



## Study: 60% Wind Possible in SPP

By Tom Kleckner



OKLAHOMA CITY — SPP could handle wind-penetration levels of up to 60% with additional transmission and monitoring tools, officials told the Markets and Operations Policy Committee last week.

The RTO's first wind integration study since 2009 found that wind energy, which represented about 14% of system capacity at the end of 2015, will expand significantly based on requests in the interconnection queue. The study analyzed SPP's transmission area for system reliability breakpoints due to increased wind generation and said additional operational procedures should be considered "to reliably operate above the currently installed maximum wind capability."

If its recommendations are implemented, the report said, SPP's transmission system could "reliably handle" wind representing up to 60% of internal SPP load. The RTO saw record wind-penetration levels last year approaching 39% and a record wind peak of 9,948 MW. (See [SPP, ERCOT Set New Wind Peaks](#).)

SPP studied wind-penetration levels of 30%, 45% and 60%. A voltage-stability analysis indicated renewable penetration

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**Wind Surpasses Nuclear in ERCOT (p.24)**

## Next up in Ohio PPA Battle: Dynegy Weighs in

*FirstEnergy Responds to Generators' Criticism as PUCO Hearings Continue*

By Ted Caddell and Suzanne Herel

Dynegy entered the Ohio PPA fray last week, floating an offer to the Public Utilities Commission of Ohio that it said would save consumers in the state \$5 billion over eight years.

The company said it was making its counter offer "in response to the exorbitant and counterproductive subsidies currently under consideration" for American Electric Power and FirstEnergy. It would either provide power from its existing generation fleet in the state, or replace subsidized American Electric Power and FirstEnergy plants with new, natural gas-fired generation.

The Ohio-based companies have proposed power purchase agreements to PUCO that

would provide a guaranteed return for their embattled generating stations for eight years. PUCO staff has signed on to both proposals, which have been attacked by independent power producers and others. (See [Merchant Generators Lead Opposition to FirstEnergy-Ohio Settlement](#).)

Dynegy's offer comes two weeks after Exelon made its own offer to PUCO, proposing a competitive bidding process to supply the 3,000 MW for which FirstEnergy is seeking guaranteed rates (the combined value of



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## DFAX: 'Poison Pill' or 'Best Method' of Cost Allocation?

By Suzanne Herel

WASHINGTON — Stakeholders from Maryland, Delaware and New York urged FERC last week to allocate the costs of the Artificial Island and Bergen-Linden Corridor transmission projects more broadly across PJM, while utilities in New Jersey and Pennsylvania called for continued use of the solution-based distribution factor (DFAX) method.



Much of the discussion at the technical conference focused on the stability fix for Artificial Island, home to the Salem (pictured) and Hope Creek nuclear plants.

The two sides squared off at a Jan. 12 technical conference ordered by the commission, which said the use of the DFAX method for such projects might be unjust and unreasonable (EL15-95). (See [FERC Questions Fairness of Artificial Island Cost Allocation](#).)

### Two Questions

The forum focused on two questions: Is there

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### Also in this issue:



#### Energy Department Announces \$220M for Grid Modernization

RTOs and ISOs will take part in 15 R&D projects awarded almost \$38 million in funding by the Energy Department. (p.2)

FERC Accepts ISO-NE Solar Count (p.27)

MISO News (p.4-6)

NYISO News (p.7-8)

SPP News (p.9-17)

Briefs: Company (p.18), Federal (p.20), State (p.21)

# Energy Department Announces \$220M for Grid Modernization

## RTOs Partner with National Labs for \$38M in Projects

By Michael Brooks

WASHINGTON — RTOs and ISOs will take part in 15 research and development projects awarded almost \$38 million in funding by the Energy Department last week.

U.S. Energy Secretary Ernest Moniz last week announced \$220 million in funding as part of the Energy Department’s Grid Modernization Initiative, an effort by the Obama administration to integrate new technology into the country’s energy infrastructure.

The department awarded the funds over three years, subject to congressional appropriations, to its national laboratories. The labs will partner with grid operators, energy companies, universities and local government agencies on 88 projects, ranging from advanced storage systems to improving transformer resiliency, to accommodate increased transmission from renewable sources.

“Modernizing the U.S. electrical grid is essential to reducing carbon emissions, creating safeguards against attacks on our infrastructure and keeping the lights on,” Moniz said. “This public-private partnership ... will help us further strengthen our ongoing efforts to improve our electrical infrastructure so that it is prepared to respond to the nation’s energy needs for decades to come.”

The projects are based in part on recommendations from last year’s

Quadrennial Energy Review. (See Federal Energy Review Calls for Billions of Dollars in Spending on Infrastructure.)

“A modernized grid will enable two-way communication and data flows, allowing operators to better understand the grid’s immediate operating status,” said Franklin Orr, DOE undersecretary for science and energy. “By having this information, operators can run the grid closer to its full potential and capabilities, resulting in greater efficiencies and reliability.”

### PJM in 8 Projects

PJM will take part in eight projects, followed by ERCOT with six, MISO with five and ISO-NE, NYISO and SPP with three each, according to the department. CAISO is participating in one project.

The eight projects in which PJM is participating were awarded about \$25 million. One involves enhanced grid modeling; the others address transmission reliability, said Emanuel Bernabeu, manager of applied solutions.

Bernabeu called the modeling project “critical.”

“Our load changes rapidly. The composition is changing, and the way the customer behaves is also changing,” he said. “Our model needs to be able to capture that. Otherwise, when I run a [model], it may not match reality.”

The project, which will cost \$2.7 million, will be developed at Argonne National

Laboratory in partnership with Iowa State University, ERCOT, Commonwealth Edison and Alliant Energy, among others.



The other projects span a wide range of grid reliability. One aims to improve situational awareness in the control room. Another project, a \$3 million effort across eight of the labs, aims to enhance the modeling of extreme events, including cold weather, hurricanes and geomagnetic disturbances. “Extreme weather is becoming more prevalent now,” Bernabeu said.

### SPP, MISO Team on Seams Project

SPP and MISO will be the key players in an effort to evaluate the HVDC and AC transmission seams between the U.S. interconnections, according to SPP. The \$1.2 million Midwest Interconnection Seams Study “will explore timely questions about aging infrastructure and enhance existing regional and interregional planning processes,” said Lanny Nickell, SPP vice president of engineering.

“It’s a long overdue study. SPP has been recommending such a study to investigate the interconnections between the eastern and western grids,” said Jay Caspary, director of research, development and special studies for SPP. The project will also involve the Energy Department’s Western Area Power Administration, the Solar

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Regions	Project Description (See p. 3 for footnotes)	Funding (million \$)
PJM	Control Theory <sup>1</sup>	\$ 6.5
PJM, NYISO, CAISO, ERCOT	Development of Integrated Transmission, Distribution, and Communication (TDC) Models <sup>2</sup>	\$ 4.0
PJM	Multi-Scale Integration of Control Systems (EMS/DMS/BMS) <sup>3</sup>	\$ 3.5
ISO-NE	Emergency Monitoring and Controls Through New Technologies and Analytics <sup>4</sup>	\$ 3.0
MISO, PJM	Development and Deployment of Multi-Scale Production Cost Models <sup>5</sup>	\$ 3.0
PJM,ERCOT	Extreme Event Modeling <sup>6</sup>	\$ 3.0
PJM,ERCOT	Measurement-Based Hierarchical Framework for Time-Varying Stochastic Load Modeling <sup>7</sup>	\$ 2.7
SPP	Protection and Dynamic Modeling, Simulation, Analysis, and Visualization of Cascading Failures <sup>8</sup>	\$ 2.5
ERCOT	Frequency Response Assessment and Improvement of Three Major North American Interconnections due to high penetrations of Photovoltaic Generation <sup>9</sup>	\$ 2.2
NYISO, ERCOT	WindView <sup>10</sup>	\$ 1.8
MISO, ERCOT	Providing Ramping Service with Wind to Enhance Power System Operational Flexibility <sup>11</sup>	\$ 1.5
PJM, ISO-NE	Computational Science for Grid Management <sup>12</sup>	\$ 1.5
SPP, MISO	Midwest Interconnection Seams Study <sup>13</sup>	\$ 1.2
SPP, MISO	Models and Methods for Assessing the Value of HVDC and MVDC Technologies in Modern Power Grids <sup>14</sup>	\$ 0.8
MISO, ISO-NE, PJM, NYISO	Discovery Through Situational Awareness (DTSA) <sup>15</sup>	\$ 0.7

Grid modernization projects involving RTOs/ISOs. Source: Energy Department

## Energy Department Announces \$220M for Grid Modernization

*Continued from page 2*

Energy Industries Association, Minnesota Power and Xcel Energy. “No individual regional planner can do this on their own,” Caspary said.

“This important work will play a key role as MISO continues to ensure reliability now and in the future,” said Jennifer Curran, MISO vice president of system planning and seams coordination.

### Some RTOs’ Roles Unclear

It is unclear to what degree each RTO and ISO will play in the projects.

ISO-NE said it is only acting as an adviser to the labs for certain projects. NYISO said that, though it is listed on the department’s [website](#), it declined to partner with it on WindView, a \$1.8 million visualization program that would display wind forecast information along with system power flows in order to better monitor how wind power affects the grid as the resource becomes more prevalent throughout the U.S.

### Companies Involved

Also among those participating in the projects are:

- Utilities (including Southern Co., Dominion Resources, Tennessee Valley

Authority, Duke Energy, National Grid, Louisville Gas & Electric);

- Equipment suppliers (Alstom Grid, GE-Alstom, United Technologies);
- Research organizations and universities (Electric Power Research Institute, George Washington University, UNC-Charlotte, Clemson University, University of Vermont, Regulatory Assistance Project, New York State Energy Research and Development Authority); and
- Trade associations (American Public Power Association, National Rural Electric Cooperative Association).

*Suzanne Herel, Tom Kleckner, Amanda Durish Cook, William Opalka and Rich Heidorn Jr. contributed to this report.*

### Project Descriptions *Source: Energy Department*

<sup>1</sup> Develop new control solutions including topologies, algorithms, and deployment strategies for transitioning the power grid to a state where a huge number of distributed energy resources are participating in grid control to enable the grid to operate with lean reserve margins. The theory effort will recognize the need to engage legacy control concepts and systems as we transition to more distributed control.

<sup>2</sup> Build on best-in-class Lab capabilities to develop an integrated, flexible, open source framework for coupling TDC models and simulations. Validate framework and models on hardware testbed. Demost with partners will include distributed /wide area controls and DER.

<sup>3</sup> Create an integrated grid management framework for the end-to-end power delivery system — from central and distributed energy resources at bulk power systems and distribution systems, to local control systems for energy networks, including building management systems.

<sup>4</sup> Develop a new generation of emergency control systems for the U.S. power grid based on a combination of new technologies, and new analytic capabilities related to recent progress in the power system reliability assessment translated into new real-time algorithms for voltage stability and transient stability. Compared to the existing configuration of the overall protection system, the proposed Coordinated Emergency Control System (CECS) will bring the following significant advantages: The CECS system will operate in real time, while its setting will be selected in near real time, will dynamically coordinate settings of the existing hierarchical protection from Zone 1 protection to SPS protection and involve additional control actions to the overall design, CECS system will adapt to changing system configuration and parameters, and the system will be more online and data-driven, and not just post event-analysis driven. It will rely on new analytics.

<sup>5</sup> Develop ability to more accurately estimate economic impact of renewables, storage, and other technologies. Research scalable methods for deterministic and stochastic PCM, higher resolution grid models, applications of uncertainty quantification and high performance computing (HPC). New capabilities will be deployed with system planners through PCM workshops.

<sup>6</sup> Improve preparation, planning, and response to extreme events such as hurricanes, EMP, etc. Focus on developing analysis prototype demonstrating up to 500x performance improvements in modeling cascading events and probabilistic N-k contingency analysis.

<sup>7</sup> Leverage practical AMI, SCADA, PMU and laboratory experiment data to develop static, dynamic as well as customer behavior-driven and demand response-enabled load/DG models at component, customer, feeder and substation levels. The developed hierarchical load/DG models will facilitate the development of planning models and integrated transmission and distribution models (Topic 4). Successful completion of this project will deliver a set of load/DG models and commercially-available software tools (PSS/E, CYME, RTDS/OPAL-RT) with the developed models.

<sup>8</sup> Develop and validate a dynamics and protection simulation platform to enable utility planning, operations, and protection engineers to better understand and mitigate cascading blackouts involving protection. To realize this goal, the team will build upon the capabilities of ‘TS3ph’, a dynamics simulator developed through the DOE-OE AGMR funded project ‘High-fidelity ‘faster than real-time’ simulator for predicting power system dynamic behavior.’ The project will focus on advancing the modeling, simulation, analysis, and visualization capabilities of TS3ph-CAPE through the following innovation pathways: Fill current industry modeling gaps, accelerate dynamics simulation, develop new analysis metrics, create new situational awareness capabilities, and validate and verify the developed dynamics simulator with standard industry tools, and observed data.

<sup>9</sup> Directly addressing the reduced system inertia and frequency response challenge under high (60-90%) solar penetration for all three major grids (WECC, ERCOT and EI). Technical Approach: 1) Dynamic simulations using power grid models and best-estimated high PV penetration scenarios, 2) Develop grid-support inverter control.

<sup>10</sup> This project aims at providing solutions to maintain situational awareness in the control room as more wind generation is integrated in power systems. The team proposes to develop an open visualization platform ‘WindView’ that can simultaneously display wind forecast information with system power flows for the operators to better understand the operational aspects of the system as more wind energy is integrated. Industry-available and research-grade forecasting tools can be interfaced with WindView to display the wind energy forecasts through cognitive coarsened information representation, such as quantiles, bar graphs, and other representations identified by the industry partners. Through use of publicly-available map-based layout, such as Google Maps, the network information, such as power flows, generation dispatch, etc., will be displayed to avail the wide-area information. The design of WindView will be shaped by the most pressing needs of the industry through feedback and participation with industry partners.

<sup>11</sup> The aim of the proposed wind-friendly flexible ramping product is to transform a negative characteristic of wind power, specifically ‘ramping’, into an advantageous one. Through efficient management of wind ramps, a significant contribution to the reduction of integration costs of wind power can be obtained while simultaneously allowing the optimization of wind power as a ramping product in the market. Main project initiatives are: (i) Development of a probabilistic wind power ramp forecasting method to characterize and forecast ramps from a utility-scale perspective; (ii) Analysis and synthesis of ramping products specific to the proposed test system(s), allowing guidelines and recommendations to be derived with respect to spatiotemporal impacts and other case-specific considerations; (iii) Design of flexible ramping products which can be implemented in a new market model to co-optimize energy, reserve and ramping.; (iv) Validate the benefits of incorporating wind ramp forecasts and improved management of wind power dispatch, and demonstrate potential economic and reliability benefits; (v) Continue to develop the ‘GridLAB-ISO’ tool and integrate the proposed ramping product model into it; use ‘GridLAB-ISO’ to simulate an actual ISO system, and (vi) Create awareness of the benefits of flexible ramping products for the enhanced integration of wind energy, sharing methodologies and lessons learned with industry.

<sup>12</sup> Address increasing computational complexity and reduced time-to-solution requirements for grid planning and operations via new scalable solvers, dynamics, and uncertainty analysis. Builds upon existing DOE-funded work (GridPack, M2ACS Program, PETSc and SUNDIALS libraries).

<sup>13</sup> Convene industry and academic experts in power systems to evaluate the HVDC and AC transmission seams between the U.S. interconnections and propose upgrades to existing facilities that reduce the cost of modernizing the nation’s power system.

<sup>14</sup> This project will concentrate on exploring scenarios and use cases, including multi-objective DC system modulation/control strategies for providing artificial inertia to the system and simultaneously to provide an optimal redistribution of power flows in the AC system to accommodate additional flows from renewables in a reliable and economical fashion. The key element in the approach is to maximize the value of DC technologies by exploiting their advantages in a coordinated fashion.

<sup>15</sup> Produce a prototypical, interactive situational-awareness tool to provide data visualizations and identify anomalous grid behavior, allowing the user to explore any of the data. The research will look for precursors to unusual grid behavior and then apply machine-learning algorithms to help understand what happens around these unusual grid behaviors. Interactions with our industry partners will help fine-tune these algorithms. This project will advance the state-of-the-art and provide insights that can benefit the industry.





# MISO NEWS

## RTO Seeks to Launch Ramp Product April 1

By Amanda Durish Cook

CARMEL, Ind. — MISO will ask FERC for an April 1 effective date on its new ramp capability software, RTO officials said Friday.

Dhiman Chatterjee, MISO's senior manager of market analysis, said he expected the commission to approve the request, which will be filed Feb. 1. The commission approved the product in October 2014 (ER14-2156).



Chatterjee

"They have understood the need for a product to explicitly address ramp concerns," he said at a [technical workshop](#) Friday, which focused on how stakeholders should incorporate new ramp capability software into their systems and how the product fits into MISO's market.

"We'll do our best to do what we can [to answer questions] today, and if we can't address it today, we'll make a note. We do have some time before the go-live date," Chatterjee said.

A ramp capability customer care line is scheduled to open Feb. 9. MISO plans to make the production interface on ramp capability offers available on March 25.

### In Development Since 2011

The software, which has been in development since 2011, is designed to respond to short-term variations in load by holding back a portion of rampable capacity from the five-minute dispatch.

With "increasing renewable penetration and interchange flexibility, net load variations and uncertainties impose challenges to maintain real-time power balance," MISO said.

MISO will set ramp requirements for the day-ahead and real-time markets based on load forecasts and historical analysis. The new products won't eliminate all short-term scarcity events, such as sudden generator losses and large changes in interchange.



Wang

"Now we'll have the capability to prepare for both the anticipated and unanticipated ramp needs," MISO Market Design Engineer Congcong Wang said.

Jason Howard, manager of market

quality, said while participation isn't mandatory, it would be difficult for operators to completely ignore the ramp software's benefits, as revenues earned from software use would contribute toward reducing any owed make-whole payment.

"We're essentially saying in our FERC filings

that this is like our [revenue sufficiency guarantee] make-whole payments," he said. Up or down ramp capability will be included as additional revenue components under the revenue sufficiency guarantee.

Resources able to respond to five-minute energy dispatch instructions — generation, type II demand response and external asynchronous resources — will be able to offer ramp capability. Energy storage is not eligible and dispatchable intermittent resources will be able to provide down ramp based on their ability to reduce output in accordance with load following needs.

### Opportunity Costs

Resources that are dispatched out of merit order through the clearing of up or down ramp capability will be compensated for lost opportunity costs at a maximum of \$5/MWh.

MISO says the product could save \$3.8 million to \$5.4 million in dispatch and commitment costs.

Howard said use of the ramp product will result in two new line items on settlement statements, a day-ahead procurement charge and a real-time procurement charge. Payments for those providing ramp will be included under make-whole payments.

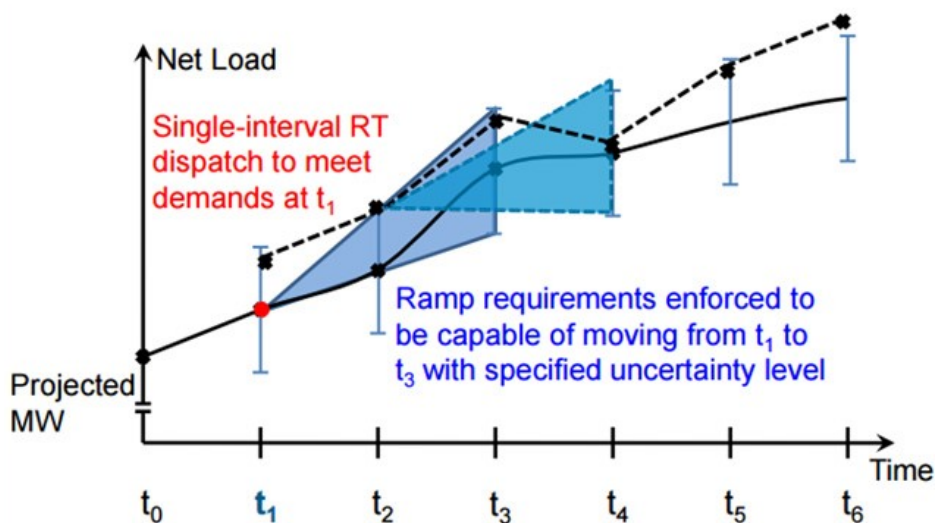
Chatterjee said MISO will likely conduct a study on the ramp product to gauge effectiveness over its first few years of operation.

Jason Fogarty said Potomac Economics, MISO's Independent Market Monitor, is supportive of the product. He said he isn't worried about a small number of resources not offering ramp, but he would become concerned if a large portion of resources decline to participate.

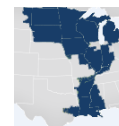
"If ramp capability withholding becomes prevalent, we would make a suggestion to MISO to update their software programs," Fogarty said.

Going forward, Fogarty said, the Monitor will report quarterly on quantities of withheld up or down ramp capability, the impact of the \$5 demand curve on procurement and any potential "market power or efficiency concerns."

MISO Senior Customer Trainer Ron Matlock said additional training sessions for stakeholders will be held on Feb. 17, Feb. 24 and March 2.



Ramp capability requirements Source: MISO



## OMS IDs Capacity, DR, Cost Allocation as Key 2016 Issues

The Organization of MISO States board approved its 2016 Strategic Initiative on Thursday, calling for the RTO to focus on issues including resource adequacy, capacity, demand response and cost allocations under the settlement of the SPP transmission dispute.

"There were several different focus areas," said OMS President Sally Talberg, of the Michigan Public Service Commission.

At the request of Minnesota Public Utilities Commissioner Nancy Lange, the strategy document was amended to include mention of MISO's stakeholder redesign.

The board also discussed MISO's queue reform. (See [MISO Unveils Queue Reform](#)

[Transition as Wind Advocates Seek Delay.](#))

Lange said MISO contacted Minnesota officials to solicit feedback on the changes. Minnesota has "bumped up against queue restraints in the past," Lange said, adding that the reform will be a welcome change.

Comments on MISO's queue reform filing are due to FERC on Jan. 28. OMS Executive Director Tanya Paslawski said the group is determining if and what's appropriate to file.

Members also discussed FERC's Dec. 31 ruling ordering MISO to change the way it conducts capacity auctions. (See [FERC Orders MISO to Change Auction Rules.](#)) Several

regulators said they'd like to see changes to the auction rules.

"We don't have the jurisdictional authority to say, 'MISO you must do this.' That's up to FERC, but at the end of the day, MISO knows that as a state, we're very discontented right now," Illinois Commerce Commissioner Sherina Maye Edwards said. "We can address these Zone 4 issues without negatively impacting other states."

Talberg said Michigan is also following the capacity auction issue closely. "We're a kind of a fish-out-of-water state in that we are a hybrid state," she said. Michigan caps retail choice at 10% of each utility's retail sales.

— Amanda Durish Cook

## Stakeholders Finish Governance Guide Redline Changes

By Amanda Durish Cook

CARMEL, Ind. — The Stakeholder Governance Working Group sifted through the MISO governance guide paragraph by paragraph, refining priorities and committee hierarchies in the second of a two-day work session last Tuesday, part of the RTO's stakeholder redesign.

The group doled out a draft of a redesigned pecking order for committees and their priorities. It also created assignment templates for groups that want to raise issues at meetings. MISO stakeholders will be required to complete an issue assignment template going forward for "ongoing issues with significant and substantial changes."

Tia Elliott, director of regulatory affairs at NRG Energy, said the template will require members to clearly define their issue and explain what needs to be addressed instead of simply raising a hand at a meeting.

MISO Stakeholder Relations Specialist Alison Lane expressed concern that anyone could identify an issue, meaning that stakeholders could spend time on issues of lower importance. "That's the one thing that makes me really balk on this," Lane said.

Under the proposed revisions, MISO would be required to announce meetings and post agendas and supporting documents "well in advance."

Stakeholders said MISO also should limit the number of priorities it identifies in its annual strategic planning process.

"The ideal number of priorities is somewhere in the range of three to five to be effective. Too many priorities dilute the process and results in no real priorities being identified," the SGWG wrote. The group added that stakeholder priorities should "reflect key elements of the MISO strategic priorities."

The SGWG is also asking how MISO's Advisory Committee can become involved in MISO's annual discussion on priority setting. Stakeholders mulled over how often parent entities should review the status of their issue prioritization among themselves and the working groups and task teams they're charged with, settling for now on a semi-annual schedule.

"This isn't our last crack at it. We'll do some more wordsmithing and get a clean version," said Bill SeDoris, director of MISO integration for Northern Indiana Public Service Co.

The guide, now about 45 pages, includes new wording to provide for the review and



The Stakeholder Governance Working Group discusses changes to the MISO governance guide. © RTO Insider

"parking" of issues that haven't been addressed by their due dates. New draft language also states that "major decisions" made by subordinate entities aren't considered final until an Advisory Committee review.

At one point, Lane discouraged the group from including too many parliamentary procedure instructions in the guide, insisting that stakeholders should know how to conduct meetings.

"I just hate for us to put language in on Robert's Rules of Order instead of good information on policy," Lane said.

Greg Schaefer, energy market policy manager at MidAmerican Energy, said much

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# Reliability Subcommittee Briefs

## MISO Ready for Frequency Response Standard

MISO Consulting Advisor Terry Bilke said MISO is ready for NERC's new frequency response reliability standard.

"We're good right now, and we don't see anything on the horizon that would decline our performance," Bilke told the Reliability Subcommittee on Wednesday.

The RTO reported that 18 governor scorecards were completed and returned by utilities as of early January, and scorecards covering Sept. 1, 2015, to Dec. 31, 2015, were sent out to local balancing authorities in preparation for the rule's April 1 effective date (BAL-003-1).

The rule requires balancing authorities to meet an annual frequency response measure (FRM) "equal to or more negative" than its frequency response obligation. The FRM is the median of frequency response performances for 20 to 35 frequency events chosen throughout the year by NERC's Frequency Working Group.

The frequency response obligation under MISO's field trial is -211 MW/0.1 Hz. MISO's median performance from September to November was estimated at

-362 MW/0.1 Hz. Those 2015 results will be submitted to NERC by March 7.

MISO said it plans to continue to "work with local balancing authorities and generators to boost governor response where appropriate."

Bilke said if MISO was found noncompliant by NERC, MISO would have to search generator by generator until it located the source of the noncompliance. "NERC has wide latitude in what penalties they can assess," he said in response to questions on what consequences would result from non-compliance. "We can't predict what would happen. It would depend on how bad, how non-compliant, how receptive the parties are to making it right."

Bilke said the fines could be as much as \$1 million per day, but he said there are several options MISO can make use of before it comes to penalties. "There are ways to adjust if we see problems on the horizon."

"I'd like frequency response to be a formal issue of the Reliability Committee. For the future, especially in light of folks concerned over the Clean Power Plan, I think this should be a formal issue," Reliability Subcommittee Chair Tony Jankowski said.

Preparation for the rule's deadline

continues with MISO's next governor collaboration call taking place Jan. 22.

## MISO: November and December 'Uneventful'

Senior Real Time Operations Engineer Steve Swan reviewed what he called "two relatively uneventful months" in the November and December operations updates. Swan said there weren't any areas of concern. November's load averaged 68.9 GW, about even with October's load, and 6.6 GW lower than November 2014. During December, load peaked at 87.1 GW on Dec. 17, down from December 2014's peak of 93.1 GW.

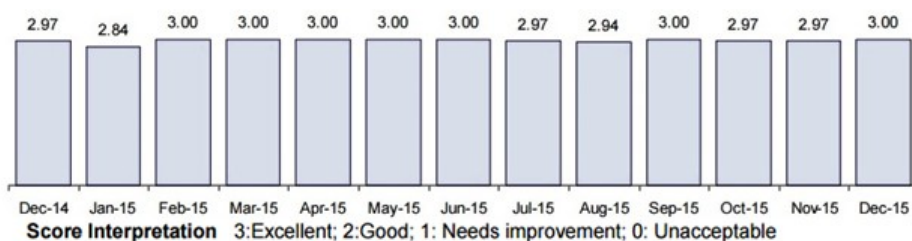
In both November and December, real-time unit commitment performance was rated "excellent" on a daily basis. Real-time unit commitment performance at peak hours was also consistently rated excellent, with the lone exception of Nov. 23, when it was given a "good" rating. December, however, achieved near-perfect ratings every day of the month.

"This is the report through December you hope to expect," Swan said.

Neither November nor December had any capacity shortages or any periods of load so light that generators had to operate at emergency minimum levels. During the two months, there also weren't any reliability issues. Swan said generator maintenance was on the rise in October and planned generator outages remained high during November before tapering off in December as maintenance season drew to a close.

MISO said during December, day-ahead and real-time LMPs were at their lowest levels since January 2009, when the ancillary services market was launched. The RTO credited the dip to reduced congestion.

— Amanda Durish Cook



Monthly real-time unit commitment performance rating Source: MISO

# Stakeholders Finish Governance Guide Redline Changes

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was accomplished in the two-day policy review.

The revised governance guide will not be released publicly until it is presented at the Jan. 27 Steering Committee meeting. SeDoris said he also hopes to put the draft language before a vote at the Feb. 9 SGWG meeting, with final approval at February's Advisory

Committee meeting.

"I think status quo was clearly not working," said WPPI Energy's Vally Goepfrich of the old stakeholder process. She said it is up to stakeholders and MISO to ensure the changes streamline policymaking. "This is all going to happen again unless we follow this process."

Elliott said the governance guide is often turned to in other MISO meetings to settle matters. "There's a lot of value here," she said.





## Entergy Disputes Investigation of Indian Point, Calls it Political

By William Opalka

Entergy wants state regulators to appoint an administrative law judge to counteract “political pressures” and referee disputes with New York officials in an investigation of the Indian Point nuclear power plant’s operations (15-02730).

The plant owner on Tuesday asked the New York Public Service Commission to appoint the judge to handle disputes over confidential documents and other matters related to an investigation of the plant ordered last month by Gov. Andrew Cuomo after two unplanned outages.

Cuomo has called for closure of the plant for several years because of its proximity to New York City. He said the plant’s two units have had 13 unplanned shutdowns since June 2012, including two incidents nine days apart last month.

“We must ensure that the 20 million people that live within the shadow of Indian Point are truly safe from a nuclear incident ... [so] I would specifically request that you examine the capital and maintenance budgets at the plants and their potential impact on these outages, and the impact these sudden outages can have on the continued safe



operation of the plants,” Cuomo wrote in a letter to PSC Chairman Audrey Zibelman on Dec. 16.

Cuomo ordered the PSC to report the findings of its investigation by Feb. 15.

In two rounds of interrogatories in recent weeks, Entergy said, PSC staff sought information on finances and operations that go beyond a state’s jurisdiction and are the purview of federal regulators.

“Given the political and timing pressures being imposed on [Department of Public Service] staff, there is a particular need for an impartial ALJ to resolve Entergy’s objections,” the company wrote.

“The investigation is equally unprecedented in that it seeks highly detailed financial and operational information regarding Indian Point spanning across five- to 10-year time periods, even though Indian Point must earn its revenues from the wholesale markets

pursuant to tariffs within the exclusive regulatory authority of the Federal Energy Regulatory Commission.”

Entergy said it will cooperate “in good faith” with many aspects of the investigation but finds the scope “objectionable.”

In December the Nuclear Regulatory Commission told Entergy it can continue to operate Indian Point’s Unit 3 under its existing 40-year license, which expired last month, while its license renewal review continues. Unit 2’s license expired in 2013, but it is also operating under an extension while the company’s application is under review.

The two outages that prompted Cuomo’s action occurred on Dec. 5 and 14.

In the first incident, a faulty electrical breaker controlling a roof fan caused a trip at Unit 2, according to NRC. The commission said operators manually shut down the reactor when the faulty breaker caused a drop in voltage to the mechanisms controlling about 10 of the reactor’s control rods.

On Dec. 14, Entergy said the shutdown was caused by a “disturbance” on the non-nuclear side of the plant that connects to the grid.

## FERC Approves Sale of Doomed New York Coal Plants

By William Opalka

FERC on Wednesday approved the sale of two upstate New York power plants, the same day Gov. Andrew Cuomo vowed the generators would “transition” away from coal or be closed by 2020.

The commission approved the sale by Upstate New York Power Producers of the 312-MW Cayuga plant outside Ithaca and the 668-MW Somerset facility in Niagara County to Blackstone Group unit Riesling Power “as consistent with the public interest” (EC15-214).

With the Dec. 31 mothballing of NRG Energy’s Dunkirk plant and the 380-MW Huntley Power Station in Tonawanda expected to close at the end of March, Cayuga and Somerset will be the last two coal-fired plants in New York.

Their continued operation runs headlong into Cuomo’s clean energy agenda, which calls for the state to obtain 50% of its energy from renewable resources by 2030.

Cuomo repeated that pledge in his annual State of the State address Wednesday. “We will eliminate all use of coal in New York state by 2020. We will help the few remaining coal plants transition, but we must clean our air and protect our health and that must be our first priority,” Cuomo said.

According to the governor’s office, coal accounts for 4% of electricity generation in New York, a number sure to drop even more absent Dunkirk and Huntley.

A group of bondholders formed Upstate New York Power Producers to purchase Cayuga and Somerset from the bankrupt AES Energy East for \$240 million in 2012. No price was disclosed when the sale to

Riesling was announced in September. (See [Blackstone Seeks Two Coal-fired Plants in New York.](#))

Cayuga is operating under a controversial reliability support services agreement that runs until June 30, 2017. It also has a proposal before the New York Public Service Commission to repower to natural gas with ratepayer assistance paid over the next 10 years. (See [Cayuga Power Plant Repowering Opposed.](#))

The Sierra Club, which opposes the above-market payments, asked FERC to compel Riesling to provide information regarding the Cayuga plant’s future.

FERC ruled those questions outside the scope of the proceeding and said the sale “will not have an adverse effect on rates.”

No plans about the future of the Somerset

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## New York AG: No Tree Cutting for Pipeline Without Water Quality Permits

By William Opalka

New York Attorney General Eric Schneiderman asked FERC on Friday to prevent a natural gas pipeline developer from clearing trees along the route of one of its projects while water quality permits are pending (CP13-499).

Constitution Pipeline wants to build a 124-mile pipeline through New York to connect shale gas fields in Pennsylvania with markets further east.

"Since cutting down trees in the pipeline corridor constitutes construction, the [Office of Energy Projects] may not grant the request to proceed unless and until Constitution has obtained all of the authorizations required under federal law to construct the proposed pipeline," Schneiderman wrote in his request for a stay.

The pipeline has all the necessary permits except for water quality certification under Section 401 of the U.S. Clean Water Act. That application is pending before the state Department of Environmental Conservation. The project would cross 220 bodies of water along its route, according to the attorney general.

Schneiderman said tree cutting would cause "irreversible alterations" to property before required permits are obtained.

Constitution told FERC in January 2015 that tree cutting must be conducted between Nov. 1 and March 31 to comply with U.S. Fish and Wildlife Service recommendations to mitigate impacts on migratory birds and the northern long-eared bat.

"Constitution is therefore requesting written authorization ... to commence limited, non-mechanized tree felling activities necessary to comply with these conservation measures," the company wrote to FERC.

The developer said it would use chainsaws to cut trees at or above ground level and would not disturb soils or root systems. It said it would leave the felled trees in place until other construction started.



Source: Constitution Pipeline

FERC granted Constitution a certificate of public convenience and necessity in December 2014. The project has encountered fierce opposition from the group Stop the Pipeline, which cites environmental threats to streams, wetlands and forests along its route. (See [Constitution Pipeline Opponents Asks Appeals Court to Force FERC Action.](#))

## FERC Approves Sale of Doomed New York Coal Plants

*Continued from page 7*

plant have been made public.

"There are a number of announced initiatives on the future of energy markets in the state of New York. The details on how they will be achieved while maintaining a reliable electric system in the state at a fair economic price will highlight the importance of these assets to the system," Riesling spokesman Michael Enright said Monday. "We look forward to reviewing the details of the governor's plan and will, upon approval of the sale by the PSC, seek to promptly engage in constructive dialogue with major stakeholders to create a path forward."

That path, according to a briefing book released in conjunction with Cuomo's budget, includes a directive to state regulators to work with NYISO to "develop



Cayuga power plant

a regulatory framework that will ensure system reliability while facilitating repowering to cleaner fuel or closure."

In reaction to the budget and in anticipation of pending action before the New York

Public Service Commission promoting clean energy development, an organization representing power generators again emphasized a market-based approach.

Gavin Donohue, CEO of the Independent Power Producers of New York, said "generators that are able to meet their emissions requirements and perform economically should be allowed to operate in the state."

"State strategies that pick winners and losers are especially redundant in light of record low fuel and wholesale market prices that are currently driving uneconomic facilities to retire," he continued. "Just this past December, New York saw the lowest wholesale price of energy since the market was created, and those prices are being reflected in consumers' energy bills and generators' decisions to invest in new resources."





## Latest Z2 Credit Project Delay Renews Old Frustrations

By Tom Kleckner

OKLAHOMA CITY — Member frustrations with SPP's Z2 crediting project bubbled to the surface again last week when staff told the Markets and Operations Policy Committee of a new delay.

"It's an open wound that continues to fester and opens again whenever we seem to make progress," said The Wind Coalition's Steve Gaw.

SPP staff told the MOPC last Tuesday the project's complexity and the challenges in processing historical data have pushed the project's expected completion to November, when the first Z2 credits are now expected to be invoiced.

### Not Pleased

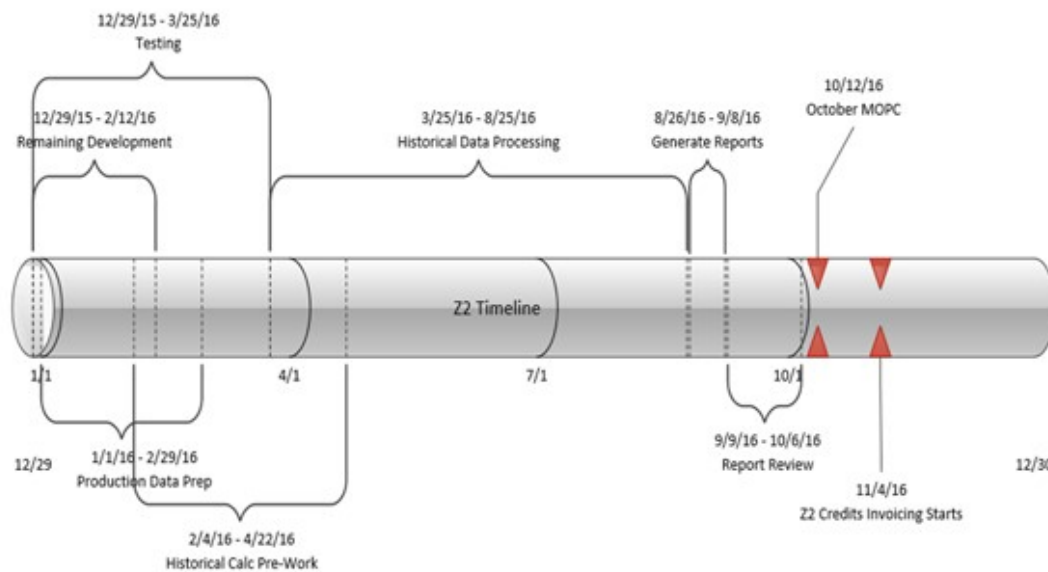
That did not please members, who had been expecting an initial indication of their liabilities or credits this month.

The Z2 crediting project dates back to the last decade as a result of years of incorrect credits for transmission upgrades. The task force working on the project estimated last year creditable upgrades of \$750 million but said in October it hoped to present better estimates this month. (See "Z2 Crediting Task Force Remains on Track" in [SPP Markets and Operations Policy Committee Briefs](#).)

Some members requested notice from SPP about the size of the impact.

"We don't know if it's a 5-gallon bucket, a semi-trailer or an oil tanker," said Oklahoma Gas & Electric's Greg McAuley. "I can't give my executive team any insight at all. We would like some transparency so we know what the size of the bucket is. If it's a \$5 issue, we don't care. If it's \$5 million, we do."

"Every single entity in this room gets impacted, because the longer this festers, the more FERC gets interested," Gaw said. "The delay does not keep the amount of money from accumulating."



Expected Z2 project timeline Source: SPP

### Upgrades Since 2008

The project team is developing software that will properly credit and bill transmission customers for system upgrades that date back to 2008, in accordance with Tariff attachment Z2. The problem has been avoiding over-compensating project sponsors and including a way to "claw back" revenues from members who owe SPP money for other reasons.

"The project goes so far back in time many databases have changed format," said Steve Purdy, manager of transmission service studies. "We knew there would be some of that, but those issues are taking longer to deal with than we initially anticipated."

Purdy said staff has "modularized" the system, so that some software is functional before others. Staff has completed two modules — accounting for 48 of 58 total system components — and is testing a third.

Purdy said 17% of the components have yet to be developed, but that the transmission owner and customer collection effort is mostly complete. He told the committee that additional testing will be required to cover the more complex processes, where some manual procedures are in place.

"We will process data, stop and make manual adjustments," Purdy said. "The

system run times are estimates. We haven't exercised the system yet, so we're basing the estimates on what we think it will look like."

Staff now expects the historical data processing to begin in late March and run through late August. The first reports would be generated and reviewed in August and September, with invoicing beginning Nov. 4.

"NextEra certainly doesn't feel any better about this, given the answer you just gave," said Aundrea Williams, director of regulatory affairs and strategies for NextEra Energy Transmission. "[This project] is past red, perhaps maroon. Why are you more confident today that I can rest assured Nov. 4 is a real date? Is there any way we can get *anything* going before Nov. 4?"

### Additional Staff Assigned

Purdy said additional staff has been assigned to the project and some work is being conducted in parallel "to see if we can speed this up." Staff is also considering postponing some work past the Nov. 4 go-live date and conducting "outreach sprints" with affected parties to speed up the process.

Purdy noted the project estimates are on

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## Latest Z2 Credit Project Delay Renews Old Frustrations

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the “long side,” given the historical data processing piece in the middle is “the squishiest part of the schedule.”

ITC Holdings’ Marguerite Wagner reiterated members’ desire for an “order of magnitude” number. Charles Locke, SPP lead regulatory analyst, responded, saying, “It’s a very long and complicated calculation even to provide an order of magnitude. We may be able to provide data on the gross payment obligations before September, but that won’t give the broad spectrum of impacts across SPP.”

“It’s very hard for me to explain in our public world,” said Xcel Energy’s Bill Grant, referring to his company’s responsibilities to shareholders and regulators. “This may be a big financial decision we’re fixing to make, or not at all. I don’t want to go back and say I made the wrong decision because I

didn’t have the right information.”

Staff promised improved communications around the project. Gaw said when he participated in a Regional Tariff Working Group meeting two weeks’ prior, the November date was never mentioned.

“We will program in a number of checkpoints once we start processing data. The checkpoints will allow us to make more frequent adjustments to the schedule so we know what we have,” Purdy said.

### ‘Back Burner’

“It’s easy to look back and say we knew it would be hard,” MOPC Chair Noman Williams, of South Central MCN, told the Strategic Planning Committee on Thursday. Williams said the Z2 project “got put on the back burner” as SPP introduced the Integrated Marketplace and added the Integrated System.

“Getting our hands around all that data and

the numbers is not an impossible task, but it will take a lot of effort to get there,” he said.

Given the project’s current status, the MOPC delayed approving a payment plan until its April meeting. The task force is currently suggesting two options, a traditional payment plan and a staggered billing approach, either of which will require a FERC filing.

Under the payment plan, SPP would offer each entity the option of being billed the entire amount at once (thus avoiding additional interest) or in equal installments, as determined by stakeholders. Under the staggered approach, stakeholders would be billed based upon time increments; years one and two would be billed in the first quarter after go-live, years three and four in the second quarter, and so on.

SPP’s regulatory and legal departments are currently identifying any Tariff provisions required by implementing the credit billing process.



**NARUC Winter Committee Meetings**  
February 14 -17, 2016  
Renaissance Washington Hotel



Register online at <https://wcm16.registerat.com/Home.aspx>.

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## Markets and Operations Policy Committee Briefs

### MISO-SPP Settlement Revenue Distribution Approved

OKLAHOMA CITY — The Markets and Operations Policy Committee approved Tariff revisions that will set guidelines for distributing revenues from last year's settlement with MISO over its use of SPP's transmission grid. Three members opposed the Regional Tariff Working Group's proposal and eight others abstained.

MISO has agreed to pay SPP and impacted members \$9.6 million to settle claims for compensation dating back to 2014. (See [SPP Board, Members Discuss MISO Settlement](#).)

The RTWG drafted language to handle revenues accrued during three phases (Jan. 29, 2014 to Jan. 31, 2016, Feb. 1, 2016 to Jan. 31, 2017, and each Feb. 1 to Jan. 31 period thereafter) and define how they will be collected and distributed.

It also revised other Tariff sections to take the new revenue distribution into account. SPP has said it favored allocating the funds to transmission owners, with benefits flowing through to the grid's load.

Bill Grant of Xcel Energy opposed the request, saying the issue was not sufficiently vetted through the stakeholder process.

### MOPC Endorses Recommendation to Pull Reliability NTCs; Other Projects, STEP Get OK

The MOPC unanimously endorsed staff's recommendation to withdraw notifications to construct (NTC) for two reliability projects estimated to cost \$40 million, including the South Shreveport-Wallace Lake 138-kV rebuild in northwestern Louisiana.

Antoine Lucas, SPP's director of transmission planning, said the project was originally identified as a reliability need by SPP's 2015 Integrated Transmission Plan 10-year assessment, but the 2016 ITP Near-Term assessment indicated the project is no longer necessary. It had an \$18.6 million cost



Lucas

estimate.

SPP had also proposed the 11-mile project as an interregional project with MISO to meet economic needs, but MISO declined to support it. (See [SPP, MISO Conclude Joint Study Empty-Handed](#).)

The 2016 ITPNT also showed there was no longer need for the Mineola-Grand Saline 69-kV rebuild in East Texas, estimated to cost almost \$23 million.

"This project was primarily load driven," said Midwest Energy's Bill Dowling. "We really don't think this is driven by dispatch of resources, but by load."

Planners said further evaluation is necessary for two other projects, the \$36 million Hobart-Roosevelt Tap-Snyder 69-kV rebuild in West Texas and the \$7.1 million Linwood-South Shreveport 138-kV rebuild, because additional solutions for these needs were identified in the 2016 ITPNT.

American Electric Power was responsible for all four projects.

The committee also endorsed staff's recommendation to move forward on two other projects. Members agreed (with six abstentions) no further re-evaluation was needed to construct a new 345/115-kV transformer and links to 345- and 115-kV lines at the Stevens County substation in southwestern Kansas, and agreed (with two abstentions) to remove conditions from an NTC that would provide fast-acting reactive power to a pair of 115-kV substations in southeastern New Mexico.

The Stevens County substation work is a joint project between Southwestern Public Service and Sunflower Electric Power, and has a projected \$31.9 million cost, up from an original estimate of \$18.3 million. Questioned on the costs, Lucas said the estimates "could be reduced once design work starts."

The 111-kV China Draw-Road Runner projects in New Mexico belong to SPS. Despite an \$84.8 million price tag, Lucas said the 2016 ITPNT indicates a need remains and it has been identified as the best solution.

"Once we re-evaluate a project and it's still the right project, we recommend removing conditions," Lucas said.



Mike Wise of Golden Spread Electric Cooperative speaks at last week's MOPC meeting. © RTO Insider

The MOPC also unanimously endorsed staff's recommendation that the Board of Directors next week approve SPP's 2016 Transmission Expansion Plan report (STEP), a comprehensive listing of all the RTO's transmission projects over a 20-year planning horizon.

The 2016 STEP consists of 480 upgrades with a total cost of \$6.1 billion. The projects include transmission-upgrade and generation-interconnection requests, approved high-priority upgrades and approved projects from the ITP 20-year, 10-year and near-term assessments.

Lucas said SPP members completed 93 transmission upgrades worth \$856 million in 2015. He said the RTO also issued 50 NTCs for another \$519.9 million worth of projects.

Staff will finalize its 2016 ITPNT this April and the 2017 ITP10 in January 2017.

### MOPC Rejects Tariff Revision Allocating Manual Commitments

A Tariff revision to allocate the cost of manual commitments for voltage-related local reliability issues failed to receive approval from the MOPC. The measure, which would assess costs based on the asset owner's impacted load, received only 41.3% approval from members, with 29 no votes and 17 abstentions.

"We've deviated from the philosophy of network load," Xcel's Grant said. "This whole discussion started with non-jurisdictional entities not solving the problem, but we went way further than we needed to go. It would be a disproportionate shift for New Mexico."

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## Markets and Operations Policy Committee Briefs

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Some members questioned whether SPP staff should have drafted the revision request and determined cost allocation in the first place.

"We as staff said one of our major principles is to take uplift and give it to the people who are causing it," said SPP Executive Vice President and Chief Operating Officer Carl Monroe. "This is just another way to do that ... and it's going through the process. Don't vote on this if you think it's a short-term solution. It's going to take a long time to get some of those things fixed."

The committee endorsed two other revision requests from the Market Working Group, in addition to 12 others approved as part of the consent agenda:

- RR 124, which adds language from the Tariff to the market protocols supporting SPP's ability to reject incomplete market registration applications, was approved

unanimously.

- RR 127, approved with two no votes and four abstentions, eliminates the opportunity for jointly owned units (JOU) to game make-whole payments by putting in a larger-than-normal energy offer curve and getting dispatched to minimum. For JOU using the combined resource option, the rule takes all shares' pricing points and aggregates them into one energy offer curve.

The MWG also shared its responses to nine recommendations by SPP's Market Monitoring Unit to improve the Integrated Marketplace. Working with input from the MOPC leadership, the MWG developed an action plan on the Monitor's recommendations in November for presentation to the Board of Directors next week.

The Monitor's annual State of the Market report in July identified issues ranging from improving quick-start logic to market-power mitigation conduct thresholds. Several of the proposals have been implemented or

are in process. (See SPP Monitor Report Shows 'Maturing' Integrated Marketplace.)

"We're not saying [these recommendations solve] all of our problems, but [they do] a good effort moving everything forward we proposed," said SPP's MMU director, Alan McQueen.

### 'Real Work' to Begin on 2017 ITP10

Having completed a resource plan and a resource-siting plan, the working group developing the 2017 ITP10 will now begin building the economic model, assess constraints and do some benchmarking.

"Now the real work begins," MOPC Chair Noman Williams said.

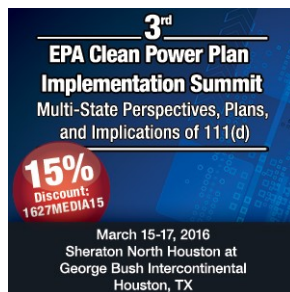
ITC Holdings' Alan Myers, chair of the Economic Studies Working Group, said Clean Power Plan compliance will be a key part of the model. The group has developed three futures, two of which incorporate regional and state-level compliance and a third that assumes the CPP is not implemented.

*Continued on page 13*

## Events of note from Infocast:



**ERCOT Market Summit 2016** will bring policy makers together with utility, IPP, DR and energy storage executives to major investment opportunities in generation, transmission, storage and energy efficiency markets. Industry experts will discuss not only the impact the EPA CPP will have on ERCOT, but how delivering wind power from the Panhandle and new solar build out plans will affect the market. The conference will delve into how re-vamping the ancillary services market could lead to opportunities for DR, energy storage and more for ERCOT.



**3rd EPA Clean Power Plan Implementation Summit** will provide the most up-to-date information on the CPP final rule, exploring implications and the strategies for developing state plans on the road to compliance. Join environmental and state regulators, ISOs and RTOs, utilities, local distribution companies, IPPs, renewable energy providers, environmental engineering firms, legal experts and environmental consultants to discuss the final 111 (d) rule and its direct impacts on power prices, system reliability, alternative energy and infrastructure.



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## Markets and Operations Policy Committee Briefs

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“The ITP10 is the first salvo” in dealing with the CPP, Myers said. “I think we’re going to see more detailed studies.”

Reacting to concerns from Oklahoma Gas & Electric’s Greg McAuley that the resource plan didn’t include current load, Myers agreed the plan was a little out of date, having been developed and approved last year.

“The problem is if we do this over and over again, you never get to the finish line,” he said.

Myers shared the working group’s renewable and conventional resource siting plans as part of his informational update. He said the ESWG identified state mandates and goals, totaled what renewables were in place and then looked for gaps.

“It’s not actual shortfalls, but timing,” he said, noting some companies entered into new renewable contracts following the analysis.

### Task Force Agrees on 18-month Planning Cycle, Common Model

The Transmission Planning Improvement Task Force said it has reached consensus on an 18-month planning cycle, a common planning model, a planning process and a standardized scope.

NextEra Energy Transmission’s Brian Gedrich, the task force chairman, told the MOPC the stakeholder process approvals and model development are bottlenecks and can limit the planning process’s frequency.

“The way the ITP20 is today, it doesn’t add value,” Gedrich said, pointing to “resource-intensive” work that provides “primarily strategic value, and not actionable results.”

Gedrich said the group has agreed on a strawman proposal that identifies the

models that need to be built and removes near-term recommendations.

“The concern was the two-year economic assessment we’re moving to is much closer to what’s happening in real time,” he said.

The task force has scheduled a Feb. 3-4 meeting in Dallas, when staff is to unveil the final strawman, and an educational forum before the next MOPC meeting. The committee will then be asked to endorse the proposals to the board.

### Task Force Continues Work on Improving Transparency

A task force working on improving transparency of members’ tariff-revision requests and proposing changes to SPP’s current prioritization processes updated the MOPC on its current progress.

The group is designing a structure in which members can submit revision requests and “enhancement” requests online through SPP’s Request Management System (RMS). (See “Prioritizing Revision Requests” in *SPP Markets and Operations Committee Briefs*.)

Staff prioritizes the requests in groups (in flight, primary, secondary, tertiary and other) before publishing them in a portfolio. Stakeholders can comment on the requests through the RMS and during quarterly stakeholder prioritization meetings one month before MOPC meetings.

Stakeholders can still request MOPC guidance and discussion on items of interest.

“When SPP staff puts in the time to explain issues, people may not realize that’s just starting the discussion. There’s no pre-determined outcome,” said SPP director Phyllis Bernard. “The board has been very encouraging in that [staff] get a strawman out, so we can have substantial conversations.”

“When we get on a call with stakeholders,

they’re expressing their opinions and staff expresses their opinions,” Carl Monroe said. “MOPC becomes the appeals group for that.”

The task force received 68 comments during the comment period, and 38 stakeholders from 24 member organizations participated in the first quarterly prioritization meeting. That led to five action items for SPP staff.

The 2016 cycle begins Jan. 30, the deadline for submitting new enhancement requests. The next quarterly prioritization meeting will be held March 25.

### Order 1000 Interregional Filing

SPP staff updated the MOPC on its failed attempt to create a new class of seams transmission projects, an effort to supplement its approved highway-byway cost allocation that was rejected by FERC on Nov. 30. (See *FERC Rejects SPP Proposal for Seams Transmission Projects*.)

“We had hoped by developing principles, we would avoid gaps,” said SPP’s Sam Loudenslager. “We realized there are still gaps in the process after the FERC order.”

“If FERC thinks ... seams projects are already covered under Order 1000 compliance, do we have a problem?” Richard Ross of AEP asked.

“I think we do,” Loudenslager said. “Seams projects will not fit under the interregional process, where we do things on a project-by-project basis.”

“These projects come out of the joint operating agreement,” Monroe said. “It’s hard to take a project out of these other processes and use the Tariff to pay that through cost allocation.”

“We need a seams partner willing to look at these highway-byway projects,” said the Nebraska Public Power District’s Paul Malone. “MISO and [the Southeastern Regional Transmission Planning] don’t recognize these.”

### Generation Group Recommends No Changes for Renewable Ratings

The Generation Working Group presented its bi-annual report on generating unit ratings, recommending no changes in the methodology for establishing wind and solar

**“Seventy-five percent of the issues ... are someone being late turning something in or someone forgetting to sign a document.”**

**Ron Ciesiel, SPP Regional Entity general manager**

*Continued on page 14*



# Study: 60% Wind Penetration Possible in SPP

*Continued from page 1*

levels are approaching current limits. SPP also analyzed wind energy ramping, re-dispatch and outages and steady-state thermal and voltage.

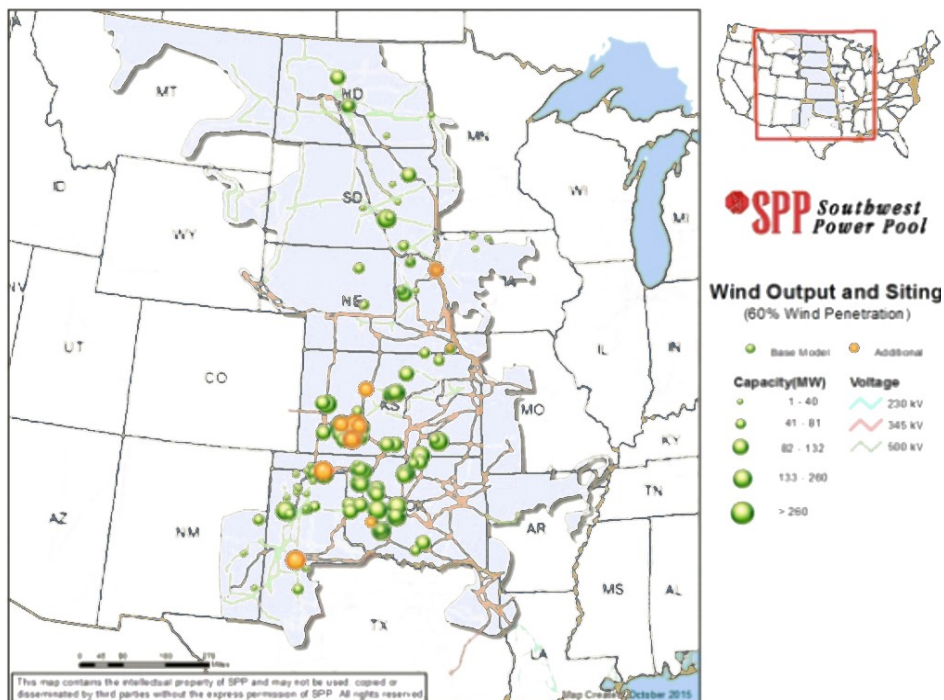
"We're at those levels where [previous] studies said we would start having issues," said Casey Cathey, SPP's manager of operations engineering analysis and support. "We could have situations where we hit 45% without reliability concerns, but is that for an hour or sustained?"

Cathey said SPP has 156 wind farms totaling 12,380 MW of installed capacity and will reach 16,960 MW of installed wind at the end of 2016. SPP projects at least 2,035 MW will be added in 2017.

The report calls for expediting transmission projects, noting that about half of the 4,580 MW of wind expected to be added this year will require new lines. It also shows the need for "some limitation before we can build out the system further," Cathey said.

It also recommended installing voltage reactive support capabilities for existing wind farms; enhanced operations tools, to monitor real-time voltage stability limits; allowing the reliability coordinator additional flexibility in re-dispatching; new planning criteria for and evaluation of phasor measurement units to provide real-time situational awareness.

"It's worthy to note SPP put a significant amount of wind growth in the system," The Wind Coalition's Steve Gaw said. "It's



60% wind penetration Source: SPP

working ... we have high penetration with low loads, and we've been able to do that reliably."

Cathey said SPP is "good at forecasting wind," but that ramping issues take place in two- to three-hour timeframes, not five-minute intervals.

"We know it's going to ramp," he said, "but we don't know when. We know it will happen in the morning, but we don't know if it's 6:30 or 7:30."

Cathey said SPP is continuing to improve its weather forecasting, which is supplied by energy & meteo systems. MISO also uses energy & meteo.

SPP has scheduled a [wind-integration summit](#) Feb. 17-18 at its headquarters in Little Rock, Ark. Cathey said the summit will provide stakeholders an open forum to ask questions, provide feedback and critique the results of the study.

## Markets and Operations Policy Committee Briefs

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facilities' net capability. Its [report](#) on summer 2015 looked at wind generation's historical performance and commitment data from the Integrated Marketplace and compared generation-outage data to the previous summer season.

Noting the report's information is compiled annually, AEP's Ross wondered whether gathering the data every other year would suffice.

"There's a lot of data that goes into this report," said Mitch Williams of Western Farmers Electric Cooperative. "Doing this every year keeps it current."

### Violations Within SPP RE Drop into Double Digits

The SPP Regional Entity's quarterly report revealed violations within the RE dropped below triple digits for the first time since 2009.

"The violations are less severe than they

were a few years ago. Seventy-five percent of the issues ... are someone being late turning something in or someone forgetting to sign a document," the RE's general manager, Ron Ciesiel, told members. "You're helping by identifying issues before they fester and turning into real problems."

The RE reported only 21 events in 2015, with just one reaching category 2 status and nine reaching category 1 status on a 5-point scale.

Ciesiel said critical cyber asset identification was the most frequent violation.

— Tom Kleckner





## Reduced Reserve Margin Could Cut SPP Capacity Costs \$86M Annually

By Tom Kleckner

OKLAHOMA CITY – Reducing SPP’s current 13.6% reserve margin to 12% could cut required capacity by about 1,000 MW, saving \$86 million annually and \$1.3 billion over 40 years, a task force told the Markets and Operations Policy Committee.

The Capacity Margin Task Force has been evaluating resource adequacy since SPP became a central balancing authority with the Integrated Marketplace’s implementation in 2014. The RTO’s capacity margin has been unchanged since 1998 despite an expanding footprint, operational changes and significant transmission expansion.

Task Force Chairman Tom Hestermann, manager of transmission policy for Sunflower Electric Power, said the group believes the reserve margin can be reduced without affecting reliability. He said stakeholders have been supportive of reserve margins as low as 12.5% but less so

when the margin drops to 12% or less.

“The more reserves you require, the more it will cost,” he told members during a four-hour educational forum preceding the MOPC meeting. “We want a good balance between reserve margins and system reliability. If 12% is where we want to be, we have a good story to tell. We believe we can do this successfully.”

The savings would come from reduced generation investment made possible by transmission upgrades. Hestermann said lower margins could align with generation retirements due to the Clean Power Plan.

Hestermann noted resource adequacy is generally expressed in terms of capacity margin or reserve margin for planning purposes. Both are measured using the same numerator: the difference between available resources and net internal demand. SPP uses capacity margin, in which resources serve as the denominator. Reserve margin, used by NERC and other regions, uses net internal demand as the

denominator.

Hestermann said the task force will recommend switching to reserve margin, where a 13.6% margin is equivalent to a 12% capacity margin.

“NERC doesn’t have a standard for planning reserves,” Hestermann said. “SPP enforces this requirement through the membership agreement.”

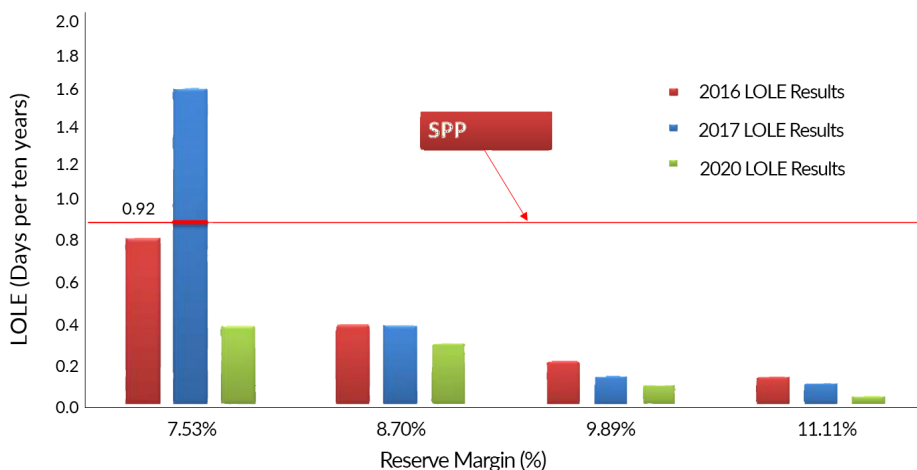
The task force ran “limbo studies” – “How low can you go?” Hestermann explained – that simulated four reserve margin levels for each of three years: 2016, 2017 and 2020. The analysis found SPP could maintain required loss-of-load expectations in every case except 2017, and then only when the reserve margin was set at 7.53%. (The study assumed additional transmission infrastructure.)

“The current criteria requires an assessment every two years to ensure 12% is adequate,” Hestermann said. “What we haven’t done before is see whether we can go lower than that and still maintain a reasonable level of reliability.”

The task force has completed a white paper defining load-responsible entities, which was approved by MOPC and the board last July and is currently being discussed within various task forces. Tariff revisions or changes to previously approved policy will be brought back to the MOPC for approval.

The group will present its reserve margin requirements and a deliverability study for MOPC approval in April. It also will present a planning reserve assurance policy, an enforcement mechanism using payments, not penalties, from LREs short on capacity to those who are long.

The task force also is still working on a distributed energy resource policy.



Reserve margin LOLE study scope results Source: SPP

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## Strategic Planning Committee Briefs

### Committee Endorses CPP Comments to EPA; Task Force to go Dormant

OKLAHOMA CITY, Okla. — SPP's Strategic Planning Committee last week agreed to allow its Clean Power Plan Task Force to go dormant after endorsing its comments to EPA.

The committee agreed with Chair Mike Wise's recommendation during its Jan. 14 meeting that the task force, which developed one white paper comparing the mass- and rate-based compliance approaches and a second capturing SPP and stakeholders' comments on the proposed federal implementation plan, be allowed to suspend its work.

"These two white papers reflect what you wanted the task force to do," Wise, who also chaired the task force, told the committee. "I think this task force should stay dormant until the SPC decides we work on Clean Power Plan initiatives that come out of the EPA's final implementation of the federal plan, or until it's needed for future work."

The task force was formed to review the CPP, recommend SPP's role in assisting states' compliance and inform staff and member dialogue with environmental regulators. In addition to developing the two white papers, it drafted a set of talking points for members' use with their state regulatory and environmental agencies.

The SPC endorsed both white papers and their filing with EPA, but not before accepting a "friendly" amendment at SPP Director Phyllis Bernard's request to strike the use of "reserve" when referring to a reliability allowance to avoid confusion with reserve margins. The group also amended the language to make it clear SPP won't make resource decisions for its members.

"These white papers teed up all the issues and concerns associated with them, and all the things we would advocate as an organization," said Michael Desselle, vice president and chief compliance and administrative officer.

Oklahoma Gas & Electric abstained from both endorsements and the friendly amendment, saying it was not prepared to vote. Kansas City Power & Light and Dogwood Energy also abstained from



Desselle (left) and Wise

endorsing the comments to EPA.

"I think it's fine SPP wants to review this," OG&E's Jake Langthorn said, "but it should be clear this review doesn't affect in any way how OG&E believes it should respond and how the state [of Oklahoma] should respond."

The task force compared the mass- and rate-based compliance approaches by analyzing how allowances and credits are supplied; monitoring, verification and tracking; allocation issues; leakage under mass-based plans; and reliability implications.

Its comments to EPA on the federal plan call for a reliability safety valve in both the federal and state plans; an incremental reliability allowance for FIPs; considering regional precedent in FIPs; allowing resource owners to retain allowances for retired resources under the mass-based plan; and a consolidated review process for both plans.

"We identified reliability concerns with a lack of conformity, or consistency, across the region," said SPP Vice President of Engineering Lanny Nickell. "We think it's preferable that as many states as possible come up with a common approach."

Asked whether there was a need to have the task force look at specific impacts to SPP's market, Nickell said not until there is a

request to do a reliability assessment. "We won't do that until we see all the state plans as they are developed," he said.

"Strategically, I think it's important for every state in the region to be the same, because that's the least cost for the region," Wise said.

### More Detail Requested on Technology Committee

The SPC resisted SPP's suggestion to form an advanced technology steering committee that would provide input into staff research and development, share best practices for technology deployments and perform studies. The committee told staff to return with additional detail on its proposal.

"The scope needs to be fully developed, better than it is now," said Lincoln Electric's Dennis Florum.

SPP staff pitched its technology steering committee as providing a forum to help SPP make policy decisions when deciding how to incorporate technologies such as smart grid, demand response, energy storage, distributed energy resources and grid-optimization techniques (dynamic line ratings and topology control).

Jay Caspary, SPP's director of research, development and special studies, said the committee would be helpful in determining broader applications of these new technologies and provide a way to gain input from members on how to prioritize organization research and budgets.

Stakeholders were divided over the need for SPP to get involved in R&D — "Specific technological issues are already assigned to specific technical groups," Florum pointed out — and whether the task force should report to the SPC or the Markets and Operations Policy Committee.

"Whether it reports to MOPC or the SPC, I don't care," Caspary said. "I need a forum where I can get input and direction ... to drive technological transfer and deployment within the SPP footprint for the benefit of SPP members."

Caspary said SPP funds research within the industry but does not do any of its own in-house.

Several members expressed a desire to manage their own R&D budgets. Xcel Energy's Bill Grant said, "I don't want to see



Nickell

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## Strategic Planning Committee Briefs

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SPP running around spending money on efforts where the companies are not interested in them.”

The Wind Coalition’s Steve Gaw, while not a member of the committee, said, “This is a broader issue than that. This has to do with new, changing dynamics that everybody is dealing with and how the grid has to be more flexible and deal with new technologies.”

“Technology is moving at such a rapid pace, this group should be talking about what do with big data and what do with big technology,” KCP&L’s Denise Buffington said. “I would encourage this group to be educated about it and work it into the strategic plan.”

“I sense from the discussion, the committee would like you to go back and look at this some more ... take this information back and mull it over,” Wise told Caspary.

Several members volunteered to work with Caspary on improving the proposed committee’s scope and responsibilities.

### Postage Stamp Rate a ‘Valid Conversation’

The SPC took a hard look at the potential unintended consequences of the Transmission Planning Improvement Task Force’s work, given previous MOPC discussions about the Z2 Payment Plan Task Force. (See related story, *Latest Z2 Credit Project Delay Renews Old Frustrations*, p.9.)

“We’re locking down some of the fundamental things the group wants to do,” said Antoine Lucas, SPP’s director of transmission planning and the TPITF’s staff secretary. “We’re looking at resources, the actual scope of work that’s been requested and the schedule ... where we can shave those [work effort] peaks.”

Lucas and the task force’s chair, NextEra Energy Transmission’s Brian Gedrich, have been guiding the work on the planning

process’s methodologies and modeling and the appropriateness of the planning cycle and assessments. They plan to host an educational forum and present their final recommendations to the SPC, MOPC and Board of Directors in April.

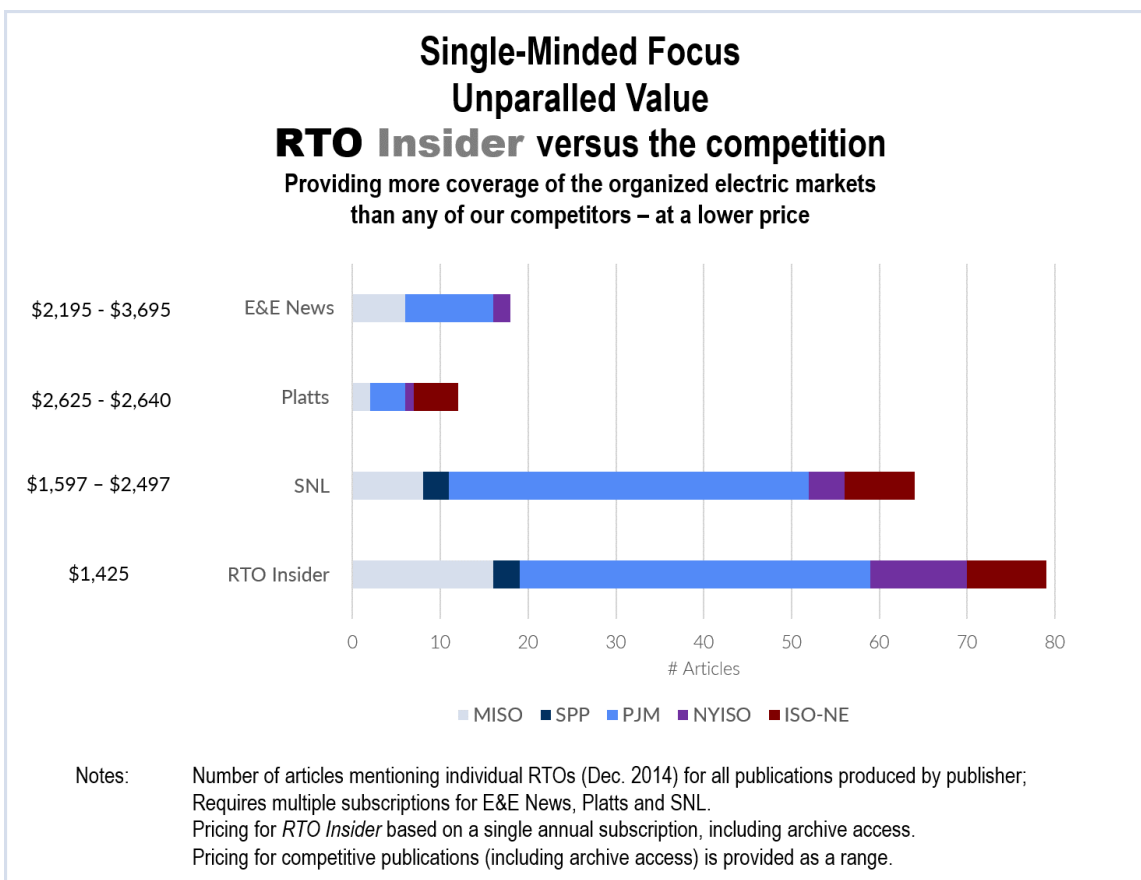
Langthorn suggested “the next step in the conversation should be ... how to leverage the market in order to meet obligations to serve that load.”

“We already have a system that makes it difficult to make improvements. One person pays for [the improvement], and everyone benefits from it,” Langthorn said. “It’s also time to rethink how we pay for transmission ... that’s not regionalized. Who pays for that? Maybe it’s time we start looking at a postage stamp rate ... to take full advantage of the market.”

SPP Executive Vice President and Chief Operating Officer Carl Monroe responded, saying “That is a valid conversation we need to have.”

Wise said the issue would be part of the discussion during the committee’s May retreat.

– Tom Kleckner





## COMPANY BRIEFS

### Pioneer Power Solutions Names Klink as CFO



Thomas Klink has been named CFO of Pioneer Power Solutions, a Fort

Lee, N.J., manufacturer of electric transmission, distribution and generation equipment. He takes the place of Andrew Minkow, who left to pursue other opportunities.

Klink was formerly president of Jefferson Electric, a Pioneer Power subsidiary in Franklin, Wis., that builds transformers.

"I plan to focus on our bank relationships, stringent financial controls throughout our organization and facilitating profitable growth by maintaining tight expense management processes already in place," Klink said.

More: [Pioneer Power Solutions](#)

### Dominion Virginia Earmarks \$9.5 Billion in Improvements



Dominion Virginia Power says it will spend \$9.5 billion in capital improvements through 2020, including \$700

million in solar facilities. The company said it will spend \$2.4 billion on its distribution system, \$3.6 billion on transmission lines and substations and \$3.5 billion on new generation.

That does not count what its parent company will spend on its share of the Atlantic Coast Pipeline, a \$5 billion project it is working on with several other companies.

More: [Reuters](#)

### Exelon Completes Uprate At Peach Bottom Plant

Exelon Nuclear announced it has completed its multiyear uprate of Peach Bottom Atomic Power Station Unit 3, which boosts the capacity of the Pennsylvania reactor to 1,355 MW from 1,180 MW.

The company replaced high-pressure turbines, feed pump turbines, condensate pumps and motors and steam dryers. Its low-pressure turbines had already been upgraded. Peach Bottom Site Vice President Mike Massaro said that as part of the uprate "almost every major component in the plant has been upgraded or replaced, which makes Peach Bottom an even safer and

more efficient facility."

Peach Bottom is on the banks of the Susquehanna River near Delta, Pa., upstream from Exelon Generation's Conowingo Hydroelectric Power Station.

More: [Exelon](#)

### Battery Maker Files to Join PJM



Battery maker Axion Power International

has filed an inter-connection application with PJM for a site in Sharon, Pa., where it seeks to develop a 12.5-MW energy storage system.

The project will be located in a former steel fabrication facility about 60 miles north of Pittsburgh.

Axion plans to use the system to participate in PJM's frequency regulation market. Start-up is expected in mid-2017, pending regulatory approval.

More: [Axion Power International](#)

### Akins was 'Skeptical' About Sierra Club Partnership

News that American Electric Power forged a settlement with the Sierra Club while lobbying for its proposed power purchase agreement in Ohio struck many as an unlikely alliance, including Nick Atkins, AEP's chief executive.

"I have to admit, initially I was skeptical of ultimately what the value would be," he told Columbus Business First. "But in retrospect the fact that it's much of a national story that AEP, a major coal-fired utility, could come together with Sierra Club on a common solution — I don't know of anybody that's done that in this position."

The Sierra Club signed on to the proposed agreement, which would allow AEP to gain guaranteed income for some of its generating facilities for eight years, after the company committed to developing 900 MW of renewable energy in Ohio. The settlement still must be approved by the Public Utilities Commission of Ohio.

More: [Columbus Business First](#)



Atkins

### Exelon Generation's Muddy Run Gets OK for Another 40 Years



FERC has given Exelon Generation's Muddy Run Pumped Storage Facility on the banks of the Susquehanna River a 40-year license extension after the company promised a number of improvements to the site for recreation and to permit passage for American shad and American eels.

The company has committed to implement a shoreline management plan to control erosion and to manage debris. It also said it will implement improvements to allow eels to be trapped and transported upriver, to make conservation efforts for bald eagles, ospreys and bog turtles and to remove some small dams along its property.

More: [Lancaster Online](#)

### Westar Adds 200 MW of Additional Wind Energy



Westar Energy has reached an agreement with an affiliate of

NextEra Energy Resources to purchase another 200 MW of Kansas wind energy.

The utility will purchase power produced from the Kingman Wind Energy Center west of Wichita when the facility goes into service in early 2017. As part of the transaction, Westar will be given the option to purchase one-half of the facility before "substantial completion." The wind farm is expected to bring more than \$400 million in investments and payments to the area.

With this addition, Westar's wind generation will surpass 1,700 MW.

More: [Westar Energy](#)

### Arkansas Cooperatives File For SPP Membership Change

The Arkansas Electric Cooperative Corp. has filed with the state's Public Service Commission to change its SPP membership status from a non-transmission-owning

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## COMPANY BRIEFS

*Continued from page 18*

member to transmission-owning member.

AECC said in its Jan. 13 filing that it seeks the commission's approval "to transfer control of current and future eligible transmission facilities to SPP as a means to modify its current non-transmission owning membership to transmission owning membership." AECC said it will continue to "own, operate and be responsible for maintaining any transmission facilities under SPP's control," but that SPP will direct the day-to-day operation of the transmission facilities.

The Little Rock alliance of cooperatives requested a final order by June 1 and anticipates \$1.3 million in revenue from use of its eligible facilities.

More: [Docket 16-002-U](#)

### Tree Clearing, Squirrel Guards Help Prevent PPL Outages

PPL Electric Utilities says its grid improvement projects prevented power outages for 410,000 customers last year.

It credited tree clearing, its smart grid system and the installation of more animal guards to keep squirrels from damaging lines.

Customers are experiencing 30% fewer outages than in 2007, the company said.

More: [PPL](#)

### Apex Seeks to Build Tenn.'s Largest Wind Farm



Apex Clean Energy is expecting to develop Tennessee's largest wind

farm, to be located in Cumberland County.

The \$100 million project will involve erecting 20 to 23 wind turbines that will produce 71 MW annually. It's scheduled to be in operation by the end of next year.

Apex, of Charlottesville, Va., also operates the Volunteer Wind farm in Gibson County.

More: [Crossville Chronicle](#)

### FirstEnergy's Perry Nuclear Gets New Site Vice President



David B. Hamilton has been named site vice president at FirstEnergy's Perry Nuclear Power Plant in Perry, Ohio, replacing Ernie Harkness, who is retiring. Frank Payne will move into Hamilton's previous position of general plant manager.

Hamilton has more than 23 years of experience in nuclear operations, coming to FirstEnergy Nuclear in 2012 from Entergy's Waterford Plant in Louisiana. Before that he was at Entergy's Palisades nuclear station in Michigan. He also held positions at various Exelon Nuclear stations.

Payne came to FirstEnergy from Duke Energy, where he held a number of positions at the Brunswick Nuclear Power Plant in Southport, N.C.

More: [FirstEnergy](#)

### Duke's Asheville Plant Hearing Will Go Ahead as Planned

North Carolina regulators turned down a request to delay a hearing for Duke Energy's plan to replace a coal-fired plant near Asheville with two 280-MW natural gas-fired plants. Duke's plan, which it proposed in response to opposition to an alternative to build a two-state transmission line, was fast-tracked by the state legislature last year.

Opponents to the plan, including environmental group NC WARN, had sought to delay the hearing on the plant in order to have an evidentiary hearing on the overall plan. The commission ruled Friday that to delay its January hearing would "frustrate and contravene the specific intent" of the legislature. NC WARN has said the new plants are not needed.

More: [Charlotte Observer](#)

### Duke, Piedmont Gas File For NCUC Approval



Piedmont Natural Gas

Duke Energy and Piedmont Natural Gas on Friday

formally sought approval from the North Carolina Utilities Commission for Duke's acquisition of the gas company. The companies also filed with the Tennessee Regulatory Authority for approval of change of control of the gas company.

Duke asked the commission for accelerated approval of its plan to raise \$4.5 billion to finance the \$4.9 billion acquisition. As part of the deal announced late last year, Duke will assume \$2 billion in Piedmont debt. If approved, Duke will become the largest investor-owned utility in the U.S.

More: [Duke](#); [Charlotte Business Journal](#)

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# FEDERAL BRIEFS

## House Approves Bill Blocking Stream Protection Rules

The House of Representatives last week voted to block new EPA regulations protecting streams and requiring restoration of mountains damaged by coal mining. The vote, 235-188, means the measure now goes to the Senate. President Obama has vowed to veto the bill.



Mooney

The administration said the new rules are needed to protect streams from coal-mining damage. But Republicans said the rules would mean the end of tens of thousands of coal industry jobs at a time when the industry is already under pressure from low natural gas prices and increased emissions rules.

"West Virginia is blessed to be abundant in natural resources," said Republican Rep. Alex Mooney of West Virginia. "Unfortunately, the president is intent on destroying coal as a domestic energy source."

More: [The Associated Press](#)

## Obama to Push for Changes In Federal Land Energy Use

The Obama administration on Friday announced a moratorium on new coal leases on federally managed land after the president pledged in his final State of the Union speech to change the way federal lands are used for fossil fuel development to "accelerate the transition away from dirty energy."



Jewell

The moratorium was announced by Interior Secretary Sally Jewell, who said it was time to re-examine the coal-leasing program. "It is abundantly clear that times are different in the energy sector now than they were 30 years ago," she said.

The move won plaudits from clean energy advocates. "It's time to not only reform our fossil fuel leasing program; we need to keep fossil fuels in the ground," said Erich Pica of Friends of the Earth.

More: [The Washington Post](#); [InsideClimate News](#)

## Solar, Wind Touted In State of the Union

President Obama, in his final State of the Union address, bragged on the progress the country has made in building out solar and wind facilities in the effort to cut emissions.



"Listen," he said, "seven years ago, we made the single biggest investment in clean energy in our history. Here are the results. In fields from Iowa to Texas, wind power is now cheaper than dirtier, conventional power. On rooftops from Arizona to New York, solar is saving Americans tens of millions of dollars a year on their energy bills and employs more Americans than coal — in jobs that pay better than average."

"We're taking steps to give homeowners the freedom to generate and store their own energy — something, by the way, that environmentalists and Tea Partiers have teamed up to support. And meanwhile, we've cut our imports of foreign oil by nearly 60% and cut carbon pollution more than any other country on Earth.

"Gas under \$2 a gallon ain't bad either."

More: [State of the Union transcript](#)

## House Committee Approves Bill for Nuclear Energy Research

A House committee has approved a bill that will direct research and development money toward nuclear energy. The bill, approved by the Science, Space and Technology Committee, directs the Department of Energy to set nuclear energy research as a priority.

While calling for the use of resources of national labs, such as use of super-computers, to help in the research, the bill also calls for the design and construction of an experimental reactor within the next 10 years.

"Strategic investments in advanced nuclear reactor technology should play a much more meaningful role in reducing global emissions," said Committee Chairman Lamar Smith (R-Texas) during a hearing last week.

More: [The Hill](#)

## Environmental Groups Call For FERC Investigation



More than 150 environmental groups have signed a letter calling on the Government Accountability Office to investigate FERC, calling it "a rogue agency that is blatantly biased towards pipeline companies it purports to regulate."

The letter, sent to Democratic Sens. Bernie Sanders (Vermont) and Elizabeth Warren (Massachusetts), who are members of the Senate Committee on Energy and Natural Resources, says the commission "is misusing legal loopholes and ignoring court orders to advance gas infrastructure projects while preventing the public from exercising their rights to judicial review or fair public participation in the process."

The letter was signed by groups such as Delaware Riverkeeper, the Sierra Club and Environment NJ, which have lined up to oppose an increase in pipeline development to deliver energy derived from new Appalachian shale production.

More: [NJ.com](#)

## Pipeline Finds New Opponent In Northeast Energy Solutions



Tennessee Gas Pipeline Company, L.L.C.  
a Kinder Morgan company

Tennessee Gas Pipeline's Northeast Energy Direct project attracted yet another opposition group when public advocacy group Northeast Energy Solutions filed a formal protest with FERC about the project.

The group listed more than 50 problems with NED's application for the \$5 billion, 400-mile pipeline that is planned to bring natural gas to constrained markets in New England. The group said the application is incomplete and contains errors, especially in the mandated listing of names of owners of property the pipeline would traverse, as well as an incomplete environmental assessment.

"The industry has never witnessed a proposal for an energy project seeking government approval that is as patently defective as the one submitted by Tennessee Gas Pipeline," said Vincent DeVito, the group's attorney.

More: [The Recorder](#)



# STATE BRIEFS

## DELAWARE

### State Auditor Doubts Energy Efficiency Initiative

State Auditor Tom Wagner says an energy efficiency project involving state buildings in the capital would cost taxpayers \$8 million over 20 years but yield energy savings of only \$2.7 million. "The possibility of the state breaking even on this agreement is looking bleak," he said.

The project to upgrade the Legislative Mall buildings in Dover is part of a broader \$67.4 million conservation effort undertaken by the Sustainable Energy Utility, a quasi-public agency established in 2007 to reduce energy consumption.

Tony DePrima, the SEU's executive director, said the auditor's report was unfounded. "These are fairly complex energy efficiency projects," he said. "I don't think they understand the protocols or standards being used, especially since they didn't consult with any experts in the field of energy engineering."

More: [The News Journal](#)

## INDIANA

### Activists Concerned Utilities Connecting Wind Line to Coal Plants

Environmentalists are concerned that two proposed transmission lines that Northern Indiana Public Service Co. is touting to deliver wind power will actually be used to transmit excess electricity from coal-fired plants.

Kerwin Olson, executive director of Indianapolis' Citizens Action Coalition, said the lines could connect to several coal-fired generators belonging to Duke Energy and American Electric Power. Duke Energy and AEP jointly own Pioneer Energy, which is a partner with NIPSCO on the 65-mile project.

"We have utility companies who are continuing to invest billions of dollars in aging coal plants that really should be retired and replaced with clean energy, so Indiana isn't doing so well," Olson said. "We seem to be doing everything in our power to maintain our addiction to coal."

More: [Public News Service](#)

## IOWA

### Rock Island Clean Line Process Request Turned Down Again



State regulators again turned down Clean Line Energy Partners' request to consider the necessity

of its transmission line proposal without requiring it to first acquire the rights of way for the power line. Clean Line said it may not proceed with the Rock Island Clean Line project if the Utilities Board continues to require full right-of-way approval before the project's route or need are determined.

The IUB on Monday rejected Clean Line's third request to separate the proceedings, saying both state law and board regulations call for a single proceeding to determine all those issues.

More: [Midwest Energy News](#)

## MICHIGAN

### Lawmaker to Concentrate On Energy Laws in 2016

Senate Majority Leader Arlan Meekhof, in his first year leading the Republican-dominated chamber, said that making the state's electricity markets more competitive is a priority in 2016.

Meekhof said lawmakers are considering whether to allow competitive bidding for new electric generation to reduce reliance on the state's two dominant electric utilities, DTE Energy and Consumers Energy. He said the process could encourage independent power producers to propose alternatives to replace retiring coal generators.

"Some of the discussion around it is it can't just be the big two," he said. "There may be other people who have smaller generating things that might be able to add on at a relatively inexpensive cost and then generate more energy and incrementally bring up the amount of energy we need as the demand is there — as opposed to building [a] 500-, 600-, 700-MW plant one time."

More: [The Associated Press](#)



Meekhof

### Consumers Extends Biomass Plant's Power Purchase Agreement



Consumers Energy has extended a power purchase agreement with Hillman Power's

20-MW wood-burning plant for another 17 months.

The agreement's termination now coincides with the Public Service Commission's timeframe to review federal laws that oversee contracts between regulated utilities and smaller, renewable electricity generators.

The power plant, which is owned by Fortistar, said the contract extension saved about 100 direct and indirect jobs. The power plant employs about 20 people and spends about \$3.5 million a year to buy local wood.

More: [WBKB 11](#)

## MINNESOTA

### Scandia to Build 5-MW Community Solar Garden



The city of Scandia, population 3,936, is embracing a \$12.5 million community solar

garden that private investors are building on a former 59-acre gravel pit. Scandia Mayor Randall Simonson said he wants the facility to be a showcase for other communities.

"It shows people as soon as they cross the border into Scandia, 'Hey, look at what they've got here,'" Simonson said.

SolarStone Partners is slated to begin construction of the 5-MW project this spring. Subscribers will receive credits to lower their Xcel Energy bills.

More: [Pioneer Press](#)

### Judge Advances Great Northern Line Route

An administrative law judge has sanctioned most of the route on Minnesota Power's proposed 220-mile Great Northern Transmission Line, which would import power from Manitoba Hydro.

Judge Ann O'Reilly concluded that the 500-kV line's route largely satisfied permit criteria, except for a segment in Itasca

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# STATE BRIEFS

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County.

The Public Utilities Commission is expected to vote on the project in March. The U.S. Department of Energy would then decide whether to grant Minnesota Power a permit to build the line. Minnesota Power says the line will cost up to \$710 million.

More: [Grand Forks Herald](#)

## MONTANA

### Regulatory Panel Averts Shutdown of Coal Mine



A deal to keep an underground coal mine running includes a confidential secret

side agreement between the owner and an environmental group that had argued state officials failed to properly examine the long-term groundwater impacts of expanding the mine.

The Board of Environmental Review on Jan. 12 approved the agreement between Signal Peak Energy, the Montana Environmental Information Center and the state Department of Environmental Quality. The deal gives the DEQ six months to revise its environmental analysis to correct problems the board found when the agency previously approved the expansion of Bull Mountain Mine.

The agreement includes a paragraph that says the Montana Environmental Information Center and Signal Peak reached a separate, confidential agreement that includes other "material terms." Neither the mine owner nor the environmental group said they could discuss the terms of their truce.

More: [The Associated Press](#)

## NEW HAMPSHIRE

### Site Evaluation Committee Hearings on Northern Pass Begin

The Site Evaluation Committee held its first county hearing on the controversial Northern Pass transmission line project. The session was held in Franklin, whose mayor has enthusiastically embraced the \$1.6 billion project that would deliver Canadian hydropower to New England.

A crowd of 250 people heard project representatives say Northern Pass is the best alternative to bring energy into New England. They said a substation in Franklin would pay about \$7 million annually in property taxes. The money would be used to improve city services, Mayor Ken Merrifield said.

Several in the audience wore orange "Trees Not Towers" shirts in opposition to the project and applauded questioners who said the visual impact of the project could not be justified.

More: [New Hampshire Union Leader](#)

## NEW YORK

### Hydro Plant Proposed On Canal near Albany



A new 10-MW hydro-electric power plant is being proposed for Lock

C1 on the Champlain Canal in Waterford, north of Albany.

Albany Engineering has filed for a preliminary permit with FERC for the new facility, which could also be reduced in size to produce 4 MW.

The firm has designed or rebuilt many of the hydro power plants upstate, but it did not disclose the identity of its latest client.

More: [Times Union](#)

### Plan Could Offset Tax Revenue Loss

Gov. Andrew Cuomo has proposed creating a \$19 million fund to help local communities cope with the loss of property taxes after the closure of the coal-fired Huntley power plant. Cuomo has pledged the closure all coal generation in the state by 2020.

The Town of Tonawanda and Ken-Ton School District will lose \$5 million in annual revenue after the plant closes in March. "Based on what I've heard and what I've read, it looks like we're going to be eligible for that pot of money and we're going to be aggressively seeking it," Town Supervisor Joseph H. Emminger said.

The Just Transition Coalition, composed of the Clean Air Coalition, labor unions and teachers associations, has been lobbying to secure money to make up the expected loss of revenue for the town on the Niagara River, north of Buffalo.

More: [Buffalo News](#)

## NORTH DAKOTA

### Commissioner Withdraws from Dakota Access Pipeline Process

One of three members of the Public Service Commission has recused himself from voting on a proposed pipeline that would transport crude oil from the state's Bakken Formation to out-of-state markets.



Christmann

Commissioner Randy Christmann said that the Dakota Access Pipeline's revised proposed route would cut across the property of his mother-in-law, who is currently negotiating an easement. The remaining two members of the commission are expected to vote on the matter Jan. 20.

The 1,134-mile pipeline would deliver 450,000 barrels of crude oil per day from the state to Patoka, Ill. Dakota Access has negotiated voluntary easements for 95% of its state route.

More: [Forum News Service](#)

## OHIO

### Duke Customers Entitled to Payout Under Class Action Suit

About a million customers of Duke Energy in the state have until April 13 to file a claim to be included in an \$81 million class-action settlement, which resolved claims that the utility illegally paid rebates to large commercial and industrial customers at the expense of smaller customers.

Plaintiffs in the federal case alleged that Duke paid rebates from 2005 to 2008 to large customers including General Electric, Procter & Gamble and AK Steel in violation of antitrust laws. Duke, while denying wrongdoing, agreed to settle the suit.

Under the settlement, residential customers could receive from \$40 to \$400 each, while commercial customers could be entitled to as much as \$6,000. About \$8 million of the settlement will be set aside to improve energy efficiency programs. A federal judge in Columbus is expected to give final approval in April.

More: [The Cincinnati Enquirer](#)

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# STATE BRIEFS

*Continued from page 22*

## OKLAHOMA

### Regulators Order Wastewater Injection Reduction



Oklahoma  
Corporation  
Commission  
Public Utility Division

The Corporation Commission has ordered the operators of 27 wastewater

disposal wells to reduce wastewater injections after a swarm of earthquakes unsettled residents northwest of Oklahoma City.

The order comes about a week after a series of earthquakes jarred the Fairview region. None of the recent temblors caused damage or injuries, but commission members are listening to experts who have drawn a connection between wastewater injections and the increase in the seismic activity.

The Oklahoma Geological Survey has said it is "very likely" the quakes are being triggered by the injection of wastewater produced from oil and gas wells, which has increased dramatically in volume because of the growth of shale drilling.

More: [The Associated Press](#)

### Asst. AG Criticizes PSO's Smart Meter Opt-Out Plan

The attorney general's office has taken issue with a plan by Public Service Company of Oklahoma to charge customers who decline to allow a smart meter to be installed.

Assistant Attorney General Dara Derryberry criticized an administrative law judge's report favoring the opt-out charges. PSO wants to charge a one-time fee of \$183 and a monthly charge of \$28 to customers who opt out of its smart meter program. The utility says that it will need to manually read the meters of customers who decline the wireless devices.

Derryberry said the proposed fees were excessive when compared to opt-out fees in 11 other states and in a recent proposal by Oklahoma Gas and Electric. Derryberry said the Corporation Commission should defer a decision on opt-out fees until PSO finishes installing the devices in September.

More: [The Oklahoman](#)

## PENNSYLVANIA

### PUC Plans Hearing to Study Alternative Ratemaking Methods

The Public Utility Commission will hold a hearing March 3 focused on alternative ratemaking methods for the state's natural gas and electric utilities.

The hearing is part of the commission's effort to promote energy efficiency and conservation programs.

Forum topics will include revenue decoupling and whether such rate mechanisms are fair to consumers.

More: [Natural Gas Intel](#)

## RHODE ISLAND

### Plant's Climate Impacts Review to Come



State regulators have rebuffed an attempt by the Conservation Law Foundation to stall Invenergy's application for its 1,000-MW Clear River Energy Center because of the proposed gas-fired power plant's climate impacts.

CLF had argued the application was incomplete because it failed to fully outline the projected climate effects of the plant under the Resilient Rhode Island Act, a 2014 law that calls for a reduction in greenhouse gas emissions. The Energy Facility Siting Board agreed on the importance of the act, but it ruled that more information on emissions could be submitted later.

Invenergy estimates the new plant would reduce emissions across New England by about 1% because the power plant would displace older fossil fuel-fired power generators.

More: [Providence Journal](#)

## SOUTH DAKOTA

### Environmental Agency Plans CPP Extension Request with EPA



Protecting South Dakota's Tomorrow ... Today

The Department of Environment and Natural Resources is taking a two-pronged approach as it prepares to respond to EPA's Clean Power Plan,

which seeks to reduce carbon emissions from power plants.

The DENR is participating in a lawsuit with 24 states opposing the CPP. At the same time, it plans to develop a state compliance proposal, should the lawsuit fail. The department will seek public input in the coming months, request a two-year extension from EPA by the Sept. 6 deadline and then finalize a state CPP for submittal to EPA by Sept. 6, 2018.

More: [Butte County Post](#)

## TEXAS

### PUC Urged to Reject Oncor Sale on Ratepayer Concerns



The chief executive of Oncor told state regulators last week that the plan to sell the company out of bankruptcy to Dallas billionaire Ray L. Hunt is not in the public interest.

Oncor CEO Bob Shapard's testimony adds to a chorus of concerns raised by consumer advocates who asked the Public Utility Commission to reject the sale, arguing it will enrich Hunt and his group of private investors at the expense of ratepayers.

The sale of Oncor, the transmission arm of Energy Future Holdings, is the linchpin in the parent company's plan to emerge from bankruptcy proceedings and reduce \$42 billion in debt. The sale to Hunt Consolidated needs the blessing of utility commissioners, who are not expected to decide before March.

More: [The Dallas Morning News](#)

*Continued on page 24*



# STATE BRIEFS

*Continued from page 23*

## VIRGINIA

### State Board Approves Dominion Coal Ash Drainage Plan



The state Water Control Board has approved a plan allowing Dominion Virginia Power to start draining its coal ash ponds into the James and Potomac rivers, overriding vocal opposition from citizen and environmental groups.

Dominion, in its application, said its plans to drain the coal ash ponds at the Bremo Power Station on the James River and the Possum Point Power Station on the Potomac River met all state and federal laws, including a rule last year setting new discharge limits on power plants. “This approach complies with all current federal and state regulations, including the newly promulgated EPA rule,” said Cathy Taylor, Dominion’s director of electric environmental services.

The James River Association and the Southern Environmental Law

Center had filed opposition to the plans. The water board’s final hearing was attended by more than 100 opponents.

More: [Capital News Service](#)

## WISCONSIN

### Assembly Passes Measure To End Nuclear Moratorium

The State Assembly last week voted to lift a moratorium on developing nuclear generation, sending the bill to the State Senate for consideration. The Republican-backed bill would lift a state law blocking new nuclear generation without the formation of a national repository for nuclear waste.

The measure also does away with a requirement that any new nuclear plant would not burden ratepayers. Democrats in the Republican-controlled Assembly voted against the measure.

The state is home to a single nuclear generating station, Point Beach, owned and operated by NextEra Energy Resources. The Kewaunee Power Station, another nuclear station in the state, was retired by Dominion Resources in 2013.

More: [The Associated Press](#)

# ERCOT Energy Use up 2.2% in 2015; Wind Surpasses Nuclear

ERCOT reported a 2.2% increase in energy usage within its region of Texas in 2015, fueled by a record-breaking summer that brought a new peak demand record approaching 70,000 MW.

The Texas grid operator [released](#) a report Jan. 15 that indicated the system consumed 347,522,945 MWh of electricity last year, nearly 7.5 million MWh more than in 2014.

According to ERCOT’s [2015 Demand and Energy Report](#), wind accounted for 11.7% of the grid’s energy consumption, surpassing nuclear (11.3%) as a generating source for the first time. In 2010, the nuclear and wind numbers stood at 13.1% and 7.8%, respectively.

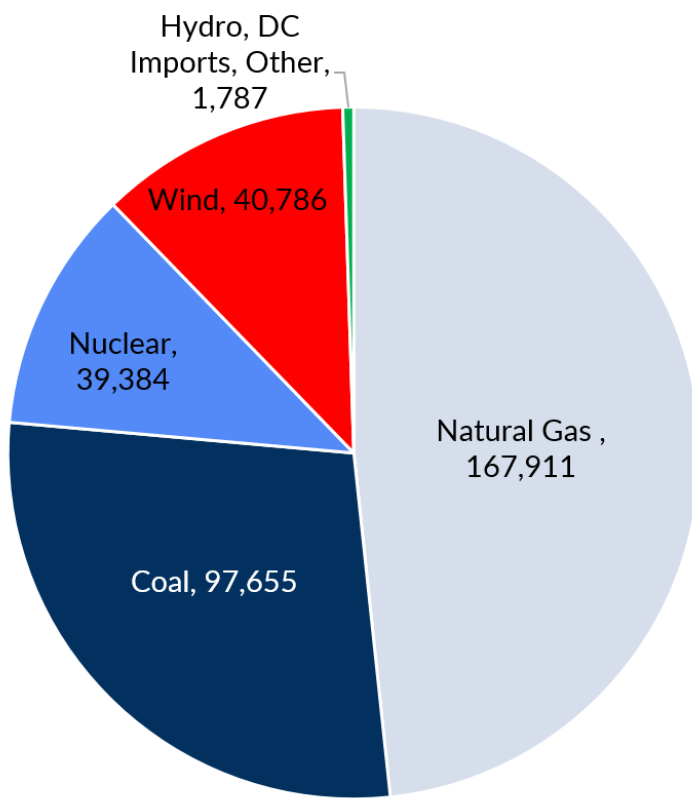
Natural gas remains the primary fuel at 48.3% — a 17.5% increase over its 2014 share — with coal supplying 28.1%.

ERCOT’s system set a series of peak demand records in August during the region’s hottest summer since 2011. By summer’s end, the system had topped 67,000 MW of demand for the first time in four years, eventually setting a new peak demand of 69,877 MW and recording its five highest peak demands:

- Aug. 10: 69,877 MW
- Aug. 11: 69,775 MW
- Aug. 6: 68,979 MW
- Aug. 7: 68,731 MW
- Aug. 5: 68,683 MW

ERCOT also set new records for monthly energy use (36,975,136 MWh in July), July peak demand (67,650 MW) and weekend peak demand (66,587 MW on Aug. 8).

ERCOT manages about 90% of Texas’ electric load, representing 24 million customers. It estimates 1 MW serves about 200 homes during summer peak demand and about 500 homes during milder weather conditions.



ERCOT 2015 energy by fuel type (GWh) Source: ERCOT

– Tom Kleckner

# FirstEnergy Responds to Generators' Criticism as PUCO Hearings Continue

*Continued from page 1*

FirstEnergy's W.H. Sammis coal plant and its Davis-Besse nuclear station).

## Local Provider?

One difference in Dynegy's offer is that it bills itself as a local provider. "The power provided by Dynegy will be generated by Ohioans, at Ohio plants, for Ohioans," Dynegy said in its announcement. Dynegy said it has 5,400 MW of generation in Ohio and hundreds of employees in the state and would use the state's natural gas, "providing further benefits to the state."

Dynegy CEO Robert Flexon, who has threatened to sue if PUCO accepts either the AEP or FirstEnergy proposals, said his company has the winning answer.

"If the PUCO and other elected officials in the state are interested in protecting consumers' and businesses' long-term interests while ensuring long-term reliability and price stability, then in lieu of accepting FirstEnergy's and AEP's proposals for long-term power purchase agreements, the PUCO should adopt one of the alternate, superior proposals Dynegy is putting forth," he said. "The PUCO could also institute a request for proposal process containing the same arrangements in the AEP and FirstEnergy PPA proposals. Exelon's recent proposal is also thoughtful, and Dynegy agrees with Exelon that this process should be competitive."

## FirstEnergy: Dynegy 'Misses the Point'

FirstEnergy spokesman Doug Colafella said Dynegy's offer is off the mark.

"Dynegy's proposal offers few specifics and provides no assurances that its power plants in the region will continue operating over the long term," he said Friday. "Dynegy is a power marketer from Houston with an established track record of entering and exiting competitive markets. While its brand of investors may be willing to tolerate its 'boom and bust' approach to energy markets, this approach fails to deliver on two key policy goals in Ohio — energy stability and economic stability."

"In addition," he said, "Dynegy's offer to fill the void with gas-fired plants if Sammis and Davis-Besse were forced to close completely misses the point about having a diverse set of fuels available to produce electricity in Ohio, an important ingredient for ensuring price stability for customers."



FirstEnergy's Davis-Besse nuclear plant

## AEP: Dynegy Wants Higher Prices

AEP Ohio spokeswoman Terri Flora also took a shot at Dynegy's new generation option.

"If Dynegy could build new generation in Ohio under current market conditions, they would," she wrote. "But, they haven't built new generation in Ohio and they can't afford to build it under current conditions. They need energy costs to rise dramatically for their business model to work so they want to force existing power plants to close."

## FirstEnergy Hearings Continue

The sparring proposals and letters came as PUCO continued hearings last week on the FirstEnergy proposal. The hearings are expected to run through the end of this week. Final arguments are likely in February and a commission vote possible by March, the *Cleveland Plain Dealer* [reported](#).

On Thursday, lawyers for the Sierra Club questioned PUCO's director of rates and regulatory affairs about FirstEnergy's projection that natural gas prices will rise above \$4/Mcf — a key assumption in the company's contention that its proposal will save consumers money.

Prices for January are below \$2.40/Mcf and New York Mercantile Exchange futures are below \$4 through 2024.

## FirstEnergy Answers PJM Member Criticism

FirstEnergy also responded to [criticism](#) of its proposal from the PJM Power Providers Group and the Electric Power Supply Association in a [letter](#) to the PJM board. (See [Exelon Calls FirstEnergy PPA 'Grossly Lopsided.' Says it can Offer a Better Deal.](#))

Amid an industry in transition, "a number of

states are considering retail rate policy reforms that support long-term resource planning, generator diversity and economic stability," wrote Steven Strah, president of FirstEnergy Utilities. "While some participants may disagree with our proposal, it is legal from a state and federal perspective, and consistent with traditional state and federal regulatory rules."

Strah also criticized PJM's request that PUCO require FirstEnergy and AEP's Ohio generators to offer their output into the RTO's markets at no lower than their actual cost, with no consideration of offsetting revenue provided by Ohio retail customers. (See [PJM Seeks Changes to AEP, FirstEnergy PPAs.](#))

Strah said such a mandate would violate federal appellate court rulings that prohibit state regulators from "dictat[ing] generator offer behavior in PJM's FERC-jurisdictional wholesale markets."

Meanwhile, the independent generators received support from Advanced Power Asset Management, which is developing two combined cycle projects in Ohio.

In its [letter](#) to the PJM board, it called the FirstEnergy and AEP deals "a special subsidy to incumbent Ohio- and Indiana-based PJM generators [that] will circumvent the PJM capacity and energy markets," lowering prices for other market participants and creating a disincentive to new investment.

Advanced Power is developing Carroll County Energy, a 700-MW natural gas-fired combined cycle generator expected to go online in the second half of 2017. The \$899 million project is fully funded, "predicated on the PJM market mechanism, which is the largest and most liquid competitive capacity and energy market in the U.S."

Also being developed — but not yet funded — is the 1,100-MW South Field Energy combined cycle project in Wellsville, Ohio.

# DFAX: 'Poison Pill' or 'Best Method' of Cost Allocation?

*Continued from page 1*

a definable category of projects for which the DFAX cost allocation method might not be appropriate, and could a fair approach be developed prospectively for those occasions?

PJM Vice President of Planning Steve Herling told the commission staff that the RTO could devise an alternative to DFAX for certain fixes, but the scheme would be tricky to develop and wouldn't be used very often.

PJM presented a matrix of project categories, showing that they could be defined as thermal violations, voltage/reactive, stability, short circuit, storm hardening, end of life/aging infrastructure or real-time operation concerns.

Since 2000, when PJM inaugurated its Regional Transmission Expansion Plan, there has been only one project each for the stability, short circuit and storm hardening categories. Artificial Island is the stability project; the Bergen-Linden Corridor is the short circuit project.

Regarding stability projects, Herling said, "I honestly don't think we're going to see many of those going forward. We might see one more next year and not another in 20 years."

Solution-based DFAX works well for most of the project categories, Herling said, because in most cases those who caused the problem are the same ones who will benefit from it being repaired. The flow of electricity that the projects are designed to enhance can be measured. But flow is not the driver of stability or short circuit fixes.

"With stability and short circuit, that's a

trickier proposition," Herling said.

Thirty years from now, for example, the stability benefits of the Artificial Island project probably won't exist because one or more of the Hope Creek and Salem nuclear reactors might be retired.

"The point is that the initial benefit of solving the problem fades over time. So is there a way to calculate the benefits of solving the problem? There very well may be," he said.

"The big benefit of going to DFAX is that you don't have to divvy up all the problems and all the beneficiaries. You have one solution. Then you look at who's using the fix. And that can be looked at year by year," he said.

## Status Quo

Testifying at the conference in favor of keeping the status quo for all projects were Frank Richardson of PPL and Takis Laios of Transource Energy, representing the PJM Transmission Owners, and Esam Khadr of Public Service Electric and Gas.

New Jersey's Board of Public Utilities and Division of Rate Counsel also submitted comments recommending that the commission not distinguish among projects for cost allocation. "All projects to ensure the reliability of the bulk transmission system are related to flow," the filing said.

It also noted that if the cost of the Artificial Island project is figured differently, it would allocate more costs to New Jersey ratepayers.

## DFAX Unfair

Advocates for customers on the Delmarva Peninsula protested the DFAX method-

ology, which charged them the bulk of the Artificial Island fix.

Arguing that the DFAX method is inappropriate to be applied to projects unrelated to flow were Mayer Sasson of Consolidated Edison; Amy Fisher of Linden VFT; attorney Robert Weishaar, of McNeese Wallace & Nurick, and John Farber of the Delaware Public Service Commission, representing Delaware and Maryland commissions and agencies; Jeff Wood of Hudson and Neptune Transmission; and Mark Ringhausen of Old Dominion Electric Cooperative.

Also objecting to the DFAX method in filed comments were the New York Power Authority and the Easton Utilities Commission.

"For non-overload projects, there is no rational relationship between flows and intended benefits," Sasson said. "This makes the use of distribution factors as part of the DFAX analysis a 'poison pill.'"

Short circuits, for example, are system disturbances, not the result of customer demand, he said, and the intended beneficiary is the transmission zone where the problem exists. The typical solution is to upgrade the breaker, not build a transmission line.

"The Bergen-Linden Corridor Project is intended to fix short circuits in PSE&G's service territory. And as PJM recently informed its stakeholders, it remains necessary with or without the flow from Con Edison's transmission contracts. Clearly, PSE&G is its intended beneficiary," he said.

Laios, of the PJM TOs, argued that all projects involve flow.

*Continued on page 27*

# FERC Sets Feb. 4 Tech Conference on PJM FTR Rule Changes

PJM's proposed rule changes designed to address underfunding of financial transmission rights will be the subject of a FERC technical conference on Feb. 4.

The Financial Marketers Coalition (representing J. Aron & Co., DC Energy, Inertia Power, Saracen Energy East and Vitol), Shell Energy and others challenged the changes, in particular the elimination of netting negatively valued FTRs against positively valued FTRs within portfolios (EL16-6-001, ER16-121).

The conference will consider PJM's auction revenue rights (ARR) modeling and allocation processes; treatment of portfolio positions in allocating underfunding or surplus among FTR holders; the potential for market manipulation; and balancing congestion in ARR/FTR product design. (See FERC Orders Tech Conference on

PJM FTR Rule Changes.)

PJM made changes to improve FTR revenue adequacy between 2010 and 2015, but then said the changes resulted in an unfair shift of revenues from ARR holders to FTR holders.

In addition to the netting change, PJM in October proposed to increase ARR results by 1.5% per year in the Stage 1A 10-year simultaneous feasibility process. (See PJM to File FTR, ARR Rule Changes with FERC.)

The conference will be held from 9:30 a.m. to 5 p.m. in the commission meeting room.

— Suzanne Herel



## DFAX: ‘Poison Pill’ or ‘Best Method’ of Cost Allocation?

*Continued from page 26*

“Why are circuit breakers there? They’re at a facility to carry flows. You could figure out who tripped it, but you’re back to a one-time violation calculation.”

He was referring to the violation-based DFAX method, a predecessor to the solution-based model, which went into effect in 2013.

Sasson said Con Ed is not proposing the violations-based method. “Our position is that, for non-overload projects, no DFAX analysis can apply because there is no rational or technical relationship between flows and intended beneficiaries.”

Ringhausen agreed. Representing 20% of the load in the Delmarva zone, ODEC stands to pick up a significant portion of the Artificial Island project cost. The primary component of the project is a 230-kV line that is not required to resolve any thermal or voltage reliability issues caused by load growth in the Delmarva zone, he said.

“The results of solution-based DFAX, then, do not signify any significant benefit to the Delmarva zone from the new line that could justify the proposed cost allocation.”

### Allocation Based on Economic Benefits

“For a generator stability problem like Artificial Island, one potential alternative would be to allocate costs based on the relative proportion of economic benefits that result from a stability upgrade since a primary benefit of such a project is to increase the availability of a generator’s output to provide capacity and energy to the PJM region,” Ringhausen said.

PSE&G’s Khadr, however, pointed out that the project gives the Delmarva area, which has been subject to transmission constraint, another high capacity line. He also noted that about 30% of the zone’s generation is more than 40 years old and at high risk of retirement.

Laios cautioned creating “carve-outs” for certain projects.

“You’re inviting another driver where someone doesn’t like the cost allocation to argue they should be included in that carve-out,” he said. “Once you start a carve-out, where do you stop?”

PPL’s Richardson said that any attempt to categorize some reliability projects differently would be “fraught with problems.”

“Some results may look strange,” he conceded of the DFAX methodology. But, he said, “It is not arbitrary. It is defensible, and it is the best method that we have.”

Weishaar, counsel to the Delaware Public Service Commission, suggested that a cost allocation method based on economic benefits would be the best option to address stability issues.

“The process would be objective and neutral,” he said. “A narrow exception to the DFAX rule need not swallow the rule. It may be appropriate for the overwhelming number of projects.”

Ringhausen also backed an economic-based allocation.

“We would have PJM run their market efficiency models and allocate the cost based on that,” he said. “Solution-based DFAX is better for most, but for certain projects, it is not matching cost and beneficiaries appropriately.”

Laios objected to the idea of an economic solution.

“Why would you use economics for reliability projects?” he said. “If you did, wouldn’t you feel compelled to do it for all the projects? It’s still a one-time calculation. It’s not updateable each year.”

FERC staff said they would regroup to see if they had any more questions for the participants. Meanwhile, FERC on Thursday granted a rehearing for further consideration of PJM’s Tariff changes involving the cost allocations.

### Correction

An article in last week’s newsletter cited outdated data regarding AES’ energy storage facilities. AES has 116 MW of energy storage projects in operation and 268 MW in construction or late-stage development globally.

## RTO Insider

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## FERC Accepts ISO-NE’s Solar Count over Generators’ Protest

FERC has accepted ISO-NE’s 390-MW reduction in its load forecast, reflecting the impact of distributed solar resources.

The commission rejected the New England Power Generators Association’s contention that the calculations for behind-the-meter generation hadn’t been sufficiently vetted (ER16-307).

“We find that ISO-NE has properly incorporated non-embedded solar resources into its [installed capacity requirement] calculation and has supported that action. We dismiss the arguments made by protesters to the contrary,” FERC wrote.

Solar is only a small piece of the 35,126 MW of ICR resources in the 10th Forward Capacity Auction set for next month, but the reduction was enough to displace the need for one small generating plant for the

2019/20 capacity commitment period.

The RTO said the only change in its assumptions from prior auctions was the inclusion of behind-the-meter solar resources that are not yet reflected in historical loads.

NEPGA said the calculation should be determined by a Section 205 proceeding before FERC. (See Generators Dispute ISO-NE on Solar Capacity.)

However, FERC ruled that the process by which stakeholder committees had considered calculations for the solar values had conformed to the RTO’s Tariff, even though ISO-NE, the New England Power Pool and various stakeholders had failed to reach consensus.

— William Opalka

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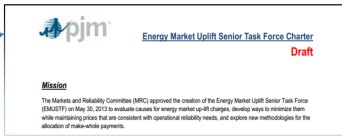
### MRC/MC Preview

#### 7. ENERGY MARKET UP-LIFT SENIOR TASK FORCE (EMUSTF) Charter (11-00-11-10)

Members will be asked to approve the charter for the Energy Market Uplift Senior Task Force (EMUSTF). The MRC approved the creation of the task force in May to take a broad review of its method of providing Operating Reserve payments.

PJM said the changes were needed to reduce growing uplift costs resulting from Operating Reserves, "make whole" payments that ensure generators dispatched out of merit for system reliability don't operate at a loss.

See [PJM Proposes Operating Reserve Changes to Cut Uplift](#)



- Voting summaries

#### Trading Limits

**Reason for Change:** PJM proposed the cap because high bid volumes can make it difficult for the RTO's day-ahead markets software to reach solutions.

**Impact:** PJM can limit market participants to no more than 3,000 UTC transactions each in the day-ahead market when necessary for market operations. (A similar cap also applies to increment offers and decrement bids.)

- Federal and state regulatory news briefs

### OHIO

#### Industry Likes Efficiency Rule, Wants Spending Cap

The Ohio Manufacturers Association favors the state's energy efficiency standards but wants a cap on how much utilities can charge for efficiency riders. The group said it is still studying provisions of a bill that has been introduced to make changes in the program.

Meanwhile, wind energy supporters argued against a provision in the bill that would eliminate requirements that utilities buy a certain amount of in-state renewable energy.

More: [Columbus Business First](#); [The Columbus Dispatch](#)

#### Columbus Biz Insider

April 20, 10:49 AM EDT

Ohio Manufacturers' Association says fix energy mandates, but don't dilute them

John Ball

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#### Current Capacity Imports OK: Study

October 1, 2013

PJM should be able to absorb the more than 7,000 MW of imports that cleared in May's capacity auction for 2016-17, officials said. [more](#)

#### PJM Likely to Limit Capacity Imports

September 17, 2013

PJM will seek to set a limit on capacity imports before next year's Base Reliability Auction under a [problem statement](#) approved Thursday by the Planning Committee. [more](#)

#### PJM to Consider Storage as Capacity

October 1, 2013

Members agreed to consider new rules to allow batteries, flywheels and other advanced storage technologies to bid in the capacity market. [more](#)

#### Installed Reserve Margin May Increase for 2014

September 17, 2013

PJM's recommended Installed Reserve Margin (IRM) will increase slightly because of the increasing alignment of the RTO's peak demand with demand outside of the region, according to a [preliminary analysis](#) presented to the Planning Committee Thursday. [more](#)