RTO Insider
Your Eyes and Ears on the Organized Electric Markets
CAISO ■ ERCOT ■ ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

ISSN 2377-8016 : Volume 2018/Issue 7
February 13, 2018

# NRG Selling Renewables, Other Assets for $2.8 Billion

*By Peter Key*


NRG's Princeton, N.J., headquarters | *NRG*

NRG Energy on Wednesday said it has agreed to sell several of its businesses in transactions that will bring the company $2.8 billion in cash and take $7 billion in debt off its books.

The deals, which NRG expects to close in the second half of the year, involve its renewables businesses, its interest in NRG Yield and its South Central Generating subsidiary.

The sales, which require numerous regulatory approvals, are part of the transformation plan that NRG launched last July in response to pressure from hedge fund Elliott Management and private investment firm Bluescape Energy Partners, which a year ago revealed they owned a 9.4% stake in NRG and said they believed its shares were "deeply undervalued and that there exist numerous opportunities to significantly increase shareholder value, including operational and financial improvements as well as strategic initiatives."

NRG expects to announce more sales over the course of the year and is revising its total asset sales cash proceeds target under the plan to $3.2 billion.

Global Infrastructure Partners (GIP) agreed to buy NRG's controlling stake and 46% interest in NRG Yield, as well as its renewable development and operations and maintenance businesses, for $1.375 billion in cash.

GIP is a $40 billion private equity fund that "makes equity investments in high quality

Continued on page 37

# ISO-NE Capacity Prices Hit 5-Year Low

*By Michael Kuser*

Prices in ISO-NE's Forward Capacity Auction sank to a five-year low on a surplus of available resources, the RTO said Thursday.

The preliminary clearing price in Feb. 6's 12th FCA for the 2021/22 commitment period dropped 13% to $4.63/kW-month, its lowest level since 2013. Last year's auction cleared at $5.30.

Nearly 34,830 MW were acquired in the auction — 1,105 MW more than the target — at a cost of about $2.07 billion, putting the value of the auction $330 million below last year and about half the level of FCA 9.

Resources totaling 40,612 MW qualified to participate in the auction, including 35,007 MW of existing capacity and 206 new resources totaling 5,605 MW.

FERC accepted ISO-NE's informational filing for FCA 12 last month, rejecting protests from CPower and Tesla, which sought to compel the RTO to re-evaluate the renewable technology resource designation for six solar projects, and from Efficiency Maine Trust, which challenged the methodology for calculating existing capacity qualification values. (See FERC OKs ISO-NE FCA 12 Filing; Rejects Protests.)

Continued on page 12

# MISO Awaits FERC Following Remand on Tx Upgrade Funding

*By Amanda Durish Cook*

MISO says it will await a FERC decision after a D.C. Circuit Court of Appeals panel vacated a series of commission orders that allowed new generators in the RTO to self-fund network transmission upgrades.

In a 2-1 vote Jan. 26, Judges David Tatel and Laurence Silberman said the commission had failed to consider the arguments of Ameren and five other transmission owners who complained the policy forced them to accept "risk-bearing additions to their network with zero return." The TOs argued that they essentially act as "nonprofit managers" of network "appendages," and that under the Federal Power Act and the Constitution, FERC cannot force them to construct and operate generator-funded network upgrades.

The case was handed back to FERC on

Continued on page 39

## Also in this issue:

RTO Insider

CAISO ERCOT ISO-NE MISO NYISO PJM SPP

**Editorial**

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

Deputy Editor / Senior Correspondent
Robert Mullin 503-715-6901

Production Editor
Michael Brooks 301-922-7687

Contributing Editor
Peter Key

**CAISO/West** Correspondent
Jason Fordney 571-224-8960

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

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

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

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

**Subscriptions and Advertising**

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

Account Executive
Marge Gold 240-750-9423

Marketing Assistant
Ben Gardner

**RTO Insider LLC**
10837 Deborah Drive
Potomac, MD 20854
(301) 299-0375

Subscription Rates:

| Payment Frequency | PDF-Only | PDF & Web |
|---|---|---|
| Annually: | $1,350.00 | $1,650.00 |
| Quarterly: | 380.00 | 475.00 |
| Monthly: | 150.00 | 175.00 |

See details and Subscriber Agreement at rtoinsider.com.

# IN THIS WEEK'S ISSUE

## Gulf Coast Power Association MISO South Conference

# Powelson, Regulators Talk Resiliency, Slam DOE NOPR

*By Rich Heidorn Jr.*

NEW ORLEANS — Regulators from Arkansas, Mississippi and Louisiana competed last week to heap scorn on Energy Secretary Rick Perry's bid to boost coal and nuclear plants while praising FERC's rejection of the Notice of Proposed Rulemaking.

The remarks came during a panel discussion with FERC Commissioner Robert Powelson at the Gulf Coast Power Association's MISO South regional conference Feb. 8.

"When the administration chooses to protect coal — and omits the major fact that gas produced by fracking competes with coal — it's political malpractice that puts my ratepayers at risk," said Republican Ted Thomas, chair of the Arkansas Public Service Commission and the Organization of MISO States. "And it hacks me off."

"A lot of time we [on the Louisiana Public Service Commission] don't all agree," said Commissioner Mike Francis, a Republican. "This particular issue gave us quite a bit of heartburn, and we unanimously objected."

Louisiana regulators and the Mississippi Public Service Commission filed joint comments with FERC in October saying Perry's proposal was based on unsupported conclusions, would harm ratepayers, undermine competition and intrude on state jurisdiction.

"This is hypocrisy run amuck," said Mississippi PSC Chairman Brandon Presley, the lone Democrat on the panel. "How long have we been hearing about 'Let's make these decisions on the local level, get big government out of our lives.' … And all of the sudden, in 15 days we're supposed to upend the markets.

"I represent the poorest counties in the poorest state in the United States of America, and they don't need this type of deal," he continued. "They don't understand why they should prop up an industry."

Powelson said the stakes for FERC were clear when the commission voted unanimously to reject the NOPR and create a new docket to examine grid resiliency. (See [FERC Rejects DOE Rule, Opens RTO 'Resilience' Inquiry].)

"We either stand for … organized markets and the rule of law, or we don't," Powelson said. "We stood our ground, demonstrated to everyone in this room that regulatory certainty is alive and well at 888," a reference to the address of FERC headquarters.

Left to right: Arkansas PSC Chair Ted Thomas, Mississippi PSC Chair Brandon Presley, FERC Commissioner Rob Powelson and Louisiana PSC Commissioner Mike Francis. | *© RTO Insider*

Powelson criticized some fuel partisans for "creating a lot of hysteria" in questioning the reliability of natural gas generation.

"I had to correct someone in my office [who said] that gas is not a baseload resource," he said. "Now if you say that in Louisiana or Texas or Pennsylvania, they're fighting words."

### 'Black Swan' Events

Thomas said planning for high-impact, low-frequency "black swan" events is "one of the most difficult things to rationally deal with."

"There should be regional differences with respect to this because different regions have different threats. Minnesota doesn't need to pay a bunch of money for [protection from] hurricanes. California doesn't need to pay a bunch money for [protection from] tornadoes," Thomas said. "If you're in the ice cream business, you have a different view than [if] you're in another business. And to me this is the one place where microgrids actually make some sense — that if people need extra reliability then they can come up with a way to pay for it without changing the standard for everybody. So, your hospitals and folks that need it — there ought to be ways for them to bear that cost rather than spreading it around."

### Bear: No Resilience Problem in MISO

Speaking earlier, MISO CEO John Bear said the RTO is still developing its response to FERC, but it doesn't expect major changes because state regulators and RTO members have ensured resilience through integrated resource planning.

"We don't have a resilience problem. … We're in a really good position right now as a region because of the hard work those folks have done. So I don't think they need to come in and put anything in that's significantly different from what we have today."

However, Bear said MISO and its neighbors should improve their seams coordination to help the grid when it is "under stress" from severe weather.

"How those seams operate, the seams agreements and the way we use transmission, the way we dispatch between us … I think that's the area where we really need to focus so that we're all working together when those situations occur, as opposed to everybody's looking inside their own tent and maybe working against each other."

### Tipping Point for Renewables?

In response to a question, Powelson said FERC may have to consider whether state renewable portfolio standards, subsidies for nuclear plants and incentives for offshore wind could reach a "tipping point" and begin to undermine wholesale markets.

"If you would have told me that a combined cycle gas plant with a 6,600 heat rate is facing problems in a market like California with renewables ramping up and that gas resource being dispatched [down] and not being able to handle marginal costs in that market, I would never have imagined that scenario," Powelson said. "So it is something that is on our radar screen. … Over the next five years I think there will be some friction points going forward for us."

Powelson also said the commission should reconsider whether capacity market incentives are properly designed. "Is a three-year [forward] capacity auction like PJM — does that really incent an investment, or should we be looking out five years in that construct?" he asked. "That's a debate that I've teed up within the [FERC] building."

## Gulf Coast Power Association MISO South Conference

# Overheard

NEW ORLEANS — Competitive transmission, hurricane forecasts and maximum generation alerts were among the topics at the Gulf Coast Power Association's MISO South regional conference Feb. 8. Here's some of what we heard.

Judith Curry, president of the Climate Forecast Applications Network, addresses the conference. | © RTO Insider

### Bear Bullish on Hartburg-Sabine Project

MISO CEO **John Bear** predicted the Hartburg-Sabine Junction market efficiency project will produce better than a 1.35:1 benefit-cost ratio, although he acknowledged it did not have "broad" stakeholder agreement.

"I do think it's the right answer. I think it really does help us with our reliability issues in the South, with load pockets; making sure that we can support the growth that we need from an economic standpoint, from a reliability standpoint, from a resiliency standpoint. It checks all those boxes."

The RTO issued a solicitation for competitive bids on the estimated $130 million, 500-kV project in eastern Texas last week. (See related story, *Hartburg-Sabine Tx Project Open for Bids*, p.18.)

GCPA Executive Director **Tom Foreman** asked Bear why there hasn't been more transmission built through MISO to deliver SPP's growing wind generation to the east.

"The economics have to be right for both parties," Bear responded. "There's a lot of analysis underway to look at that, but we've got a lot of work to do to make sure it makes the most sense. With the amount of wind that's on the system today and low gas prices, more wind doesn't necessarily lower LMPs.

"Trying to understand how to operate [the SPP] seam reliably and efficiently is also really important," Bear added. "We don't have as mature a relationship working with SPP on that seam because it hasn't been [there] as many years" as MISO's seam with PJM.

### Moving Beyond the 'Cone of Uncertainty'

Chris Hebert, TropicsWatch manager for StormGeo, said the "cone of uncertainty" developed about 15 years ago to forecast hurricanes' paths is no longer the state of the art.

Hebert explained that the cone is actually constructed by joining the edges of a series of circles, each representing a 67% probability of the storm passing through. As forecasting has improved, the cones have gotten narrower.

But that can lead to dangerous complacency, he said, noting that Hurricanes Katrina (2005), Ike (2008), Joaquin (2015), Matthew (2016) and Harvey (2017) strayed outside their predicted paths. "Being outside the cone doesn't mean you're safe," he said.

Hebert said a consensus of models is better at indicating the current uncertainty and potential impact of storms.

Judith Curry, president of the Climate Forecast Applications Network, said she used "ensembles" of models and Monte Carlo sampling to help Florida Power & Light preposition utility crews before Hurricanes Hermine (2016), Matthew and Irma (2017).

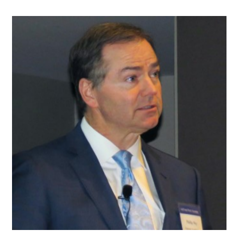
Curry said it's too early to blame climate change for affecting either storm intensity or frequency. "It's impossible to separate what might be global warming from natural variability," she said, adding that data on warming's impact on storms are unlikely to be clear until about 2050.

The consensus is that warming will cause an increase in storm intensity — including more Category 4 and 5 hurricanes — but that the overall number of tropical cyclones will decrease, Curry said. "If those predictions are true, we may have smaller overall impacts from hurricanes later in the century. But this is all very speculative. The climate models are nowhere near good enough to actually predict this," she said.

**Sallie Rainer**, CEO of Entergy Texas, discussed her utility's response to Hurricane Harvey, which dropped 50 inches of rain in its service territory over eight days in late August and early September, flooding six major substations.

The experience is leading the company to seek more information about local watersheds, she said. "Understanding where those bayous and tributaries will dump the water when we've had 50 inches come in … and being able to lay that over our topology and our equipment [will show] what we need to protect … if we need to raise control houses, put floodwalls up."

### Entergy Talks Tax Savings



**Phillip May**, president of Entergy Louisiana, said the reduction in the federal corporate income tax from 35% to 21% will result in about $100 million

*Continued on page 5*

# Gulf Coast Power Association MISO South Conference

## Overheard

Continued from page 4

in annual savings for the company's customers. "We believe tax reform will have significant and meaningful benefits to our customers," he said.

### Max Gen Events

During a discussion on MISO's maximum generation events in April 2017 and January 2018, Independent Market Monitor **David Patton** reiterated his call for the RTO to exercise more control over the scheduling of maintenance outages.

Patton said an excessive number of planned outages contributed to 22 days of conservative operations in load pockets in spring 2017, including three days of maximum generation alerts in April 2017, which included an April 4 emergency max gen event following the loss of a large nuclear unit in the South during a period of high load.

"It would have been great if we'd started our outages earlier or spread them out, because we had more capacity than we knew what to do with in the peak period and then we scheduled ourselves into an emergency in terms of the outages in March and April," he said. Under its Business Practices Manual, MISO can only "recommend [an outage] schedule that maintains system security and minimizes adverse impacts." (See *MISO South Outages Worry RTO, Monitor*.)

Patton said the biggest problems occur when transmission and generation outages are scheduled simultaneously in the same area. "If you take a major line out of service and then you take a large generator that played a key role in relieving the flows into that area, you can end up with congestion that's very difficult to manage and generates a lot of cost quickly."

Patton, however, said the South would have been in worse shape had it not been part of MISO. "Having MISO operating the integrated region between the South and Midwest increases reliability in both regions," he said.

He recommended that MISO purchase capacity in four seasonal tranches to ensure sufficient generation year-round and give


Panel moderator Bill Mohl listens as Chris Hebert presents. | © *RTO Insider*

resources options on when to accept capacity obligations. Load-modifying resources — demand resources and behind-the-meter generation that provide capacity — shouldn't be summer-only, he said.

Most LMRs called up for the first time in a decade during the April 4 event failed to respond properly to scheduling instructions. (See *4 LMRs Face Penalties after MISO Max Gen Emergency*.)

Richard Doying, executive vice president of operations, said MISO staff are preparing a white paper on whether it should be planning seasonally rather than its traditional focus on the summer peak. He noted that LMRs represent almost 10% of the RTO's fleet.

*— Rich Heidorn Jr.*

## LNG Exporter not Concerned with 'Momentary' Glut

*By Rich Heidorn Jr.*

NEW ORLEANS — The company about to begin construction on a $15.2 billion LNG export terminal is not concerned about fears of oversupply, an official told the Gulf Coast Power Association's MISO South regional conference Thursday.

"It is true that at this point — with new supply coming on in different parts of the world, including the U.S. — there is a momentary glut of LNG," acknowledged Jason French, vice president of government and public affairs for Tellurian. "However, virtually everyone who looks at it [agrees] there is going to be a … shortage of LNG by the middle of the next decade," he said, noting that the number of countries importing LNG has grown to 47 from 29 in the last three years.

French formerly worked for Cheniere, whose LNG export terminal was based on 20-year take-or-pay contracts and $120/barrel oil prices.

"We're starting to see smaller, modular designs. We're not in a $120 oil environment so we have to be more competitive," French said. Tellurian and other exporters are offering portfolios of short-term, mid-term and long-term contracts, he said, as well as taking on equity partners in the projects, unlike the typical 70% debt structure in the first export terminals.

"Sometimes you'll hear negativity about our industry because of this momentary glut in supply. I tell you, people are steering you wrong when they tell you that, because the future is very bright for what we're doing."

Tellurian's Driftwood terminal, on the Calcasieu River, south of Lake Charles, La., is expected to spend $400 million to $500 million in annual operations and maintenance expenses. Tellurian is currently in discussions with electric providers for Driftwood's 167-MW load.

Despite his confidence, French displayed some humility about his predictions, noting that much of Tellurian's management came from Cheniere, which opened its Sabine Pass LNG import terminal — the nation's first import facility — just before the domestic shale gas boom eliminated the need for imports. "We got this wrong once," he said.

David Dismukes, executive director of Louisiana State University's Center for Energy Studies, said capital expenditures in Louisiana and Texas resulting from cheap gas will total $318 billion between 2011 and 2025.

Dismukes said economic theory suggests that U.S. gas prices will rise to the global "proxy" as LNG exports increase, undermining industrial customers who have built new facilities in Louisiana to capitalize on cheap gas as a feedstock. Thus far, however, he said it has been the inverse, with global prices coming down to Henry Hub prices. "That's not to say it's going to be like that in permanency, but at least in the near term, we've seen this test out," he said.

## CAISO NEWS

# CCAs Oppose CPUC Decision, Process

*By Jason Fordney*

California regulators on Thursday approved an order bringing community choice aggregators (CCAs) into the state's resource adequacy (RA) requirements, saying the decision did not come easily.

At the same time, CCAs and their supporters are arguing for more transparency and control over RA procurement.

Michael Picker | © RTO Insider

"I just have overwhelming anxiety about the purpose of resource adequacy," California Public Utilities Commission President Michael Picker said, addressing a crowded hearing room at commission headquarters in San Francisco after a public comment period. "It seems as if people have forgotten the energy crisis of 2001 and 2002."

The State Legislature authorized the creation of CCAs in 2002 in response to the energy crisis, allowing local governments to directly contract for energy services to serve their residents. CCAs did not begin appearing until 2010 but have since grown rapidly.

Until now, CCAs have avoided the requirement to carry RA reserves, even as they've taken on a greater share of California load. Instead, customers of investor-owned utilities have been left with stranded costs because of the timing of load forecast submissions and RA allocations, in some cases procuring RA for customers about to be served by CCAs. Cost-shifting can run into the tens of millions of dollars annually, the CPUC said.

Picker struck an assertive tone on the RA issue, saying that grid reliability is at stake as procurement of electricity disaggregates through CCAs, which he's unsure could meet critical grid needs.

"It really makes me nervous and it makes me wonder if people are really prepared to embrace this opportunity to serve as [load-serving entities]," Picker said, adding that the CPUC made reasonable efforts to accommodate the concerns of CCA supporters.

The CPUC made changes to its initial RA proposal in response to written comments, including extending the deadline for CCAs to submit their RA implementation plans until March 1 in order to allow several of them to begin serving their new customers in 2019. The CPUC also created two waiver options, one in which CCAs and IOUs can agree on the CCA's RA requirements and cost responsibility, and another stipulating that if agreement was not reached, the CCA agrees to be bound by a future CPUC determination in the RA proceeding regarding its RA cost responsibility.

Many of the more than 40 registered speakers attending the CPUC hearing were there to speak against the CCA ruling. West Hollywood City Councilmember Lindsey Horvath told the CPUC that CCA customer energy costs must be determined in a fair and open process.

"How can we properly determine our fair share without access to contracts we're being asked to account for?" Horvath asked. "We are glad to see the direction the commission is moving with in the current form of its resolution, but we're not there yet."

The CPUC introduced the proposal in December with a comment period near the holidays, leaving CCA representatives saying the expedited order did not give them time to provide input. (See *California Proposes Resource Adequacy Obligations for CCAs*.) Other proponents said it would delay CCA creation and slow achievement of climate goals. CCAs have grown rapidly and are popular as a way for localities to take control of energy consumption, with many marketed as green energy options.

But Picker said that if the decision delays the implementation of CCAs, "we are just going to have to live with that." The consequences of having grid failure "can wipe the slate clean," he said, again invoking the reliability crisis of the early 2000s.

Commissioners appeared sympathetic to CCA supporters, but Martha Guzman Aceves said that issues with the RA program have led to more procurement of natural gas generation.

"This is a problem to reaching our climate goals," she said. "This is actually an environmental justice issue for me." She added that, "Sometimes we don't use the best process, I totally acknowledge that. But we need to deal with this problem now."

"There has got to be good dialogue, there has to be trust," Commissioner Carla Peterman said. "The last thing I want is to exacerbate tension between the CCAs, the utilities and the commission."

The CPUC has also targeted reliability-must-run payments from CAISO to Calpine for natural gas units, another result of the RA problems. (See *CPUC Targets CAISO's Calpine RMRs*.) State lawmakers last summer also heard from IOUs that CCAs have left their customers with stranded costs, a hearing at which Picker also appeared. (See *California CCAs Spur Worry of Regulatory Crisis*.)

In its order, the CPUC said: "Numerous commenters assert that the resolution violates their due process rights. We disagree. The changes in the CCA timeline made by this resolution are an exercise of authority the commission has had since 2002."

### Decision Adopts IRP Process

Another decision approved by the CPUC on Thursday sets RA requirements for all California LSEs. It institutes a two-year integrated resource planning process including electrical cooperatives, IOUs, CCAs and electric service providers.

The decision also recommends the state's Air Resources Board adopt a greenhouse gas emissions target for the electric sector of 42 million metric tons by 2030, a 50% reduction from 2015 levels.

### CPUC Delays Gas Moratorium Vote

In other items on the CPUC decision list, the commission tabled a proposal to require Southern California Gas to enact a moratorium on new commercial and industrial natural gas connections in Los Angeles County because of supply issues.

The CPUC said that while conservation measures by customers in response to the Aliso Canyon storage facility have helped, "significant new reliability challenges on the SoCalGas system exist due to a series of major unplanned outages and maintenance issues. The Los Angeles region faces greater uncertainty than a year ago with respect to the ability of SoCalGas to meet customer demand this winter."

## CAISO NEWS

# EPIC Interest Growing Rapidly in California

By Jason Fordney

SACRAMENTO, Calif. — Nearly 600 people crowded into the California Energy Commission's EPIC Symposium on Wednesday, doubling attendance from last year.

It was a testament to the widespread interest in securing the hundreds of millions of dollars in grant funding California makes available to research and deploy innovative energy technologies.

Funded through a charge on utility electric bills, the CEC's Electric Program Investment Charge program was designed to provide $162 million annually from 2013 to 2020 to bring innovative technologies to market. The California Public Utilities Commission created the initiative in December 2011 to promote clean energy technologies, reliability, lower costs and safety. About $130 million of the annual funds are administered by the CEC.

State Sen. Nancy Skinner (D) told a packed room that the EPIC program is a way to explore and develop energy storage technologies that can reduce the curtailment of renewables and foster other efficiency improvements.

"We want to wrestle every bit of output from each unit of electricity or energy we produce," Skinner said, discussing how her 2010 legislation, AB2514, fostered storage deployment by requiring the CPUC to consider mandating storage procurements for investor-owned utilities. "IOUs bought more storage and the price of storage came down. We want it to come down further."

State Sen. Nancy Skinner | © RTO Insider

"EPIC has contributed to the development of numerous green technologies and facilitated the creation of thousands of jobs," State Assemblymember Autumn Burke (D) said.

The CEC marked its third iteration of the EPIC program when it submitted its 2018-2020 Triennial Investment Plan last spring. The document lays out in detail the commission's strategy over the three-year period for allocating the funds provided through EPIC, promising more coordination with local governments and enabling market growth of distributed energy resources.

| © RTO Insider

"When we look at EPIC 3, we are really kind of thinking of that next generation of grid technology," said Daniel Ohlendorf, Pacific Gas and Electric's senior manager of electric emerging technologies.

"Electric vehicles and storage continue to be very important to us," he said, as well as new maintenance approaches using new technologies such as augmented reality (computer-generated imagery) and drones.

Utilities at the symposium also discussed the growing pains associated with implementing storage technology. PG&E's Morgan Metcalf described the challenges of behind-the-meter implementation.

"Figuring out how to use all these resources is an important next step," Metcalf said. "It's not just policy that is driving this, it is our customers as well." She added that PG&E customers are increasingly exploring solar, electric vehicles and energy efficiency.

Southern California Edison, Lawrence Berkeley National Laboratory, the University of California Berkeley and a diverse group of companies and energy organizations also held panel discussions at the symposium, with a strong focus on engineering issues, new technologies and applications such as food production.

### Feb. 20 Deadline

The EPIC program is actively soliciting applications for a $15 million "Bringing Rapid Deployment to Green Energy" grant, which includes $10 million in applied research and development and $5 million for technology demonstration and deployment. Open until Feb. 20, the CEC developed the solicitation to provide follow-on funding for "the most promising energy technologies" that have previously received an award from an eligible state or federal agency for research, technology demonstration and deployment.

"The purpose of this solicitation is to fund applied research and technology demonstration and deployment energy efficiency projects that will allow researchers to continue their technology development without losing momentum or pausing to fundraise from private sources," the CEC said. The grant is focused on advancing technology to commercialization, and is not open to public and private universities, national laboratories, utilities, private nonprofit research organizations and technology end users.

## CAISO NEWS

# Peak, PJM Pitch 'Marketplace for the West'

*By Jason Fordney*

Peak Reliability and PJM Connext last week refined their pitch to attract participants to a new Western energy market, saying they envision "a marketplace built by and for the West."

"We sense, and we have heard, some people saying it's coming down to the time for some choice in markets in the West again," PJM Connext's Fran Barrett said during a Feb. 6 meeting and conference call hosted by Peak. He added that PJM is "heavily, heavily focused on the bottom line."

Barrett emphasized PJM's experience operating a 13-state market in the East and indicated a focus on reliability, self-governance and providing options for various market structures for potential participants. Officials from the organizations provided more detail on how the new Peak/PJM market would coordinate with other market and non-market areas, including possible congestion management practices.

PJM Connext is a PJM subsidiary focused on consulting and market services, software licensing and sales. Peak and PJM first described their joint market initiative in January. (See *Peak, PJM Detail Western Market Proposal*.) In a presentation last Tuesday, they laid out three possible market options "customized to the needs of participants," each of which includes a nodal real-time market, day-ahead market, financial transmission rights, integrated settlement and credit management. Settlement would be based on PJM's structure, modified for the West, with a central counter-party structure and weekly billing.

### Interregional Coordination Proposed

Peak and PJM also provided more detail about how their proposed market would coordinate with other areas in the West. Their goal is to implement the market in two phases, the first using an "enhanced curtailment calculator" tool in a process comparable to the transmission loading relief procedure used in the Eastern Interconnection.

A second "market-to-market" phase would be more complex and similar to how PJM conducts coordination with MISO and NYISO. In those cases, the RTOs use combined redispatch as a joint congestion management tool for greater efficiency, and costs are allocated between RTOs based on transmission flows and negotiated historical rights.

Barrett said Peak and PJM did not know exactly what minimum size footprint or configuration would be necessary to make the proposal work, noting they were gathering data to study the issue.

"We haven't modeled in the Swiss cheese or the string cheese or if we will have people all over the place," Barrett said, describing the possible variable shapes of the market's footprint.

Rather than setting out to immediately create an RTO, Peak and PJM Connext said they will begin by developing core market functions and evolve from there. They could study the prospect of becoming an RTO based on how market participants weigh in on their proposal, they said.

CAISO recently announced it will depart Peak, become its own reliability coordinator and offer to migrate Peak's current members. (See *CAISO to Depart Peak Reliability, Become RC*.) The ISO also plans to expand its day-ahead market into the Western Energy Imbalance Market, while Mountain West Transmission Group is negotiating to join SPP, setting up possible competition for a new Western RTO. (See *CAISO Bid for Western RTO to Face Competition in 2018*.)

## CAISO News

# CAISO Sees 2017 Revenue Boost

By Jason Fordney

CAISO's operating revenues jumped 4.4% to $214 million last year on the back of increased Energy Imbalance Market (EIM) earnings and an uptick in summer activity.

The ISO reported "true operating income" (operating revenue minus operating expenses) of $47.4 million for the full year, compared with $44.4 million in 2016. True operating income fluctuates throughout the year as a large portion of revenue comes in the summer, when energy demand and prices are higher.

CAISO is a nonprofit corporation that earns the bulk of its revenue from a grid management charge (GMC), composed of market services, system operations and congestion revenue rights charges assessed by the megawatt-hour. The ISO also collects other charges and fees, including those for trades between scheduling coordinators. It additionally operates the EIM.

Including depreciation and amortization, CAISO's fourth-quarter report showed a $6.9 million net operating income "loss," but spokesman Steven Greenlee said that is "merely an accounting outcome."

"The level of net operating income has no effect on our cash flow, budgeting or grid management charges," Greenlee told *RTO Insider*.

CAISO collected $47.3 million of its operating revenue from its GMC in the fourth quarter, up from about $45.8 million the previous year. Other operating revenues totaled $4 million during the last quarter. GMC revenue for 2017 grew by 3% to $198.3 million and was higher than what CAISO had budgeted.

### August Sees Highest Take

CAISO's gross market revenues for all services going through the ISO market peaked at $1.2 billion in August, the period of highest summer demand and when the ISO dealt with the impact of the solar eclipse on solar generation. (See *Grid Operators Manage Solar Eclipse*.) Revenues fell to their lowest in February, at slightly more than $500 million.

The gross revenue figure represents the total value of all energy transactions and related services included on ISO invoices. CAISO recoups its costs through the GMC, which is a small component of these overall market revenues, the ISO said.

### Q4 Expenses Grow

The ISO's fourth-quarter operating expenses were $51 million, up about 16% from the same period a year earlier. Expenses include salaries and benefits to employees, building and facility costs, insurance, outside contractors, legal and auditing services, training, travel and professional dues.

CAISO's expenditures for consulting and contracting services grew by $2.9 million quarter-over-quarter to $7.2 million. Third-party vendor contracts rose from $2.6 million to $3.5 million between the same two periods.

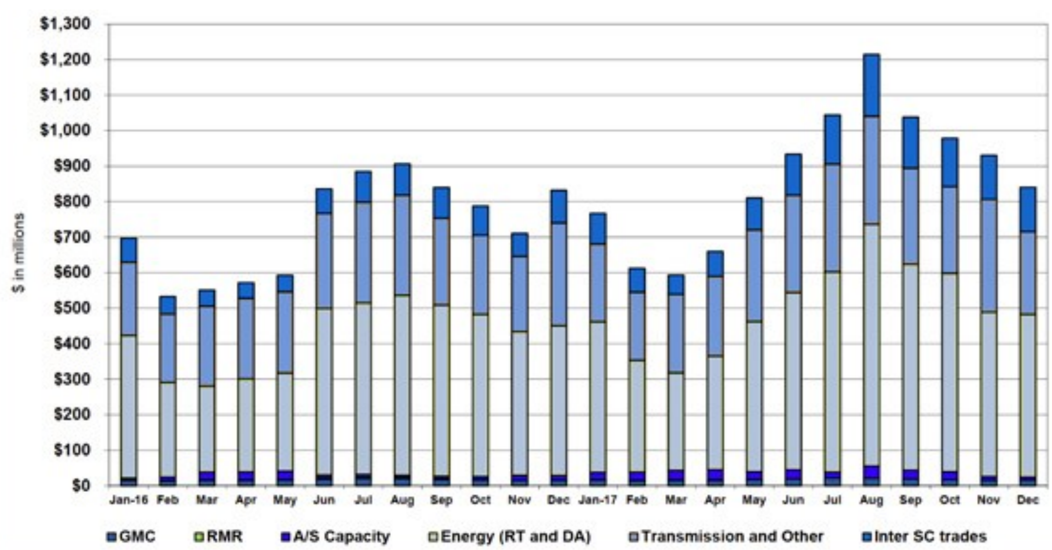
While expenses grew, they were $7.1 million less than CAISO had budgeted for the year. The ISO cut salaries and wages by about $1 million quarter-over-quarter and had lower "building, leases and facilities" costs, and lower legal and auditing expenses. The ISO cut three full-time positions in 2017, leaving the headcount at 599.

### Revenue Exceeds Budgeted Level

Fourth-quarter operating revenues exceeded the budget by $7.5 million, mostly because of EIM administrative charges and forecasting fees beating projections, the ISO said.

CAISO's Corporate Management Committee approved $19.5 million in projects last year to increase electric system performance and to meet FERC mandates, the ISO said. These include market improvements, technology, customer service, grid readiness and other funds.

The ISO on Jan. 3 had $1.9 billion in collateral from market participants to support $294 million in aggregate liabilities in the market.




CAISO monthly market revenue 2017 (GMC: grid management charge; RMR: reliability-must-run; A/S: ancillary services; RT: real time; DA: day ahead; SC: scheduling coordinator) | *CAISO*

**Connect with us on your favorite social media**

## ERCOT NEWS

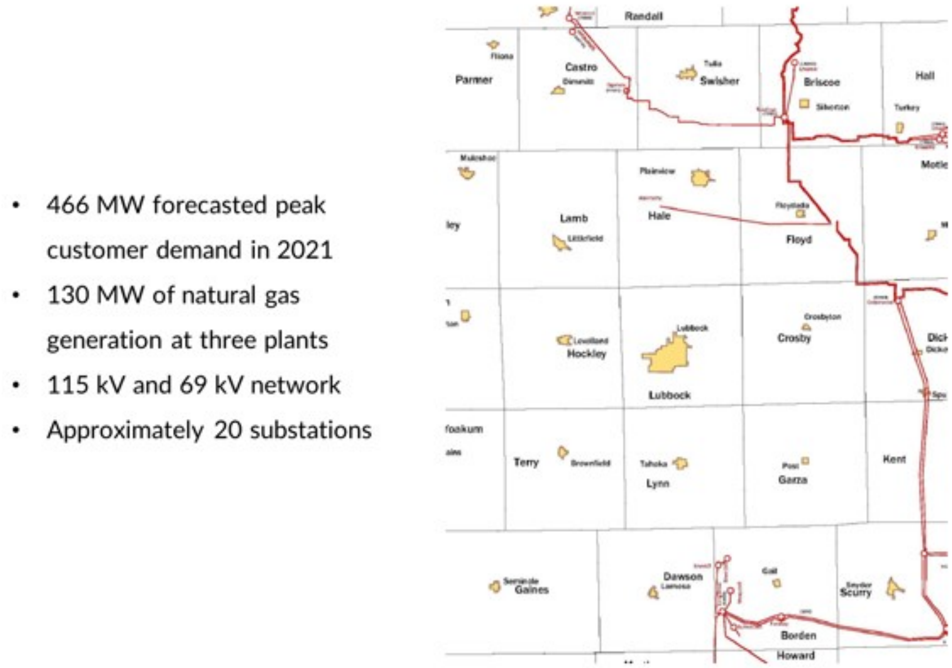
# Lubbock Council, Utility Board Approve LP&L Settlement

By Tom Kleckner

Lubbock's City Council and Electric Utility Board last week both approved a settlement agreement with all parties involved in Lubbock Power & Light's effort to move 470 MW of its load from SPP to ERCOT.

The agreement, with 10 intervenors from both systems, was approved unanimously in separate votes. Following the board's vote, LP&L on Thursday filed the stipulation and proposed order with the Public Utility Commission of Texas for its consideration. The PUC is scheduled to take up the issue during its Feb. 15 open meeting (Docket No. 47576).

Under the agreement's terms, LP&L will make a $24 million hold-harmless payment to Southwestern Public Service, which serves the utility's load through a pair of long-term contracts, upon the transition's effective date (targeted for June 1, 2021). The utility will also make five annual payments of $22 million, credited to ERCOT's transmission customers in compensation for integration costs, and has committed to opting into the Texas ISO's competitive market.

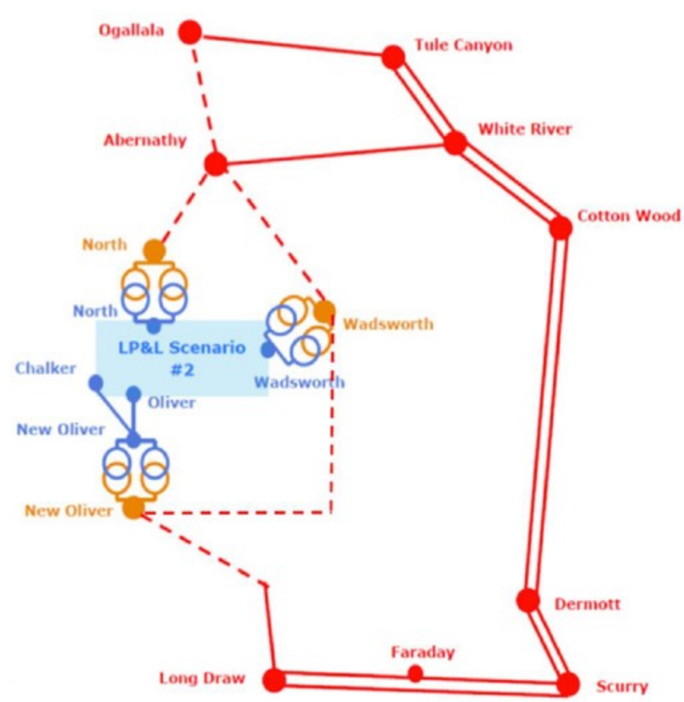



Lubbock Power & Light system map | *ERCOT*

LP&L said it expects to achieve annual savings exceeding the two payments.

"The agreement … sets Lubbock on the best possible path forward that saves their ratepayers money and opens the door to retail electric competition in Lubbock," the utility said in a statement.

The only issue left to decide is what entity will build the transmission facilities linking LP&L with ERCOT. The parties signing on the settlement agreement, which include PUC staff, SPS and several consumer groups, have recommended moving forward with a project already identified by ERCOT. A pair of independent transmission companies, Cross Texas Transmission and Wind Energy Transmission Texas, are urging the PUC to open the construction to competitive bidding.




ERCOT's preferred "Option 4ow" for integrating LP&L | *ERCOT*

ERCOT in 2016 said its preferred solution was "Option 4ow," a $364 million project that would result in 141 miles of new 345-kV lines. Staff last week said a competitive bidding process would "consume time and commission resources" not needed if the PUC simply followed ERCOT protocols, which provide "a suitable guide in this unique situation." (LP&L is not yet registered in the ISO and therefore not covered by its protocols.)

Cross Texas said it envisions a competitive bidding process, conducted by the PUC, that could be accomplished in about 90 days.

LP&L formally announced in September its intention to move after one of its SPS contracts expires in 2021. A second SPS deal that expires in 2044 serves the remaining 130 MW of its load.

The PUC conducted two days of hearings on the matter in January. (See *Texas Regulators Noncommittal After LP&L Hearings*.)

## ERCOT NEWS

# Vistra Balks at Divesting 1,281 MW in Dynegy Merger

*By Tom Kleckner*

The staff of the Texas Public Utility Commission last week recommended that it require Vistra Energy and Dynegy to divest at least 1,281 MW of generation to secure approval of their merger.

Vistra's power generation subsidiary, Luminant Generation, challenged the staff recommendation, assuring the PUC that market power would not be an issue (Docket No. 47801).

PUC staff filed the recommendation on Feb. 5, calling for approving the merger conditioned on Vistra and Dynegy divesting themselves of enough Texas generation to stay below the statutory cap of 20% of ERCOT installed capacity.

Staff said the two companies exceeded the limit because Dynegy owns 820 MW of generation in the Eastern Interconnection "capable of delivering electricity to ERCOT" over DC ties. Staff ruled that capacity should be included in Luminant's market share calculation.

Together, Luminant and Dynegy own almost 18 GW of generation in Texas. Dynegy also owns 21.6 GW outside the state that isn't deliverable to ERCOT. Including the 820 MW of generation deliverable over the DC ties would give the companies 21.46% of the Texas ISO's capacity.

Staff said in their memo that Luminant and Dynegy have committed not to import power over the DC ties. However, they said, the arrangement "fails to satisfy the statutory language, because a commitment on [their] part to not import power … does not negate their capability of doing so."

In its response filed Friday, Luminant asked the PUC to exclude the 820 MW, based on the entities' commitment to not import power. The generation firm said a "reasonable mitigation" would be acceptance of the companies' commitment not to import power and allow the transaction to close without any divesting generation.

Luminant also requested its 915-MW Lake Hubbard gas-fired plant be excluded from the market power analysis, saying it was grandfathered as part of a 2000 agreement with the PUC (Docket No. 28081).

The company told the commissioners it is working with staff on a proposed order. The PUC has an open meeting Feb. 15, but the agenda has not yet been posted.

In their filing, staff recommended several changes to the proposed transaction:

- Divesting the generation should the commission find the combined installed capacity exceeds the 20% cap;
- Termination of a 2015 voluntary mitigation plan (Docket No. 44635);
- Self-monitoring compliance with the cap;
- Filing quarterly compliance reports for two years or until the combined company falls below 18.5% of ERCOT's total; and
- Filing a written report with the PUC within 30 days on noncompliance with the 20% cap.

Vistra announced its $1.7 billion acquisition of Dynegy in October. The all-stock deal will create a generation and retail giant owning 40 GW of capacity and serving nearly 3 million customers, mainly in ERCOT, PJM and ISO-NE. The proposed acquisition requires regulatory approvals from FERC, the PUC and the New York Public Service Commission. (See *Vistra Energy Swallowing Dynegy in $1.7B Deal*.)

## ISO-NE News

# ISO-NE Capacity Prices Hit 5-Year Low

*Continued from page 1*

### Zone by Zone

Like last year, the most recent auction saw the region divided into three zones: Northern New England (NNE), comprising Vermont, New Hampshire, and Maine; Southeast New England (SENE), composed of Southeastern Massachusetts, Rhode Island, Northeastern Massachusetts and Greater Boston; and Rest of Pool (ROP), made up of Connecticut and western and central Massachusetts. System planners modeled NNE as export-constrained and SENE as import-constrained.

Some existing resources dropped out during last week's auction when prices fell below the level needed to justify carrying the risks of a capacity supply obligation, prompting the RTO to conduct reliability reviews on about 2,775 MW seeking to delist.

The reviews indicated "that transmission lines in a particular sub-region could be overloaded in extreme summer weather, jeopardizing reliability, if about 1,300 MW of submitted delist bids were not available," Robert Ethier, ISO-NE vice president of market operations, said in a statement. "The ISO will address that potential reliability risk by retaining the resources for the 2021-2022 capacity commitment period. All other delist bids, including other bids in that sub-region, were accepted."

FCA 12 closed for most resources after four rounds of competitive bidding. The $4.63/kW-month clearing price will be paid to all resources in all three capacity zones in New England, 524 MW of imports from New York and 57 MW from one interconnection with Quebec.

Imports over two other interconnections from neighboring regions, Quebec and New Brunswick, continued into a fifth round, which closed at $3.70/kW-month for 442 MW from Quebec and $3.16/kW-month for 194 MW from New Brunswick.

### New and Old

No new large generators cleared in the auction, but included in the 174 MW of new generation that did clear is a new 58-MW natural gas unit and 87 MW of increased generating capacity at some existing power plants, the RTO said.

ISO-NE also noted that 3,600 MW of energy-efficiency and demand-reduction measures cleared the auction, including 514 MW of new resources —the equivalent of a large power plant. Also clearing were 1,217 MW in total imports from New York, Quebec and New Brunswick.

Bridgeport Harbor 3 | *PSEG*

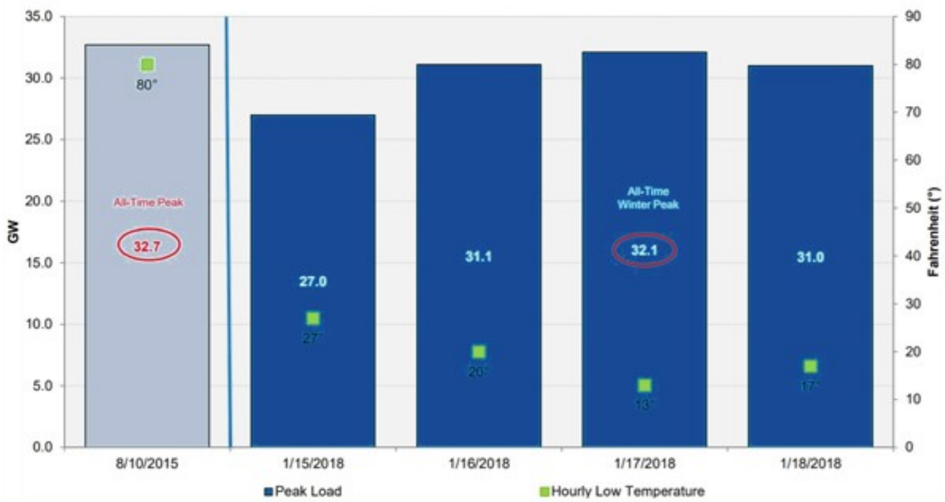
In total, 132 MW of wind and 86 MW of solar facilities cleared FCA 12, including 1 MW of new wind and 21 MW of new solar facilities. Most photovoltaic resources in the region are on the distribution system and don't participate in the wholesale markets.

Retirement bids that were submitted and accepted before FCA 12 totaled 511 MW of resources, including one large generator — the 383-MW Bridgeport Harbor 3 coal-fired unit. The RTO will file final auction results, including resource-specific information, with FERC later this month.

## MISO NEWS

# Reliability Steady During Southern Cold Snap, MISO Says

*By Amanda Durish Cook*



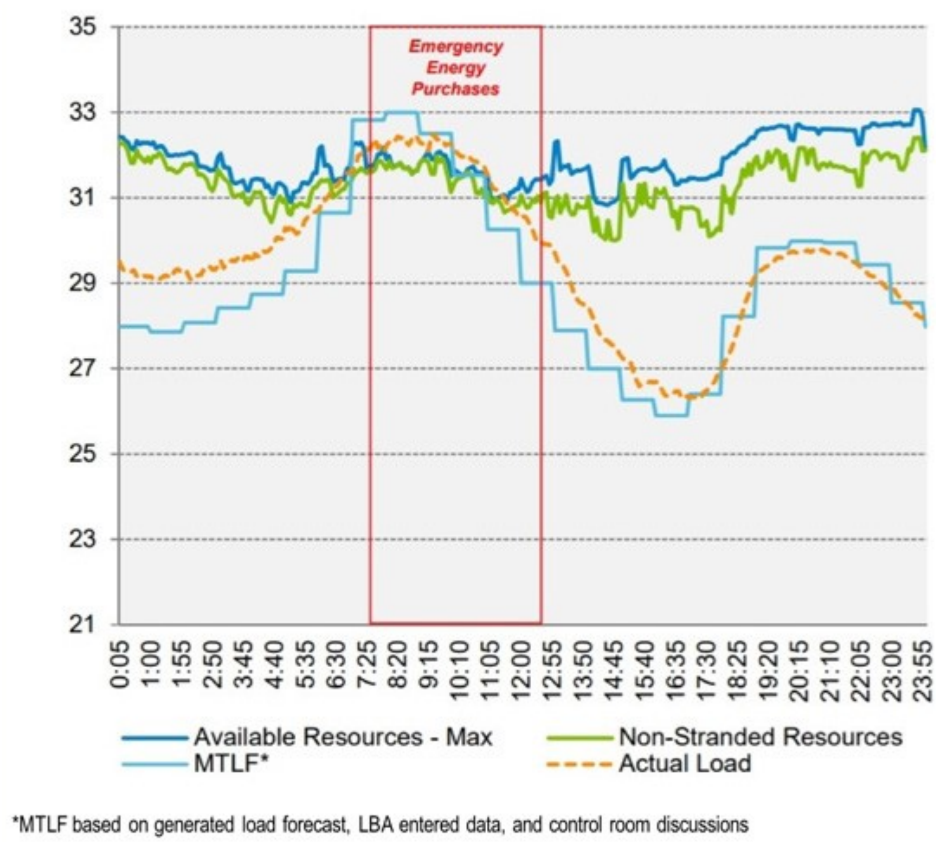

Peak load and low temperatures for MISO South | *MISO*

CARMEL, Ind. — MISO maintained reliable operations in its South region during a record January cold snap that saw the area's peak loads approach summertime highs, the RTO said last week.

Tim Aliff, MISO director of system operations, provided a post-mortem of the event at a Feb. 8 Market Subcommittee meeting. He recounted that a second blast of arctic air hit MISO South in mid-January, less than two weeks after extreme cold had gripped most of the RTO's footprint and sent peak demand well above 100 GW. (See *MISO Breaks down Recent Cold Snap*.)

Uncharacteristically frigid weather prompted MISO to initiate a maximum generation alert for the South region for Jan. 17-18, when the region's peak loads were hovering above 31 GW. With low temperatures averaging 13 degrees Fahrenheit on Jan. 17, MISO South's peak load hit 32.1 GW, just short of the region's all-time high of 32.7 GW set in August 2015.

Throughout the day on Jan. 17, MISO South temperatures remained about 20 to 25 degrees lower than normal. MISO committed all available resources in the region, compelling load-serving entities to make emergency energy purchases from neighboring balancing authorities between about 7:25 a.m. and 12:55 p.m., with purchases topping at about 1.1 GW around 8 a.m. Aliff said MISO's emergency pricing floors worked as designed when initiated on Jan. 17, with average LMPs spiking just above $1,000/MWh during the peak of buying.




MISO South load and capacity (GW) on Jan. 17 | *MISO*

MISO South analysts also reported about 17 GW of generation outages and derates that day, including nearly 10 GW in forced generation outages, further stressing the region's system, Aliff said. By then, Louisiana and the Gulf Coast were ensnared in what the Weather Channel would dub Winter Storm Inga.

MISO asked for South utilities to undertake load management measures, prompting Louisiana state regulators to question the need for conservation. (See *Louisiana Regulators Question MISO South Max Gen Event*.) MISO South has no registered emergency demand response resources within its boundaries.

Aliff said MISO will continue to review the event to determine what process improvements it could make as it heads into summer, when more emergency conditions are likely to occur. He said MISO has yet to analyze the load-modifying resource performance in MISO South during the weather event.

## MISO NEWS

# MISO Monitor to FERC: Order Sloped Demand Curve

*By Amanda Durish Cook*

MISO's Independent Market Monitor is seeking to use the RTO's recent refiling of its resource adequacy construct to force a FERC ruling on changing its capacity demand curve.

In an out-of-time Feb. 8 protest, the Monitor contends MISO's use of a vertical demand curve in its annual Planning Resource Auction is a "critical design flaw" that results in "inefficient, unjust and unreasonable prices" (ER18-462).

On Dec. 15, MISO pre-emptively refiled its entire resource adequacy construct — Module E of its Tariff — following a D.C. Circuit Court of Appeals ruling that FERC overstepped its jurisdiction when prescribing revisions to PJM's minimum offer price rule. MISO made the filing out of concern that a future ruling could undo some of its resource adequacy rules that were enacted in response to FERC's suggestions. (See *MISO Seeks FERC Reapproval to Keep RA Rules Intact*.)

The filing provided the IMM a venue for forcing a FERC ruling on the sloped demand curve, a change Monitor David Patton has been unable to persuade MISO officials to adopt. Patton asked the commission to accept MISO's filing for the 2018/19 PRA while initiating a proceeding under Federal Power Act Section 206 to force the RTO to make the changes for the 2019/20 PRA.

In 2011, FERC accepted MISO's current resource adequacy rules, which replaced a monthly capacity auction with an annual auction using coincident peak demand forecasts to establish planning reserve requirements (ER11-4081).

FERC directed MISO in 2011 to remove proposed MOPR provisions from its capacity auction construct and instead use a peak load contribution methodology as its default for assigning capacity obligations.

The Monitor said that had MISO relied on sloped demand curve in its 2017/18 PRA, the auction would have cleared at about \$115/MW-day instead of the \$1.50/MW-day price in all zones. (See *All Zones at \$1.50/MW-day in 5th MISO Capacity Auction*.) The higher price would have properly valued the reliability of the capacity, the Monitor claims.

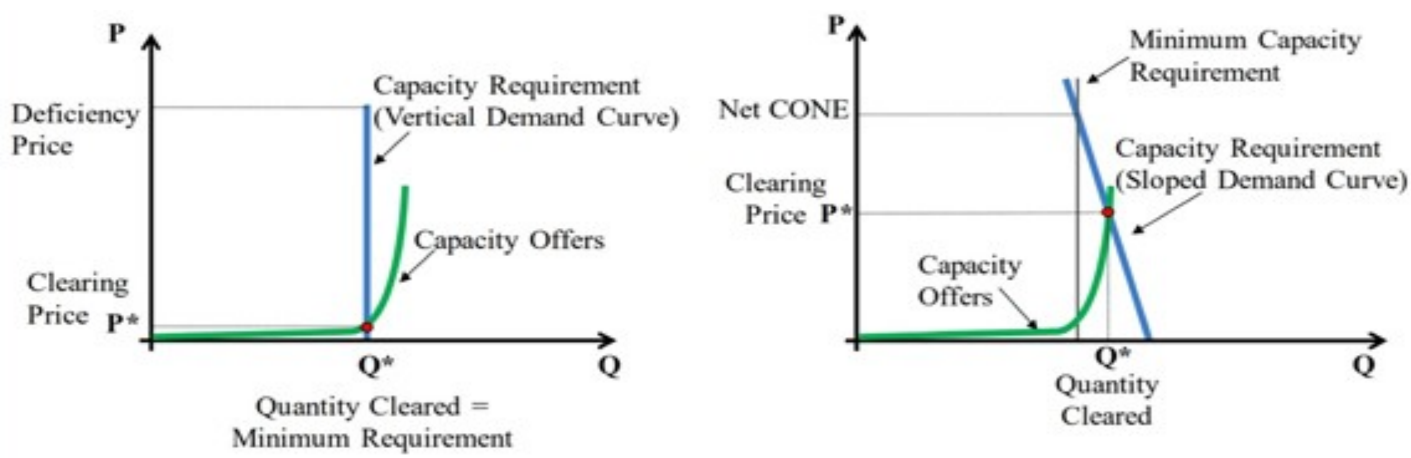
The Monitor said the \$1.50/MW-day clearing price offers suppliers less than 1% of revenues needed to break even on investment in a new peaking resource in MISO. The auction's unreasonably low prices, Patton said, cannot support new investment "at levels that would satisfy the one-day-in-10-years reliability standard."

"The commission relies on well-designed competitive markets to produce prices and market outcomes that are just and reasonable. No objective analysis of the MISO capacity market could demonstrate that the outcomes under the current Module E are just and reasonable by any appropriate standard. In fact, the flawed design of the market precludes it from producing just and reasonable prices. … Further, MISO made no attempt to provide evidence that its capacity market has produced reasonable outcomes or that it is an economically sound market design," the Monitor wrote.

The Monitor also pointed to MISO's unsuccessful 2017 filing to implement a partial forward market and downward-sloping demand curve for its retail choice areas — in which the RTO admitted that its capacity market has not produced efficient prices. During stakeholder meetings on the design proposal, Patton often repeated the need for a systemwide sloped demand curve. (See *MISO Won't Seek Rehearing on Auction Redesign*.)

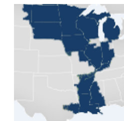
The Monitor's protest came almost four weeks after the Jan. 12 deadline for filing responses to the RTO's refiling. It said the commission should permit its out-of-time filing, contending it will not prejudice any party in the proceeding because it has not yet acted on MISO's refiling.

In early January, the Electric Power Supply Association also protested MISO's refiling, claiming that the RTO's existing construct is "fundamentally flawed and has failed to support resource adequacy in the region because it lacks critical capacity market elements the commission has approved (or required) for other ISOs/RTOs." EPSA said MISO should require capacity auction participation by all supply and demand resources, implement a downward-sloping demand curve with auctions held at least three years ahead of time and enforce a MOPR. Those three elements, EPSA argued, would create a "sustainable forward capacity market" in the footprint.




Vertical vs. sloped demand curve | *Potomac Economics*

## MISO NEWS



# MISO Tempers Dispatch Plan After Stakeholder Pushback

*By Amanda Durish Cook*

CARMEL, Ind. — Market participants have united to develop a trio of alternatives to MISO's plan to crack down on generators that fail to follow dispatch instructions, while the RTO has softened its position on moving ahead with a nearly final proposal.

Stakeholders representing 13 member companies began meeting to address the issue after MISO last November revealed its plan to tighten tolerances for uninstructed deviations based on a generator's ramp rate. MISO currently flags generators that deviate from dispatch by more than an 8% over four consecutive intervals.

Nick Griffin | © *RTO Insider*

During a Feb. 8 Market Subcommittee meeting, DTE Energy's Nick Griffin said informal meetings with MISO staff and the Independent Market Monitor to "brainstorm" on the topic have produced three proposals to curb deviations:

- Rely on MISO's proposal requiring a generator to move at least half its offered ramp rate, but use a more generous ramp rate multiplier;
- Use a standard 6% deviation tolerance from dispatch signals; or
- Employ an "energy mileage" concept that would set a tolerance based on how much electricity a unit actually moved over a one-hour period compared to how much it was asked to move.

Griffin said all three encourage generators to follow dispatch signals.

"We don't want units to drag on the system and be paid for dragging on the system," he said.

However, Griffin said MISO's solution must consider the "operational limits of resources, including wind forecasting and coal mill and boiler feed pump limits."

Stakeholders have repeatedly called for a softer uninstructed deviation threshold than what MISO is proposing.

Before this month, MISO was close to wrapping up a final approach on stricter rules using Monitor David Patton's proposal requiring generators to move at half their offered ramp rate, with a 20-minute grace period before being flagged and possibly losing make-whole payments. Last fall, Ameren Missouri urged MISO to keep the percentage threshold, saying it could be constricted to 7 or 6% over time. The company also asked the RTO to focus only on generators that fail to move for an hour after dispatch instructions. (See *Ameren Calls for Milder MISO Response to Uninstructed Deviations*.)

MISO staff are now offering two new proposals developed after the informal stakeholder meetings. The first is a slightly modified approach of the RTO's original proposal, with a cap of 12% of the dispatch level instead of the previously proposed 10%, leaving more tolerance for fast-ramping units.

The second is a performance-based approach similar to the "energy mileage" concept that partly decouples MISO's uninstructed deviation rules from price volatility make-whole payments, preventing a generator's deviation from immediately triggering ineligibility for those payments. In those instances, MISO would rely on an hourly price volatility make-whole payment calculation based on generator performance, ensuring that unit owners are incentivized to submit accurate ramp rates and then perform to them. The payments are designed for resources that either fail to cover production costs in the market or have their day-ahead margins eroded by intra-hour price spikes.

MISO Market Quality Manager Jason Howard said the RTO still plans to have a final proposal readied for filing in time for the April subcommittee meeting, and that he would return to the subcommittee in March after gauging stakeholder reception to the two new proposals. MISO is also considering holding a workshop to ensure stakeholders understand what it is proposing, Howard said, although no date has been set.

# MISO Accepting Market Roadmap Ideas

CARMEL, Ind. — MISO is seeking stakeholder suggestions on how it can improve its market design under its Market Roadmap process.

The project suggestion window, open through April, is part of the RTO's biennial process of soliciting input from market participants.

This year's effort will be scaled back because of the ongoing, $130 million project to replace MISO's market platform, Lakisha Johnson, market strategy adviser, said during a Feb. 8 Market Subcommittee meeting. (See *8 Projects Set for 2018 MISO Market Roadmap*.)

Lakisha Johnson | © *RTO Insider*

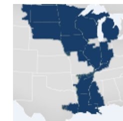
Stakeholders have until May 1 to submit new ideas for market improvements, and the RTO has scheduled a June 7 workshop to discuss submissions. Stakeholders will then have until July 12 to rank the new ideas, which will influence MISO staff decisions on what improvements to pursue. Through December, MISO and stakeholders will work to integrate the selected ideas into the RTO's existing list of Market Roadmap projects.

Minnesota Public Utilities Commission staff member Hwikwon Ham asked MISO if this year's submission window will line up with the Independent Market Monitor's annual State of the Market report, which provides market design recommendations.

The Monitor is planning to release the report earlier this year in an attempt to better align the two sets of recommendations, IMM staffer Michael Wander said.

*— Amanda Durish Cook*

## MISO NEWS



# MISO Considering Time Limits on Dispute Resolution

By Amanda Durish Cook

CARMEL, Ind. — MISO is proposing to set limits on the amount of time its members have to initiate alternative dispute resolution measures, but stakeholders are saying the RTO might not be leaving them enough room to research and raise settlement issues.

The RTO is recommending market participants have a 30-day time limit to request either an informal or formal alternative dispute resolution, John Weissenborn, director of market services, told a Feb. 8 Market Subcommittee meeting. Settlement disputes and corrections would be wrapped up within one year from the operating day in question under the proposal, he said.

The process is used in place of a lawsuit or FERC complaint when parties seek to negotiate contractual disputes over settlements. The RTO's current Tariff doesn't contain provisions that "categorically bar settlement disputes raised after a long time," according to MISO.

MISO plans to revise Attachment HH of its Tariff — which governs such disputes — to provide market participants with 30 calendar days from the RTO's denial of a settlement dispute to ask for an informal alternative dispute resolution, then another 30 days after that to request a formal dispute resolution if the informal request is denied by MISO.

John Weissenborn addresses the Market Subcommittee on Feb. 8. | © RTO Insider

Weissenborn said the deadlines will apply to both transmission and market settlements. The deadlines will promote "market certainty, prevent stale claims and facilitate accuracy in corrections of settlement statements," he said.

MISO is aiming to file the plan with FERC by May, with the deadlines imposed by July.

Weissenborn said other RTOs have time limits ranging from five months to three years. Both SPP and PJM impose a two-year cutoff, while CAISO follows a three-year limit. NYISO employs the shortest cutoff at five months.

"There is precedent for this type of thing," Weissenborn said. "It will encourage market participants to file their claim in a timely manner."

Northern Indiana Public Service Co.'s Bill SeDoris and Dynegy's Mark Volpe both asked how MISO's one-year limit will line up with other RTOs' disparate time limits should disputes involve inter-RTO matters, such as pseudo-ties and coordinated transaction scheduling, and which timeline MISO market participants should follow.

Weissenborn said MISO looked into such transactions and concluded that alternative dispute resolution would be separate for each RTO's settlement.

Other stakeholders cautioned that the 30-day limit to research and initiate a dispute resolution may be too tight, asking instead for 60 or 90 days to initiate a dispute.

Weissenborn asked for more stakeholder comments over the next two weeks and said the comments could influence the final draft of MISO's plan.

# MISO Scales Back Multiday Market Proposal

By Amanda Durish Cook

CARMEL, Ind. — MISO is scaling back a proposal to develop a multiday energy market, opting instead to create multiday forecasts intended to provide generators more advanced insight into ramping up for future day-ahead commitments.

The change takes the potential for multiday make-whole payments out of the equation.

The proposed effort will forecast price signals a week in advance but leave unit owners the option of whether to abide by them. As a result, MISO has scrapped the idea of providing make-whole payments to units that follow the RTO's recommended commitment. MISO has also pushed back the target go-live date from 2019 to 2021 but still expects the effort to yield $30 million to $45 million in annual benefits once implemented. (See *MISO Researching 30-Minute Reserves, Multiday Commitments*.)

MISO Markets System Analyst Chuck Hansen said the RTO will assemble a cost-benefit analysis in 2022 or 2023 that could make or break the case for creating financially binding multiday commitments — after it collects 18 months of data using the multiday forecast.

Until then, MISO sees comparable value in producing seven-day forecasts to influence generator commitment decisions without pressure, Hansen said. Market participants likewise sought to have the multiday market forecast before attaching financial commitments to it.

"There's an opportunity here from a MISO fleet perspective to improve commitment decisions," Hansen told stakeholders at a Feb. 8 Market Subcommittee meeting.

MISO's current day-ahead market construct is not designed to forecast economic commitments beyond the next day, leaving units that have long leads or high start-up costs unable to economically commit in the market. Hansen said only 22% of MISO's capacity is economically committed in the day-ahead market, with the remaining 78% committed before the day-ahead market on a must-run basis, creating a prime opportunity to improve commitment decisions made before the day-ahead run. He also said a multiday forecast could be useful in scheduling weekend natural gas purchases and scheduling pumped storage resources.

Hansen added that MISO does already complete a multiday reliability look-ahead, but it's solely focused on reliability and ensuring sufficient capacity and does not make suggestions based on economics.

MISO will begin working on conceptual design of multiday forecasts in 2019, Hansen said.

# MISO News

## RASC Briefs

### Auction Predictions Show MISO Capacity Surplus in All Zones

| © RTO Insider

CARMEL, Ind. — Preliminary estimates show that MISO's capacity requirements and available supply for the 2018/19 Planning Resource Auction will be in line with last year's figures.

MISO has been planning for a systemwide coincident peak load of nearly 122 GW, a zonal coincident peak of 126 GW and a planning reserve margin requirement of 135 GW since the beginning of the year, Tim Bachus, capacity market administration analyst, told the Resource Adequacy Subcommittee on Feb. 7. (See *MISO RASC Briefs: Little Change to Capacity Forecasts*.)

While the forecast is — so far — steady year-over-year, RTO staff are still reviewing the data and won't present final numbers until March, Bachus said.

The RTO's zonal predictions show a capacity surplus similar to last year's capacity auction, with all zones having enough installed capacity to meet local clearing requirements:

- Zone 1, covering Minnesota, the Dakotas and western Wisconsin, is forecast to have a 16.5-GW coincident peak forecast, an 18.4-GW planning reserve margin requirement and a 15.7-GW local clearing requirement. The region has 25.2 GW of total installed capacity.
- Zone 2, covering eastern Wisconsin and Michigan's Upper Peninsula, is predicted to have a 12.2-GW coincident peak, a 13.5-GW planning reserve margin requirement and a 12.7-GW local clearing requirement. The region has 15.4 GW worth of total installed capacity.
- Zone 3 in Iowa and Zone 5 in Missouri (combined by MISO to keep pivotal suppliers' information private) together have a 16.6-GW coincident peak forecast, with an 18.3-GW planning reserve margin requirement and a 14.4-GW local clearing requirement. The zones have just under 27 GW of total installed capacity.
- Zone 4 in Illinois is expected to have a 9.1-GW coincident peak, a 10.1-GW planning reserve margin requirement and a 5.2-GW local clearing requirement. The zone has just under 14 GW worth of total installed capacity.
- Zone 6, covering Indiana and Kentucky, so far has a 16.6-GW coincident peak forecast with an 18.6-GW planning reserve margin requirement and a 12.5-GW local clearing requirement. The zone has 20.4 GW worth of total installed capacity.
- Zone 7 in Michigan's Lower Peninsula is expected to peak at 19.9 GW, have a 22-GW planning reserve margin requirement and a 20.7-GW local clearing requirement. The region has nearly 25 GW in total installed capacity.
- Zone 8 in Arkansas, Zone 9 in Louisiana and Texas and Zone 10 in Mississippi (also combined to protect utility information) are expected to have a nearly 31-GW coincident peak, a 34-GW planning reserve margin requirement and a 28.8-GW local clearing requirement. MISO South combined contains almost 42 GW in total installed capacity.

MISO will conduct its sixth annual PRA during the second week of April.

### Scrapping Out-Year Import and Export Limit Estimates?

MISO is recommending that it discontinue its practice of making long-term predictions of capacity import and export limits, saying the results are too unreliable to be used in planning.

"Out-year results are volatile due to uncertainty around future generation dispatch. We don't have a good picture of what these will be," said MISO's Matt Sutton.

MISO each year produces both near-term and long-term predictions for capacity import/export limits between zones to inform its loss-of-load expectation (LOLE) study.

After examining the out-year limits, MISO could not identify any processes that "rely upon these transfer values in resource planning," Sutton said, adding that creating the forecasts no longer makes sense because the RTO cannot predict with certainty what resources will retire. Although MISO has been producing the long-term forecasts for about four years, no staff member at the meeting could say why they were proposed in the first place.

Customized Energy Solutions' David Sapper disagreed with MISO's view, saying there was value in seeing long-term predictions of decreases or increases.

"We might miss out," agreed Consumers Energy's Jeff Beattie.

WPPI Energy's Steve Leovy also said he found value in the long-term predictions and never disparaged MISO for what he deemed to be expected volatility.

"We've been thinking about the value of this analysis and what it's used for ever since a stakeholder comment last year on process improvements," Sutton said.

CES' Ted Kuhn asked if the volatility and uncertainty surrounding the process was "a stake in the heart" to any possible effort to conduct a three-year forward capacity market. Sutton said MISO would be forced to make such long-term predictions should it ever decide to adopt a three-year forward market design.

MISO will return to the RASC in March with

Continued on page 18

## MISO NEWS

# Hartburg-Sabine Tx Project Open for Bids

*By Amanda Durish Cook*

MISO last week opened a bidding window for its second-ever competitive transmission solicitation, a process required under FERC Order 1000.

Developers will be eligible to bid on the $130 million, 500-kV Hartburg-Sabine Junction project in eastern Texas until July 20. The congestion-relieving line and substation are slated to be in service by June 1, 2023.

MISO's Board of Directors last week granted late approval for the project under the RTO's 2017 Transmission Expansion Plan. (See *MISO Board Approves Texas Competitive Tx Project*.) MISO expects to select a developer by the end of the year and post a full report on its evaluation no later than Jan. 30, 2019.

"When completed, this project will help bring economic benefits to a transmission-constrained area of Texas," said Kent Fonvielle, executive director for MISO's South region.

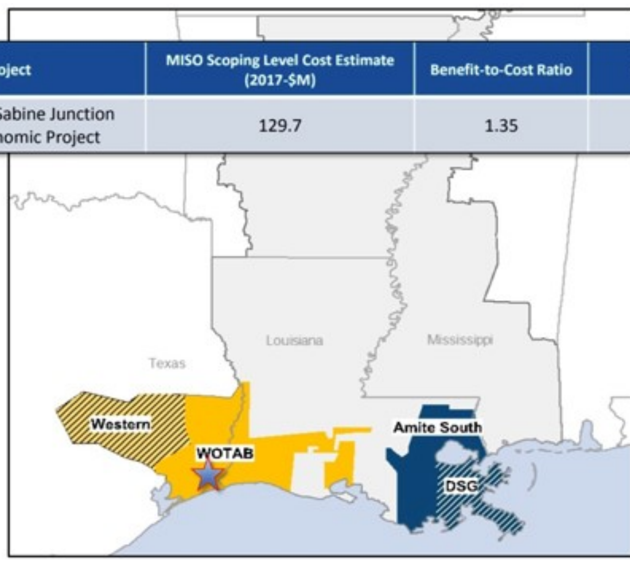
MISO will judge the proposals based on weighted criteria, which include cost and design, project implementation, operations and maintenance, and participation in the planning process. The RTO has revealed that 11 potential developers will already receive the 5% planning participation credit for suggesting the Hartburg-Sabine project in MISO's annual Market Congestion Planning Study. They include Ameren Transmission Company of Illinois, Duke-American Transmission Co., East Texas Electric Cooperative, Entergy Texas, Grid America, ITC Holdings, Midcontinent MCN, Midwest Power Transmission Arkansas, NextEra Energy Transmission, Transource Energy and Xcel Energy.

Each proposal requires a $100,000 fee before MISO will begin considerations.

Prospective developers are required to communicate about the project using MISO's TDQS@misoenergy.org email address and are instructed not to contact any RTO personnel directly. As with its first competitive transmission project in 2016, MISO will publicly post all developer questions and any answers it can provide on its competitive administration webpage. MISO will accept questions about the request for proposals until June 25 and will hold three informational meetings by conference call on Feb. 27, April 9 and May 29.

MISO has redacted some critical energy infrastructure information from the public version of its RFP, including interconnection requirements, some of Entergy's local planning criteria, the coordinates of the new substation and aerial views of existing lines in the area.

| Project | MISO Scoping Level Cost Estimate (2017-$M) | Benefit-to-Cost Ratio | In-Service Year |
|---|---|---|---|
| Hartburg to Sabine Junction 500kV Economic Project | 129.7 | 1.35 | 2023 |




| MISO

# RASC Briefs

*Continued from page 17*

a decision on whether to discontinue the long-term limit planning.

### Possible End to LOLE Work Group

MISO is proposing to disband the Loss of Load Expectation Working Group (LOLEWG) and move its policy discussions into the RASC — but several stakeholders aren't keen on the idea.

Laura Rauch, MISO resource adequacy manager, said the group has recently had light agendas, while its discussions frequently overlap those in the RASC.

"It's about efficiency and making sure we have the right people in the room when we discuss policy," she said.

The LOLEWG is responsible for reviewing and making recommendations about the methodology and assumptions that inform MISO's annual LOLE study, which calculates planning reserve margin requirements for each load-serving entity.

American Electric Power's Kent Feliks said he "cringed" at the thought of bringing the group's technical discussions before a larger audience.

Other stakeholders asked about simply reducing its meetings. Rauch said MISO has already both reduced the number of meetings and shortened their duration.

Dynegy's Mark Volpe said the LOLE study will face new challenges in the future, including accounting for external zones in the PRA and possible changes to MISO and PJM's pseudo-tied generation rules. Other stakeholders said the LOLEWG also must work on adequately capturing and estimating MISO's ever-evolving fuel mix.

"That's new and unchartered waters," Volpe said.

Rauch asked stakeholders to provide opinions on the fate of the LOLEWG by Feb. 20. The group is next scheduled to meet on March 6; the lone agenda item is discussion of MISO's recommendation to sunset the group.

*— Amanda Durish Cook*

## NYISO NEWS

# NYC, Goals Dominate Talk on Carbon Pricing

By Michael Kuser

RENSSELAER, N.Y. — New York's Integrating Public Policy Task Force (IPPTF) hit resistance on the first paragraph when it unveiled its final work plan for pricing carbon into the state's wholesale electricity last week.

That section sets out the plan's intended purpose: to explore incorporating the costs of carbon into the market while "providing the greatest benefits at the least cost to consumers."

Several stakeholders at the Feb. 5 meeting sought a clearer definition of "benefits," while others wanted to know why the plan would focus primarily on benefits to consumers. In addition, some expressed concerns about how carbon pricing would translate into actual carbon reductions, given existing constraints within the state.

The IPPTF is a joint effort of NYISO and the state's Department of Public Service (17-01821). The group's latest plan includes five issue tracks, reduced from six: 1) straw proposal development; 2) wholesale energy market mechanics (including "carbon leakage" and how to measure emissions) and interaction with other wholesale market processes; 3) policy mechanics, such as setting the carbon charge; 4) interaction with other state policies; and 5) customer impacts. (See *New York Stakeholders Debate Carbon Policy 'Issue Tracks'*.)

### Energy Market Primer

IPPTF co-chair Marco Padula, DPS deputy director for market structure, clarified that the group wasn't created to review the contents of the state's Clean Energy Standard but to achieve the objectives set out in the rule — namely, that 50% of New York's electricity come from renewable energy sources by 2030.

Padula said the task force should work out the details of each track over the course of the year, as it posts reports from each meeting along with stakeholder comments. The task force will meet nearly every Monday to work through the tracks and plans to develop preliminary proposals by early August to deliver a unified proposal by December.

| Department of Energy

Erin Hogan, of the DPS Utility Intervention Unit, said the task force needs to better understand what goal is being discussed because state policy calls for 50% of the target to be met by energy efficiency measures, meaning "that renewables needed afterwards would be less."

In the near future, stakeholders "should perhaps have a primer, maybe a little presentation just to level what exactly we're talking about, so we don't tie ourselves up in knots in the middle of meetings without having that level of understanding what the goals really are," Hogan said.

Representing a coalition of large industrial, commercial and institutional energy customers, Couch White attorney Michael Mager reminded the task force of a key goal of the exercise.

"I don't care whether you get to it now or when we get to the last track," Mager said. "At the last meeting ... there was some agreement in the room that, in addition to price impacts, we should also be measuring exactly what carbon abatement would be taking place. It doesn't seem to have been reflected in the work plan, [which] still kind of limits the last track to customer impacts. It doesn't seem to address anywhere actually measuring whether we'd be reducing carbon emissions at all."

### The Transmission-Emissions Nexus

The predicament of New York's biggest metro area loomed large during the meeting. Ron Minsk, a consultant to New York City, delivered a presentation that emphasized the need for a new transmission to deliver renewable energy to the state's largest load center. With a peak load of more than 11,500 MW, the city accounts for approximately 30% of the state's load. The downstate region, including Long Island, represents about 50%. Minsk's presentation echoed comments the city filed with the task force in January.

"We don't want to end up having an approach where we have renewables displacing other renewables," Minsk said. "So this gets to the transmission issues, which the city has expressed concern about before. It goes to that submission, making sure that the benefits are widely distributed. ... Even with new transmission projects that are already on the books, there are transmission constraints that keep upstate power from getting downstate."

The upstate grid is already pretty clean, with about 85% of generation carbon free, he said.

"In order to meet the state's goals, you're going to have to get more renewable power downstate, and, in order to do that, you have to relieve transmission," Minsk said.

The city's comments pointed out that NYISO has already drawn a similar conclusion, noting that even if the state adds the desired quantity of new renewables by 2030, it will not realize their full benefits without new transmission or local storage resources — or if renewable development occurs far from load centers.

Mark Younger of Hudson Energy Economics said more renewable generation will provide no consumer benefits whatsoever if it's built in the wrong location.

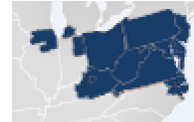
"Maybe the proper way to look at it is how are you getting the cheapest dollar per ton reduction, considering that to serve New York City and the southern area, [either] you're … paying directly for generation there or you're paying for generation somewhere else and the infrastructure that's necessary to get there," Younger said.

The transmission infrastructure is part of the price of achieving the desired carbon reduction, he said.

"You can't ignore that infrastructure because … it looks very cheap to build all your renewable resources far away, but then incur billions of dollars that you don't recognize as part of that decision to build the resources far away," Younger said.

The task force next meets Feb. 12 at NYISO headquarters.

## PJM NEWS



# PJM Stakeholders Decline to Change Market Path Rules

## Committee also Tackles FTR Issues

*By Rory D. Sweeney*

The PJM Market Implementation Committee meets. | *© RTO Insider*

VALLEY FORGE, Pa. — Stakeholders at last week's Market Implementation Committee meeting denied four proposals to revise PJM's rules on evaluating designated market paths for energy sales coming into and out of the RTO, indicating a preference for status quo.

Tim Horger of PJM and John Dadourian of Monitoring Analytics, the RTO's Independent Market Monitor, presented proposals, along with Steve Kelly of Brookfield Renewable and Ruta Skucas from the Financial Marketers Coalition. The proposals differed on how strictly they would monitor scheduled transactions and the amount of leeway or consideration that companies would receive to demonstrate that questionable transactions were appropriate. (See "Stakeholders Battle PJM, Monitor on Market Path Alignment," *PJM MIC Briefs: Jan. 10, 2018*.)

"Monitoring Analytics really thinks there needs to be an enforceable rule," Dadourian said.

"We think the IMM and PJM are going a little too far. We don't want to throw the baby out with the bathwater," Kelly said. "We do agree with PJM and the IMM that intentionally breaking a transaction up into separate components to conceal the true source and sink should be defined as illegitimate activity and it should be repriced, so we're definitely aligned on that matter." However, Brookfield argued that companies should be allowed 10 days to prove their transactions are "legitimate" before they are resettled.

Skucas, representing a joint proposal from the FMC and American Electric Power, argued that there isn't any data proving the existence of the issues the rule change is supposed to prevent. The proposal would exempt any transactions that are at least eight days long and would monitor activity at the company level rather than combining activity from all companies within a parent holding company.

AEP's Dana Horton said that's the reason his company signed on to the proposal.

"We have both regulated and unregulated subsidiaries in our corporation and we follow some strict policy guidelines on not communicating between the two, so the one side does not know trading positions on the other side, and this proposal from PJM would lump them together with no way of knowing we're in violation until after the fact," he said, adding that PJM's plan wouldn't offer a way to review and explain the issue.

Dayton Power and Light's John Horstmann agreed.

"I think it's a legitimate question. … You may put two and two together long before any entity within a single large corporation will [because of FERC's code of conduct rules], and potentially punish them even though they didn't even know the combination of transactions created a problem. I haven't heard how we're going to address that, other than we're going to send you to FERC because you should have known better. It's not that easy," he said.

Horger presented an alternative proposal that would focus only on daily and hourly transactions and exempt large corporations like AEP that have legal separations between their affiliates.

Skucas and Monitor Joe Bowring agreed that the alternative proposal unnecessarily included a reference to possible referrals to FERC.

Carl Johnson, representing the PJM Public Power Coalition, also voiced concern about companies inadvertently breaking the rules.

"We're setting up a set of circumstances where market participants really couldn't know that they're going to be tripping violations," he said. "While we completely get why the sham scheduling should be addressed, we don't want to support a set of rules that make it [that] you just get caught and you have no idea what you did."

Bowring said companies would know exactly what activity they should avoid.

"There would be a list and you would know what the list is," he said. "It's up to individual companies to monitor their own trading activity, and if they can't do that, it's not a problem with the rules; it's a problem with their monitoring."

"Or it's a problem with the way the rules are set up," Johnson interjected.

Bowring said it was "odd" that companies' inability to monitor their overall activity is being offered as a reason to not have a rule against manipulation.

"We still have concerns with this whole construct that we're setting people up to fail and get resettled," Johnson said.

*Continued on page 21*

# PJM Stakeholders Decline to Change Market Path Rules

Continued from page 20

All four proposals failed to reach the necessary voting threshold of 50% to be considered at the Markets and Reliability Committee. The FMC's came closest with 44% in approval.

Stakeholders then discussed if there's any benefit to continued discussion to work toward consensus, but Citigroup's Barry Trayers said stakeholders appear to be at an "impasse." Skucas said there needs to be data to support the issue, but Bowring said the activity has been suppressed in recent years because the regulatory risk associated with a joint statement from the IMM and PJM that made it clear that such activity was manipulative.

"The alleged data is not going to show that problem because it's being suppressed," he said.

"If the problem has been suppressed, then why are we doing this?" Skucas responded.

"Apparently we're not," Bowring said.

Stakeholders then voted 69% in favor of retaining the status quo, and PJM staff said they would recommend closing the issue.

### FTR Focus

Several items at the MIC meeting focused on financial transmission rights. Exelon's Sharon Midgley presented a problem statement and issue charge to address her company's concern with what it found to be an 18-fold increase in FTR forfeitures since a FERC decision in January 2017 required rule changes that PJM implemented several months later. Monitoring Analytics' Howard Haas said he has not seen evidence of the issues identified in the problem statement. The proposal will be up for endorsement at next month's meeting.

Direct Energy's Marji Philips criticized PJM's handling of remapping FTR paths when one of the nodes involved is eliminated. Philips said her company was presented with the issue several months ago and instead of finding an "electrically equivalent" substitute, PJM permitted them to terminate the FTR. She said other RTOs — specifically highlighting NYISO — find an equivalent.

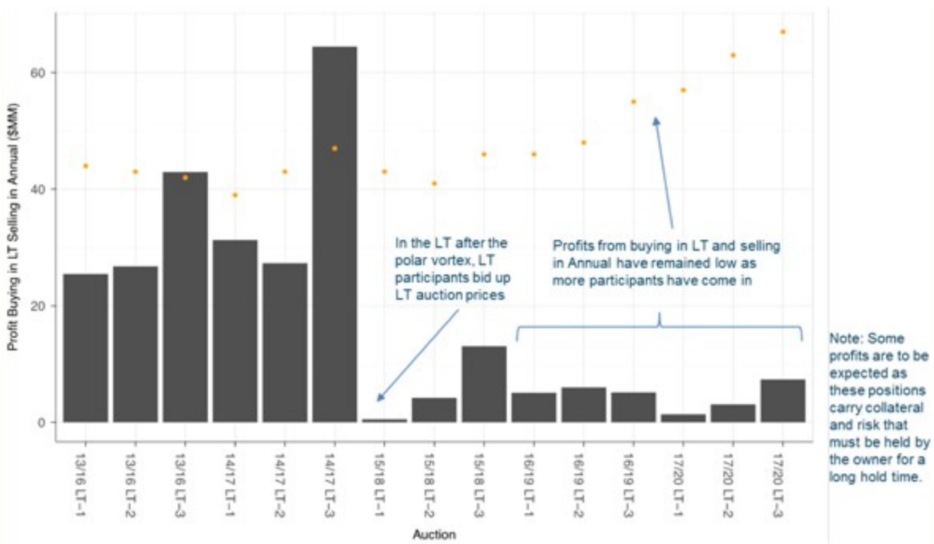
"We think you ought to find an electrical equivalent, and coming back saying you can't is not acceptable," she said. "To some extent, I analogize this to a property right. We paid for it."

Exelon, Vitol and DC Energy made the case for why long-term FTRs are beneficial to the market and should be retained. The presentation was in response to a proposal by the Monitor to review whether the products, which are available for each of the next three planning years or a combination of all three, are contributing to returning congestion revenue to load as intended.

Philips defended the Monitor's proposal, saying that traders in her company profit off the product but also are concerned that "it may be wrong." The products are far enough in the future that they're "a joke from a modeling standpoint" and "not based on reality."

"The reason that we continue to support the investigation is because ... the right thing long term is to figure out whether these instruments are in any way impacting liquidity and revenue associated with [auction revenue right] and FTR allocations," she said. "We participate because there's a market out there and other people are participating in it and it's not illegal and it's perfectly sanctioned. But ... we're not sure that it's right that we should be allowed to participate if at the end of the day we are impacting revenues that rightfully belong to customers or opportunities to get revenues that belong to the customers, and that's our dilemma."

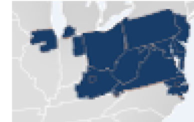
PJM's Chantal Hendrzak said the next step is to consider interests and design components.




Profits of buying long-term FTRs and selling in annual auction | *PJM*

**Connect with us on your favorite social media**

## PJM NEWS



# FERC Orders Indiana Wind Project to the Back of the Queue

*By Michael Kuser*

FERC ruled Friday that the developer of a proposed 1,500-MW Indiana wind farm must go to the end of the interconnection queue to move its point of interconnection (POI) 2.9 miles.

The commission's Feb. 9 order rejected Harvest Wind's request for a waiver allowing it to change the POI without triggering the "material modification" language under PJM's Tariff. FERC sided with PJM in requiring a new queue application and facilities study (ER18-615).

Colorado-based Renewable Energy Systems Americas acquired the Harvest Wind project after the previous developer agreed in late 2016 to move to a second POI after AEP Indiana Michigan Transmission said the original was not a suitable spot for the wind farm's 765-kV switchyard.

RES Americas said it learned in fall 2017 that the new location, POI 2, had some of the same problems as the original location, including wetlands and endangered species concerns. In addition, noise from the switchyard's transformers would be too loud because of nearby houses, the company said in its Jan. 5 waiver request.

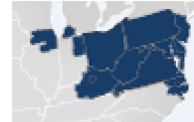
The developer said its proposed interconnection, POI 3, is "electrically identical" to the current location because it is just 2.9 miles away on the same 765-kV transmission line.

PJM opposed the request, arguing that the waiver would delay other projects in the queue because of the size of the wind project and the need for transmission restudies.

The commission agreed with PJM, finding that "Harvest Wind has not sufficiently demonstrated that it acted in good faith. Harvest Wind states that it became aware in September 2016 that both POI 1 and POI 2 presented some complicating factors due to site topology, but at that time it did not believe these factors were insurmountable. ... Moreover, Harvest Wind fails to explain why it did not discover these additional complications for almost a year after initially being put on notice that complications existed at POI 1 and POI 2, demonstrating a lack of due diligence on Harvest Wind's part.

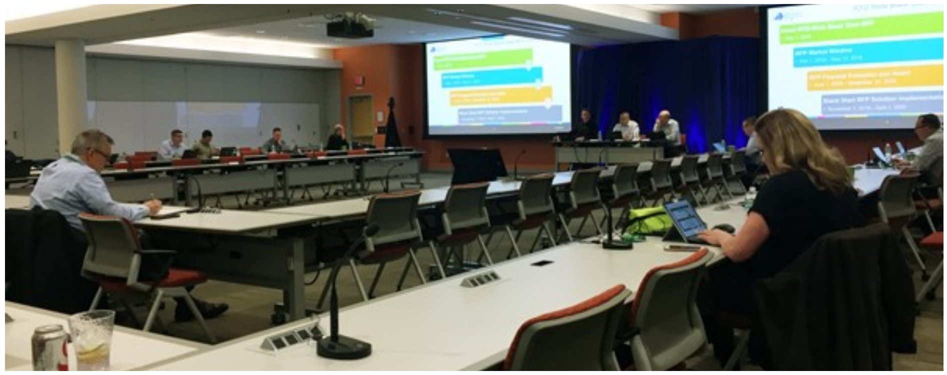
"Harvest Wind has not sufficiently demonstrated that granting the waiver request will not have undesirable consequences or harm third parties," the commission continued. "We agree with PJM that changing the point of interconnection at this late stage would introduce uncertainty that could well impact other lower-queued interconnection customers and that such restudy of the point of interconnection would require reassessment of protection, requiring the expenditure of time and resources, thus burdening and harming other parties."

RES Americas said in its waiver request that it might be forced to abandon the project if the waiver were not approved. The company did not respond to questions about whether they plan to proceed with the project or not, or why a delay might force them to abandon the project.



# OC Briefs

## Investigating Improvements Based on Additional Cold Response Details



| © RTO Insider

VALLEY FORGE, Pa. — PJM staff told attendees at last week's Operating Committee meeting that they are looking at ways to improve operations after reviewing the grid's performance during January.

PJM's Donnie Bielak and Joe Ciabattoni noted that the Tier 1 response to three spinning events during the cold snap that started the month before were substantially below the RTO's estimates. At least 400 MW that were expected didn't respond during each of the events, with as many as 1,660 MW failing to respond to a Jan. 7 event.

PJM has two tiers of reserves that are triggered sequentially when its dispatch software calculates a potential generation shortage. The Tier 2 response was much closer to the need. All estimated megawatts responded for two of the events.

Bielak said there are "preliminary discussions" internally regarding changes to address the issue and that "nothing is imminent," but Calpine's David "Scarp" Scarpignato called it "a pretty significant pricing issue" if anticipated reserves that never materialize are preventing scarcity pricing from triggering.

"I think this is going to need larger investigation by PJM and reporting out what you think the drivers of some of these numbers are," he said.

Ciabattoni said staff did their normal outreach to the worst performers and found three main issues: poor communication from units' market operation centers so they didn't know to respond; "unrealistic" ramp rates attributable to equipment being out of service at the time; and spin max settings that were based on incorrect configurations.

"Our estimates are only as good as the data we get from our members," he said. "When we did the outreach, we did find that there were data-quality issues."

"These are bad estimates at the most critical time for scarcity pricing. Scarcity pricing is supposed to kick in during these conservative ops," Scarp said.

Generators are addressing their issues, Ciabattoni said, and PJM is considering rule revisions to allow for raising the output target dispatchers send to units, known as the base point.

"PJM doesn't change our base point when we go into a spinning event, so there's not a direct signal to tell the unit to load," Ciabattoni said.

Direct Energy's Marji Philips asked why there were about 100 more planned outages than any other month in the past year.

"Both forced outage rates and total outage rates were elevated, and that's primarily due to the cold weather we experienced in the first week of January," Ciabattoni said.

He explained that if an operator needed to take an unplanned, or forced, outage but can wait until "a more opportune time, then we grant you what's called a maintenance outage," which is categorized as a planned outage.

The RTO's off-peak load forecasting error of 2.79% in January was the highest in more than a year. The on-peak error was 2.38%, both of which were increased by the cold weather, Ciabattoni said. Their combined average of 2.58% was still well within PJM's 3% monthly target threshold. The largest outlier was 7,000 MW on Jan. 15, which was the Martin Luther King Jr. Day holiday, he said.

Continued on page 24

# FERC OKs PJM Pseudo-Tie Rules

FERC approved PJM Tariff and Operating Agreement revisions incorporating two *pro forma* pseudo-tie agreements and a *pro forma* reimbursement agreement effective Nov. 9, 2017.

The commission's Feb. 5 order rejected protests by MISO's Independent Market Monitor, NYISO, American Municipal Power, Illinois Municipal Electric Agency and North Carolina Electric Membership Corp. (ER17-2291). (See *Critics Protest PJM Dynamic Transfers Plan*.)

In its protest, NYISO said PJM's rules will likely cause "adverse reliability impacts" and "exacerbate interregional seams." But PJM pointed out that there are no resources currently pseudo-tied into PJM from NYISO.

The MISO Monitor David Patton contended FERC should not consider PJM's proposal separately from other pending pseudo-tie proceedings. The plan creates "substantial economic and reliability harm to the customers in [the MISO and PJM] area," he said.

The commission was unpersuaded, saying: "The terms of the proposed revisions and pseudo-tie agreements are not unjust and unreasonable merely because the commission has not yet acted in the other proceedings." FERC also rejected the Monitor's request for a technical conference.

"We agree with PJM that the pseudo-tie agreements and corresponding Tariff and Operating Agreement revisions promote uniformity among the pseudo-tie and dynamic schedule requirements and increase the transparency and efficiency of the implementation process," the commission said.

*— Rich Heidorn Jr.*

# OC Briefs

*Continued from page 23*

"Our model treats that as a holiday. In the past, that's worked very well for us. This year, the load actually came in more like a normal workweek."

The RTO also estimated no production cost savings from its "perfect dispatch" initiative for the first time since the cold streak during January 2014 known as the "polar vortex" and the second time ever in the 10 years PJM has been tracking the metric. Over those 10 years, PJM estimates its efforts to accurately forecast demand and dispatch generation as economically as possible has saved more than $1.4 billion in production costs.

PJM's Ken Seiler said the RTO is compiling a report on grid performance during the winter that will be available by the end of this week.

## Primary Frequency Response Task Force Nearing Solution

PJM's Glen Boyle announced that stakeholders have presented five proposals to address FERC's requirement that most generation units be able to provide primary frequency response. The proposals are focused on four components: an exception process, an implementation plan, how performance will be measured and how units will be compensated. Stakeholders have differed on whether the service is already included in the compensation units receive in auction commitments or should receive separate compensation. (See PJM IMM Opposes Frequency Response Payment Bid.)

Stakeholders will vote on the packages after the task force's next meeting on Feb. 28 and any that receive 50% endorsement will move on for consideration at the Markets and Reliability Committee. Boyle said few stakeholders have expressed much interest, so wider participation would be "appreciated."

## Lack of Adjustment Requests a Surprise

PJM's Alpa Jani reminded stakeholders that the deadline for unit-specific parameter adjustment requests is Feb. 28 and expressed surprise at the lack of requests so far. She said the RTO expected many more requests from new base and Capacity Performance resources this year that haven't materialized.

The process allows CP, base or replacement resources to submit adjustments to their commitments based on an actual operating constraint. Any newly approved adjustments will go into effect on June 1, while any existing ones will roll over from previous years.

## Super Bowl Impact

Seiler was able to compile some analysis from energy demand during Super Bowl LII on Feb. 4. There was a 750-MW increase in load just prior to the start of the game, he said, and another 700-MW bump at halftime.

"There must have been a commercial that was kind of boring, so we saw another 200-MW jump about 30 minutes later," he said, and then another 500-MW spike after the game.

Operators could tell the game was good because the load tails off quickly during bad games and the spikes don't occur throughout the game, he said.

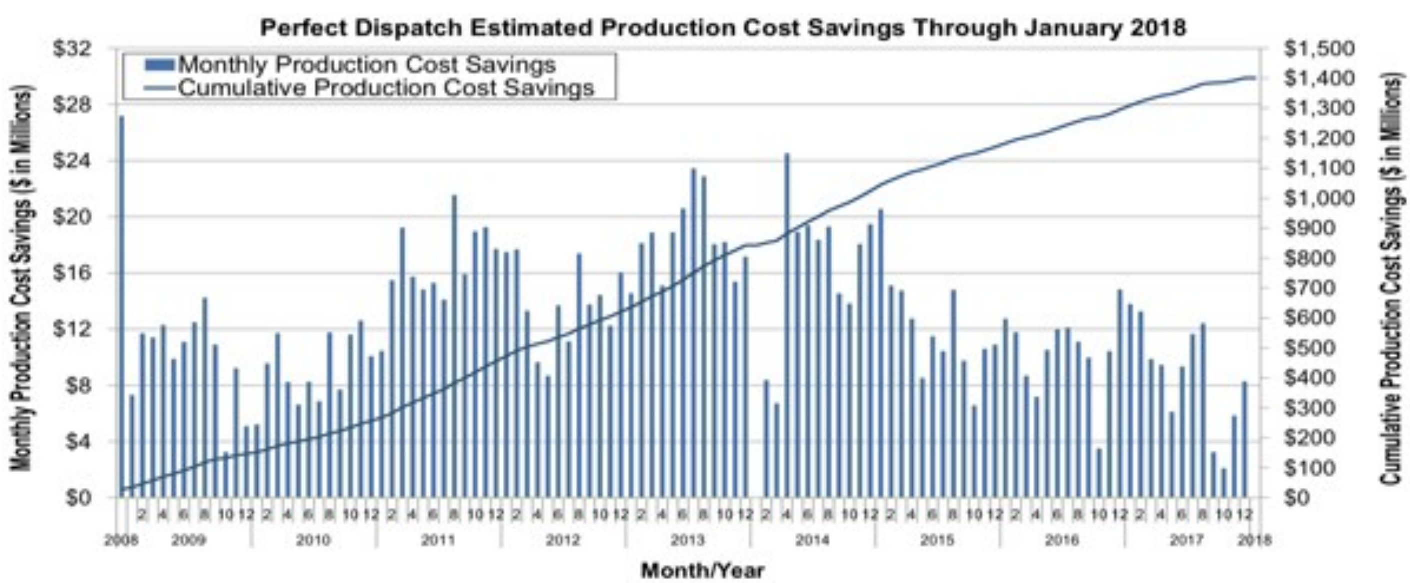
## Black Start RFP

Staff held a special session of the OC after the meeting to walk through its request for proposals for black start service. The RTO initiates a black start RFP process every five years. The current request was issued on Feb. 1 for projects expected to be operational around May 2020.

PJM has developed a two-tiered approach for proposals to balance the resources proposed by bidders with staff's need to see what is available across the RTO's footprint without specifying where black start is needed. Initial proposals with basic information must be submitted by March 8. PJM would then decide whether to pursue that proposal, and those bidders would have until May 31 to submit a full, detailed proposal.

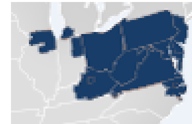
Units would receive revenue based on their actual costs to develop the project, plus a 10% profit margin.

*— Rory D. Sweeney*

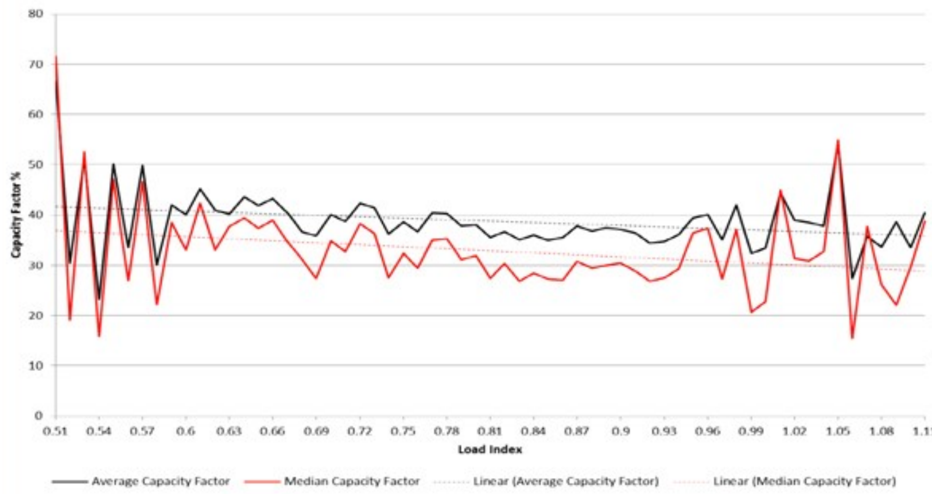



| *PJM*

## PJM NEWS



# PC/TEAC Briefs




Wind capacity factors: hours ending 6-9 a.m., 6 to 9 p.m., 2008-2017 | *PJM*

## Transmission Issues

VALLEY FORGE, Pa. — Stakeholders at last week's Planning Committee meeting pushed PJM to expand its scope on several transmission-related issues, but staff resisted the effort in an attempt to keep a tight focus on specific rule revisions.

Stakeholders endorsed manual changes to revise PJM's processes for new interconnection requests, but Ryan Dolan of American Municipal Power said the changes should go further.

The endorsed changes are part of a larger effort to replace an initial transmission study in the interconnection process with a more detailed feasibility study before moving to a costlier impact study. PJM's Ed Franks said market participants won't know the limiting elements on a line until a meeting later in the process, but Dolan argued they should be able to determine that information before submitting a project into the queue.

"I have no way of predetermining if a switch or another element [or] an entire line might be limiting me," Dolan said.

"It's relatively impossible to put that in the case. I think you can understand that," PJM's Aaron Berner said. "That's a much broader topic."

There were also concerns regarding PJM's proposed Manual 14B changes because the RTO's analysis found they would affect two flowgates, but Dolan argued the impact was potentially much greater and requested an analysis of the potential change to equipment.

"I fully understand the system is a dynamic system, but ultimately I think what we can only request be done right now is we at least take a snapshot of what we know currently of the system and how its topology is laid out, and we can make our decision based off of what is currently in our models," he said.

Staff agreed to delay the endorsement vote for a month to provide that analysis.

Steve Huntoon, of Energy Counsel LLP, raised concerns about proposed changes to Manual 14A, which he called "overbroad and likely to result in a lot of confusion."

"When I read the magnitude of this ... there are some sweeping statements throughout here, and I'm very concerned about the implications of them," he said.

Dolan also questioned the changes, voicing concerns about ratepayers being charged for more than their responsibility for necessary upgrades.

Berner again attempted to rein in the conversation.

"I think we're straying from the manual here. The issues here are around how we process and handle our studies," he said.

Berner suggested PJM provide participants additional education on the issue because some appear to be conflating withdrawal service and transmission service. Dolan said the education would be helpful because "now what I'm seeing here is they're being grouped together here in one study process."

"I just want to make sure that everybody at this committee is aware that non-firm transactions are contributing to overloads in the assessments," Dolan said.

The Manual 14A revisions are planned to go for an endorsement vote at next month's meeting.

## PJM Proposes POI Solutions

Staff is proposing three options for resolving issues with points of interconnection (POI) for grouped generation projects, though none provides a perfect solution.

The first option would require a generation developer to sign on to the Tariff as a transmission owner for the line and a wires-to-wires POI where the gathering line connects to the grid.

John Brodbeck with EDP Renewables argued that FERC Order 807 creates ways for developers to avoid becoming TOs, but PJM's David Egan disagreed.

"If you want the flexibility you're asking for, you're asking to have the TO construct," Egan said. "The fact that you're subdividing and doing whatever you want for your financing, really that's your issue."

Dayton Power and Light's John Horstmann raised the concern that such requirements would change project calculations. For one thing, the developer would have five years to use up all the capability on a line it built or be required to open access to other developers.

"It's a huge impact on the project," Horstmann said.

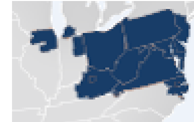
The second option would require the local TO to assume control of the transmission infrastructure up to the connection point for the individual projects.

A third option would require the developer to combine all the projects into a single entity so it can sign a single interconnection service agreement.

"We currently have situations like this ... and we typically have handled this as a shared facilities agreement," Brodbeck said.

*Continued on page 26*

## PJM NEWS



# PC/TEAC Briefs

Continued from page 25

He asked if that was still an option or "if we're becoming a TO, I assume … we get to vote as a TO, we get to walk around as a TO, and all these other things, right?"

Staff said they are working on splitting the manuals to pull out generator-specific revisions into a separate manual.

### Capacity Factors

PJM is proposing several Manual 21 changes based on a review of data regarding generator performance.

Staff plan to shorten the summer generation testing period by one month, limiting it to July 1 through Aug. 31. They are also proposing to use the median capacity factor instead of the average capacity factor for both wind and solar resources, along with relying on the actual five-minute settlement values to estimate what output would have been absent curtailments of wind by PJM operations.

PJM's Jerry Bell reviewed staff research showing that average solar capacity factors are similar to median capacity factor results, but average wind capacity factors are quite different from median results. The study analyzed both summer and winter performance for both generation types.

The data analysis also found that five-minute settlement values for wind resources, which are available to the generators, are very similar to state estimator results, which they don't have access to.

Finally, an analysis of testing data showed that generators tend to test during the best possible conditions, or test early and then retest if conditions improve.

"I'm not saying there's any malicious intent here, but there may be things that we don't see because we can't get a view of the energy balance," Bell said.

### Roseland Conflict

PJM staff made it clear early during the discussion on the Roseland–Branchburg–Pleasant Valley Corridor that they intended to wrap up the months of discussion about the project.

"Our intent would be to not bring this back to the TEAC after this point," Berner said.

However, AMP wanted to outline its concerns. Dolan brought up the results from a recent FERC decision that showed the cost to rebuild the line has nearly doubled.

PJM staff said past estimates were based on the amount of time it had to produce the numbers and were done using different methodologies. They defended the decision to install a double-circuit structure but only string a single circuit because the cost of expanding to a second circuit in the future would be "significantly" higher than the 10% adder included in the current estimate.

Staff also defended their rejection of simply not replacing the line based on the initial results of their analysis of that plan.

"What we see here is enough to conclude that's a bad idea," PJM's Mark Sims said. "Just doing the first round of analysis gives us a severe enough of a result."

*— Rory D. Sweeney*

# SPP NEWS

## MMU Kicks off Quarterly Market Report Webinars

SPP's Market Monitoring Unit (MMU) last week conducted its first quarterly market report webinar, importing a practice MMU Executive Director Keith Collins used while at CAISO.

Collins called the Feb. 8 webinar a success, noting it attracted 40 participants. It followed the January release of its quarterly report. (See *SPP Market Monitor: Negative Prices May Require Rule Changes*.)

"It is not only a great forum for us to present on our quarterly report, but it also allows for great interactive discussion between market participants and market monitoring staff," said Collins, who joined the MMU last year.

Staff reviewed the report's highlights, focusing, as the report did, on the SPP market's growing frequency of negative price intervals. The MMU said the market's practice of self-committing resources in the day-ahead market may be exacerbating the situation.

"We're not saying negative prices are bad, but they are an indication of what happens on the system as a consequence of thousands of megawatts not participating in the day-ahead market," Collins told participants. "When they show up in the real-time market, it can create this disconnect."

Collins said the MMU will repeat the practice following each quarterly and annual market report. The calls are open to members, market participants and regulatory staff, among other stakeholders.

"Our goal is to improve the markets through education and understanding of market outcomes," he said.

## December MISO-SPP M2M Results in $4.2M in Charges

SPP recorded its third consecutive month of multimillion-dollar market-to-market (M2M) payments from MISO in December, staff told the Seams Steering Committee on Feb. 7. The month's $4.2 million in charges pushed the amount of M2M payments to SPP past $36.8 million.

Permanent and temporary flowgates were binding for 531 hours in December. SPP's Riverton-Neosho-Blackberry flowgate on the Kansas-Missouri border was once again responsible for the bulk of the charges.

The two RTOs began the process in March 2015. SPP last month said it has reimbursed MISO more than $2.25 million after resettlements of several M2M flowgates, and that it will continue to perform "limited" resettlements because of a memorandum of understanding between the two. (See "SPP Pays MISO $2.25M After M2M Resettlements," *SPP Markets and Operations Policy Committee Briefs: Jan. 16-17, 2018*.)

Staff also briefed the committee on the Feb. 27 MISO-SPP Interregional Planning Stakeholder Advisory Committee meeting. The RTOs' staff and stakeholders will discuss improvements to the Coordinated System Plan, which has identified four potential seams projects in two previous iterations. None of the four survived regional reviews.

SPP is also trying to meet with Associated Electric Cooperative Inc. before March 9. Staff have drafted a scope that identified needs from its 2018 Integrated Transmission Planning Near-term Assessment that are "electrically significant to the SPP-AECI seam."

## Board Approves Non-Jurisdictional Tariff Change

The Board of Directors approved a Tariff revision that incorporates a refund obligation for SPP's nonpublic transmission-owning utility members during a special conference call Monday afternoon.

The measure addresses a FERC directive that SPP require non-jurisdictional transmission owners to refund revenues received associated with their service, and that it enforce the membership agreement in court (EL18-19). The RTO has a Feb. 28 filing deadline in the docket. (See *FERC Backs off Nonpublic Utility Refunds in MISO, SPP*.)

The 20-person Members Committee was divided on its advisory vote to the board, with five members — Empire District Electric, Oklahoma Gas & Electric, Public Service Company of Oklahoma, Southwestern Public Service and Westar Energy — casting opposing votes.

The proposal, which was recommended by the Corporate Governance Committee, includes a provision that should there be a conflict between a FERC refund order and state statute, the refund amount would be deemed uncollectable. Members questioned why non-jurisdictional members should be treated differently than investor-owned utilities and whether their customers might pick up the tab for those entities unable to provide refunds.

"If our customers are overpaid and there's a refund order, our customers are left with a short amount," said OG&E's Greg McAuley.

Kansas City Power & Light's Denise Buffington, who represents IOUs on the CGC, said she supported the measure because of her understanding that the Nebraska Constitution prevents its entities from delegating authority to someone else.

"I'm OK with this if SPP can show how everyone else will be kept harmless," she said. "I will be closely scrutinizing the SPP filing. If it doesn't show harm to other members, we will be filing comments in the docket."

*— Tom Kleckner*

## SPP NEWS

# NERC Board Approves Dissolving SPP Regional Entity

By Tom Kleckner

| © RTO Insider

FORT LAUDERDALE, Fla. — NERC's Board of Trustees on Thursday voted to dissolve the SPP Regional Entity (RE) by terminating the RTO's regional delegation agreement, ending a reliability oversight role that concerned both the reliability organization and FERC.

With the termination of the NERC-SPP delegation agreement, most of the RE's 122 registered entities will be reassigned to the Midwest Reliability Organization (MRO), with the remainder joining SERC Reliability Corp. At the same time, NERC will take over compliance monitoring and enforcement of the RTO for two years following the dissolution's effective date. SERC has been responsible for compliance monitoring and enforcement since 2010.

SPP CEO Nick Brown said he supported the trustees' decision but was disappointed in NERC assuming SERC's monitoring role. The RTO said it preferred having ReliabilityFirst take that responsibility. (See NERC Seeks to Oversee SPP Reliability Compliance.)

"Their decision to provide compliance enforcement services for two years was not what we hoped for, but we're ready to move forward," Brown said in a statement. "We look forward to working in the NERC arena to improve processes related to regional assignment and compliance monitoring and enforcement."

NERC will determine a successor for compliance monitoring and enforcement after completing its two years of oversight, said the organization's interim CEO, Charles Berardesco.

SPP said last July that it would dissolve the RE, which is responsible for auditing and enforcing reliability rules in three balancing authorities: SPP, Southwestern Power Administration and parts of MISO. (See SPP to Dissolve Regional Entity.)

SPP was appointed by NERC as an RE in 2007, but Brown said last year it became clear that agreement was "in jeopardy" as the RE's footprint did not grow to match the RTO's current 14-state territory. NERC also expressed concerns about the relationship between SPP, the RE and the RTO's corporate compliance responsibilities.

That dual role also caused problems with FERC, which criticized SPP in a 2008 audit for failing to ensure the RE's independence from the RTO (PA08-2, AD09-3). The audit called for improved oversight from the RE

Continued on page 29

# DC Circuit Rejects KCC Appeal of Future Rates

By Tom Kleckner

The D.C. Circuit Court of Appeals last week dismissed the Kansas Corporation Commission's appeal of a 2015 FERC ruling over formula rates, saying it lacked standing in the case (No. 16-1093, 16-1164).

The KCC argued before the court in November that FERC acted unlawfully by approving formula rates for future public utilities to use in operating electric transmission facilities. The Kansas commission asserted that FERC couldn't determine that the formula rates for "not-yet-existing entities to implement at some point in the future" are just and reasonable.

Writing for the three-judge panel on Feb. 6, Judge Karen Henderson said the KCC had not suffered harm sufficient to establish standing. "A harm that will not occur unless a series of contingencies occurs at some unknown future time is not concrete, particularized, actual and imminent," she said.

The Kansas commission was appealing a 2015 FERC decision, in which the agency granted Transource Energy's request for formula rates for future affiliates by replicating approved rates for Transource Kansas. Transource formed the wholly owned subsidiary to compete for Kansas-based transmission projects in SPP and said it expected to create additional subsidiaries in the future.

FERC rejected the KCC's rehearing request in 2016, ruling that preapproving a formula rate for Transource Kansas, which did not operate any active transmission facilities, was "no different" from preapproving a formula rate for future Transource affiliates.

The KCC's appeal to the D.C. Circuit also included a similar FERC proceeding involving MPT Heartland Development, which formed Kanstar to compete for Kansas-specific projects. The federal agency in 2015 approved Kanstar's request for a formula rate for its own use and that of future affiliates and later denied the KCC's rehearing request.

The court consolidated the two appeals.

In November, the KCC lost another appeal in the D.C. Circuit when it attempted to challenge a 2014 FERC order approving SPP's merger with the Integrated System. (See Court Rejects Challenge to SPP-Integrated System Merger.)

# NERC MRC/Board of Trustees Briefs

## NERC Hopes to Name New CEO in Spring

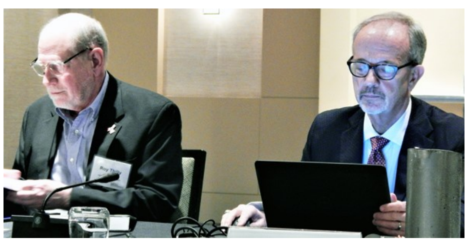
FORT LAUDERDALE, Fla. — The chairman of NERC's Board of Trustees said last week the organization hopes to have a new CEO in place by the summer.

Roy Thilly told the Member Representatives Committee (MRC) during its Feb. 7 quarterly meeting that the selection process is "well underway," with a goal for this spring.

"This is an important decision the full board needs to be involved in," he said.

Russell Reynolds Associates has been conducting the executive search. Thilly said the board will select a group of about eight potential candidates, with a small group of trustees whittling that list down to two or three final candidates. The board will interview each of the finalists.

"Essentially, we want to be enthusiastic about the final candidate and have no hesitation that we have the right person for this job," Thilly said. "If we don't, then it's important that we step back and take the time to do so."



Roy Thilly (left) and Charlie Berardesco | © RTO Insider

NERC has been without a CEO since Gerry Cauley resigned in November following his arrest for domestic abuse. General Counsel Charlie Berardesco stepped into the CEO role on an interim basis. (See Cauley Resigns; NERC Launches Search for Replacement.)

Thilly complimented NERC's management team and staff for "really stepping up," along with the Regional Entity CEOs.

"We feel like we're in a good place right now," he said. "The feedback I've gotten is that Charlie has stepped into the job in a seamless way and pulled the organization together."

NERC also needs to hire a new chief security officer to replace Marcus Sachs, who resigned shortly after Cauley. (See NERC Parts Ways with Chief Security Officer.) Thilly said candidates have been "assembled," but the agency won't move forward until the new CEO is in place.

"It's essential the new CEO participate in that hiring process and be very comfortable with the selection," he said.

## FERC's McIntyre Says Resiliency Still of Interest in DC

FERC Chairman Kevin McIntyre told NERC trustees and stakeholders that the federal government still remains focused on grid resiliency, despite the commission's rejection of the Department of Energy's Notice of Proposed Rulemaking meant to address the issue. FERC launched a new resiliency initiative Jan. 8 after declining to take up the department's proposal.

Kevin McIntyre | © RTO Insider

"Interest in that subject is not waning on [Capitol Hill], and it is not waning in the administration," McIntyre said. "When real-world engagements occur with resiliency, like it's old-fashioned cousin, reliability, we should use that as a teachable moment, and take lessons forward into the game plan and be better prepared for future events."

McIntyre said the commission looks forward to working with NERC, and that it must remain "vigilant" in ensuring the grid's resiliency, "a phrase you've no doubt heard."

McIntyre and Berardesco were among several industry witnesses who recently testified before the Senate Energy and Natural Resources Committee about the January "cold-weather bomb." (See FERC, RTOs: Grid Performed Better in Jan. Cold Snap vs. 2014.)

"Hanging in the air was the broader overall topic of grid resiliency," McIntyre said. "I was very glad to be in a position to report that, based on various analyses, the bulk

Continued on page 30

# NERC Board Approves Dissolving SPP Regional Entity

Continued from page 28

Board of Trustees to prevent conflicts of interest.

The termination agreement is expected to be approved by MRO next week. Berardesco said the agency will then move "expeditiously" to file for FERC's "prompt" approval, easing the RE's concern that it will continue to hemorrhage its staff.

NERC staff said they plan to make the FERC filing as soon as early March. SPP hopes to complete the transition by the end of July.

"We all recognize as the SPP RE goes away, there is the potential for a gap with people leaving," Berardesco said.

Ken McIntyre, NERC vice president and director of standards and compliance, reassured the trustees that the agency is working closely with the RE to stem further staff losses, saying, "We are closely aligned on the issues as we move forward."

He said staff are already working on the filing and are only waiting on final approval from the MRO board. "We have every incentive to move forward as quickly as we can. That's in the best interest of everyone involved."

McIntyre also said staff have collaborated with MRO and SERC to "ensure a high level of continuity during and after the transfer occurs."

"I believe the level of staffing they have requested is correct and necessary to handle the number of entities that are transitioning," he said. "We are confident … that both REs are capable of handling the oversight of the entities in their regions."

MRO and SERC are both adding staff — including some from the SPP RE — to handle their additional responsibilities. NERC will also provide the REs with additional support.

"Staff has been working with both entities regarding their new responsibilities," McIntyre said. "We've told both entities we would be enhancing our oversight in the next few months, to help them do the work."

Registered entities were reassigned without looking at RTO or market boundaries, McIntyre said. (See NERC Assigns SPP RE Registered Entities to MRO, SERC.) He told the trustees that incumbent MRO and SERC entities will see only a small increase in cost, if that.

# NERC MRC/Board of Trustees Briefs

Continued from page 29

power system operated very reliably. My general impression was that my report, and those of the other witnesses, was well-received and appreciated in how well the grid performed."

Resiliency is a priority at FERC, McIntyre said, and he expressed his gratitude to NERC for its work on the issue. He referenced the MRC's Reliability Issues Steering Committee, which, at the trustees' request, is developing a framework for resiliency.

The committee told stakeholders that most resilience definitions have two common elements: that it is "time-dependent" and differs from business-as-usual operations, and that it cannot be measured in a single-unit metric. It said the National Infrastructure Advisory Council's framework for establishing critical infrastructure goals is a "credible source for further understanding and defining resilience."

The framework includes four outcome-focused abilities:

- Robustness: the ability to absorb shocks and continue operating.
- Resourcefulness: the ability to skillfully manage a crisis as it unfolds.
- Rapid Recovery: the ability to restore services as quickly as possible.
- Adaptability: the ability to incorporate and improve with lessons learned from past events.

"We think this framework makes sense," said ISO-NE's Peter Brandien, the steering committee's chair.

## DOE Looks to Work with NERC, FERC to Shape Policies

Bruce Walker, assistant secretary of the Energy Department's Office of Electricity Delivery and Energy Reliability, said the department's goal is to develop partnerships within the industry and provide resources to move issues forward.

"We have the opportunity to see the results of real work being done by FERC and NERC, and to shape policy through our coordination with both of these agencies," said Walker, whose nomination was approved in October. "The [DOE] has stepped back to take a look at what our mission really is. It is … our mission-critical focus across the energy sector."

Walker, formerly a deputy executive for

Bruce Walker | © RTO Insider

Putnam County, N.Y., ran a boutique consulting firm focused on risk management at investor-owned utilities and served in leadership positions at National Grid and Consolidated Edison. He said his first goal is to develop a North American energy model "that integrates all different forms of energy so that we can run, like we do on our transmission system, a load flow."

He said the bulk power system's interdependencies will identify "those assets than can be enhanced, replaced or installed" to improve the system's "affordability" as "we start moving forward" with the administration's proposed $1.5 trillion infrastructure bill.

Other goals will focus on cyber and physical security, rapidly moving forward storage technologies, making use of sensing technologies and developing hardening strategies that add "some resiliency in a viable way."

## WECC: CAISO, SPP Efforts Pressure Peak Reliability

Jim Robb | © RTO Insider

Jim Robb, CEO for the Western Electricity Coordinating Council, said recent developments within the Western Interconnection have put "substantial financial pressure" on Peak Reliability, the region's delegated reliability coordinator (RC).

Within the past few months, Peak has announced it would team up with PJM Connext to attract participants to a new Western energy market. (See Peak, PJM Pitch 'Marketplace for the West'.)

CAISO has responded by saying it will leave Peak and provide its own RC function. (See 'Horse is out of the Barn' for CAISO RC Effort.) Mountain West Transmission Group has gotten deeper into negotiations to join SPP, which would result in the RTO becoming its RC. (See SPP, Mountain West Resolving 'Contentious' Issues.)

"Obviously, significant changes are going on that create a lot of uncertainty about how the ultimate reliability landscape will play out," Robb said. He thanked FERC staff for working with WECC staff "as we move to a multiple RC model."

## NERC, WECC, British Columbia Agree to MOU

The board unanimously approved a memorandum of understanding between the British Columbia Utilities Commission (BCUC), WECC and NERC.

Modeled on recent MOUs with other Canadian jurisdictions, the agreement recognizes the parties' roles under existing laws and authorities, maintains the status quo on funding arrangements, and provides for sharing of confidential and compliance-related information. WECC will periodically provide information on the Canadian province's noncompliance for NERC's review.

WECC General Counsel Steve Goodwill said a fully executed MOU should be in place in March, pending board approval from NERC and WECC.

NERC began formal correspondence with British Columbian authorities in 2006, while WECC has provided compliance monitoring for BCUC since 2009 through an administration agreement.

Goodwill said WECC is also negotiating similar terms with Mexico that recognize the changes in that country's regulatory structure.

"Like the MOU with British Columbia, it will openly recognize for the first time the ability to share critical information on compliance enforcement in Mexico with NERC," Goodwill said. "This is an all-around good story. The ability to share data among ourselves is critical."

## MRC Elects, Re-elects 4 Trustees to Board

The MRC approved two new members and re-elected two incumbents to the board. Suzanne Keenan was elected to a two-year term expiring in 2020 and Rob Manning to a three-year term expiring in 2021, while George Hawkins and Jan Schori were re-elected to three-year terms also expiring in 2021.

- Keenan served as CIO and senior vice president of process improvement for Wawa from 2008 to 2017. Her industry experience includes field services, re-engineering and performance, regulatory performance, and emergency preparedness experience with PECO Energy.

Continued on page 31

# EEI Praises Tax Bill, Looks Ahead to Infrastructure Policy

By Michael Brooks

NEW YORK — The Edison Electric Institute celebrated the passage of the Tax Cuts and Jobs Act at its annual briefing to Wall Street analysts last week, touting how it had worked to preserve interest deductibility for the corporate debt of the country's 49 investor-owned utilities.

EEI President Thomas Kuhn said the original bill did away with interest deductibility and that Speaker of the House Paul Ryan told him he was reluctant to make an exception for the IOUs. The trade association then developed an analysis showing how maintaining the deductibility "would help our consumers, help us build infrastructure … and would be a net positive for the Treasury," Kuhn told more than 100 analysts on Wednesday.

The result: The utilities industry was only one of two, along with agriculture, to receive the exception.

Under the new law, most corporations will only be able to deduct interest expenses of up to 30% of their earnings, which are now taxed at a flat 21%. The provision is meant to discourage excessive borrowing and keeping large amounts of debt on the books.

But being "the most capital-intensive industry in the United States … maintaining ready access to capital markets and keeping the cost of capital low are important to meeting our investment needs," EEI said.

Kuhn said EEI is now working to clarify that the exception applies to utilities' operating companies, not just their holding companies. Because the tax bill was signed into law on Dec. 22, the association is also seeking clarification on if the new rules on bonus depreciation — which allow businesses to deduct 100% of the cost of certain business assets, up from 50% — apply to the fourth quarter of 2017.

The clarifications could come from the Treasury Department or Internal Revenue Service, or in technical corrections bill later this year.

### Political Outlook

Tax reform was the top priority for EEI last year, and it ended up paying off, Kuhn said. (See EEI Pledges to Fight Elimination of Tax Deductions.)

Based on President Trump's State of the Union Address on Jan. 30, and statements from Republican Congressional leaders, he said, infrastructure will be theme of 2018.

One thing EEI is not seeking out in infrastructure legislation is federal funding.

"We don't need federal money, which is a good thing," Kuhn said, given that "there's not going to be a ton of federal money to pass around" under the new law.

Instead, said Phil Moeller, executive vice president of business operations and regulatory affairs, EEI will seek policies that increase certainty for building transmission projects, such as more efficient permitting processes, increased cooperation between state and federal regulators, and reforms to return on equity calculations.

The former FERC commissioner repeated the association's positions the next day in D.C. before a hearing of the Senate Energy and Natural Resources Committee on energy infrastructure.

Moeller stressed the need for "cooperative federalism, so that one state doesn't deny the benefits [of a project] to the citizens and customers of many other states." He noted that regulatory deadlines for different jurisdictions are not aligned, creating delays for projects.

FERC can change much on its own, Moeller told both analysts and senators, but legislation would provide utilities more certainty. Much of EEI's concerns would be addressed in a bipartisan energy bill pending before the Senate, Moeller said. That bill, the Energy and Natural Resources Act of 2017, is similar to a bill that passed the Senate 85-12 in 2016 but could not make it past the House of Representatives before Congress' session ended.

Kuhn spent a portion of his opening remarks on the upcoming midterm elections, saying the association is monitoring them closely. He noted the unusually high number of representatives retiring at the end of their terms: 55, 38 of which are Republican. Democrats need to pick up 25 seats to gain control of the chamber, which Kuhn said there is a good chance of happening.

### Return on Equity

EEI is particularly focused on the issue of calculating ROEs. The D.C. Circuit Court of Appeals threw out FERC's two-step discounted flow methodology in April last year, saying the commission had not justified how it set the rates for a group of New England transmission owners. (See Court Rejects FERC ROE Order for New England.)

EEI published a whitepaper prepared by ScottMadden on the issue, which Moeller said he hopes will help guide FERC.

Moeller noted that he was on the commission that created the process in 2014, saying it is a complex and difficult issue that took months to figure out. He expects the new commission — Cheryl LaFleur is the only remaining commissioner who voted on the ROE ruling — to take its time to address the court's concerns, but that a new rule would come out before the end of the year.

"The good news is they have to deal with it based on the remand from the D.C. Circuit," Moeller said. The other good news, he said, is that the commissioners and their staffs are very knowledgeable of the issue.

"I think we have a chairman in Kevin McIntyre who not only has the experience but also the intelligence and, importantly, the temperament to run an agency that is increasingly in the public view," Moeller said.

# NERC MRC/Board of Trustees Briefs

Continued from page 30

- Hawkins, CEO of the D.C. Water and Sewer Authority, was first elected to the board in 2015. He serves on the Standards Oversight & Technology and Corporate Governance & Human Resources committees.
- Manning was involved in transmission and distribution infrastructure research for the Electric Power Research Institute but will give up those duties with his election. He also spent six years with the Tennessee Valley Authority.
- Schori, former CEO of the Sacramento Municipal Utility District for more than 14 years, was elected to the board in February 2009. She chairs the Finance and Audit Committee and serves on the Compliance and Enterprise-wide Risk committees.

*— Tom Kleckner*

# Exelon Confident in Nuclear Support Programs

*By Peter Key and Rory D. Sweeney*

Exelon executives expressed confidence during a fourth-quarter earnings call that programs supporting the company's nuclear generation fleet will expand into other states this year.

"Since our last earnings call, we continue to see positive momentum for policy changes … at state, FERC and RTO levels," said Joe Dominguez, vice president of governmental and regulatory affairs and public policy.

Dominguez said Exelon is focused on three goals: ensuring that resilient resources are compensated fairly; addressing the price formation flaws that PJM has identified; and preserving and expanding zero-emission credit (ZEC) programs and similar initiatives. All three would benefit the company, which has the largest nuclear fleet of any U.S. generator and has seen its plants undercut in power markets by cheaper natural gas and renewable energy.

According to its critics, Exelon is seeking subsidies for plants that are no longer economical to operate. But the company maintains that it is asking to be compensated for the reliability of nuclear generation, which can run constantly and don't emit greenhouse gases.

CEO Christopher Crane said the company will continue to defend the ZEC programs in Illinois and New York and work to get similar programs enacted in New Jersey and Pennsylvania. The New Jersey Legislature is considering a bill that would subsidize the state's nuclear plants.

Exelon also is urging FERC to adopt PJM's price formation proposal, Crane said. PJM stakeholders endorsed the RTO's problem statement and issue charge to examine price formation procedures for its energy markets at a Markets and Reliability Committee meeting in December.

The PJM-backed revisions would allow large, inflexible generators like coal-fired and nuclear to plants to set LMPs, which current rules prohibit. When such units are dispatched despite LMPs below their offers, they must seek reimbursement through uplift payments. (See PJM Markets and Reliability Committee Briefs: Dec. 21, 2017.)

Exelon earned $1.87 billion ($1.94/share) in the fourth quarter of 2017, compared to $204 million ($0.22/share) a year earlier. Its adjusted earnings per share were 55 cents, which fell short of the Zacks Investment Research consensus estimate of 62 cents.

Exelon's revenue in the quarter was $8.38 billion, up from $7.86 billion a year prior and ahead of the Zacks consensus estimate of $7.6 billion.

*Quotes courtesy of Seeking Alpha.*

Three Mile Island

# PG&E Vows Fight over Wildfire Cost Recovery

*By Jason Fordney*

Pacific Gas and Electric CEO Geisha Williams said Friday that the utility will fight for the right to recover costs stemming from California wildfires "in the legal, regulatory and legislative arenas."

San Francisco-based PG&E and other investor-owned utilities are being investigated for causing the devastating fires that wracked the state last year. Investigators for the California Department of Forestry and Fire Protection have not yet found evidence indicating the fires were caused by IOU infrastructure.

Williams said PG&E will seek a rehearing of the California Public Utilities Commission's decision to deny San Diego Gas & Electric's request to recover from ratepayers $379 million in costs related to the 2007 Southern California wildfires. (See Besieged CPUC Denies SDG&E Wildfire Recovery.) Heavy winds exacerbated the effects of the deadly infernos that swept across the region.

"It's bigger than just PG&E and the other California IOUs, and much bigger than just this past year's fires," Williams said of the wildfires, drawing a link between them and climate change. "This is a collective societal challenge."

PG&E reported $13 billion in electric operating revenues in 2017 and associated operating expenses of $4.3 billion. Net income was $1.6 billion after taxes, compared with $1.4 billion in 2016 and $861 million in 2015.

The company had earlier announced a suspension of dividends amid uncertainty over its liability associated with last year's Northern California fires. For the fourth quarter of 2017, GAAP results were $114 million ($0.02/share) compared with $692 million ($1.36/share) for the same quarter in 2016.

### No Challenge to Diablo Canyon Decision

PG&E also said it will not contest a CPUC ruling that granted the utility just a fraction of the cost recovery it had requested for retiring the Diablo Canyon nuclear power plant, the last remaining nuke in a state where more than 60 such plants were proposed in the 1970s.

PG&E said "today's announcement comes after all the parties had the opportunity to confer" following the CPUC's Jan. 11 decision on the joint proposal agreement. (See PG&E Disputes ALJ's Diablo Canyon Recommendation.)

# Xcel Energy Yearly Earnings Rise Despite down Q4

*By Tom Kleckner*

Xcel Energy last week reported fourth-quarter earnings of $189 million ($0.37/share), down 16.7% from the same period last year.

But for the year, the Minneapolis-based company reported earnings of $1.15 billion ($2.25/share), up from $1.12 billion ($2.21/share) in 2016.

Both quarterly and yearly earnings dropped 5 cents because of a one-time expense related to the federal Tax Cuts and Jobs Act passed in December.

CEO Ben Fowke said during Xcel's earnings call that the tax bill "provides the opportunity" to lower consumers' bills and make additional investments "in areas that are important for our customers."

The company is involved in pending rate cases in several of the states in which it operates, all of which were filed before the new tax legislation was proposed.

"In these cases, and in other jurisdictions, we're having active discussions and formal proceedings with our regulators regarding the impacts of the Tax Cuts and Jobs Act and how we will provide the expected benefits to our customers," CFO Bob Frenzel said. "Ultimately, tax reform results in lower taxes, lower deferred taxes and, correspondingly, lower cash flow metrics."

The company said it expects to "moderate" its five-year capital expenditure plan by $500 million and issue up to $300 million of additional equity. It said it successfully completed CapEx 2020, a 13-year project involving more than 800 miles of transmission lines, $2 billion of investment and working with 11 different utilities.

The American Wind Energy Association's top utility wind-energy provider for the 12th straight year, Xcel said its "Steel-for-Fuel" strategy — which replaces fossil fuel plants with wind turbines — resulted in regulatory approval for 1,550 MW of new wind resources in the Upper Midwest, a proposed 300-MW wind farm in South Dakota, and settlements in principle for 1,230 MW of wind in Texas and New Mexico during 2017.

# Company Briefs

### Siemens Closing Ohio Turbine Factory

Siemens is closing its Mount Vernon, Ohio, factory, which employs about 400 people in its Power and Gas, Power Generation Services and Dresser-Rand businesses, as well as some who perform corporate functions.

The company said it will offer about 40% of the 400 workers at the factory a chance to relocate.

The closure is part of Siemens' plans to shed about 6,900 jobs, mainly in its Power and Gas business, which manufactures power plant turbines.

More: The Columbus Dispatch

### 5th Solar Company Expands Or Relocates After Tariffs

Mission Solar Energy will double its solar module manufacturing capacity to 400 MW per year by expanding its property in San Antonio, Texas, sources have told *pv magazine*.

Continued on page 34

# COMPANY BRIEFS

Continued from page 33

The magazine says the expansion marks the fifth instance it has reported in the last three months of U.S. module makers expanding or Asian companies planning to relocate factories to the U.S. as a result of the tariffs President Trump imposed on imported solar cells and modules.

More: *pv magazine*

## SC Co-ops Want to Buy Santee Cooper

V.C. Summer nuclear plant

The 20 South Carolina electric cooperatives that purchase power from Santee Cooper are interested in buying the troubled utility from the state. The co-ops collectively buy 60% of Santee Cooper's power, making them its largest customer.

Santee Cooper is in financial difficulty because of its role in the failed attempt to build two new reactors at the V.C. Summer Nuclear Station in Fairfield County. SCANA, which was the senior partner in the project, also is in trouble and has negotiated a deal to sell itself to Dominion Energy that is drawing a lot of flak from state legislators and others.

Dominion, NextEra Energy, Duke Energy and Southern Co. have expressed interest in buying Santee Cooper.

More: *The State*

## SCANA, Dominion Seek Quick Approval of Deal

Some South Carolina lawmakers are unhappy with SCANA and Dominion Energy for trying to get the South Carolina Public Service Commission to approve Dominion's proposed purchase of SCANA by July while simultaneously asking lawmakers to move slowly in dealing with the failed expansion of the V.C. Summer nuclear plant.

The companies want to get the deal closed and stall legislation in the Senate that would temporarily block SCANA's South Carolina Electric & Gas subsidiary from collecting $37 million per month for the failed attempt to build two new reactors at V.C. Summer. Similar legislation passed the House of Representatives by a vote of 119-1.

"You cannot ask for a slow deliberative process while asking for an immediate hearing and an immediate result," said Sen. Mike Fanning, a Democrat who represents the district that's home to V.C. Summer. "It is the height of hypocrisy to be telling us to slow down on the one hand and at the same time rushing a decision through (state utility regulators). They are talking out both sides of their mouth."

More: *The Post and Courier*

## Switch, Capital Dynamics Developing 1-GW Solar Project

Technology infrastructure company Switch on Feb. 7 said it will team with Capital Dynamics to develop a 1-GW solar project in Nevada.

The company said the idea for the project, called Gigawatt 1, comes from Gigawatt Nevada, an initiative proposed by its CEO, Rob Roy, three years ago. The initiative's premise "is that Nevada should harness the sun the same way Alaska harnesses its oil to significantly benefit all Nevadans," Roy said.

Capital Dynamics will develop and own the project, which Switch said will offer power at a substantially lower rate than the one offered by NV Energy under its Green Rider Tariff.

More: *Switch*

## PennEast Files Eminent Domain Lawsuits

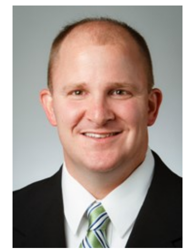
PennEast on Feb. 6 filed 44 eminent domain lawsuits in Pennsylvania and New Jersey to gain access to properties in the path of its natural gas pipeline.

FERC conditionally approved the pipeline on Jan. 19, giving PennEast the ability to use eminent domain to access property. PennEast, which is a consortium of companies, sent letters to property owners that gave them until Feb. 5 to accept its offer for easements.

PennEast is moving ahead with eminent domain proceedings even though the New Jersey Department of Environmental Protection has rejected its water quality permit application. The consortium can reapply for the permit.

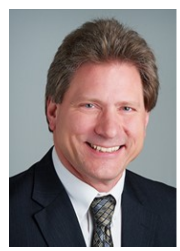
More: *The Morning Call*

## AES Utilities Cutting Jobs, Getting New Leadership



Jackson

AES subsidiaries Indianapolis Power & Light and Dayton Power & Light will cut 100 jobs and 60 jobs, respectively, as part of an effort by AES to "simplify its portfolio, optimize its cost structure and reduce its carbon intensity."



Zagzebski

Additionally, Craig Jackson, who serves as chief financial officer for both utilities, will become their president and CEO on March 31. Ken Zagzebski, who joined AES in 2007, will become executive chairman of the boards of directors and holding companies for both utilities, and serve as the general manager for the Southland construction project in California.

More: *The Indianapolis Star*

## Pepco Asks for Rate Decrease in Maryland

Pepco is asking the Maryland Public Service Commission to approve a rate reduction so it can pass its savings from the federal Tax Cut and Jobs Act on to its customers.

The Exelon subsidiary said the reduction would decrease its average customer's monthly bill by $2.92. It had asked for a rate increase of $5.14/month.

Pepco said it expects to ask regulators in D.C. to approve a rate decrease there too.

More: *WTOP*

# FEDERAL BRIEFS

## Judge Gives EPA 30 Days to Hold Hearing on Emissions Reduction

A federal judge on Wednesday gave EPA 30 days to hold a hearing on a request from Connecticut that it force the coal-fired Brunner Island Steam Electric Station in southern Pennsylvania to reduce its emissions. Connecticut says the plant is emitting nitrogen oxides that blow into its territory and harm its air quality.

Judge Warren Eginton, of the U.S. District Court for D.C., also gave EPA 60 days to make a final decision on the request, which Connecticut made in a petition filed June 2016.

Eginton ruled that EPA violated the Clean Air Act's 60-day time limit for responding to such petitions and denied the agency's request to take the rest of the year to make a decision.

More: *The Hill*

## TVA Gets Board Nominee, Promotes Three

President Trump has nominated Memphis attorney John Ryder to the Tennessee Valley Authority Board of Directors. If he is confirmed by the Senate, Republicans would have a majority of the seats on the nine-member board. Ryder has served as general counsel at the Republican National Committee from 2013 to 2017.

Separately, TVA has promoted Steve Bono to senior vice president of nuclear operations, putting him charge of the agency's three nuclear power plants. Lang Hughes, who had been Browns Ferry Nuclear Plant's general manager for site operations, has been promoted to Bono's old role of site vice president at the plant. Glenn Fry, who had been plant manager, has been promoted to Hughes' former position and Werner Paulhardt has been hired to fill Fry's old role. Paulhardt had been plant manager at the Prairie Island Nuclear Plant in Red Wing, Minn.

More: *Times Free Press; The News Courier*

## DOE Considering Emergency Compensation for Coal Plants

Department of Energy officials are discussing having Energy Secretary Rick Perry issue orders to provide emergency compensation to financially troubled FirstEnergy coal plants that are at risk of shutting down, according to a Bloomberg report that cites people familiar with the discussions.

The officials are weighing the option in light of FERC's decision last month to reject Perry's Notice of Proposed Rulemaking to compensate plants with a 90-day supply of onsite fuel their full operating costs. (See *DOE NOPR Rejected, 'Resilience' Debate Turns to RTOs, States*.)

Asked to confirm the talks, agency spokeswoman Shaylyn Hynes said "that is not correct information" but wouldn't provide further detail. The department's press department tweeted that the sources were "misinformed."

More: *Bloomberg*

## Bill Contains Tax Credits for Nuclear Projects, Carbon Capture, More

President Trump on Feb. 9 signed a budget bill that contains tax credit extensions for nuclear projects; carbon capture; installers of combined heat and power turbines and microturbines; and builders of energy-efficient housing.

The extension of the 1.8-cent/kWh credit for nuclear power plants over 6,000 MW will primarily benefit one project — the construction of two new reactors at the Vogtle Electric Generating Plant in Georgia. The reactors are not expected to be completed until 2021 and 2022 at the earliest. Prior to the bill, they would have had to have been in operation before 2020 to take advantage of the credit.

The bill also expands and extends the tax credit for each ton of carbon dioxide that is captured and sequestered, used for another product, or used for enhanced oil recovery. Senate Democrats who supported that provision said in a press release that it would "provide a crucial lifeline to coal miners by providing a pathway to maintain coal as a part of our diverse energy mix, doing so in a cleaner way, and reinforcing bipartisan support for standing up for these workers and their communities."

More: *Ars Technica*

## Co-Op CEO to be Nominated For Rural Utility Post

President Trump has announced his intent to nominate Kenneth Johnson to be the Department of Agriculture's rural utility service administrator.

Johnson is the general manager and CEO of Co-Mo Electric Cooperative and president of its Co-Mo Connect broadband subsidiary in Tipton, Mo. Co-Mo is the first rural electric cooperative to deploy a fiber-to-the-home network to all its members without using federal or state funding, according to the White House.

Johnson also is a director and past president of the Central Electric Power Cooperative and a director for the Association of Missouri Electric Cooperatives, where he has served on the executive and legislative committees.

More: *White House*

## Senate Committee Advances Wheeler Nomination

The Senate Environmental and Public Works Committee voted 11-10 along party lines Feb. 7 to advance the nomination of former coal lobbyist Andrew Wheeler to be EPA's deputy administrator.

Wheeler

Wheeler is an attorney at Faegre Baker Daniels and was a registered lobbyist for coal mining giant Murray Energy and other companies until last year. Previously, he worked at EPA and as a staffer for Sen. James Inhofe (R-Okla.), former chair of the committee.

More: *The Hill*

## China, EU Demand Talks on Solar Tariffs

China and the European Union are demanding talks with the U.S. over compensation for tariffs that President Trump recently imposed on solar panels, according to documents filed with the World Trade Organization.

Taiwan and South Korea also have filed demands. While they and China have accused the U.S. of breaking WTO rules, the EU did not.

More: *Reuters; Reuters*

# STATE BRIEFS

## MAINE

### Investigation Sought into UMaine-Con Ed Project


Ward

State legislators are calling for an investigation into recorded phone conversations indicating that a University of Maine official provided information that helped a company affiliated with ConEdison Solutions win the right to negotiate a long-term contract potentially worth more than $100 million to supply UMaine with power.

The university's Board of Trustees has called on its audit committee to investigate the conversations, which were reported by the *Portland Press Herald/Maine Sunday Telegram* and indicate that Jake Ward, UMaine's vice president for innovation and economic development, communicated with and coached partners of ConEdison Solutions. Ward wasn't involved in the actual conversations and has denied that he provided any insider information to anyone, but other people on the calls discussed information they said was provided by Ward.

Con Ed had developed a plan to provide the university's Orono campus with wood-fired steam and electricity from an abandoned paper mill. Documents indicate that OTM Holdings, which bought the paper mill, is aligned with Con Ed. UMaine's general counsel and the board's vice chair both expressed confidence in Ward and the bidding process but said they wanted to take an extra step to assure public confidence in the process.

More: *Portland Press Herald*; *Portland Press Herald*

### LePage Administration Proposes EV Registration Fee

Gov. Paul LePage's administration has proposed a bill that would impose an annual registration fee of $250 on all-electric vehicles and $150 on gas-electric hybrid vehicles.

The Department of Transportation's manager of legislative services said the fee is needed to make sure that owners of hybrid and all-electric vehicles pay their share of state road repairs, which are funded by a gasoline tax.

Conservation groups and EV owners said they think the legislation targets them without really addressing problems with the state's highway fund.

More: *Portland Press Herald*

### PUC Investigating High Bill Complaints

The Public Utilities Commission's consumer assistance division is investigating complaints from consumers about high electric bills that can't be explained just by cold weather and an increase in the cost of power for people who don't choose their own power supplier.

In some cases, the division has checked customers' meters and found them to be working correctly, leaving it to continue to investigate the reasons for the high bills, said Kiera Reardon, consumer adviser with the Public Advocate's Office.

Public Advocate Barry Hobbins said if complaints continue to come in, he may ask the PUC to open a separate docket matter for them.

More: *Portland Press Herald*

## MASSACHUSETTS

### Healey Wants Decisions About Northern Pass' Future Made Public

Attorney General Maura Healey has written a letter to Department of Energy Resources Commissioner Judith Judson to "explain in writing and release to the public" any decisions that the state and the utilities working with it on clean energy procurement make about the future of the Northern Pass project.

The project, a venture between Eversource Energy and Hydro-Quebec that would bring 9.45 TWh of hydropower from Quebec into the state each year, was chosen in the state's clean energy procurement, but its future is in doubt because New Hampshire refused to grant it a permit. (See *New Hampshire Rejects Permit for Northern Pass*.)

Eversource and the state's other two main utilities, National Grid and Unitil, were involved in choosing Northern Pass, and questions have been raised about the fairness and transparency of the selection process.

More: *WBUR*

### Coalition Seeks Increased Natural Gas Access

Business and trade groups Feb. 7 launched the Mass Coalition for Sustainable Energy by delivering letters to Gov. Charlie Baker and legislative leaders asking them to ensure a reliable supply of power in the state by increasing access to natural gas.

Coalition members cited a recent warning from ISO-NE that maintaining the New England grid's reliability could become more challenging, especially if the region continues to increase its reliance on natural gas for power generation. ISO-NE gets half its power from gas, up from 15% in 2000. (See *Report: Fuel Security Key Risk for New England Grid*.)

The coalition includes the Greater Boston Chamber of Commerce, the Massachusetts Business Roundtable and Associated Industries of Massachusetts.

More: *The Salem News*

## MISSOURI

### PSC Staff, OPC Question Benefit of Empire's Wind Plan

Public Service Commission staff and the Office of Public Counsel filed documents Feb. 7 with the PSC questioning whether Empire District Electric's plan to replace a coal plant with a $1.5 billion, 800-MW wind farm actually will save the company's customers $325 million over 20 years.

The filings express concern about money that Empire would have to repay a tax equity partner slated to finance $800 million of the wind project; the plan's reliance on Empire's ability to sell surplus power from the wind farm into SPP for more than the cost of generating it; and Empire requiring customers to continue paying rates that include upgrades to the coal plant that it plans to retire.

Empire hasn't filed its own testimony but said it welcomes a thorough review of its plan.

More: *The Joplin Globe*

Continued on page 37

# STATE BRIEFS

Continued from page 36

## NEVADA

### Group Files to Get Renewable Power Initiative on Ballot

A group called Nevadans for a Clean Energy Future has filed paperwork to get an initiative placed on the November ballot that would require at least half the power in the state to come from renewable sources by 2030.

The state's renewable portfolio standard currently mandates 25% renewables by 2025. A measure to increase that to 40% was approved by the Legislature during its 2017 session but was vetoed by Gov. Brian Sandoval, who said it was premature given the ballot initiative effort.

Getting the initiative on the ballot requires at least 112,544 signatures from registered voters, including at least 28,136 in each of the state's four congressional districts. The last day for submitting signatures is June 19.

More: The Nevada Independent

## NEW JERSEY

### Nuclear Subsidy Bill To Get Hearing

Senate President Steve Sweeney said a bill that would subsidize the two nuclear plants that Public Service Enterprise Group operates in Salem County will be ready for the Budget Committee to consider this week. The bill originally was set for a hearing on Feb. 5.

Sweeney said lawmakers are still hashing out the bill's details with Gov. Phil Murphy's office. An earlier version of the bill was proposed during the administration of former Gov. Chris Christie, who didn't want it to contain subsidies for renewable power, which Murphy does.

New Jersey Sierra Club Director Jeff Tittel estimates the bill could increase costs for ratepayers by more than $4 billion over 10 years. Like its predecessor, the bill prevents the public from seeing financial information that PSEG considers proprietary.

More: WHYY

## NORTH DAKOTA

### Burgham to Reimburse Xcel For Super Bowl Tickets

Gov. Doug Burgum on Feb. 6 said he will reimburse Xcel Energy $37,000 for tickets to the Super Bowl that the utility provided to him and his wife.

Burgum tweeted a picture of himself and his wife at the game.

Burgum and first lady Kathryn Helgaas Burgum watched the game from an Xcel suite. He said prior to the game that he intended to talk to Xcel officials about their service and infrastructure in the state. Xcel has more than 90,000 customers in Grand Forks, Fargo and Minot.

Burgum said he would repay Xcel "to eliminate even the perception of any conflict."

More: The Associated Press

## OHIO

### Supreme Court Asked to Reconsider FirstEnergy Ruling

The Consumers' Council and the Environmental Law and Policy Center have asked the state's Supreme Court to reconsider its January ruling barring the Public Utilities Commission from ordering FirstEnergy to refund $43.4 million in overcharges to its customers.

The commission had ordered FirstEnergy to make the refund in 2013, saying the company had wrongly billed its customers for overpriced renewable energy credits it purchased in 2009.

The complainants maintain that FirstEnergy's lawyers confused case law with the Revised Code on the issue of utility refunds.

More: The Plain Dealer

## RHODE ISLAND

### State to Prepare RFP for 400 MW of Renewable Power

Gov. Gina Raimondo on Feb. 5 said she is directing the Office of Energy Resources to work with the state's utilities to have a request for proposals for up to 400 MW of renewable energy ready by the end of summer.

Proposals can include solar, onshore and offshore wind, and small hydro, but not large hydro from Canada, which recently won Massachusetts' renewable RFP.

Raimondo last March said she wanted the state's power supply to include 1,000 MW of renewable energy by the end of 2020.

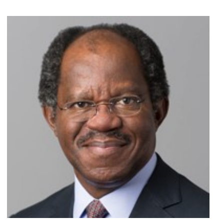
More: Providence Journal

# NRG Selling Renewables, Other Assets for $2.8 Billion

Continued from page 1

infrastructure assets in the energy, transport and water/waste sectors where we possess deep experience and strong relationships," according to the company's website.

"We view each of the three acquired businesses — the [NRG Yield] stake, the O&M business and the development business — as highly complementary and well positioned to capitalize on the increasing market demand for low-cost, clean energy," GIP Chairman Adebayo Ogunlesi said in a statement.



Ogunlesi

The sale is subject to antitrust review under the Hart-Scott-Rodino act and must be approved by FERC, the U.S. Department of Energy, the California Public Utilities Commission, the Connecticut Public Utilities Regulatory Authority and the Pennsylvania Public Utility Commission.

As part of the deal, NRG also has agreed to sell two assets to NRG Yield for about $407 million: the 527-MW Carlsbad Energy Center, a natural-gas fired power plant in Carls-

Continued on page 38

# Environmentalists Push Back on Dynegy-backed Air Standard

*By Amanda Durish Cook*

Environmental groups have moved to halt an attempted roll-back of Illinois' emissions standards, which would weaken pollution limits for Dynegy's coal-fired generation fleet within the state.

The Environmental Defense Fund, Environmental Law and Policy Center, Natural Resources Defense Council, Sierra Club and Respiratory Health Association last week filed a joint motion to stop the Illinois Pollution Control Board from holding hearings on the proposed emissions rule change until Dynegy completes its merger with Vistra Energy in late April. (See *Vistra Energy Swallowing Dynegy in $1.7B Deal*.)

The nonprofits argue that Vistra has so far been uninvolved with drafting the Multi-Pollutant Standard rulemaking and won't be bound to "any of Dynegy's statements about how it would operate the plants were the rule to be implemented."

In their motion, the groups say, "It is unknown whether, in a few months' time, the new owners will wish to pursue the current proposed rule modifications, maintain the current rule, or propose additional or different modifications. … In several months … Dynegy will no longer be the decision-makers."

The groups further contend that while Dynegy's proposed pollutant rulemaking is predicated on its need for financial relief, the company's financial picture will be sunnier after the merger.

"The resulting company will have over $4 billion in equity and face an entirely different financial situation, undercutting Dynegy's main argument for the rule change," the organizations claim.

Dynegy attorneys worked with the Illinois Environmental Protection Agency last year to revise the state's 2006 clean air standard for coal plants. The company is seeking to replace the current rate-based emissions limits with an annual cap on sulfur dioxide and nitrogen oxide emissions for the state's coal fleet as a whole. If approved, the new sulfur dioxide limit would be almost double what Dynegy emitted last year, while the nitrogen oxide cap would be 79% higher. Additionally, the caps would not decline should Dynegy retire or mothball any plants. (See "Illinois EPA Rule Change Still in the Works," *Dynegy Auction Proposal Fails to Gain Ill. Lawmaker Support*.)

Dynegy says it will not waver in its pursuit of aggregate annual tonnage caps and contends that the hearings should continue as planned.

"Dynegy's focus is on business as usual. As a result of anti-trust laws, we have to operate independently of Vistra Energy. We believe the established hearing process that's being conducted by the Illinois Pollution Control Board should continue," said Dynegy spokesman David Byford.

More than that, Byford argued, the motion is bad for business in the state.

"The motion by the environmentalists sets a bad precedent and will have a chilling effect on anyone doing business or considering doing business in Illinois. Any prudent owner will undertake a number of internal and external initiatives to help the plants' viability and evaluate each plant on a standalone basis, just as any business — large or small — would do," he said in an email to *RTO Insider*.

Byford also contends that the Illinois Environmental Protection Agency estimates that allowable sulfur dioxide emissions under the proposed rule would be 17% lower than under the current rule, while nitrogen oxide emissions would be 24% lower. But environmental groups have said the draft rule will permit overall emissions to exceed those of Dynegy's fleet in the last two years, and some predict the company will shutter its more expensive coal plants with modern pollution controls, allowing cheaper plants without scrubbers to run.

The groups also argue the rulemaking stands to benefit a company that will soon cease to exist.

"This motion will ensure that Illinois doesn't rush to change important pollution standards that protect the health and environment of Illinoisans only to help a company that will no longer be in existence by the middle of this year," said NRDC staff attorney Toba Pearlman.

"The Illinois Environmental Protection Agency has been talking to the wrong company. It's time to put an end to this poorly conceived, backroom proposal to boost profits at the expense of public health," said ELPC staff attorney Lindsay Dubin.

The Pollution Control Board held one hearing on the proposed rule change in Peoria last month and has scheduled another for March 6 in Edwardsville.

# NRG Selling Renewables, Other Assets for $2.8 Billion

*Continued from page 37*

bad, Calif., scheduled to come online by the end of the year, and the 154-MW Buckthorn Solar farm in Pecos County, Texas.

Additionally, NRG will sell its South Central business to Cleco Corporate Holdings for $1 billion in cash. The South Central unit owns and operates 3,555 MW in generation assets consisting of a 75% stake in the 300-MW Bayou Cove natural gas plant in Jennings, La.; the 430-MW Big Cajun-I natural gas plant in Jarreau, La.; the 1,461-MW Big Cajun-II coal and natural gas plant in New Roads, La.; the 1,263-MW Cottonwood natural gas plant in Deweyville, Texas; and the 176-MW Sterlington natural gas plant in Sterlington, La. NRG will lease back the Cottonwood plant through May 2025.

That sale is also subject to antitrust review and must be approved by FERC, the Committee on Foreign Investment in the United States and the Louisiana Public Service Commission.

## Cleco Sees Big Growth from NRG Acquisition

Eric Schouest, vice president of marketing-South for Cleco Power, told the Gulf Coast Power Association's MISO South regional conference in New Orleans on Thursday that his company's acquisition includes full service wholesale power supply contracts for nine Louisiana cooperatives, five municipalities in Arkansas, Louisiana and Texas, and one investor-owned utility. "We serve about 23 of the 64 parishes in the state of Louisiana. It adds about 23, 24 new ones," he said.

Eric Schouest | © *RTO Insider*

*Rich Heidorn Jr. contributed to this article.*

# MISO Awaits FERC Following Remand on Tx Upgrade Funding

Continued from page 1

remand; the court said FERC had not yet provided a suitable answer to the TOs' complaint (16-1075).

Judge Judith W. Rogers filed a lengthy dissent supporting FERC and rejecting the petitioners' argument that the commission's orders require them to operate partly as a nonprofit business. "Not every regulatory decision requiring action by a regulated entity gives rise to a corresponding entitlement to a return," Rogers wrote.

MISO spokesman Mark Brown said the RTO will continue to monitor the case, but it has no plans to act on the ruling until FERC issues an order.

"In the meantime, we are evaluating the implications for MISO and will be prepared to move forward upon final outcome," Brown told *RTO Insider*.

But Ameren seeks a different, more immediate, outcome.

"Ameren looks forward to MISO filing revised tariff sheets to reinstitute the tariff provisions that were in effect immediately prior to the effective date of the vacated provisions, as expeditiously as practicable," the company said in an email.

Under MISO's Tariff, generation owners are responsible for funding 100% of network upgrades for projects below 345 kV and 90% for projects 345 kV and above, with the remaining 10% folded into the TO's rate base.

The Tariff allows two methods for generation owners to fund the construction of network upgrades: either the TO fronts the capital, recovering costs over time through a charge on the interconnecting generator; or an interconnecting generator provides the capital. Under the generator funding option, the TO does not earn a return on financing network upgrades; the Tariff leaves it to the interconnecting generator to choose between the two funding options.

Originally, MISO allocated the costs equally between the generator and TO, but FERC determined that local transmission customers shouldered a disproportionate share of the cost of upgrades that stood to benefit more remote customers. FERC then issued a series of orders from 2015 to 2016 authorizing new generators to self-fund construction for network upgrades, regardless of whether grid owners wanted to finance it. The commission ruled that allowing TOs to

| © RTO Insider

choose a funding option — coupled with the power to levy subsequent charges to generators — might allow them to discriminate among generators.

The court, however, said the commission's reasoning was "weak" and there was "neither evidence nor economic logic supporting FERC's discriminatory theory as applied to transmission owners without affiliated generation assets." It doesn't make sense, the court said, that "FERC may compel transmission owners to operate the upgrades without an opportunity to earn a return." The court noted that of the six petitioning MISO TOs, only one — Ameren — owns generation.

The court also found that not all network upgrade costs and risks are "baked in" when generators pay for them, and TOs must "bear liability for insurance deductibles and all sorts of litigation, including environmental and reliability claims."

Rogers said her colleagues ignored the history behind FERC's open access rules. "The court could hardly dispute that Ameren has 'a competitive motive' to favor affiliated generators over other generators. The commission addressed this circumstance in Order No. 888, and the Supreme Court thereafter observed that 'utilities' control of transmission facilities gives them the power either to refuse to deliver energy produced by competitors or to deliver competitors' power on terms and conditions less favorable than those they apply to their own transmissions.'"

## Relief

FERC told the court that its review was premature because the TOs could seek increased rates by filing Section 205 petitions. But the majority said that option would not provide the relief the TOs sought.

"First, FERC's precedents do not provide compensation for several of the classes of risks that petitioners allege will accompany construction and operation of the network upgrade facilities. For example, fines and penalties for violations of mandatory reliability standards and environmental regulations are generally charged directly to the utility, not passed through to customers via rate increases. Further, FERC has stated that it takes a comprehensive view of a company, its employees and its operations when wielding its enforcement power against the utilities it governs. As such, compensation for the types of risks identified by the petitioning transmission owners may not be possible, even if proven in a future hearing."

The court said it had no need to decide whether FERC is barred by the Federal Power Act or the Constitution from forcing TOs to construct and operate generator-funded network upgrades.

"Indeed, we should not do so until the commission has developed a record by considering that question itself," the court said. "But we are troubled by the prospect of allowing the orders to continue in the interim.

"FERC may determine on remand that a transmission owner's consent is required to impose generator-funded network upgrades, or that it would be unjust or unreasonable to force the transmission owners to accept increased risk with no increased return," the court continued. "If it does not, Article III courts may subsequently require it to do so."

# RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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


## If You're not at the Table, You May be on the Menu

*RTO Insider* provides independent and objective reporting on RTO/ISO policymaking. We're "inside the room" alerting you to decisions – months before they're filed at FERC.

**If those decisions impact your bottom line, you can't afford to miss them.**

**Every issue includes the latest on:**

- RTO/ISO policy: CAISO, ERCOT, ISO-NE, MISO, NYISO, PJM, SPP
- Federal policy: FERC, EPA, CFTC, Congress, Supreme Court
- State policy: State legislatures and regulatory commissions

For more information, contact Marge Gold at marge.gold@rtoinsider.com