President-elect Donald Trump last week selected a climate change skeptic as EPA administrator, while his transition team probed the Department of Energy’s climate research and sought ways for the department to aid struggling nuclear power plants. Meanwhile, Congressional Republicans quashed hopes for a bipartisan energy bill.

The big news in another whirlwind week was Trump’s selection of Oklahoma Attorney General Scott Pruitt, a leader of the 29-state legal challenge to the Clean Power Plan, as EPA administrator.

Pruitt issued a statement through the transition team vowing to save the “billions of dollars drained from our economy due to unnecessary EPA regulations.”

“I intend to run this agency in a way that fosters both responsible protection of the environment and freedom for American businesses,” he added.

In May, Pruitt coauthored an article in the National Review that said the science of global warming “is far from settled.”

The article also criticized the CPP, saying “this EPA regulation, one of the most ambitious ever proposed, will shutter coal-fired power plants, significantly increase the price of electricity for American consumers and enact by executive fiat the very same cap-and-trade system for carbon emissions that Congress has rejected.”

Oklahoma’s Energy Economy

Oklahoma would be required to cut carbon emissions from power plants by almost one-third under the CPP. About one-quarter of all jobs in the state rely directly or indirectly on the energy industry — mostly gas and oil.

In 2014, The New York Times reported that Pruitt had 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.

Increased transfer capacity is keeping a lid on congestion in the Western Energy Imbalance Market (EIM) and limiting participants’ ability to wield market power within their balancing authority areas, according to CAISO’s internal Market Monitor.

Gabe Murtaugh, a senior economist with the ISO’s Department of Market Monitoring, told a Dec. 7 Market Performance and Planning Forum that the increased capacity could help Arizona Public Service, NV Energy and Pacificorp in reapplying to FERC for market-based rate authority. Citing market power concerns, FERC has limited the three companies to cost-based offers. (See CAISO Monitor Proposes Fixes for EIM Market Power Concerns.)

Entergy, Consumers Announce Closure of Palisades Nuke

Citing market conditions that have changed “substantially” and the availability of “more economic alternatives,” Entergy announced Thursday it intends to shut down its Palisades nuclear plant on Oct. 1, 2018.

Entergy said a power purchase agreement between the plant, located in Covert Township, Mich., and Consumers Energy would be terminated four years early in 2018. Consumers will pay Entergy $172 million for terminating the PPA. According to Entergy, the termination will also save Consumers customers $172 million in costs over four years.

The companies entered the 15-year PPA in 2007, when Entergy bought the plant from Consumers parent CMS Energy for $380 million. However, the agreement’s prices exceed...
Trump Transition Bodes Ill for Clean Power Plan

Continued from page 1

Environmental groups were aghast, but unsurprised, at Trump’s choice. The Sierra Club complained Pruitt’s appointment was tantamount to “putting an arsonist in charge of fighting fires.”

Democrats vowed to oppose Pruitt’s confirmation, saying they hope to win support from some Republican senators. “This is going to be a litmus test for every member of the Senate who claims not to be a denier,” Sen. Brian Schatz (D-Hawaii) said on a call with reporters.

But Pruitt’s nomination will go through the Senate Environment and Public Works Committee, headed by fellow Oklahoman Jim Inhofe, who famously brought a snowball onto the Senate floor in 2015 to illustrate his skepticism of climate change.

‘Studying’ Paris Agreement

Trump, who has called climate change a “hoax” and vowed during the campaign to abandon the U.S.’s commitments under the Paris Agreement, said last month that he had an “open mind” on the subject. (See Trump Sends Conflicting Signals on Climate Change.)

In an interview with Fox News broadcast Sunday, Trump said he was still “studying” the agreement, saying he didn’t want it “to put us at a competitive disadvantage with other countries.”

“As you know, there are different times and different time limits on that agreement,” he said. “I don’t want that to give China or other countries signing agreements and advantage over us.”

If the CPP survives the court challenge, it will not be a simple matter to undo. “Mr. Pruitt and the incoming Trump administration cannot simply rely on their preferences or on baseless claims about science and markets,” Georgetown University Law professor William W. Buzbee wrote last week. “Decades of law, much of it created by conservatives’ judicial heroes, requires presidents and agencies to abide by the rule of law and justify regulatory reversals. They have to take a hard look at science and other underlying facts.”

Interior, DOE Candidates Emerge

Pruitt was just one of the energy-related appointments in the news last week.

Numerous reports said Rep. Cathy McMorris Rodgers (R-Wash.) will be named head of the Interior Department. Trump has called for opening more federal lands and waters to oil and gas development.

News reports that Trump has chosen on ExxonMobil CEO Rex Tillerson as secretary of state were dominated by questions over the executive’s ties to Russia. But the company also has figured prominently in the climate debate.

New York Attorney General Eric Schneiderman is leading an investigation into the company for allegedly making misleading statements on the subject in the past. After Tillerson took over as chief executive in 2006, however, the company acknowledged the science behind climate change and expressed its support for a carbon tax and the Paris Agreement.

Correction

An article in last week’s RTO Insider incorrectly reported that a rule change approved by the ERCOT Technical Advisory Committee would require a 2,800-MW generation reserve and spell out maximum dispatch levels for wind and solar generation. Those provisions were deleted from the revision that was approved by the TAC. The corrected article can be viewed here.
CAISO to Rely on New Emergency Measure to Ease Path 26 Transfers

By Robert Mullin

CAISO said it will use a recently approved West-wide system reliability measure to ensure that its grid operators have the ability to send power into Southern California when Aliso Canyon gas pipeline restrictions constrain gas-fired generation output.

Peak Reliability — the West’s reliability coordinator — endorsed the new system operating limit (SOL) methodology, which provides Western Electricity Coordinating Council transmission operators the qualified ability to relax seasonal performance standards for “credible multiple contingencies” on a network under emergency conditions.

“That actually ends up meaning that, if we can technically justify it, we don’t have to hold to planning criteria in real-time operations,” Danny Johnson, CAISO senior operations engineer, said during a Dec. 7 market performance and planning forum.

The ISO will employ the new methodology to replace its previous authority to reserve transmission capacity on Path 26 — the major transmission link between the Southern California Edison and Pacific Gas and Electric service areas.

That authority was included in a raft of Aliso Canyon-related market provisions approved by FERC last spring, but the ISO asked to retire the authority this fall when it filed to extend most of the measures for a year beyond their original Nov. 30 sunset date. (See FERC OKs One-Year Extension for CAISO’s Aliso Canyon Gas Rules.)

“Instead, we can use the Peak SOL methodology to increase transfer capability that the previous internal reservations gave us,” Johnson said.

Johnson explained that WECC path limits are established using pre-contingency power flow studies performed at the time that a path is identified or after an element along the path has undergone a significant change. Transmission paths are not re-evaluated on a regular basis, so SOLs do not account for minor changes in area load profiles or network topologies attributed to outages. The limits also fail to factor in real-time voltage conditions.

“We plan on using our real-time contingency analysis [RTCA] tool to monitor the actual elements that the path is trying to protect,” Johnson said. “This is more accurate because it’s not a pre-contingency proxy limit — it’s actual real-time data, built on voltage data. We’re able to reflect all of the neighboring topology changes either due to system changes or outages, which are constantly occurring,” allowing the ISO to observe a more accurate SOL in real time.

The RTCA tool also enables CAISO to incorporate the use of remedial action schemes — plans designed to automatically initiate corrective actions after detection of certain system conditions — to relieve congestion by strategically shedding load or generation to avoid overloading a line.

The ISO has determined that remedial action schemes (RAS) have “armed” an increasing amount of targeted SoCalEd load for shedding since the SOL for Path 26 was established in 2006.

“So in real time, if we assume that there’s additional load that will be dropped, that’s additional congestion relief that the RAS will provide,” Johnson said.

Use of the RTCA reduces the potential for Path 26 to hit its thermal limit, providing the ISO more latitude in exceeding the line’s 4,000-MW rating when Southern California gas restrictions hobble the region’s generators. The ISO estimates it could squeeze out a “few hundred” extra megawatts of transfer capability on the line under certain real-time conditions.

“We plan to use this only as a last-gasp emergency measure,” Johnson said. “By the time we use this, we will have exhausted all internal generation resources within Southern California, all demand response.”

Because the methodology requires use of real-time data, it cannot be incorporated into CAISO’s day-ahead market, which — along with the real-time market — will continue operating with the path’s current ratings from the ISO transmission register.

While CAISO has set no precise time limit for employing the measure to relieve a constraint, it expects any such event to be of limited duration.

“We want to drive back to the normal limit as soon as possible, so we wouldn’t presumably increase the market limit,” said Mark Rothleder, CAISO vice president for market quality and renewable integration. “So we would bind around that market limit trying to get back, but it would be the cushion to prevent having to drop load.”

Brian Theaker, director of market affairs at NRG Energy, asked whether the ISO intended to limit using the measure for just Path 26.

“At this time, that is where we see this being used,” Johnson responded. “I think that we would be open to using it on any WECC path that we would need to if real-time conditions dictate.”

Noting that CAISO said it could not notify market participants before or during a Path 26 event, Carrie Bentley of Resero Consulting asked what would be the most “preferable way for [ISO operations] to make this more transparent.”

Rothleder said he would have to take that question back to CAISO management.

“I think we may be able to say that these events are fairly rare,” Rothleder said. “If the event happens, we’ll give some notification after the fact, but I don’t want operators having to think, ‘Well I have to get this information out,’ while they’re trying to struggle through the event.”
CAISO Refines Small TO Generator Interconnection Plan

By Robert Mullin

CAISO has narrowed a proposal to protect smaller transmission owners from high costs for network upgrades to interconnect generation serving load outside the TOs’ service territories.

The revised proposal seeks to more specifically target the situation confronted by Valley Electric Association. Any policy changes would likely also apply to other small TOs added by the ISO through regional expansion. (See CAISO Plans to Protect Small Utilities from High Network Upgrade Costs.)

Valley Electric — CAISO’s only out-of-state member — serves 45,000 customers and about 100 MW of load in a 6,800-square-mile region straddling the California-Nevada border.

The utility’s service area sits within an area considered promising for new renewable development that would serve other parts of the ISO. Two projects with a total capacity of 100 MW await interconnection with the Valley system, with more expected to enter the queue, according to the ISO.

Under CAISO’s Tariff, a TO must reimburse generator interconnection customers for the costs of local reliability and deliverability network upgrades necessary to connect a generating unit to the transmission network.

Upon regulatory approval, the TO can include those reimbursement costs in its rate base — passing them on to ratepayers through either a high-voltage or local low-voltage transmission access charge (TAC). The ISO considers any line under 200 kV to fall into the latter category.

Postage Stamp

While CAISO’s high-voltage TAC is allocated to all ISO ratepayers at a “postage stamp” rate based on the aggregated revenue requirements of all TOs owning high-voltage transmission, the low-voltage TAC is charged only to customers within the service area of the TO owning the facilities.

That arrangement can burden ratepayers in low-population service areas who are forced to bear the low-voltage network upgrade costs for generation intended to serve other, more populous locations attempting to meet renewable mandates.

“So the question — through this initiative — that we ask is, ‘Does this current mechanism for network upgrade cost recovery appropriately allocate costs in accordance with FERC’s allocation principles?’” Bob Emmert, CAISO manager of interconnection resources, said during a Dec. 5 call to discuss the latest version of the proposal.

The revision scales back what the original proposal offered for stakeholder consideration, including eliminating a proposed cost recovery provision that would have enabled all TOs regardless of size to roll “generator-triggered” low-voltage upgrade costs into its high-voltage revenue requirement to be recovered through the high-voltage TAC.

Under the revised proposal, only small TOs would be allowed to fold generator-driven low-voltage costs into their high-voltage revenue requirements.

The exception: when a generator is being built to serve the TO in some manner. Associated costs would then be put into the TO’s low-voltage TAC rates.

"After reading [stakeholder] comments, the ISO came to agree that the current cost allocation rules have resulted in appropriate cost allocation overall — and they continue to work for generator interconnections for the large load-serving entities,” Emmert said.

Based on input from most stakeholders, the updated proposal narrows its focus, only addressing the specific circumstances of utilities such as Valley Electric.

Options

The revised proposal sets out an “Option A” that would require the ISO to determine on a case-by-case basis whether a candidate TO should be allowed to fold low-voltage generator interconnection costs into high-voltage transmission revenue requirements, thereby diffusing the costs among the ISO’s rate base. The ISO would make its determination based on whether the TO is:

- Very small relative to other TOs;
- Located in a renewable-resource-rich area gaining “elevated” interest for generator procurements; or
- Not subject to a renewable portfolio standard or has already met its requirements.

Each TO entering the ISO under that option would have to be approved by both the Board of Governors and FERC.

A more “formulaic” Tariff-based “Option B” would retain the second two points from Option A but specify that a TO’s annual gross load be no larger than 5% of the gross load for the ISO’s largest TO. Valley Electric’s load represents 0.6% of the largest TO.

“This is the criteria that was going to be the most consistent,” Emmert said. “We’d considered using a comparison against the ISO’s annual gross load, but the ISO could grow and that might change. We felt that the largest [TO] is going to remain the largest [TO] and that would remain pretty consistent over time.”

Lee Terry of California’s State Water Project expressed concern that some generation interconnected with Valley Electric’s low-voltage system could be built to serve nearby Las Vegas, rather than ISO load.

“My knee-jerk reaction would be that we would consider that to be the same as if it were serving the [participating transmission owner] in some manner,” said Bill Weaver, an ISO attorney. “Maybe we should consider broadening that [provision] to non-CAISO [TOs] rather than the [TO] itself.”

‘Strong Support’

Southern California Edison’s Fernando Cornejo expressed his company’s “strong support” for the latest draft of the proposal.

“SCE commends the CAISO for taking a more surgical approach to a cost allocation issue that we do believe is very exceptional

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Increased Transfer Capacity Reducing EIM Congestion

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Puget Sound Energy — the only EIM member currently permitted to make market-based offers — has committed to the market 300 MW of bidirectional transfer capacity with the PacifiCorp-West balancing area. Those transmission links were congested during just 1% of intervals in the May-October period, Murtaugh said.

APS’ average outbound/inbound EIM transfer capability of 1,874 MW/924 MW with CAISO saw almost no congestion during the period, while the utility’s 321-MW/216-MW link with PacifiCorp-East showed congestion during 1% and 7% of intervals, respectively. Despite the proximity of their balancing areas, there is no EIM transfer capability between APS and NV Energy because of the limited availability of capacity to commit to the market.

Average transfer capacity among CAISO, NV Energy and PacifiCorp-East remained steady from May to October, and links between the areas were subject to relatively light congestion over the period. PacifiCorp-East’s outbound link into NV Energy was most congested during spring, when inland power prices are cheap.

The one exception to low congestion: transfers from PacifiCorp-West into CAISO via limited capacity available on the California-Oregon Intertie. The intertie is congested 20% of the time, in part because of the variability of transfer capacity made available to the EIM during given intervals.

“Generation in PacifiCorp-West is generally cheaper than generation that we see in the ISO and the rest of the EIM,” Murtaugh said. “And when prices are high in the ISO, [PacifiCorp-West] generation increases its output until it reaches its limit for export.”

That constraint has historically led to price separation between PacifiCorp-West and the rest of the EIM.

PacifiCorp’s new EIM link with Puget Sound Energy is alleviating that isolation in most hours. Now, when there is congestion between PacifiCorp and CAISO, the ample transfer capability between PacifiCorp-West and Puget Sound means that PacifiCorp prices are set by the marginal generation in both areas, rather than just PacifiCorp-West, Murtaugh said.

But Pacific Northwest prices will still tend to diverge from the rest of the market.

“When prices are higher in the rest of the system, we see generation about as high as it can get in PacifiCorp-West,” Murtaugh said.

That pushes on the constraint out of PacifiCorp-West, causing price discrepancies between that area — and, now, Puget Sound as well — and the remainder of the EIM.

While price divergences stemming from congestion drive concerns about market power in the EIM, the Monitor finds that congestion is occurring in “a very low percentage of intervals” — even in the five-minute market, when congestion tends to be most elevated.

“The underlying message here is there isn’t a whole lot of opportunity to exercise market power during [most] intervals,” Murtaugh said.

CAISO Refines Small TO Generator Interconnection Plan

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Not all utilities were as satisfied.

John Newton, a regulatory analyst with Pacific Gas and Electric, said his company opposed the ISO’s decision to scrap the cost-allocation option that would have allowed all utilities to roll low-voltage generator interconnection costs into the high-voltage TAC.

While PG&E was “sympathetic” to Valley Electric’s concerns, the allocation methodologies had been in place since the Nevada utility had joined the ISO, Newton said.

For that reason, PG&E supported the scrapped option, which he called a “non-discriminatory policy change which would fairly treat interconnection costs the same for all transmission owners” participating in the ISO.

“We’re disappointed with these Options A and B and it’s unacceptable to PG&E,” Newton said.
FERC OKs Changes to ISO-NE Dispatch Rules

By Rich Heidorn Jr.

FERC last week approved ISO-NE rule changes requiring almost 1,100 MW of non-dispatchable generation to purchase equipment allowing them to receive electronic dispatch instructions from the RTO (ER17-68).

The new rules, proposed by ISO-NE and the New England Power Pool in October, apply the dispatchability requirements mostly to municipal solid waste (406 MW) and biomass (263 MW) facilities. Also included are 175 MW of non-intermittent hydro generation and 157 MW of resources that exceed the below-5-MW limitation for settlement-only resources.

They will be required to order remote terminal units — and communication circuits to connect them to the ISO-NE network — by Jan. 15, and to become dispatchable within 12 months afterward.

The rules, which will be phased in through June 2020, also require intermittent resources participating in the Forward Capacity Market to offer into the day-ahead energy market.

ISO-NE said the changes will improve reliability by eliminating time-consuming manual dispatch and aid price formation by incorporating additional resources into LMPs. Non-dispatchable generators enter the market as price takers and cannot be marginal.

The RTO said the rules also will aid the participation of storage resources, which both consume and inject energy, in the energy market.

The rules are similar to the “Do Not Exceed” dispatch rules FERC accepted in 2015 for wind and most hydro resources (ER15-1509).

Going forward, only solar, nuclear, settlement-only and most external resources will remain non-dispatchable. Demand response resources will remain non-dispatchable until they are fully integrated into the energy market in 2018, according to ISO-NE.

The RTO says it will propose changes to make larger solar resources dispatchable once it has developed a way to accurately forecast their output, similar to its short-term wind forecast system.

In approving the rule changes, the commission rejected contentions from Eversource Energy that the changes violated the rights of qualifying facilities under the Public Utility Regulatory Policies Act.

"A QF is not obligated to participate in the ISO-NE administered energy markets and can instead choose to operate exclusively as a behind-the-meter resource on its host utility’s system and not be under ISO-NE’s direct operational control and not be subject to the proposed revisions," the commission said.

NECA Director Marks Quarter Century

Tina Bennett, president of the Northeast Energy and Commerce Association’s board of directors (at podium), feted NECA Executive Director Lois Lawson’s 25 years with the organization at the group’s holiday party in Boston on Dec. 8.

First Offshore Wind Farm in US Begins Commercial Operations

The nation’s first offshore wind farm began commercial operation yesterday off Rhode Island’s Block Island. Deepwater Wind’s project — five turbines with a capacity of 30 MW — will deliver power to Block Island via a National Grid submarine cable, helping reduce the island’s reliance on expensive diesel generators. Technicians from GE Renewable Energy, which supplied the turbines, conducted four months of testing before announcing the facility ready for commercial operations.

A strategy plan released by the Obama administration in September said offshore wind could be competitive with existing generation in the Northeast within a decade. The report called for removing “unnecessary burdens” in the Bureau of Ocean Energy Management’s licensing process. (See “Offshore Wind Can Compete Within a Decade, US Says,” Federal Briefs.) President-elect Donald Trump, who opposed an offshore wind farm near one of his golf courses in Scotland, has expressed concern over wind power, saying turbines “kill all the birds.”
Mass. Considering Storage Mandate
Speakers Tout Potential at Roundtable

By William Opalka

BOSTON — Massachusetts officials will announce by the end of the month whether to join California in mandating the procurement of energy storage.

For the more than 300 people who attended or live-streamed Raab Associates’ 152nd New England Electricity Restructuring Roundtable last week, however, the only question is how much storage the state is likely to order. The session provided a briefing on both the policies driving the adoption of storage and the companies that are deploying the technologies.

Judith Judson, commissioner of the Massachusetts Department of Energy Resources, said the “State of Charge” study produced a surprising result: Up to 1,766 MW of advanced storage could save ratepayers $2.3 billion. Comments on whether Massachusetts should set targets are due Friday.

“We have reduced average consumption in Massachusetts, but our peak demand continues to grow,” she said. “Our top 1% of the hours accounts for 8% of our electric spend. Our top 10% of hours account for 40% of our electric spend. ... So [storage] could be a tremendous savings for ratepayers.”

California Leads the Way

California has led the nation in mandating storage, with 1.3 GW to be deployed by 2024. Since 2013, 630 MW in projects have been approved, California Public Utilities Commissioner Carla Peterman said.

“The commission has to determine that these projects are viable and cost-effective. Typically, that requirement has not been placed on emerging technologies. For example, there is not a similar requirement on our solar incentives,” said Peterman, who participated via video.

Jesse Jenkins, of the Massachusetts Institute of Technology Energy Initiative’s Utility of the Future study, said the two-year effort that will be released this week includes an examination of the impact of distributed storage resources.

Locational Value

Jenkins said storage and demand response resources in some locations can have a value three to 10 times greater than a typical distribution node. “They can deliver [cost benefits] to the power system, but only if the incentives are appropriately granular,” Jenkins said.

Roger Lin, senior director of product marketing for NEC Energy Solutions, described the company’s 2-MW, 3.9-MWh battery storage system in Sterling, Mass., which it says will be the first utility-scale project in the state and the largest battery-based system in New England.

The project will provide the town’s municipal utility with a backup during weather-related power outages and a way to save money by shaving its peak usage. He said storage could have saved the town several hundred thousand dollars over a couple hours when the town’s 3-MW solar array became shrouded by clouds at 2 p.m. on a September day and LMPs jumped from less than $100/MWh to more than $500.

“Cloud cover came at the worst possible time, at the system peak, as the pro rata share of transmission charges and forward capacity market charges is determined,” he said.

Demand Reduction

Vic Shao, CEO of Green Charge Networks, said his company focuses on the software and controls that predict when peaks will come.

“In California, we really focus on demand reduction. California is particularly expensive, with demand charges going up by about 10% a year,” he said.

“When it comes to storage, controls are everything,” said Josh Castonguay, chief...
Mass. Considering Storage Mandate

Matthew Morrissey, vice president of Deepwater Wind’s operations in Massachusetts, said the company, which built the first offshore wind plant in the U.S. in Rhode Island, is developing storage capabilities so it can bid into capacity auctions and state solicitations. He said the company recently won a solicitation to provide the Long Island Power Authority offshore wind combined with storage — beating out more traditional gas-fired alternatives on price.

“Even with offshore wind, where we have wonderful peak incidences where demand matches our power curve perfectly, we recognize we must have an offset of storage,” he said.

Fouad Dagher, director of new energy solutions at National Grid, also emphasized the need to install storage where it provides the most benefit. “How do we dispatch it? When do we dispatch it? And that’s very important for capturing the value,” he said. “Where is the best location to place something?”

innovation executive at Green Mountain Power in Vermont, which has added storage to a 2.5-MW solar array on a capped landfill. “Because at the end on the day, that’s what’s going to unlock all the value streams for you.”

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Jonathan Raab, of Raab Associates, listens as Jenkins speaks. | © RTO Insider

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Jonathan Raab, of Raab Associates, listens as Jenkins speaks. | © RTO Insider
CARMEL, Ind. — High generation outage rates in MISO South and suspicions of deliberate over-forecasting by wind operators highlighted the concerns of MISO’s Independent Market Monitor in the fall.

Monitor David Patton presented the draft of his fall report at the Dec. 6 meeting of the Markets Committee of the Board of Directors, saying that MISO’s markets performed “competitively and reliably” with “infrequent” market mitigation.

MISO’s fall load peaked at 115 GW on Sept. 6. Patton said a 15% increase in real-time energy prices from last fall could be traced to a 13% increase in natural gas prices over the same period last year. He said a 4% year-over-year increase in wind output — which set a new record at 13.3 GW of production on Nov. 28 — led to higher congestion and price volatility. Combined with high levels of generator outages, there was higher congestion in the day-ahead and real-time markets relative to last year, Patton said.

Day-ahead congestion increased by 18% over 2015 to $202.7 million and real-time congestion increased by 9% to $345.1 million. “Prices, particularly in the three southern hubs in October jumped up... due to some pretty significant congestion,” Patton said.

Outages Approach 40%

Patton said generation outages in MISO South were of particular concern, increasing from an average of 18.2% in fall 2015 to 31.6% in fall 2016. As October approached, Patton said, MISO South outage rates almost reached 40%. “This is an unusually large quantity to have out,” he said.

Unseasonably warm weather produced unusually high loads and led to a maximum generation alert Oct. 4-5. Patton said the tight conditions were due in part to the high outage rates in MISO South.

“That’s fair,” Patton responded, adding that MISO should have more authority over generation outages.

Vice President of System Operations Todd Ramey said high temperatures and the high number of scheduled outages, combined with forced outages and derates, contributed to the reliability concerns.

"As an industry we tend to focus on the winter, but it’s true that the most challenging situations are the shoulder periods where outages are high,” Ramey said. He also said MISO is taking “a hard look” at adjusting outage coordination in MISO South. Jeff Bladen, executive director of market services, said the season proved the value of the North-South transfer path, as the outages were offset by MISO North power.

Curran said the Tariff might need to be “opened up” to give MISO the authority to coordinate planned outages in advance “so you aren’t just responding to the conditions as they’re dealt, but you can influence them.”

Wind Operators ‘Bias’

Patton repeated concerns that wind operators were deliberately over-forecasting their supply to earn more from MISO's day-ahead margin assurance payment. (See MISO IMM Sees Deliberate Over-Forecasting by Wind Operators.)

Board member Baljit Dail asked if Patton had a sense of the size of the overpayments. Patton said that while he didn’t find gaming had occurred “in an obvious fashion,” he estimated MISO has paid $6 million in unjustified payments over the past year to year and a half. “The [wind operators] are not forecasting badly because they don’t have the technology; they’re forecasting badly because they have a bias,” Patton said.

Richard Doying, MISO’s executive vice president of operations and corporate services, said the RTO continues to evaluate instances of wind over-forecasting and would approach the board with findings and possible solutions later.

Director Phyllis Currie defended the RTO, saying it is looking to put people and resources in place to conduct their own wind forecasts. "Load forecasting is not an exact science," she pointed out.

Patton agreed that MISO should not rush a solution.

On average in fall 2016, wind units predicted an average day-ahead wind supply of 4,324 MW and produced 5,141 MW in real time.

Patton also told the board that he continues to work with MISO on expanding a pilot program to create temperature-adjusted transmission ratings. “When temperatures are cooler, you can transfer a lot more power,” Patton said.
A Year Later, MISO Takes Stakeholders’ Temperature on Redesign

Members Seek Deeper Policy Discussions

By Amanda Durish Cook

CARMEL, Ind. — A year into MISO’s stakeholder redesign, member leadership says the stakeholder process is more efficient but that discussions at meetings could use more depth.

The redesign “check-in” was the Hot Topic discussion at the Advisory Committee’s Dec. 7 meeting. Executive Director of External Affairs Kari Bennett said the redesign has cut stakeholder meetings by 22% and that staff posted 81% of meeting materials a week prior to meetings in 2016, compared to 71% in 2015. She also said MISO is working to attract more speakers from outside the RTO for presentations at informational forums. (See MISO Redesign Nears Completion.)

MISO’s sectors praised the consolidation of stakeholder groups, a cleaner process for those wishing to raise issues and the reduction in meetings and repetitive presentations.

The Independent Power Producers, Coordinating Members, End Use Customers and Transmission Dependent Utilities sectors said the redesign had made meetings more effective.

Indiana Utility Regulatory Commissioner Angela Weber said she appreciated the issues tracking process, through which stakeholders who introduce topics can trace MISO’s response. Under the new process, the Steering Committee confers with MISO staff and may assign the issue to a senior committee.

Northern Indiana Public Service Co.’s Paul Kelly said the creation of the Resource Adequacy Subcommittee helped to combine several related issues but that the standard six-month life of a task team isn’t always long enough to fully address an issue.

Dynegy’s Mark Volpe commended MISO’s new video conferencing capabilities that help connect stakeholders.

“It’s not mentioned much, but over this past year, MISO did a technology refresh. ... It allows stakeholders in Little Rock and Eagan [Minnesota] to go to the nearest MISO facility and attend meetings. It helped a number of members with limited resources. ... MISO needs some kudos on that investment,” Volpe said.

Feedback Process Lacking

Multiple sectors said that MISO’s feedback process has fallen short and asked for more formalization and transparency around the comments it receives. MISO staff usually ask for stakeholder feedback via email within about two weeks of a presentation on a proposal. The RTO summarizes the responses and sometimes shares them — identified by sector only — at follow-up presentations. Some stakeholders have commented on the challenge of keeping up with a heavy volume of feedback requests and MISO’s inconsistent record of publishing comments.

NIPSCO’s Kelly said stakeholders sometimes do not understand where MISO stands on issues and that some members are confused about what feedback requests are open because the requests are only documented on the final slide of presentations.

Weber said it’s difficult to locate meeting materials and issues on MISO’s website. She suggested the RTO create a feedback calendar.

Bennett said MISO may be stuck in a “do loop” of chasing the calendar,” referring to a section of computer code in which an instruction is executed repeatedly. But she said MISO has committed to revamping its website in 2017. She said MISO staff could create a feedback request tracking page on its website.

“Even though we’ve created some efficiencies, there’s still a lot of work going on, and it’s hard for any one stakeholder to keep up,” Bennett said.

“It struck me that stakeholders said the website is hard to navigate and it’s hard to find information. In a world where you can Google and find information across the globe, an easily accessible website should be a goal, Director Baljit Dail said.

The Organization of MISO States said the process has “led to incremental increases in efficiency, but the impact on effectiveness is less certain.” Alcoa Power Generating’s DeWayne Todd agreed and said that although MISO has gained efficiencies, the meetings may not have gained effectiveness, as little deep discussion takes place.

Mitch Myhre of Alliant Energy asked for MISO to facilitate more stakeholder policy discussions with the Board of Directors. For example, he said, the board and stakeholders could discuss the RTO’s multi-year effort to revise its cost allocation.

“We’re wondering if the meetings are as

Continued on page 11
FERC Backs MISO on Transfer Limit, Seeks Details

By Amanda Durish Cook

FERC dismissed a complaint seeking to overturn the results of MISO’s 2016/17 Planning Resource Auction but ordered the RTO to specify how it calculates the sub-regional transfer constraint in its Tariff.

The commission found MISO didn’t violate its Tariff when it calculated its sub-regional export constraint for the 2016/17 auction by subtracting firm transmission reservations from the initial 2,500-MW South-to-North transfer limit (EL16-112).

A coalition of MISO transmission customers made the complaint in September, arguing that MISO’s PRA limits are too strict and drove up clearing prices by trapping capacity in MISO South. MISO defended its method and said it plans to reuse it in future capacity auctions. (See MISO Recommends No Change to Transfer Limits.)

The commission said MISO acted correctly and that no refunds were warranted. “MISO’s approach considered the [SPP] settlement agreement and the transmission service reservations in the prevailing direction found therein. Despite claims that other approaches could, or even should, have been used, there is no evidence to suggest that MISO’s calculation of the sub-regional export constraint was inconsistent with its Tariff provisions,” the Dec. 6 order said.

However, FERC ordered MISO to specify in its Tariff the methodology used in sub-regional export and import constraint calculations. The commission said the RTO must provide the methodology by the end of January “in order to accommodate the ongoing stakeholder process and allow MISO’s filing to be informed by it.”

Tariff revisions are also to include a formula for going-forward costs. In its complaint, the MISO transmission customers asked FERC to audit offers into the 2016/17 auction, claiming some facility-specific reference levels—which are based on going-forward costs—were too high. FERC declined, saying costs to operate and maintain MISO’s aging generation fleet would naturally rise, but it told MISO to describe how going-forward costs are established.

A Year Later, MISO Takes Stakeholders’ Temperature on Redesign

Continued from page 10

effective as they should be. We’re wondering if MISO is open enough. Sometimes you get better discussion in the hallway. [MISO staff] are more relaxed. Maybe because you’re in front of people, it’s harder to be completely open,” Weber said. She suggested setting aside meeting time for brainstorming sessions.

“We are in a bit of a rut in terms of how we process subject matter,” Volpe said. MISO is in a pattern of presenting on a given topic, requesting feedback and coming back with refinements in a months-long cycle, he said. “There really isn’t an open dialogue among subject matter experts and stakeholders. We’re in this rut of consistent feedback cycles, but we really don’t have that policy debate. I feel bad for the chair of these committees; they have to watch the clock and make sure someone goes through 30 slides in 20 minutes. That’s not possible.”

Chris Plante of Wisconsin Public Service said stakeholders could come to meetings armed with presentations of their own to prompt deeper conversations. He also said MISO should make member responses public by default.

Director Michael Evans said he’s seen nearly 12 years of stakeholder process, from “the food fight era” to the “pitchforks era.”

“I think we’re at a spot where the dialogue is healthy. Now it’s time to improve the content,” he said.

Director Tom Rainwater said the redesign is a “tremendous” effort. “I think what you’re emphasizing today is continuous improvement,” he said. Rainwater suggested MISO identify what improvements it could accomplish in 90, 180 and 365 days.

“This is your process. It’s not our process,” Director Judy Walsh told stakeholders. “I would encourage MISO to understand how it can better facilitate improvements into the process.”

“Anytime we bring a big group together, you can feel stuck and like you’re talking over one another,” Bennett said, before quoting the Beatles: “We can work it out.”

AC Priorities Take Cue from Subcommittee Purposes

During the meeting, the AC also adopted a set of priorities set forward by the Transmission Dependent Utilities sector that borrow from MISO subcommittee mission statements. (See “AC to Approve One of Two Sets of 2017 Priorities,” MISO Advisory Committee Briefs.)

Sectors voted 13-9 for the TDU’s offering over a slight revision of 2016 priorities proposed by AC leadership. The new priorities seek to implement best planning practices; preserve and enhance reliability; improve market efficiency; ensure resource adequacy; and ensure equitable cost allocation.
MISO Board Approves MTEP 16’s $2.7B in Tx Projects

RTO Officials: MTEP 17 Unaffected by Presidential Election

By Amanda Durish Cook

CARMEL, Ind. — MISO’s 2016 Transmission Expansion Plan, with 383 projects totaling $2.7 billion, won the Board of Directors’ unanimous approval Dec. 7.

The 13th annual transmission package shed 11 projects and $100 million in investment from the preliminary plan that was unveiled in September. (See MTEP 16 Proposes 394 Projects at $2.8 Billion.)

The approved plan calls for less spending on fewer projects than MTEP 15’s $2.75 billion on 345 projects. It brings transmission investment in the footprint to 1,246 projects totaling about $15.6 billion since 2003.

MISO Vice President of System Planning and Seams Coordination Jennifer Curran said some stakeholders wrote a letter encouraging the RTO to open the plan’s lone market efficiency project — the $80.9 million Huntley-Wilmarth 345-kV line in Minnesota — to competitive bidding.

The project, however, is covered by the state’s right-of-first-refusal statute. Curran said MISO counsel conducted another legal review of the Huntley-Wilmarth project and concluded that the RTO must respect state and local laws. “It would be inconsistent with our Tariff, and our Tariff respects that right-of-first-refusal law,” she said.

MISO Director Michael Evans asked if there was anything else the RTO could research about the legality of opening Huntley-Wilmarth to competitive bidding, but Vice President of Transmission and Technology Clair Moeller said, “Based on our Tariff and state law, we’re right where we need to be.”

“MTEP is a remarkable document. Planning from the Gulf of Mexico to the Hudson Bay is a dream... and it’s being done very well,” Evans concluded. “The direction of change remains the same, but the pace of change is up in the air.”

Evolving Fleet Influencing MTEP Futures Regardless of Presidency

Curran said MTEP 17’s futures, which on average predict a one-third coal, one-third gas and one-third renewables mix by 2030, are still relevant, despite the election of Donald Trump, who has vowed to “save” the coal industry. (See related story, Trump Transition Bodes Ill for Clean Power Plan, p.1.)

During the Dec. 6 System Planning Committee of the Board of Directors meeting, Curran said she expects three unchanged futures to be finalized in 2017. (See “MTEP 17 Futures Finalized,” MISO Planning Advisory Committee Briefs.)

“This is a more interesting topic since the election,” Curran said. “We’ve gotten a lot of calls since the election asking what has changed. In our view, we see our generation fleet continuing to evolve.”

Curran said the real uncertainty facing MISO is how fast those changes will take place, but she said regardless of federal energy policy and the presidency, fleet evolution will continue.

“We see and hear our members’ and state’s intentions to move forward with a lower-carbon fleet,” Curran said, citing carbon reduction measures in states’ fixed resource adequacy plans, continued low gas prices and the number of renewables in MISO’s interconnection queue, where wind comprised 69% of total megawatts reaching the queue’s definitive planning phase in 2016.

Curran said in the next 15 years, 8 GW of coal could retire based on the average 65-year coal unit lifespan and 16 GW of natural gas and oil generators could retire assuming their average 55-year lifespan. She said MISO plans to initiate a study in 2017 to examine the reliability impacts of aged-based generation retirements.

Moeller said MISO’s aim is simple: political-free planning.

“The most important criteria is that we’re working on the right thing. I think we’re pointed towards that,” Evans said.

“We’ve gotten a lot of calls since the election asking what has changed. In our view, we see our generation fleet continuing to evolve.”

Jennifer Curran, MISO
Board of Directors Briefs

MISO Ups Salary Budget in 2017; Small Overrun Expected for 2016

MISO’s Board of Directors last week unanimously passed a $239.1 million operating budget and a $29.9 million capital spending plan for 2017. (See “MISO Predicts Budget Increase in 2017, Introduces 5-Year Business Plan,” MISO Advisory Committee Briefs.)

The RTO had proposed a $238.6 million budget before the board’s Human Resource Committee approved a 3.5% increase in the salary budget, as recommended by human resource consulting firm Mercer.

The firm’s review of MISO’s compensation recommended a 3% increase in merit-based compensation and a 0.5% increase for employees’ promotional increases.

“We looked at things like GDP and inflation rates; we looked at anecdotal things,” Director Paul Bonavia said at the committee’s Dec. 6 meeting.

MISO CEO John Bear said he consulted with the CEOs of 11 member companies on the proposed increase.

“The range we have in mind is in line with their thinking,” Bear said. He said a key concern among the CEOs was the aging workforce and attracting younger staff.

MISO expects to exceed its $225 million 2016 operating budget by $600,000, resulting in a maximum 0.3% possible overrun.

The RTO has spent $187.9 million of the $188.6 million allowed to date, leaving less than 0.3% of the budget untouched, acting Vice President of Finance Tony Guisinger said at MISO’s Dec. 8 board meeting.

MISO anticipates between $30.5 million and $31.5 million in capital spending for the year, potentially exceeding its $31 million budget.

Guisinger also said MISO hopes to procure financing in 2018 for technology needs and said talks will begin in early 2017 on the amount it will request.

MISO to Welcome 3 New Board Members, Thanks Departing Directors

Board Chair Judy Walsh and Directors Michael Evans and Paul Feldman will exit MISO at year-end, replaced by former ERCOT CEO H.B. “Trip” Doggett, former Calvert Investments CEO Barbara Krumsieck and Todd Raba, who is leaving Twenty First Century Utilities and has served as CEO of both GridPoint and Berkshire Hathaway’s Johns Manville.

During the meeting, Senior Vice President of Compliance Services Steve Kozey confirmed election results and said all three candidates received sufficient votes in the electronic voting process. “No lapse in security; no Russian hackers,” he joked.

Former MISO Director Eugene Zeltmann called in to congratulate the trio of departing board members.

“You certainly presided over an incredible transformation of an extraordinary organization,” said Zeltmann, who left the board a year ago.

“We couldn’t have done this without you,” Walsh replied to Zeltmann.

Organization of MISO States President Sally Talberg called the three directors a “bedrock” for MISO.

The board also adopted two motions pertaining to itself — the elimination of post-service restrictions and a pay raise.

MISO will make a FERC filing by the end of the year to eliminate the post-service restriction and trim the pre-service restriction, leaving it with only a one-year pre-service restriction. Directors cannot have served as “a director, officer or employee of a member, user or an affiliate of a member or user engaged in the electric utility industry or participating in wholesale electricity markets” during that period.

“MISO was the only RTO in the nation with a post-service restriction,” Director Tom Rainwater said. Rainwater said MISO was having trouble attracting new board members with its two-year pre- and post-service prohibitions from utility and wholesale energy market participants. (See Board OKs Pay Hike, Change to Independence Rules.)

Rainwater said the board and MISO discovered that the Transmission Owner’s Agreement subjects “key” MISO employees to a 12-month “cooling off” period after leaving the RTO, during which they cannot have “any involvement ... on behalf of any parties other than MISO with regard to any matters in which they were substantially involved when serving for, or employed by, MISO.” Bear has agreed to compile a list of employees that would be subject to a restriction for board approval.

The board also adopted a $4,000 annual pay increase for directors. Rainwater said the changes will up the yearly retainer from $55,000 to $89,000 but eliminate meeting fees for the first six scheduled board meetings and two annual strategic retreat meetings. (See Board OKs Pay Hike, Change to Independence Rules.) A typical MISO director who attends those eight meetings and serves on three committees is expected to earn about $116,000 annually.

MISO Still Undergoing FERC Audit

A little over a year later, MISO is still undergoing a FERC compliance audit. Chief Compliance Officer Joseph Gardner told the board. Gardner said it is not unusual for FERC to ask for RTO audits to last 18 to 24 months. He said FERC staff has been on-site at MISO headquarters for two visits during the audit.

“No big concerns that I’m aware of have come up,” Gardner added.

“In my first meeting, we had two directors that had been thrown out, we had hostile stakeholders and cost overruns. At that time, it was a dicey deal indeed to see if MISO would succeed in becoming an organization,” Walsh said. She felt the board was being left in “very good hands,” she said.

― Amanda Durish Cook

Human Resource Committee | © RTO Insider
Markets Committee of the Board of Directors Briefs

More Time to Comment On MISO Auction Filing

CARMEL, Ind. — FERC has extended the comment period on MISO’s proposed forward capacity auction to Dec. 14 (ER17-284).

The extension — requested by the Public Utility Commission of Texas and not opposed by MISO — should not affect the

RTO’s ability to implement the auction in time for the 2018/19 planning year, said Richard Doying, executive vice president of operations and corporate services.

At the Board of Directors’ Markets Committee meeting on Dec. 6, Independent Market Monitor David Patton told the board he was preparing a filing for next week to express his ongoing concerns with the proposal. (See MISO Files Forward Capacity Auction Plan with FERC.)

Director Phyllis Currie asked if MISO had given thought to a contingency plan if FERC takes longer than expected to decide. Doying said MISO is holding off on releasing alternate plans for now.

MISO Awaits FERC Queue Decision

MISO expects a decision from FERC on its queue reform proposal by year-end. Vice President of System Planning and Seams Coordination Jennifer Curran said. Curran predicted gradual queue improvement in 2017 as the new rules are phased in.

At the September board meeting in St. Paul, Minn., Curran said MISO is hoping to build more certainty into the process that would reduce restudies and the amount of time it takes for projects to clear the queue. “It’s currently a two- to three-year process and is challenged by restudies,” she said.

FERC rejected MISO’s first proposal in March, saying the RTO improperly assumed the current backlog could be blamed on “speculative” projects and “failed to consider other potential factors” (ER16-675). (See MISO: Stakeholders Behind 2nd Queue Reform Attempt.)

— Amanda Durish Cook

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For information, contact Marge Gold at Marge.Gold@RTOInsider.com or 240.750.9423
Pipeline Sues to Force NY to Issue Permit for CPV Plant

By William Opalka

Millennium Pipeline has taken New York to federal court to force action on a gas line needed for an under-construction power plant entangled in a corruption scandal (16-1415).

In a 32-page brief filed Monday with the D.C. Circuit Court of Appeals, the company says the state Department of Environmental Conservation is sitting on a water quality permit for a 7.8-mile lateral needed to supply the Valley Energy Center plant being built by Competitive Power Ventures in Orange County.

The department must issue a Section 401 Clean Water Act permit for the project to proceed. Millennium says the department has ignored deadlines under the CWA, Natural Gas Act and a FERC order.

"By failing to act within a year of receiving Millennium’s permit request, the department thus has waived its authority to deny that request," the suit says. "FERC set an Aug. 7, 2016, deadline for all decisions on federal authorizations relating to the Valley Lateral Project. The department missed that generous deadline by more than three-and-a-half months (and counting)."

FERC issued a certificate of convenience and public necessity for the line Nov. 9 (CP16-17).

The $39 million Valley Lateral project would connect the plant to Millennium’s main pipeline through the Lower Hudson Valley. State and NYISO officials say the plant is needed to relieve generation and transmission constraints to serve the capacity zone north of New York City.

Millennium applied for the water permit in November 2015. DEC issued a Notice of Incomplete Application in December 2015 and a second NOIA in June, to which Millennium responded Aug. 31.

A DEC spokesman said the department does not comment on matters under litigation.

The department told Millennium on Nov. 18 that it had received the pipeline’s response to its second NOIA and that its review of the project was ongoing. The department said it has until Aug. 30, 2017, to issue the permit, in effect arguing that the one-year deadline for action restarted when it received the response to the second NOIA in August.

The $1 billion, 650-MW generating plant, which has been opposed by environmentalists, also has a role in an ongoing political scandal that resulted in the indictment of Joseph Percoco, a former top aide to Gov. Andrew Cuomo.

Former CPV executive Peter Galbraith Kelly Jr. has also been indicted in the bribery scheme. (See Competitive Power Ventures Lobbyist, Former Cuomo Aides Named in Bribery Indictment.)

Millennium has not been implicated in the scandal.

FERC Approves FitzPatrick Sale to Exelon

By William Opalka

FERC on Wednesday approved Exelon’s acquisition of the troubled James A. FitzPatrick nuclear plant in New York, rejecting a protest that its review should have included the impact of a state-mandated ratepayer subsidy (EC16-169).

Plant owner Entergy told New York officials that without the $110 million sale, the 882-MW plant would close at the end of January. New York regulators approved the transaction last month. (See NY Regulators Approve FitzPatrick Sale.)

But consumer advocate Public Citizen, in a protest filed with FERC in October, complained that the companies omitted information on the zero-emission credit program New York had passed to prop up upstate nuclear plants, which the group argued made the application incomplete. It also said the subsidy itself distorts the New York market and violates the NYISO Tariff. (See Public Citizen Challenges NY Nuclear Subsidy, FitzPatrick Sale.)

Entergy and Exelon said such a review was beyond the scope of FERC evaluation of the sale, which should be limited to whether it gave the buyer excess market power and if the sale was in the public interest.

The commission agreed.

“We will dismiss Public Citizen’s protest of the proposed transaction because the issues Public Citizen raises concern the ZEC program rather than the effects of the proposed transaction on competition, rates, regulation or cross-subsidization,” the commission wrote. “Public Citizen ... focuses on the potential effects of the ZEC program on the NYISO market rather than the effects of the proposed transaction.”

FERC said such questions could be addressed in another proceeding, which Public Citizen appears prepared to do.

Tyson Slocum, director of Public Citizen’s energy program, on Thursday said the groups would first ask for a rehearing of this week’s order and later challenge the ZECs under a Section 206 proceeding.

Slocum said he found FERC’s rationale “very strange” for limiting the scope of order.

“It’s very clear that the transaction would not have occurred without the ZEC program,” he said. “But there was no review of how [ZECs] will affect market power, pricing and how it gives [the plants] a competitive advantage.

“FERC is acting as if these changes to the market don’t exist,” Slocum added.

Critics of the ZEC program say it will cost ratepayers $7.6 billion over its 12-year life. New York says the program helps combat climate change and its costs are more accurately measured by the federal “social cost of carbon” calculation.

After the Nuclear Regulatory Commission gives its approval and the deal closes, Exelon would be the sole owner of the upstate nuclear fleet, which consists of three plants that make up 5.9% of the state’s generation.
Transmission-Distribution ‘Seams’ May Be Next Hurdle for Planners

By Rory D. Sweeney

WILMINGTON, Del. — The increasing complexity of distribution systems is creating a new “seam” for grid operators, representatives from an industry planning collaborative, the U.S. Department of Energy and Johns Hopkins University said at PJM’s General Session last week on the evolution of system planning.

The growth of distributed energy resources is changing the one-way flow of distribution systems, complicating their relationship with the transmission grid, speakers said.

“Transmission and distribution planning and operations are separate, so the problem becomes understanding the changes on one and how they impact the other,” said David Whiteley of the Eastern Interconnection Planning Collaborative. “In the vertically integrated world, I think the two pieces of planning would merge. ... We talk about seams issues with neighbors on transmission. You’re going to have seams issues with the distribution.”

Stan Hadley of the Oak Ridge National Laboratory extended the analysis to the natural gas pipeline network. He noted a study of natural gas sufficiency in New England during the winter that found that the constraint was the lack of pipelines across New York.

“They’ve been pushing away on building those pipelines,” he said.

Whiteley said infrastructure planning has become increasingly complex.

“It’s not a predictable load shape anymore. Generation planning is at arm’s length from transmission planning in many regions of the country, so how can you plan the transmission system if you don’t know where the generation’s going to be?” he said.

“You don’t know if a line can be built or what year it will possibly come into service. That complicates the prediction of what the future looks like. All of this takes additional time; it takes additional resources.”

Researchers must understand not only the electric grid but also the natural gas distribution system, physical security issues, political dynamics and an ever-growing list of NERC reliability standards, Whiteley said.

“I used to work at NERC, but even I was shocked at the volume — over 100 standards; 3,000 pages of material on the NERC standards,” he said. “Everything is in the context of the search for what I call the ‘Holy Grail of Planning’: co-optimization of everything.”

Whiteley said incorporating complexity increases understanding of the system but makes planning far more time consuming. He highlighted an EIPC study that defined eight resource-planning futures and analyzed three of them 20 years into the future. The single study took two and a half years, he said.

Having to choose between potential scenarios to study is a dilemma that Johns Hopkins professor Ben Hobbs is attempting to eliminate with his research into “stochastic multistage integrated network expansion.”

“The key thing is we’re making decisions today not knowing which paths we’re going to go down,” he said. “What to build now; what to build later; what’s the value of flexibility. ... You’re doing this all at once in one large, linear program.”

While Hobbs’ modeling can take days to run depending on the complexity, it’s already shown success in producing otherwise unseen and money-saving guidance. A study for the Western Electricity Coordinating Council uncovered several insights likely to improve the value of transmission planning over a 40-year outlook by approximately $3.5 billion, he said.

“Under proactive planning, you get more transmission and definitely different siting” for generation, Hobbs said.

Another challenge is integrating individual reports into a cohesive overview. Hadley said. Through the Grid Modernization Laboratory Consortium, he is working on standardizing a “common language” for studies so that results can be compared.

“The idea is being able to show your results and other people can see where you came from,” he said. With current procedures, “you sometimes don’t know what the underlying assumptions were.”

“We talk about seams issues with neighbors on transmission. You’re going to have seams issues with distribution.”

David Whiteley, Eastern Interconnection Planning Collaborative
**FERC OKs W.Va. Tx Rate over Staff, Honorable Objections**

By Rory D. Sweeney

FERC delivered a split decision in approving a rate settlement on a West Virginia transmission project that was opposed by both FERC staff and Commissioner Colette Honorable.

Chairman Norman Bay and Commissioner Cheryl LaFleur said the settlement between Transource West Virginia, Old Dominion Electric Cooperative and Midcontinent McN was more favorable to the public interest than the uncertainty of litigation (ER15-2114). Honorable opposed the Dec. 5 order, however, saying the only party to the docket truly representing the public interest was FERC staff, which opposed the settlement.

At question was Transource’s rate of return on equity for its Thorofare Creek–Goff Run–Powell Mountain 138-kv project awarded through PJM’s Regional Transmission Expansion Plan. Transource had initially proposed a 10.5% base ROE, which was reduced to 10% in the settlement. FERC staff argued a discounted cash flow analysis indicated an 8.89% rate was appropriate.

The settlement also negotiated a moratorium on changes to the base rate until Sept. 5, 2018, along with finalizing depreciation rates and clarifying the formula-rate template. Incentive rates had already received FERC approval and weren’t part of the settlement.

Noting support for the settlement from ODEC and Midcontinent, Bay and LaFleur said the commission “favors settlements, as they provide parties with certainty, reduce litigation cost, and permit parties to reach reasonable compromise in resolving difficult issues.” The 10% rate is consistent with rates approved in other recent uncontested settlements, they said, and denying it might upset the settlement’s other agreements. Staff’s DCF analysis would certainly be challenged in litigation, which might produce a rate well above the settled one, they said.

HONORABLE noted language in FERC’s approval of one of the recent uncontested settlements that describes “a case where the commission staff is the only participant to represent the interests of the ultimate consumer.”

“This settlement is the situation envisioned by the commission,” she wrote in her dissent. “Based on the record in this proceeding, I am unable to conclude that the settling parties represent all aspects of the public interest.”

While ODEC had intervened in the case, Honorable said she couldn’t determine whether the cooperative would be allocated any costs for the project, thereby giving it little stake in the case’s result and reducing the significance of its acceptance of the settlement. Staff’s determination, she said, should have received more consideration and ultimately informed the commission’s decision.

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**PJM Board OKs $260M in Tx Projects**

The PJM Board of Managers last week approved almost $260 million in transmission reliability projects.

The projects in the 2016 Regional Transmission Expansion Plan include:

- New baseline reliability upgrades ($158.1 million);
- Changes to previously approved upgrades (net increase of $47.3 million);
- Facilities, network upgrades and withdrawal of canceled facilities related to the interconnection queue (net increase $54 million).
- With the board’s action, PJM has approved more than $29 billion in transmission additions and upgrades since the first RTEP in 2000.

The board also approved an installed reserve margin of 16.6% for 2017/18. The IRM approval includes associated parameters for each of the next four delivery years.

The IRM study results were approved by the Markets and Reliability Committee in October. (See “IRM Study Approved but Criticized for Lack of Winter Analysis,” PJM Markets and Reliability and Members Committee Briefs.)

— Rory D. Sweeney

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**PJM Names New Chief Communications Officer**

PJM announced today it has appointed Susan Buehler as chief communications officer to oversee media relations, employee communications and the RTO’s website. She replaces Ian McLeod, who retired last month.

Buehler is a former executive vice president for Bellevue Communications, a Philadelphia public relations firm, where she developed media, public relations and government relations strategies for clients including Citizens Bank, Campbell Soup and McDonald's.

Before that, she was an Emmy award-winning television news reporter and editor at Fox News and worked in communications for Exelon’s PECO Energy. She holds a bachelor’s degree in broadcast journalism from Syracuse University.

“Susan’s career in strategic communications and broadcast journalism brings a new perspective to reaching our stakeholders,” said Nora Swimm, senior vice president of corporate client services. “Her experience helping large firms achieve their communications goals coupled with her keen awareness of what resonates with audiences will enhance PJM’s approach to communicating.”

— Rich Heidorn Jr.
FERC Rejects Challenges on Local Tx Cost Allocations

By Rich Heidorn Jr.

FERC last week upheld its February 2016 ruling that projects solely addressing a transmission owner’s local planning criteria are not eligible for regional cost allocation, rejecting rehearing requests from Dominion Resources and others.

"Cost allocation is not an exact science, and there may be ‘multiple just and reasonable rates’ on the same set of facts. Here, whether the allocation proposed by the PJM transmission owners is the best allocation method is not the issue; the issue is whether it is a just and reasonable method, and we find that it [is] just and reasonable based on the supporting data," the commission said (ER15-1387-002).

The commission directed PJM to make a compliance filing ensuring that the costs incurred after the May 25, 2015, effective date of its February order for projects included in the Regional Transmission Expansion Plan solely to address Form 715 local planning criteria be allocated to the zones of the individual TOs. PJM must also rebill for any costs for such projects allocated incorrectly for the period.

FERC also denied rehearing in two cases applying the 2016 ruling and making Dominion solely responsible for the cost of its 500-kV Cunningham–Elmont (RTEP project b2582) (ER15-1344) and Cunningham-Dooms rebuilds (b2665) (ER16-736, EL16-96-001).

Dominion argued that the projects have regional benefits, unlike most Form 715 projects, which deliver only local benefits. Old Dominion Electric Cooperative, LSP Transmission Holdings and ITC Mid-Atlantic Development also had sought rehearing.

(See Dominion: Tx Project Should be Regionally Allocated.)

Commissioner Cheryl LaFleur repeated her earlier partial dissents in the three dockets, saying that "high-voltage transmission lines in PJM have inherent regional benefits that warrant some measure of regional cost allocation, and those benefits exist regardless of the underlying need that drove the project."

The commission also denied Public Service Electric and Gas request to reconsider an order assigning its zone all of the costs of its Sewaren upgrade to replace aging infrastructure and provide storm hardening (ER14-1485). PSE&G said the Sewaren projects (b2276, b2276.1 and b2276.2) addressed both aging infrastructure and short-circuit issues. It will convert the two 138-kV circuits from Sewaren–Metuchen to 230 kV and make related changes.
Board of Directors Briefs

Board Approves 2017 Admin Fee Increase, Budget

LITTLE ROCK, Ark. — SPP’s Board of Directors last week approved a 13.2% increase in the RTO’s administrative fee and a 6.6% boost in its budget for 2017. The approval came Dec. 6 after a unanimous vote by the Members Committee.

The vote means the fee will rise from 37 cents/MWh to 41.9 cents/MWh in 2017, based on a net revenue requirement (NRR) of $160.5 million, a $9.9 million increase over 2016.

The RTO projects annual fee increases for the next five years, reaching 49.9 cents/MWh in 2021.

SPP is projecting an under-recovery of $5.9 million from the 2016 NRR. Other factors contributing to the NRR’s increase are a $3.5 million increase in maintenance expenditures and a $2.7 million increase in personnel costs.

SPP Director Harry Skilton, chair of the Finance Committee, said a decline in load growth led to the administrative fee’s increase. SPP had budgeted 407.2 million MWh in billable energy but revised that down to 393.9 million MWh. It is budgeting 383 million MWh through 2021.

“That reduction in load has set us up for an under-recovery that carries on to the next year,” Skilton said.

SPP budgeted a net loss of $35 million this year but has upped that to a $41.6 million loss given the under-recovery.

The board approved a budget with $194.1 million in income and $196.4 million in expenses for 2017. The 2016 spending plan had $176.2 million in income and $217.8 million in expenses.

The budget sets SPP’s headcount at 610 employees, an increase of one from 2016.

Besides a few questions on SPP’s practice for depreciating expenses, members quickly accepted Skilton’s report and recommendations.

Stakeholder Surveys Stay Close to Form

Michael Desselle, SPP vice president and chief compliance and administrative officer, told the board and members that the RTO sent out nearly double the usual amount of stakeholder satisfaction surveys, but that the final results were not significantly different than previous years.

Desselle said the annual survey’s average satisfaction scores dropped for every service except one, by a difference of 0.12 points (out of 5) or less. Training was the lone exception, rising by 0.03.

Stakeholders identified the Z2 revenue crediting process as a repeat theme in their comments. One stakeholder said “the ‘Z2 Monster’ has been an unqualified disaster… I tip my hat to SPP management’s ability to skirt their contribution to the situation,” while another dinged SPP staff for “allowing too many years to transpire before implementing Z2.”

“Last year, [the concern] was the transparency of the Z2 process,” Desselle said. “This year, it was the expediency of the Z2 process.”

As in past years, Desselle said staff will prioritize the comments and address them. He said staff has closed 71 of last year’s 76 comments.

Among the positive comments were many praising the staff’s professionalism, responsiveness and communication efforts. Criticisms included the lack of detailed settlement reports in the Integrated Marketplace portal and what one called the “patronizing attitude” of staff and board members. One critic called for an external market monitor, saying there are “way too many conflicts of interest with an internal” monitor. (See FERC Calls for Changes to Protect SPP Market Monitoring Unit Independence.)

SPP distributed 4,597 survey invitations to organizational group members, market participants and other individuals who had interacted with the RTO during the previous 12 months, either through meetings, training, customer relations or other exchanges. Staff received 716 responses, for a response rate of 16%, up one percentage point from last year (410 responses) and four points from 2014 (181 responses).

Continued on page 20
SPP to Deliver Positive Report to FERC on Gas-Scheduling Practices

SPP says it has successfully implemented system changes required by FERC Order 809, which ordered RTOs to improve the alignment of their market schedules with those of interstate gas pipelines (RM14-2). SPP’s changes took effect Sept. 30.

“After roughly two months of operational experience, it appears it’s successful so far,” SPP legal counsel Joe Ghormley told a meeting of the Gas Electric Coordination Task Force last week, where he shared the draft of an informational report to be filed with FERC.

The report says “the changes have improved coordination between the SPP markets and natural gas nomination cycles while taking into account stakeholders’ price formation concerns as well as the relative immaturity of SPP’s market and the resulting need for an incremental approach to market system changes.”

SPP described “a year of transition” involving the revised market schedule and the development of system changes for the RTO’s enhanced combined cycle system initiative, the subject of proposed Tariff changes filed with FERC in November (ER17-358). The report also details “extensive efforts” to reach out to and train members and stakeholders. SPP said it is only aware of one resource that has reported potential problems with gas availability, which occurred after a pipeline was taken out of service last December for repairs. When the line was returned to service, it operated below capacity because of reductions mandated by the Pipeline and Hazardous Materials Safety Administration.

“SPP continues to work ... to identify cost-effective ways to further compress its market system solve times without jeopardizing the [Integrated Marketplace’s] fundamental functions.”

SPP

Board of Directors Briefs

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Desselle also said auditing firm KPMG issued an unqualified opinion with no exceptions following its Statement on Standards for Attestation Engagements (SSAE) No. 16 audit. He said auditors found “no disagreements with management” and that “no illegal acts came to their attention.”

Stakeholders Again Give Organizational Groups High Marks

SPP’s annual survey of its organizational groups matched that from 2016, with stakeholders rating groups’ overall effectiveness at 4.2, out of a possible 5.

The scores reflected the average response to “Please rate the overall effectiveness of this group.” The individual group scores ran from 3.5 for the Event Analysis Working Group to 4.8 for the Human Resources and Oversight committees and the System Protection and Control Working Group.

SPP CEO Nick Brown said he was pleased with the survey’s 71% response rate, and he assured the board and members that SPP “is not just gathering this data and doing nothing with it.”

Ciesiel Pleased with RE Survey Results

Regional Entity General Manager Ron Ciesiel said he was happy with the RE’s stakeholder satisfaction survey, which produced scores of 3.9 to 4.4 on a 5-point scale for customer service and responsiveness, and 3.2 to 3.6 for how well the program meets expectations.

Ciesiel noted RE staff is seen as responsive, knowledgeable, professional and personable and that members see the RE’s workshops on reliability issues as “valuable.”

“Here’s the good news: We’re not having the events we need to do analysis on. We’re not really getting events,” he said. “I’ll take this every day, because it’s good news across the board, not only here, but in North America.”

Ciesiel said the RE is considering a spring workshop and including sessions on new standards. It will also use the RE’s newsletter to focus on the top 10 violated standards.

Paul Malone, Todd Fridley Approved as MOPC Chairs

The board and members unanimously approved the Nebraska Public Power District’s Paul Malone as the incoming chair of the Markets and Operations Policy Committee. Malone, NPPD’s transmission compliance and planning manager, replaces SouthCentral MCN’s Noman Williams, whose term expired.

Todd Fridley, vice president at Transource Energy, was approved as the committee’s vice chair.

The board and members also approved revisions to the Corporate Governance Committee’s charter to formalize bylaw revisions that added committee seats for federal power marketing agencies and independent transmission companies. Bob Harris (Western Area Power Administration–Upper Great Plains) and Brett Leopold (ITC Great Plains) currently fill those respective seats.

Also approved was a charter change for the Seams Steering Committee. It changes the committee’s scope of review and guidance activities from “existing seams agreements” to “new or existing seams agreements.”

— Tom Kleckner
effective ways to further compress its market system solve times without jeopardizing the [Integrated Marketplace’s] fundamental functions ... or its upcoming enhancements to commitment and dispatch of gas generators utilizing the most efficient configuration of components."

The report will be filed with FERC on Thursday. The commission required SPP to file an annual report on its compliance with Order 809 for the next three years.

SPP, AECI Narrow Target Areas to Southern Missouri

SPP and Associated Electric Cooperative Inc. have whittled a list of five target areas under consideration for joint transmission projects down to one.

SPP and AECI staff told the Interregional Planning Stakeholder Advisory Committee on Friday that they are still narrowing down different transmission solutions to address high voltages and overloads in the Brookline area of southern Missouri. Planners intend to issue a draft report for the IPSAC’s review early next year.

The two entities currently use an operating guide to manage their seam, but the cost is becoming too big to ignore. Staff said it is considering the use of transmission reactors around Brookline instead of using the operating guide to control voltages. Any final solutions will be coordinated with SPP’s 2017 Integrated Transmission Planning’s 10-year assessment.

SPP and AECI determined three other target areas can be managed without joint projects. The fifth target area, in Northeast Oklahoma, was removed from consideration because a change in transmission ownership shifted facilities to AECI’s management.

Based in Springfield, Mo., AECI is owned by six regional generation and transmission cooperatives.

M2M Payments Flow Back to SPP

Market-to-market payments between SPP and MISO reverted to previous form in October, with MISO paying SPP almost $2.2 million for 871 binding hours on 34 flowgates along the seam.

MISO paid more than $2.2 million for 27 temporary flowgates, while SPP sent about $29,000 to MISO for seven permanent flowgates.

SPP had paid its counterpart for binding flowgates the previous three months, but MISO has sent about $10 million to SPP since the two RTOs began the process last year.

— Tom Kleckner
Third Parties Own 30% Of Distributed Solar

Third-party private companies, which provide either solar electricity or equipment to generate it, own about 30% of distributed solar power capacity in the U.S. (some 3.7 GW) as of September, according to the U.S. Energy Information Administration.

Third parties — as opposed to self-financing or utility/public entities — own 44% in the residential sector, compared with 11% in the commercial and industrial sectors. The residential sector accounts for 56% of distributed solar capacity but 84% of third-party-owned solar capacity.

California has the highest distributed solar capacity at 4.9 GW, with third parties owning about one-third. Third parties own slightly more than half of the distributed solar capacity in Arizona and Maryland — giving the states the highest rank in third-party ownership.

More: U.S. Energy Information Administration

AES Energy Brings Battery-Based Storage to Arizona Desert

AES Energy Storage is partnering with Arizona Public Service to bring 4 MW of battery-based energy storage to the desert — marking the company’s first installation in Arizona.

AES will deploy a pair of 2-MW arrays in Surprise and Buckeye as part of APS’ Solar Partner Program. The program studies the use of smart inverters and energy storage to examine best practices for integrating solar onto the grid in areas with high solar penetration, while still maintaining reliability for customers.

Installation of the company’s Advancion energy storage arrays began in November. They are expected to become operational in early 2017.

More: Arizona Public Service

Ameren Illinois Decreasing Electric Service Rate for 4th Time

Ameren Illinois is decreasing its electric service delivery rates by $14.488 million in January under a plan approved by the Illinois Commerce Commission — the utility’s fourth rate decrease since the state’s smart grid bill was passed in 2011.

The typical residential customer using 10,000 kWh of electricity will see a monthly savings of approximately $1.37.

In continued support of its smart grid implementation plan, the utility plans in 2017 to install storm-resilient utility poles along with technology and upgraded distribution equipment designed to detect and reduce the frequency of power outages.

More: The Telegraph

FirstEnergy Strikes $885M Deal for Sale of Pa. Plants

FirstEnergy has signed a nonbinding letter of intent to sell four natural gas-fired power plants in Pennsylvania to an unidentified buyer for $885 million.

The deal, which expires on Dec. 31, also provides that the buyer will acquire $335 million in debt, the company said in a Securities and Exchange Commission filing.

The plants in Springdale, Gans, Chambersburg and Hunlock have a combined net value of about $1.2 billion. As part of the deal, FirstEnergy also is selling its ownership interest in the Bath County hydroelectric power plant along the Virginia-West Virginia border.

More: Pittsburgh Tribune-Review

Duke Energy Buys Its First Solar Project in Colorado

Duke Energy Renewables has purchased the 14-MW Victory Solar Power project in Colorado from its developer juwi for an undisclosed price.

The project is Duke’s first solar project in Colorado but its 50th solar project overall since entering the solar business almost seven years ago.

Power from Victory will be sold to the Intermountain Rural Electric Association under a 25-year contract.

More: Charlotte Business Journal

Rokstad Wins $152M Contract for Bipole III Project

Rokstad, a Canadian subsidiary of Carillion, is the winning bidder for a $152 million contract from Manitoba Hydro for work on its Bipole III high-voltage transmission line project.

The project will transport renewable energy to southern Manitoba and to the U.S. It includes installation of 860 miles of transmission lines and two converter stations between Keewatinohk in northern Manitoba and Dugald in southern Manitoba.

Work is expected to start before year-end, with completion scheduled for 2018.

More: SeeNews

Duke Energy’s Coal Ash Neighbors May Get Public Water Hookups

Duke Energy has proposed spending $1.89 million to connect most of the 950 homes and businesses near its North Carolina coal ash basins to public water lines.

The proposal is in response to a new state law requiring Duke to offer public water hookups to neighbors who live within a half-mile of its basins or to install filtration systems for their wells.

Under Duke’s proposal, 702 households would be connected to public lines and would be responsible for paying their own water bills, with Duke issuing one-time payments to help offset the expense. Duke would offer water filtration to communities around three plants located far from municipal lines.

More: The Charlotte Observer

Peabody Considers Paying $500M Term Loan Early

Peabody Energy is considering paying off a $500 million term loan ahead of schedule thanks to a more than 100% rise in coal prices.

The coal producer secured an $800 million debtor-in-processing financing from creditors in April after it filed for bankruptcy. The financing included a $500 million term loan, $200 million bonding accommodation facility for cleanup costs and a $100 million letter of credit.

Peabody could save more than $12 million in interest by paying off the term loan early.

More: St. Louis Business Journal

Continued on page 23
La Paloma Generating Files for Chapter 11 Bankruptcy

La Paloma Generating, a 1,200-MW combined cycle plant based in California, filed for Chapter 11 bankruptcy on Tuesday, citing $524 million of debt.

La Paloma’s filing states slower-than-expected growth in electricity demand and a rise in renewable generation resources in California were “exacerbated by an inhospitable regulatory environment.”

La Paloma’s owner, Rockland Capital, is one of several California plant owners that has asked the state for help in offsetting losses.

More: Reuters

AEP Announces New Executive Leadership

American Electric Power has made several organizational and executive leadership changes effective Jan. 1, 2017.

Among the changes: Robert P. Powers, currently executive vice president and chief operating officer, has been named vice chairman; Paul Chodak III, currently president and COO of Indiana Michigan Power, has been named executive vice president of utilities.

Powers will serve as senior advisor to CEO Nicholas Akins while continuing to oversee many key operations. AEP’s utility subsidiary presidents and COOs will report directly to Chodak, except for the president and COO of AEP Texas.

More: American Electric Power

Riverstone Completes Purchase Of Talen Energy for $1.8B

Energy-focused private equity firm Riverstone completed its purchase of Talen Energy for $1.8 billion, or $14 a share.

Ralph Alexander, a member of Talen’s board of directors and a Houston-based partner at Riverstone, was named president and CEO of the power generation and marketing company, replacing Paul Farr.

Talen began as the fourth-largest independent electricity producer in the U.S. when it was spun off from PPL in June 2015.

More: The Morning Call

FirstEnergy Names Dan DeVille as Director of External Affairs

FirstEnergy has named Dan DeVille director, external affairs for The Illuminating Company and Toledo Edison service areas. He replaces Doug Hogan, who retired.

DeVille will be based at The Illuminating Company’s regional headquarters in Brecksville, Ohio, and will lead a team of eight external affairs managers who work from regional offices in the Cleveland and Toledo areas.

DeVille joined FirstEnergy in 1985 and most recently served as external affairs manager for Ohio Edison’s Mansfield and Marion areas.

More: FirstEnergy

Kathleen Shea Elected Wires President

Kathleen Shea, president of transmission, Eversource Energy, has been elected Wires president, effective Jan. 1.

Shea will be leading Wires in its decades-long effort to educate the public and policymakers on the diverse benefits of a robust grid.

Other Wires officers for 2017 are President-elect Nina Plaushin, ITC Holdings; Vice President Paul Dumas, Avangrid; Treasurer Gerald Deaver, Xcel Energy; and Secretary Tom Hestermann, Sunflower Electric Power.

More: Wires

Dominion Unveils First Phase of Solar Project at UVA

Dominion Virginia Power unveiled the first phase of a 452-kW solar array at the University of Virginia, indicating that the project’s focus is to test the viability of solar power.

“One of the things we want to understand: On a [rainy] day like today — when you can’t count on solar power — how do we accommodate the lack of solar power?” said Nathan J. Frost, Dominion’s manager of new technology and renewable programs.

Dominion has signed a 20-year, $1.6 million lease to use the space on top of two university buildings.

More: The Daily Progress

SDG&E Seeks $379M from Customers for Firestorm Expenses

San Diego Gas & Electric is seeking to charge customers $379 million in expenses left over from the Witch, Guejito fires in October 2007, which killed two people and destroyed more than 1,300 homes.

The fires were caused by SDG&E power
COMPANY BRIEFS

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Lines that were blown into vegetation that the utility did not properly maintain, according to investigations by the California Public Utilities Commission and the California Department of Forestry and Fire Protection.

California utility regulators are holding a public hearing on Jan. 9 to allow ratepayers and consumer advocates to testify on SDG&E’s request.

More: The San Diego Union-Tribune

Exelon Pays Another $56M to NJ in Pepco Deal

Exelon will pay $56 million more in benefits to Atlantic City Electric customers and New Jersey under a deal struck when the state approved the company’s $6.8 billion acquisition of Pepco Holdings Inc.

The deal ensured that New Jersey ratepayers would receive equal benefits to those negotiated in other states that approved Exelon’s merger.

New Jersey will receive $126 million in total benefits.

More: The Philadelphia Inquirer

Dominion’s Permit for New North Anna Nuclear Reactor Suspended

The U.S. Army Corp. of Engineers has suspended a permit related to Dominion Resources’ potential construction of a new reactor at its North Anna Power Station while it considers the project’s impact on endangered species.

The project involves building a temporary dam that environmentalists claim would threaten the ecosystem, including the federally endangered Atlantic sturgeon as well as a threatened wetlands plant.

The Nuclear Regulatory Commission is expected to issue its decision in 2017 on the operating license for the new reactor.

More: Richmond Times-Dispatch

CPV Maryland’s St. Charles Center Expected to Go Live in Feb.

CPV Maryland’s St. Charles Energy Center — a 725-MW combined cycle gas-fired facility and limited interconnection facilities — is expected to begin commercial operations on or before Feb. 1, 2017.

The facility, located in Waldorf, Md., is interconnected with transmission facilities owned by Potomac Electric Power Co. (PEPCO) and operated by PJM. It consists of one steam turbine generator with a name-plate rating of 328.1 MW and two combustion turbine generators each with a name-plate rating of 223.55 MW.

The plant was at the center of a U.S. Supreme Court decision that found Maryland’s contract-for-differences was unconstitutional because it interfered with the FERC-jurisdictional PJM capacity markets.

More: Generation Hub

Delayed Kemper Plant Start-up Costs Southern Up to $35M

Southern Co. will incur up to $35 million of expenses — including start-up labor, materials and fuel, as well as operational resources — because its Kemper clean coal plant missed its target start-up date of Dec. 31.

Southern unit Mississippi Power received about $250 million in tax benefits associated with bonus depreciation that are dependent upon placing Kemper in service by Dec. 31. Mississippi Power will be required to repay this amount.

The plant is expected to start operations in 2017, but further delays are possible, Southern said.

More: Atlanta Business Chronicle

Federal Briefs

Water Infrastructure Bill Sent to Obama

The Senate passed a major water bill Saturday that includes aid for Flint, Mich., drought relief for California and new rules on coal ash.

The nearly $12 billion Water Infrastructure Improvements for the Nation Act of 2016 authorizes 30 new infrastructure projects.

The Edison Electric Institute praised the legislation’s provisions authorizing EPA to approve state permitting programs for coal ash. “As the EPA’s coal ash regulation goes into effect and our industry begins to close coal ash basins, these legislative provisions will enable states to be more involved in the permitting process for the closure of basins,” EEI said in a statement.

More: The Hill, EEI

WAPA Under Investigation for Financial Mismanagement

The Western Area Power Administration is investigating the Western Area Power Administration following allegations by multiple whistleblowers of widespread misconduct and inappropriate spending within the agency.

Arizona Sens. Jeff Flake and John McCain are also calling for an investigation. They also are concerned about the possibility that WAPA overcharged customers for power.

More: ABC 15

NRC Memo: Pilgrim Nuclear Plant Staff ‘Overwhelmed’

Staff at the Pilgrim Nuclear Power Station are “overwhelmed by just trying to run the station,” according to an internal memo of the Nuclear Regulatory Commission.

The memo, which was inadvertently leaked, states that although there is a lot of positive energy toward improving conditions, “no one seems to know what to do with it, to improve performance, leading to procedural noncompliances, poor maintenance, poor engineering practices and equipment reliability problems.”

Pilgrim, which is scheduled to close in May 2019, has a reactor safety record that is among the three worst-performing plants in the country, according to the commission.

More: The Boston Globe

Continued on page 25
**FEDERAL BRIEFS**

**Groups to Trump: Protect Lower Snake River Dams**

Dozens of interested parties are urging President-elect Donald Trump to protect the Lower Snake River Dams in Washington state.

The request follows a recent federal court ruling ordering a new environmental study be done regarding the dams, after the federal government's latest plan for protecting threatened and endangered salmon indicated breaching the dams did not need to be considered and would cost taxpayers at least $3 billion.

The Lower Snake River Dams provide a marine transportation corridor that helps move 3.5 million tons of cargo, worth $1.5 billion a year, to regional markets, according to an October 2015 news release from the Army Corps of Engineers.

More: [The Associated Press](http://www.ecowatch.com)

**Spectra Finishing Natural Gas Pipeline Projects in New England**

Spectra Energy has almost completed its Algonquin Incremental Market and Salem Lateral projects — the first two natural gas pipeline projects in New England since 2010.

On Nov. 1, Spectra placed part of the $972 million AIM project into service. The pipeline, which will provide an additional 342 Mcfd, marks the largest pipeline project since 2007 to transport natural gas into New England from outside the region.

The $63 million Salem Lateral project will provide capacity for the Salem Harbor Power Plant, a converted coal-to-gas electric power plant scheduled to begin service in June 2017. The 674-MW power plant is expected use up to 115 Mcfd of natural gas to generate electricity for New England consumers.

More: [Energy Information Administration](http://www.associatedpress.com)

**800 Scientists Ask Trump to Address Climate Change**

Some 800 scientists have signed an open letter to President-elect Donald Trump encouraging him to respond to the threats posed by climate change.

The letter, released by *Scientific American*, asked Trump to expand clean energy, reduce carbon pollution, invest in response efforts for extreme weather events, stay in the Paris Agreement and acknowledge that climate change is real and caused by human activity.

More: [The Hill](http://www.thehill.com)

**New England Clean Power Link Gets Presidential Permit**

The Energy Department has issued a presidential permit for the New England Clean Power Link, a 154-mile, $1.2 billion power line that will run under Lake Champlain and link suppliers in Canada with consumers in southern New England.

Transmission Developers Inc. subsidiary TDI-New England is building the project, with construction expected to start in late 2017 or early 2018.

TDI hopes utilities in Massachusetts will be a key market for the power, as Republican Gov. Charlie Baker in August signed legislation calling for a request for power supply proposals that will close April 1.

More: [The Associated Press](http://www.associatedpress.com)

**Trump Advisers Want to Privatize Indian Land for Oil and Gas Drilling**

Advisers to President-elect Donald Trump on Native American issues want to privatize tribal lands for oil and gas drilling.

Presently, tribes can drill on the reservations — which may contain about a fifth of the nation's oil and gas — and reap the profits. But they are subject to regulations that are far more burdensome than those applied to private property.

Many Native Americans view privatization of reservations as a violation of tribal self-determination and culture.

More: [Reuters](http://www.reuters.com)

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**STATE BRIEFS**

**14 States Report on How To Grow Carbon Capture**

A 14-state work group issued a report on Dec. 2 outlining growth opportunities for carbon capture.

The report — "Putting the Puzzle Together: State & Federal Policy Drivers for Growing America’s Carbon Capture & CO2-EOR Industry" — recommends a package of carbon capture incentives. Federal incentives include tax credits; a revenue-neutral mechanism for stabilizing prices paid; and tax-exempt private activity bonds and master limited partnership tax status for project financing.

States can help grow carbon capture by taking an optimized approach to existing state taxes to complement federal incentives and help projects achieve commercial viability, the work group said.

More: [GenerationHub](http://www.generationhub.com)

Continued on page 26
Carbon dioxide allowance prices dropped 22% at the 34th Regional Greenhouse Gas Initiative auction on Wednesday, renewing calls from environmentalists to tighten emission limits in the nine-state compact.

Nearly 14.8 million allowances were sold at a clearing price of $3.55, down from the $4.54 they netted in September in the last quarterly auction. (See Md. Delves at Proposed Emission Cuts as RGGI States Ponder Future.)

Carbon prices have flattened out as the program’s success in limiting emissions has led to an oversupply of emission credits, advocates say. Prices are 53% lower than they were a year ago. Last week’s clearing price is the lowest since December 2013.

“Connecting 100,000 private solar rooftops is a clean energy milestone worth celebrating and signifies this community’s commitment to increasing energy from sources that help reduce our environmental impact for the benefit of future generations,” said Caroline Winn, SDG&E’s chief energy delivery officer.

More: Solar Industry

**STATE BRIEFS**

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**CALIFORNIA**

Proposal for 7,500 EV Charging Stations Up for PUC Vote

The Public Utilities Commission will vote Thursday on a proposal by Pacific Gas and Electric to install 7,500 electric vehicle chargers in the northern and central portions of the state.

The proposal has been scaled back twice since it was first introduced in early 2015. The 2015 version — the largest charging station proposal ever — called for 25,000 chargers and led to several parties, including charging station companies, filing complaints. The number was then reduced to 7,600, but 100 fast-charging stations have since been removed.

PG&E says its investment will support growth in adoption of plug-in EVs and will bring them to EV owners who don’t own houses. More chargers could be added later if the commission approves.

More: HybridCars.com

SDG&E Celebrates 100,000 Private Rooftop Solar Milestone

San Diego Gas & Electric has connected more than 100,000 private rooftop solar systems to its power grid as of Nov. 30.

“Connecting 100,000 private solar rooftops is a clean energy milestone worth celebrating and signifies this community’s commitment to increasing energy from sources that help reduce our environmental impact for the benefit of future generations,” said Caroline Winn, SDG&E’s chief energy delivery officer.

More: Solar Industry

6 Cities Expected to Review Diablo Canyon Settlement Soon

Six city councils are expected to review later this month a proposed settlement by Pacific Gas and Electric to help the community cope with economic loss when the Diablo Canyon nuclear power plant closes in 2025.

PG&E’s entire settlement package totals between $122.5 million and $147.5 million. It includes $75 million allocated to local agencies to make up for lost property taxes, plus $10 million for an economic development fund that would encourage job creation. It also includes another $37.5 million to $62.5 million of funding for emergency management services throughout the decommissioning process, which could take between 15 to 25 years.

The state’s Public Utilities Commission is expected to hear PG&E’s application to close Diablo Canyon in mid-2017 after local groups approve the settlement proposal.

More: The Tribune

State Senator Tries Again to Reform PUC

State Sen. Jerry Hill (D-San Mateo) reintroduced legislation Monday to reform the Public Utilities Commission, which has been under criminal investigation since 2014.

The bill would allow the Superior Court to hear disputes regarding the commission’s withholding of public records. It also would prevent utility executives from serving on the commission for two years after leaving their jobs and from holding a financial interest in a person or corporation subject to the agency’s regulatory authority. Another provision would require the Attorney General’s Office to provide written consent before the commission can contract with outside lawyers.

The changes that the bill calls for failed to make it through the legislature this past year.
STATE BRIEFS

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summer or were vetoed by Gov. Jerry Brown last year.
More: The San Diego Union-Tribune

Democratic Supermajority May Be Good News for Cap and Trade

Democrats’ two-thirds supermajority in the State Legislature may be an opening to cement into law the state’s market-based, cap-and-trade program for carbon emissions.

The state Air Resources Board originally approved cap and trade as a mechanism to meet the state’s greenhouse gas reduction goals through 2020. However, the state Chamber of Commerce and others filed suit, arguing the quarterly auctions required by the ARB are a tax that needed a two-thirds vote. The Chamber of Commerce also contends that the ARB lacks authority to hold the auctions. That case is pending.

Getting a two-thirds vote would require getting every Democrat in the Senate and all but one in the Assembly to vote yes — or convincing a few Republicans to agree.
More: Scientific American

IDAHO

Blaine County Residents Want to Bury Proposed Transmission Line

Blaine County residents are objecting to Idaho Power’s plans to build a partially above-ground 138-kV transmission line between Hailey and Ketchum.

The line would extend from a substation in Hailey using a series of poles 56 to 62 feet in height, before going underground. Utility poles presently along the line’s route on state Highway 75 are 48 to 50 feet tall. Those poles hold a distribution line for Idaho Power, which would also be carried by the proposed larger poles.

Idaho Power has said it would cost $60 million to $70 million to bury the new line underground all the way from the substation north of Hailey to the substation in Ketchum, plus 30% for contingencies. However, an estimate by consulting firm Power Engineers places the cost at $44 million, including contingencies.
More: Idaho Mountain Express

ILLINOIS

Rauner Signs Exelon Nuke Subsidy Bill

Gov. Bruce Rauner signed the Future Jobs Energy Bill into law in a ceremony at Riverdale High School in Port Byron.

The bill provides $235 million in annual subsidies to Exelon’s Clinton and Quad Cities nuclear plants. The company had threatened to shut down the unprofitable plants without the subsidies.

Rauner has previously criticized “special deals” for corporations, but he said he was “unwilling to gamble with these communities, gamble with thousands of good-paying jobs and gamble with our energy future. While this legislation isn’t perfect, it allows us to protect jobs, ratepayers and taxpayers.”

More: The Associated Press

LOUISIANA

Entergy: Burning Sugar May Have Sparked Outage, Chlorine Leak

Burning sugar cane may be the culprit behind a massive power outage last week that led to a chlorine leak at the Dow Chemical plant, according to Entergy Louisiana.

Officials are investigating the incident, which caused 3,000 to 3,500 pounds of chlorine, per initial estimates, to leak from the Olin Corp. facility, which is located within Dow’s Plaquemine facility.

“We haven’t seen any [final] figures yet, but we did not detect anything in the quantities that were a threat to human health,” Department of Environmental Quality spokesman Greg Langley said.

More: The Advocate

MAINE

EDP Withdraws Application For 119-Turbine Wind Farm

EDP Renewables has voluntarily withdrawn its application with the Department of Environmental Protection to build a 119-turbine wind farm in Aroostook County. The proposed farm would have been the largest in the state and one of the largest for New England.

The company cited interconnection problems as its reason for not going forward with the Number Nine Wind Farm, which would have had an installed capacity of 250 MW.

The project, which lost a power purchase agreement with utilities in Connecticut, required new transmission lines to connect it to the New England grid.

More: Portland Press Herald

NEW YORK

SolarCity Factory Close to Finish Line on Construction

Construction on SolarCity’s new 1 million-square-foot factory in Buffalo is almost finished, with the company planning to install production equipment by early 2017.

The factory, which is being built with $750 million in state funding through the Buffalo Billion economic development program, will be the largest solar panel production facility in the Western Hemisphere, capable of producing 10,000 solar panels each day.

More: The Buffalo News

NORTH DAKOTA

Coal Regulatory, AML Programs Score Well on Federal Review

A recent federal evaluation by the federal Office of Surface Mining Reclamation and Enforcement found that all is well with the state’s coal regulatory and abandoned mine lands programs, which are administered by the Public Service Commission.

With respect to the coal regulatory program, OSMRE reported: “North Dakota has an effective program with no issues in need of corrective action.” With respect to the AML program, OSMRE reported that “the state administers an excellent program in full compliance with their approved plan.”

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STATE BRIEFS

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The state received $2.8 million in federal funds this year for the AML program, and OSMRE highlighted their efficient use, finding 86% of the grant is spent on project design and construction, with the remainder going to administrative costs.

More: North Dakota Public Service Commission

OHIO

Submeter Companies Now Subject to State Regulation

The Public Utilities Commission voted 3-1 Wednesday to regulate submeter companies, allowing utility regulators to step in when a customer’s total bill is a certain percentage more than the equivalent bill from a regulated utility.

In January, the commission will begin the process of determining the percentage amount and establishing other rules related to the decision.

Previously, there were no clear state regulations for submeter companies.

House Passes Bill Making Renewable Standards Optional

House Bill 554, which makes renewable energy standards optional for the next three years before becoming mandatory, passed 54-40 and is expected to go before the state Senate for a vote Dec. 8.

Gov. John Kasich said the bill risks sending the wrong message about the state’s openness to wind, solar and other renewable-energy technologies, but did not say whether he would veto.

The bill also revises rules for energy-use reduction, making it easier for utilities to comply.

More: The Columbus Dispatch

OREGON

Energy Consultant Seeks Dismissal of Forgery Charges

A Seattle energy consultant accused of creating a fake invoice to help secure nearly $12 million in tax credits from the state’s Department of Energy wants the forgery charges dismissed based on prosecutorial misconduct.

State and federal investigators persuaded a witness last year to make a secretly recorded call to Martin Shain — the lead consultant on the state’s $24 million Solar by Degree project — hoping to get him to incriminate himself. He did not.

Shain’s lawyer has filed a motion arguing the call was an attempt to question Shain without counsel when the state knew he was represented.

More: The Associated Press

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Entergy, Consumers Announce Closure of Palisades Nuke

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market prices and escalate each year, reaching $61.50/MWh in 2022.

“We determined that a shutdown in 2018 is prudent when comparing the transaction to the business risks of continued operation,” Entergy CEO Leo Denault said in a press release.

In its most recent 10Q, Entergy said the “fair value of the Palisades plant would have been, and currently would be, significantly lower in the absence of the power purchase agreement that is scheduled to expire in 2022.” It also pointed to the drop in energy prices in MISO, in which Palisades operates.

The early termination payment “will help assure the plant’s transition from operations to decommissioning,” Entergy said. The plant will be refueled as scheduled next spring and then operate through the end of its fuel cycle.

With Palisades’ closure, Entergy will have only one nuclear generating facility in its Wholesale Commodities business, the 40- and 42-year-old Indian Point units near Manhattan. Like other plants in the portfolio, Palisades is older (1971) and smaller (811 MW) than later-generation nuclear units.

In February, Entergy estimated the plant’s fair value and related long-lived assets at $463 million, compared to a carrying value of $859 million. It said last month the wholesale business lost $13 million in the third quarter as compared to the previous year because of lower-realized wholesale prices.

In recent years, the company has shut down or announced the closure of its Vermont Yankee and Pilgrim plants in New England. And on Wednesday, FERC approved the sale of its James A. FitzPatrick plant in New York to Exelon. (See related story, FERC Approves FitzPatrick Sale to Exelon, p.15.)

“Entergy’s strategy is to manage risks by reducing our merchant power market portfolio and invest in the growth of our regulated utility business,” Entergy spokesperson Val Gent said. Entergy still owns five nuclear reactors in the South as part of its utility generating business.

Reaction

The agreement between Entergy and Consumers is subject to regulatory approvals, including the Michigan Public Service Commission, but the announcement quickly drew pushback from elected officials in the state.

State Rep. Aric Nesbitt (R), who chairs the House Committee on Energy Policy and whose southwestern Michigan district is home to Palisades, called Entergy’s announcement a “punch in the stomach” and said it “puts Michigan’s energy future at greater risk.”

“I call on Entergy to reconsider its decision to prematurely close Palisades and work with the state to find a solution to keep Palisades open and producing reliable, emission-free energy,” he said in a press release. “This announcement further threatens Michigan electric reliability after 2018. This is not just a bad decision for our local families, but it is also the wrong decision for Michigan’s energy future. I demand that Entergy reconsider this poorly made decision.”

Gov. Rick Snyder was more subdued. In a statement issued by his office, Snyder said, “I’m certain the Michigan Public Service Commission will look at this very closely and examine the implications for the reliability and affordability of electricity in Michigan, as well as protection of the environment.

“No matter what the eventual decision is, it is important that we do everything to help the region adapt to a potential future without Palisades,” he said.

For its part, MISO will follow its normal confidential process for generator retirements to determine whether Palisades’ absence will jeopardize reliability. The RTO’s Tariff requires companies to notify it at least 26 weeks before the proposed retirement, which then sets the clock on a study evaluating any reliability issues.

Trump Transition Bodes Ill for Clean Power Plan

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DOE ‘Witch Hunt’?

Meanwhile, Trump’s transition team caused a stir by submitting to the Department of Energy a long questionnaire requesting the names of all employees involved in climate research.

The questionnaire “suggests the Trump administration plans a witch hunt for civil servants who’ve simply been doing their jobs,” the watchdog group Public Citizen said in a statement.

Other questions asked about the social cost of carbon and computer modeling scientists use to forecast future climate changes.

“My guess is that they’re trying to undermine the credibility of the science that DOE has produced, particularly in the field of climate science,” Stanford climate research-er Rob Jackson told The Washington Post.

Bloomberg News reported that the transition team also asked how the department can “support existing reactors to continue operating” and what it can do “to help prevent premature closure[s].” The team also asked about obstacles to resuming work on Yucca Mountain in Nevada, the proposed site for disposing spent nuclear fuel until the plan was nixed early in President Obama’s first term. (See related story, Entergy, Consumers Announce Closure of Palisades Nuke, p.1.)

Energy Bill Appears Dead

Last week also ended hopes for enacting the first comprehensive energy bill in almost a decade.

A spokesperson for House Speaker Paul Ryan (R-Wis.) said Wednesday that time had run out in the lame duck session to reach a compromise between House and Senate versions of the legislation. (See House, Senate Conferences Begin Work to Narrow Differences on Energy Bill.)

Bloomberg said Sen. Lisa Murkowski (R-Alaska), chairman of the Senate Energy and Natural Resources Committee, and ranking member Maria Cantwell (D-Wash.) had reached an agreement with Rep. Rob Bishop (R-Utah) on a package, but House leaders had refused to move it.

“It’s just very frustrating to see Congress again fail to act on energy efficiency policies that have so much bipartisan political, business and public support and that would help so many people and businesses save money on their energy bills,” Alliance to Save Energy President Kateri Callahan said in a statement. “Caught up — this round — in the failure of conferees to produce a comprehensive energy bill, the very important, practical and bipartisan provisions of the Portman-Shaheen Energy Security and Industrial Competitiveness Act (ESICA) are left in the dust bin of yet another Congress.”
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