RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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

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New York worked on pricing carbon into its wholesale markets and faced down legal challenges to its nuclear subsidies. (p.11)

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Fast-Start Resource Pricing Adds to SPP's Workload in 2018

FERC's Dec. 21 order requiring SPP to help fast-start resources set LMPs added one more to-do for the RTO in what is shaping up to be a busy 2018. (p.15)

Lights Still on After Nearly 12 Months of Typhoon Trump

The new sheriffs in town (clockwise from top left): 1. President Trump announces the withdrawal from the Paris Agreement on climate change. 2. EPA Administrator Scott Pruitt testifies before Congress. 3. Commissioner Neil Chatterjee. 4. FERC Chair Kevin McIntyre chats with Commissioner Robert Powelson (left) and Terry Turpin, director of the Office of Energy Projects (right). 5. Energy Secretary Rick Perry testifies before Congress. | © *RTO Insider*

By Rich Heidorn Jr.

WASHINGTON — No industry has been more affected by Typhoon Trump in the last year than energy.

In less than 12 months in office, President Trump has abrogated the Paris Agreement on climate change and sought to disembowel the Obama administration's Clean Power Plan. His Interior Department ended the Obama-era ban on coal mining on federal lands and is removing 2 million acres of national monuments from federal protection.

Trump and congressional Republicans also have taken steps to expand oil and gas development in the Arctic National Wildlife Refuge and off the Atlantic Coast. FERC, restored to full strength for the first time in two years, is under Republican control and facing a Jan. 10 deadline for responding to Energy Secretary Rick Perry's demand for price supports for coal and nuclear generators.

Yet there's also evidence that the energy economy has ballast that can withstand even this political wind storm. The economics of cheap shale gas and subsidized solar and wind continue to win market share. Dozens of cities and states responded to Trump's Paris snub by pledging to meet the U.S. emissions targets. Despite Trump's claim last week to have "saved" the coal industry, employment has risen by only 1,200 (2.4%) since January and remains near historic lows; although domestic coal production was up 8% in 2017 over 2016, the Energy Information Administration expects a decline in 2018.

While California's wildfires and the hurri-

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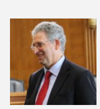

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IN THIS WEEK'S ISSUE

COUNTERFLOW
BY STEVE HUNTOON

Brother, Can You Spare 70 Billion Dimes?

By Steve Huntoon


Huntoon

I'm sorry to disappoint folks by kicking off the new year without another column on the Trump-Perry carbon tax (aka the DOE NOPR).

This column is about another tax matter: that very beautiful tax legislation that became the law of the land on Dec. 22. OK, maybe not very beautiful, or even beautiful, or even not that attractive. But whatever.

The centerpiece of the tax legislation is a reduction in the corporate tax rate from 35% to 21%. The raison d'etre is making the U.S. corporate tax rate more competitive with the rest of the world.

Public utilities are direct beneficiaries of this reduction, even though they are one industry that can't move outside the U.S. You can't get your utility service from China (at least not yet). Utility customers ought to be the indirect beneficiaries, but as I discuss here, it ain't clear how that's going to happen and when.

I know we all hate death and taxes, but please bear with me.

How Income Taxes Work in Rate Regulation

Traditional rate regulation allows utilities a return on their invested capital (aka rate base[1]) based on a composite of their shareholder equity (stock) and their debt (bonds). The equity portion is determined net of income taxes, so utilities are given an income tax allowance to cover income taxes.

So let's take an example of a utility with a rate base of $10 billion that is financed 50% by debt and 50% by equity. Let's say the equity portion of $5 billion is being allowed an annual return of 10%, or $500 million. That 10% is a rough average of allowed returns on equity (ROE).

By the way, this 10% allowed level of ROE is wildly excessive for reasons I've explained before,[2] but no one seems particularly concerned about that. The excessive ROE is not only unfair to consumers in and of itself, but it has spurred a spending frenzy by utilities to increase rate base notwithstanding little to no growth in demand.[3] Utilities do not need any more encouragement to "invest" consumers' money in gold-plating.

Anyway, getting back to the point of this column (and I do have one), to get to a "net of tax" return of 10%, that percentage is "grossed up" for taxes, which can be calculated by dividing by 1 minus the tax rate, or 65%.[4] So for $5 billion of equity, the utility is awarded $769 million that consumers actually pay.

You can confirm this admittedly convoluted approach by multiplying $769 million by 35% (the tax rate) to get an income tax allowance of $269 million and then subtracting that $269 million from $769 million to get the $500 million "net of tax" allowed return.

Cut in Tax Rate Amounts to $7+ Billion Owed to Electric Consumers. Per Year.

So what's the difference as a result of the tax rate reduction from 35% to 21%? We get the tax "gross up" by dividing by 1 minus the new tax rate, or 79%. So for $5 billion of equity, and $500 million of "net of tax" return, the utility would receive $633 million.

To recap, the overall return on $5 billion at an income tax rate of 35% is $769 million. The overall return on $5 billion at an income tax rate of 21% is $633 million. See the difference? The former is 21.5% more than the latter.

This means that if a utility's overall equity return was just and reasonable on New Year's Eve, on New Year's Day it was 21.5% more than just and reasonable.

What does that amount to? There is roughly $41 billion in relevant electric utility earnings.[5] So on New Year's Day, electric utility rates became excessive by $7 billion ($41 billion, minus $41 billion divided by 1.215). That's 70 billion dimes.

And the tax cut creates another benefit for utilities: excess accumulated deferred income taxes. I will spare you an explanation of this. But believe me, it is another huge pile of money that consumers ought to start getting back as of … yesterday.

Who is Getting Electricity Consumers Their $7+ Billion?

What are our nation's regulators doing about this?

So far it seems to be a trickle instead of a wave.[6] And it's not as if the utilities even think they're entitled to windfalls. The Edison Electric Institute issued a press release headlined: "Passage of Tax Reform Bill a Win for Electricity Consumers."[7] S&P Global simply assumes that regulators will require pass through to consumers.[8]

We need more action from our nation's regulators to, as Captain Picard might say, make it so.

Steve Huntoon is a former president of the Energy Bar Association, with 35 years of experience advising and representing energy companies and institutions. He received a B.A. in economics and a J.D. from the University of Virginia. He is the principal in Energy Counsel, LLP, www.energy-counsel.com.

[1] Although rate base has a number of complicating factors, in most regulatory jurisdictions, it is basically the booked cost of utility capital investment less the accumulated depreciation for that investment.

[2] http://www.energy-counsel.com/docs/Nice-Work-If-You-Can-Get-It-Fortnightly-August-2016.pdf.

[3] LED lighting is killing electric demand, as I've written about, http://www.energy-counsel.com/docs/LED-Kills-the-Edison-Star-2017-01-24%20RTO-Insider-Individual-Column.pdf, as have others more recently, https://energyathaas.wordpress.com/2017/05/08/evidence-of-a-decline-in-electricity-use-by-u-s-households/.

[4] I'm ignoring state income taxes for simplicity. There is negligible effect on the point being made.

[5] EEI reports members' energy operating income of $73 billion for 2016 here, http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Documents/QFU_Income_Statement/2016_Y_Income_Statement.xlsx. Subtracting $22 billion of interest expense yields $51 billion of normalized equity return. I reduced that $51 billion by a guesstimate of 20% to reflect merchant generation owned by EEI utilities (principally in PJM), utility formula rates that track prevailing tax rates, and tax adjustment provisions in individual utility tariffs (such as per a rate case settlement). That leaves $41 billion upon which to apply the income tax reduction effect.

[6] One exception is Kansas, where on Dec. 14, the Kansas Corporation Commission staff requested rate investigations with interim accounting measures, http://estar.kcc.ks.gov/estar/ViewFile.aspx/S20171214155815.pdf?Id=660e208e-b7b9-4263-9168-688f4dc50759, and a Kansas industrial consumers group filed a complaint against all investor-owned electric and gas utilities, http://estar.kcc.ks.gov/estar/ViewFile.aspx?Id=6d5a5f12-f228-483a-b416-1f7b488f0bbf. And Montana regulators voted last week to require its utilities to immediately defer the tax benefit and to submit proposals for passing it through to consumers. Michigan and South Dakota are among other states reportedly opening dockets on this issue.

[7] http://eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Passage%20of%20Tax%20Reform%20Bill%20a%20Win%20for%20Electricity%20Customers.aspx.

[8] "On the regulated side of the fence, utilities will almost certainly be required to pass along savings from new tax guidelines through state regulatory proceedings." https://marketintelligence.spglobal.com/documents/our-thinking/research-reports/Corporate-Tax-Reform-and-Utilities.PDF.

CAISO NEWS

CAISO Bid for Western RTO to Face Competition in 2018

By Jason Fordney

The Western Energy Imbalance Market (EIM) expanded its footprint and ambitions in 2017 while new suitors lined up to compete with CAISO as the vehicle for a Western RTO.

Idaho, Washington, Arizona, Nevada and Canadian provinces are considering how to access regional markets while protecting the financial health of their resources and keeping costs reasonable for consumers.

The EIM has been recognized as a success story. The increased efficiency of regional dispatch and having more offramps for generation are attractive not only for renewables, but also for coal, hydro and natural gas generation in the market's balancing authorities.

Five utilities have joined the EIM since its inception in 2014, including Portland General Electric in 2017. Six others have announced plans to join: Idaho Power and Powerex in 2018; Los Angeles Department of Power & Water and the Sacramento Municipal Utilities District in 2019; and the Salt River Project and Seattle City Light slated for 2020. In December, CAISO announced plans to expand its EIM offerings with a day-ahead market. (See *CAISO Plan Extends Day-Ahead Market to EIM*.)

Mountain West, Peak Reliability

But CAISO faces competition in its bid to expand into a RTO.

Last January, Mountain West Transmission Group said it would begin talks to join SPP. Mountain West, a partnership consisting of seven different transmission-owning entities within the Western Interconnection, covers most of Colorado and Wyoming with smaller areas of Arizona, Montana, New Mexico and Utah. The potential move has been of keen interest to regulators in the affected states. (See *Texas PUC Challenging SPP-Mountain West Intertie Costs* and *Colo. Regulators Talk Governance with SPP, Mountain West*.)

In December, reliability coordinator Peak Reliability announced it would work with a unit of PJM to develop new market structures for the West. "We are continuing our review with PJM Connext of potential reliability services and markets in the West and our outreach with western industry leaders and stakeholders," spokeswoman Rachel Sherrard told *RTO Insider* last week. (See *PJM Unit to Help Develop Western Markets*.)

Legislation Stalls

The California State Legislature ended its 2017 session in September after failing to pass bills that would have advanced CAISO's regionalization efforts.

AB 726 and AB 813, which were returned to the Senate Rules Committee, would have repealed a section of the Clean Energy and Pollution Reduction Act of 2015 governing the transformation of the ISO into an RTO and created a Commission on Regional Grid Transformation. The bills would authorize the transformation if the CAISO Board of Governors and the commission took certain actions by the end of 2018.

Lawmakers say they will reconsider the legislation after they return to Sacramento this month. The debate over regionalization in California involves issues of state control over resources and policy, and highlights concerns over energy costs and the influence of labor groups worried over exporting energy jobs.

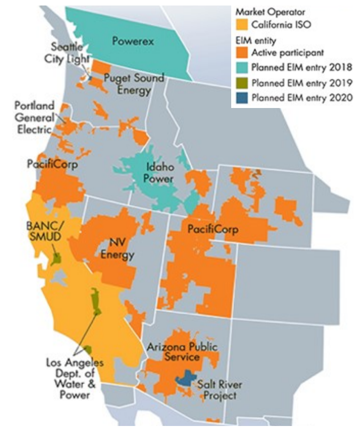
The legislature also is under heavy pressure to pass zero-carbon legislation that also fell short in 2017. California's policies to phase out fossil fuels in favor of renewables and new technologies have raised cost concerns and forced changes to long-standing engineering approaches to accommodate more variable renewable output and the complexities of smaller, distributed resources. (See *CAISO Regionalization, 100% Clean Energy Bills Fizzle*.)

Gov. Jerry Brown has taken a defiant stance against President Trump's environmental policies, recently traveling internationally to evangelize for fighting climate change.

Brown attributed the recent wildfire devastation in California to climate change, saying the state's fire season is now months rather than weeks. Fire investigators are focused on utility infrastructure as a possible cause, setting up complicated and contentious proceedings at the Public Utilities Commission over penalties and cost recovery. (See *CPUC Targets Wildfires, Multifamily Solar, RMRs*.)

During an interview on "60 Minutes," Brown discussed Trump and climate change in religious terms. "I don't think President Trump has the fear of the Lord, the fear of the wrath of God, which leads one to more humility," he said. "And this is such a reckless disregard for the truth and for the existential consequences that can be unleashed."

This summer, Brown signed a bill that extended the state's carbon cap-and-trade program until 2030. (See *California Lawmakers Extend Cap-and-Trade*.) The program will help the state meet its goal of reducing GHG emissions to 40% below 1990 levels by 2030.



Other CAISO, PUC Initiatives

In addition to its regionalization efforts, CAISO has more than a dozen other initiatives underway, with day-ahead market enhancements and resource adequacy at the top of the list in its 2018 roadmap. The conflict between state resource adequacy programs and CAISO's reliability management are another priority because of the increasing number of reliability-must-run agreements.

The growth of community choice aggregators led the PUC to propose that they be subject to the same resource adequacy requirements as electric utilities. (See *California Proposes Resource Adequacy Obligations for CCAs*.)

In December, the board of the Western Electricity Coordinating Council, the NERC-designated Regional Entity for 14 Western U.S. states, Alberta, British Columbia and a small portion of Baja California, Mexico, endorsed a new three-year operating plan. The plan continues the transformation that began in 2014, when Peak Reliability split off from WECC as the Reliability Coordinator for the Western Interconnection, except Alberta. (See *WECC Finding New Direction in Old Mission*.)

ERCOT NEWS

Wind Nearing Coal as Fuel Source as ERCOT Ponders Thinning Reserves

By Tom Kleckner

ERCOT enters 2018 facing new questions, as the growth in wind energy has begun threatening not only coal but also less efficient natural gas-fired generation.

In late November, the 155-MW Fluvanna Wind Energy Project in West Texas went online, pushing ERCOT's wind power capacity past 20 GW. The milestone came a few weeks after the ISO approved the retirement of 2.4 GW of coal-fired generation, dropping its coal capacity to 15.1 GW in early 2018. (See *ERCOT OKs Luminant Coal Retirements*.)

Reserve Margin Reduced

The retirements, along with those of several gas resources, has halved ERCOT's planning reserve margin to 9.3% for summer 2018, leading Beth Garza, director of the ISO's Independent Market Monitor, to proclaim an end to the "fat and happy times."

"We've had really two years of clearly unsustainably low prices with high reserve margins," Garza told the ERCOT Board of Directors in October. "We're looking at a much different situation going into the summer of 2018."

The Monitor says it hasn't seen a summer with such tight reserve margins since 2007.

"Will we see coal generators making profits that justify future investment?" asked IMM Deputy Director Steve Reedy during an October conference, noting the Monitor has seen more capacity on the ERCOT system than might be justified.

"If the load doesn't rise fast enough to justify the generation, we expect to see retirements. So, we will see [in 2018] if retirements in the market work," Reedy said.

After bottoming out in 2016 with the lowest real-time prices ($24.62/MWh) since the nodal market began operations in 2010, the ISO has seen prices increase to an average of $28.56/MWh through November. Still, that 16% increase lags the 28% rise in natural gas prices over the same period.

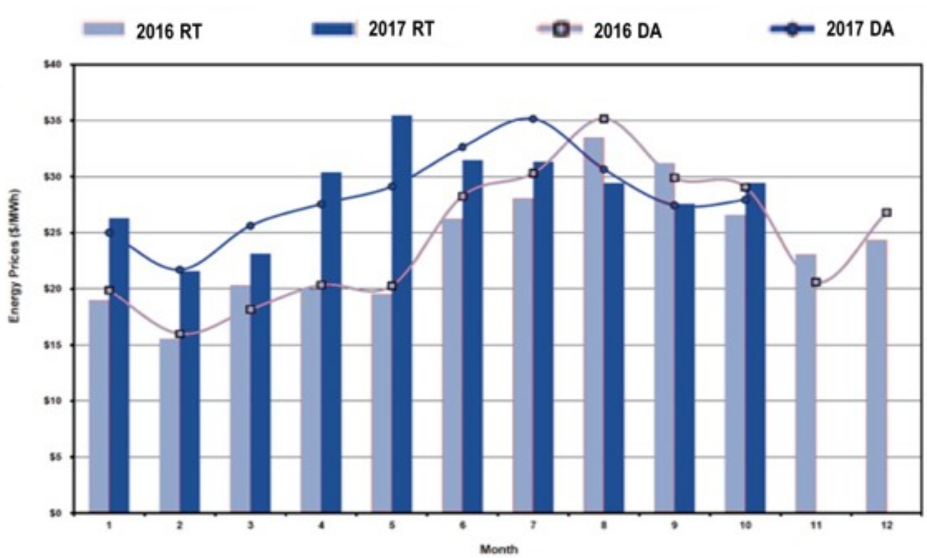
Solar, Wind Dominate Queue

All the while, wind and, increasingly, solar projects continue to flood the market. More than 29 GW of wind and almost 25 GW of solar are currently going through some form of study, accounting for the bulk of ERCOT's latest generator interconnection status report.

Joshua Rhodes, a research fellow at the University of Texas' Energy Institute, projects ERCOT's wind capacity to reach 24.4 GW by the end of 2018. Given current capacity factors and coal retirements, that means wind will surpass coal as a fuel source for electricity by 2019. Coal generation has accounted for 32.2% of the ISO's production this year, compared to wind's 17.5%. Natural gas exceeds both, at 39%.

So far, cheaper natural gas and wind have driven inefficient coal and gas plants out of the market.

"We haven't had a true scarcity event in years, but if we have severe weather, we could have one," said NRG Texas' Bill Barnes, speaking on the same conference panel with Reedy. "That's when we can all sit back and say, 'Yes, that's how it's supposed to work.' Or will there be temptation to intervene in the market?"



ERCOT real-time gas prices | *Potomac Economics*

Market Rule Changes?

NRG Texas partnered with Calpine to sponsor a report of the ERCOT market, published in May. The report, coauthored by Harvard University's William Hogan and FTI Consulting's Susan Pope, recommends several market improvements, including adjusting the operating reserve demand curve (ORDC), adding local scarcity pricing and potentially implementing real-time co-optimization (RTC), to address intermittent renewables and improve incentives for generators. (See *ERCOT, Regulators Discuss Need for Pricing Rule Changes*.)

The Public Utility Commission of Texas, which regulates ERCOT, has conducted a pair of workshops to discuss price-formation issues in the Texas grid operator's energy-only market (project 47199). Stakeholders have suggested a wide range of market improvements, from adjusting reliability unit commitment (RUC) mitigation rules and instituting penalty curves for pricing constraints, to incorporating marginal losses' costs into dispatch decisions and requiring locational reserve requirements.

The question of whether to defer market design changes until after the summer is yet another issue that must now be resolved.

The Monitor has called RTC the "most vital" market improvement. RTC is "foundational" to efficient pricing, it told the PUC, "especially in an energy-only market like ERCOT

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ERCOT NEWS

Wind Nearing Coal as Fuel Source as ERCOT Ponders Thinning Reserves

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| NextEra

where participants rely on energy prices to facilitate short-term decisions to commit generation and long-term decisions to invest and retire."

"The benefits of RTC would be substantial, as supported by the results seen by other [ISOs] where RTC is implemented," the Monitor said.

ERCOT staff have been working on a study of the costs and time it would take to implement RTC or marginal losses in the wholesale market. A July report indicated it would take at least $40 million and four to five years to make the changes. A September report lowered those figures to at least $10 million and 18-24 months.

In December, the ISO filed a proposed plan to further assess the benefits of implementing RTC and marginal losses. Staff suggest using IMM software code to run a simulation of RTC in historical security constrained economic dispatch (SCED) cases to estimate the cost savings on an interval-by-interval basis, a process they expect to take six months.

ERCOT said introducing RTC into the market would provide additional flexibility in the real-time market in locating ancillary services, which would require modifying the RUC engine "to ensure a reliable operating plan."

Staff predicted it would take about six months to complete a benefits assessment of marginal losses. ERCOT and the Monitor have promised another status update by the end of the first quarter.

New Loads, Oncor Deal

In the meantime, the PUC will hold a hearing Jan. 17-18 on Lubbock Power & Light's proposed migration of 430 MW of load from SPP into ERCOT. The commission is also waiting on the results of a joint study on Rayburn County Electric Cooperative's proposed transfer of another 150 MW of load from SPP to ERCOT.

In February, the PUC is scheduled to conduct a hearing on California-based Sempra Energy's proposed $9.45 billion acquisition of Oncor and its bankrupt parent, Energy Future Holdings. Sempra and Oncor on Dec. 14 filed a settlement they had reached with key Texas stakeholder groups. (See *Sempra, Oncor Reach Deal with Texas Stakeholders*.)

ISO-NE NEWS

New England Leads East in Renewables Transition

By Michael Kuser

New England stakeholders will open the new year with a vote on whether to seek FERC approval for a two-settlement market construct to integrate state-sponsored renewable energy resources into the wholesale electricity market.

The New England Power Pool's Participants Committee is scheduled to vote Jan. 5 on the two-tier market concept called Competitive Auctions with Sponsored Policy Resources (CASPR). (See *New England Strives to Find CASPR Consensus*.)

Under CASPR, ISO-NE would conduct the Forward Capacity Auction in two stages, allowing existing resources that have capacity obligations and a desire to retire to trade out their obligations with incoming state-sponsored resources in a manner that doesn't affect price formation in the primary auction.

In the primary FCA, resources would clear based on current rules, including those designed to mitigate offers below competitive prices such as state-sponsored resources. In the secondary or substitution auction, existing resources that cleared in the FCA would be able to transfer their capacity obligations to new sponsored policy resources that did not clear, with the existing resource agreeing to retire early in exchange for a "severance" payment.

CASPR, which arose from the Integrating Markets and Public Policy (IMAPP) process begun in 2016, is just one of the electricity policy issues facing New England.

State-Sponsored Renewable Energy

In January, Massachusetts will select the winners of last July's solicitation for 9.45 TWh/year of hydro and Class I renewables (wind, solar or energy storage). Contracts with the winning bidders under the MA 83D request for proposals are due to be completed in late April.

The proposals include an HVDC transmission line from northern Vermont to New Hampshire to deliver 1,200 MW of new wind power from Canada; a 375-mile submarine HVDC transmission line extending from New Brunswick to Plymouth, Mass.; and a submarine cable under Lake Champlain to bring 1,000 MW of hydropower, solar and wind from Canada. (See *Hydro-Québec Dominates Mass. Clean Energy Bids*.)

Offshore Wind in Mass.

Three developers submitted proposals Dec. 20 in response to Massachusetts' solicitation for up to 800 MW of offshore wind energy, offering projects that include a transmission "backbone" and storage to enable them to perform like a baseload resource.

The state's 2016 Act to Promote Energy Diversity mandates that the Department of Energy Resources and the state's distribution utilities sign long-term contracts for 1,600 MW of offshore wind by June 30, 2027.

The state's first RFPs (solicitation 83C) called for a minimum of 400 MW but said the state would consider bids of up to 800 MW if it determines that a larger proposal is superior to and more economical than the others.

The three developers — all with ties to the state's utilities — have purchased renewable energy leases off the coast from the federal Bureau of Ocean Energy Management. (See *Mass. Receives Three OSW Proposals, Including Storage, Tx*.)

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ISO-NE NEWS

New England Leads East in Renewables Transition

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The state will announce the winners of the offshore wind solicitation on April 23, and contracts are to be submitted at the end of July.

Storage Coming on Strong

As of December, ISO-NE reported more than 470 MW of energy storage in the interconnection queue, a nearly six-fold increase in one year.

Massachusetts is funding incentives to include energy storage in solar installations, as well as grants for peak demand reduction. Pairing energy storage with solar panels is meant to enhance grid resiliency by reducing the need for traditional generation to ramp up when the sun goes down. Peak reduction grants cover a wide range of projects, from utilities improving the efficiency of substations, to municipalities working to reduce the energy consumption of big-box retail stores, to a thermal energy storage project on Nantucket that will delay the need for a new undersea transmission cable. (See Massachusetts Awards $20M in Energy Storage Grants.)

The state in 2017 launched its Solar Massachusetts Renewable Target (SMART) program to provide incentives for "long-term sustainable … cost-effective solar development." The program provides incentives based on location, and to projects that provide unique benefits, including community solar and energy storage.

Massachusetts's new Alternative Energy Portfolio Standard is the only one of its kind in the country. The final draft regulations, released Dec. 29, include combined heat and power, flywheel storage, renewable thermal, fuel cells and waste-to-energy thermal technologies. The regulations oblige all retail electric suppliers to acquire a percentage of their power from eligible technologies, starting at 4.25% in 2017 and increasing by 0.25% each year through 2020, and by the same amount each year thereafter, subject to DOER review.

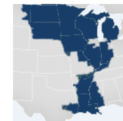
Millstone Debate

Opponents of Dominion Energy's bid to win state subsidies for its Millstone nuclear plant were cheered in December as consultants hired by Connecticut said the plant is likely to remain profitable through 2035 even under low natural gas prices. The report by Levitan & Associates concluded "there is no 'missing money' required to ensure Millstone's financial viability through the existing term of Millstone's Unit 2 operating license" in 2035. (See Millstone Likely Profitable Through 2035, Conn. Consultant Says.)

The report projected that in 2022 the plant would earn after-tax net cash flow of $100 million under a low gas price/high operating cost scenario, to more than $200 million under the reference case that assumed "business-as-usual" conditions.

Connecticut Gov. Dannel Malloy ordered state regulators in July to assess the economic viability of the plant and determine whether the state should provide it financial support. Malloy's order also directed the state Department of Energy and Environmental Protection and the Public Utilities Regulatory Authority to assess the role of large-scale hydropower, demand-reduction measures, energy storage and emissions-free renewable energy in helping Connecticut meet its ambitious targets to cut its carbon output. (See CT Gov Orders Financial Analysis of Millstone Plant.)

MISO NEWS



MISO in 2018: Storage, Software, Settlements and Studies

By Amanda Durish Cook

CARMEL, Ind. — MISO's 2018 to-do list includes continuing efforts to expand energy storage participation, extensive software upgrades, a tardy five-minute settlements rollout and studies on its changing resource mix.

The MISO Advisory Committee meets in December. | © *RTO Insider*

Storage Dialogue

In August, MISO stakeholders determined that creating energy storage market definitions and rules was the single biggest market issue for 2018. (See "Stakeholders Give Energy Storage Top Spot in Roadmap," *MISO Market Subcommittee Briefs: Aug. 10, 2017*.) John Fernandes, chair of the newly created Energy Storage Task Force, said at a Dec. 20 meeting that the group will send storage-related problems it identifies to the Steering Committee for assignment to other stakeholder committees. The task force also will discuss FERC's pending Notice of Proposed Rulemaking to require RTOs to allow storage resources of 100 kW and above to participate in capacity, energy and ancillary services markets. (See *FERC Rule Would Boost Energy Storage, DER*.)

In January, the task force plans to create a list of how storage currently participates in MISO markets and when it is and isn't compensated to identify "gaps," according to American Transmission Co.'s Bob McKee. Fernandes said that he didn't want to simply roll storage benefits into a fixed transmission charge "on the backs of ratepayers."

MISO Executive Director of Market Design Jeff Bladen said the RTO will work on storage attribute compensation "to the extent to which we can identify appropriate uncompensated attributes." He warned that not all stakeholders will agree that certain attributes ought to be compensated.

External Capacity Zones

MISO hopes in 2018 to conclude yearslong efforts to introduce external capacity zones into its Planning Resource Auction. In response to the increase in intermittent generation and an aging baseload fleet that's more prone to outages, the RTO also is considering setting capacity procurement requirements for load-serving entities. MISO predicts it will require just more than 17% of reserves for the 2018/19 planning year, a requirement that's been steadily increasing year-over-year.

5-Minute Settlements Deferment

Some of MISO's 2018 capital spending will be devoted to a delayed execution of FERC-ordered five-minute settlements.

In mid-November, MISO asked FERC to delay the settlements' go-live date to July 1, instead of March 1 (ER18-314), after stakeholders said the RTO's behind-schedule replacement of its overall settlements computer system would result in a rushed process for members to make their own software adaptions to accommodate the new process. The extra time will be used for software testing for both MISO and its member companies. (See *MISO Members Seek Delay on Five-Minute Settlements*.)

Raising the Offer Cap

The RTO also must regroup and plan direction on a revised Order 831 compliance filing after its energy offer cap design was rejected by FERC (ER18-300) in November.

FERC turned down MISO's $1,000/MWh soft cap and $2,000/MWh hard cap, saying it would prohibit resources from submitting cost-based offers above the hard cap. (See *MISO to Seek Waiver After FERC Rejects Offer Cap Plan*.)

Queue Discussion Lined Up

MISO's new interconnection queue design was accepted by FERC at the beginning of 2017, but there may be more changes coming.

Although the new queue design is meant to reduce the amount of time spent on studies, a very full queue project line-up has MISO staff warning stakeholders of delays.

Some stakeholders have already asked FERC to force additional rule changes. (See *EDF Asks MISO to Revisit Queue Overhaul*.)

"We just went through a rather exhaustive queue reform, but now that we've got the process and implemented it, there are a certain number of stakeholders that don't believe it's working," said Wisconsin Public Service's Chris Plante during the December Advisory Committee meeting.

MISO President Clair Moeller said the last time that the queue was this packed was in 2007.

About 60 GW of proposed generation is seeking interconnection, including 30 GW of wind, 15 GW of solar, 12 GW of natural gas and 600 MW of other resources. The queue also holds about 140 MW of prospective battery storage capacity.

"There's a lot of capacity in the queue, and a lot of it won't come online, but a lot of it will," MISO CEO John Bear said during a Sept. 21 Board of Directors meeting.

Market Platform Replacement

MISO's information technology department and vendor General Electric will begin in 2018 a seven-yearlong replacement of its market platform, the system responsible for operation of the day-ahead and real-time markets.

"These systems were designed in the late 90s and began operation in the early 2000s, and you think about all the technology advancements since then and how the cybersecurity threat landscape has changed," Kevin Sherd, MISO director of forward operations planning, said at a December Market Subcommittee meeting.

The RTO expects to spend $21.7 million in 2018 on the project, one-sixth of its planned total spending over the next seven years. (See *MISO Makes Case for $130M Market Platform Upgrade*.)

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MISO NEWS

MISO in 2018: Storage, Software, Settlements and Studies

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MISO is looking for a system that "will best position us for the future," Sherd said. The RTO's current inflexible system, which has become increasingly challenged by market changes, will be swapped for a modular market platform allowing programs to be changed without impacting others. "Building something that is more adaptable is our core principle," he said.

New Website

MISO will fully launch its new external website in the coming weeks. Sometime after January, MISO's current site will shift to the web address old.misoenergy.com. The RTO will maintain its old public website through the first quarter to make certain that it still has a website in the event of a failure of the new website.

A beta version of the new website has been up since October at beta.misoenergy.org, where the RTO recently added log-in capability for meeting registrations.

Competitive Bidding in 2018

MISO will oversee the competitive bidding of the yet-unapproved $130 million Hartburg-Sabine 500-kV line market efficiency project in eastern Texas this year. (See *MISO Board Approves $2.6B Transmission Spending Package*.)

The Hartburg-Sabine project will be MISO's second-ever competitively bid transmission project and the first such project to include a substation. The RTO plans to add two new staff members to oversee the competitive process. The line is intended to alleviate constraints in MISO South's West of the Atchafalaya Basin load pocket area spanning Texas and Louisiana.

Meanwhile, work is underway on the Duff-Coleman 345-kV transmission project in Southern Indiana and Western Kentucky, MISO's first competitively bid project. For most of 2018, LS Power subsidiary Republic Transmission will work on project design, environmental permitting and securing rights of way. Construction is slated to begin the fourth quarter of 2018. MISO selected Republic's $49.8 million proposal for the new, 30-mile, 345-kV line last December. (See *LS Power Unit Wins MISO's First Competitive Project*.) Republic said it expects to encounter "construction risks and challenges," most notably acquiring federal permits to cross the Ohio River.

The PJM Relationship

MISO and PJM also hope to implement a two-part fix in early 2018 to remedy their double-charging of congestion fees on pseudo-tied generation. The RTOs are facing five complaints concerning overlapping congestion charges for pseudo-tied generators. (See *MISO, PJM Pursue Pseudo-Tie Double-Charge Relief*.)

The fix has been complicated by the discovery that PJM has been making errors on market-to-market calculations.

For years, PJM has been overstating its own transmission loading relief (TLR) because of a calculation error and its failure to order mandated tests required to define M2M constraints between the two RTOs. (See *MISO Board, Monitor Seek Response to PJM M2M Missteps*.)

"We're going to explore with PJM what needs to happen retroactively and maybe what needs to happen going forward," Bladen said during a Dec. 14 Market Subcommittee meeting.

Sign-of-the-Times Studies

MISO is planning studies in 2018 on how to respond to increasing natural gas and renewable generation. One study will gauge how the natural gas supply affects MISO's dispatch ability.

Vice President of System Planning Jennifer Curran said the RTO and stakeholders will work throughout 2018 to "recognize the impact large gas pipeline contingencies have on the MISO system."

Curran said MISO already has a good idea of where pipelines are located, but it wants to analyze the footprint's gas supply and the potential consequences if some infrastructure were to fail.

MISO's 2018 Transmission Expansion Plan will seek to identify where wind generation is likely to grow the fastest.

At the Annual Stakeholders' Meeting in June, Board Chairman Michael Curran said he had confidence MISO could scale future obstacles, including portfolio evolution, renewable penetration and future federal and state regulations.

"It's a very unsettling time. It's almost as if the earth is moving from under us. And that may be the case in Oklahoma with fracking — unproven of course," he quipped.

NYISO NEWS

New York Forges Ahead on Clean Energy

By Michael Kuser

New York's electricity policymakers were very busy in 2017, setting a U.S.-record offshore wind target, devising an outline for pricing carbon into wholesale markets and facing down legal challenges to efforts to rein in energy service companies and its nuclear subsidies. The state also agreed with Entergy on the staggered closing of its 2,311-MW Indian Point nuclear plant, which will retire the second of its two remaining generators in 2021.

2018 will be eventful as well. Storage targets will be mandated early this year, the technical details of carbon pricing will be ironed out in conferences and public hearings, and a master plan for offshore wind will be released.

Carbon Pricing

Prompted by the state Public Service Commission's decision to subsidize upstate nuclear plants through zero-emissions credits (ZECs), NYISO commissioned a report by The Brattle Group on pricing carbon into generation offers and reflecting it in energy clearing prices. Released by NYISO and the state Department of Public Service in August, the report found that a $40/ton carbon charge in New York state would have "a relatively small impact" on customer costs, ranging from a −1% to +2% change in total customer electric bills. (See *NYISO Study Sees Little Cost Impact from Carbon Charge*.)

The ISO and the PSC in October established the Integrating Public Policy Task Force (IPPTF) to explore the carbon pricing issue. In the fall, the task force held public hearings and a technical conference to discuss issues, including the allocation of carbon revenues and border adjustment mechanisms to prevent "carbon leakage" — an increase in emissions in regions neighboring New York. (See *New York Hashes out Details of Carbon Policy*.)

The IPPTF will next meet Jan. 8 in Albany.

ZECs Win in Court

ZECs are part of the state's Clean Energy Standard, which mandates reducing greenhouse gas emissions by 40% by 2030, from a 1990 baseline, and by 80% by 2050. It also calls for renewables to meet 50% of the state's energy needs by 2030.

In July, a federal judge dismissed a challenge to the ZEC program by the Electric Power Supply Association and several of its members.

The plaintiffs argued that the program violates the Federal Power Act and the Constitution's dormant Commerce Clause by intruding on FERC's authority to regulate wholesale prices and favoring in-state generators. (See *New York ZEC Suit Dismissed*.)

In August, the plaintiffs appealed to the 2nd U.S. Circuit Court of Appeals to review the ruling. Oral arguments have been proposed for the week of March 18, but the schedule has not been finalized. (The 7th Circuit will hear a similar challenge to the Illinois ZEC program Jan. 3.)

Indian Point Closure and Reliability

The year began with Gov. Andrew Cuomo reaching an agreement with Entergy on his long-sought goal of closing the Indian Point nuclear plant, which the governor worries is too close to New York City. Under the deal, Units 2 and 3 will be deactivated by April 30, 2021. The agreement would allow the plants to operate for two additional two-year increments — with final closure slated for 2025 — if an emergency affected reliability in the New York City area. Unit 1 was shut down in 1974.

NYISO reported in December that gas-fired and dual-fuel generation coming online in the next few years will be enough to maintain reliability after the Indian Point closure.

The ISO report cited three generation projects totaling 1,818 MW under construction: the 120-MW Bayonne Energy Center II uprate in NYISO Zone J, and the 678-MW CPV Valley and 1,020-MW Cricket Valley plants in Zone G. (See *New Builds to Cover Indian Point Closure, NYISO Finds*.)

Distributed Energy Resources and ESCOs

New York's utilities will use 2018 to continue developing the analytical tools to deal with distributed energy resources and transition from a one-way transmission system to a multidirectional grid.

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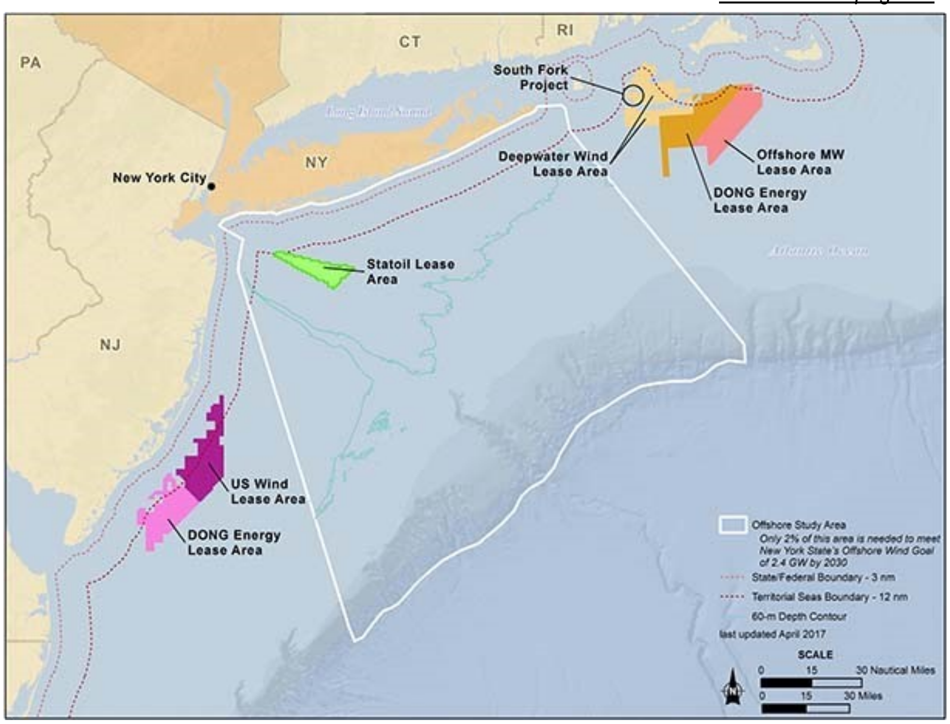


New York offshore wind study area | *NYSERDA*

New York Forges Ahead on Clean Energy

Continued from page 11

The ISO's DER Roadmap, issued in February 2017, outlines the grid operator's plans for integrating DER into its ancillary services, capacity and energy markets over the next five years.

In September, the PSC approved an order implementing a new compensation structure for DER. (See *NYPSC Limits ESCO Service, Sets New DER Compensation*.)

In July, the commission expanded and extended Consolidated Edison's Brooklyn-Queens Demand Management project and in August approved a Con Ed solar project dedicated exclusively to low-income customers.

In October, the PSC approved an implementation plan to allow municipalities to engage in community choice aggregation initiatives, and enacted the first consumer protection standards for DER. (See *New York PSC Adopts DER Rules, Sanctions ESCOs*.)

The PSC also faced legal challenges to its December 2016 order banning energy service companies (ESCOs) from serving low-income customers unless they obtain waivers by guaranteeing reduced bills or other benefits (Case 12-M-0476).

State and federal courts temporarily blocked the ban on several occasions during 2017. In November, the 2nd Circuit denied a motion for a stay pending appeal. On Nov. 22, the PSC issued an order setting dates for implementation of the December 2016 order on a rolling basis as contracts expire. In the meantime, the commission approved waivers on about half of the dozen requests it received from ESCOs.

Coming Storage Revolution

On Nov. 29, Cuomo signed legislation requiring the PSC to establish targets for energy storage by early 2018. (See *NYISO Readies Market for Energy Storage, State Targets*.)

In December, NYISO released a report detailing its plan for opening its wholesale markets to storage. The ISO report, "State of Storage: Energy Storage Resources in New York's Wholesale Markets," lays out three stages to facilitate storage participation — integration, optimization and aggregation with other DER. The ISO will allow storage resources to provide all the grid services that they're capable of, while also reducing the minimum participation size from 1 MW to 0.1 MW.

Storage developers and utilities have been working with the ISO to establish ways storage can participate in both retail and wholesale markets. The ISO report distinguishes between storage in front of the meter and behind the meter, with the former more likely to participate in wholesale market transactions, although BTM storage could become a wholesale player when aggregated with other distributed resources. (See *New York Sees Storage in Retail and Wholesale Markets*.)

The ISO plans on having storage market rules ready for commercial use in 2020.

The PSC in May took actions to allow large commercial batteries in New York City, and in December approved a three-year, $7.5 million pilot program for Con Edison to control its New York City customers' air conditioners to help shave peak demand in summer. Con Edison also is working with various companies on demonstration projects to use storage and software to shave peak demand.

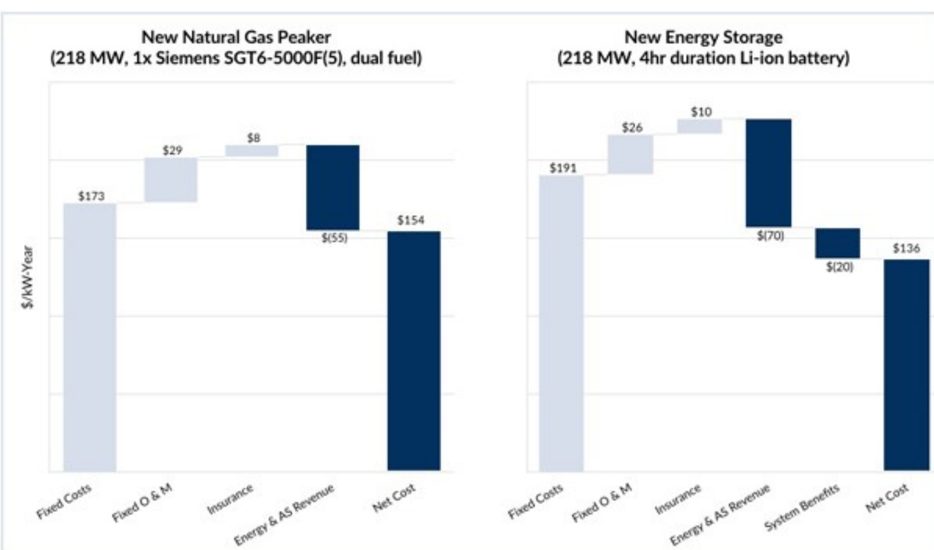
Offshore Wind

New York will be the biggest state player in offshore wind if it meets the target set by Cuomo in January 2017: 2,400 MW by 2030. State policymakers are embracing offshore wind for both its utility-scale generation, its ability to be developed close to the major load centers of New York City and Long Island, and its potential jobs. (See *New York Seeks to Lead US in Offshore Wind*.)

The first offshore wind lease for New York, a nearly 80,000-acre site off the Rockaways in Queens large enough to generate up to 1 GW, went to Norway-based Statoil in December 2016. Statoil says the project, which it has dubbed Empire Wind, is in early-stage development. It hopes to sign a power purchase agreement with a U.S. utility for the project by the end of 2018.

The first project in the water could be the 90-MW South Fork Project off Montauk, which was approved by the Long Island Power Authority in January. Developer Deepwater Wind says construction could start as early as 2019, with the wind farm operational as early as 2022.

The New York State Energy Research and Development Authority is drafting a master plan that will include an offtake transmission element, the crucial part of getting wind-generated power to shore. The master plan will include a timeline and recommendations on how to speed up the offshore planning and permitting process.



| *Stratgen Consulting*

PJM NEWS

PJM Markets Remain Unsettled Entering 2018

By Rory D. Sweeney

The CCPPSTF meets in August. | © *RTO Insider*

One year later, the future of PJM's markets remains as unsettled as ever.

The RTO entered 2017 preoccupied with its capacity construct and how to address the impact of state-subsidized generation. It ended the year without an agreement on capacity rule changes and facing a new threat to its markets: the Department of Energy's request that FERC order price supports for nuclear and coal plants.

It was concerns that other states might follow Illinois and New York in subsidizing at-risk nuclear plants that led PJM to create the Capacity Construct/Public Policy Senior Task Force (CCPPSTF) in early 2017. The yearlong effort has not gone the RTO's way. Stakeholders produced nine other proposals with which PJM's two-stage repricing concept was forced to compete. As the examination wore on, many stakeholders, including state regulators and consumer advocates, became convinced the current construct remains the best option. They are supporting a proposal by the Independent Market Monitor that they see as changing the current construct the least.

The RTO responded to the DOE Notice of Proposed Rulemaking by calling for a change to its method for developing LMPs. At its final stakeholder meeting of the year, PJM won endorsement for a stakeholder task force to examine the energy market rules and provide recommended fixes. (See "PJM Wins Examination of Price Formation," *PJM Markets and Reliability Committee Briefs: Dec. 21, 2017*.)

Subsidized generation is one of several major issues PJM will face in 2018. Below are the questions the country's oldest power pool will likely address in the coming year.

Will Capacity Markets Ever Find Stability?

The CCPPSTF endorsed only one proposal: the Monitor's plan to extend the minimum offer price rule (MOPR) to all units indefinitely, with exemptions for self supply, competitive entry, public power and state renewable portfolio standard programs.

But PJM announced it will not recommend those revisions to its board and instead plans to seek FERC approval for its repricing proposal, which would disconnect the offer price from the probability of clearing the auction.

A vote on the Monitor's proposal was deferred until the Jan. 21 Markets and Reliability and Members committee meetings, in part to await FERC's decision on DOE's request. (See *MOPR-Ex Faces Uphill Battle as PJM Declines Recommendation*.)

The Monitor has said it will file its proposal with FERC if it receives a "supermajority" of stakeholder support.

Will PJM Maintain Control of its Energy Markets?

In addition to shaking up the capacity discussion, the DOE NOPR also accelerated PJM's plan for changing its day-ahead and real-time energy markets. The RTO's current LMP methodology is simplified, effectively prohibiting large, inflexible resources like coal and nuclear generators from setting LMPs in its real-time and day-ahead energy markets. Instead, cheaper, more flexible units that are dispatched ahead of those units set prices, and the inflexible units receive "uplift" payments to cover their operating costs.

PJM argues the inflexible units should be allowed to set LMPs and the more flexible units should be paid extra for their ability to moderate output to help align supply with demand. The RTO will seek to build support for its proposal through the recently approved examination of energy market price formation. (See *PJM: Energy Price Formation Addresses DOE NOPR*.)

Some observers see the proposal as PJM's hasty response to states subsidizing their in-state nuclear resources. New York started the trend with its zero-emission credits in 2016, and Illinois soon followed with its own ZEC program. Similar proposals are on the table in Pennsylvania, Ohio and New Jersey, the last of which could enact legislation before Gov. Chris Christie's lame-duck tenure ends Jan. 19. (See *NJ Nuclear Subsidy Bill Moves Swiftly out of Committee*.)

The legislation includes caveats that reduce the state's subsidies if market rule changes improve the plants' revenues. The issue charge estimates that it could take most of 2018 to finalize the details of the RTO's plan. But PJM officials intend to move much more quickly. In its response to the DOE NOPR, the RTO told FERC that it should order it and other RTOs to file price formation rule changes within 180 days. (See *NOPR Reply Comments Bring More Criticism of PJM Proposal*.)

Is Carbon Trading in PJM's Future?

The two-stage capacity repricing and the energy market price formation proposals are two pieces of PJM's three-part plan for responding to state public policy initiatives. The third piece, which proposes a regional carbon-trading structure, might also receive additional discussion in 2018. The PJM proposal suggests establishing regional carbon prices that can be reflected in wholesale market prices.

New Jersey Governor-elect Phil Murphy pledged to rejoin the Regional Greenhouse Gas Initiative — which Christie withdrew from — within 100 days of assuming office. The state would rejoin Delaware and Maryland among the PJM states participating in RGGI. (See *EBA Panelists Discuss Carbon Policy, Renewables Integration*.)

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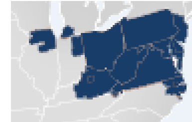
PJM NEWS



PJM Markets Remain Unsettled Entering 2018

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What Becomes of Summer Demand Response?

Another flash point has been PJM's efforts to develop ways for seasonal resources such as demand response to comply with Capacity Performance rules requiring year-round availability.

In October 2016, PJM asked FERC to approve a package of rule changes despite stakeholders' concern that the proposal didn't go far enough. The RTO's proposal relaxed prohibitions on seasonal resources aggregating across locational deliverability areas, provided additional winter capacity interconnection rights (CIRs) and modified rules for measuring DR performance in the winter.

FERC staff approved the plan in March while the commission lacked a quorum, but it could revisit the issue now that four new commissioners have joined. (See *FERC Staff OKs PJM Aggregation, DR Rules; Refunds Possible*.)

PJM stakeholders, however, aren't waiting around. They won approval to examine the situation through a Summer-Only Demand Response Senior Task Force formed in November. The group will look at the additional summer-season resources that don't get aggregated and seek uses for them. (See *Stakeholders Seek Load Discussion in PJM DR Task Force*.)

Who Triumphs in the Transmission Battle?

Transmission customers and merchant developers have been pressing incumbent transmission owners on several fronts. For merchant developers, the focus is on getting PJM to consider cost-containment provisions in project proposals. LS Power's Sharon Segner has been leading this fight and recently won concessions from TOs on allowing construction cost caps. This isn't enough for Segner, who is seeking approval of cost caps on return on equity and annual revenue requirements. (See "Cost-containment in Proposals," *PJM PC/TEAC Briefs: Dec. 14, 2017*.)

Sharon Segner | *© RTO Insider*

American Municipal Power's Ed Tatum has pushed for additional transparency on transmission projects proposed by TOs and the criteria used to determine when infrastructure has reached the end of its life. AMP released a study in October that showed more than half of the $24.3 billion in transmission projects in PJM since 2012 were supplemental projects unneeded to comply with RTO or federal reliability requirements and were not subject to rigorous review. AMP continued pressing its case for more transparency during a marathon Transmission Expansion Advisory Committee meeting in December. (See *AMP Presses AEP, PSE&G on Transmission Projects*.)

Ed Tatum | *© RTO Insider*

State representatives are on AMP's side. Both the Consumer Advocates of the PJM States and the Organization of PJM States Inc. have indicated their support for the efforts.

Can PJM Ensure Gas Generation Without Control of Pipelines?

While the definition of resiliency remains up for debate, PJM staff have brought several plans for stakeholder endorsement under its banner. In addition to price formation, which is intended to preserve fuel diversity, PJM has expressed concern that the loss of a major gas pipeline could idle multiple generation units.

The RTO is seeking to coordinate the natural gas pipeline system's procedures with grid operators' needs, a process it calls "operationalizing." The effort won agreements from gas-fired generators in December on manual changes specifying that PJM "may need to direct" switching to an alternate pipeline or fuel on a pre-contingency basis and that it "will use best operator efforts" to move interruptible users off before firm service users. (See "Fuel-Switch Clarifications Endorsed," *PJM Markets and Reliability Committee Briefs: Dec. 21, 2017*.)

NERC also has called for more attention to gas pipeline contingencies in reliability planning. (See *NERC: Natural Gas Dependence Alters Reliability Planning*.)

How Will PJM Meet Fast-Start Order?

As if PJM didn't have enough on its plate, FERC on Dec. 21 ordered the RTO (along with SPP and NYISO) to change their tariffs to incorporate fast-start resources into energy and ancillary services pricing (EL18-34). (See *FERC Drops Fast-Start NOPR; Orders PJM, SPP, NYISO Changes*.)

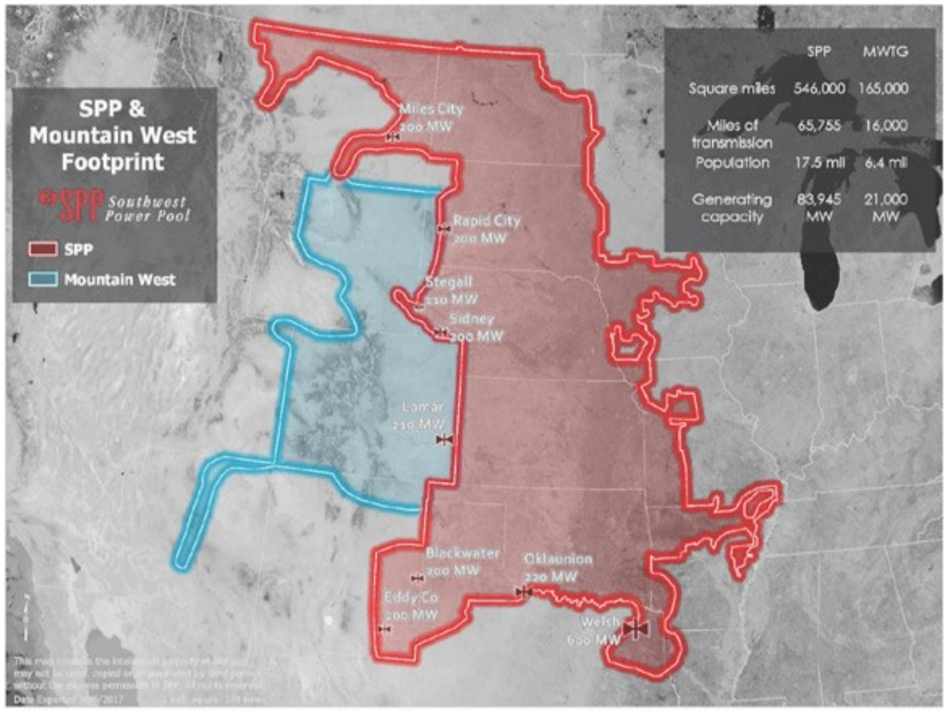
FERC said PJM has special pricing rules only for block-loaded units — resources whose economic minimum operating limits equal their economic maximums, meaning they have no dispatchable range. The RTO seeks to let them set price by relaxing the economic minimum operating limit of online block-loaded resources by up to 10%. The commission said PJM's practices may not be just and reasonable because they don't allow block-loaded resources' economic minimum to be relaxed by more than 10% and because they limit the relaxation to only block-loaded resources.

The commission gave the RTOs 45 days to file initial briefs in the Section 206 proceedings.

SPP NEWS

Fast-Start Resource Pricing Adds to SPP's Workload in 2018

By Tom Kleckner



FERC's Dec. 21 order requiring SPP to help fast-start resources set LMPs added one more to-do for the RTO in what is shaping up to be a busy 2018.

SPP's integration of the Mountain West Transmission Group drew much of the RTO's attention in 2017. But it also has been working to solve underfunding issues in its financial transmission rights market, address stakeholder concerns over transmission cost allocations, identify seams transmission projects that can be built and incorporate the constantly increasing amounts of wind energy. And as they have for the last several years, stakeholders and SPP officials spent countless hours attempting to unravel the Z2 transmission project accounting mess.

Fast-Start Order

FERC gave SPP and stakeholders 45 days to file initial briefs in the Section 206 proceeding it created to drive Tariff changes to benefit fast-start resources. The commission found SPP's approach "inconsistent with minimizing production costs" and ordered it to allow the commitment costs of fast-start resources (start-up and no-load costs) to be reflected in prices. SPP said it will decide its plan for responding to FERC's fast-start order in early January. (See FERC Drops Fast-Start NOPR; Orders PJM, SPP, NYISO Changes.)

Working out the details will likely fall to SPP's Market Working Group (MWG).

Congestion Hedging

The MWG has been spending the last few months working on improvements to SPP's congestion-hedging process.

SPP's Integrated Marketplace rules are intended to allow load-serving entities to translate firm transmission service reservations (TSRs) into a product that allows them to obtain credits to hedge daily congestion costs.

The RTO allocates auction revenue rights based upon firm network or point-to-point transmission reservations. But market participants have complained they are not receiving sufficient hedges.

Keith Collins, executive director of SPP's Market Monitoring Unit, says the main area of concern is the initial transition from a physical transmission right (the TSR) to a financial right (the ARR).

Because ARRs are allocated months in advance of the day-ahead market, congestion patterns can change in the interim because of transmission outages, derates and upgrades and unexpected generation outages.

The MMU also notes that many prevailing-flow ARRs are not nominated, leaving hedges "on the table." In addition, the availability of prevailing-flow ARRs is limited because most counterflow ARRs are not nominated.

Charles Cates, SPP's manager of transmission services, told the Board of Directors in December that the RTO's congestion market is about portfolios, not single-path entitlements and awards.

Staff say total congestion revenues continue to increase, with the revenues shifting from LSEs to financial entities (the non-ARR holders). Candidate ARRs associated with redispatch are contingent on completion of transmission upgrades, they say.

"Building transmission to help [create] more ARRs is an expensive answer to the problem," Collins said.

The MMU has suggested hedging congestion from the physical day-ahead flow, taking the emphasis off day-ahead congestion prices.

Among the options SPP is considering are obligating the LSEs to nominate counterflow, reducing percentages in the annual transmission congestion rights auction, and limiting first-round ARR nominations by source and path.

The MWG will provide an update on its progress during the January board and Markets and Operations Policy Committee meetings. If the MWG can't find a better mechanism, a task force could be created to take up the issue.

Mountain West Integration

The biggest to-do on SPP's list is completing the integration of Mountain West, which primarily services Colorado, Wyoming and Nebraska. Mountain West announced its intention to join the RTO in January, but it had been holding discussions with SPP's man-

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SPP NEWS

Fast-Start Resource Pricing Adds to SPP's Workload in 2018

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agement team for almost a year prior. In September, Mountain West said it would begin public negotiations. (See SPP, Mountain West Integration Work Goes Public.)

SPP has established a Members Forum and State Commission Forum to assist with its due diligence effort. SPP's Strategic Planning Committee spent the last quarter of 2017 conducting numerous executive sessions with Mountain West representatives. The discussions are expected to continue well into 2018.

Mountain West said it has had "significant success" resolving issues concerning rate design and cost-shift mitigation. Any changes to governing documents, such as SPP's Tariff, bylaws and membership agreement, must go through the RTO's stakeholder process for review before they are considered by the board. The Regional Tariff Working Group (RTWG) has primary responsibility for Tariff changes, while the Corporate Governance Committee will consider changes to the membership agreement and SPP bylaws.

SPP and Mountain West are working on an Oct. 1, 2019, target date for membership but will begin the regulatory approval process this year. FERC filings could come as soon as October, assuming the SPP board approves the integration at its July or October meetings. The RTO expects FERC review to take 60 to 180 days.

The Colorado Public Utilities Commission will play a key role in the process. The commission has jurisdictional authority over Xcel Energy's Public Service Company of Colorado and Black Hills Energy, two of the eight Mountain West members seeking to join SPP. The PUC held three informational sessions on the merger last year and could hold as many as three more in 2018. (See Colo. Regulators Talk Governance with SPP, Mountain West.)

When it's all over, SPP will have expanded its current 14-state footprint into the Rocky Mountains, adding Colorado, most of Montana and portions of Arizona and Utah. The new SPP will grow by 165,000 square miles, adding 16,000 miles of transmission lines and 21 GW of generating capacity.

Mountain West will eliminate the pancake transmission rates that led to its search for RTO membership, while SPP members will see 10-year net present value benefits of about $209 million, according to the RTO.

Z2

In October, the board approved a cleanup of Tariff language that it hopes will help it resolve long-standing problems with Attachment Z2 of SPP's Tariff, which details how financial credits and obligations are assigned for sponsored transmission upgrades. (See "Z2 Fix Allows Short-Term Service Agreements to Expire," SPP Board of Directors/Members Committee Briefs: Oct. 31, 2017.)

FERC & FEDERAL NEWS

FERC OKs Change to MISO-PJM Pseudo-Tie Rules

By Rich Heidorn Jr.

FERC last week approved changes to MISO and PJM's Joint Operating Agreement to improve their coordination of pseudo-tied generators, rejecting calls for a technical conference (ER17-2218).

The RTOs said the changes were needed to address the market and reliability challenges resulting from the increased number of pseudo-tied resources. Pseudo-tied volumes from MISO into PJM increased from about 155 MW in June 2015 to 2,160 MW in June 2017.

In November, the commission had accepted PJM's proposed revisions to the requirements for pseudo-tied resources seeking to participate in the RTO's capacity auctions (ER17-1138).

The JOA changes specifically affect generation commitment and dispatch "with a focus on reliability assurance," FERC said. (See *MISO, PJM Respond to FERC's Pseudo-Tie Questions*.)

Among the changes:

- The RTOs will coordinate modeling and technical details of pseudo-tied resources;
- To capture the impacts of pseudo-tied resources on flowgates, neither PJM nor MISO nor the entity seeking to pseudo-tie a resource will tag the scheduled energy flows from pseudo-tied resources. Information about the pseudo-tied resources is included in the market-to-market management procedure;
- The RTOs will not recall a pseudo-tied resource that is committed to the attaining balancing authority as a capacity resource to serve load in the native balancing authority;
- The native reliability coordinator can commit, decommit or redispatch the pseudo-tied resource under certain circumstances;
- Entities seeking to pseudo-tie must pay for transmission losses; and
- The RTOs can suspend or terminate a pseudo-tied resource if it no longer satisfies the requirements for a pseudo-tie.

FERC approved the changes over the concerns of intervenors who said it should evaluate them along with issues raised in other pseudo-tie proceedings. MISO's Independent Market Monitor — which has challenged PJM's requirement that external capacity resources must be pseudo-tied — said the commission should schedule a technical conference on the issues.

FERC, however, said it agrees with the RTOs that the JOA revisions "are separate and distinct from issues pending in other pseudo-tie related proceedings: These proceedings specifically address administration and coordination of pseudo-tied resources between the RTOs. In contrast, some of the other proceedings pertain more to the agreement that a pseudo-tied resource enters into with the relevant balancing authorities and the requirements for becoming pseudo-tied."

The commission also rejected as beyond the scope of the proceeding American Municipal Power's complaint that the JOA revisions won't help imports from pseudo-tied resources out of MISO into PJM because they don't resolve the issue of double-charging for congestion. "The parties have made no showing that the provisions filed by the RTOs are unjust and unreasonable because congestion is not addressed," it said, noting that the RTOs made separate filings on Oct. 23 to address the congestion overlap issue (ER18-136, ER18-137).

FERC dismissed challenges to the RTOs' proposed non-recallability provision, saying they had "sufficiently delineated the limited circumstances under which a pseudo-tied resource can be committed, decommitted or redispatched by the native reliability coordinator. While we agree that the ability of a pseudo-tied resource to meet its capacity requirement is essential to system reliability, we find that the instant JOA revisions do not inappropriately reduce PJM's or MISO's control over a pseudo-tied capacity resource."

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canes that brought biblical rain and ruinous winds have some fearing it's already too late to prevent severe damage from global warming, *RTO Insider* will continue covering the nitty gritty of energy policy in 2018 — Armageddon be damned.

Here's some of the top national stories we'll be chronicling in the coming year.

FERC's New Makeup

FERC limped through half of 2017 without a quorum. For all of July, after the departure of Colette Honorable, Cheryl LaFleur was the only commissioner on the 11th floor of FERC headquarters.

New Chairman Kevin McIntyre, a Republican, joined FERC after 22 years at Jones Day. Although he was coleader of the law firm's global energy practice, he acknowledged in a FERC podcast that he has kept a low profile during his career. "I think that flying below the radar … has been a function of what my role has been in private practice where, typically, I and my law firm colleagues were retained not to land our client in the headlines, but in most instances just to serve as a forceful advocate." (His former Jones Day colleague Don McGahn is Trump's White House counsel.)

In his first open meeting Dec. 21, McIntyre surprised FERC watchers by announcing the commission would review its 1999 policy statement on natural gas pipeline licensing — a seeming olive branch to LaFleur, a Democrat, who later gushed, "I was already looking forward to 2018 with all you fine folks, and I now am even more." (See *FERC to Review Gas Pipeline Approval Process*.)

It was an encouraging development for

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FERC Briefs: Con Ed DER Recovery OK'd

Consolidated Edison last week won FERC approval to recover its payments to distributed energy resources customers under the New York Public Service Commission's Reforming the Energy Vision initiative (ER18-214).

The PSC created a "value stack" describing the services provided by DERs: capacity; environmental value; demand reduction value; and locational system relief. (See *NYPSC Limits ESCO Service, Sets New DER Compensation*.) Con Ed agreed to New York City's request that its annual accounting to FERC include an itemization of the four DER cost components.

In other rulings last week, the commission:

- Ordered a Section 206 proceeding to determine reactive service rates for Allegheny Energy Supply's 80-MW coal bed methane-fueled facility located in Buchanan, Va. (ER17-2575, EL18-46).
- Approved transmission rate incentives for Dairyland Power Cooperative's share of the Cardinal-Hickory Creek 345-kV transmission project (ER18-193). The commission approved a hypothetical capital structure of 45% equity/55% debt and recovery of 100% of prudently incurred costs if the project is canceled for reasons beyond Dairyland's control. The 125-mile project will run from the Cardinal substation in Middleton, Wisc., to the Hickory Creek substation in Dubuque County, Iowa. Dairyland will own 9% of the project with American Transmission Co. and ITC Midwest each owning 45.5%. Pending regulatory approval, the companies expect to begin construction in January 2022 with an in-service date of June 2023.
- Ordered hearing and settlement procedures on proposed revisions to the transmission formula rate templates of Public Service Company of Oklahoma, Southwestern Electric Power Co., AEP Oklahoma Transmission and AEP Southwestern Transmission (ER18-194, ER18-195). Oklahoma Municipal Power Authority, East Texas Electric Cooperative and Northeast Texas Electric Cooperative protested that the AEP filings failed to justify the proposed changes, which AEP said were needed to transition from a historic basis to a forward-looking accounting method. The commission said the resolution of the dockets is subject to the outcome of East Texas' complaint over the AEP companies' 10.7% base return on equity (EL17-76).
- Set hearing and settlement proceedings on Southwestern Public Service's proposed revisions to the formula rate implementation protocols in its power supply agreements with Central Valley Electric Cooperative, Lea County Electric Cooperative, Farmers Electric Cooperative of New Mexico, Roosevelt County Electric Cooperative, Tri-County Electric Cooperative and West Texas Municipal Power Agency (ER18-228). The revisions update the depreciation rates for the two units at SPS' Tolk generating station based on a 2032 retirement date and the retirement of its Carlsbad generator at the end of 2017. The commission cited protests by several co-ops that SPS had not presented proof it had made a legally binding decision to retire Tolk or Carlsbad earlier than previously indicated. They said that could allow SPS to change its decision after having benefited from recovering accelerated depreciation. Chairman Kevin McIntyre did not participate in the ruling.
- Approved an uncontested settlement on Alliant Energy's revenue requirement for providing reactive supply and voltage control at its Interstate Power and Light and Wisconsin Power and Light generating facilities (EL17-60, ER17-980-001). The settlement will pay IPL $3.58 million and WPL $3.77 million. Alliant had requested an annual revenue requirement of $4.23 million for IPL, a decrease from the $4.89 million it received in 2015, and $4.45 million for WPL, an increase from $2.41 million in 2015.

— Rich Heidorn Jr.

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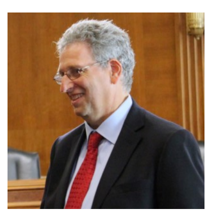
those who believe FERC's nonpartisanship has been a strength. But there's no assurance that the review, which will likely take months, will materially impact pipelines' 99.5% success rate in winning FERC approval.

DOE NOPR

An earlier indication of where FERC is headed will come by Jan. 10, when McIntyre has promised the commission will rule on the Department of Energy's Notice of Proposed Rulemaking.



Glick

McIntyre won a 30-day delay on the original deadline, telling Perry he and fellow newcomer Richard Glick needed more time to review the more than 1,500 comments filed in the docket (RM18-1). (See *McIntyre Takes FERC Chair; Wins Delay on NOPR*.)

Perry called for compensating coal and nuclear plants in regions with competitive capacity markets that maintain 90 days of fuel on site, saying they were needed for grid resiliency.

McIntyre has given little indication of his preferred response. (See *McIntyre to Senate: 'FERC does not Pick Fuels'*.)

Commissioner Neil Chatterjee has lobbied for interim subsidies for coal and nuclear plants to provide them a "lifeline" pending a lengthier FERC review.

Although there has been speculation that LaFleur and Commissioner Robert Powelson want to issue a Notice of Inquiry to RTOs and ISOs, they have not expressed definitive positions publicly.

Changes on PURPA?

The new FERC commissioners also may

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consider making rule changes to address longstanding complaints about the Public Utility Regulatory Policies Act, the subject of a July 2016 technical conference and numerous congressional hearings. The National Association of Regulatory Utility Commissioners asked FERC on Dec. 18 to change its interpretation of PURPA to "align" the 1978 law "with modern realities." (See NARUC Calls for PURPA Reforms, Outlines Proposed Changes.)

Chatterjee has said he wants FERC to address gaming of the commission's "1-mile rule," while Powelson promised in his confirmation hearing to look at "what's working with PURPA and what's not." But both said major changes could require congressional action. (See Chatterjee Outlines Goals for FERC Tenure and No Fireworks for FERC Nominees at Senate Hearing.)

Other Rulemakings

In his podcast interview, McIntyre declared as priorities the commission's storage NOPR (RM16-23, AD16-20) and revising its policy for determining just and reasonable returns on equity. He also called for more transparency regarding the timing of FERC's rulings. "As a practitioner, I know firsthand what it's like to wonder when on earth the commission is going to make a decision on a given matter," he said. "And I think we owe it to stakeholders and the public itself to be as transparent as we can possibly be about what to expect."

The ROE discussion got a new variable with the Republicans' reduction of the corporate federal income tax from 35% to 21%. Montana regulators voted last week to require its utilities to pass the tax savings through to consumers, and Michigan, Kansas, South Dakota and other states reportedly also have opened dockets on this issue. (See Steve Huntoon's latest Counterflow column, *Brother, Can You Spare 70 Billion Dimes?*, p.3)

NERC Seeks New CEO, Security Chief

Another issue facing FERC is its oversight of NERC, which the commission in 2006 empowered with responsibility for ensuring

NERC CEO Gerry Cauley (center) and General Counsel Charles Berardesco (to Cauley's left) attend a NERC board meeting in New Orleans Nov. 9, hours before Cauley's arrest for domestic abuse. Also pictured are Board Chair Roy Thilly (to Cauley's right), and board members Jan Schori (left) and Frederick W. Gorbet (foreground). | *NERC*

the reliability of North America's electric grid.

In November, the Electric Reliability Organization was rocked by the arrest of CEO Gerry Cauley on domestic abuse charges. Cauley, the face of NERC at congressional hearings and FERC technical conferences for nearly eight years, allegedly attacked his estranged wife in an argument over what his wife said was an affair with a female subordinate. (See Cauley Arrest Tied to Relationship with NERC Subordinate.)

General Counsel Charles Berardesco was named interim CEO while NERC searches for a replacement for Cauley, who resigned effective Nov. 20 after reaching a severance agreement, according to sources. (See Cauley Resigns; NERC Launches Search for Replacement.) A week later, NERC also parted ways with its chief security officer in what sources told *RTO Insider* was a forced resignation. (See NERC Parts Ways with Chief Security Officer.)

While FERC has generally approved NERC's reliability standards as proposed, the commission has on occasion overruled the ERO or pushed its own initiatives. On Dec. 21, for example, it ordered NERC to lower the threshold for mandatory reporting of cyber incidents. (See FERC Orders Tightened Cyber Reporting Rules.)

Thus far, however, the commission has not shown an interest in addressing what current and former NERC officials say was an authoritarian corporate culture under Cauley, a West Point graduate. Might FERC take a larger role in overseeing NERC management? Given increasing concerns over the grid's vulnerability to cyberattacks and terrorism, the stakes could scarcely be higher.

EPA Foe Pruitt Upends Agency

EPA Administrator Scott Pruitt has brought dramatic change to the agency, angering and demoralizing many career staffers.

According to *The Washington Post*, EPA has, or is attempting, to reverse 19 rules, including a request that oil and gas companies report their methane emissions. EPA's staffing has dropped to its lowest level since the Reagan administration following the departure of more than 700 employees, many through agency buyouts. Pruitt also has remade the agency's scientific advisory boards, replacing many academics with representatives from states and regulated industries.

In December, as the Supreme Court was considering whether to hear DTE Energy's appeal of EPA sanctions for modifying Michigan's largest coal-fired power plant without getting federal permits for a projected rise in emissions, Pruitt reversed the agency's stance. He said EPA would no longer bring New Source Review cases against generators in disputes over emission *projections*, a departure from the agency's prior use of NSR as a preventative. (See Penalty Review Denied, DTE Faces Friendlier EPA.)

In November, almost 60 former EPA attorneys wrote an open letter criticizing Pruitt's announcement that the agency would stop negotiating settlements in response to lawsuits by environmental groups. Pruitt has long criticized the "sue and settle" practice, which he said lacks transparency and "circumvent[s] the regulatory process set forth by Congress."

The attorneys said Pruitt misrepresented the impact of such settlements and that his new policy gives regulated parties "a special and powerful seat at the table with no corresponding role for other members of the public."

Clean Power Plan

It was a foregone conclusion that Pruitt would seek to undo the Clean Power Plan. As Oklahoma's attorney general, he led

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states challenging the rule as an overreach of the Clean Air Act. What wasn't known was how he planned to reverse the rule. On Dec. 18, EPA issued an Advance Notice of Proposed Rulemaking, saying it would solicit public input for 60 days on how to limit greenhouse gas emissions from existing electric generators. Pruitt had told Congress earlier that the agency would issue a replacement rule, rather than seek to overturn its 2009 endangerment finding on greenhouse gases. (See *Pruitt Confirms EPA Working on CPP Replacement*.)

Pruitt's "inside the fence line" replacement is certain to prompt new challenges from environmental groups as being an inadequate response.

Solar Import Duties

The solar industry is holding its breath for Trump's decision on the U.S. International Trade Commission's October recommendation for import duties as high as 35% on solar cells and modules. The ITC's recommendation followed its unanimous ruling in September that increased imports of solar cells and components are harming domestic manufacturers.

A flood of cheap imports has helped create a boom in U.S. solar installations, as total installation costs have fallen almost 70%. The Solar Energy Industries Association says increased prices resulting from the case could threaten the 9,000 U.S. solar companies and their 260,000 employees. (See *Federal Trade Panel Recommends Solar PV Quotas*.)

Trump is expected to rule by Jan. 26.

Congress in Play in 2018 Elections

It won't be until 2020 when the presidency — and thus FERC — will be up for grabs. But the 2018 midterm elections could also influence electric policy. Democrats need to win a net 24 seats to take control of the House of Representatives. The GOP's margin in the Senate dropped to 51-49 with Democrat Doug Jones' upset victory in the Alabama special election. But 25 of the 33 seats up for re-election next year are held by Democrats or independents. (The seat of resigning Sen. Al Franken (D-Minn.) also will be filled in a special election.)

The website FiveThirtyEight reported last month that generic congressional surveys by both it and CNN show "Republicans in worse shape right now than any other majority party at this point in the midterm cycle since at least the 1938 election."

Democrats lead Republicans by 49.6-37.4% according to FiveThirtyEight and 56-38% per CNN. "No other survey taken in November or December in the year before a midterm has found the majority party in the House down by that much since at least the 1938 cycle," according to FiveThirtyEight.

Trump, meanwhile, has been losing support fastest in the states that gave him the most support in 2016, FiveThirtyEight also reported. In states where Trump won by at least 10 percentage points, his net approval rating is down an average of 18 points.

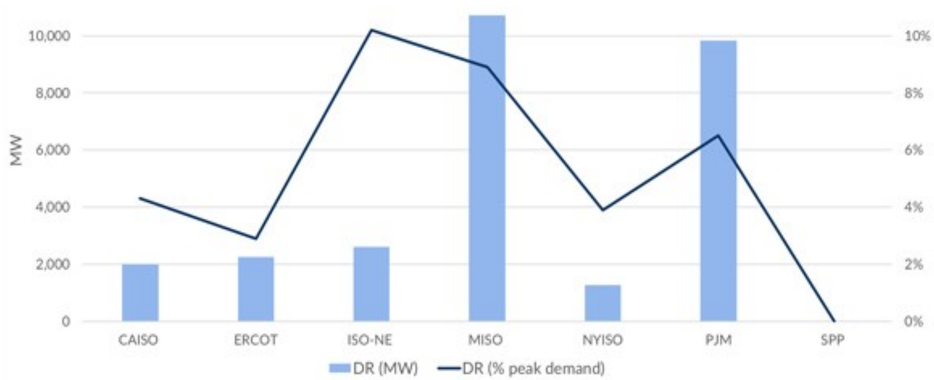
Advanced Meters Hit 43% Penetration; DR down in RTOs

Advanced meters have reached a 43% penetration rate but demand resources' contribution to meeting RTO/ISO peak demand has decreased, FERC said in its 12th annual report on demand response and advanced metering.

DR in the organized wholesale markets dropped to 5.7% in 2016 from 6.6% in 2015, according to RTO/ISO reports, as demand resource participation fell 10% while peak demand grew by 3%.

The decreased participation was largely because of a 24% (3,030 MW) drop in DR enrollment in PJM, which lost 2,900 MW in its reliability program (limited, extended summer and annual DR) and 900 MW in its economic program. The drops were partially offset by 600 MW of DR entering the market as Capacity Performance resources.

CAISO saw DR participation fall by 8% because of decreased enrollment in price-responsive demand programs administered by California's three investor-owned utilities. ISO-NE and NYISO saw 4% drops while MISO saw a 1% increase.



| RTO/ISO data

Retail DR, by contrast, showed growth. Potential peak demand savings from retail DR programs nationwide increased by 5.4% between 2014 and 2015, according to the Energy Information Administration. Industrial customers were responsible for 52% of potential savings, while residential customers contributed 26% and commercial customers 21%, a breakdown that FERC said has "remained fairly stable over time."

FERC also cited EIA data showing that 64.7 million advanced meters were deployed nationwide in 2015 out of a total of 150.8 million meters.

The report also took note of states' grid modernization efforts, including deployment of time-of-use rates. The annual report, released Dec. 28, was mandated by Congress in the Energy Policy Act of 2005.

— Rich Heidorn Jr.

FERC Sets Hearing on SCE Tx Rates; Glick Dissents on RTO Adder

By Rich Heidorn Jr.

FERC last week ordered hearing and settlement proceedings on Southern California Edison's proposal to revise its transmission formula rate, while approving an incentive for RTO participation over the objections of new Commissioner Richard Glick (ER18-169, EL18-44.)

The commission accepted the company's filing effective Jan. 1 subject to refund. Although SCE proposed a reduction in its transmission revenue requirement, the commission said "a further decrease may be warranted."

SCE proposed a base return on equity of 10.3%, saying the range resulting from FERC's two-step discounted cash flow model — 6.97 to 9.15% — was too low.

The commission approved a 50-basis-point ROE adder for SCE's participation in CAISO over the objections of the California Public Utilities Commission, which said the incentive is "an unjust and unreasonable windfall to SoCal Edison shareholders because SoCal Edison's participation in CAISO is required by state law and the state of California determines whether SoCal Edison remains a member of CAISO."

"The CPUC's arguments … have been considered and rejected by the commission in earlier orders, and we reject them for the same reasons here," the commission said. "We also note that companies continue to confront decisions about whether to form and join ISO/RTOs, and we believe the stability of the incentive adder for ISO/RTO participation (albeit capped by the top of the zone of reasonableness) is important to the congressional and commission policy of promoting ISO/RTO membership," it added.

Glick sided with the CPUC, saying, "I do not believe that this summary approval is the product of reasoned decision-making."

"SoCal Edison's membership in CAISO is not voluntary and, therefore, awarding a 50-basis-point RTO participation adder does nothing to harness for consumers the benefits of RTO membership," Glick wrote in a dissent.

Glick said the ruling belied the commission's "repeated statements that the RTO participation adder is not a 'generic' adder awarded to all public utility members of an RTO.

"Although I do not question the benefits of membership in an RTO — and I support using an RTO participation adder where it incentivizes RTO membership — I believe that the commission's approach in this proceeding essentially transforms the 'case-by-case' evaluation of a request for an RTO participation adder that the commission described in Order No. 679 into exactly the type of generic determination that the commission forswore in Order No. 679 and subsequent orders."

FERC Orders Hearing, Settlement Talks for Calpine RMRs

FERC ordered hearing and settlement procedures in a dispute over reliability-must-run agreements filed by Calpine for its Yuba City, Feather River and Metcalf generators in CAISO.

The commission's Dec. 29 orders approved the Yuba City and Feather River (ER18-230) and the Metcalf RMRs (ER18-240) effective Jan. 1 subject to refund.

The ISO and Pacific Gas and Electric filed protests over the RMRs filed by Calpine's Gilroy Energy Center subsidiary for the Yuba City and Feather River plants. CAISO designated the units as RMR in March, but the ISO told FERC that Gilroy had not supported provisions related to scheduling coordinator charges, greenhouse gas emissions and gas prices. (See *PG&E, CAISO Protest Calpine RMR Terms*.)

CAISO also protested Metcalf's proposed changes to its cost-of-service schedules, arguing that they are unsupported or reflect errors in implementation of applicable formulas.

The ISO is increasing its use of out-of-market RMR payments to keep units online, raising concerns that its market is not producing the price signals sufficient to support units needed to provide reliable electric service.

— Rich Heidorn Jr.

COMPANY BRIEFS

Sempra, Oncor Gain More Support for Deal

Sempra Energy and Oncor announced last week that additional stakeholders have signed on to the California company's proposed $9.45 billion acquisition of Texas' largest utility.

The companies said Dec. 27 that The Alliance for Retail Markets and the Texas Energy Association for Marketers have joined a settlement agreement for Sempra's pending acquisition of bankrupt Energy Future Holdings, which includes EFH's indirect, approximate 80% ownership of Oncor.

The announcement came less than two weeks after Sempra and Oncor said they had reached a settlement agreement with the Public Utility Commission of Texas' staff and three other key stakeholder groups. (See *Sempra, Oncor Reach Deal with Texas Stakeholders*.)

The settling parties have agreed that the acquisition is in the public interest, meets Texas statutory standards and will yield "substantial" benefits. They will ask the PUC to approve the acquisition; a hearing on the merits is scheduled for Feb. 21-23 in Austin, Texas.

More: *Sempra*

National Grid to Improve Arsenal's Energy Efficiency

The Watervliet Arsenal's historic Iron Building

The U.S. Army's Watervliet Arsenal in New York has agreed to a $14.6 million contract with National Grid to make its operations more energy efficient.

National Grid will replace the fluorescent and vapor lighting on the armory's manufacturing floor with LED lighting, and replace manual controls on heating, ventilation and air conditioning systems with computer controls.

The contract will be paid for with the savings generated by National Grid's work.

More: *The Troy Record*

New York Company Buys Vermont Wind Farm

New York-based Greenbacker Renewable Energy has bought Georgia Mountain Community Wind for $25.1 million.

Georgia Mountain operates a 10-MW wind farm in Vermont's Chittenden and Franklin counties. The wind farm sells all its power and renewable energy credits to Burlington Electric Department through a 25-year fixed-price power purchase agreement.

More: *Greenback Renewable Energy*

Dominion Brings 2 SC Solar Facilities Online this Year

Dominion Energy's 71.4-MW Solvay Solar Energy-Jasper County, S.C., facility began operations on Dec. 21, the company announced.

The solar farm has a long-term power purchase agreement with South Carolina Electric & Gas. Solvay, a chemicals and advanced materials company with operations in South Carolina, is purchasing the associated renewable energy credits for 15 years.

Dominion also brought the 10-MW Ridgeland Solar project online in May. The project has a PPA and REC agreement with SCE&G.

More: *Dominion Energy*

FEDERAL BRIEFS

Murray Denies Proposing Grid Resiliency Rule to DOE

Murray Energy filed a comment with FERC last week saying it "has never proffered a proposed Grid Resiliency Rule to Secretary [Rick] Perry or [the Department of Energy]."

The comment was in response to a letter that the Natural Resources Defense Council, the Sierra Club and Earthjustice sent to FERC, saying Murray played a central role in the writing of the department's Notice of Proposed Rulemaking, which would require FERC-jurisdictional RTOs and ISOs with capacity markets and day-ahead and real-time energy markets to ensure full cost recovery for any generation that can provide "essential energy and ancillary services" and has a 90-day fuel supply on site. (See *FERC Chair Praises Perry's 'Bold Leadership' on NOPR*.)

In These Times magazine obtained photos of Murray CEO Robert Murray meeting with Perry in late March to discuss the coal company's "action plan." (See *Photos Show Murray's Role in Perry's Coal NOPR*.)

More: *The Hill*

WAPA Names Sundsted UGP Regional Manager

The Western Area Power Administration has named Jody Sundsted senior vice president and Upper Great Plains regional manager.

Sundsted will be located in Billings, Mont., and manage more than 340 employees in Montana, South Dakota, North Dakota, Iowa, Nebraska and Minnesota.

He had been the vice president of Upper Great Plains power marketing since 2008.

More: *Western Area Power Administration*

SCE&G Asks NRC to Withdraw Licenses for Summer Reactors

South Carolina Electric & Gas has asked the Nuclear Regulatory Commission to withdraw the operating licenses for its two unfinished reactors at the V.C. Summer power plant.

The request follows the notification it gave the commission in July in which it said it had stopped construction on the reactors.

Parent company SCANA's incoming chief financial officer Iris Griffin said the notification helps to ensure the company qualifies for a tax deduction that will enable it to reduce by $2 billion the amount its customers have to pay for its failed attempt to expand the Summer plant.

More: *SCANA*

STATE BRIEFS

MISSOURI

City of Monett Joins Municipal Co-op Agency

The Monett City Council has authorized a contract for the city to join the Missouri Joint Municipal Electric Utility Commission.

The commission will administer the Southwest Missouri Power Pool, which Monett created with the city of Mount Vernon to give it an alternative to buying wholesale electricity solely from Empire District Electric when its contract with the utility expires in 2020.

Monett expects to have its first offers for buying wholesale power by the end of the first quarter of 2018.

More: *The Monett Times*

NEW MEXICO

State Land Office Leases 1,600+ Acres for Wind Farm

The State Land Office has issued a 50-year lease to Cowboy Mesa to build a 20-MW wind farm on more than 1,600 acres of state trust land near Corona in Torrance County.

Cowboy Mesa, which is a subsidiary of San Francisco-based Pattern Energy, will pay $3,295 a year until the wind farm begins operating and $107,222 a year after.

More: *The Associated Press*

NEW YORK

NYPA Board Approves Low-Cost Power Allocations

The New York Power Authority Board of Trustees has approved 38 low-cost power allocations under Gov. Andrew Cuomo's ReCharge NY Program, which provides low-cost power to businesses and other entities that agree to retain or create jobs and commit to new capital spending.

Under the latest allocations, 29 businesses and nonprofits will receive 19.1 MW of power. Cuomo said the allocations are expected to spur $1.4 billion in capital investment and create 1,006 jobs.

More: *Andrew Cuomo*

NORTH CAROLINA

Duke Wins Permission for Gas-Fired Plant Despite Concerns

The Utilities Commission has given Duke Energy permission to build a 402-MW natural gas-fired plant at the Lincoln Combustion Turbine Station in Stanley.

Duke plans to begin construction on the plant in the middle of next year and begin operating it in 2024.

The Public Staff, an independent agency that advocates for consumers, raised concerns about the seven-year period between the plant getting approved and coming online, saying changes in demand or advances in renewable technologies over that time might render the plant unnecessary.

More: *The Charlotte Observer*

Appalachian Power Files Settlement in EE, DR Programs Case

Appalachian Power has filed with the Public Service Commission a settlement agreement it reached with advocacy groups to keep its energy efficiency and demand response programs in place through the end of 2019.

The agreement is part of a case opened by Appalachian in March when it asked the PSC to review its EE/DR program rate increments, approve new EE/DR programs and approve modifications to its EE/DR tariff sheets.

The PSC must approve the agreement, which doesn't require the American Electric Power subsidiary to implement the new EE/DR programs. A PSC staff member previously suggested the EE/DR programs be put "on hiatus."

More: *Charleston Gazette-Mail*