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

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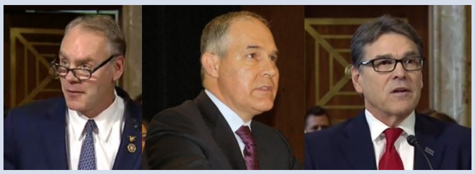
Here Come the New Bosses



At their Senate confirmation hearings, President Trump's picks to head EPA, the Interior Department and the Energy Department testified that climate change is real and that manmade activity is a contributor — but that the degree of man's impact and the proper response remain under debate. Trump's nominees for secretary of state, attorney general and Health and Human Services expressed similar views, indicating that someone is coordinating the cabinet's talking points even if Trump himself refuses to stay to the script. Read our coverage, p.30-33.

Storage Can Earn Cost- and Market-Based Revenues, FERC Says

By Rich Heidorn Jr.

WASHINGTON — Energy storage facilities should be permitted to provide multiple services and earn both cost- and market-based revenue streams, FERC said last week in a policy statement clarifying its prior rulings on the issue.

"Enabling electric storage resources to provide multiple services (including both cost-based and market-based services) ensures that the full capabilities of these resources can be realized, thereby maximizing their efficiency and value for the system and to consumers," the commission said in the statement, which was approved on a 2-1 vote (PL17-2).

The commission said that storage resources, which can switch from providing one service to another almost instantaneously, may not be cost competitive without multiple revenue streams.

Chairman Norman Bay and Commissioner Colette Honorable said their position is supported by most of those who testified at the commission's technical conference Nov. 9 or provided comments afterward. "Commenters believe that the key question is not whether to allow multiple-use applications for electric storage resources but how to allow and enable such applications," they said. (See *FERC Panelists Debate Storage Uses, Compensation*.)

AES Laurel Mountain | *AES*

Bay and Honorable said the statement was needed to address "potential confusion" over FERC precedent in two previous rulings.

Commissioner Cheryl LaFleur dissented. LaFleur wrote that she agreed that the "commission should be flexible and open to proposals that go beyond the model contemplated" in the prior orders but said the issue should have been considered as part of the Notice of Proposed Rulemaking the commission issued Nov. 14.

Continued on page 2

FERC Proposes More Transparency, Cost Causation on Uplift

By Michael Brooks

WASHINGTON — FERC last week proposed regulations intended to reduce uplift, allocate it more accurately and increase transparency (RM17-2).

The Notice of Proposed Rulemaking — the fourth issued by the commission in its ongoing price formation initiative — is premised on a preliminary finding that current RTO and ISO practices regarding reporting of uplift payments and operator-initiated commitments are unjust and unreasonable.

"The allocation of uplift costs should, to the extent possible, encourage behavior that will reduce the need for uplift-creating actions and avoid discouraging market participant behavior that lowers total production costs (i.e., enhances efficiency)," the commission said.

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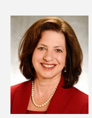
Introducing Steve Huntoon

Today's *RTO Insider* marks the first of a monthly column by attorney and commentator Steve Huntoon. Steve has more than three decades of experience practicing energy regulatory law, having advised and represented companies including Dynegy, Exelon and NextEra Energy after receiving a B.A. in economics and a J.D. from the University of Virginia. His column continues the witty, perceptive commentary he has been providing for the last two years in *Public Utilities Fortnightly*. See his first column on page 3.

Also in this issue:



NYPSC Chair to Head Australia Grid Operator

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Storage Can Earn Cost- and Market-Based Revenues, FERC Says

Continued from page 1

(See *FERC Rule Would Boost Energy Storage, DER*.)

Precedents

In the 2008 *Nevada Hydro* case, the commission rejected a request by the owner of the Lake Elsinore Advanced Pumped Storage project that its resource be classified as a transmission facility under CAISO's control, with its costs recovered through the ISO's transmission access charge (ER06-278, *et al.*).

The commission sided with the ISO, which said that its independence would be compromised because it would have to decide when the facility would operate, how much energy it would produce and when it would operate the pumps to store water.

In the 2010 *Western Grid* ruling, the commission allowed storage facilities to be classified as transmission assets receiving cost-based rates for providing CAISO voltage support and thermal overload protection. The ruling was conditioned on the operator's promise to forego any sales into the ISO's wholesale electric markets (EL10-19).

The commission noted in its ruling that Western Grid would be responsible for maintaining the state-of-charge on the projects. CAISO's independence would be maintained because it would not be responsible for buying power to energize the projects or for operating the charge and discharge of the batteries, the commission ruled.

"That order was limited to the facts that Western Grid presented to the commission," FERC said last week. "Thus, that order should not be read to require other entities to forgo market sales as Western Grid proposed. We clarify that there may be approaches different from Western Grid's approach under which an electric storage resource may receive cost-based rate recovery and, if technically capable, provide market-based services that may address these concerns."

Implementation Issues

This commission said the policy statement "is not intended to resolve the detailed implementation issues surrounding how an electric storage resource may concurrently provide services at cost- and market-based rates. Rather, it is intended to clarify that providing services at both cost- and market-based rates is permissible as a matter of policy, provide guidance on some of the details and allow entities to address these issues through stakeholder processes and in filings before the commission."

It said future requests by storage operators must ensure that:

- Storage resources receiving cost- and market-based rates do not over-recover their costs at the expense of ratepayers;
- Storage resources earning cost-based rates do not suppress competitive prices in the wholesale markets, which could harm competitors without cost-based revenues; and
- The RTO/ISO's level of control of the storage resource does not jeopardize its independence from market participants.

Double Recovery

The commission said concerns over double recovery can be addressed by crediting cost-based ratepayers for market-based revenues. It said the commission's accounting rule in Order 784 and the requirement to submit Electric Quarterly Reports "provide sufficient transparency to allow effective oversight for any needed revenue crediting."

As an alternative, the commission said, a resource's market-based revenues could reduce the revenue requirement used in its cost-based rate.

Protecting Competition

Bay and Honorable said they did not share the concern of commenters who fear that allowing storage to receive multiple revenue streams could suppress market prices and undermine competition. They noted that some generators with market-based rates also receive cost-based rates for providing reactive service.

"Similarly, some vertically integrated public utilities make cost-based rate sales to captive wholesale requirements customers

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RESISTANCE
BY STEVE HUNTOON

LED Kills the Edison Star


Huntoon

In 1879, Thomas Edison patented the incandescent light bulb. For more than a century, the incandescent bulb and its upscale offspring, the halogen bulb, have reigned supreme.

The reign is ending. Light-emitting diode (LED) lighting is replacing Edison lighting.

Here's a question: How much more impact is rooftop solar having on retail electric sales than LED lighting?

It's a trick question. Rooftop solar has had *less* impact on retail electric sales. LED lighting already has reduced annual retail electric sales by 30 billion kWh. Rooftop solar has reduced annual retail electric sales by 14 billion kWh.

But it's the future that's really interesting. The U.S. Energy Information Administration's latest study forecasts LED lighting over the next 20 years to reduce annual retail electric sales by 300 billion kWh under a "current path" and by 435 billion kWh under a more aggressive path. Rooftop solar over the next 20 years is expected to reach 100 billion kWh annually.

Let's think about that. For all the attention given rooftop solar as environmental boon, new age investment and regulatory flash-point, the LED bulb is three times more significant.

And three times more significant for electric utilities. Lighting represents 15% of retail electric sales. Over the next 20 years, half of those lighting sales will disappear, perhaps three quarters under a more aggressive path. Those electric vehicles better show up soon.

And what if Haitz's Law — the LED parallel to Moore's Law — continues, such that the cost per lumen keeps falling by a factor of 10 every 10 years? The LED is just another form of semiconductor. The substitution could be even more rapid.

Even at today's cost per lumen, Edison lighting is much more expensive on a life-cycle basis than LED lighting. Much, much more expensive.

A General Electric soft white 60-W Edison bulb can be had in quantity purchase for $1.30, and rated to last for 1.4 years based on an average use of three hours per day. A GE soft white 60-W equivalent LED bulb can be had in quantity purchase for $3, use 10 W and last for 13 years based on the same average. So over 13 years, Edison lighting would cost an extra $9 for the bulbs and an extra $78 for the electricity (at 11 cents/kWh).

Bottom line: Rooftop solar may be all the rage, but just changing light bulbs makes a bigger dent in emissions from combusting fossil fuels. And saves money to boot. Doing good and doing well.

Watt's in your socket?

Steve Huntoon is a former president of the Energy Bar Association, with more than 30 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 of Energy Counsel LLP.

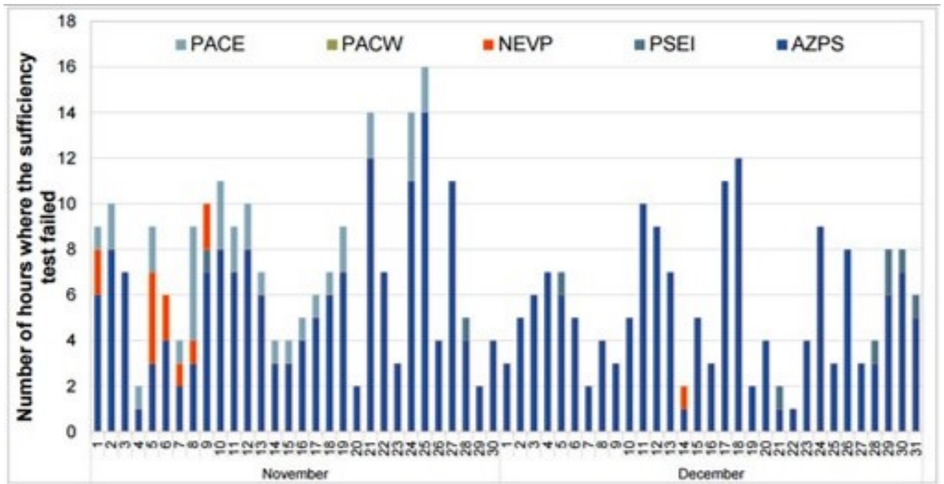
[1]You won't find these forecasts in EIA's "Annual Energy Outlook 2016," which forecasts a lighting consumption decline of only 28% from 2015 to 2040 (Figure IF3-3). Instead the forecasts are derived from EIA's specialty study "Energy Savings Forecast of Solid-State Lighting in General Illumination Applications" (September 2016) and require interpolating from Tables 4.2 and Figure 4.2, and converting from British thermal units to kilowatt-hours and from source to sink.

[2]Edison lighting also costs more for the incremental air conditioning in the summer to combat the heat from the bulb. (Generally this extra cost is more than the incremental heating savings in the winter.)

CAISO NEWS

EIM Sees Sharp Increase in Flexible Ramping Test Failures

By Robert Mullin



Downward ramping sufficiency failures | *CAISO*

The Western Energy Imbalance Market (EIM) experienced a "dramatic uptick" in failed ramping sufficiency tests in November and December, CAISO's internal Market Monitor reported Wednesday.

New EIM participant Arizona Public Service was especially prone to failures during the fourth quarter of last year, but other areas saw increases as well, Keith Collins, manager of market monitoring and reporting with the ISO's Department of Market Monitoring, said during a Jan. 18 Market Performance and Planning Forum.

Some of the increase could likely be attributed to a flawed ISO calculation that underreported ramping capacity available in the market, Collins said.

But the Monitor is still trying to pinpoint the exact cause for such a significant increase in test failures over the period (see graph).

CAISO performs the sufficiency test ahead of the market run for each operating hour. The test relies on base schedules submitted by each balancing authority area (BAA) participating in the EIM.

The objective: to ensure that each BAA enters the hourly interval with enough upward and downward ramping capability to avoid leaning on the resources of other market participants, similar to the requirement that each EIM participant begin each hour fully balanced.

"When a balancing area doesn't have sufficient ramping capacity, then there are limitations on the amount of EIM [energy] transfers that are allowed into that region," Collins said. "For instance, if there's an upward [ramping] limitation, [then the region's] imports are limited."

Similarly, the ISO will restrict exports if it finds a shortfall in a BAA's hourly downward ramping capability.

Those restrictions are intended to discourage EIM participants from relying on the market as a way to avoid developing their own ramping capacity as growing adoption of renewable resources increases the need for such capability.

Collins noted that the flexible ramping sufficiency test "is playing an increased role in some of the market outcomes we're seeing," a finding that the Monitor will elaborate on in its upcoming quarterly report.

The sufficiency test is designed to determine whether each EIM participant has scheduled enough ramping capacity to meet both the expected change in "net load" within its system and the "flexible ramping constraint" at its seams.

"Net load" represents total electricity demand minus the output from variable renewable resources. The ramping constraint indicates the factor by which transmission congestion will restrict a participant's ability to import or export during a specific interval.

Passing the Test

To pass the sufficiency test, an EIM participant must demonstrate sufficient ramping capacity from the start of an hour through each 15-minute interval of that hour. Failure for just one interval translates into failure for the entire hour. Participants can resubmit schedules up to 40 minutes before the start of the hour.

The test considers each participant's contribution to uncertainty in EIM's overall load forecast during an interval, as well as its net import/export capabilities. The participant receives "credit" for its ability to

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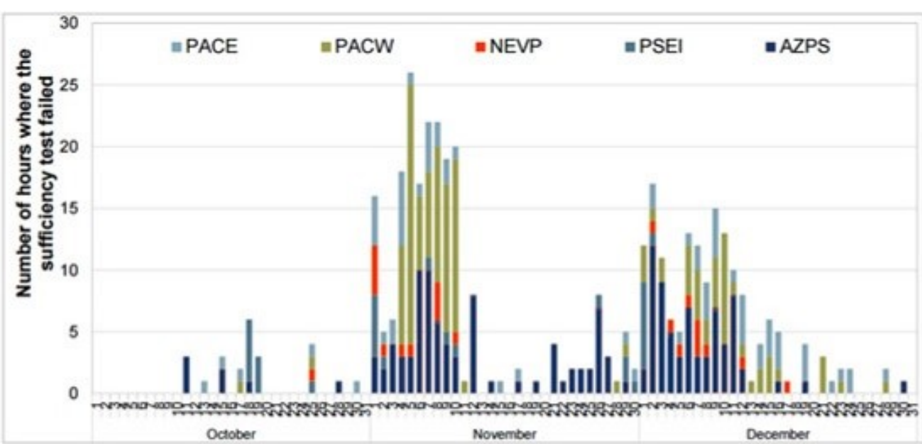


Upward ramping sufficiency failures | *CAISO*

CAISO NEWS

Potential CRR Initiative Elicits Mixed Reviews from CAISO Participants

By Robert Mullin

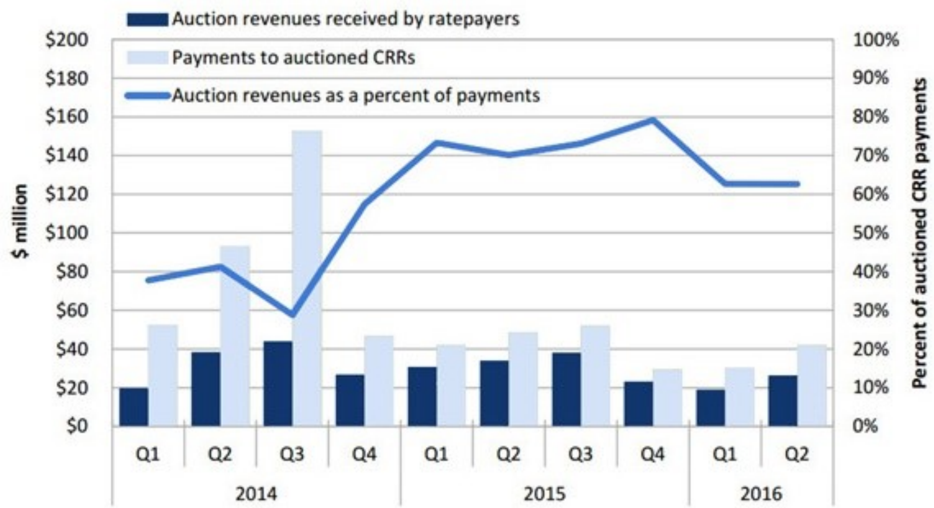
CAISO's decision to possibly make an exploration of reforms to its congestion revenue rights auctions one of its top priorities for 2017 has provoked mixed reactions from stakeholders.

Opponents of the move say the ISO's pursuit of the CRR issue lacks widespread stakeholder support and therefore doesn't warrant a top spot within the policy roadmap for this year's discretionary initiatives. They contend CAISO is elevating the concerns of its internal Market Monitor above those of most stakeholders, who want the ISO to focus on other priorities.

But the initiative has its backers, some of whom argue that the ISO should move as quickly as possible to determine why auction revenues are consistently outpaced by payments made to CRR holders, leaving ratepayers to make up the difference.

CAISO has included the issue in its draft final policy roadmap of "discretionary" stakeholder initiatives in response to concerns expressed by its internal Market Monitor. "Discretionary" initiatives represent policies the ISO can implement out of its own choosing rather than as a result of a regulatory mandate or market necessity.

The Department of Market Monitoring has pointed out that ratepayers lost $520 million from 2012 to 2015 through a market that pays $1 to CRR holders for every 45 cents in revenues received from auctions.



The potential CRR auction reform initiative would seek to address the concern that auction revenues have historically fallen well short of payments made to CRR holders. | *CAISO*

A 2016 report by the Monitor urged the ISO to altogether eliminate the auctions, contending that the program suffers from inherent design flaws that allow speculators to reap large financial gains at ratepayer expense. (See *CAISO Monitor Proposes to End Revenue Rights Auction*.)

"The consistent underpricing of CRRs calls into question a fundamental assumption of the CRR auction design that competition will drive auction prices to equal the CRR's expected value," the Monitor said in its report.

The Monitor's report offered up a potential alternative to the current auction: a bilateral or exchange market for forward contracts-for-difference for pairs of ISO nodes — also known as locational basis price swaps.

Unlike in the current CRR market, the price swaps would be traded between willing counterparties, rather than leaving ratepayers as the unknowing, and technically outmatched, counterparty.

Continued on page 6

EIM Sees Sharp Increase in Flexible Ramping Test Failures

Continued from page 4

reduce exports or imports in order to increase upward or downward ramping capability during the period.

The EIM's upward ramping capability exhibited the "dramatic uptick" in test failures late last year, but downward ramping capacity tests, which were just implemented in November, have also seen "a pretty consistent level of failures," especially in the APS region, according to Collins.

Steve Keehn, associate director at Navigant Consulting, asked whether the test failures were predominantly occurring during certain hours.

"I wouldn't point to any explicit pattern that came up," Collins said. "We've seen it at the beginning of the day, the middle of the day, the end of the day."

Justin Thompson, director of resource operations and trading at APS, sought to know why so many of the failures were occurring early in the month and diminishing by mid-month.

One possibility is that the increase coincided with the Nov. 1 implementation of CAISO's flexible ramping product market, which operated with flawed calculations that shortchanged the amount of available ramping capacity through mid-December, according to Guillermo Bautista Alderete, the ISO's director of market analysis and forecasting.

"That is only one part," Bautista Alderete noted.

He said other elements of the issue would be discussed in a monthly report produced by the ISO and distributed to APS and other new EIM participant Puget Sound Energy, which would become publicly available as well.

CAISO NEWS

Potential CRR Initiative Elicits Mixed Reviews from CAISO Participants

Continued from page 5

"WPTF contends that instead of devoting CAISO resources to a pet project of DMM, the CAISO should treat them like any other stakeholder who complained about a small aspect of the market that was naturally improving on its own — and ignore them."

Western Power Trading Forum

"We're not jumping to DMM's proposed solution," Brad Cooper, CAISO manager of market design and regulatory policy, said during a Dec. 22 stakeholder meeting. CAISO is taking up the initiative "because DMM has pointed out a significant revenue gap that comes to big money," he said.

In comments submitted to the ISO supporting the initiative's inclusion in the roadmap, the "Six Cities" utilities of Anaheim, Azusa, Banning, Colton, Pasadena and Riverside attempted to put the size of that gap into perspective. Revenue deficiencies stemming from the auction equated to $130 million per year over a three-year period, compared with the estimated Energy Imbalance Market (EIM) benefits to ISO market participants in 2015 of $12.7 million, they pointed out.

"Thus, the average annual costs to ISO LSEs resulting from the design of the CRR auction process have been more than 10 times the estimated EIM benefits to ISO market participants in 2015," the utilities said.

Noting that the ISO has signaled a need to perform additional analysis before formally committing to the initiative, the Six Cities encouraged staff to move with all deliberate speed.

"Any preliminary analysis considered necessary should commence as soon as possible (and well before the middle of 2017) so that an appropriate solution to the CRR auction revenue deficiencies can be implemented prior to the auction for annual CRRs for 2018," the utilities said.

Northern California Power Agency (NCPA), a joint powers agency established to serve the region's municipal utilities, added its support to a measure that would address auction shortfalls.

"Modification of the auction process such that bids from entities willing to sell clear against those willing to buy is a reasonable approach to mitigating the long-standing revenue insufficiency concerns that we believe bears careful consideration," the agency said in its comments.

Still, NCPA faulted the Monitor for its failure to suggest modifications rather than advocate for "abolition" of the auction process.

"NCPA does not at all support doing away with the CRR auction, which is an integral part of the risk mitigation services we provide our members," the agency wrote.

Pacific Gas and Electric, the state's largest investor-owned utility, said it was "eager" for the ISO to address CRR revenue inadequacy and "encouraged" by inclusion of the issue on the roadmap.

"In line with the DMM's recommendation to assess the value of the CRR auction platform, PG&E hopes this initiative will provide an opportunity to consider and evaluate alternative solutions to CRR revenue inadequacy," the utility wrote in its comments.

Opponents of the initiative include DC Energy, a proprietary trading firm focused on investments "related to the locational and temporal value and volatility in transport markets for power and natural gas," according to the company's website.

The company criticized CAISO for giving too much weight to the Monitor's concerns about the auction issue when ranking the CRR initiative against other potential discretionary initiatives.

"DC Energy appreciates the need for CAISO consideration of DMM's input," the company said in its comments. "However, on its face, it appears that one stakeholder's views were considered for its ranking, despite the volume of diverse comments received."

The company said the Monitor's analysis of the CRR market failed to focus on the benefits of the current system and that the ISO would be "best served" in considering various stakeholder and market perspectives when examining the market's performance.

The current auction design provides a "superior opportunity for both price discovery and hedge acquisition" compared with a bilateral market, DC Energy argued.

"An entity seeking a hedge in the bilateral market might find it challenging or impossible to connect with a willing seller for an exact path," the company said. "However, within the current CRR auction structure, network capacity is available to any qualified stakeholder, enabling liquidity and multiparty reconfiguration of electrical-location-specific (e.g., 'nodal') hedges."

Western Power Trading Forum (WPTF), an interest group representing regional power traders, took DC Energy's criticism a step further, contending that the Monitor's "influence in the initiative-priority process belies [its] supposed independence and is contrary to [its] core functions" as set out in the ISO Tariff.

"WPTF contends that instead of devoting CAISO resources to a pet project of DMM, the CAISO should treat them like any other stakeholder who complained about a small aspect of the market that was naturally improving on its own — and ignore them," WPTF wrote in its comments.

In support of that last point, the group pointed out that auction revenues as a percentage of payments increased after the ISO implemented practices that improved transparency into how it represents transmission outages in its market models. The Monitor's findings indicate that the ISO took in 63 cents of auction revenue for every dollar paid out to CRR holders during the first half of last year. (See *CAISO Monitor Seeks Congestion Revenue Rights Auction Reforms*.)

In their comments, the Six Cities utilities appeared to anticipate the arguments of opponents of the initiative.

"The ISO should reject the efforts by recipients of the wealth transfers documented by the DMM to dissuade the ISO from addressing this misappropriation of the benefits of transmission assets paid for by ratepayers," the utilities said.

CAISO NEWS

FERC Accepts CAISO Contracts for Imported Frequency Response

By Robert Mullin

FERC on Thursday approved CAISO's agreements to procure frequency response from the Bonneville Power Administration (ER17-408) and Seattle City Light (ER17-411).

The contracts are intended to help the ISO comply with NERC reliability standard BAL-003-1, which requires each balancing authority area to carry sufficient capability to respond to a frequency event. System operators must maintain the grid at a frequency of 60 Hz or risk instability that could lead to cascading blackouts.

CAISO signed the deals after conducting a competitive solicitation that examined each bidder's previous frequency response performance as well as comparing the costs of procuring transferred capacity against those for obtaining regulation-up service within the ISO's market. The commission agreed with the ISO's finding that transfers represented the lowest-cost option.

The Dalles Dam, power from which is marketed by BPA. | © *RTO Insider*

Rich in fast-ramping hydroelectric resources, BPA and City Light are both well-positioned to provide frequency response capacity to third parties.

Under the agreements, BPA and City Light will provide CAISO with frequency response and document their performance with NERC for the compliance year beginning Dec. 1, 2016. In the event of nonperformance, either entity will be liable for covering any fines levied against the ISO.

FERC's acceptance of the agreements is subject to the clarification of a September order in which the commission approved the ISO's competitive solicitation process.

CAISO sought clarification on whether the commission would recognize contracts that allow a counterparty balancing area to provide transferred frequency response to it based on the ISO's annual frequency response obligation under the NERC standard (ER16-1438).

Without that clarification, the ISO contended, counterparties could interpret the decision as requiring them to maintain a net actual interchange measure in response to every single frequency disturbance event.

"Such a requirement would make it virtually impossible for the CAISO to contract for transferred frequency response quantities because balancing authorities cannot assure such a measure in response to every disturbance event," the ISO said in its request for clarification.

ISO-NE NEWS

ISO-NE Scarcity Rules Unfair to Generators, FERC Says

By William Opalka

FERC on Thursday granted a complaint by New England generators that a penalty imposed during a summer heat wave proved that a rule intended to punish resource withholding is unjust and unreasonable (EL16-120).

The commission agreed with the New England Power Generators Association that the peak energy rent adjustment should be raised. (See *Generators: 'Unjust' Rule Cost $100M in New England Heat Wave*.) But it ordered that the amount of increase should be determined in an evidentiary proceeding if stakeholders cannot reach a settlement.

"NEPGA has demonstrated that, as a result of the new reserve constraint penalty factors, the relationship between the amount of compensation that suppliers receive for energy in scarcity periods, and the amount that suppliers must rebate as a result of the operation of the PER mechanism, has rendered the existing PER mechanism unjust and unreasonable," the commission wrote.

"We agree with NEPGA that for the time period in question, capacity resources were unable to anticipate a future increase in reserve constraint penalty factors and, accordingly, were unable to reflect a corresponding increase in their capacity offers.

"We additionally find that, as NEPGA has suggested, this problem can be remedied by raising the PER strike price. Doing so would return the PER rebate to an amount that more closely reflects the expectations of the parties at the time of the seventh and eighth Forward Capacity Auctions in February 2013 and 2014, respectively, the commission wrote. The higher penalty factors were ordered by the commission in May 2014.

NEPGA said the adjustment created "absurd" results during a six-hour period of intense heat on Aug. 11 that featured unexpected outages and high prices.

The PER adjustment reduces capacity suppliers' monthly capacity payments by an amount that approximates the "peak energy rents" earned by a hypothetical generator in the real-time energy market.

When the hourly real-time energy market price exceeds a predetermined "strike price," the RTO calculates an "hourly PER" value that roughly equals the difference between the real-time clearing price and the strike price. These monthly values are added for the month, averaged over a rolling 12-month period and then deducted from suppliers' monthly capacity payments.

NEPGA requested that the PER strike price be increased by $250/MWh, the same change ISO-NE proposed to stakeholders in 2014. "We note that, while ISO-NE may have found this to be a reasonable increase previously, recent market developments may justify a different increase," the commission wrote.

FERC last year approved a Tariff change submitted by ISO-NE that eliminates the PER adjustment on June 1, 2018, at the start of the ninth capacity commitment period. The RTO said reforms in the day-ahead energy market and the Pay-for-Performance program that starts on the date have made the rule unnecessary.

ISO-NE NEWS

FERC Rejects Broader Waiver for Emergency Generators in ISO-NE

By William Opalka

FERC on Thursday denied a request to broaden a waiver providing relief to real-time emergency generation resources in ISO-NE (ER16-1904-001).

The RTO had requested the waiver in response to a federal court ruling vacating an EPA rule that would have allowed greater use of emergency generators. FERC granted the waiver in August, effective June 21, 2016.

Real-time emergency generators are distributed generation limited by air quality permits to operating when ISO-NE implements voltage reductions of 5%. They must be able to go into operation within 30 minutes of the RTO's dispatch instructions.

The waiver was prompted by a May 2015 ruling by the D.C. Circuit Court of Appeals reversing an EPA exemption that allowed the generators to operate 100 hours a year for emergency demand response.

"Because the court vacated the EPA rules that allowed emergency generators to respond to a 5% voltage reduction, [real-time] emergency generation resources can no longer operate when ISO-NE implements voltage reductions and can only operate when their host facilities lose off-site power, unless they are retrofitted to comply with the EPA's National Emissions Standards," FERC wrote.

The waiver allowed such generators to change their resource type to real-time DR within a timeframe that otherwise would not be possible, permitting them to participate as DR in the February 2017 Forward Capacity Auction.

Enerwise Global Technologies' CPower sought rehearing, contending the waiver did not fully address the problems caused by the D.C. Circuit ruling. It sought additional relief, arguing that emergency generator holders of capacity obligations would suffer financial penalties because they would not be able to convert all their assets to DR resources or shed their supply obligations in time for the 2017/18 capacity commitment period that starts in June.

FERC said that CPower's proposed relief was "in effect, a separate request for waiver of an additional Tariff provision" and thus beyond the scope of ISO-NE's request. Last week's order clarifies that it was dismissing CPower's proposal without prejudice, meaning the company could file a new request under a separate docket.

ISO-NE Opens First Public Policy Process Under Order 1000

By William Opalka

WESTBOROUGH, Mass. — Stakeholders have until Feb. 25 to comment in ISO-NE's first implementation of the public policy requirements of FERC Order 1000.

The RTO is seeking stakeholder comments on federal, state and local statutes and regulations that could require new transmission.

It is the first of an eight-step process outlined to the Planning Advisory Committee on Wednesday that could result in a transmission study and a competitive procurement. Comments should be emailed to PublicPolicy@iso-ne.com.

The New England States Committee on Electricity (NESCOE) has until April 1 to identify federal and state policy requirements. The RTO also can identify such requirements, along with local (municipal and county) requirements. Stakeholders' responses to NESCOE will be due 15 days afterward.

If transmission needs are identified as a result of the process, the RTO will provide a draft scope for a public policy transmission study.

Current rules call for ISO-NE to provide a draft scope for the study by June 1, although it is seeking a Tariff change to push the date back to Sept. 1.

If the RTO decides to seek a transmission upgrade, it will invite qualified transmission project sponsors to submit proposals. After evaluating the proposals and PAC input, the RTO will narrow the "stage one" proposals to finalists eligible to submit more detailed "stage two" proposals, one of which will be selected as the preferred solution.

ISO-NE will monitor milestones until the project is completed and in service.

EPA's Clean Power Plan, which was expected to result in transmission to connect renewable generation with load, is in jeopardy under the Trump administration. But New England states are expected to continue their efforts to decarbonize through power purchase agreements and potentially tighter emission caps under the Regional Greenhouse Gas Initiative — initiatives that could require transmission investments. (See *New England to Charge Ahead on Clean Energy Makeover in 2017*.)

Planning Advisory Committee Briefs

Zonal Boundaries for next FCAs Set

ISO-NE will use the same zonal boundaries for its next two Forward Capacity Auctions.

In FCA 10 last year, ISO-NE used two zones: Rest of Pool, which comprises Connecticut, Vermont, New Hampshire, Maine, and western and central Massachusetts; and Southeastern New England (SENE), which includes Northeast Massachusetts/Greater Boston and Southeast Massachusetts/Rhode Island.

FCA 11 (2020/21) and FCA 12 (2021/21) will be conducted in four zones: Southeast Massachusetts/Rhode Island, which includes Greater Boston; Northern New England, which includes Maine, New Hampshire and Vermont; Connecticut; and Rest of Pool, generally central and western Massachusetts.

"Most major transmission projects are already certified," Al McBride, director of transmission strategies and services, told the Planning Advisory Committee last week, meaning the RTO has determined they will be operational in time for the capacity commitment period.

As they go into service, additional portions of the Greater Hartford/Central Connecticut and Southwest Connecticut transmission project will be included in the Connecticut zone. The project is expected to be completed in 2019.

Likewise, resource retirements are unlikely to have significant impact on the zones. "Our modeling show that even if they occur, it is not likely to change the boundaries," he said.

New Study Looks at Less Maine Wind, More Offshore

Integrating renewable resources close to load centers in the Southeast Massachusetts/Rhode Island area could be more cost effective than tapping large volumes of wind in Maine, according to a new high-level transmission cost analysis presented to PAC members last week.

In October, ISO-NE staff presented the preliminary estimates for five scenarios for integrating renewable resources in New England by 2030. (See *5 Resource Scenarios Presented to ISO-NE Planning Advisory Committee*.)

Renewable energy advocacy group RENEW requested an additional analysis in which large amounts of renewable resources, primarily onshore wind in Maine as outlined in scenario 2, were changed to incorporate a more diverse mix of renewable resources spread over wider geographic areas.

Under scenario 2, Maine wind injections were assumed to be 12,872 MW in 2030, with 1,219 MW of offshore wind in Southeast Massachusetts and Rhode Island. In scenario 6, the Maine wind has been cut by more than half to 5,959 MW, with offshore wind boosted to 5,370 MW.

Even that smaller amount of Maine wind could require a complete overhaul of the AC power system, system planner Marianne Perben said.

Instead, renewable resources would be tied directly into several HVDC connectors connecting the wind integrator system to a hub in Millbury, Mass. Scenario 2 assumes a need for 9,043 MW of congestion relief, while scenario 6 envisions a need for 3,596 MW.

Splitting offshore wind resources between Connecticut, Rhode Island and Southeast Massachusetts could alleviate the need for a congestion relief system for those resources, planners said.

The analysis found that offshore wind could be imported without the need for congestion relief if it were sited off of Connecticut, Rhode Island and Southeast Massachusetts. That would allow the resources to take advantage of interconnections vacated by about 4,400 MW of resources close to the coastline that are expected to be retired by 2030: the Pilgrim nuclear plan, Millstone Unit 1, Montville Units 5 and 6, Brayton Point Units 1 through 4, and Canal Units 1 and 2.

"Under this … assumption, the cost to integrate renewable resources (excluding plant collector and interconnection system costs) in scenario 6 would be driven exclusively by the cost of integrating Maine onshore wind resources and would be significantly reduced, as compared to scenario 2," the RTO said.

In scenario 2, the total Maine congestion relief system would cost an estimated $20 billion; in scenario 6, the price tag is estimated at $8 billion.

The estimates do not account for individual plants' interconnection costs or potential costs from the challenge of managing large volumes of renewables during off-peak periods, the RTO said.

ISO-NE Recommends Against Keene Road Project

Staff told the PAC it is recommending the RTO not move forward on the Keene Road transmission project.

In December, staff told the committee that increasing export limits from the current 165 MW to 195 MW would save only $1.35 million to $1.38 million (2015 $) in energy production costs. (See *ISO-NE Study Sees Little Savings from Keene Road Tx Upgrade*.)

Written comments are due to PACmatters@iso-ne.com by Feb. 17. The RTO will report its final decision at the March or April PAC meetings.

Streamlined Regional System Plan due this Summer

ISO-NE staff is preparing a streamlined regional system plan for unveiling in the summer.

The document, which had become an unwieldy 200 pages, will come in at about 50 pages, said Michael Henderson, director of regional planning and coordination. Instead of duplicating sections of other RTO documents, links will be provided.

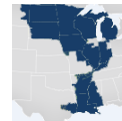
In response to stakeholder feedback, the plan will be produced every other year. It had formerly been produced annually.

It will include forecasts of gross load, energy efficiency and behind-the-meter photovoltaics and projections of systemwide need for capacity and reserves, along with transmission system needs.

A draft will be posted for PAC review on July 7, with comments and reviews scheduled throughout the summer. The final document will be presented at a public meeting on Sept. 14.

— William Opalka

MISO NEWS



MISO Stakeholders Seek Review of MTEP Futures Under Trump

By Amanda Durish Cook

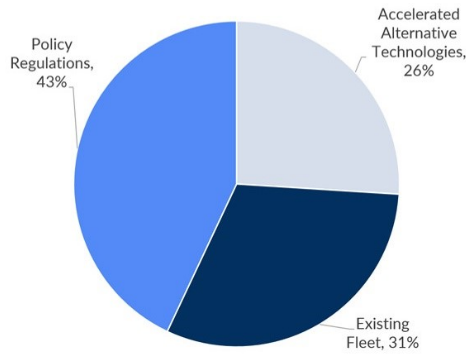
CARMEL, Ind. — MISO is preparing stakeholders for the first reuse of Transmission Expansion Plan futures, but some stakeholders are asking for a pause to review the scenarios for the 2017 plan because of the uncertainty of carbon-emission policies under the Trump administration.

MISO policy studies engineer Matt Ellis said "barring any significant change in policy or economic drivers," the RTO's 2018 Transmission Expansion Plan (MTEP 18) futures will largely mirror MTEP 17 futures, due to be finalized next month. MISO is not planning a "wholesale redevelopment" of futures as in prior years, he said.

Future development in 2018 will be discussed at a yet-unannounced stakeholder workshop in early April. Ellis said MTEP 17 futures were intended for use in multiple cycles, but MISO will still "review definitions and discuss potential changes to ensure validity." 2018 futures are to be finalized at the Planning Advisory Committee meeting in August and study results are expected in October.

"Futures haven't changed much in the last 10 years," Ellis explained at the Jan. 18 PAC meeting.

Ellis said year-to-year uncertainties such as the rate of fleet change and economic and temperature changes will be examined before reusing 15-year futures. He added that variables such as natural gas prices, topology, siting locations and demand could be adjusted annually. Ellis also said MISO would assess the variety of projects in the interconnection queue and public announcements from developers to inform the futures. Reuse of MTEP futures was recently added to Business Practices Manual 020, which covers long-term planning. (See "MISO to Update Long-Term Planning BPM," *MISO Planning Advisory Committee Briefs*.)



MISO MTEP 17 futures | *MISO*

Stakeholders have asked what fine-tuning might occur annually and which changes would be considered significant enough to spur futures redevelopment, Ellis said. "Ever since November, I've received many questions. Any time there's a change in presidential leadership, there's bound to be a change in policy. … All fair questions," he said.

Ellis said MISO will reweight the scenarios annually because of uncertainty over future carbon regulations. MISO's futures weighting assigns a probability-based likelihood to each MTEP planning scenario. In MTEP 17, existing trends were given 31% consideration, policy regulations were given 43% and accelerated alternative technologies received 26%. (See "MISO Posts Final MTEP 17 Weighting, Siting and Seeks Scope Feedback," *MISO Planning Advisory Committee Briefs*.)

Multiple stakeholders, however, asked for re-evaluation of MTEP 17 weighting considering President Trump's vow to cancel EPA's Clean Power Plan. They said less emphasis on policy regulations might be in order.

Steve Leovy of WPPI Energy said he supported the potential revision of MTEP 17 weights. "Four, five, six months from now, we might have a better idea of what regulations might be in place," he said.

Adam McKinnie, a Missouri Public Service Commission economist representing the state regulatory sector, said it would be useful if MISO staff could explain why changes cannot be made to MTEP 17 weighting.

Ellis said a presentation could be arranged for the February PAC meeting.

MISO NEWS

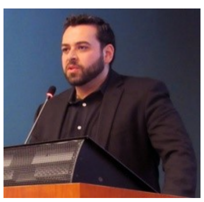
Planning Advisory Committee Briefs

Studies Could Assist in Relieving North-South Constraint

CARMEL, Ind. — MISO will conduct three new separate, but related, studies this year that could identify a transmission solution for the RTO's constrained interface between its North and South regions.

The efforts include a market congestion planning study, which is part of MISO's 2017 Transmission Expansion Plan (MTEP 17), as well as a footprint diversity study and regional transmission overlay study.

Any of the reports could produce a replacement for, or supplement to, the seven-year transmission use settlement between MISO and SPP that limits flows between MISO North and South.


Ghodsian

While the trio of studies share modeling and assumptions, each has a different scope, Arash Ghodsian, MISO manager of economic studies, said at a Jan. 18 Planning Advisory Committee meeting. He added that he didn't know which study might produce a feasible project.

MISO's Eric Thoms said the congestion and footprint studies would identify project candidates in the third quarter. However, the lengthier regional transmission overlay study, which is expected to determine long-term transmission needs at the end of this year, will not identify prospective projects until the study is concluded in 2019.

The footprint study is the only effort specifically designed to "identify potential mitigation plans to increase the interface capability" between MISO North and South, Ghodsian said. That study will be completed at the end of this year in concert with the MTEP 17 market congestion planning study, which will focus on MISO South.

Project candidates emerging from the congestion planning study will be selected at the September PAC meeting, Ghodsian said. "If we have a good enough solution for transmission needs, we'll stand by it," regardless of what study produces it, he said.

None of the studies would result in a revised settlement with another RTO, he noted.

MTEP 19 Will Probe Demand Response, Efficiency Programs

MISO is already putting together pieces for MTEP 19 in the form of a demand response and energy efficiency study.

The RTO said the third-party study is a "refresh" of a similar 2014-15 report and will provide a 20-year forecast for DR, energy efficiency and distributed generation and "their associated costs to install in MISO and the Eastern Interconnection." Work on the study should run through December, and the RTO said it will conduct quarterly stakeholder workshops related to the subject, with the first scheduled for Feb. 24.

Applied Energy Group, the consulting firm responsible for the 2014-15 study, has been retained to perform the analysis.

Rao Konidena, MISO adviser of energy efficiency, said the RTO recognizes that energy efficiency and DR programs are administered by states and will respect state jurisdiction by simply collecting data on savings from programs while refraining from analyzing any specific program.

MISO has admitted that there is a "gap" between the DR and energy efficiency data it requires of load-serving entities and what gets reported, leading to a modeling disadvantage.

MISO to Strike TSR Redispatch Option from Tariff

MISO will file with FERC to remove transmission service request (TSR) redispatch study options from its Tariff, citing market-based dispatch as the more efficient option.

A TSR reserves transmission capacity in the market and the redispatch option is added if a transmission customer has also purchased redispatch service. The transmission provider attempts to relieve system constraints by redispatching its resources, and the option requires MISO to identify which nearby generators — even ones external to MISO — can be redispatched to mitigate transmission constraints.

According to MISO's Tariff, a TSR with a redispatch option is not eligible for financial transmission rights or auction revenue rights, unlike regular TSRs, making the option unappealing.


Muncy

Paul Muncy, of MISO's transmission access planning division, said market-based dispatch would take the place of TSR redispatches. Although TSR dispatches are still offered, MISO currently has no confirmed TSRs that use a redispatch option, and the study option should have been eliminated long ago, he added.

According to MISO, the current TSR redispatch option is burdensome, requiring customers to sign a contractual financial agreement with generation owners in order to use a subset of units and agree on an operating procedures guide between generation owners, impacted transmission operators and MISO.

The RTO said that when it dispatches around congestion, implementing the TSR-related operating guides "would take away from normal market-driven dispatch implementation and reduce market transparency, adding burden to [the] market system and settlement system."

"It's not only cumbersome, but it detracts from market efficiency," Muncy said.

Some stakeholders have wondered if there is any harm in just retaining the language in the Tariff, but MISO compliance staff responded that keeping dead language in the Tariff is not a zero-cost option because the RTO must work to update the procedures in place behind the language.

Improvements Sought for Competitive Transmission Process

MISO will convene a Competitive Transmission Task Team to improve its competitive transmission selection process, aiming to complete a FERC filing on the matter sometime after October.

Brian Pedersen, MISO senior manager of competitive transmission administration, asked for stakeholder feedback on every aspect of the competitive process — from

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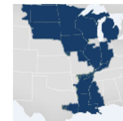
MISO NEWS



FERC Signals Bulk of NIPSCO Order Work Complete

By Amanda Durish Cook

FERC last week found that MISO and PJM have largely complied with commission directives issued in an order resolving a complaint by Northern Indiana Public Service Co. over interregional planning (EL13-88-001, *et al.*).

But the RTOs still face additional compliance filings to demonstrate better alignment of studies and cost allocation.

FERC last week accepted most of the joint operating agreement changes filed by the two RTOs and denied multiple requests for rehearing, including those from MISO and PJM themselves, as well as MISO transmission customers and NIPSCO.

The commission instead stuck to opinions issued last April. (See *MISO, PJM Working to Comply with NIPSCO Order*.)

At last week's MISO-PJM Interregional Planning Stakeholder Advisory Committee meeting, transmission engineer Adam Solomon said the RTOs will conduct a legal review of the order and publicly post a summary and work plan next week.

Despite protests, FERC stood firm on its directive to scrap the previous triple benefit-to-cost ratio test, where projects had to meet a joint 1.25:1 ratio as well as the same calculation within each RTO.

The RTOs must now rely on a net value of the total benefits calculated for each RTO and are responsible for determining "whether the potential interregional economic transmission project meets its individual 1.25-to-1 benefit-to-cost threshold using each RTO's share of the project's total cost."

Cost allocation is now based on each RTO's *pro rata* share of the project's total benefits. The commission rejected arguments by the RTOs and MISO transmission customers that an additional interregional benefit-to-cost analysis provides a "common" benefit metric to compare projects.

"Requiring MISO and PJM to each rely on their regional analysis to calculate both the benefits and costs of a potential interregional economic transmission project creates a more direct link between the costs allocated to each RTO and the benefits received," FERC wrote.

FERC also found that a request by the RTOs to continue allocating costs of interregional transmission projects based on a joint economic benefit calculation still contained in the JOA would "create an untenable mismatch in the process for selecting an interregional economic transmission project and the process for allocating the costs of that project."

MISO and PJM cannot "employ an additional interregional benefit-to-cost analysis that is calculated differently than either of their individual, regional benefit-to-cost anal-

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qualification to MISO's communication — to begin the effort.

"We want to pop our heads up and ask how well we've done," he said.

Stakeholders should also think about how to streamline the process in cases where MISO is dealing with multiple competitive transmission projects at the same time, Pedersen said.

Pedersen

"This is definitely a substantial undertaking," he said. "We need to think about how to stagger that, scale it."

MISO also reflected on the breadth of proposed projects stemming from its first request for proposals. The RTO said the process resulted in a "variety of innovative and novel cost caps, concessions and commitments … taking advantage of the freedom to develop new ways to compete on cost" and the annual transmission revenue requirement within the developer selection process.

Pedersen said an "extraordinary amount" of resources and innovation went into project proposals.

"It definitely was an instruction in innovative thinking and competitive spirit," Pedersen said.

The RTO is moving ahead on voluntary meetings with developers that were not chosen.

MISO has also opened its 2017 prequalification window for organizations seeking to become a qualified transmission developer. Interested parties must be a MISO member and submit a transmission developer application — along with a $20,000 application fee — before Feb. 6.

In December, LS Power subsidiary Republic Transmission was awarded the Duff-Coleman 345-kV transmission project, the RTO's first competitive project under FERC Order 1000. The company will construct two substations and a 28.5-mile line in Southern Indiana and Western Kentucky. Republic will deliver quarterly updates to MISO throughout 2017 on the progress of the $49.8 million project. (See *LS Power Unit Wins MISO's First Competitive Project*.)

Minimum Design Requirements Task Team Retired

MISO has retired the Minimum Design Requirements Task Team upon conclusion of the group's work, PAC Chair Cynthia Crane said.

A first version of Business Practices Manual 029, which governs minimum design requirements for competitive projects, was implemented last January. A second version of the manual, detailing a set of ratings that transmission projects will be required to meet, is slated to be released this spring.

Crane said future improvements to BPM 029 will be funneled through the upcoming Competitive Transmission Task Team.

— Amanda Durish Cook

NYISO NEWS

NYPSC Chair to Head Australia Grid Operator

By William Opalka


Zibelman

Audrey Zibelman, chair of the New York Public Service Commission since 2013, is headed to Australia to lead the operator of that country's largest gas and electricity markets.

In a press release late Sunday — Monday morning in Australia — the Australian Energy Market Operator said Zibelman will become its CEO on March 20. Zibelman's last meeting heading the NYPSC is scheduled to be on March 16 in New York City.

Then living in the Philadelphia area, Zibelman was appointed by Gov. Andrew Cuomo as PSC chair in 2013. She was tasked with shepherding the state's Reforming the Energy Vision initiative, which was unveiled in 2014.

Prior to joining the NYPSC and founding Viridity Energy, a demand response and demand management provider, she was the chief operating officer of PJM from 2004 to 2007 and held various utility and regulatory positions before that. She is the wife of former PJM CEO Phil Harris.

"Audrey's vast experience in creating and managing new wholesale electricity markets, and transforming existing energy markets and large power systems will further strengthen the work that AEMO has undertaken to support Australia's energy industry transformation," Anthony Marxsen, AEMO board chair, said in a statement.

"Audrey has the vision to lead, guide and support our organization and the broader Australian energy industry as we transition our energy markets and reform power systems planning and management."

Melbourne-based AEMO is responsible for operating Australia's largest gas and electricity markets and power systems, including the National Electricity Market and interconnected power system in Australia's eastern and south-eastern seaboard, and the Wholesale Electricity Market and power system in Western Australia.

Zibelman succeeds acting CEO Karen Olesnicky, who has held that title since the death of AEMO's founding CEO, Matt Zema, in July 2016.

"I am forever grateful to have played a part in bringing the governor's highly lauded vision of a clean-energy economy to fruition," Zibelman said in a statement. "Thanks to the governor's leadership, New York state is on a pathway to achieve 50% renewable electricity by 2030 and create an affordable, clean and resilient power system for all New Yorkers. It has been an immense privilege to work with my colleagues in the governor's office, on the commission and the dedicated, capable Department of Public Service staff."

Anne Reynolds, executive director of the Alliance for Clean Energy New York, was dismayed by the news.

"PSC Chair Audrey Zibelman and New York's energy team have made our state a national and global model for the 21st century energy grid. Her leadership in reforming utility regulation, the promotion of distributed generation and public participation testify to her lasting contribution. Her departure will be a real loss for New York state," Reynolds said. "But Gov. Cuomo has a very strong energy team and vision, and we assume the administration's sharp focus on modernizing and decarbonizing the grid will continue with Audrey's replacement."

Her departure leaves the PSC even more short-handed than it already is.

Former Chair Garry Brown left the commission in February 2015 and was not replaced. Last month, longtime commissioner and former chair Patricia Acampora said she would retire after the Feb. 16 commission meeting.

That would leave only two current members, Gregg Sayre and Diane Burman on the five-member panel. Their terms expire Feb. 1, 2018.

Sayre, a former telecommunications assistant general counsel from the Rochester area, was appointed in 2012.

Burman, chief counsel to the New York State Senate Republican Conference before her appointment to the PSC in 2013, is often the lone dissenting vote in commission meetings.

Rocco LaDuca, spokesman for Senate Energy and Telecommunications Committee Chair Joseph Griffo, said the senator is aware of the pending vacancies. "The [Republican caucus] will be having discussions in the days and weeks ahead to determine how to move forward. They are mindful of the commission's responsibility to conduct its business, but there's still time until March to address this issue," he said.

Commissioners are appointed to six-year terms and are paid $109,800 annually. The chair has a $127,000 salary.

FERC Approves 8.95% Base ROE in NYPA Settlement

FERC on Thursday accepted a settlement that replaces the New York Power Authority's stated transmission rates with a cost-of-service formula including a base return on equity of 8.95%. NYPA will receive an additional 50 basis points for its participation in NYISO (ER16-835).

The organization will receive a 50-basis-point "congestion relief adder" for the Marcy South Series Compensation project in Delaware County for the original $55.7 million cost of the project. Costs exceeding the cap will revert to the base ROE.

NYISO filed the request on NYPA's behalf in January 2016, with the commission ordering a settlement proceeding in March. The settlement, which was not contested, was supported by FERC trial staff. The commission said the rate formula became effective April 1, 2016.

NYPA was ordered to file an amended Tariff within 30 days.

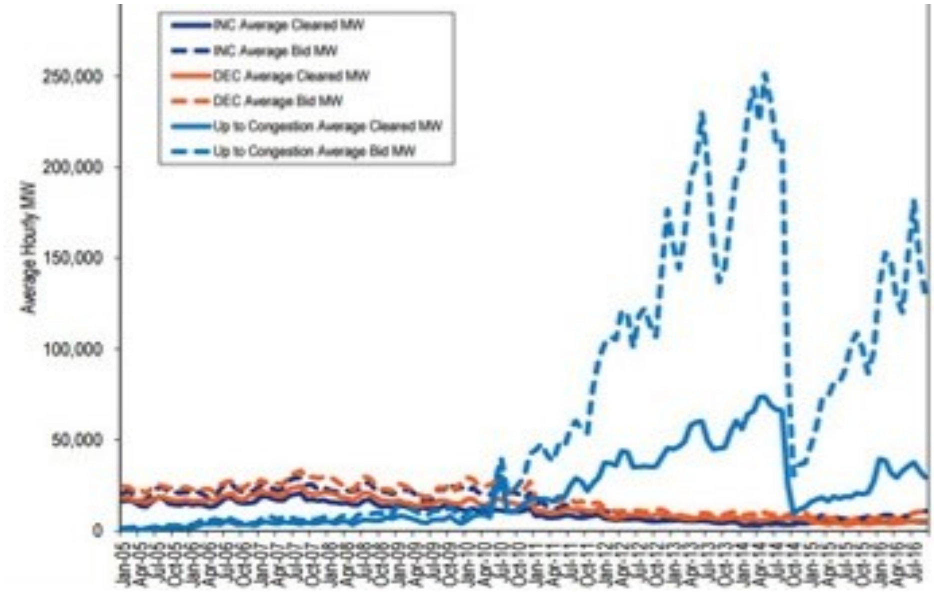
The organization last January said it needed to convert to a formula rate because it anticipates spending approximately $726 million in its transmission life extension and modernization program through 2025. Some assets are more than 70 years old, NYPA said.

— William Opalka

PJM NEWS

FERC Orders Portfolio Approach for PJM FTR Forfeiture Rule

By Rory D. Sweeney



UTC transactions, which fell sharply following a FERC order setting Sept. 8, 2014, as the effective date for potential uplift charges, rebounded after the 15-month refund period expired. | *Monitoring Analytics*

FERC last week rejected PJM's proposal for revising how it implements its financial transmission rights forfeiture rule, ordering the RTO to instead adopt a portfolio approach suggested by the Independent Market Monitor (EL14-37).

The commission, however, declined to order any refunds.

The ruling was the result of a Section 206 proceeding ordered in 2014 to determine whether the RTO was improperly treating up-to-congestion trades (UTCs) differently than increment offers (INCs) and decrement bids (DECs).

The order says the forfeiture rule should be applied to UTCs as well as INCs and DECs. The order did not address whether uplift — currently assessed on INCs and DECs — should also be applied to UTCs. Instead, it said that issue would be considered in its broader Notice of Proposed Rulemaking on uplift cost allocation. (See related story, *FERC Proposes New Uplift Cost Allocation Regulations*, p.1.)

The forfeiture rule was implemented in 2000 to prevent market participants from using virtual transactions to create congestion that benefits their FTR positions. The FTR holder forfeits the profit from its FTR when it submits an INC or a DEC at or near an FTR location that results in a higher LMP spread in the day-ahead market than in real time.

The commission ordered the 206 investigation after PJM proposed redefining UTCs as virtual transactions and making them subject to the forfeiture rule, which had previously been applied only to INCs and DECs. (See *FERC Orders Review of UTC Rules*.)

Worst-Case Scenario

The current rule evaluates virtual transactions individually against the "worst-case" bus — the location at which the transaction has the biggest impact on congestion. A forfeiture is triggered if at least 75% of the energy flowing between the transaction bus and the worst-case bus is reflected in the constraint.

PJM had proposed continuing to evaluate transactions individually but replacing the worst-case bus technique with a generation-weighted reference bus to evaluate DECs and a load-weighted reference bus to evaluate INCs.

Under the worst-case approach, one trader's INC (an offer to sell energy at a specified source location in the day-ahead market) may be paired with a different market participant's DEC (a bid to purchase energy at a specified sink location day ahead). PJM said that can result in forfeitures occurring when they should not.

False Positives, Negatives

But the commission ruled that the RTO's proposed fix didn't go far enough, saying the individual transaction approach does not capture the impact of a market participant's overall portfolio of virtual transactions on a constraint.

"This may lead to forfeitures from some participants who have offsetting positions elsewhere and thus whose virtual transactions did not actually impact the constraint. Likewise, the rule may fail to invoke forfeiture on some participants who do not impact the constraint with a single transaction but have additive positions elsewhere that, on net, do impact the constraint significantly," the commission said.

It ordered PJM to adopt the Monitor's proposal to evaluate the net effect of a participant's entire virtual portfolio — INCs, DECs and UTCs — on the constraint.

A UTC would be included in the portfolio as an INC at its source point and as a DEC at its sink. Because UTCs include both source and sink, there is no corresponding worst-case bus with which to compare it. (In a related order, the commission also accepted a PJM compliance filing establishing the criteria for determining the source-sink paths for UTCs (ER13-1654-001, ER13-1654-002)).

FERC also ruled that PJM must evaluate power flows using a load-weighted reference bus, which PJM already uses to calculate certain components of LMP, instead of the worst-case bus. As a result, the commission said, the 75% trigger should be replaced with one based on a percentage of the total binding megawatt limit of the constraint related to the FTR path.

"Specifically, to trigger a forfeiture, the net flow across a given constraint attributable to a participant's portfolio of virtual transactions must meet two criteria: (1) The net flow must be in the direction to increase the value of an FTR; and (2) the net flow

Continued on page 16

PJM NEWS

FERC Orders Tx Refunds, Investigates Pipeline Rates in PJM

$7M Refund Ordered on Abandoned PATH Tx Project

Proposed PATH project route | *PJM*

FERC last week ordered American Electric Power and FirstEnergy subsidiary Allegheny Power to refund more than $7 million to ratepayers for the canceled Potomac-Appalachian Transmission Highline (PATH) project (ER09-1256; ER12-2708).

The ruling upheld most of the $10 million in refunds recommended in an initial ruling by Administrative Law Judge Philip C. Baten, backing the judge's decision to deny recovery of $6.2 million in advertising, lobbying and "advocacy-building" costs. But the commission reversed Baten on his rejection of some legal costs and losses on the sale of properties the companies acquired for the project. (See *FERC ALJ Rejects $10 Million in PATH Transmission Project Recovery*.)

The commission also found that PATH's base return on equity should be reduced from 10.4% to 8.11% and disallowed recovery of $1.1 million in expenses booked into a wrong account.

The companies have 60 days to submit revised information, including an updated Form 1 that recalculates costs of service and estimated refunds.

Approved in PJM's 2007 Regional Transmission Expansion Plan, the $2.1 billion project would have run from AEP's John Amos coal generator in St. Albans, W.Va., to New Market in Frederick County, Md. PJM canceled the project in 2012 after determining it was not needed based on revised load forecasts.

The ruling was a victory for two PATH opponents from West Virginia who filed a *pro se* intervention challenging the companies' recovery request for recovery of $121.5 million.

FERC Orders Investigation into Overcharging for Natural Gas Pipelines

The commission is investigating the rates charged by two natural gas pipelines, one of which delivers into the PJM footprint in Chicago (RP17-302 and RP17-303).

FERC believes Wyoming Interstate Co. and Natural Gas Pipeline Company of America, both Kinder Morgan subsidiaries, may have both been overcharging customers, based on reviews of their 2014 and 2015 FERC Form No. 2 annual reports.

FERC estimates Natural's ROE for those calendar years to be 28.5% and 20.8%, respectively. Natural owns the Amarillo and Gulf Coast Lines, both of which terminate in the Chicago area.

The commission estimates WIC's ROE for those calendar years to be 17.7% and 19%, respectively. WIC owns 850 miles of pipeline, including a mainline system between western Wyoming and northeast Colorado.

FERC says it's concerned that both Natural's and WIC's level of earnings may exceed their actual cost of service, including a reasonable ROE. The commission ordered the companies to file full cost and revenue studies within 75 days.

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FERC Orders Portfolio Approach for PJM FTR Forfeiture Rule

Continued from page 15

must exceed a certain percentage of the physical limit of a binding constraint," the commission explained. "Although any volume can cause congestion, this second condition recognizes that increased volumes relative to the binding limit are more symptomatic of transactions that increase the value of an FTR."

It noted that CAISO uses a such a method in its congestion revenue rights settlements. The ISO determines that congestion has been significantly impacted if a CRR holder's entire portfolio exceeds 10% of the constraint's flow limit.

The commission said eliminating the worst-case bus would increase the transparency of the forfeiture methodology, allowing market participants to monitor their own activity to determine if they are significantly impacting constraints related to their FTRs.

Compliance Filing

FERC ordered PJM to submit a compliance filing within 90 days to modify its Tariff to incorporate the new approach.

It rejected concerns that the portfolio approach would discourage transactions at liquid trading spots such as zones, hubs and interfaces, saying transactions at those locations should be included in the forfeiture evaluation.

It also ruled that counterflow FTRs and virtual transactions that relieve congestion should no longer be exempt from the forfeiture rule. "Holders of counterflow FTRs are able to manipulate congestion to benefit their FTR position," the commission said.

The commission rejected calls from some trading firms to eliminate the forfeiture rule, saying that the requests were outside the scope of the proceeding and that the rule was necessary to deter cross-product manipulation.

Despite finding the current methodology not just and reasonable, FERC said refunds were "not appropriate."

"As some parties have indicated, they have based market decisions on the current Tariff rules that cannot now be revisited, and the commission has not always ordered refunds when market decisions are affected. Moreover, while market participants were on notice that the FTR forfeiture rule might change, the nature of any change was uncertain. The bids, offers and decisions market participants made could have been different had they been aware of the nature of the revised FTR forfeiture rule."

PJM NEWS

FERC Signals Bulk of NIPSCO Order Work Complete

Continued from page 13

yses," the commission said.

FERC upheld an earlier decision to replace MISO's requirements that a qualifying project be at least 345 kV and meet a $5 million cost threshold with a 100-kV voltage minimum and no specified cost floor.

However, as pointed out by the Organization of MISO States, the commission realized it did not address MISO's lack of Tariff language on cost allocation for sub-345 kV projects. Market efficiency projects in MISO are currently allocated 20% to all transmission customers and 80% to transmission customers in local resource zones. FERC gave the RTO 30 days to either include sub-345-kV interregional projects into the existing cost allocation or create a different allocation method.

MISO is already considering expanding its market efficiency voltage threshold to include sub-345-kV economic projects; cost allocation overhauls will be discussed throughout 2017. (See *MISO Stakeholders Propose Changes to Market Efficiency Cost Allocation Process*.)

No Joint Model

Solomon said the order invalidates the need to create a joint model because FERC has accepted MISO and PJM filings that removed any references to such a model.

FERC last April directed the RTOs to explore the possibility of a joint model that uses identical assumptions and criteria to align their respective regional processes. In December, MISO staff said a joint model using identical assumptions would be difficult to accomplish. (See "MISO Says Common Assumption Set with PJM a No-Go," *MISO Planning Subcommittee Briefs*.)

MISO will instead use regional metrics to independently quantify benefits and split project costs.

"It's pretty clear what we need to do going forward," Solomon said.

Not Applicable to MISO-SPP Seam

MISO members hoping that the NIPSCO order would be applied to the SPP seam will have to wait for a fresh docket. FERC said its NIPSCO directives "are limited to issues pertaining to the MISO-PJM seam." The commission rejected ITC Holdings' request that MISO also relax SPP interregional cost and voltage thresholds — still at $5 million and 345 kV — saying ITC brought no evidence forward to support the rule extension.

FERC accepted new JOA language that describes interconnection coordination procedures already in place in the RTOs' governing documents, language stipulating that each RTO will monitor the other's transmission system for potential impacts and include concerns in the system impact studies of the interconnection process. The RTOs will also exchange data at least twice each year to study the impact of the other's interconnection requests on its own transmission system.

Coordinated System Plan Needs Work

However, FERC found MISO and PJM only "partially" complied with the commission's directive to revise the JOA to describe how the RTOs will incorporate their respective transmission expansion planning processes into future coordinated system plan studies.

The commission directed the RTOs to submit another compliance filing detailing how the plans would be integrated and create "binding deadlines" for an annual review of issues and when to decide on whether they should embark on the studies. MISO and PJM had proposed an information exchange in the fourth quarter of each year that would lead to a joint review of regional issues the following January, but they did not provide specific deadlines.

Continued on page 18

FERC Orders Tx Refunds, Investigates Pipeline Rates in PJM

Continued from page 16

ODEC Tariff Revisions Approved Subject to Compliance Filing

FERC last week approved a revised cost-of-service rate schedule that changes how Old Dominion Electric Cooperative collects demand costs from its 11 distribution cooperatives in Virginia, Delaware and Maryland.

The new formula replaces one that has been in place since 1992 that recovered demand costs based on each cooperative's coincident peak (CP) usage. The new formula includes rates that ODEC said more accurately reflect market conditions and its costs under PJM's methodology.

The commission affirmed the initial decision by ALJ H. Peter Young that found several portions of ODEC's filing, including its four-year average "proxy rate" for PJM capacity costs and the 12 CP true-up mechanism for PJM capacity costs and third-party transmission costs, unjust and unreasonable.

It reversed the judge's finding that ODEC's proposed zonal averaging mechanism and the use of add-backs in 2014 were unjust and unreasonable.

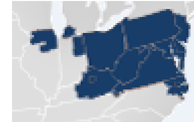
The revisions were backdated to Jan. 1, 2014, and ODEC is required to make refunds and file a refund report (ER13-2483).

FERC Approves FE Companies' Filings on Affiliate PPA Waiver

The commission last week approved tariff revisions filed by FirstEnergy Solutions and several affiliates to comply with a FERC order ruling that a power purchase agreement in which the company's regulated utilities would buy energy from the company's merchant generators would be subject to its affiliate abuse review (ER16-1807, *et al.*). FirstEnergy asked the Public Utilities Commission of Ohio to withdraw the PPA following the FERC ruling. (See *FirstEnergy Foes Ask FERC to Step in Again in Ohio Dispute*.)

— Rory D. Sweeney

PJM NEWS



FERC Signals Bulk of NIPSCO Order Work Complete

Continued from page 17

FERC denied NIPSCO's request that market-to-market payments be added to the JOA benefit calculation. The commission said the addition would double-count a portion of the congestion — an issue still under scrutiny in a separate complaint. (See *PJM, MISO Go Quiet on Pseudo-Ties; Reach Interface Pricing Accord*.) FERC also said market-to-market payments do not reduce production costs but are transfer payments between RTOs "that make the RTO that redispatched its system whole for the increased production costs that it experiences to allow the other RTO to exceed its firm flow entitlements."

FERC also denied a request by a group of MISO generators that the RTOs better identify constraints and flowgates, saying it was not an issue raised in the original NIPSCO complaint since the complaint "made only incidental references to flowgates."

Retirement Coordination Approved

In a separate order issued last week, FERC unconditionally accepted the MISO-PJM generator retirement coordination plan (ER16-1969-002) with little comment. The plan adds generator retirement study information-sharing and mutual evaluation rules to the RTOs' JOA. (See *MISO Outlines Retirement Coordination with PJM*.)

2017 MEP Identification Underway

Ling Hua, MISO's interregional economic transmission planning adviser, said MISO and PJM have begun work to identify interregional market efficiency projects. Both RTOs have opened issues submission windows that allow members to submit solution proposals until the end of February. From March to September, the RTOs will evaluate project proposals for year-end approval by their respective boards.

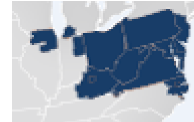
The two RTOs have separately identified congested flowgates ripe for interregional efficiency projects, with MISO submitting 13 possible projects and PJM identifying four. The only potential project common to both lists is the Olive-Bosserman 138-kV project on the western Michigan-Indiana border in American Electric Power's territory.

Solomon said he expects a learning curve this year in identifying interregional projects as RTO staff and stakeholders move to a new interregional process.

"We've kind of been stuck in between two interregional processes until yesterday," Solomon said at the IPSAC meeting.

A day before the order issuance, at its Jan. 18 Planning Advisory Committee meeting, MISO reported that it considered all nine directives in the NIPSCO order completed as of Dec. 15.

PJM NEWS



MRC/MC Preview

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

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

Markets and Reliability Committee

2. PJM Manuals (9:10-9:30)

Members will be asked to endorse the following manual changes:

A. Manual 11: Energy & Ancillary Services Market Operations and Manual 12: Balancing Operations. Revisions to account for the updated regulation requirement developed by the Regulation Market Senior Issues Task Force. (See "Regulation Requirement Changing from 'Peak' to 'Ramp,'" *PJM Operating Committee Briefs*.)

B. Manual 27: Open Access Transmission Tariff Accounting. Revisions developed as part of an annual review of the manual.

C. Manual 38: Operations Planning. Revisions developed as part of a periodic review to provide more clarity on outage coordination.

D. Manual 40: Training and Certification Requirements. Revisions proposed to reduce the grace period for completing operator training. (See "Manual 40 Revisions Approved with Exelon's Addendum," *PJM Operating Committee Briefs*.)

3. PJM Capacity Problem Statement/ Issue Charge (9:30-10:00)

Members will be asked to endorse a proposed problem statement and issue charge regarding PJM's Reliability Pricing Model. (See "Stakeholders Remain Skeptical of Campaign to Revisit CP," *PJM Markets and Reliability Committee Briefs*.)

4. Underperformance Risk Management Senior Task Force (URMSTF) (10:00-10:15)

Members will be asked to endorse proposed revisions to the Tariff and Reliability Assurance Agreement specifying requirements for external resources seeking qualification under Capacity Performance rules. (See *No End in Sight for PJM Capacity Market Changes*.)

5. Energy Market Uplift Senior Task Force (EMUSTF) (10:15-10:45)

Members will be asked to endorse a Phase 1 proposal endorsed by the task force and to discuss whether to proceed with a vote on the Phase 2 proposal in light of FERC issuing a Notice of Proposed Rulemaking on the topic last week. (See related story, *FERC Proposes More Transparency, Cost Causation on Uplift*, p.1.)

6. Market Operations Price Transparency (10:45-11:00)

Members will be asked to endorse a proposed problem statement and issue charge regarding increased information releases under the NOPR.

7. Operating Parameters (11:00-11:15)

Members will be asked to endorse proposed revisions to the PJM Tariff, Manual 11: Energy & Ancillary Services Market Operations, Manual 12: Balancing Operations and Manual 28: Operating Agreement Accounting regarding operating parameters. (See "Operating Parameters, ARR Enhancements Endorsed," *PJM Market Implementation Committee Briefs*.)

8. Governing Documents Enhancement & Clarification Subcommittee (GDECS) (11:15-11:30)

Members will be asked endorse proposed Tariff, Operating Agreement and RAA revisions that clean up definitions.

Members Committee

Consent Agenda (2:20-2:25)

Members will be asked to endorse:

B. Operating Agreement revisions associated with residual auction revenue rights enhancements.

C. Revisions to the Tariff resulting from discussions at special Planning Committee sessions regarding new service request cost allocation and study methods. (See *PJM Considering Injection Rights for Demand Response*.)

D. Tariff and Operating Agreement revisions developed by the GDECS.

1. Security & Resilience Advisory Committee (1:25-1:40)

Members will be asked to approve a proposed charter for a new Security & Resiliency Committee. (See "Preview of Security Committee Receives Tepid Response," *PJM Markets and Reliability and Members Committees Briefs*.)

2. Underperformance Risk Management Senior Task Force (URMSTF) (1:40-2:00)

Members will be asked to endorse proposed Tariff and RAA revisions specifying requirements for external resources seeking qualification under CP rules. (See MRC item 4 above).

— Rory D. Sweeney

SPP NEWS

MOPC Endorses 14 Tx Projects over Stakeholder Objections

By Tom Kleckner

DALLAS — SPP stakeholders last week endorsed $201.5 million in transmission projects as part of the RTO's Integrated Transmission Planning process, despite objections from several entities.

The ITP's final 2017 10-Year Assessment recommended 14 projects in the southern part of SPP's footprint, clustered in the Texas-Oklahoma Panhandle and along its eastern seam. Staff said the projects have an annual production cost benefit of $59 million and will solve long-standing congestion issues in West Texas.

Bill Grant, director of strategic planning for Southwestern Public Service, pushed back against the Transmission and Economic Studies working groups' recommendation to the Markets and Operations Policy Committee, saying a 90-mile, 345-kV line in SPS's service territory is "the right project but the wrong time."

The proposed $144 million project would run southwest of Amarillo to SPS's Tolk Generating Station near Muleshoe. Tolk consists of two 350-MW coal-fired units that date back to the early 1980s. SPS is currently evaluating whether to keep the plant operating.

"We think it's a good project, but it's not a good economic project *at this time*," Grant told *RTO Insider*. "We think it's best as a long-term project. If we do shut the plant down, restudying the project makes sense."

Grant said SPS will be making some "major resource decisions" over the next few years. He said one of his company's customers will begin buying power from one of its own affiliates, an unnamed SPP member, leaving SPS in a "resource flux." Grant said he expects the resource plan to "clarify the need for this line in time."

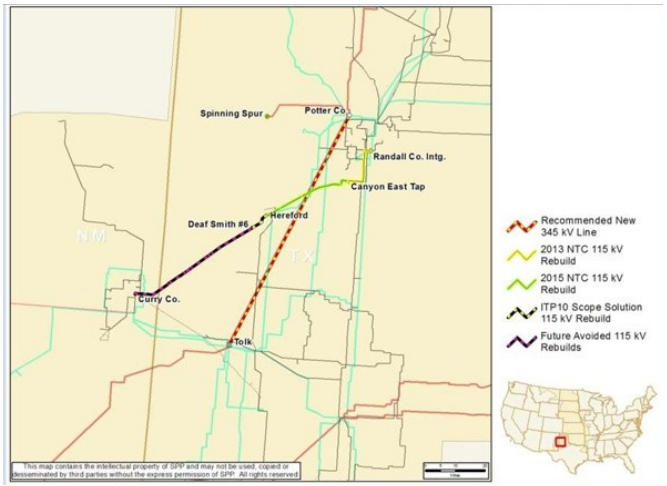
Tolk was one of seven Texas coal plants targeted by EPA for affecting air quality in the Big Bend and Guadalupe Mountains national parks along the Mexican border. The agency in November withdrew a requirement that the plants reduce their emissions, but Tolk is still facing potential future water-supply shortages.

"The concern we have is the removal of [the] regional haze [rule] changes the outlook," Grant said. "I'm not questioning the analysis, but I am questioning the timing of the recommendation, because there's so much unknown at this time."

The company sees a long-term need for a 345-kV line in that area but would "feel better" about a decision in the future, he said.

SPP staff said the project would ease congestion in the corridor but could also avoid potential costs of up to $120 million from incremental upgrades in future studies. Staff also said the Potter-Tolk line improves voltage stability limits in SPS's south load pocket and would ease a generation interconnection queue filled with wind projects.

"There is a significant price difference between resources in the southern end and SPS resources in the north," said Antoine Lucas, SPP's director of transmission planning. "Cheaper energy is looking to flow south, but a lack of transmission is causing a constraint and driving costs up in the SPS zone."



2017 ITP10 SPS North to South | *SPP*

Grant cast one of seven opposing votes against the recommendation. Eight other members abstained.

"I'm just trying to caution [everyone]," Grant said. "I don't want to go through another Walkemeyer, but that may be exactly where we're headed."

Grant was referring to SPP's first competitive project under FERC Order 1000, which was awarded to the incumbent transmission owner but then pulled when changing load projections rendered the project moot. SPP staff will determine whether any of the 14 projects will be deemed competitive projects. (See *SPP Cancels First Competitive Tx Project, Citing Falling Demand Projections*.)

The Potter-Tolk line was one of two projects staff identified through an "alternative project analysis" to evaluate needs in support of SPP initiatives along the seams or solving congestion and operational problems.

That analysis also recommended a 345/161-kV transformer and 161-kV line upgrade in southwestern Missouri near Springfield. The line connects to an Associated Electric Cooperative Inc. substation in Morgan and could qualify as a seams project pending negotiations with AECI. (See "SPP-AECI Joint Study Recommends Two Projects,"

"We think it's a good project, but it's not a good economic project *at this time*. We think it's best as a long-term project."

Bill Grant, of Southwestern Public Service, on one project recommended in the ITP10 assessment

Continued on page 21

SPP NEWS

MOPC Endorses 14 Tx Projects over Stakeholder Objections

Continued from page 20

SPP Seams Steering Committee Briefs.)

SPP staff also performed additional analysis to ensure that transmission model updates and the 2016 near-term projects were included in its recommendations.

The 2017 ITP10 considered three futures: regional and state approaches to carbon reductions as a result of the now-endangered Clean Power Plan, and a business-as-usual reference case.

Supplemental Analysis Incorporated into 2017 ITPNT

The MOPC unanimously endorsed the TWG's supplemental analysis incorporating newly issued and withdrawn notices-to-construct (NTC) from the 2016 ITP Near-Term Assessment into the 2017 ITPNT. The additional analysis helped better inform the ITPNT decisions because the NTCs and withdrawals occurred after the 2017 ITP10 models had been completed.

Lucas said the supplemental analysis was done to help bridge the gap between the ITP's new and old processes. A final near-term assessment will be conducted for 2018.

MOPC Chair Paul Malone asked Lucas whether SPP also analyzes the transmission systems of new members coming into the RTO.

"We look at the existing systems based on SPP criteria and ensure the necessary upgrades have been completed before they roll into the network," Lucas said.

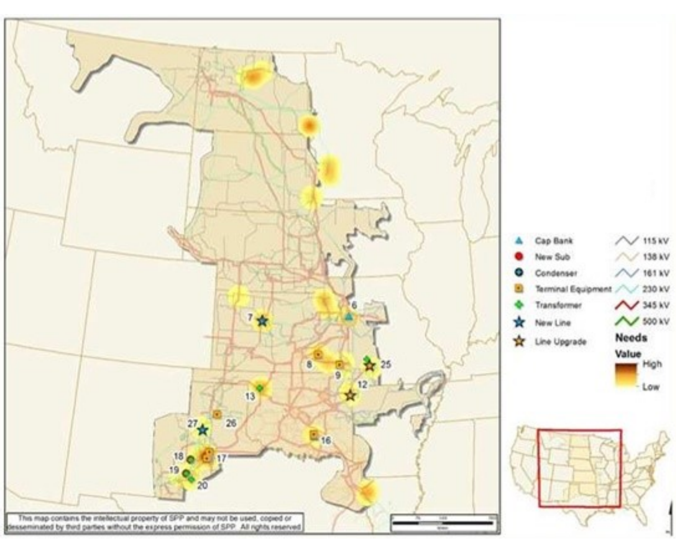
As part of its analysis, staff evaluated 420 detailed project proposals — down "significantly" from years past, Lucas said — and made 131 model corrections.

A draft 2017 ITPNT portfolio was issued Jan. 6. Transmission owners and interested competitive developers will have until Feb. 3 to provide study cost estimates to SPP. An updated project portfolio will be shared during a Feb. 23 planning summit, and a draft report and recommendations will be made for the April MOPC and Board of Directors meetings.

MOPC Approves Change to Renewables Modeling

The MOPC also endorsed a revision to the Transmission Process Improvement Task Force's (TPITF) white paper that the committee approved last July. The TPITF has been charged with combining SPP's various planning efforts into one annual cycle, set to begin in 2018.

In recommending a common planning model, the task force has first suggested modeling renewable facilities with firm service at their highest summer output over a three-year period, with off-peak and light load modeled at 100% of firm service.



2017 ITP10 recommended portfolio | *SPP*

The new language recommends those resources with firm service "be modeled in the summer peak base scenario model at each facility's latest five-year average for the SPP coincident summer peak, not to exceed each facility's firm service." Non-firm service will be modeled at zero.

The measure passed with four abstentions.

Brian Gedrich, the group's chair and executive director of development for NextEra Energy Transmission, said the change was necessary because SPP's wind output has been approaching 100% firm transmission-service levels during summer peak conditions.

However, several MOPC members expressed their concern with their inability to use SPP's financial hedging instruments to pay for congestion costs.

"We build to the specifics of firm transmission … but [financial transmission rights] are not happening. We have an obligation to manage that," Grant said. "This proposal is a compromise — a good compromise — but our concern is not being financially hedged against projects where we've paid for an upgrade, and then [do] not get the hedge."

"This impacts our customers," said Oklahoma Gas & Electric's Greg McAuley. "They've had to pay for firm service, and now they're paying congestion charges and new transmission charges. As we've discussed here, we really don't have a hedge. All this planning, yet customers are paying for all this congestion. We're asking ourselves, how did we end up like this?"

"We're on a journey. This is a first step," Gedrich said. "We may find over time this five-year average is too generous, it's too optimistic."

Nearly $2B in Projects Completed, Approved in 2016

SPP staff reported that members completed 78 upgrades totaling $939 million in 2016, while NTCs were issued for another 138 projects worth an additional $992 million.

ITP projects accounted for $1.4 billion of the total: $582.3 million for 44 completed projects and $859.5 million in NTCs.

The projects are part of SPP's Transmission Expansion Plan. The MOPC unanimously endorsed staff's recommendation that the board accept the 2017 STEP report as documenting completion of the Tariff's Attachment O transmission planning process.

SPP NEWS

Strategic Planning Committee Agrees to Continue Work on Tx Cost Shifts

By Tom Kleckner

DALLAS — During an unusually animated meeting last week, SPP's Strategic Planning Committee eventually agreed that it was the correct body to take up the contentious issue of cost shifts when new members join existing transmission-pricing zones.

"I think this is a policy decision all the way, and this is where [the discussion] should be held," SPP Director Harry Skilton said.

Skilton's comments were echoed by other members — and by staff — and helped wrap up an hour-long discussion that revisited charges over whether SPP had circumvented the stakeholder process last October, when Kansas City Power & Light's proposal to revise the zonal-placement criteria was pulled from the Regional Tariff Working Group and given to the SPC. (See *SPP Moves to Head off KCP&L Measure on Tx Cost Shifts*.)

After several stakeholders said the stakeholder-driven process had been overridden when KCP&L's revision request had been "arbitrarily" pulled from the RTWG, SPP CEO Nick Brown grabbed a microphone.

"I take issue with the use of the word 'arbitrarily,'" Brown said. "From a strategic perspective and a regulatory perspective, and in many board members' view, we were heading down a road that would not have been good for our reputation. We would have been using the wrong tools, and there were a lot of people involved in that debate."

"This characterization that we have hijacked the process is just false," said Michael Desselle, SPP's vice president of process integrity. "We have followed the process."

Several members pointed a finger at South Central MCN's Noman Williams, who chaired the Markets and Operations Policy Committee last year, for taking KCP&L's proposal (RR 172) away from the RTWG. Williams did not attend last week's SPC meeting, but he later said that he and RTWG Chair David Kays, of Oklahoma Gas and Electric, discussed where the revision request belonged.

Kays "recognized the potential for broader policy issues," Williams told *RTO Insider*. "I agreed and said I thought there were broader policy issues that had historically resided at the SPC and board, and that I would suggest that the RR also be presented and reviewed at the October SPC to determine if there needed to be additional discussion and guidance."

SPP Director Harry Skilton, SPP COO Carl Monroe and KCP&L's Denise Buffington | © *RTO Insider*

Denise Buffington, KCP&L's director of energy policy and corporate counsel, said her preference was to send RR 172 back to the RTWG and then the MOPC and Board of Directors.

She is also open to other ideas.

"If someone can bring me a better solution that solves my equity issue and cost-shifting issue, I'm all ears," she said. "I'm willing to negotiate or take someone else's ideas. I don't want to spend another six, eight or 10 months in a working group or task force to try and solve a problem that's a real problem today."

Buffington said KCP&L would probably file a complaint at FERC and "get a change made there" should the SPC not resolve RR 172 "to our satisfaction and in a timely manner."

"I agree this is an issue that needs to be resolved. I agree with the urgency," Brown responded, suggesting the process would drag out further if the RTWG continued to handle KCP&L's proposal. "You could file a [Section] 206 [complaint] with FERC today. My response to FERC would be, 'Please give us the opportunity to resolve this through the stakeholder process. Every time we've done that in the past, [our request has] been granted."

"We are open to having it resolved [in the SPC], but we are not interested in it being paralyzed by the SPC," Buffington said Monday.

Buffington agreed to keep KCP&L's proposal within the SPC, but she said she wants a discussion and vote if no progress has been made before the April MOPC meeting. "There is a process in place, and I want it followed," she said.

The SPC agreed to schedule another meeting within a matter of weeks to continue its discussion of RR 172 and review specific policy language from staff, but no date has yet been set.

The committee in October agreed to defer action on RR 172 pending alternative proposals from SPP. Staff returned last week with a straw proposal for zonal placement criteria for existing facilities. That plan limited the scope to integrating existing facilities with the zonal annual transmission revenue requirement (ATRR) costs under Schedule 9 of the RTO's Tariff, or a current transmission owner's purchase of existing facilities that would be included in its zonal ATRR.

The SPC agreed unanimously to codify SPP's criteria for determining whether to put transmission facilities and the ATRR into an existing pricing zone or create a new one, but there was some disagreement on whether or not staff's current criteria will be sufficient.

Those criteria include:

- Whether the new TO's ATRR is less than that of an existing zone with the smallest ATRR;
- The extent to which a new TO's facilities are embedded within a pre-existing zone;
- The extent to which a new TO's facilities are integrated with (including number of interconnections) an existing TO's facilities; and
- The extent to which the new TO's facilities substantively increase the SPP footprint.

Continued on page 23

SPP NEWS

Former Congressman Sees Smaller Federal Role in Energy Industry Under Trump

By Tom Kleckner


Ross

DALLAS — SPP's Mike Ross told the Strategic Planning Committee last week the industry can expect a future with less federal intervention under President Trump's administration.

Ross, SPP's senior vice president of government affairs and public relations, and a former six-term Democratic congressman from Arkansas, said he expects Trump to quickly issue an executive order withdrawing from the Paris Agreement on climate change.

"I believe the Clean Power Plan will be rolled back through whatever kind of legal thing they need, from executive order to rescinding the rule to simply not funding the [EPA]. Overall, I think you'll see less regulation," Ross said. "Everything in our industry will be regulated a lot less and pushed back to the states."

Ross said he expects Trump's opposition to the CPP to result in the delay of some coal plant retirements but not in new generator construction. "Quite frankly, I don't think many companies are going to be spending millions of dollars to build a new power plant based on who the new president is," he said.

He said he expects Congress to pursue legislation on cybersecurity and to review the Federal Power Act and RTO capacity markets. He also said there is some talk of FERC revisiting Order 1000.

Bloomberg reported last week that Trump will tap Commissioner Cheryl LaFleur as chairman of the commission, replacing Norman Bay.

FERC currently has three Democrats and two vacancies, but it will shift to a 3-2 Republican majority under Trump, so LaFleur's appointment could be temporary.

Although Ross didn't name names, he said potential appointees include those "who knew SPP very well and have been involved with SPP."

Commissioner Colette Honorable's term expires June 30, but Ross said there's a chance she might be re-nominated. (See *CPP, FERC's Bay, Honorable Among Losers in Trump Win*.)

"She's pro-coal," he said of Honorable, who previously chaired Arkansas' Public Service Commission. "The last coal plant in America [AEP subsidiary Southwestern Electric Power Co.'s John W. Turk Jr.] was built in Arkansas, and she voted for it."

Strategic Planning Committee Agrees to Continue Work on Tx Cost Shifts

Continued from page 22

KCP&L said its proposal is designed to strike a balance between attracting new transmission-owning customers to SPP and eliminating the unnecessary and unfair potential for new members to shift costs to existing members by codifying SPP's zonal selection criteria in the Tariff. The revision is intended to establish a bright line between the costs of legacy transmission and new facilities planned by SPP.

Buffington said its revisions to RR 172 provides a bidirectional approach to protect both new TOs and new and existing transmission customers from paying for facilities that were not jointly planned. Following the new TO's integration into the RTO, all SPP-studied and approved projects would be allocated in accordance with its Tariff, she said.

KCP&L has been driven by SPP's decision to put the City of Independence, Mo., into the utility's transmission pricing zone, a move Buffington last year said "blindsided" the utility and led to a multimillion cost shift to its customers. The KCP&L zone has some of the lowest transmission costs among SPP's 19 zones, thanks to the Kansas City area's load.

"The crux of the problem for KCP&L is there's a price impact to us when someone comes into our zone," Buffington said. "We tried to put a bright line out there so people know what to expect going forward and so people can know what to expect when they become a member of SPP."

"I don't want to build walls to prohibit people from coming in," American Electric Power's Richard Ross said, "but I don't want to do things that cause detriment to our existing customers."

Several stakeholders have spoken out against the proposal's hold-harmless provisions, in which new TOs would have their facility costs allocated to their load and current zonal TOs and customers would have the costs of their facilities allocated to their load. They assert this gets away from SPP's concept of transmission providing value to the SPP system, not those who built it.

Brett Hooton, vice president of business development for South Central MCN, called RR 172's hold-harmless provisions "anti-competitive, unduly discriminatory and a logistical nightmare." He also said the proposal's "unintended consequences" have yet to be vetted and discussed.

"This impacts all segments of SPP membership," Hooton said. "The focus should be on areas with broad stakeholder agreement [zonal placement criteria and informational requirements], rather than forging ahead with a controversial hold-harmless proposal that is also contrary to the principle that networked transmission can provide value to the Bulk Electric System."

SPC Agrees to Reconstitute Congestion Hedging Group

The SPC also agreed to reconstitute the Congestion Hedging Task Force to address the large amounts of wind energy and other renewables that could come online in the future. SPP has 21,535 MW in its interconnection queue, on top of 15,728 of installed wind energy.

The CHTF would report to the MOPC. The committee's chair, Paul Malone of the Nebraska Public Power District, said he would work with staff to move the task force forward.

SPP NEWS

MOPC Briefs

Stakeholders Endorse 12% Planning Reserve Margin, Policies

DALLAS — SPP's Markets and Operations Policy Committee last week overwhelmingly approved a Tariff revision request that would replace the old capacity margin terminology with a 12% planning reserve margin requirement, the RTO's first such change since 1998.

The Regional Tariff Working Group's (RTWG) RR 187 also incorporates previously approved policies that identify who is responsible for resource adequacy, the resource adequacy requirement and how and when the requirement can be and should be met.

The Capacity Margin Task Force, which spent two years developing the policies, expects that lowering the planning reserve margin (PRM) from 13.6% will reduce SPP's capacity needs by about 900 MW and save members $1.35 billion over 40 years. (See *SPP to Cut Planning Reserve to 12%, Reduce Capacity Needs by 900 MW*.)

The policies will become effective this summer pending final approval from the Regional State Committee and the Board of Directors/Members Committee next week and a filing at FERC, with the exception of the resource adequacy assurance policy, or the enforcement mechanism. That policy requires entities short on their PRMs to make payments to entities with excess capacity, based on forecast information.

The RTWG suggested using 2017 as a trial run.

A deliverability study is currently being prepared for the summer. It gives load-responsible entities another option to use "deliverable" capacity on a short-term basis for meeting their planning requirements, instead of requiring firm transmission service. Firm service is still required for load and available for PRM capacity.

Richard Ross | © RTO Insider

"This is a super set of work by the task force and the RTWG, and we need to move forward with it," American Electric Power's Richard Ross said. "If somebody needs to fix something, they can prepare a revision request and send it through the [stakeholder] process."

Tenaska cast the lone dissenting vote against the measure, while nine other members abstained. Eight members abstained when the revision was voted out of the RTWG.

The policies were established by the Capacity Margin Task Force, which then turned the work of drafting a revision request over to the RTWG. The working group estimated that it spent 93 meeting hours on its work, with 20 to 25 attendees at every meeting.

Regional Cost Allocation Remedies Rejected

Ross said he would use the same stakeholder process to appeal the MOPC's rejection of a business practice that documents the potential Regional Cost Allocation Review (RCAR) remedies and clarifies the process to be used when implementing a remedy.

The measure failed when it received only 58.5% favorable votes, against 17 opposing votes and 12 abstentions.

Ross said he would take his appeal to the board next week.

"I'm comfortable where it is, personally, for my company," Ross told the Strategic Planning Committee on Thursday. "But we shouldn't kill it at that stage without other [Regional State Committee] members and the directors having a chance to weigh in on it."

Originally written as a Tariff revision and rejected by FERC over a lack of detail, RR 155 outlines the processes for analyzing, approving and implementing potential remedies for transmission-pricing zones that fall below the RCAR process's approved threshold.

Several working groups passed the revision request, but with opposition. Some stakeholders felt the practice was "deficient" in how remedies would be implemented, Ross said. The remedies include accelerating planned upgrades, zonal transfers to offset costs or a lack of benefits to a zone, and changing cost-allocation percentages.

"The major concern was if it's put in the Tariff, it would simply be implemented without an ability to object," Ross said. "Putting it in a business practice should not take away the rights to object at FERC."

"Turning it into a business practice remains our major opposition to this," said Southwestern Public Service's Bill Grant. "We protested this at FERC. We don't think it's needed. We would prefer going through the regular planning process and if there's a solution there, to go forward with it."

Speaking for the city of Springfield, Mo., which has been hampered by a low benefit-to-cost ratio in its zone, Jeff Knottek said he would support the measure.

"This language has been around for a number of years," said Knottek, the city's director of transmission planning and compliance. "We're putting our trust in the process and hopefully we'll get some relief with the transmission-expansion process."

Variable Demand Curve Approved

The MOPC endorsed the Market Working Group's (MWG) revision request to use a variable demand curve that moves SPP toward "a more robust valuation of regulation and operating reserve" and more accurately addresses and values operating and energy shortages during scarcity events.

Ross, the MWG's chair, said RR 198 would mitigate stakeholder concerns related to FERC Order 825, which established settlement interval and shortage-pricing requirements for organized markets.

Golden Spread Electric Cooperative's Mike Wise cast the lone opposing vote, once again expressing his concerns over SPP's use of reliability unit commitment to avoid scarcity pricing situations. Shell Energy abstained. (See "RUC, Shortage Pricing Practices Challenged," *SPP Board of Directors/Members Committee Briefs*.)

"It's a step in the right direction, but it's not

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SPP NEWS

Z2 Task Force Sees More Work in its Future

By Tom Kleckner

DALLAS — SPP stakeholders last week spent the remains of a meeting cut short by weather-related travel problems discussing staff and member solutions to the RTO's Z2 crediting process.

In the end, the Z2 Task Force came no closer to a solution to the albatross and decided to schedule monthly meetings in an effort to reach an April deadline for recommending improvements.

The task force was established last August and had hoped to present its findings to the Board of Directors and Markets and Operations Policy Committee in January or April of this year.

"We knew six months was aggressive," said Bruce Rew, SPP's vice president of operations and the group's staff secretary.

Stakeholders drilled down into two of the six options first presented by SPP staff in November: "reverse engineering" of the Z2 process and using incremental long-term congestion rights (ILTCRs). (See *Z2 Task Force Looks at Incremental Congestion Rights*.)

The task force also reviewed a proposal from Westar Energy that suggested modifying SPP's generator interconnection process and transmission service requests and incorporating financial hedging instruments. Westar also proposed revising the Tariff so that any proposed sponsored projects would be studied for inclusion in the planning process and possible selection for Tariff funding.

That suggestion did not seem to gain much traction with stakeholders.

Grant pointed out that Westar's plan would result in a separate process to secure annual revenue rights or transmission congestion rights. "I want to get back to being simple and not doing anything more than we need to do, because that's what got us into trouble," he said.

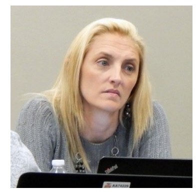
Under the SPP Tariff's Attachment Z2, staff is responsible for assigning members financial credits and obligations for sponsored upgrades. However, staff had not applied the credits for years dating back to 2008, complicating the task of trying to accurately compensate project sponsors and claw back money from members who owed debts for the upgrades.

Kansas City Power & Light's Denise Buffington, who chairs the task force, noted that each discussion on Z2 unearths new information previously unknown to the group.

"We're still trying to figure out what the universe looks like, and how to rate it," she said last week.

Staff's reverse-engineering proposal would remove short-term TCRs (less than one year) from the crediting process, although short-term revenues have declined substantially since the start of SPP's Integrated Marketplace. A second proposal over the long term would implement a standard credit payment rate for all creditable impacts, including both network and point-to-point reservations, should the Z2 process be terminated.

SPP also suggested using its current ILTCR process as a cost-recovery mechanism for upgrades with directly assigned upgrade costs (DAUC). To be eligible for the ILTCRs and megawatt capacities, upgrades would have to be sponsored with DAUC, create additional available transfer capability on a specific path and be the outcome of a study request.


Williams

"With Z2 credits, there's no question whether or not they're given," said NextEra Energy Resources' Aundrea Williams. "With ILTCRs, there's no certainty they'll be awarded. Z2 is the byproduct of a formula. There's still a possibility of not getting them as part of the auction. You would have to look at the overall pool of who gets what and what's eligible for a" generator interconnection.


McAuley

Oklahoma Gas and Electric's Greg McAuley suggested another option: not completely disregarding the "do-nothing option."

"I don't like Z2 either, but if there's enough confusion with these [proposals], I still think there's a problem," he said. "It's like the devil you know. We know this devil, and until we're sure that we have a viable option that isn't just as complex, or more so, we shouldn't dismiss the do-nothing option out of hand."

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far enough," Wise said. "SPP operations is mitigating all of this anyway. The inappropriate use of RUCing is destroying shortage pricing and pricing around intervals, which isn't allowing the correct market signals."

Responding to Wise, Ross said the MWG had listened to Golden Spread's concerns and those of others, and changed both the size and number of steps in the process. "It's best we move forward at this point," he said.

MOPC's Consent Agenda Endorses 10 Revision Requests

Stakeholders pulled a compliance-driven revision request from the consent agenda before unanimously passing the measure.

RR 195 simplifies the process of SPP's "data specification" document required by NERC Reliability Standards IRO-010-2 and TOP-003-3 and makes basic formatting changes to the RTO's operating criteria document.

SPP's Casey Cathey requested the revision be approved in order to begin making the formatting changes. He said staff's intention is to come back to the MOPC in April for final approval of the document.

The nine other revision requests on the MOPC's consent agenda, which passed unanimously, included:

- BPWG-RR122: Clarifies how the Tariff's re-dispatch costs are determined and settled through the Integrated Marketplace, deletes obsolete language and clarifies long-term congestion rights for service subject to re-dispatch, and updates the business practices to reflect current practices.
- ORWG-RR134: Clarifies previously

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SPP NEWS

FERC Won't Act on Montana Regulators in PURPA Dispute

By Amanda Durish Cook

FERC last week rejected Vote Solar's request that the commission reconsider its decision not to enforce the Public Utility Regulatory Policies Act against Montana regulators (EL16-117-001).

Vote Solar petitioned FERC in early December after the dismissal of its first complaint, which alleged that the Montana Public Service Commission violated the federal law when it allowed NorthWestern Energy to suspend its tariff for solar qualifying facilities pending an updated rate review. (See *FERC Rejects Complaint on Montana Solar; 2nd Case Pending*.)

The Montana PSC issued the suspension last June after the utility argued that QF rates for solar producers were 35% above avoided costs and that the 130 MW of planned solar projects in the utility's service area would place an undue burden on ratepayers.

The solar advocacy nonprofit said that NorthWestern was seeking to "undermine" PURPA and renewable generation.

The commission reiterated that it cannot direct the Montana PSC to take any action because state regulators are not FERC-jurisdictional public utilities subject to the Federal Power Act. The commission also said Vote Solar did not have standing to petition for enforcement because it was neither an electric utility nor a QF.

The commission rejected Vote Solar's contentions that FERC has the authority to issue a declaratory order against the Montana PSC through the Administrative Procedure Act and that the commission can bring an enforcement action pursuant to Section 210 of PURPA based on the nonprofit's complaint.

By granting Vote Solar's request, the commission said it would be acting *ultra vires* — beyond its authority.

Furthermore, the commission maintained that its choice not to act against the PSC is backed by the Supreme Court, which "has established the general rule that an agency's decision not to exercise its enforcement authority, or to exercise it in a particular way, is committed to its absolute discretion" under circumstances when their enforcement is not legally mandated.

"Because there is no legal requirement here to commence an enforcement action, there is thus no decision subject to legal error," the commission said. "Although Rule 206 of our Rules of Practice and Procedure permits 'any person' to file a complaint with the commission, our regulations cannot grant us more authority than the statute grants us."

Vote Solar said that FERC's original dismissal created a "framework wherein the commission can only take action against a state regulatory authority when asked to do so by a regulated party … [and] leaves the public without a path to seek relief from the commission when state regulatory authorities fail to implement PURPA properly and places the burden on electric utilities, qualifying cogenerators and qualifying small power producers as the only entities that can seek enforcement action."

The commission countered that Vote Solar is already an intervenor in a similar, separate complaint against the Montana PSC by North Carolina-based solar developer FLS Energy (EL17-5).

"Our dismissal of Vote Solar's complaint here did not foreclose Vote Solar's public participation in our proceedings," FERC said.

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ambiguous operating criteria language for the initial submission and subsequent updates of unit de-rate information in SPP's control room software system.

- BPWG-RR143: Retires a business practice that managed congestion through the re-dispatch of firm service, which became obsolete with the Integrated Marketplace.
- MWG-RR190: Corrects SPP's definition of residual transmission system capability by adding a missing variable in the protocols and clarifies that previous awards are considered in annual and monthly FTR allocations and auctions.
- MWG-RR191: Clarifies that there should not be a requirement to reprice the day-ahead and/or real-time markets for every data input/software error.
- MWG-RR192: Removes the Violation Relaxation Limits (VRL) report's quarterly reporting requirement, which is covered in greater detail through other means, such as monthly reports to the Market Working Group, the Market Monitoring Unit's annual State of the Market report and the Operations Annual VRL report.
- BPWG-RR194: Aligns network integration transmission service practices with the new OASIS functionality as of March 1, as required by FERC.
- RTWG-RR197: Completes the MMU's annual review of frequently constrained areas by updating the list of constraints and resources.
- MWG-RR199: Quarterly settlement clean-up clarifying how some of the calculations work and allowing market participants to better shadow the calculations.

The consent agenda also included several annual charter changes for some stakeholder groups. The committee pulled a request to make the Competitive Transmission Process Task Force — charged with improving SPP's FERC Order 1000 processes — a standing task force. MOPC Chair Paul Malone, with the Nebraska Power Public District, said he believed task forces should have a time limit and be folded into a working group should there still be a need for their work.

After a brief discussion, Grant, the group's chair, agreed to a two-year extension for the task force.

"Hopefully, once we've gone through one or two [Order 1000] processes, we'll have a good process," he said. "We've only had one [Order 1000] process, and until we have a couple more, don't be surprised if we don't ask to be extended for another couple of years."

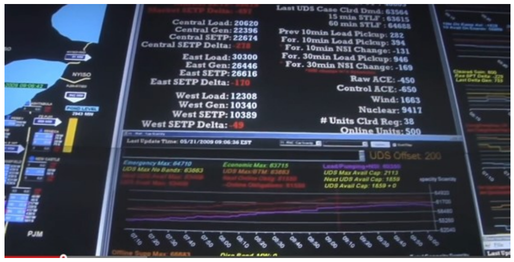
— Tom Kleckner

FERC NEWS

FERC OKs Rule on ACE Recovery; Proposes Standard on Remedial Schemes

By Rich Heidorn Jr.

FERC on Thursday approved a final rule on recovering from balancing contingency events and proposed a second rule to ensure that remedial action schemes do not compromise reliability.



Information screen showing ACE readings | *MISO*

Recovery from a Balancing Event

The final rule approves NERC reliability standard BAL-002-2, which seeks to ensure that balancing authorities and reserve sharing groups can use reserves to balance resources and demand to recover from system contingencies and restore their area control error (ACE) to pre-contingency levels (RM16-7).

In response to opposition from NERC, the Edison Electric Institute and most RTOs and ISOs, the commission backed off from a proposal that would have required reliability coordinators to authorize extensions of the 15-minute ACE recovery period.

In its Notice of Proposed Rulemaking in May, the commission said it was unclear how an entity would prepare for a second contingency during the extension under NERC's proposal. A balancing authority operating out-of-balance for an extended period of time is "leaning on the system" by relying on external resources, which could affect other entities within an interconnection, the commission said.

EEI and the RTOs said that the requirement "would result in unnecessary duplication of requirements adding no tangible benefit to reliability while needlessly increasing the compliance burden."

Instead, the commission's final rule adopts a proposal by Arizona Public Service requiring only that an entity that is unable to recover ACE because of a second disturbance inform the reliability coordinator and provide it with a recovery plan.

The commission also approved NERC's proposal that demand-side resources that are technically capable be included as contingency reserves.

Remedial Action Schemes NOPR

The commission also approved a NOPR backing NERC reliability standard PRC-012-2, which is designed to ensure that remedial action schemes (RAS) do not introduce "unintentional or unacceptable" reliability risks (RM16-20).

The standard defines an RAS as a plan to detect abnormal system conditions and automatically take corrective actions — such as tripping generation or load, or reconfiguring a system — to maintain stability and limit the impact of cascading events.

The NOPR also would withdraw pending standards PRC-012-1, PRC-013-1 and PRC-014-1 and retire standards PRC-015-1 and PRC-016-1.

The commission solicited comment on a proposed clarification that the new standard will not supersede system performance obligations under reliability standard TPL-001-4, which limits "non-consequential load loss" to 75 MW for certain contingencies.

Rehearing Denied on GMD Rule

FERC also rejected rehearing requests by EEI and others on its September order requiring grid operators to assess and protect against the threat of geomagnetic disturbances (RM15-11-001). (See *FERC Approves GMD Reliability Standard*.)

EEI had challenged the standard's (TPL-007-1) implementation plan, saying it failed to account for the impacts of changes to the definition of a benchmark GMD event.

The commission said EEI's concern was "premature."

"At this time, the commission has no way of knowing what impacts the modified benchmark GMD event definition may have on the approved implementation plan because NERC has not yet developed or proposed a revised" definition, FERC said. It added that NERC may propose a longer implementation plan if needed as a result of a revised definition.

Storage Can Earn Cost- and Market-Based Revenues, FERC Says

Continued from page 2

such as transmission-dependent utilities while also making off-system market-based rate sales to others," the commission said. "If we were to deny electric storage resources the possibility of earning cost-based and market-based revenues on the theory that having dual revenue streams undermines competition, we would need to revisit years of precedent allowing such concurrent cost-based and market-based sales to occur."

In her dissent, LaFleur said she disagreed with Bay and Honorable's "sweeping conclusions."

"The policy statement summarily dismisses concerns regarding the impact of such arrangements on market competition and leaves far more than just 'implementation details' to be worked out," she wrote. "Indeed, the policy statement provides no guidance on how the commission could evaluate whether a particular filing under Section 205 of the Federal Power Act successfully avoids adverse market impacts."

RTO Independence

The commissioners acknowledged that storage resources must maintain the necessary state of charge to provide their cost-based services when called on by the RTO.

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FERC NEWS

Storage Can Earn Cost- and Market-Based Revenues, FERC Says

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"But, assuming this priority need is reasonably predictable as to size and the time it will arise each day, the electric storage resource should be permitted to deviate from this state of charge at other times of the day in order to provide other, market-based rate services," the statement said. "In situations where this premise does not hold … the cost-based rate service may be the only service that the electric storage resource could provide."

The statement also said that RTO dispatch of storage resources to provide cost-based service should take priority over the resource's provision of market-based services. Performance penalties could be imposed on resources that fail to deliver when called on, it said.

"We further provide guidance that the provision of market-based rate services should be under the control of the electric storage resource owner or operator, rather than the RTO/ISO, to ensure RTO/ISO independence. In other words, while the RTO/ISO always performs the actual optimization of resources participating in the organized wholesale electric markets, during periods when the electric storage resource is not needed for the separate service compensated at cost-based rates, the RTO/ISO would rely on offer parameters provided by the electric storage resource owner or operator for such operation, just as the RTO/ISO does with other market participants."

LaFleur's Concerns

In addition to her procedural concerns, LaFleur said she worried that the policy statement "could be read to reflect the commission's views about the impact of multiple payment streams on market pricing more generally, thus implicating broader regional discussions on state policy initiatives and their interaction with competitive markets."

"These issues, which are currently being discussed by several RTO/ISOs and their stakeholders, will require careful and holistic consideration to ensure that policy advancements can be achieved while the benefits of competition are preserved for customers," she said.

Storage Grid Domains (Grid Interconnection Point)	Regulatory Function	Use-Case Examples
Transmission-Connected	Generation/Market	(Co-Located Energy Storage) Concentrated Solar Power, Wind + Energy Storage, Gas Fired Generation + Thermal Energy Storage
		(Stand-Alone Energy Storage) Ancillary Services, Peaker, Load Following
	Transmission Reliability (FERC)	Voltage Support
Distribution-Connected	Distribution Reliability	Substation Energy Storage (Deferral)
	Generation/Market	Distributed Generation + Energy Storage
	Dual-Use (Reliability & Market)	Distributed Peaker
Behind-the-Meter	Customer-Sited Storage	Bill Mgt/Permanent Load Shifting, Power Quality, Electric Vehicle Charging

Energy storage uses by domain | *California PUC*

"Storage is an important and promising resource that warrants commission attention to ensure that our markets are appropriately adapted to recognize storage's unique characteristics and contributions. However, efforts to accommodate these resources should not come at the expense of careful market design after full public participation."

FERC Proposes More Transparency, Cost Causation on Uplift

Continued from page 1

Lack of Transparency

"The lack of transparency regarding uplift and operator-initiated commitments, which can cause uplift, hinders market participants' ability to plan and efficiently respond to system needs," the commission said. "Market participants may lack the information necessary to evaluate the need for and value of additional investment, such as transmission upgrades or new generation. Also, without sufficient transparency, market participants may not be able to assess each RTO's/ISO's operator-initiated commitment practices and raise any issues of concern through the stakeholder process."

Generators receive uplift payments when their production costs exceed their energy and ancillary services revenues. Last week's order focuses on one of the main causes of uplift: deviations between the day-ahead and real-time market that can force operators to commit additional units. This can result from generators delivering less energy in real time than their day-ahead offers or real-time loads exceeding expectations.

Although all RTOs and ISOs use some form of beneficiary pays or cost-causation principles to allocate uplift, their methods "vary significantly, both in terms of granularity and the exemption of certain types of transactions," the commission said. "The definition of what precisely constitutes a deviation also varies across RTOs/ISOs."

Some RTOs also fail to consider how deviations affect uplift costs. "Deviations from day-ahead market schedules that create the need for additional resource commitments in real-time tend to increase real-time uplift costs. On the other hand, deviations can also contribute to the convergence of the day-ahead and real-time markets," the commission said.

"Allocating costs to deviations that did not cause the costs to be incurred may inappropriately penalize certain types of transac-

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FERC News

FERC Proposes More Transparency, Cost Causation on Uplift

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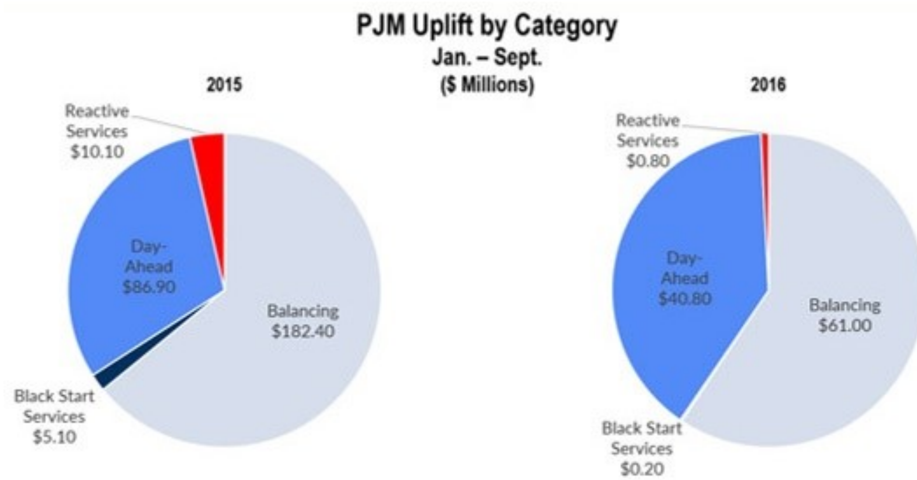

Balancing charges (canceled resources, generators, imports, load response, local constraints control and lost opportunity cost) were responsible for 59% of all uplift in PJM in the first nine months of 2016. The top 10 generators received 35.4% of all uplift and the top 10 organizations received 77% during the period. PJM's Independent Market Monitor has long advocated disclosing the recipients of uplift payments, something that FERC's recent NOPR would require monthly. | *Monitoring Analytics*

tions that are beneficial to price formation," the Office of Energy Policy and Innovation's Stanley Wolf said in a presentation at Thursday's commission meeting, which was closed to the public because of concerns about disruptions by anti-pipeline activists.

'Helping' and 'Harming' Deviations

The NOPR requires RTOs and ISOs to separate uplift costs assigned to deviations into at least two categories based on their causes: congestion management or systemwide capacity, a catch-all for any other deviations made to meet the system's energy needs. The commission said categorization would ensure the costs are allocated more precisely to the participants that caused the uplift. The NOPR gives RTOs flexibility to create additional categories.

Grid operators would also be required to distinguish between deviations that help or harm their systems. Generators would be assigned uplift costs based on the net of their "harming" deviations — the total amount of deviations minus their "helping" deviations.

FERC said that any actions generators take in response to dispatch instructions should not be considered deviations. Also excluded would be transactions economically evaluated by RTOs in real time, such as the coordinated transaction scheduling between PJM and its neighbors NYISO and MISO.

The commissioners said they were inclined to exclude instructed deviations from the "help" category but asked for stakeholders' comments on the issue.

RTO Requirements

The commission also proposed several requirements to increase transparency into uplift cost allocation and the decision-making of grid operators, noting that while all RTOs and ISOs release some information, "there is significant variation in the timing, granularity and types of data released."

RTOs and ISOs would be required to:

- Report total uplift payments for each transmission zone, separated by day and uplift category;
- Report total uplift payments for each resource monthly;
- Report megawatts of operator-initiated commitments in or near real time and after the close of the day-ahead market, broken out by transmission zone and the reason for the commitment; and
- Define in their tariffs the transmission constraint penalty factors, how those factors can set LMPs and the process by which they can be changed. Transmission constraint penalty factors are the values at which an RTO will relax the flow-based limit on a transmission element to relieve a constraint rather than re-dispatch resources.

"The proposed transparency reforms will help market participants understand the operational constraints on the system, plan and efficiently respond to system needs, and evaluate the need for and value of additional investment," FERC said.

"While uplift is not constituting a large proportion of total costs and is unavoidable to some extent, I think RTO/ISO stakeholders and the commission should strive to minimize uplift when and where possible because uplift is unhedgeable, lacks transparency and, if not allocated properly, can encourage inefficient behavior," Chairman Norman Bay said.

The NOPR only addresses uplift costs incurred because of deviations. RTOs may also pay uplift for reliability reasons, such as stand-by costs, or inaccurate load forecasting.

"We note that the commission is not proposing to require RTOs/ISOs to allocate any amount of uplift costs to deviations; rather we are simply proposing reforms to uplift cost allocation to deviations to the extent an RTO/ISO chooses to allocate some uplift costs to deviations," FERC said.

Comments on the NOPR are due no later than 60 days after its publication in the *Federal Register*.

Previous orders in the commission's price formation initiative concerned fast-start resources, shortage pricing and the alignment of settlement and dispatch intervals and a doubling of the "hard" energy offer cap. (See *FERC: Let Fast-Start Resources Set Prices*.)

Perry Regrets Calling for Ending DOE; Says Climate Changing

By Rich Heidorn Jr.

WASHINGTON — Former Texas Gov. Rick Perry said Thursday he regrets calling for an end to the Department of Energy and is now "excited and passionate" about leading the agency as secretary.

Perry — who famously forgot the department's name when he called for its abolition during a presidential debate five years ago — addressed the issue in his opening remarks during his confirmation hearing before the Senate Energy and Natural Resources Committee.

Perry also joined President Trump's nominees for the Interior Department and EPA in saying he believes climate change is real and that manmade activity is a contributor — but that the degree of man's impact and the proper response remain under debate.

Perry's solicitous, self-deprecating manner occasionally brought laughs from senators and the audience, a contrast to the tense hearing a day before for Oklahoma Attorney General Scott Pruitt, Trump's nominee for EPA. But Democrats nevertheless pressed Perry on his contention that climate science remains unsettled. (See *Dems Unmoved by EPA Pick's Charm Offensive*.)

Budget Cuts?

Perry also appeared caught off guard when Democrats on the panel asked him about a report by *The Hill* that the Trump transition team plans to eliminate the Energy Department's offices of Electricity and Energy Efficiency and Renewable Energy (EERE), along with the Office of Fossil Energy, which has overseen research on reducing CO_2 emissions. Funding for nuclear physics and advanced scientific computing research would be reduced to 2008 levels, according to the report.

In his opening statement, Perry said his view on the department's value had evolved after being briefed on its "vital functions."

Democrats said the proposed budget cuts would threaten the research programs Perry claimed to now support.

Surrounded by aides and security, Rick Perry leaves the hearing room. | © *RTO Insider*

"It's hard to see how we can pursue an 'all of the above' [energy] strategy if so much of the department's all-of-the-above capabilities are limited," said Sen. Mazie Hirono (D-Hawaii).

"They're cutting the legs out from under you," said Sen. Angus King (I-Maine).

"I can't answer whether that's true or not," Perry said of the news report. "I will be in the room advocating for [DOE research]. I'm not going to tell you I'm going to be 1,000% successful."

Later, Perry said he would evaluate the worth of department programs as a "fiscal conservative," saying "you can't change the stripes on this zebra."

Committee Chair Lisa Murkowski (R-Alaska) said in her opening remarks that she was not concerned that Perry, unlike his two immediate predecessors, is not a scientist. "What we need is a good manager," she said.

'Climate is Changing'

The hearing returned several times to Perry's new position on climate change. Democrats noted that Perry had previously been dismissive, claiming in 2011 that scientists were manipulating data for financial gain and contending as recently as 2014 that there was no "settled science" on the subject.

"I believe the climate is changing. I believe some of it is naturally occurring, but some of it is also caused by manmade activity," Perry said in his opening statement. "The question is how do we address it in a thoughtful way that doesn't compromise economic growth, the affordability of energy or American jobs. … I am committed to making decisions based on sound science and that also take into account the economic impact."

Hirono asked if his economic analysis would include the costs of not addressing climate change.

"Absolutely," Perry responded, citing the emission reductions and wind development that occurred in Texas during his 14 years as governor. Perry, however, rejected Hirono's call for a national renewable portfolio standard, saying he would leave such targets to states.

Sen. Al Franken (D-Minn.) attempted unsuccessfully to pin Perry down on what share of global warming is manmade, noting data released by the National Oceanic and Atmospheric Administration Wednesday that 2016 was the hottest year on record, surpassing records set in 2015 and 2014.

"Ninety-seven percent of climate scientists say that this is real," Franken said. "So it seems to me that the science on climate change is pretty definitive."

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Zinke: Climate Change Real, but Coal, Gas Production Should Continue

By Rich Heidorn Jr.

WASHINGTON — President Trump's nominee to head the Interior Department told a Senate panel last week that climate change is real but that he would continue to allow fossil fuel production on public lands.

"We need an economy and jobs, too," Rep. Ryan Zinke (R-Mont.) told the Senate Energy and Natural Resources Committee during a nearly four-hour confirmation hearing. The former Navy Seal attempted to steer a path between climate deniers and fossil fuel opponents, citing President Theodore Roosevelt as a model and calling for continuation of an "all of the above" approach to energy production.

Sanders

Sen. Bernie Sanders (I-Vt.) asked Zinke whether he agreed with Trump, who has called climate change a "hoax."

"I don't believe it's a hoax," Zinke responded.

"The climate is changing. That's undisputable. [My district includes] Glacier National Park. I've seen glaciers over the period of my time recede," Zinke said. "Man has had an influence. I think that's undisputable as well … I think where there's debate on it is what that influence is and what can we do about it."

"There is a debate on this committee but not within the scientific community," Sanders interrupted, before asking whether the U.S. should continue to allow fossil fuels to be produced on federal land.

Zinke

Zinke said it is preferable to produce energy domestically, "under reasonable regulations," rather than depend on foreign energy production without environmental rules.

'War on Coal'

In response to a question from Sen. John Barrasso (R-Wyo.), Zinke pledged to reverse the Obama administration's moratorium on coal mining on federal lands.

"The war on coal I believe is real," he said. "The moratorium, I think, was an example of one-size-fits-all [policy]. It was a view from Washington and not a view from the states."

He called for investing in research and development on coal. "We know we have the asset. Let's work together to make it cleaner, better. We should be leading the world in clean energy technology and I'm pretty confident that coal can be a part of that," he said. "But it is about science. It is about investing in our future and not looking at our past."

Zinke also promised to support Barrasso's plan to use the Congressional Review Act to overturn the Bureau of Land Management's Nov. 15 rule regulating venting and flaring rule of natural gas.

Zinke said he was troubled by the volumes of natural gas vented during production. "The amount of venting in North Dakota alone almost exceeds what we get out of the fields. A lot of the wasting can be [eliminated] by having the infrastructure [to capture it]. So let us build a system where we capture that energy that's otherwise being wasted. That's an enormous opportunity."

Mining Restoration

Ranking member Sen. Maria Cantwell (D-Wash.) pressed Zinke on whether he would support an end to current policy allowing

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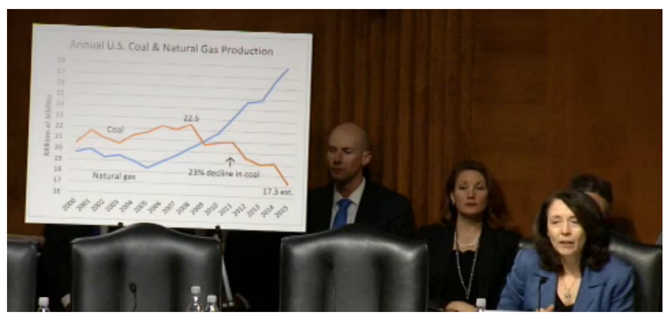


Cantwell displays a chart showing annual U.S. coal (red) and natural gas production (blue).

Perry Regrets Calling for Ending DOE; Says Climate Changing

Continued from page 30

Perry also received pleas for help from coal state Sens. Joe Manchin (D-W.Va.) and Steve Daines (R-Mont.). Daines decried plans to close two of the coal-fired Colstrip plant's four units by 2022. He said EPA's Clean Power Plan will eliminate 7,000 jobs in his state and turn it from an energy exporter to an importer.

Perry responded that he is confident that scientists will develop carbon capture technology ensuring the continued use of coal.

WAPA, LNG and Yucca Mountain

Senators sought commitments from Perry on an assortment of other issues during the nearly four-hour hearing.

Sen. Jeff Flake (R-Ariz.) called for more transparency regarding spending by the department's Western Area Power Administration. The House Committee on Oversight and Government Reform is looking at a $767 million surplus at the power marketing administration to see if it should have been used to reduce rates.

Maine's King expressed fear that U.S. natural gas prices will increase if the government allows increasing exports of LNG.

Perry said he would commit to not "artificially affecting supply and demand" and suggested EPA and Interior Department regulations were constricting gas supplies. "It makes abundant good sense to me to sell it to the world," he said.

Sen. Catherine Cortez Masto (D-Nev.) sought assurances that Perry would not back a resumption of plans to create a nuclear waste dump in Yucca Mountain near Las Vegas. Perry pledged to consider alternatives but added: "I will not say absolutely no way is Nevada going to be receiving high-level waste."

Dems Unmoved by EPA Pick's Charm Offensive

By Rich Heidorn Jr. and Michael Brooks

WASHINGTON — President Trump's nominee to head EPA attempted to assuage skeptical Democrats on Wednesday, insisting he will enforce environmental rules and seeks only to ensure predictable regulation that respects states' jurisdiction.

"People of this country are hungry for change," Oklahoma Attorney General Scott Pruitt told the Senate Environment and Public Works Committee during his six-hour confirmation hearing. He said he would seek to end a "false paradigm that if you're pro-energy you're against the environment."

But the panel's Democrats were critical of the nominee, accusing him of being too cozy with fossil fuel producers. Sen. Bernie Sanders (I-Vt.) said he would oppose Pruitt's confirmation as EPA administrator and most of the others appeared likely to join him.

Pruitt needs a simple majority to clear the committee — which Republicans control 11-10 — and the full Senate, where the GOP holds a 52-48 edge (including two Independents who caucus with the Democrats).

The Democrats cited Pruitt's campaign contributions from the oil and gas industry and his 14 lawsuits against EPA as attorney general, including challenges to the agency's Clean Power Plan, Cross State Air Pollution rule (CSAPR), the Mercury and Air Toxics Standards, regional haze rule and emission regulations on new power plants.

Ranking member Sen. Tom Carper (D-Del.) quoted former Republican EPA chief Christine Todd Whitman, who has said Pruitt is "disdainful of the agency and the science behind what the agency does."

Pruitt's Republican supporters said he would address the agency's "overreach." Chairman John Barrasso (R-Wyo.) followed up each round of questions by Democrats by quoting Oklahoma environmental officials and news editorials endorsing Pruitt's appointment.

Pruitt opponents lined up outside the hearing room, some wearing surgical masks with "Stop Pruitt" stickers. A few opponents got into the room and briefly interrupted the hearing on two occasions. Helmet-wearing coal miners also attended the hearing in support.

Pruitt | © *RTO Insider*

Climate Change not a 'Hoax'

As Trump's Interior Department nominee had done in his confirmation hearing Tuesday, Pruitt said he did not agree with the president's claim that climate change is a "hoax" by the Chinese. (See Zinke: Climate Change Real, but Coal, Gas Should Continue.)

Pruitt, who has led a legal fight by states against EPA's Clean Power Plan, said climate change is real but that the impact of human activities and how to fix it are subject of "continued debate and dialog."

"I do not believe climate change is a hoax," he said under questioning by Sen. Ed Markey (D-Mass.).

Pruitt acknowledged the Supreme Court's finding in *Massachusetts v. EPA* that carbon dioxide was a pollutant under the Clean Air Act. "I think the court has spoken very emphatically about this issue, and the EPA has a legal obligation to respond," he said.

But he clearly did not share Democratic

Continued on page 33

The audience for Pruitt's confirmation hearing included helmet-wearing coal miners and red-shirted members of Moms Clean Air Force. | © *RTO Insider*

Zinke: Climate Change Real, but Coal, Gas Production Should Continue

Continued from page 31

surface coal mine operators to "self-bond" for their obligations to reclaim lands. She cited a Government Accountability Office report released Tuesday that found all other energy and mineral producers on federal lands — mineral mines, onshore oil and gas drilling and wind and solar production — are required to purchase third-party bonds.

"I think bonding is important," Zinke answered. "I think we need to have the courage today to look 100 years forward [so we can] look back and say we did it right."

"Well, I hope that was a great endorsement of the stream protection rule," Cantwell responded, smiling. The rule, issued by the Interior Department on Dec. 19, requires coal companies to restore their land to its condition before mining began, an effort to prevent mining debris from contaminating streams. It, too, is a target for Congressional repeal. (See Cost Trends Favor Renewables Despite Coming Policy Shifts.)

Sen. Al Franken (D-Minn.) questions Zinke.

Dems Unmoved by EPA Pick's Charm Offensive

Continued from page 32

senators' sense of urgency over climate change, repeatedly calling it "the CO_2 issue" and declining to rank its priority against other areas under the agency's oversight. "The EPA deals with very weighty issues … water and air quality. It's a matter of prioritizing resources to achieve better outcomes in each."

He said he challenged the CPP because the agency created emission limits that coal-fired generators can't meet — thus requiring a switch to other generation sources and exceeding its authority to regulate "inside the fence line."

Pruitt also defended his lawsuits against EPA as efforts to ensure the agency implements its policies in accordance with law. His challenge to the CSAPR rule, he said, was not to the agency's authority but to its implementation of penalties in excess of states' "allocated share" of emissions.

"They [EPA] need to follow the processes set up by Congress," he said, arguing that the agency has created uncertainty among those to which its rules apply.

"There are many laws that people look at and say, 'Well I don't really like that,' but so long as they know what's expected of them, they can plan and allocate resources to comply."

Republicans joined Pruitt in his critique. Sen. Roger Wicker (R-Miss.) said the CPP would "put us out of business" because his state has little alternative to coal-fired power.

The D.C. Circuit Court of Appeals, which heard arguments on the challenges to the CPP in September, has yet to issue a ruling. Regardless of the outcome, an appeal to the

Coal miners outside the hearing room. | © RTO Insider

Supreme Court is likely. (See Analysis: No Knock Out Blow for Clean Power Plan Foes in Court Arguments.)

Markey called on Pruitt to recuse himself as EPA administrator from any lawsuits he filed as attorney general, including against the Clean Power Plan. Otherwise, he said, Pruitt would be "plaintiff, defendant, judge and jury."

Pruitt said he would consult with EPA's ethics counsel on a case-by-case basis on recusals.

Sanders took on Pruitt's contention that there remains doubt about the cause of climate change and the conclusion that fossil fuel use must be reduced to address it.

Sanders also asked Pruitt what actions he had taken as attorney general to address the spike in earthquakes in his state, which has been linked to underground injection of fracking wastewater. Pruitt said fracking is regulated by the state Corporation Commission and acknowledged he had not filed any enforcement cases over the practice. "If that's the kind of EPA administrator you're going to be, you're not going to get my vote," Sanders responded.

Later, in response to a question from Sen. Ben Cardin (D-Md.) about the issue, Pruitt

Opponents outside the hearing room | © RTO Insider

defended his state's response to the earthquakes. He noted the commission had declared certain areas of the state off-limits to fracking, calling its actions "aggressive" and that they've helped reduce the number of quakes.

Doing Industry's Bidding?

Sen. Jeff Merkley (D-Ore.) pressed Pruitt on a 2014 article in *The New York Times* that reported Pruitt sent letters to EPA and other federal officials — on state government stationary and signed by him — that had been authored by oil and gas companies. One 2011 letter he sent to EPA that accused federal regulators of overestimating the air pollution caused by natural gas drillers in Oklahoma, for example, was almost entirely written by Devon Energy, one of his state's biggest gas producers. "You used your office as a direct extension of an oil company," Merkley said.

Pruitt insisted the letter was "representing the interests of the people of Oklahoma." He noted that the oil and gas industry is responsible for one-quarter of the state's budget.

Sen. Sheldon Whitehouse (D-R.I.) said Pruitt's version of federalism — which the nominee described as "national standards, neighborhood solutions" — would leave his state powerless to combat ozone pollution from other states. "Because those smokestacks are out of state, we need EPA to help us," he said.

Sen. Cory Booker (D-N.J.) pointedly asked Pruitt whether he knew how many Oklahoman children had asthma, which is linked to air pollution. Pruitt acknowledged he did not. Booker said the American Lung Association puts the total at 110,000 — more than 10% of the state's children — which he said was one of the highest rates in the U.S.

Pruitt | © RTO Insider

Company Briefs

Puget Sound, Talen May Speed Up Closure of Colstrip Plant

Puget Sound Energy may be partially closing its aging coal-fired Colstrip power plant earlier than planned depending upon the actions of co-owner Talen Energy and Montana lawmakers, according to documents released by the Washington Utilities and Transportation Commission.

Puget Sound, which has a 50% share of Colstrip Units 1 and 2, reached an agreement last year with environmentalists to close the units by 2022. However, Talen wants to end its role as Colstrip's operator by mid-2018, and that would accelerate closure, Puget Sound representatives told the Washington commission.

A proposed wholesale energy tax increase before the Montana Legislature intended to help the community recover from an early closure also could fast track the date, they said.

More: *The Associated Press*

Exelon Appealing Tax Assessment For Byron Generating Station

Exelon has filed an appeal of a $546 million tax assessment for its Byron Generating Station in Illinois, claiming the assessment is about 48% too high. The appeal of the 2016 assessment, made to the Ogle County Board of Review, claims the value is $295 million.

County Supervisor of Assessments Jim Harrison set the plant's value at $64 million more than the previous year's assessment because Exelon in late 2015 successfully renewed its licenses for its two reactors for more than 20 years.

Exelon filed appeals each year from 2012 to 2015 and then appealed the county board's decisions to the Illinois Property Tax Appeal Board. That board held a hearing on the 2012 appeal in the spring but has not yet issued its ruling. Hearings have not yet been set for Exelon's other appeals.

More: *saukvalley.com*

PEPCO Agrees to $1.6M Penalty For Pollution of Anacostia River

Potomac Electric Power Co. has agreed to pay a $1.6 million penalty and to take steps to reduce toxic contamination of the Anacostia River to settle a 2015 federal lawsuit alleging violations of the Clean Water Act.

The suit alleged that runoff from a PEPCO service center in D.C. contained excessive levels of metals, including copper, zinc, iron and nickel, and total suspended solids.

The federal district court will take public comments on the proposed consent decree for 30 days before deciding whether to accept it.

More: *Bay Journal*

Xcel to Launch Renewable Energy Pilot Program in Minn.

Xcel Energy will launch a new program later this year that will allow Minnesota customers to subscribe to wind and/or solar power produced in the state.

Under the Renewable*Connect program, customers will get to choose how much energy they wish to subscribe to and for how long.

"Renewable*Connect will provide an easy and affordable option for Minnesotans to tap into renewable energy to achieve their sustainability goals and reduce their carbon footprint," said Chris Clark, president of Xcel Energy-Minnesota.

More: *Solar Industry*

Idaho Power CEO Speaks of Green Energy Commitment

Anderson

Idaho Power is shifting toward renewable energy sources and reducing its carbon footprint, but the company won't be able to leave carbon completely, according to Darrel Anderson, president and CEO of IDACORP and Idaho Power.

As evidence of the utility's commitment to green energy, Anderson cited its Community Solar Pilot Program, in which participants can buy a subscription to output from a solar array that is slated to be completed in June and receive a monthly bill credit based upon how much electricity the array generates.

The utility also plans to close in 2020 a coal-powered plant it co-owns in Boardman, Ore., and is taking steps to reduce carbon emissions in two other coal plants it co-owns. Anderson also cited the utility's 17 hydroelectric plants along the Snake River and its tributaries as part of its green energy focus.

More: *Idaho State Journal*

Duke Touts its 500 MW Of Added Solar in NC

Camp Lejeune solar facility | *Duke*

Duke Energy interconnected 500 MW of solar capacity in North Carolina, the company announced.

The company built 100 MW of capacity itself, while it purchased the other share from other developers, it said. It is seeking to buy another 400 MW this year, while its 60-MW Monroe Solar Facility in Union County will also begin operations.

More: *Duke Energy*

FEDERAL BRIEFS

FERC Closes Open Meeting to the Public

Police officers chat outside FERC headquarters before the commission's open meeting | © *RTO Insider*

FERC on Thursday was closed off to the public, with only staff and members of the press allowed to attend its open meeting.

Chairman Norman Bay said a planned rally by several dozen environmental protesters led to the closure. "If a significant number of protesters came to our meeting, I think that that would have presented some safety concerns," Bay said. Protesters gathered outside headquarters around 10:30 a.m., shortly before the meeting's delayed beginning at around 10:40, but they had dispersed by the time the meeting and Bay's press conference ended around 12:40. Bay declined to say the reason for the delay.

This is the second time that FERC has closed its monthly meeting to the public. Bay said the commission was still in compliance with the Government in the Sunshine Act, as it was broadcast over the Internet.

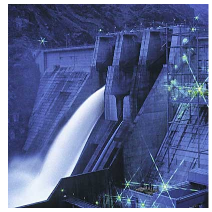
Bay: Trump Transition Team Visited FERC

FERC Chairman Norman Bay told reporters on Thursday that the transition team for President Trump had visited the commission's headquarters the week prior in a series of meetings with commissioners and senior staff.

"I very much respect the prerogative of the president and am committed to doing what I can to ensure as smooth and as professional a transition at FERC for his appointees," Bay said. He declined to discuss the content of the discussions but called them "positive and productive."

Bay was also asked about his future plans with the commission, which he also declined to talk about.

FERC Declines to Negate Oregon Fish Law



Hells Canyon Complex, the subject of Idaho Power's desired exemption

FERC last week rejected a petition by Idaho Power to exempt it from an Oregon law that requires fish passage and reintroduction as part of relicensing for a hydroelectric project on the Snake River (P-1971-079).

Idaho Power sought the exemption because the Idaho Legislature has passed a law prohibiting moving fish up the river, which forms part of the border between the two states, without the state's permission. The utility argued that the Supremacy Clause of the Constitution gave FERC authority to pre-empt the Oregon law, but the commission said it found conflict between state and federal law.

"We're still stuck between the state of Oregon and Idaho with their conflicting positions," Idaho Power spokesman Brad Bowlin said.

More: *The Associated Press*

CFTC Designates Giancarlo Acting Chairman

Giancarlo

Commissioner J. Christopher Giancarlo was designated acting chairman of the U.S. Commodity Futures Trading Commission on Friday. He succeeds Timothy Massad, who had served as chairman since June 5, 2014.

Giancarlo joined the commission on June 16, 2014, after receiving unanimous confirmation from the Senate.

More: *CFTC*

Aitan Goelman to Leave CFTC Enforcement Director Post

Goelman

Commodity Futures Trading Commission Chairman Timothy Massad announced Thursday that Division of Enforcement Director Aitan Goelman will leave the agency on Feb. 3, 2017.

Goelman's tenure was marked by a number of first-in-kind cases utilizing new enforcement authorities created by the Dodd-Frank Wall Street Reform and Consumer Protection Act, according to the commission.

The division also imposed more than $7 billion in sanctions against a range of defendants, it said.

More: *CFTC*

Federal Data: Electricity Prices in NE Exceed National Average

New England households paid 47% more for their electricity in December than the national average, according to data released by the Bureau of Labor Statistics.

According to the data, Boston-area households paid an average of 19.5 cents/kWh for electricity, compared with the national average of 13.3 cents.

The bureau also found that Boston-area households paid 28% or more than the national average for natural gas in December for each year from 2012 through 2016.

More: *The Republican*

Largest Onshore Wind Project Scores 2 Approvals

Power Company of Wyoming LLC

After a decade of government review, the Chokecherry and Sierra Madre wind project in Wyoming scored two critical federal approvals that could allow its first turbines to be erected in 2018.

Last week, the Bureau of Land Management approved the project's 500-turbine first phase. Additionally, the Fish and Wildlife Service approved permits allowing a limited number of eagle nests to be disturbed and 14 golden eagles and two bald eagles to be killed per year before the project owner, Power Company of Wyoming, faces penalties.

The project, which is the largest onshore wind development in progress in the U.S., will have up to 1,000 turbines and generate 3 GW of electricity when completed.

More: *The Associated Press*

STATE BRIEFS

CALIFORNIA

Bill Seeks Storage Solution for San Onofre Nuclear Waste

If a new bill introduced by U.S. Rep. Darrell Issa (R) becomes law, tons of nuclear waste would be moved from the San Onofre Nuclear Generating Station, and other sites across the country, to consolidated interim storage sites in as soon as five years.

Some 3.6 million pounds of nuclear waste remain at San Onofre, even though the plant hasn't produced electricity since January 2012.

Companies in West Texas and eastern New Mexico have expressed interest in receiving the nuclear waste.

More: *The San Diego Union-Tribune*

Aliso Canyon Completes Safety Review; Ops May Resume in Feb.

Southern California Gas' Aliso Canyon natural gas storage facility, which was shut down after a four-month methane leak was discovered in 2015, has completed a safety review and could resume operations by next month, though it may not return to full capacity.

Fewer than one-third of the facility's 113 wells passed inspections. The remaining wells were taken out of service and must be permanently sealed if they don't pass state-mandated tests within a year.

The state has set a storage limit of 29 Bcf for Aliso Canyon, compared with its capacity of 83 Bcf.

More: *The Associated Press*

CONNECTICUT

Lawmakers Seek New Revenue Stream for Millstone

For a second time, state lawmakers are expected to introduce legislation that would allow the Millstone nuclear plant to compete for state power procurement contracts. Similar legislation was approved by the Senate law year, but failed to come up for a vote in the House of Representatives.

Declining natural gas prices in recent years have "put a lot of pressure" on the nuclear industry, Dominion spokesman Ken Holt said. He said the legislation would provide Dominion, owner of Millstone, a revenue stream the plant currently doesn't have.

Although Dominion hasn't threatened to close Millstone, a number of nuclear plants have closed, said Democratic Rep. Lonnie Reed, co-chairwoman of the House Energy and Technology Committee. She said helping the company is necessary because the state can't afford to lose the baseload electric generation that Millstone provides.

More: *New Haven Register*

INDIANA

Gov. Holcomb Calls for Clean Coal in State of the State

Newly elected Gov. Eric Holcomb sees clean coal as an integral part of the state's future.

"Indiana runs on coal," Holcomb said at his State of the State address last week. "Let's apply technology and innovation to find new ways to unleash this abundant source of power by burning coal cleanly while keeping Hoosiers employed and factories humming."

More: *IndyStar*

IOWA

Marathon Considers Going Solar with Trusted Energy

The Buena Vista County town of Marathon is considering building a 1.42-MW solar project that would save residents $2 million over 20 years in electric costs, according to renewable energy company Trusted Energy.

Trusted Energy has been working with the town since October to develop the project, which would consist of more than 1,400 solar panels that produce 2 million kWh per year.

Marathon, with a population of about 237, currently receives its electrical service from the neighboring city of Laurens.

More: *Sioux City Journal*

KENTUCKY

Co-op Lineman Dies from High-Voltage Shock

A lineman for Jackson Purchase Energy Corp. in Paducah was taken off life support and died last week after sustaining a high-voltage shock on the job.

Josh Franklin made contact with a live wire on Jan. 6 and suffered a major brain injury because of oxygen deprivation.

A post on Western Kentucky Rural Electric Cooperative's Facebook page expressed "sincere appreciation to fallen lineman Josh Franklin for dedicated service to his job and his community."

More: *Lexington Herald-Leader*

Documents Show Utilities Helped Weaken Coal Ash Rules

The Energy and Environment Cabinet revised and weakened proposed rules for managing coal ash produced by the state's electric utilities after more than a year of backroom meetings with representatives of the utility industry, public records show.

A draft rule discussed with utility representatives in late 2015 would have kept the cabinet involved in reviewing permits for new coal ash landfills or storage ponds and would have allowed public input into decisions about their location and design, according to documents obtained under the

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STATE BRIEFS

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state's open records law. However, in a recently released proposal, the state determined utilities would have a "registered permit-by-rule" and could begin constructing new ash dumps or ponds without prior permitting or review by the cabinet so long as they registered before beginning construction.

Cabinet spokesman John Mura defended the process by which the rules were developed. "It is common for the state to informally discuss pending regulatory matters with the regulated sector that would be directly impacted by those regulations," he wrote in an email.

More: Courier-Journal; WFPL

MASSACHUSETTS

Healey to Oppose Eversource's Proposed Rate Hike

Attorney General Maura Healey announced she will oppose Eversource Energy's plan to raise its electricity delivery rates for customers in the former Western Massachusetts Electric Co. and NSTAR service territories.

In a request before the Public Utilities Commission, Eversource seeks 10.5% shareholder profits, along with a $36 million increase in WMECo customers' rates and a $60 million increase in NSTAR customers' rates, Healey said in a press release. The new rates would go into effect Jan. 1, 2018, if approved.

Eversource said the money will go to improving delivery, making outages less common and shorter in duration, and increasing its network of electrical vehicle charging locations.

More: The Republican

MINNESOTA

Legislation Allowing Bypass of PUC Approval Criticized

Business and consumer groups are denouncing a bill introduced in the House of Representatives Wednesday as allowing Xcel Energy to do an "end run" around a Jan. 11 order by state regulators in its quest to build a 786-MW combined cycle natural gas plant.

Sherburne County Generating Station, scheduled to close in 2026. | *Xcel Energy*

The Public Utility Commission order asked Xcel to describe how the plant, intended to replace two coal-fired units scheduled to close by 2026, would generate energy and to provide "location-specific factors related to socioeconomic impacts on the local community and regional reliability." The order also asked Xcel to draft a certificate of need.

The legislation would allow Xcel to build the plant without PUC approval. It also "establishes horrible precedent," Stoel Rives attorney Drew Moratzka said. "Utilities get to come to the legislature and bypass the regulatory process to build whatever they want and then mandate cost recovery."

More: Midwest Energy News

Coal Shipments in State Near 30-Year Low

Coal transportation through the Port of Duluth-Superior may fall to the lowest levels in almost 30 years. After peaking at 22.1 million tons in 2008, coal shipping dropped to about 10 million tons for 2016.

Nearly all of the coal shipped through the port is sent to two power plants in Michigan, one of which — the St. Clair power plant north of Detroit — is set to retire in 2023, before its 70th birthday. The nearby Belle River plant, which has been running since 1984, will continue operations.

More: Duluth News Tribune

NEVADA

Gov. Sandoval Vows to Fight Nuclear Waste Storage

In his State of the State address last week, Gov. Brian Sandoval didn't mince words regarding his opposition to resurrecting the Yucca Mountain high-level nuclear waste storage facility project.

"For the remainder of my term, I will vigorously fight the storage of high-level nuclear waste in the state of Nevada," he said. "Any attempts to resurrect the ill-conceived Yucca Mountain project will be met with relentless opposition and maximum resources."

More: Las Vegas Sun

NORTH DAKOTA

Public Service Commissioner Brian Kalk Resigns

Brian Kalk has resigned from the three-member Public Service Commission to accept a position at the Energy and Environmental Research Center. His last day will be Jan. 31.

Kalk served two years of his second six-year term. Republican Gov. Doug Burgum will appoint a successor.

More: Agweek

OREGON

Cap-and-Trade Bill Introduced in Senate

A new cap-and-trade bill would set statewide emissions goals for 2025, along with pollution caps for 2035 and 2050, and require companies and plants to buy allowances from the state if they emit more than 25,000 tons of carbon dioxide a year.

The legislation, proposed by Sen. Lee Beyer (D), adds a financial component to the state's existing climate regulations, which include a low-carbon fuel standard passed in 2015 and a clean electricity plan that will prohibit electricity from coal-fired plants and require utilities to use renewable energy for half of their supply by 2040.

Sean Penrith, director of the Climate Trust, said the state is missing the mark on its 2020 emissions goals by 20% and implementing cap-and-trade is critical to success.

More: Oregon Business

Continued on page 38

STATE BRIEFS

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TEXAS

Paxton Plans Lawsuit to Block Federal Stream Protection Rule

Attorney General Ken Paxton announced that he and 13 other mostly Republican-led states plan to sue the federal government to block the Stream Protection Rule, which regulates coal mining near waterways.

The Office of Surface Mining Reclamation and Enforcement finalized the rule in December. In a statement announcing the rule's finalization, Assistant Secretary for Land and Minerals Management Janice Schneider said the rule "updates 33-year-old regulations and establishes clear requirements for responsible surface coal mining that will protect 6,000 miles of streams and 52,000 acres of forests over the next two decades, preserving community health and economic opportunities while meeting the nation's energy needs."

Paxton characterized the rule as "federal overreach" that "seeks to destroy an entire industry."

More: *The Texas Tribune*

VIRGINIA

Former AGs Challenge Law Freezing Base Rates, Delaying Refunds

Two former state attorneys general filed a brief with the state Supreme Court arguing a 2015 law allowing Dominion Virginia Power and Appalachian Power to freeze their base rates while not being required to give customers refunds until 2022 if they earn too much is unconstitutional. The high court is scheduled to take up the case in February.

"The reason we say it is unconstitutional is the State Corporation Commission is the one that is supposed to set electric rates under the Virginia Constitution," Ken Cuccinelli, who filed the brief with Andy Miller, said in a Skype interview. He said rate reviews by the SCC found the power companies were over-earning up to $300 million a year.

Dominion spokesman David Botkins said the reviews didn't consider expenses incurred, such as those for Hurricane Matthew. He said the utility's analysis found it "highly unlikely" that it would need to give refunds in 2022.

More: *WTVR*; *The Washington Post*

WYOMING

Bill Would Bar Utilities from Buying Wind, Solar Power

Lawmakers last week introduced a bill that would prohibit the state's utilities from purchasing large-scale wind and solar power.

Under SF71, in 2018 utilities would be required to obtain 95% of their electricity sold in the state from generators in or outside the state that produce power from coal, hydroelectric, natural gas, nuclear, oil and net-metered systems (solar, wind, biomass and hydro with a maximum capacity of 25 kW). By 2019, the utilities would be required to obtain all electricity from those sources.

Tom Darin, senior director for Western state policy at the American Wind Energy Association, said in a statement that if the bill passes, it will hurt the state's efforts to diversify its energy economy and prevent the state from realizing the economic benefits of its world-class wind.

More: *Renewable Energy World*