suggests that a standard statewide threshold may not result in optimal program performance," the PSC said. "This is evidenced by the fact that, despite each utility having the same 92% threshold, CSRP planned events were called many more times in utilities with smaller service territories compared to those with a larger footprint. For example, there were 13 CSRP planned events called by RG&E, and nine by Central Hudson, but only four, two and one event called by Niagara Mohawk, NYSEG and O&R, respectively.

"Instead of maintaining a consistent 92% threshold across all utilities, the utilities should design CSRP thresholds that both recognize the unique features of their service territories and seek to balance the interests of CSRP participants and of other customers."

### Niagara Mohawk

While rejecting Niagara Mohawk's proposal to modify CSRP, DLRP and DLC incentive rates, the PSC approved its proposed expansion of the DLRP to up to eight additional areas of its service territory in 2017 (15-E-0189).

"In only offering the DLRP in certain areas where there are specific T&D infrastructure projects [that] can be avoided, Niagara Mohawk is using the DLRP as a non-wire alternative (NWA) demand response program instead of as a generalized program to support distribution system reliability," the commission said.

"While Niagara Mohawk will be allowed to continue to operate its DLRP in this manner for the 2017 summer capability period, the commission expects Niagara Mohawk to expand the DLRP to its entire service territory for 2018. Instead of limiting the DLRP only to specific NWA areas, Niagara Mohawk should offer different values in NWA areas for both the CSRP and the DLRP, depending upon whether the need for the NWA is based on load growth, reliability issues or both."

### Orange and Rockland

O&R's proposed modification to its DLRP incentive payment rates was rejected while its proposed addition of CSRP notices was approved (15-E-0191).

The utility proposed adding a 21-hour advance advisory notice, with intraday two-hour minimum advance notification of confirmation or cancellation of a planned CSRP event. The advisory notice would be triggered when its day-ahead forecasted load is 92% or more of the forecasted summer systemwide peak.

The company said that under the current notification rules, it is unable to cancel a planned event even if conditions change, eliminating the need for load relief.

The commission approved the proposal while also directing Central Hudson, Niagara Mohawk, NYSEG and RG&E to propose similar notifications for 2018. The PSC had permitted an identical modification to Consolidated Edison's CSRP in December.

Also approved was O&R's proposal to allow direct participants and aggregators to increase their kilowatt pledge between capability periods and plan for easing the generator emissions and permitting process. As with the notice rule, the commission ordered the other utilities to make similar changes.

Under prodding by the Advanced Energy Management Association, NRG Energy and Direct Energy, the PSC ordered the utilities to standardize their DLM enrollment and settlement processes for 2017 and allow batch enrollments by 2018.

### Pre-REV DR

"For me, these demand response programs fit into a specific bucket," Burman said. "They've been in place in New York City for many years, pre-[Reforming the Energy Vision], and should be expanded statewide. They are intended to be cost-effective programs that produce real peak load reductions at critical periods in the summer."

While last week's order addresses inter-day reliability problems, Burman said other issues remain unresolved under REV, including utility earnings adjustment mechanisms and setting a "Value D" — the PSC's plan to calculating the value of distributed energy resources by adding a distribution component ("D") to wholesale LMP pricing. (See *NYPSC Outlines Reforming the Energy Vision Changes*.)

"But here, this action is really targeted to those demand response programs," said Burman. "It does not have a fatal impact on the utility … and all the other proceedings."

### Ravenswood Sale Approved

In a separate electric power case, the PSC approved a petition for the expedited sale of TransCanada's 2,400-MW Ravenswood generating facility in Queens, N.Y. to Helix Generation for $2.5 billion — with Burman voting to approve a one-commissioner order issued to that effect by Interim Chairman Sayres the previous day.

Burman noted that the order is clear in deferring to NYISO and "FERC on matters that deal with the market power and other pending matters dealing with AC transmission and western New York."

Noting policymakers' concerns over market power and state resource planning, Burman said she is looking forward to FERC's technical conference on May 1-2, "where many of these issues will be fleshed out." The conference will focus on tensions between state public policies and wholesale markets in NYISO, ISO-NE and PJM (AD17-11).

## NYISO News

# NYISO, PJM Discuss PARs' Benefits, Cost Allocation

By Michael Kuser

RENSSELAER, N.Y. — Lots has changed since 1993, when members of the New York Power Pool and several transmission owners in PJM agreed to split the cost on two phase angle regulators (PARs) at Consolidated Edison's Ramapo substation.

The power pool was succeeded by NYISO, PJM grew west to Chicago and FERC issued Order 1000, which set new cost allocation rules.

Those changes are now complicating efforts by the ISO and PJM to come up with a new cost-sharing agreement for the PARs, which control flows on the 500-kV Branchburg-Ramapo 5018 transmission line between New York and PJM.

Last week, staff and stakeholders from both grid operators met at NYISO's headquarters for a nearly daylong meeting to discuss ways to evaluate the value of the PARs and who should pay for them. The grid operators said they were pleased with the discussion and will meet again at PJM headquarters May 24 to continue talks.

### And Then There was One

The need for better interface management originated in the great Northeast blackout of November 1965, which left 30 million people without power. Con Ed installed two PARs at Ramapo in 1988 and only five years later did the New York grid operator and PJM agree to split the entire costs 50/50 — purchase, installation and operation.

The original PARs both had a life expectancy of 40 years, but one was replaced after failing in 2013. The second original unit was destroyed in a substation fire last June. (See *PAR Wars: A Struggle for Power*.)

Con Ed is willing to purchase the replacement PAR but wants to be assured of repayment. Both sides estimate that it costs about $200,000 per month to run the two PARs.

### Two-Track Approach by NYISO

"It all keeps coming back to the criteria" for determining benefits, Wes Yeomans, the ISO's vice president for operations, said at the discussion April 18.

NYISO is taking a two-track approach: It is preparing to file a proposed Tariff revision with FERC to allocate the costs among all its load-serving entities and, at the same time, discussing with PJM how to share the costs.

The plan would promise to reimburse New York LSEs found to have overpaid their shares when the interregional cost allocation issues are resolved.

"Delay in reaching agreement on interregional cost allocation should not be permitted to indefinitely delay the installation of a second PAR at Ramapo," the ISO said.

PJM says, however, that "cost allocation will only apply to transmission facilities that are approved in writing by all parties in advance of installation."

Brian Wilkie, counsel for the New York Power Authority, suggested that "this discussion might be easier if PJM adopted NYISO's practice of applying costs across all LSEs."

Stan Williams, PJM director of performance compliance and market settlements, said, "I

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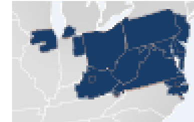
## PJM NEWS



# NYISO, PJM Discuss PARs' Benefits, Cost Allocation

Continued from page 25

agree, but a lot of this is holdover from the 1993 JOA, which predates a lot of us, which is part and parcel of why we're here."

The 1993 Ramapo PAR agreement allocated 50% of the costs to the NYPP and 50% to the PJM group — which included only TOs in PJM's Mid-Atlantic control zone.

### Measuring the PARs' Benefits

Any cost-sharing arrangement between NYISO and PJM will have to abide by FERC Order 1000's guiding principle that transmission upgrades be "allocated in a way that is roughly commensurate with benefits."

PJM and NYISO have yet to determine what reliability and economic criteria to use in their analysis. For example, are the effects on production costs more important than implications for reliability?

NYISO evaluates transmission upgrades under three separate planning processes: reliability, public policy and economic.

The ISO says the PARs provide reliability benefits during extreme contingencies or restoration following outages.

They also have market efficiency benefits: Without the PARs, NYISO's ability to import lower-cost power from PJM is reduced. Those imports also have allowed the ISO to operate with smaller installed reserve margins and locational capacity requirements.

The ISO can import 1,700 MW from PJM in summer with both PARs and 1,400 MW with one. With neither PAR, the summer import limit drops to 1,000 MW.

Yeomans estimated the installed capacity benefits are about $75 million but would not elaborate on how he got that number, saying it came from two separate analyses, both made under non-disclosure agreements with third parties.

Phase angle regulator | *Con Ed*

PJM's list of suggested planning criteria included the impact of a second Ramapo PAR on revenue for holders of financial transmission rights — called "transmission congestion contracts" in NYISO. But Jane Quin, director of energy policy and regulatory affairs for Con Ed, objected to including such revenues as evaluation criteria, saying "that's not how we treat" other similar facilities in NYISO.

### DFAX Methodology

She also said Con Ed would opposed use of the distribution factor (DFAX) cost allocation method, as proposed by Public Service Enterprise Group, for evaluating benefits provided by the PAR.

Con Ed's complaint over its $91 million bill for PSEG's Bergen-Linden Corridor upgrade in North Jersey was one of the factors that led the utility to cancel use of the Con Ed-PSEG wheel.

The DFAX method also has been a flashpoint on the Artificial Island stability project in South Jersey. PJM has said that DFAX works well in many cases but can result in anomalous allocations. (See *Board Restarts Artificial Island Tx Project; Seeks Cost Allocation Fix*.)

Stan Williams, PJM director of compliance and settlements, said that "the PJM-MISO interface is a lot more complicated than [PJM-NYISO], with lots of nodes and contact points, whereas the major part in the NYISO interface is in the extreme Northeast, around New York City." He added that the Ramapo PARs also play a wider role in the region, for example, contributing significantly to mitigating Lake Erie loop flows on the Michigan/Ontario interface.

PJM's Chuck Liebold said that while PJM had reached no conclusions, when jointly planning the two grid operators normally look to the Northeast Protocol — the three-party agreement of NYISO, PJM and ISO-NE. Liebold suggested two options: They could establish a new type of interregional transmission project under the Northeast Protocol, or establish new planning provisions under their joint operating agreement.

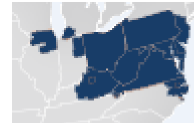
Howard Fromer, director of market policy at PSEG Power New York, said, "If we're devoting more money to this issue with the people in the room now than the cost of the project, we should develop a process applicable to many issues." He added that the quantifiable benefits should include effects on emissions.

### Timeline

New York's timeline calls for May votes in the Business Issues and Management Committees on the changes, June approval by the NYISO Board, FERC filing immediately thereafter and Con Ed installing the second PAR in Fall 2017. The group hopes to have a proposal for PJM Markets and Reliability Committee to review in July.

Officials asked stakeholders to provide written comments to PJM and NYISO on the options by May 12.

# PJM NEWS



# PJM Capacity Task Force Debates the Value of Price Transparency

*By Rory D. Sweeney*

John Farber of Delaware PSC staff (far left) and Steve Lieberman and Ed Tatum of American Municipal Power listen as Cliff Hamal (far right), an economist with Navigant, presents his analysis on the purpose of PJM's capacity market. | *© RTO Insider*

WILMINGTON, Del. — What's a megawatt really worth?

That question is at the base of the current debate about PJM's capacity market construct, which last week shifted to whether there is a willingness to consider moving away from centralized markets.

At Friday's meeting of the Capacity Construct/Public Policy Senior Task Force, the coalition of cooperatives and municipal power authorities that initiated the task force's creation presented an alternative perspective on the objectives of a resource adequacy construct.

The task force was approved in January after the coalition pushed for months to revisit PJM's controversial Capacity Performance construct. It began meeting in March. (See PJM Capacity Task Force Considering 60+ 'Design Concepts'.)

### Is the Market the Problem?

Navigant economist Cliff Hamal, representing American Municipal Power, offered a critique of a presentation that PJM's economist Hung-po Chao gave at the task

Continued on page 28

# MRC/MC Preview

Below is a summary of the issues scheduled to be brought to a vote at the Markets and Reliability and Members committees Thursday. Each item is listed by agenda number, description and projected time of discussion, followed by a summary of the issue and links to prior coverage in *RTO Insider*.

*RTO Insider* will be in Wilmington, Del., covering the discussions and votes. See next Tuesday's newsletter for a full report.

## Markets and Reliability Committee

### 2. PJM Manuals (9:10-9:20)

Members will be asked to endorse the following proposed manual changes:

A. Manual 14B: PJM Regional Transmission Planning. Revisions developed in response to a change to the NERC glossary of terms to change all occurrences of "special protection system" to "remedial action scheme" and correct wording in the baseline thermal analysis section to match analytical procedures.

### 3. Energy Market Uplift Senior Task Force (EMUSTF) (9:20-9:40)

Members will be asked to endorse the proposed Phase 3 solution endorsed by the EMUSTF, which would limit increment offers and decrement bids to trading hubs and locations where the settlement of physical energy occurs. It would also limit up-to-congestion trades to zones, hubs and interfaces. (See UTC Trader Displeased with PJM's Handling of Uplift Rule Changes.)

### 4. Regulation Market Issues Senior Task Force (RMISTF) (9:40-10:00)

Members will be asked to endorse the proposed regulation market changes endorsed by the RMISTF. The package, proposed by PJM and the Independent Market Monitor, would change rules regarding performance scores, clearing, and settlements.

### 5. Capacity Construct/Public Policy Senior Task Force (CCPPSTF) (10:00-10:10)

Members will be asked to endorse the draft charter for the CCPPSTF. (*See PJM Capacity Task Force Considering 60+ 'Design Concepts'*.)

### 6. Seasonal Capacity (10:10-10:30)

Members will be presented with a final report of the Seasonal Capacity Resources Senior Task Force, asked to approve sunsetting the task force and endorse proposed revisions to Manual 18: PJM Capacity Market. The manual changes are intended to conform to FERC's March 21 order approving PJM's plan for easing the aggregation of seasonal resources so that they can qualify under Capacity Performance rules (ER17-367). (See PJM Outlines Aggregation Rules for Upcoming Capacity Auction.)

## Members Committee

### Consent Agenda (1:20-1:25)

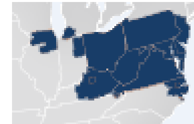
B. Members will be asked to endorse a proposed shortage pricing/operating reserve demand curve solution and associated Operating Agreement and Tariff revisions. The changes, to comply with FERC Order 825's directive to allow transient shortages, will add a permanent second step on the demand curve. (See "Shortage Rule Takes Effect amid FERC Silence," PJM Market Implementation Committee Briefs.)

### 1. Manual 15 – Fuel Cost Policies (1:25-1:45)

Members will be asked to endorse proposed revisions to Manual 15: Cost Development Guidelines related to fuel cost policies. (See PJM Fuel-Cost Policy Changes to Take Effect in May.)

*— Rory D. Sweeney*

## PJM NEWS



# PJM Capacity Task Force Debates the Value of Price Transparency

Continued from page 27

force's first meeting in March. Hamal argued that PJM's centralized capacity market is itself the problem.

"My goal was to try to ask the question whether the objective of this task force [should be] to maintain … what I believe to be an imperfect, problematic centralized auction and deal with state actions, or consider much broader options that have the potential to do it cleaner," he said.

He argued that the task force's objectives should allow consideration of market options based on long-term bilateral contracts that attract least-cost financing and have the potential to provide adequate supplies at a lower cost.

Other stakeholders questioned Hamal's perspective, saying that eliminating the market would reduce variety and the ability to accurately price various options, potentially harming market participants.

"The buyer that enters into the long-term contract now has a liability that the rating agencies insist get shown on their books, such that by entering into this long-term contract, it increases the amount of debt that the rating agency sees and potentially results in a downgrade of the entity's debt ratings because it's incurring more debt," said a representative of a generation owner that is actively building combined cycle plants. "You're not looking at the other side of the equation for the buyer in that it increases the rate associated with all of his borrowing, and that's a huge deterrent."

Mike Borgatti of Gabel Associates argued the proposal limited the ability to shop for alternatives. He gave an example of buying wind production for $300/MWh when the capacity auction clearing price was $100/MWh.

"The difference there is that I know I could have bought other capacity for $100, but I liked this flavor of capacity better, so I overpaid for it," he said. "The market has functioned correctly, and the price signal out there informed my transaction. If the price signal doesn't exist out there, I don't know if $300's a good deal or a bad deal."

### Chocolate vs. Vanilla

Borgatti attempted to make the same point with a less esoteric product: ice cream.

"Look, chocolate's over here; it's available in the market for $3/gallon. I'm a vanilla guy, so I'm gonna go over here and I'm going to procure vanilla at a premium price because I love vanilla. That transaction is totally legitimate; I did what I wanted to … I love my vanilla. I'm sitting on my couch in my underwear having a great time," he said. "I think it's hard to think about a market that doesn't have any price transparency. … It's very difficult to know [if another construct would be better] because you got rid of the price that you would benchmark it against."

"Your position seems to favor long-term contracts as a way to attract cheaper capital, but a potential result could be long-term contracts with cheaper capital but underlying resources that are much higher cost than other resources that would compete down the road," Direct Energy's Jeff Whitehead said. "If I take a 20-year position on a power plant that has a certain cost, 10 years from now, there might be another power plant technology available that's much cheaper, so while I might get a cheaper cost of capital, I might actually get a more expensive overall solution."

Cliff Hamel | © RTO Insider

Hamal acknowledged there are tradeoffs, but he emphasized that the task force is establishing objectives at this point, not choosing among alternatives.

The remainder of the meeting attempted to distill some of the 71 objectives proposed for "a well-functioning capacity construct" into categories, but that effort fell apart as stakeholders felt the nuance of certain proposals was being lost. Dave Anders, who is facilitating the task force for PJM, decided to abandon that effort and instead include all of them into a poll to measure stakeholders' interest in each proposed objective. PJM will be sending the poll out to all stakeholders signed up to receive notifications about the task force.

The task force also worked on developing a list of public policy initiatives states might make and plans to complete it at the next meeting, Anders said. Work will then begin on determining how to balance the state activities against PJM's current capacity construct.

Jennifer Chen of the Natural Resources Defense Council gave a presentation on subsidies to add context to the public-policies list.

The task force has a target of the end of the year to determine if any changes to the capacity market should be made.

**"Look, chocolate's over here; it's available in the market for $3/gallon. I'm a vanilla guy, so I'm gonna go over here and I'm going to procure vanilla at a premium price because I love vanilla. That transaction is totally legitimate; I did what I wanted to … I'm sitting on my couch in my underwear having a great time."**

**Mike Borgatti, Gabel Associates,**
**comparing flavors of ice cream to different sources of generation**

# PJM NEWS

## PJM Grid 20/20

# PJM Reliability Conference Raises Questions; Solutions Elusive

By Rory D. Sweeney

From left to right: PJM's Denise Foster, Richard Mroz, Joe Bowring, Bill Berg and Andrew Novotny. | © *RTO Insider*

PHILADELPHIA — More than 200 stakeholders met at the Philadelphia Airport Marriott on Wednesday and others listened in on the webcast to discuss the meaning of resiliency and reliability on the electricity grid and how to incentivize enhancement of it through PJM's electricity markets.

PJM Grid 20/20: Focus on Resilience included 16 speakers and featured three panels that slowly built toward a discussion of solutions with the final speakers. However, clear solutions seemed to remain elusive.

"The only way we can properly design the market, the only way we can ensure reliability is through conversations like this: What's happening, how do we need to change, how do we need to adapt and are we comfortable with where things are going?" said Bill Berg, Exelon Generation's eastern RTO director. "I said, 'that was my only firm, concrete solution.'"

Independent Market Monitor Joe Bowring moved the ball forward by suggesting what those conversations should entail.

"We need to define analytically the detailed meaning of resilience," he said. "What are the metrics?"

Beyond that, speakers largely identified issues and what shouldn't be done.

"Here's what we shouldn't do," Bowring said. "We shouldn't pick winning technologies; we shouldn't provide nonmarket competition for preferred technologies; we shouldn't make fundamental changes to the market to accommodate preferred answers."

His answer touched on a consistent battleground during the discussions about whether noneconomic baseload generators should be retained if they provide other benefits. The issue is particularly timely given the zero-emissions credit subsidies approved in Illinois and New York to preserve in-state nuclear plants.

Berg, whose company's nuclear units are the beneficiary of both of those subsidies, urged stakeholders to consider whether the markets are designed correctly if such out-of-market measures are necessary to preserve the grid's nuclear fleet. Supporters have argued that ZECs would not be necessary if the markets incorporated the cost of carbon emissions from fossil fuel plants.

"While it's simple to say, 'Let's just rely on markets,' there's a reality that we need to recognize as part of the conversation as we transition to a fully competitive market," he said. "We're not there yet."

Bowring argued that the purpose of the markets is to determine whether such plants are indeed desirable.

"The term baseload, think about it: What does that mean?" he said. "A baseload unit was a unit that used to be economic and isn't anymore, but we still want it to be so let's make it economic by giving it subsidies."

Other speakers urged cooperation among all stakeholders to solve the issues.

"This is not an issue that is just left in each of the silos, whether it's PJM, or it's a state regulator, or it's the industry or if it's one of you companies to try and find solutions," said Richard Mroz, president of both the New Jersey Board of Public Utilities and the Organization of PJM States Inc. "It is really incumbent upon all of us to do it. … State regulators don't have the answers. People think we do. We don't even have a real semblance of that ability as we did to deal with integrated resource plans."

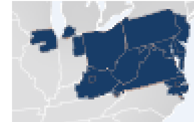
Joining Bowring, Mroz and Berg on the final panel was Calpine's Andrew Novotny, who reminded the audience that out-of-market

**"State regulators don't have the answers. People think we do. We don't even have a real semblance of that ability as we did to deal with integrated resource plans."**

**Richard Mroz, New Jersey BPU**

Continued on page 30

# PJM News



## PJM Grid 20/20

# PJM Fuel Diversity Discussion Focuses on Pipeline Planning, Security

*By Rory D. Sweeney*

PHILADELPHIA — PJM's Grid 20/20 conference last week on grid reliability and fuel diversity left room for discussing all generation sources, but the conversation kept finding its way back to the natural gas pipeline system.

**Jackie Roberts**, the director of the West Virginia Consumer Advocate Division, started it off with a big proposal.

"It's time for FERC to have someone regulate the pipeline build in the most efficient manner and make sure they're built where they need to be built, not unlike transmission planning in PJM," she said on the first of three panels throughout the day. "This needs to be resident in an expanded RTO or ISO. You know the problems we have with dealing with other RTOs. Imagine if we're dealing with a different industry. It's just unnecessary to have those complexities, so I'm proposing [a] PJM division that would do for the gas industry what it does for the electric industry.

"If I had a Ferrari in a race, I really wouldn't want the fuel to be brought to me in the pit by the fuel barrel. I would want to know it was there and it was sufficient and it was being used as best it could be," she added.

### 'Premature'

Glen Thomas, president of the PJM Power

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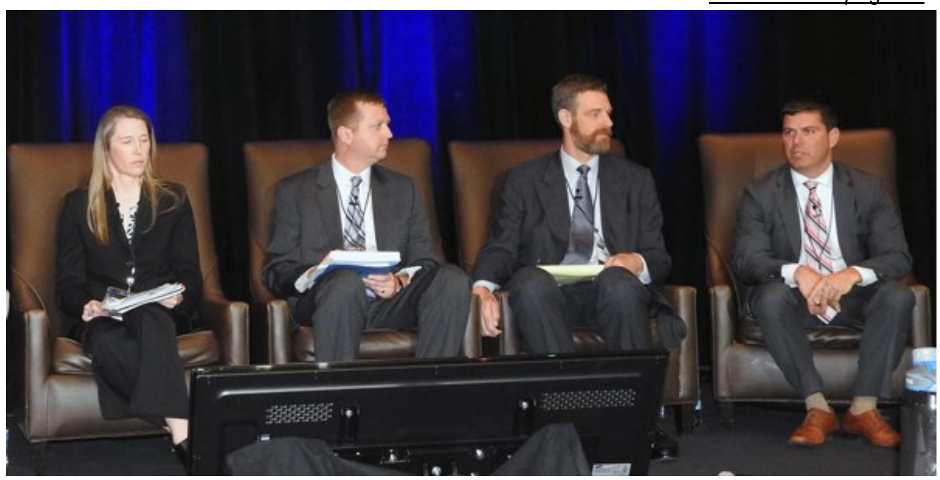


From left to right: Cara Lewis, Jeff Weathers, Robert Kott and Jon Monken. | © *RTO Insider*

# PJM Reliability Conference Raises Questions; Solutions Elusive

Continued from page 29

subsidies have impacts that can hurt the market's overall purpose.

"If we do use state subsidies in order to preserve nuclear plants when they become uneconomic, it's critical that PJM protects the capacity market and has a price that is protected from what that impact would be," he said. "There will be a consequence if that's not done. … We rely on the Capacity Performance product in order to provide revenues that we desperately need to maintain our fuel-oil backup."

Calpine has oil backup for about 5,000 MW of its natural gas-fired generation to address its CP responsibilities, he said.

Direct Energy's Marji Philips asked the panelists why proposed solutions continue to cling to previous market structures.

"Everybody's talking about the past, and putting Band-Aids on the past, instead of looking [at] what's going to be a very radical future that we can't imagine today," she said.

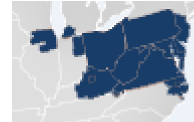
Bowring said the purpose of markets is to define needs and incentivize creative solutions.

"I would say there is no defined market-design problem that requires subsidies as a solution, particularly for specific uneconomic resources," he said. "One of the things that underlies this whole discussion is an underlying tension between the exogenous requirement to be reliable, NERC-imposed, FERC-imposed and the existence of markets. Markets have successfully met the reliability standards so far, and my point is I think they can continue to do that, but there is that tension. There has always been that tension. The fact that we're talking about resilience doesn't make that tension new. It simply makes the challenges more difficult. We need to now think in even more detail about what reliability really means when we include resilience in the definition."

Mroz warned that state regulators can't be left to define needs for the market either. For example, he said the BPU is sometimes the last to know about distributed energy resources interconnecting to the grid.

"We don't have the tools anymore at the state level to identify where all those resources are," he said. "Something that I have been very vocal about is to ask PJM to ask the industry to be mindful that in the context of meeting these challenges, we're also mindful at the end of the day of the cost impact that ultimately has to be borne by the consumer."

# PJM News



## PJM Grid 20/20

# PJM Fuel Diversity Discussion Focuses on Pipeline Planning, Security

*Continued from page 30*

Providers Group and GT Power Group, said such a sweeping change is "premature," but the electricity industry needs to better understand the supply chain of one of its most critical inputs.

"The big message is we all [have] to get a little smarter about gas and understand the industry better than we currently do," he said.

Mark McCullough, American Electric Power's executive vice president for generation, pointed out an imbalance. Generation owners know even the smallest details of their units, he said, but "then you think about what's happening on the other of the gas valve and wonder if those same kind of delivery approaches are taking place that brings that critical fuel to the asset that you're spending so much time [on] making sure everything else works."

That question isn't unique to PJM, where a third of power is supplied by gas. Jeff Weathers, Southern Co.'s resource planning manager, said his company maintains a predominantly gas-fired generation fleet and performs an annual analysis of how the company could respond to potential pipeline failures.

Robert Kott, CAISO's operations policy manager for regional operations policy and analytics, said 54% of California's generation fleet is gas. He noted that a leak at the critical Aliso Canyon gas storage facility last year forced the ISO to adjust its market to reflect pipeline constraints. (See FERC OKs One-Year Extension for CAISO's Aliso Canyon Gas Rules.)

Cara Lewis, Public Service Enterprise Group's associate general regulatory counsel, said "heavy reliance on one fuel source negatively impacts resiliency and is not good for consumers." She pointed to a pipeline explosion in Pennsylvania in April 2016 that created supply constraints in the Mid-Atlantic region.

"Our analysis shows that if this had happened in winter, we would have had to interrupt our electric-gas generation in order to fully supply our heating demand," she said. "The choice for our customers would have been heat or light, but not both."

From left to right: PJM's Mike Bryson, Mark McCullough and Glen Thomas. | *© RTO Insider*

### Jurisdiction

Part of the issue is who is in charge of what. Joseph McClelland, the director of FERC's Office of Energy Infrastructure Security, stressed that his office doesn't set standards and regulations, only assesses their implementation and makes recommendations to the commission and other federal agencies. The Department of Energy coordinates the entire energy sector, he said, and the Department of Homeland Security and Transportation Security Administration set standards for pipeline cybersecurity, while the U.S. Coast Guard does so for LNG terminals.

McClelland echoed Thomas' comments that the electricity industry needs to do more to understand the natural gas supply system. He said gas-fired generators need to consider "what sort of contractual obligations do [pipelines] have? What's their security posture? And what's your recovery plan if the gas pipeline is lost?"

"The good news is in terms of how we built out the grid, it's incredibly efficient, it's economically effective, it's highly reliable — but it's also more heavily interconnected than it's been at any given point in time in the history of the grid," PJM's Jonathon Monken said. "That's why this conversation is timely and relevant because we need to look at those interdependencies in a different way."

PJM CEO Andy Ott addressed the topic with his opening remarks, saying one of the RTO's current questions is whether it's recognizing the operational risk of a pipeline disruption. "Instead of worrying and saying, 'Are we sure we're secure?' I think defining the problem and looking toward defining solutions is the way to go," he said.

The Natural Gas Supply Association, which had a representative in attendance, did not respond to requests for comment.

## SPP News

# 1 Project Recommended for MISO-SPP Coordinated System Plan

*By Amanda Durish Cook*

Just one project from MISO and SPP's coordinated system plan study will move forward for individual votes on regional review, officials told the Interregional Planning Stakeholder Advisory Committee meeting Monday.

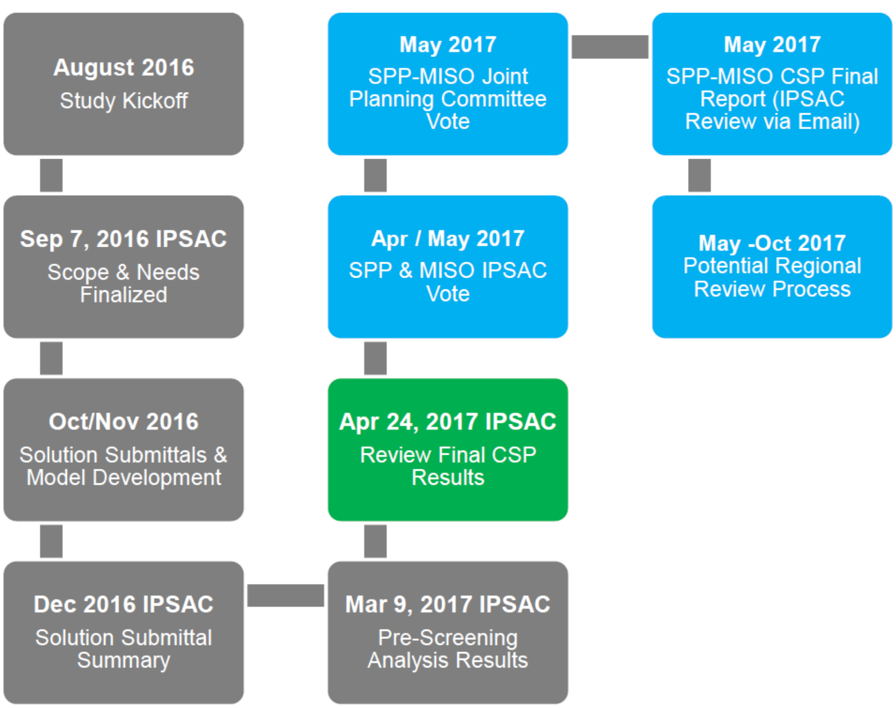
The project will loop one Split Rock-Lawrence 115-kV circuit into Sioux Falls to relieve congestion on the Lawrence–Sioux Falls 115-kV line in South Dakota, on the tie line shared between the Western Area Power Administration and MISO's Xcel territory.

Final results showed costs of $5.2 million and a 4.42 benefit-cost ratio. MISO would pay 81% of the cost and SPP the remaining 19% based on benefit estimates for the first 20 years of the congestion-relieving project.

The project faces an obstacle course of approvals before construction can begin. MISO is conducting a project vote among Planning Advisory Committee voting sectors at a special meeting on April 27 for its portion of the IPSAC vote. SPP's IPSAC vote will occur at its Seams Steering Committee teleconference on May 3. If both RTOs approve, the project moves into a SPP-MISO Joint Planning Committee vote and then into an IPSAC review conducted via email. If the project passes all review and votes, it will face an approval process before each of the RTOs' board of directors.

The RTOs hope the approval process concludes in October, said Adam Bell, SPP's interregional coordinator.

MISO and SPP considered seven potential interregional projects during last year's coordinated system plan, and in earlier estimates, the South Dakota project fell just short of the $5 million interregional project threshold in the RTOs' joint operating agreement. Earlier estimates also showed a more even cost split between the RTOs. (See *MISO-SPP Coordinated Study Yields 1 Possible Project – For Now*.) Bell said recently approved generator interconnect projects in MISO's queue shifted more of the project's cost to MISO, as the projects will benefit from congestion relief and increased transmission ratings.




2016 MISO-SPP CSP progress and updates | *MISO, SPP*

Davey Lopez | © *RTO Insider*

Bell said project construction is complicated by the fact that the project is a tie-line, not wholly located in either footprint, and each RTO's portion of the construction will be handled independently. MISO staff said how the RTOs ultimately decide to split construction on the small project could be used to define an improved process for projects that cover ground in both footprints going forward.

Bell also said that some interregional projects under consideration failed because of the $5 million cost threshold, which he said the RTOs are open to changing.

Another possible interregional project was revealed on April 19, but the $153.7 million candidate — the Lacygne-Blackberry 345-kV line, 345/161-kV transformer and Blackberry-Asbury 161-kV line in Kansas — graded out with a scant 1.03 benefit-cost ratio. MISO would be allocated 5% of the cost and the remaining 95% paid by SPP.

Davey Lopez, MISO adviser of planning coordination and strategy, said the project barely passed the required 1.0 benefit-cost ratio and the minimum 5% regional benefit thresholds in the joint operating agreement. "Any increase in cost would likely drop the benefit-cost ratio below 1, and SPP is investigating other, much cheaper solutions," Lopez said at an April 19 MISO PAC meeting.

The project failed to win recommendation from either RTO during the interregional meeting.

## SPP News

# Regional State Committee Briefs

### RSC Approves Six-Year Cost Allocation Review

SPP's Regional State Committee last week approved doubling the timeframe for conducting regional cost allocation reviews (RCARs), leaving only approval from the Board of Directors this week before the change becomes official.

Staff had been conducting RCARs every three years. With board approval of the recommendation and accompanying revision request (TRR-223), those reviews will now be conducted every six years.

The Market and Operations Policy Committee earlier approved the same recommendation from the Regional Allocation Review Task Force, which said the change would save SPP manpower and consulting costs. (See "Cost Allocation Review Cycle Could Extend to 6 Years," *SPP Markets and Operations Policy Committee Briefs*.)

The most recent review, RCAR II, showed more positive benefit-to-cost ratios and only one deficient transmission zone, which already has a project in the 2017 Integrated Transmission Planning assessment. SPP said it took about 2,100 staff hours and more than $417,000 in payments to outside consultants to complete the review. The first RCAR incurred a similar expense.

"It's a really elegant solution, because it takes a tremendous amount of staff's time," said Donna Nelson, chair of the Public Utility Commission of Texas. "It's a heavy lift. All of the commissioners here have been very respectful of each other, with respect to the cost-benefit analysis."

South Dakota Public Utilities Commissioner Kristie Fiegen isn't so sure. "I believe we could be locking in winners or losers for an extended period of time," she said. "It concerns me we're moving the cost allocation review out six years, but I certainly appreciate the group looking at the cost of the study. The cost-benefit ratio is extremely important to our stakeholders."

Patrick Lyons, chair of the New Mexico Public Regulation Commission, advocated for a four-year delay between reviews, but none of the other committee members backed his proposal.

Staff pointed out that any member that feels it has an imbalanced cost allocation can request relief through the MOPC. It also said it was trying to improve the review process through the use of more accurate information.

"One thing staff is doing now is using real market data and running the market [model] without that transmission, then going back to Day 1 of the market to find the value of the transmission," SPP General Counsel Paul Suskie said. "We're looking at possible different ways to do the RCAR."

### Wise: Few Solutions to Wind-Energy Glut

Golden Spread Electric Cooperative's Mike Wise told the committee that his Export Pricing Task Force did not have a "whole lot of solutions" for shipping SPP's ample wind resources out of the footprint.

"We're waiting on members and staff to bring ideas," said Wise, who chairs the group and the Strategic Planning Committee. "There's no stomach inside the task force or the SPC, that I've heard, that we want to build transmission to export wind and have the consumers in the footprint pay for it. I would encourage anyone who wants to come get the wind to build the transmission."

The group has prioritized several market changes — such as ramp products and storage resources — to accommodate wind exports as staff time and dollars are available over the next few years. Wise said the group would continue meeting over the next few months as "opportunities" are brought forward.

SPP has more than 16 GW of installed and operational wind capacity, another 8 GW with signed generation interconnection agreements and a potential 43 GW overall.

The task force has begun to explore coordinated transaction scheduling, which allows for near real-time scheduling of power across RTO interfaces, based on the price spread between RTOs. (PJM has adopted CTS with NYISO and plans to launch with MISO this fall.)

"We really have to work with the other RTOs," Wise said. "It's not MISO that needs the power, it's the other RTOs east of MISO."

### Committee Approves CAWG Recommendations

The RSC also approved several motions from the Cost Allocation Working Group, which reports up to the committee. The items were also approved by the MOPC earlier this month.

- A recommendation to approve the Seams Projects Policy Paper as consistent with previous RSC actions. The paper sets guidelines for SPP approval and cost allocation processes for non-FERC Order 1000 interregional transmission projects on a project-by-project basis.
- Another recommendation to approve regional funding for SPP's portion of a transformer project and line uprate at an Associated Electric Cooperative Inc. substation near Springfield, Mo.
- Approval of RTWG-RR208, which implements the Transmission Planning Improvement Task Force's white paper for new regional planning processes by replacing current planning schedules with an annual transmission expansion plan, creating a standardized scope; establishing a common planning model for use across the various planning processes; and creating a staff/stakeholder accountability program.
- Finding MRR203 consistent with respect to the allocation of financial transmission rights. The revision adds a "last-chance" second set of auction revenue rights nominations in the monthly ARR process, where any source-to-sink path can be nominated.
- Finding RR202 also consistent with the RSC's past policy decisions with in allocating FTRs. The change complies with FERC guidance on SPP's disparate treatment of point-to-point and network integration transmission service (NITS) during re-dispatch. NITS would be eligible for ARR during limited times of the year and only for the service not subject to redispatch, but not for long-term congestion rights. (See *SPP Hopes Congestion Rights Rule Change Wins FERC OK*.)

*— Tom Kleckner*

# AEP Must Install Scrubbers at Indiana Coal Plant, Court Rules

*By Amanda Durish Cook*

American Electric Power must bear the billion-dollar cost of installing scrubbers at the Rockport Generating Station in Indiana, an appellate court said, ruling in favor of the plant's owners in a dispute over a lease contract.

A three-judge panel for the 6th U.S. Circuit Court of Appeals ruled April 14 that it's the duty of plant operator AEP Generating — not the plant owners' trustee, Wilmington Trust — to install court-ordered emissions-reducing technology at the coal-fired Rockport Unit 2 (No. 16-3496). The decision overturns an earlier district court ruling.

Rockport Unit 2 supplies about half of the output of the 2,620-MW plant on the Ohio River in southern Indiana.

Wilmington Trust charged that AEP subsidiaries Indiana Michigan Power and AEP Generating are responsible for the costs of a selective catalytic reduction (SCR) device on Rockport 2 for $NO_x$ control. Under a consent decree to settle Clean Air Act violations with EPA and several other parties, the approximate $1.4 billion SCR for Rockport 2 is required by Dec. 31, 2019.

Indiana Michigan Power and AEP Generating jointly operate the two Rockport units despite the fact that AEP sold Rockport Unit 2 to a group of investors in 1989. The investors in turn leased the unit back to the AEP subsidiaries for 33 years, ending Dec. 7, 2022.

Rockport Generating Station | © *John Blair*

In 2013, EPA and other parties agreed to modify the consent decree to allow AEP to instead install a less expensive emissions control by April 16, 2015, and then either install the expensive scrubber, retire the plant or switch it to another fuel by the end of 2028, six years after the current lease expires.

Wilmington Trust filed suit against AEP soon after, claiming the modified consent decree breached the lease by imposing an impermissible lien and by taking an action "that materially adversely affected the economic useful life of Rockport 2."

Clauses in the complex contract prohibit AEP from taking action that "will materially adversely affect the operation, safety, capacity, economic useful life or any other aspect of Unit 2" and from creating or incurring liens, except in certain circumstances.

The appellate judges found that AEP's financial promises to Rockport would be empty after the lease expires and said AEP's settlements with EPA were its own responsibility. They said applying a temporary fix and pushing back a permanent solution would make Rockport's owners essentially "responsible for the costs associated with either upgrading Rockport 2 or shutting it down." The lease states that the operating AEP subsidiaries are responsible for "installing, owning and operating" major environmental controls to comply with regulations.

"AEP traded away Rockport 2's long-term value in exchange for a more favorable settlement of claims against their other interests," the judges said of the 2013 consent decree modification. AEP had argued that deferring the scrubber's installation was not only good for itself, but also for the owners, as either party would have several more years of profit before a scrubber was required. The judges rejected the argument, saying the plant's owners were not part of the modification.

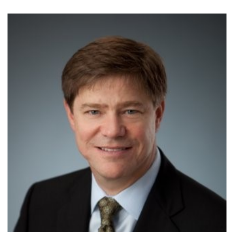
It's unclear if AEP's lease will be extended. Completed in 1989, Rockport 2 has an expected useful life anywhere through 2034 to 2049, according to the order.

# Avangrid Renewables CEO Steps Down to Take NW Natural Role

PORTLAND — Avangrid Renewables CEO Frank Burkhartsmeyer is resigning to take over as chief financial officer for Oregon-based natural gas service provider NW Natural.

Laura Beane, currently vice president of operations and management services at the renewables company, will take over the top spot once Burkhartsmeyer departs May 17.

In an internal memo to company employees, Avangrid CEO Jim Torgerson expressed "regret" over Burkhartsmeyer's departure from the renewable energy company. Headquartered in Portland, Avangrid Renewables is a division of Connecticut-based Avangrid, the North American subsidiary of Spanish energy giant Iberdrola.



Burkhartsmeyer

"Avangrid Renewables has grown under his leadership as CEO since 2015," Torgerson said. Burkhartsmeyer, who has been with Avangrid and its previous affiliates for 20 years, was promoted to CEO after serving as the company's senior vice president of finance. At NW Natural, Burkhartsmeyer will oversee the $3.1 billion company's treasury, accounting, financial reporting, budgeting and forecasting, financial analysis, investor relations, business development, and supply chain activities.

"We are thrilled to have someone with Frank's impressive experience on our officer team," NW Natural CEO David Anderson said in a statement.

Beane joined Avangrid Renewables in 2007 after the company acquired PPM from Scottish Power. She had worked for 10 years at PPM under its previous parent, PacifiCorp.

"We are delighted to add Laura's breadth of experience, knowledge and enthusiasm to the Avangrid Management Committee," Torgerson said.

Avangrid Renewables has more than $10 billion in operating assets, representing more than 6,000 MW of capacity in 20 U.S. states.

*— Robert Mullin*

# NextEra not Giving up on Oncor Deal


*By Rich Heidorn Jr.*

Attorneys for NextEra Energy and Energy Future Holdings told a bankruptcy court hearing last week that they are not giving up on NextEra's bid to acquire Oncor despite Texas regulators' rejection of the deal.

NextEra is "exploring every alternative and action to try to resuscitate the deal," NextEra lawyer Howard Seife said during a hearing for EFH at the U.S. Bankruptcy Court in Wilmington, Del., *The Wall Street Journal* reported.

EFH attorney Chad Husnick told the court that NextEra is attempting to negotiate a settlement with large energy users that had urged the Public Utility Commission of Texas to block the acquisition.

The PUC voted unanimously April 13 to reject the $18.7 billion deal for Oncor, which is central to parent company EFH's bid to exit Chapter 11 bankruptcy proceedings.

The commission said it would not approve the deal without restrictions on NextEra's ability to appoint and replace members of Oncor's board of directors and the board's ability to limit dividends or other "upstream distributions" from Oncor. The PUC said those two ring-fence provisions had insulated Oncor from EFH's bankruptcy. (See *Texas Commission Denies NextEra's Bid for Oncor*.)

Judge Christopher Sontchi expressed frustration over the PUC's rejection of the deal — the second time in a year that the regulators blocked an Oncor acquisition. Last May, Dallas-based Hunt Consolidated withdrew its bid to acquire Texas' largest transmission and distribution service provider over PUC conditions it found too onerous.

"The PUC seems unconcerned with the resolution of the bankruptcy estate as a factor in making its determination," Sontchi said, according to Bloomberg. "I find that concerning."

NextEra has until May 8 to file a motion for rehearing with the PUC. It could also file a court challenge, Husnick said.

Sontchi and EFH lawyers agreed that the PUC's insistence on retaining local control of Oncor is reducing the company's value to potential acquirers.

The proceeds from the sale of Oncor would have been split among EFH's creditors, who reached a settlement last year to end EFH's $42 billion bankruptcy.

If the NextEra deal cannot be revived, EFH may have to seek a new exit that issues equity in Oncor rather than cash. The *Journal* reported that trading prices on EFH's junior debt fell after the PUC's rejection.

Another option would be a public offering of the stock. "It's been difficult to please both bondholders and regulators," Morningstar analyst Andrew Bischof told Bloomberg last week. "An IPO may be their best option at this point. If Texas regulators aren't going to be a little more flexible, then an IPO is more likely."

# Company Briefs

## PNM Plan Calls for Getting out of Coal Entirely

Public Service Company of New Mexico published an integrated resources plan Thursday that proposes getting entirely out of coal-fired electricity in the next 14 years and replacing it with solar, wind, natural gas and nuclear power.

The 20-year plan found that closing the coal-fired San Juan Generating Station in 2022 and giving up the utility's 13% share in the Four Corners Generating Station in 2031 would save consumers money in the long term.

The plan is open for public comment before a final version is filed with regulators in July.

More: *Albuquerque Journal*

## TransCanada Completes $1B Sale of Hydro Assets to Great River

TransCanada announced last week that it has completed the sale of its hydroelectric generation assets to Great River Hydro, an affiliate of ArcLight Capital Partners for $1.065 billion.

The sale includes 13 hydroelectric facilities, stations and associated dams and reservoirs on the Connecticut and Deerfield Rivers, with a total generating capacity of 584 MW. The assets are in New Hampshire, Vermont and Massachusetts.

Proceeds from the sale will be used to repay debt financing raised to fund TransCanada's 2016 acquisition of the Columbia Pipeline Group.

More: *TransCanada*

## Tesla Prepays $19.7M In SolarCity Bonds

Tesla prepaid $19.7 million, plus $1.2 million in full interest, for SolarCity bonds but converted the bonds of CEO Elon Musk and the cofounders of the solar company to private debt, according to a person familiar with the matter.

The payments were made to almost 1,500 investors for three series of bonds, a source, who wasn't authorized to speak publicly, told Bloomberg. Approximately $100 million in bonds held by Musk, Lyndon Rive and Peter Rive were converted to private SolarCity debt. About $113.3 million in other SolarCity solar bonds are still outstanding.

Early termination of the bonds was part of the financial restructuring necessary to combine the two companies, a company spokesperson said in an emailed statement.

More: *Bloomberg*

## Walmart Aims to Cut Emissions from Supply Chain

Walmart has launched an initiative that aims to cut greenhouse emissions by 1 billion tons across its supply chain by 2030.

Under Project Gigaton, Walmart is releasing an open source toolkit that focuses on areas where suppliers can make improvements, including energy efficiency, agriculture, waste, packaging, deforestation, and product use and design.

The company hopes to cut its own carbon output by 18% by 2025.

More: *Fast Company*

## Waste Control Specialists Asks NRC to Suspend Review

Waste Control Specialists has asked the Nuclear Regulatory Commission to temporarily suspend a review of its application to store nuclear fuel currently scattered at reactor sites across the U.S. at its West Texas dump, citing the cost of the review.

The company, which initially suggested it would start construction by 2019, needs to find another $7.5 million to continue the licensing process.

The request comes while EnergySolutions is seeking to buy Waste Control Specialists. The Department of Justice is suing to block the merger, arguing it would create a monopoly on radioactive waste disposal.

More: *The Texas Tribune*

## Sediver Opens Insulator Manufacturing Plant in Ark.

Sediver USA on Friday will mark the opening of a new advanced manufacturing facility in Arkansas that will supply toughened glass insulators for high-voltage transmission lines.

Sediver and its French parent company, Seves Group, invested $15 million to build the facility as part of a preferred supplier agreement with Clean Line Energy. The plant positions Sediver to supply insulators for the $2 billion Plains & Eastern Clean Line project, for which Clean Line is working to acquire rights of way and secure commitments from utilities to buy its output of 4,000 MW of wind power.

The plant began production this month with 30 employees, with the total number eventually expected to exceed 75.

More: *The Commercial Appeal*

## SoCalEd Launches First Battery-Gas Hybrid Plants

*General Electric, Southern California Edison*

Southern California Edison has launched two first-of-their-kind hybrid battery and gas turbine power plants and is planning three more.

The two plants, located in Norwalk and Rancho Cucamonga, were retrofitted with 10-MW lithium-ion batteries that can power the plants instantaneously while reducing emissions by 60%.

The plants were fast-tracked and completed in only a few months in response to concerns regarding the potential for an electrical power shortage following the 2015 gas leak at the Aliso Canyon gas storage facility. The schedule for retrofitting SoCalEd's three other plants has not yet been released.

More: *The Mercury News*; *Bloomberg*

## Court Rules Former San Onofre Engineer Won't Join Mediation

A former engineer at the San Onofre nuclear plant who subsequently formed a charity to advocate for Southern California Edison customers will not be joining talks to renegotiate a deal that tagged customers with $3.3 billion in premature shutdown costs.

Noting that the settlement was adopted two and a half years ago and the record was re-

*Continued on page 37*

# Company Briefs

Continued from page 36

opened nearly a year ago, Administrative Law Judge Darcie Houck ruled that it was too late to add new parties to the proceeding.

The California Public Utilities Commission previously approved a deal that assigned 70% of the plant's $4.7 billion of premature closing costs to ratepayers. After a federal appeals court agreed to hear a civil suit challenging the deal, mediation sessions were scheduled for June.

More: The San Diego Union-Tribune

## Emerge Energy Buying Fracking Sand Mine for $20M

Emerge Energy Services said it is purchasing a small sand facility for $20 million near San Antonio and plans to spend much more to rapidly expand it into a much larger mine to serve the hydraulic fracturing needs of the oil sector.

The Osburn Materials plant, which currently produces sand used for building materials, golf courses and baseball fields, can produce 300,000 tons of dry sand a year, Emerge CEO Rick Shearer said. He said Emerge wants to double production by the end of the year and expand to 3 million tons of dry sand production annually by mid-2018.

The Permian Basin oil boom is leading to new and expanded sand mines in Texas. Emerge owns another sand mine near Kosse.

More: FuelFix

## Volkswagen Spending $300M on EV Charging Stations

Volkswagen's Electrify America division is getting ready to spend $300 million on a national network of 450 electric vehicle charging stations as part of its $15 billion settlement over diesel emissions cheating.


Volkswagen e-Golf

The network will cover 11 major metropolitan areas and high-traffic highways in 39 states. There will be 240 highway stations with both 150-kW and 320-kW chargers.

Volkswagen will spend $2 billion on zero-emissions infrastructure and an awareness campaign.

More: Engadget

# Federal Briefs

## EPA Offering Buyouts to Shrink Its Workforce

On the heels of the Trump administration's proposed budget that would slash EPA's funding by 31%, the agency is offering a buyout package to its employees.

Trump's budget calls for the agency to cut 3,200 positions, or about a fifth of its 15,376-person workforce, as of the 2016 fiscal year.

In 2014, the Obama administration conducted a buyout program that led to 456 employees leaving EPA at a cost of $16.2 million. John O'Grady, a career EPA employee who heads a national council of EPA unions, said that for Trump to try shed thousands of employees using the same approach would prove "exorbitantly expensive" and would amount to "utter destruction" of the agency.

More: Morning Consult; The Washington Post

## EPA Wants Delay in Case Challenging Toxic Emissions Rule

EPA last week asked a federal court to delay a May 18 oral argument in a case filed by several companies and 15 states seeking to overturn a 2012 regulation limiting mercury, lead and other airborne toxins emitted from coal- and oil-fired power plants.

Under the rule, the plants had to install pollution controls putting them on par with the 12% cleanest facilities in their sector. The Trump administration said it was seeking the delay to give it time to fully review the case.

Oklahoma, represented by then-Attorney General Scott Pruitt before he became EPA administrator, is one of the states challenging the regulation.

More: The Washington Post

## TVA not Changing Plans to Close Coal Plants, CEO Says

Notwithstanding President Trump's promise to bring back the coal industry, the Tennessee Valley Authority isn't going to be reopening its coal-fired plants, CEO Bill Johnson said.

Johnson said the agency is on track to cut its carbon emissions by 60% by 2020 compared with 2005 levels, and by the end of 2018 it will have retired five of its original 11 coal-fired plants.

"Our statutory duty is to produce electricity at the lowest feasible rate," Johnson said in an interview with The Associated Press. "And when we decided to close the coal plants, that was the math we were doing. We weren't trying to comply with the Clean Power Plan or anything else."

More: The Associated Press

## Conservationists Say Offshore Wind Threatens Endangered Roseate Tern

Fifteen conservation groups submitted a letter April 13 to federal authorities asking that they take steps to protect the endangered roseate tern from planned offshore wind development on the Atlantic coast.

According to the groups, the bird migrates the length of the Eastern Seaboard, which means it could be impacted by large-scale industrial offshore wind development that has been proposed by the Interior Department's Bureau of Ocean Energy Management off the coasts of South Carolina, North Carolina, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Massachusetts and Maine.

The letter, which went to multiple federal agencies, suggests that seasonal shutdowns is one strategy for preventing collisions with turbine blades.

More: American Bird Conservancy

# STATE BRIEFS

## Moody's: Mass. Ahead of NY on Clean Energy Progress

Massachusetts is on track to close in "much faster" than New York on California's achievements in clean energy, according to a report by Moody's Investors Service.

Last summer, New York's Public Service Commission issued an order establishing a clean energy standard and requiring half of the state's electricity to come from renewable sources by 2030. A week later, Massachusetts Gov. Charlie Baker signed a law directing utilities to procure 1,600 MW of offshore wind and about 1,200 MW of hydroelectric power.

Moody's cautioned that if the two states achieve their clean energy goals, the impact on wholesale power markets would be severe. "It will depress wholesale market prices and reduce margins for merchant generators that sell their output to the wholesale power markets," the report said.

More: *Worcester Business Journal*

## COLORADO

### Boulder Continues Efforts to Form a City-Owned Electric Utility

The Boulder City Council voted 6-3 to continue its years-long effort to form a city-owned electric utility with the goal of achieving a power supply that focuses more on renewable resources and less on fossil fuels.

The council declined to take what city leaders called "a pause" in the process that would have halted its efforts to form the utility and allowed city leaders to put one or more settlement proposals from Xcel Energy, which would have ended litigation over the city's plans to acquire the utility's assets, on November's ballot.

The next step is an eight-day hearing before the Public Utilities Commission scheduled to start on April 26. The PUC is currently reviewing an application filed by the city in September 2016 asking for approval for transfer of Xcel's electric system assets necessary to operate the municipal utility.

More: *Public Power Daily*

## KENTUCKY

### LG&E/KU Enter Settlement Reducing Proposed $210M Rate Increase

Louisville Gas and Electric and Kentucky Utilities entered into a settlement on April 19 with the Office of Rate Intervention that dramatically reduces a $210 million rate increase the utility companies proposed last year.

The settlement, which the Public Service Commission will review on May 9, calls for an increase in the electric residential customer charge of 75 cents this year and 75 cents in 2018, for a total long-term increase of $1.50/month. The utilities originally asked for an $11.25/month increase.

Other aspects of the settlement include a more than 50% decrease to the residential gas rate increase requested by LG&E; withdrawal of a smart meter project; an agreement to provide yearly shareholder contributions totaling nearly $1.5 million to help low-income residential customers defer utility costs; and creation of a rate pilot program for schools.

More: *WLEX*

## MICHIGAN

### PSC Wants Info on How DTE, Consumers Handled Outages

The Public Service Commission is asking DTE Energy and Consumers Energy to file reports by May 15 as to how they handled power losses from wind storms last month that affected 1.15 million customers, and it plans to hold hearings on the issue.

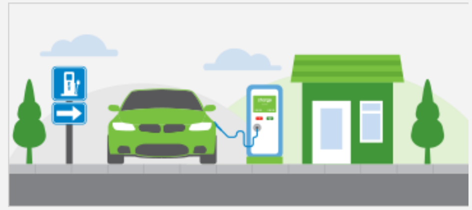
The commission said it wants a "thorough accounting" of how the two companies responded to the outages, including how investments in infrastructure, new technology and vegetation management affected the time and number of outages from the storms.

The request came as federal statistics ranked the state among the top 10 states from 2013 to 2015 for the most "electric disturbance events" in the nation.

More: *The Detroit News*

## MISSOURI

### Regulators Say They Lack Authority Over EV Charging Stations



*Ameren Missouri*

In a 4-1 vote last week, state regulators denied a request by Ameren for a pilot program to install and operate electric vehicle charging stations along the I-70 corridor, saying they had no authority to regulate them.

The Public Service Commission noted it was the charging service, rather than the electricity used to power the system, that would be sold. It additionally noted that EV customers have a choice of several providers of charging services, rather than being served by a single utility.

The commission said Ameren could own and operate the stations on an unregulated basis, without including them in its rate base or seeking recovery from ratepayers for any construction or operating costs. But the utility may include in its rate base any equipment necessary to provide electric service to an owner of an EV charging station, whether or not that owner is affiliated with Ameren.

More: *The Missouri Times*

## NEBRASKA

### Landowners Prepare to Fight Keystone with Economic Arguments

About 90 state landowners — primarily farmers and ranchers — are making a last stand against the Keystone XL pipeline with an economic argument, rather than the environmental arguments that were successful in blocking the pipeline under the Obama administration, when the Public Service Commission takes up the issue beginning in May.

Last month, President Trump granted TransCanada a permit for the project.

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# State Briefs

Continued from page 38

However, the issue is going before the five-member commission because the company has not been able to negotiate easements on about 9% of the pipeline's 300-mile crossing in the state.

The landowners are expected to argue the project threatens prime farming and grazing lands, which are vital to the state's economy, and is an attempt by a foreign company to seize American private property. They also maintain the jobs created by the pipeline are mainly temporary and tax revenues will decline over time.

More: Reuters

## NEW MEXICO

### Albuquerque Planning $25M Solar Installation for City Buildings

Albuquerque plans to install more than $25 million in solar panels on city buildings in the next two years, marking the first phase of achieving its goal set in September of generating one quarter of its energy from solar power by 2025.

Taxpayers are expected to save about $20 million over 30 years from this initial phase, City Council members Pat Davis and Isaac Benton said.

The project, which will be financed through energy savings and federal bond credits, is expected to begin later this year.

More: The Associated Press

## OKLAHOMA

### Fallin Signs Bill Ending Wind Industry Tax Credit

Gov. Mary Fallin signed into law a bill that would expedite the elimination of a wind power tax credit to July 1 rather than continuing it to 2021.

Wind projects that are completed prior to July 1 would be eligible to claim the credit for up to 10 years.

Use of the zero-emission tax credit grew from almost $3.7 million in 2010 to more than $113 million in 2014, and the state could no longer afford it, said Senate President Pro Tempore Mike Schulz, one of the authors of the bill.

More: Tulsa World

## TEXAS

### Natural Gas-Powered Buses Hitting the Road in San Antonio

The mass transit agency serving San Antonio on Thursday debuted the first five in a fleet of 270 new buses it is purchasing from Nova Bus as part of its switch from diesel to natural gas.

VIA Metropolitan Transit committed in 2015 to switching its entire fleet of 474 buses, which are between 12 and 15 years old, to compressed natural gas by 2020. Thus far, it has more than 40 natural gas-powered buses in operation.

The new buses will reduce emissions by 97%, and VIA estimates it will save $8.5 million a year in fuel costs when its fleet reaches 400 CNG-powered buses.

More: San Antonio Business Journal; KSAT

# Westar Shares Fall as Kansas Regulators Block Great Plains Energy Deal

Continued from page 1

complementary service territories, a merger of the two companies could make sense. But it said the price was excessive and would force Great Plains to take on too much debt, noting the $4.9 billion acquisition premium exceeds Great Plains' market capitalization by $100 million.

The commission also said that Great Plains' winning bid of $60/share was $4 higher than that of the next highest offer. "Evidence suggests the $60/share purchase price exceeded the expectations of both Goldman Sachs and Guggenheim," who validated the purchase price for Great Plains and Westar, respectively. Great Plains' own analysis showed a "mid-fifties price point as the high end of a reasonable purchase price," the commission said.

"Unfortunately, the transaction was presented to the commission as a take-it-or-leave-it proposal. Repeatedly, the joint applicants advised the commission that any significant safeguards that would protect consumers, such as maintaining a separate, independent Westar board of directors, would halt the transaction. Therefore, the proposed transaction could not be salvaged and the commission is left with no choice but to reject" it, the commission said.

The deal, announced last May, would have given Great Plains 1.5 million customers in a service territory covering the eastern one-third of Kansas, much of the Kansas City metropolitan area and a large portion of northwest Missouri. Great Plains said the merger would have increased its operating scale, resulting in efficiencies that would benefit ratepayers. (See Great Plains Asks Missouri PSC's OK on Westar Deal.)

### Debt Burden

Great Plains would have assumed $3.6 billion of Westar's debt. It planned to finance the $8.6 billion purchase of outstanding Westar common stock with a package of 50% equity and 50% debt, including $4.4 billion in new debt. The company issued $4.3 billion in debt financing in March, the order noted.

"Since GPE has already completed both the equity and debt portions of the financing, it argues its ability to accomplish the financial steps necessary to close and support the transaction is no longer a concern. But the issue facing the commission in evaluating the transaction … is not whether GPE could obtain financing, but whether post-transaction, the resulting entity would be financially stronger than the stand-alone

Continued on page 40

# Offshore Wind Industry Looks for Next Gust of Support

*Continued from page 1*

tendees April 20 at the 2017 International Offshore Wind Partnering Forum. "So, we can put that question behind us and talk about the future."

The Obama administration ended its last term with two landmarks in the development of the nascent resource. In December, Deepwater Wind's 30-MW Block Island Wind Farm off Rhode Island became the first offshore facility to deliver electricity to the U.S. grid, days before developer Statoil Wind US agreed to pay BOEM a record $42.5 million to lease a parcel off New York.

During his campaign, President Trump promised to revitalize the fossil fuel industry and to renege on the carbon emissions cuts promised in the Paris Agreement on climate change, creating concern that his appointees might curtail federal support of renewable energy.

Walter Cruickshank | *© RTO Insider*

But Cruickshank, a long-time Interior Department official who was deputy director of BOEM at its inception in 2011, noted that the agency completed its seventh competitive lease sale for offshore wind in March. Avangrid Renewables presented the high bid of about $9 million to develop a 122,000-acre wind energy area off Kitty Hawk, N.C., a deal that Interior Secretary Ryan Zinke called a "big win."

Cruickshank said the agency hopes to identify sites for development off the California shore by June. The seabeds near Massachusetts, New York/New Jersey, the Delmarva Peninsula, the Carolinas, Oregon and Hawaii are also being eyed for development, he said.

At the three-day Annapolis forum, sponsored by the Business Network for Offshore Wind, offshore developers described the unique technical and regulatory requirements for bringing their projects to fruition. Design challenges are highly complex, and the scale of equipment and logistics is huge, while much of the required knowledge and experience is in its infancy in the U.S., relative to Europe.

*Continued on page 41*

# Westar Shares Fall as Kansas Regulators Block Great Plains Energy Deal

*Continued from page 39*

entities would be absent the transaction."

The commission noted that Great Plains acknowledged that it expected Moody's to downgrade its senior unsecured debt rating from Baa2 to Baa3, the lowest investment grade credit rating.

The commission cited the testimony of Great Plains CFO Kevin Bryant, who said that the company hopes to pay off $300 million to $500 million of debt within three to five years, but that it has no written plan to do so.

"Since GPE has failed to formulate any written plan to pay down the debt, the commission has nothing to review and cannot assume GPE will be able to rapidly deleverage. Therefore, the commission must review the joint application under the assumption that a post-transaction GPE will have substantial debt that will likely result in downgrades to its credit rating.

"The commission shares the concerns voiced by [the Kansas Board of Public Utilities] and [the Citizens' Utility Ratepayer Board] that if the transaction is approved, GPE has little financial flexibility and very little margin of error to keep its investment grade rating. … The evidence is overwhelming that the rating agencies believe … GPE will be a riskier investment if the transaction goes through."

The commission also noted Great Plains and Westar's claims that applying a consolidated capital structure that included Great Plains' transaction-related debt would halt the merger, saying such assertions were "a tacit admission that the joint applicants' ability to complete the deal is entirely dependent on its ability to use the operating utilities' higher rates of return to finance the transaction."

### Savings in Question

The commission also cast doubt on Great Plains and Westar's estimated savings from the early retirement of five KCP&L generating units and five Westar units, calling them "too speculative to be reliable."

Great Plains and Westar "support their application with little more than preliminary estimates, developed in only three weeks and without full access to Westar's books or personnel," the commission said of Great Plains' savings analysis.

The commission also said Great Plains and Westar's commitment to not seek recovery of the acquisition premium from ratepayers was flimsy at best. It pointed out that an exception to acquisition financing can be triggered if a "single intervenor simply proposes to use a different capital structure, regardless of whether the commission adopts the intervenor's proposal."

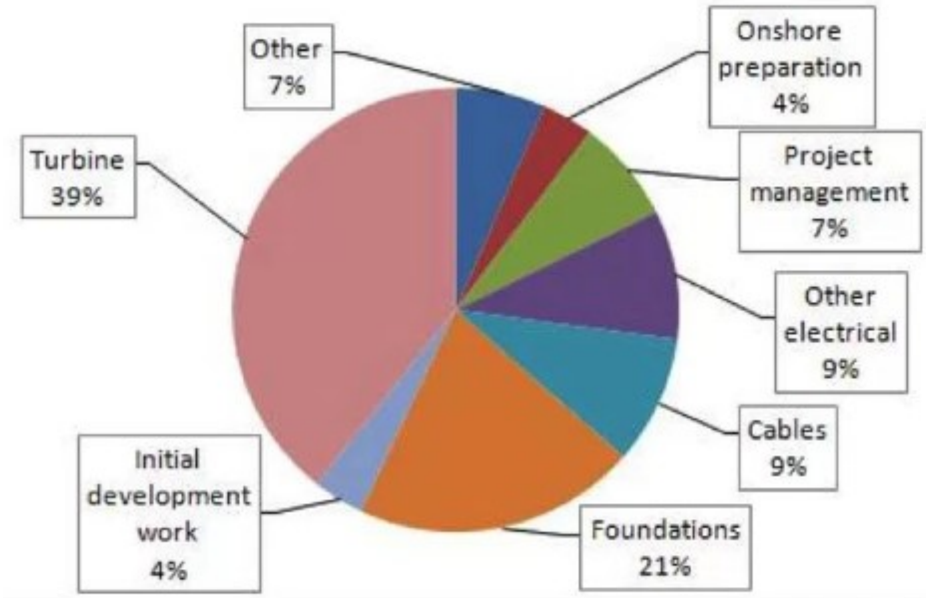
With 22 parties intervening in Westar's last rate case and nine parties intervening in KCP&L's, the commission said Great Plains and Westar would quickly lose control of the proposal, and promises to not charge ratepayers could be broken, the commission said. "Allowing the joint applicants to seek recovery of the acquisition premium if any party in any future Westar or KCP&L rate case proposes a different capital structure renders the … promise not to seek the acquisition premium from ratepayers hollow. An exception that is so easily triggered is an empty commitment," the commission decided. "The exception is so open-ended as to render the joint applicants' commitment not to seek recovery of the acquisition premium meaningless."

The commission, which ruled after taking seven days of testimony, noted that of the 28 parties that intervened, all but the applicants opposed the merger.

Great Plains and Westar officials said they were reviewing the order to consider their next steps.

# Offshore Wind Industry Looks for Next Gust of Support

*Continued from page 40*




Typical offshore wind energy project costs | *Business Network for Offshore Wind*

"This industry does not exist in the U.S. — it is nascent," said Paul Rich, director of policy development for offshore developer US Wind. The company is vying with Deepwater Wind to be the first to build off the coast of Maryland.

Rich told the forum that it is critical that they collaborate, and told them to be "bold" and to "go big, go large."

US Wind's proposed wind farm on an 80,000-acre site 17 miles off Ocean City, Md., would have 187 turbines producing 750 MW. The company won its BOEM lease in August 2014 for $8.7 million and has already invested more than $20 million in its project. The wind farm, which still needs federal permits to move ahead, has a total price tag of $2.5 billion.

The Maryland Public Service Commission is due to decide by May 17 whether US Wind or Deepwater subsidiary Skipjack Offshore Energy will receive offshore renewable energy credits to help fund their proposed projects. The credits, a subsidy that will later be transferred to electricity suppliers to meet renewable energy requirements, spring from 2013 legislation that created a carve-out for offshore wind in Maryland's renewable portfolio standard. The legislation directs that projects must be 10 to 30 miles off the coast, able to connect to the PJM grid and approved by the state commission.

Skipjack has a much more modest plan for a 120-MW wind farm. The company argues for a more measured approach to development and says its site — 26 miles from the Ocean City Pier and 19.5 miles from its closest point in Maryland — would have much less visual impact.

About 72% of Maryland voters support offshore wind, according to a poll by Annapolis-based marketing analysis firm Opinionworks conducted in 2013. But siting the projects is difficult because of the massive infrastructure and environmental footprints involved. The costs of building offshore are almost three times that of onshore wind according to the U.S. Energy Information Administration's levelized cost of energy calculations, although offshore turbines are larger and have substantially higher capacity factors.

In addition, even a small visual presence of turbines peeking above the horizon can create complaints in coastal areas. Ocean City officials raised concerns about the visual impact of the proposed US Wind turbines and their possible effect on tourism. The company this month offered to move the project from 12 to 17 miles offshore, adding millions of dollars in costs.

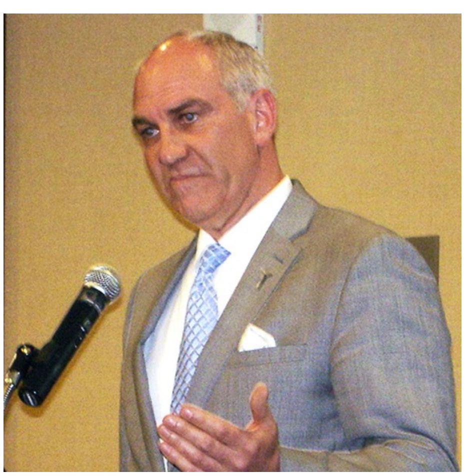
Developers must also deal with the lengthy and costly generator interconnection process faced by land-based generation.

But after setbacks to projects planned off of Atlantic City, N.J., and Martha's Vineyard, Mass., the industry has reason for optimism. Last August, the Massachusetts legislature approved legislation ordering procurement of 1,600 MW of offshore wind by 2027. (See *Massachusetts Bill Boosts Offshore Wind, Canadian Hydro*.) In January, New York Gov. Andrew Cuomo proposed the development of 2,400 MW of offshore wind generation off Long Island by 2030. (See *Cuomo Proposes 2,400 MW of Offshore Wind by 2030*.)

Liz Burdock, executive director of the Business Network for Offshore Wind, says there is a "4.25-GW pipeline" of offshore wind projects in the U.S., large enough to spark a supply chain similar to that in Europe, which has been building utility-scale offshore wind for more than 15 years. The continent boasts 12.6 GW from nearly 4,000 turbines in 10 countries, according to industry group WindEurope.

U.S. developers are looking to utilize the expertise of European offshore wind developers — as well as companies that service U.S. offshore oil and gas drilling — to build capabilities here.

Last week's forum attracted more than 200 companies and labor unions that would like to be part of that supply chain, in addition to university and government researchers and others.



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**"This industry does not exist in the U.S. — it is nascent."**

**Paul Rich, US Wind**