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FERC & FEDERAL NEWS

Ailing Chair, Resilience Inquiry Dominated FERC News in 2018 Chatterjee Resumes Chairmanship as McNamee Joins Panel

By Rich Heidom Jr.

WASHINGTON — A year ago, the electricity policy-sphere was on pins and needles over how FERC and its new Chairman Kevin McIntyre would respond to the Trump administration's bid to bail out coal and nuclear generators.

McIntyre won plaudits in January when he led a 5-0 vote *rejecting* the Department of Energy's Notice of Proposed Rulemaking and instituting a new resilience docket (AD18-7).

FERC begins 2019 with a new chairman and renewed questions about whether it will resist the president's efforts to deliver on his campaign pledges to coal country.

Republican Bernard McNamee — who helped author the DOE NOPR and who has complained that renewables are disruptive to “the physics of the grid” — was sworn in as commissioner after winning Senate confirmation on a 50-49 party-line vote. At his first open meeting, days before Christmas, McNamee was *greeted* by protests and questions over whether he would recuse himself from the resilience debate.

In two rounds of filings in the new docket, RTO *officials* and other *commenters* generally agreed that FERC should let stakeholder processes work and not issue broad and costly new mandates. The commission has given no indication how soon it will rule or what it will do with the information.



FERC commissioners testifying before the Senate Energy and Natural Resources Committee in June. | © RTO Insider

McIntyre *gave up* the chairmanship in October after revealing that he had suffered a “serious setback” in his battle with a brain tumor. The chairman's health had become the subject of increasing speculation since a fall that left him visibly uncomfortable at the July open meeting, the last he attended. Although he remains on the commission, he is unable to come to FERC headquarters and is not participating in any decisions.

Pipeline Inquiry, Storage Rule, ROE

Before relinquishing the chairmanship, McIntyre and the commission approved several important rulemakings. In January, McIntyre

announced the commission would *open* a Notice of Inquiry to consider changes to its 1999 policy statement on the permitting of natural gas pipelines, drawing praise from Democratic Commissioner Cheryl LaFleur (PL18-1).

In May, however, the commission's Republican majority narrowed the circumstances under which FERC will estimate greenhouse gas emissions from natural gas pipeline projects, sparking dissents by LaFleur and Democrat Richard Glick, who said the decision effectively eliminates any consideration of GHG emissions associated with a project (CP14-497-001).

In February, the commission also *approved* Order 841, which required regional grid operators to remove barriers to electric storage in their capacity, energy and ancillary services markets. Dylan Reed, head of congressional affairs for Advanced Energy Economy, said the compliance *filings* by grid operators in December “could lead to a minimum of 7 GW of storage deployment in the RTO markets and potentially could lead to 50 GW across the country. For scale, the rule's impact is essentially the equivalent of 86% of all installed solar capacity to date,” Reed said during AEE's year-end webinar. “So, this really is a monumental rule.”

The commission's NOPR had also proposed giving aggregated distributed energy resources the same treatment as storage, but the panel concluded it needed more information before it could act, ordering a technical confer-



Anthony Pugliese (rear) monitors then FERC Chair Neil Chatterjee's October 2017 press conference as reporters take notes | © RTO Insider

FERC & FEDERAL NEWS

ence and new dockets for the issue (RM18-9, AD18-10).

In April, the commission revised its *pro forma* large generator interconnection procedures and large generator interconnection agreement (LGIA) to increase the transparency and timeliness of the interconnection process (RM17-8). The rulemaking, which was prompted by a complaint by the American Wind Energy Association, applies to generators larger than 20 MW.

Days before McIntyre gave up the gavel, the commission issued its response to the D.C. Circuit Court of Appeals' 2017 ruling vacating FERC's 2014 order on calculating return on equity rates. The commission *said* it would no longer rely solely on the discounted cash flow (DCF) model it has used since the 1980s; instead, it said it will give equal weight to results from the DCF and three other metrics, a change likely to result in higher ROEs (EL11-66-001, et al.).

McIntyre also navigated two controversies in his brief chairmanship. The first came when Commissioner Neil Chatterjee disclosed in January that former FERC General Counsel Bill Scherman had improperly contacted him "indicating his concern that the commission would shortly issue an order adverse to the interests of" his client, FirstEnergy. At a press conference, McIntyre *declined* to say whether the commission would investigate the *ex parte* communication by Scherman, whom he called a "good friend."

Later, McIntyre *came to the defense* of Chief of Staff Anthony Pugliese, who came under fire for partisan comments at a speech and in an interview with right-wing media outlet Breitbart.



FERC Commissioner Bernard McNamee gives his opening remarks at the commission's open meeting Dec. 20, his first since being sworn in. | © RTO Insider

Chairman Chatterjee's Return

Chatterjee, who had held the chairmanship on an acting basis for more than four months in 2017, was *appointed* McIntyre's replacement Oct. 24. Chatterjee *said* his priorities as chairman will be grid resilience and reliability, cybersecurity, processing LNG facility applications and eliminating barriers to entry for new technology.

A former energy adviser to coal state Senate Majority Leader Mitch McConnell (R-Ky.), Chatterjee praised McIntyre for helping him understand "that politics could not be allowed to interfere with the work of the commission," advice he said aided his transition "from formerly partisan legislative aide to independent regulator."

After the commission's Dec. 20 meeting, Chatterjee told reporters he was confident that McNamee would similarly transition from a fuel-wars partisan to an impartial adjudicator. "So, all I would ask is that he be given an opportunity to demonstrate that, like myself, [McNamee] will be an earnest public servant."

Chatterjee comes in with numerous pieces of unfinished business, including the pipeline policy review and the rulemaking on DERs.

With the arrival of McNamee, "it's unclear where [the DER ruling] is going to go in 2019," said AEE's Reed. "Fortunately, we do know that Chairman Chatterjee is committed to innovation and removing barriers to technologies as he's now said in numerous public speeches over the last few months." ■



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FERC & FEDERAL NEWS

Trump Administration Fiddled While California Burned

States, Corporate Buyers Accelerate Renewables Push

By Rich Heidom Jr.

WASHINGTON — 2018 brought chilling warnings about the growing dangers of climate change — and seeming evidence of it in November's Camp Fire that killed more than 80 people and destroyed almost 19,000 structures and the town of Paradise, Calif. It was the state's most destructive wildfire on record.

A month before the fire, the U.N.'s Intergovernmental Panel on Climate Change issued a [report](#) saying climate change could have catastrophic effects sooner than previously thought and calling for an unprecedented global response.

In November, a congressionally mandated report by the federal government [predicted](#) that if carbon emissions continue to grow at historic rates, some economic sectors will see hundreds of billions of dollars of annual losses by the end of the century — “more than the current gross domestic product of many U.S. states.”

President Trump told reporters he had read “some of” the report but didn't believe its findings. Just two days before the report was released, he tweeted, “Brutal and extended cold blast could shatter ALL RECORDS. What ever happened to global warming?”

Pruitt, Zinke Depart; Dems to Take House

Despite the resignations of two of the president's most controversial cabinet members, EPA Administrator Scott Pruitt and Interior Secretary Ryan Zinke, the administration's ef-



The November 2018 Camp Fire was the most destructive in California history | CalFire

orts to reverse Obama administration policies on climate and the environment continued unabated in 2018.

In August, acting EPA Administrator Andrew Wheeler, a former coal industry lobbyist, [announced](#) the replacement for the Obama Clean Power Plan. The Affordable Clean Energy (ACE) rule defines the “best system of emission reductions” as heat-rate efficiency improvements that can be achieved at individual coal plants, in contrast with the CPP, which set state emissions limits and encouraged switching to natural gas and renewables. Compared to the CPP, EPA said, ACE will cut electric prices by up to 0.5% in 2025 while increasing coal production for power sector use by up to 5.8%.

In December, Wheeler [proposed](#) eliminating the requirement that new coal-fired generation incorporate carbon capture technology. Given

competition from lower-cost natural gas and renewables that has cut coal's market share, it was a largely symbolic measure. EPA acknowledged no new coal-fired generating units are likely to be built in the U.S.

The Energy Information Administration [said](#) U.S. coal consumption will fall to 691 million short tons (MMst) in 2018, a 4% decline from 2017 and the lowest level since 1979. About 11 GW of coal-fired generating capacity retired in the first nine months of 2018 with another 3 GW of retirements expected in the last quarter, making the year second only to 2015 in retirements. An additional 4 GW is expected to retire by the end of 2019. (See related story [Critics: CEI Rule a Trojan Horse for Coal, Nuke Bailouts.](#))

On Friday, EPA [proposed](#) changing its cost-benefit calculations to eliminate the “co-benefits” of reducing pollutants other than those being targeted. Had the rule been in place, EPA said, it would have prevented the 2011 Mercury and Air Toxics Standards, which pushed many coal generators into retirement. The Obama Administration's EPA said although the MATS rule would cost utilities \$9.6 billion a year and produce only \$6 million in direct public health benefits, it was justified by co-benefits of reducing soot and nitrogen oxide, saving at least \$37 billion in annual health costs and lost workdays.

A Change in the House

Democrats picked up about 40 House seats in the midterm elections, giving them control of the lower house when Congress convenes its new session Jan. 3. Rep. Frank Pallone (D-N.J.), who will become chairman of the Energy and



President Trump signing his executive order seeking to undo the Clean Power Plan as coal miners, Interior Secretary Ryan Zinke, EPA Administrator Scott Pruitt and Vice President Mike Pence watch.

FERC & FEDERAL NEWS

Commerce Committee, has pledged “robust oversight of the Trump administration’s ongoing actions to sabotage our health care system, exacerbate climate change and weaken consumer protections.” Rep. Raúl Grijalva (D-Ariz.), who will chair the Natural Resources Committee, *says* he will seek to elevate discussions on climate change while increasing oversight of the administration.

In the Senate, where Democrats lost two seats, West Virginia Democrat Joe Manchin will replace Sen. Maria Cantwell (D-Wash.) as ranking member of the Energy and Natural Resources Committee, although his outspoken support for coal will place him at odds with most of his party.

Progressive Democrats are pushing the idea of a *Green New Deal* to transition the U.S. to 100% renewable energy. Although it has no chance of passing with Trump in the White House and Republicans still controlling the Senate, advocates said it could help frame the issue for the 2020 presidential and congressional races.

“Climate change is clearly back on the table as a priority issue for the Democratic Party,” Dylan Reed, head of congressional affairs for Advanced Energy Economy (AEE) said in a year-end webinar Dec. 18.

Renewables Continue to Gain Share

Despite the Trump administration’s cheerleading of fossil fuels at home and abroad, states and businesses accelerated efforts to increase renewable generation and reduce emissions in 2018.

As of August, nonutility buyers had contracted for more than 3.5 GW of renewable energy in 2018, breaking the annual record of 3.12 GW set in 2015.

In October, the U.S. *marked* 1 million electric vehicles sold, with 2018 sales up more than 50% over the year before. While EVs represented only 2% of vehicles sold in 2018, electrification is being embraced more quickly in other transportation areas, with electric buses now more than 10% of new sales. State regulators approved \$880 million in EV charging infrastructure in 2018 with another \$1.5 billion in proposals pending, according to AEE.

The Electric Power Research Institute predicts that EVs and other electrification efforts could result in load growth of 24% to 52% by 2050.

Renewable prices continued to fall during the year.

In November, Lazard’s annual Levelized Cost of Energy *Analysis* found that onshore wind costs have dropped to \$29-\$56/MWh, with utility-scale solar at \$36-\$44/MWh — matching or bettering natural gas combined cycle plants at \$41-\$74/MWh. Coal is higher than all of them at \$60-\$143/MWh.

Offshore wind costs also are dropping. Vineyard Wind, an 800-MW project off the Massachusetts coast, will provide power and renewable energy credits at a levelized price of 6.5 cents/kWh in 2017 dollars. “That’s pretty much comparable to [Massachusetts’] big hydro power contract procurement at ... a

levelized cost of energy of 5.9 cents,” said AEE spokesman Bob Keough.

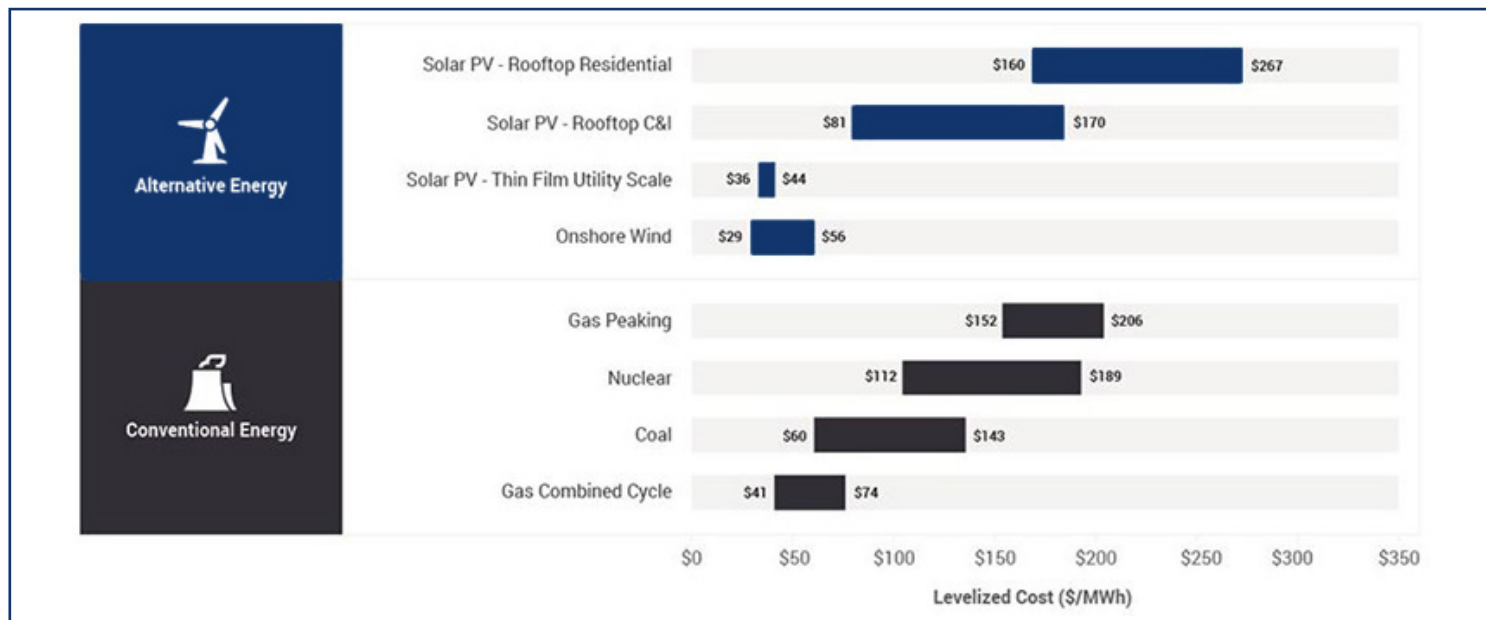
Since Trump *announced* plans in June 2017 to withdraw from the Paris climate agreement, 17 states have joined the U.S. *Climate Alliance* and pledged to honor U.S. commitments, according to AEE.

In September, California lawmakers *approved* legislation to get 100% of its power from renewable and other zero-carbon resources by 2045. Six other states — Nevada, New Mexico, Colorado, Maine, Michigan and Illinois — also are pledging to move toward a 100% clean grid, AEE said.

Missouri adopted a green tariff allowing Ameren customers to get up to 100% of their load from renewables, said J.R. Tolbert, AEE’s vice president of state policy. “This is sort of the proverbial camel’s nose under the tent,” he said. “We expect to see more green tariffs in the Midwest as a result of what happened in Missouri.”

Environmentalists fared less well at the polls in November, with voters in Arizona, Nevada and Washington *rejecting* initiatives following expensive campaigns.

AEE’s Reed said the Trump administration’s efforts to bail out coal power forced clean energy advocates to produce legal and financial analyses opposing the proposals. “This required a lot of time, effort and resources that could have otherwise been used to accelerate the transition” to cleaner energy, he said. ■



Lazard Levelized Cost of Energy Analysis

FERC & FEDERAL NEWS

Critics: CEII Rule a Trojan Horse for Coal, Nuke Bailouts

By Rich Heidom Jr.

Environmental and public policy advocates last week challenged the Department of Energy's proposed procedures for designating critical electric infrastructure information (CEII), saying it denies due process and could be a Trojan horse for the department's efforts to subsidize coal and nuclear generation.

DOE **announced** its proposed procedures Oct. 29 under the 2015 Fixing America's Surface Transportation (FAST) Act, which gave both FERC and the secretary of energy authority to designate information as CEII and thus exempt from disclosure.

Among those weighing in in support of the rule before the comment period closed last week were the Edison Electric Institute, which **said** the rules would help encourage "information sharing frameworks" between government and private industry that are essential for responding to cyberthreats. PJM also **filed** in support.

But Earthjustice, the Union of Concerned Scientists, and Public Citizen filed **joint comments** opposing the rule, calling it "a breathtaking" overreach of the department's authority that "would inappropriately broaden the department's authority to restrict access to information critical for informed debate on issues important to the public."

The groups said although the FAST Act gives both FERC and DOE authority to designate information as CEII, only FERC has authority to set the "criteria and procedures" for doing so. FERC, which issued its procedures in 2016, rejected a rehearing request on its order in May. (See [FERC Clarifies CEII Rules, Denies Rehearing](#).)

DOE proposed that industry and other stakeholders could request information they submit to DOE be "pre-designated" as CEII and remain so on an "interim" basis pending DOE review, preventing disclosure under the Freedom of Information Act (FOIA).

"Information that is pre-designated or provided interim treatment would be handled like CEII indefinitely; the department commits only to 'endeavor to make a determination as soon as practicable' regarding its actual status as CEII," the groups said. "... The proposed rule would functionally shift the role of designating CEII from the department to industry stakeholders, as the assertions of entities submitting the information provides the basis for treatment as CEII indefinitely."

The rule is unnecessary, the groups said, because FOIA rules and FERC's CEII procedures already allow for review of sensitive information before its release.

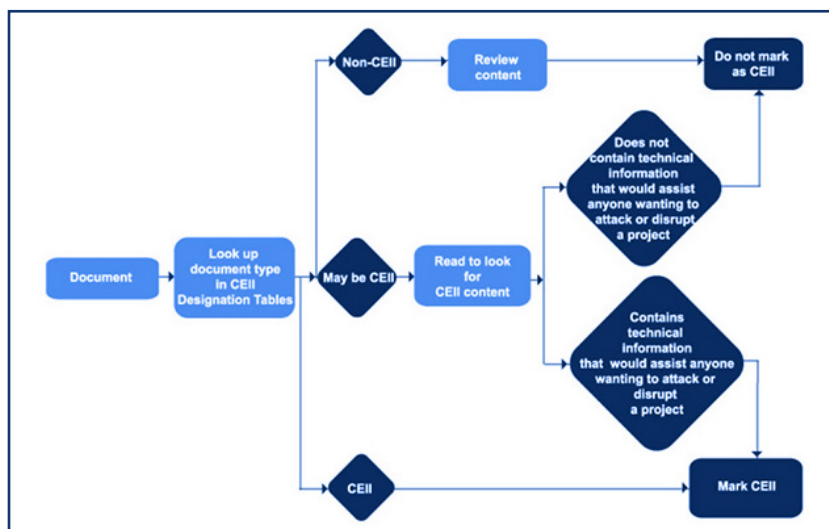
Tyson Slocum, director of Public Citizen's Energy Program, said the rule would give DOE the "foundation" to seek coal and nuclear bailouts on national security grounds. "Right now, DOE lacks a process by which it can designate infrastructure on national security or national defense grounds," Slocum said in an email. "This rule would provide that authority."

'Critical Defense Facilities'

In June, a leaked "pre-decisional" memo proposed that DOE require RTOs and ISOs to purchase energy or capacity from "fuel-secure" generators at risk of retirement for 24 months while the department identifies "Critical Defense Facilities" served by "Defense Critical Electric Infrastructure (DCEI)." (See [Trump Orders Coal, Nuke Bailout, Citing National Security](#).)

In October, numerous press reports indicated that the White House had rejected DOE's proposal following opposition from the National Security Council and National Economic Council. But there has been no official word on the plan's demise. (See [Chatterjee Dodges as DOE Spins on Coal Bailout](#).)

"Should the DOE be granted the authority it seeks in this proposed rulemaking, then the agency can designate as secret the methodology used to determine that certain infrastructure is critical for defense or national security," Slocum said. "Once it has made that designation, the agency could then justify multi-billion-dollar bailouts to the owners of such facilities, and groups like Public Citizen would be unable to challenge it, since the



Decision Tree for Making CEII Determinations on Dam Safety Documents | FERC

underlying justification would now be classified. Therefore, stopping this rule is central to stopping the Trump administration's coal and nuclear bailout."

'Much Care'

In contrast, EEI said it generally supports the proposal. "It is clear that much care and thought went into the preparation of the proposed rule, and the tone set demonstrates the department's commitment to promoting public/private sector information sharing," EEI said. "EEI supports this commitment because public and private sector entities must partner to protect the nation's critical electric infrastructure and public/private information sharing is a crucial element to achieving that goal."

However, EEI said DOE should specify deadlines for acting on CEII requests and ensure all DOE offices, FERC, the Department of Homeland Security and Nuclear Regulatory Commission use consistent criteria in making designations.

PJM also supported the proposal and said it should be amended to include penalties for willful disclosures of sensitive information.

"The final rule should ensure that disclosure of this information is subject to a DOE review of the requester's actual 'need to know' this highly sensitive information," PJM said. "Too often in the past, CEII disclosure rules have been written by [FERC] and other agencies to establish procedures with a going-in assumption of implementing the requester's right to know the critical information in question. ■

CAISO/WECC NEWS



RC Transition, California Wildfires Will Occupy 2019

By Hudson Sangree

CAISO will tackle its new role as reliability coordinator for much of the West in 2019, and California lawmakers will struggle with preventing wildfires sparked by power lines.

Major events in 2018 prompted both efforts.

In July, Peak Reliability stunned the West by announcing it would end its RC operations across the Western Interconnection by the end of 2019. That set off a competition between CAISO and SPP to sign up clients for their own RC services.

Then in November the deadliest wildfire in state history leveled the town of Paradise, Calif., killing 85 residents in the Sierra Nevada foothills. Suspicion quickly fell on PG&E for the Camp Fire, prompting talk of state action to reform or break up the utility.

Other challenges that faced California and the West in 2018, and will continue in 2019, include making CAISO's congestion revenue rights more equitable to ratepayers and continuing efforts to establish a Western RTO led by CAISO.

Keeping Reliability Coordination Reliable

Peak Reliability stunned the electricity sector in July when it announced it would wind down its role as reliability coordinator for the West and withdraw from its effort to develop a regional electricity market competing with CAISO. The Vancouver, Wash.-based company said it would shut its doors as early as Dec. 31, 2019, after transitioning its customers to other RCs. (See [Peak Reliability to Wind Down Operations](#).)

Several months before the announcement, CAISO, a Peak RC customer, said it would "reluctantly" leave Peak, develop its own RC services and offer them to others at reduced costs. Most of the Western Interconnection signed nonbinding letters of intent to take advantage of CAISO's RC services.

CAISO's move was seen as a reaction to Peak entering a partnership with PJM to form a Western RTO to compete with the ISO's expansion.

FERC approved a set of Tariff revisions covering CAISO's new RC services in November, clearing the way for about 72% of the region's load to sign on with CAISO, compared with 12% for SPP. BC Hydro is proceeding with plans to provide RC services for its own



CAISO will oversee reliability coordination in much of the West from its headquarters in Folsom, Calif. | CAISO

territory in British Columbia, representing about 7% of load in the region overseen by the Western Electricity Coordinating Council. (See [CAISO RC Effort Gets FERC Go-ahead](#).)

CAISO, SPP and BC Hydro are scheduled to take over Peak's duties in four handoffs through 2019. CAISO will assume the RC role for its existing territory on July 1. BC Hydro will become the RC for a large swath of south-western Canada on Sept. 2. CAISO will then take over RC services for many areas outside of California on Nov. 1, while SPP will take responsibility for other regions of the West on Dec. 3, although NERC is encouraging the RTO to accelerate its timeline to match CAISO's.

The process provides ample opportunities for errors and shortcomings, including staff attrition at Peak, those involved say. Some employees have already left Peak, and others could follow. The company is hoping that severance packages will encourage most others to stay until they're no longer needed.

Jim Shetler, general manager of the Balancing Authority of Northern California and chair of Peak's Member Advisory Committee, briefed WECC board members on the transition process in December, saying he had concerns about whether Peak would remain in business until the transitions are completed at the end of 2019.

"What keeps me up nights [is worry over] whether Peak is a going concern in the next 12 months," Shetler said during the board meeting at WECC headquarters in Salt Lake City. (See [RC Transition is Fraught with Pitfalls, WECC Hears](#).)

Others have said they're confident the transi-

tion will go as planned, but all agree it will be important keep a close eye on the RC switchovers in 2019 to avoid lapses in critical services.

"This is a risky year, and I think everyone's posture is really focused on this," Linda Jacobson-Quinn, regulatory compliance manager for the Farmington Electric Utility System in New Mexico, told WECC in December. "At the end of the day, it's the customers that must have an RC."

Wildfire Policy Could Target IOUs

When the California State Legislature reconvenes Jan. 7, one of its first orders of business will be dealing with the problem of catastrophic wildfires, particularly those sparked by electrical equipment operated by investor-owned utilities.

Lawmakers thought they'd made significant progress in 2018 when they passed [SB 901](#), a 71-page bill of wildfire prevention measures that included new vegetation management and reporting requirements for the IOUs. The measure, signed into law by Gov. Jerry Brown in September, also provided a means for IOUs to issue long-term bonds to cover wildfire liability costs. (See [California Wildfire Bill Goes to Governor](#).)

PG&E's costs have been estimated in the billions of dollars for a series of devastating fires in Northern California wine country during the 2017 fall fire season. State fire officials have declared the utility at fault for at least 16 of the fires, though the Tubbs Fire, which wiped out part of the city of Santa Rosa, remains under investigation.

CAISO/WECC NEWS



Brown and other policymakers worried about PG&E's solvency following the 2017 blazes and enacted the bond provision, but that measure didn't cover fires in 2018, and the Camp Fire's estimated costs could equal or exceed all the wine country fires combined. PG&E's stock price took a pounding in the days after the Camp Fire and remains less than half of what it was before the blaze.

The Camp Fire started at 6:33 a.m. on Nov. 8 near Tower :27/222 on PG&E's Caribou-Palermo 115 kV transmission line, the California Department of Forestry and Fire Protection (CalFire) and PG&E reported in December. PG&E told the California Public Utilities Commission it had experienced a fault and fire near Tower :27/222 shortly before the Camp Fire ignited. (See [PG&E Grapples with Line Safety After Camp Fire.](#))

If CalFire investigators eventually find PG&E equipment caused the fire, the utility could be held liable for all resulting damage, even without a showing of negligence, under the controversial legal doctrine known as "inverse condemnation," the strict liability standard California applies to utilities for fires sparked by power lines.

During their 2019/20 session, state lawmakers likely will consider clean-up legislation that allows utilities to issue bonds to pay for 2018 fires. With public anger high, however, elected officials may fear a backlash for any bill deemed a bailout for PG&E or other IOUs.

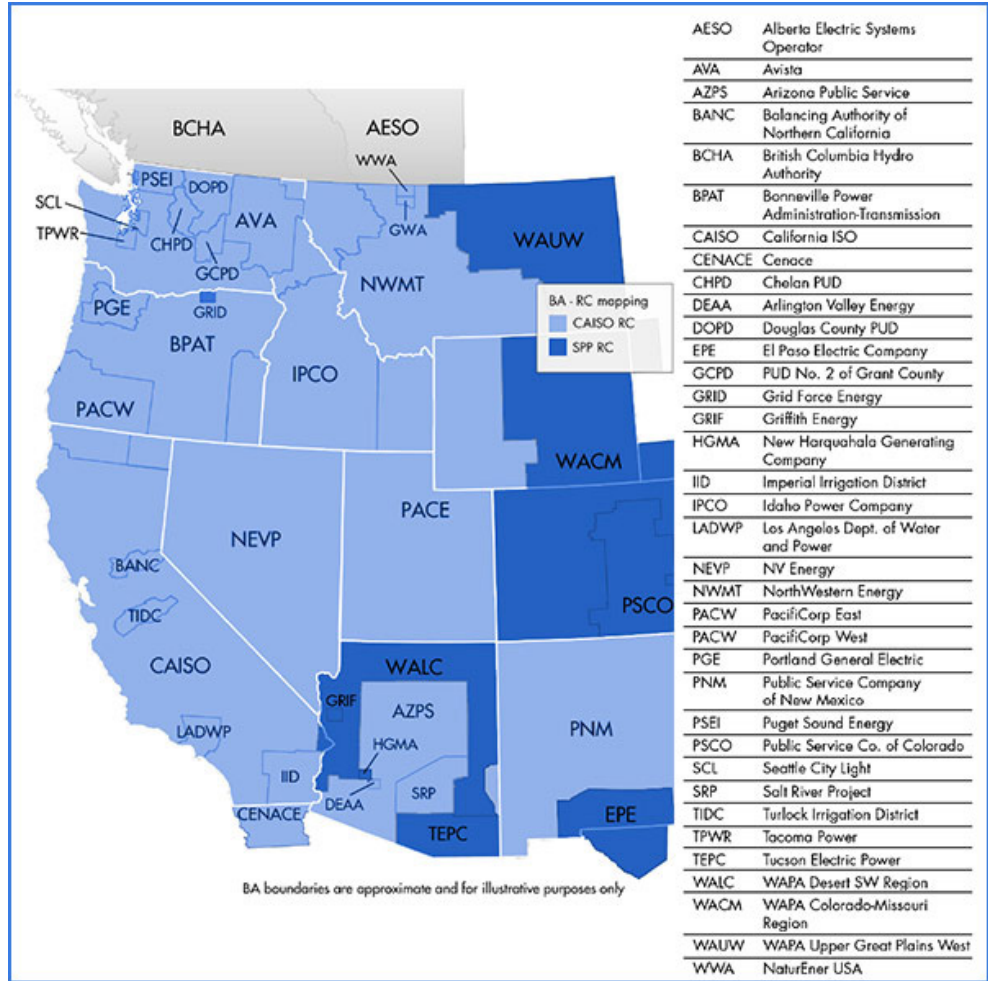
Another possibility being discussed is state action to break up PG&E and hand over control of some of its parts to cities such as San Francisco. (See [Camp Fire Prompts Talk of PG&E Bailout or Breakup.](#))

Changing PG&E's corporate governance also is on the table.

Sen. Bill Dodd, one of the authors of SB 901, has called for a management shakeup at PG&E in the wake of the fatal 2010 San Bruno gas line explosion and the massive fires of 2017/18.

"PG&E has demonstrated a pattern of poor management and illegal conduct that has shattered lives across California," Dodd said in a Dec. 20 news release. He called for "systematic change, which must include change on the board of directors and in the executive suite." The utility currently has a "bunker mentality" that prevents improvement in its safety practices, Dodd said.

PUC President Michael Picker said in early December that state regulators would expand



CAISO and SPP will become the reliability coordinators for the Western Interconnection in 2019. | WECC

their investigation of PG&E's safety practices after the Camp Fire. (See [CPUC Expands Probe Into PG&E Practices After Deadly Fire.](#))

"This is the kind of thing that keeps me awake at night," Picker said at the time.

On Dec. 21 the commission released a ruling regarding the investigation that asked whether the company's management should be replaced, whether members of its board of directors should resign, and whether the company should be broken up into separate gas and electric divisions.

In the meantime, PG&E has vowed to do better. "We are acting decisively now to address these real and growing [wildfire] threats, and we are committed to working together with our regulators, state leaders and customers to consider what additional wildfire safety efforts we can all take to make our communities safer," company CEO Geisha Williams said in a December news release.

CRR Shortfalls and Regionalization

CAISO's other priorities in 2019 will include its continuing efforts to rein in congestion revenue rights insufficiencies that have left ratepayers footing a bill of about \$100 million per year, according to the ISO's Department of Market Monitoring.

The chronic shortfall in CRR revenues, which are allocated based on power consumption, has been an ongoing problem for CAISO. This year the ISO sought FERC's approval for changes it hoped would help in 2019, but the commission only gave CAISO part of what it wanted.

In November, FERC accepted an ISO revised proposal, providing for CRR holders to be paid for their entitlements "only to the extent the CAISO collects sufficient revenue through day-ahead market congestion revenues and other sources to fund those entitlements." (See [FERC OKs CAISO Plan to Deal with CRR Shortfalls.](#))

CAISO/WECC NEWS



CAISO may also continue to pursue its efforts to form a Western RTO, despite the failure of several proposals in recent years to begin the process. The latest, [AB 813](#), failed to make it out of a legislative committee in 2018. The bill would have started the process of turning CAISO into an RTO by initiating changes in its governance structure to allow for out-of-state members.

California lawmakers have been opposed to relinquishing state control. CAISO's governors are now appointed by the California governor and confirmed by the Senate. At the same time, industry leaders from other Western states don't want to cede authority to a CAISO board controlled from Sacramento.

Proponents of a Western RTO have said they'll probably take another run at regionalization in 2019. (See [Western RTO Proponents Vow to Keep Trying](#).)

As Ralph Cavanagh, co-director of the energy program at the Natural Resources Defense Council, put it to a Northwest industry group in October: "We need a big bipartisan win, and I don't think we'll get it on carbon tax in the short term, but I'll tell you a place where we can get it ... enhanced regional grid integration." ■



National Guard soldiers searched through rubble in November after the Camp Fire tore through Paradise, Calif., killing 85 and casting suspicion on PG&E. | *California National Guard*



OMS Seeks a New Director of Regulatory Affairs

The ideal candidate will have extensive understanding of federal and state energy industry regulatory matters and experience leading teams with diverse perspectives. The Director of Regulatory Affairs will support the Executive Director in management and development of organization filings at the Federal Energy Regulatory Commission. The Director will also be involved with member interaction and education, particularly focusing on commission staff, to execute the needs of the organization as established by the Executive Committee and Board of Directors. Legal experience a plus.

Those wishing to be considered should submit a resume to Colleen Dougherty at colleen@misostates.org

by Monday, January 14, 2019. Find out more about OMS on our web site at www.misostates.org.

OMS is the regional state committee for the Midcontinent Independent System Operator (MISO) region representing regulatory entities in 15 states and Manitoba, Canada. The purpose of the OMS is to coordinate regulatory oversight among its members, to make recommendations to MISO, the MISO Board of Directors, the Federal Energy Regulatory Commission, and other relevant government entities and state commissions as appropriate to express the positions of the OMS member agencies. Inquiries can be directed to Colleen Dougherty at (515) 243-0742





ERCOT Faces Tight Summer Margins, Market Changes

By Tom Kleckner

Having survived record temperatures despite slim reserve margins last summer, ERCOT is preparing to take on the Texas heat again in 2019 with reserve margins that have shrunk even further.

The grid operator said in December that canceled gas projects, other delayed projects and increasing demand from oil and gas production had reduced its reserve margin to a historic low of 8.1%. (See [ERCOT Predicts Tight Reserve Margin for 2019](#).)

ERCOT said it will have more than 78 GW of operational capacity — 600 MW more than expected last May — available this summer to meet projected demand of 74.9 GW. ERCOT had an 11% reserve margin last summer, when it met a record peak of 73.5 GW and 13 other demand intervals above the previous high without resorting to emergency actions.

The reserve margin is expected to grow to 12.2% in 2021, within reach of ERCOT's target planning margin of 13.75%. It is then expected to fall to 7.5% in 2023, when available capacity is projected to flatten, while industrial load growth continues to scale up.

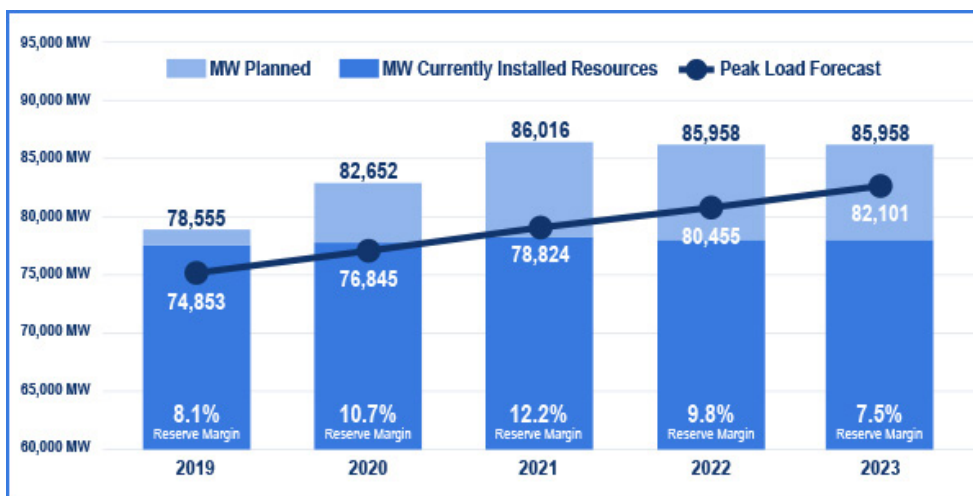
But no worries, says ERCOT. "What we're encountering now is nothing new," Pete Warnken, the grid operator's manager of resource adequacy, said in December.

Texas Public Utility Commission Chair DeAnn Walker has called the 8.1% reserve margin "very scary." Yet, given a chance to discuss market changes to ensure continued reliability, the PUC in December twice declined to take up the issue during its open meetings. Staff say the commissioners want more time to study stakeholder input, consultant studies and other recommendations, and that they want to "get it right."

ERCOT's energy-only market was supposed



The Texas PUC faces tough discussions on the ERCOT market this year. | © RTO Insider



ERCOT faces historically low reserve margins next year in the face of expected increases in demand. | ERCOT

to incent new generation. Rather than finance new plants on the backs of the ratepayers, the Texas model shifts the risk to investors who might benefit from high power prices.

However, ERCOT's wholesale prices are among the lowest in the nation, hovering around \$25/MWh the last few years. Uneconomic coal-fired plants — like Luminant's three last year — have closed down or will close down. CPS Energy's announced shutdown of J.T. Deely at the end of 2018 means almost 5 GW of coal generation have been taken out of the market in the last two years.

Power producers want to increase the payouts from ERCOT's operating reserve demand curve (ORDC), which provides a price adder during periods of generation scarcity. During an October workshop on electricity prices, Exelon said the change would result in an annual \$4 billion increase in electricity prices.

"Prices have to go up. They do!" Bill Berg, Exelon's vice president of wholesale market development, said at the time. Without the increase, he said, prices won't support the needed investment.

That \$4 billion number has been thrown around by opponents to ORDC changes, which include consumer advocates and the conservative Texas Public Policy Foundation.

"Let the market work," urged Bill Peacock, the foundation's vice president of research, in a Dallas Morning News [op-ed](#).

Former FERC Commissioner Pat Wood, who also chaired the PUC when ERCOT's deregulated market was established in 1999, doubts

the \$4 billion figure, saying that is "nowhere near" the necessary cost. Wood says "the cheapest and most market-oriented way" to plan for the future is to continue to rely on the ORDC.

The PUC is also pondering whether to incorporate marginal line losses into how it allocates transmission costs among power generators, an idea being pushed by NRG Energy and Calpine.

Unlike other states, Texas shares the cost of lost electricity among all generators evenly. The allocation process and nearly \$7 billion worth of transmission infrastructure has resulted in Texas, with nearly 23 GW of capacity, becoming the top producer of wind energy in the U.S.

Critics say the marginal line-loss proposal would suppress the continued development of wind and solar projects, which far outnumber gas generators in ERCOT's interconnection queue.

While the PUC weighs which, if any, changes to make, Texas policymakers could also have a say. The 86th Texas Legislature will open for business on Jan. 8 and will end its biennial session May 27.

Legislators have already filed more than 100 bills that could affect the Texas energy market and its consumers. Many of those will inevitably die, but one to watch is Senate Bill 76. The legislation would create a Grid Security Council comprising appointees by Texas Gov. Greg Abbott, including ERCOT representatives, to monitor issues that touch on grid security. ■



ISO-NE Pulls off Fuel Security, CASPR Measures

By Michael Kuser

ISO-NE closed out 2018 like a trucker wheeling a wide load down a twisting service road on the flanks of Mount Washington. Despite a few bumps, scrapes and scares along the way, it delivered on time — in this case dispatching key market initiatives.

The RTO's most important issues are winter fuel security and addressing the states' desire to bring in more carbon-free resources, but it also must plan to operate a grid that is already experiencing a surge in renewable energy resources — with massive amounts of offshore wind energy now visible on the horizon. (See [Mass. Offshore Lease Auction Nets Record \\$405 Million.](#))

The bumps and scrapes last year came in a contentious stakeholder process over both issues and in FERC approvals accompanied by criticisms, dissents and partial dissents by various commissioners.

FERC last month approved the ISO-NE's interim proposal to use an out-of-market mechanism to address concerns about fuel security in a region heavily reliant on natural gas and in March approved its two-stage capacity auction to accommodate state renewable energy procurements. (See [ISO-NE Fuel Security Measures Approved; Split FERC Approves ISO-NE CASPR Plan.](#))

Controversy in the Details

Soon after a severe cold snap last January,

ISO-NE published an operational fuel security [analysis](#) that found the New England grid is vulnerable to a season-long outage at any of the region's major energy facilities. (See [Report: Fuel Security Key Risk for New England Grid.](#))

In a related issue, Exelon in March said it would retire its 2,274-MW Mystic Generating Station in Massachusetts after the facility's capacity obligations expire in May 2022.

FERC in July [denied](#) an ISO-NE a Tariff waiver to enter a cost-of-service agreement to keep Mystic Units 8 and 9 running after the expiration, instead directing the RTO to revise its rules to allow such agreements to address fuel security.

The commission last month finally approved a Mystic agreement, including payments to the Exelon-owned Distrigas LNG facility that supplies the plant with fuel, while also ordering a paper hearing on the issue of return on equity for the units. (See [FERC Approves Mystic Cost-of-Service Agreement.](#))

Reserve Energy Bank

In a concurring opinion in last month's fuel security order, FERC Commissioner Richard Glick said "ISO-NE's apparent need to retain units for fuel security is the result of a market failure" ([ER18-2364](#)).

"Winter energy security is a good problem for markets," said a [report](#) on fuel security prepared by Brattle Group on behalf of NextEra Energy Resources. "New England's energy security

challenge can be converted into demand for clearly defined products that many, diverse resources can compete to provide at least cost ... [but it's] essential that any chosen solution will provide planners/operators with the certainty that winter reliability will be maintained, thus avoiding any need for out-of-market intervention."

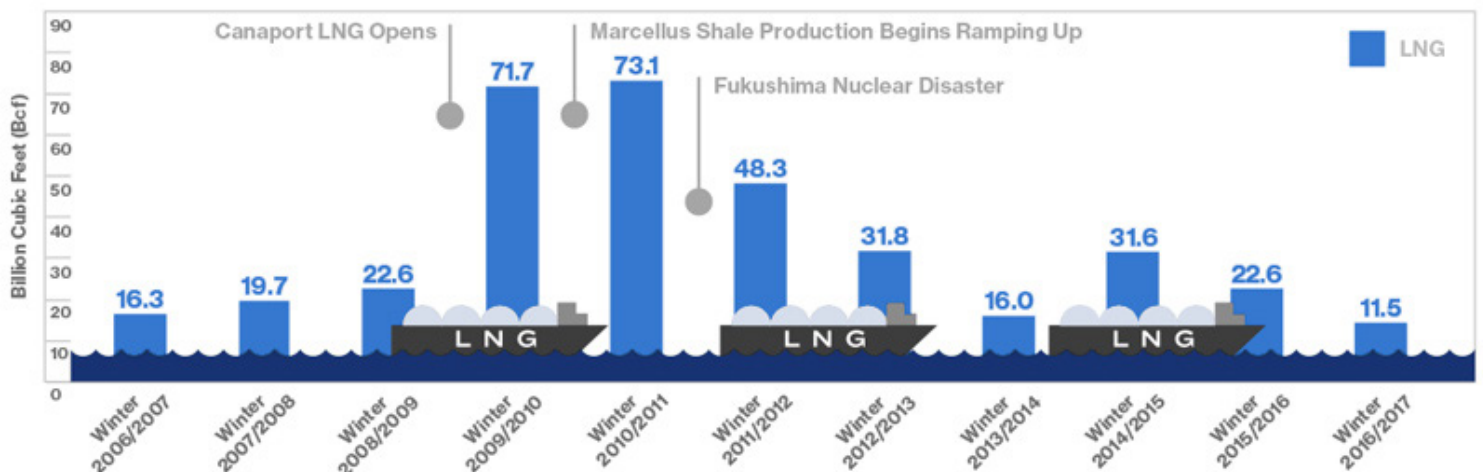
In a related effort to address fuel security issues holistically, ISO-NE Vice President for Market Development Mark Karl said in November that the RTO is proposing to incorporate into the real-time market an additional constraint that looks at the ability to provide energy storage — or an energy bank.

"I want to be careful here because it's easy to think about this from the standpoint of conventional generator fuel, but this will apply to any sort of resource that has the ability to maintain essentially a reserve bank of energy that can be converted into electricity when needed," Karl said.

The idea is to optimize the use of limited energy over more extended periods compared with how markets are currently designed to optimize energy over the course of an operating day, he said. (See [New England Talks Energy Security, Public Policy.](#))

New Renewables

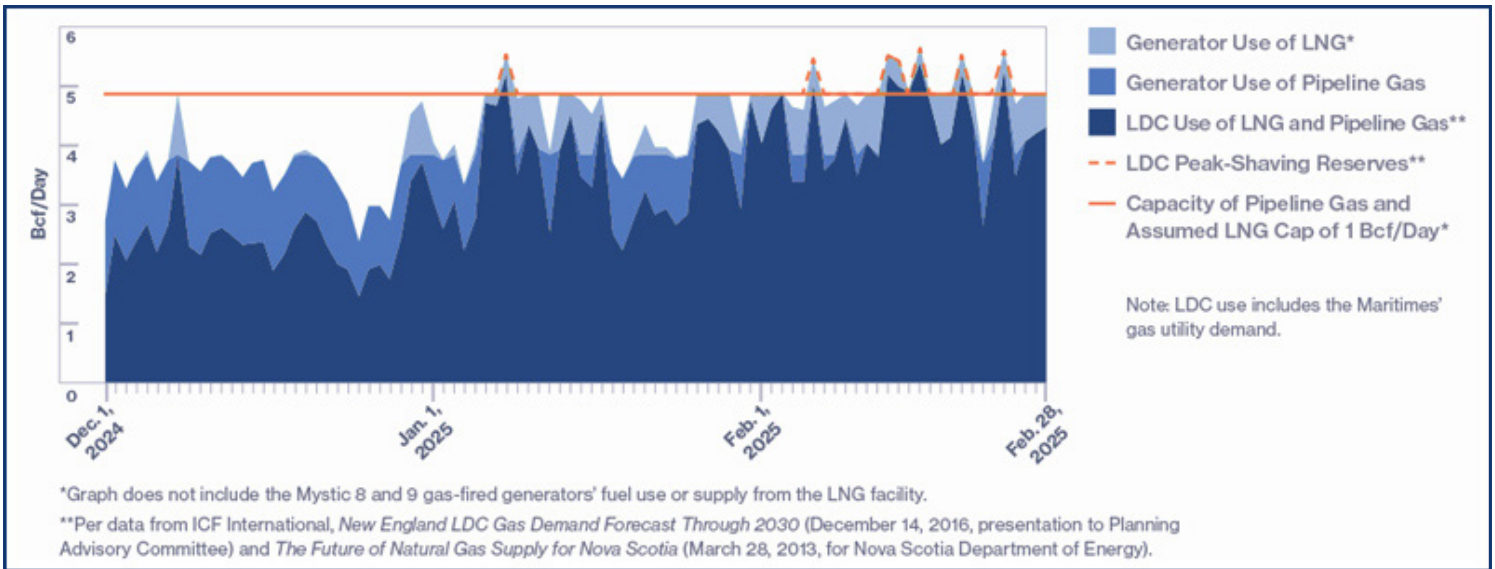
ISO-NE proposed the Competitive Auctions with Sponsored Policy Resources (CASPR) construct last January to address state regulators' concerns about ratepayer costs



Note: Graph does not include the Mystic 8 and 9 gas-fired generators' fuel supply from the LNG facility.

Source: Data from NatGas Analyst Tool by Genscape, a part of DMG Information (DMGI), www.genscape.com, based on scheduled deliveries posted to gas-industry bulletin boards

ISO-NE NEWS



Winter LNG deliveries to New England interstate pipelines | ISO-NE

for policy-driven resources and generators' fears that out-of-market procurements would suppress capacity prices.

In the commission's March ruling on CASPR (ER18-619), Commissioner Robert Powelson dissented, while commissioners Cheryl La-Fleur and Richard Glick criticized the minimum offer price rule (MOPR) included in the measure.

Under CASPR, ISO-NE will clear the Forward Capacity Auction as it does today, applying the MOPR to new capacity offers to prevent price suppression. In the second Substitution Auction generators with retirement bids that

cleared in the primary auction will transfer their obligations to subsidized new resources that did not clear because of the MOPR. The RTO will phase out the renewable technology resource exemption, which has allowed it to clear 200 MW of renewable generation in its capacity auction annually (to a maximum of 600 MW) without regard for the MOPR.

Integration of new renewable resources is not a problem for the RTO and likely won't be for the next decade, ISO-NE Vice President of Market Operations Robert Ethier told industry stakeholders in November. It's a two-fold economic challenge involving the energy and capacity markets.

"Bring in these zero-marginal-cost resources and insert them into our real-time supply stack, and it lowers energy prices for everyone ... [and] when the states contract for these resources, they don't just affect the energy market, they also affect our capacity market," Ethier said.

Having new state-sponsored resources buy out old resources in the market will help manage and ration the entry of these resources into the market and prevent price suppression, he said. (See *Canada, New England Talk Trade, Politics and Clean Energy.*)

The CASPR filings include proposed Tariff revisions to allow a renewable technology resource to be located out of state — such as in federal waters offshore — and still qualify for a MOPR exemption.

Renewable energy advocates RENEW North-east supported the RTR revision, as did Vineyard Wind, a partnership between Avangrid Renewables and Copenhagen Infrastructure Partners that last May won the contract to supply Massachusetts with 800 MW of offshore wind energy. (See *Mass., R.I. Pick 1,200 MW in Offshore Wind Bids.*)

Progress on Emissions

The RTO last month issued its draft 2017 ISO New England Electric Generator Air Emissions Report, which showed that since 2001 sulfur dioxide emissions have declined 98%, nitrogen oxide by 74% and carbon dioxide by 34%.

Total System Emissions			
	2016 Emissions (kTons)	2017 Emissions (kTons)	Total Emissions % Change
NO _x	16.26	15.30	-5.9
SO ₂	4.47	4.00	-10.5
CO ₂	37,468	34,969	-6.7

	2016 Emission Rate (lb/MWh)	2017 Emission Rate (lb/MWh)	Emission Rate % Change
NO _x	0.31	0.30	-3.2
SO ₂	0.08	0.08	0.0
CO ₂	710	682	-3.9

ISO-NE Total System Emissions: 2016 and 2017 New England system emissions (ktons) and emission rates (lb/MWh) (all figures are preliminary). | ISO-NE

Continued on page 14

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Conn. Goes Zero-carbon with Nuclear, Offshore Wind, Solar Awards Include Millstone and Expanded Revolution Wind Project

By Michael Kuser

Connecticut officials on Friday [announced](#) the selection of two nuclear plants, nine solar projects and one offshore wind project in the state's solicitation for nearly 12 million MWh of zero-carbon electric power, equivalent to 45% of the state's electric load.

"Despite President Trump's refusal to listen to scientists on this matter, the reality is that urgent and significant action is needed to dramatically reduce our dependence on carbon-based energy sources," Gov. Dannel P. Malloy said in a statement.

The selections help secure the future of Dominion Energy's at-risk Millstone Power Station, the state's only nuclear plant, and include energy from NextEra Energy's Seabrook nuclear plant in New Hampshire. (See [Connecticut Likely to OK Millstone for Zero-carbon RFP.](#))

One contract adds 100 MW to the prior

selection of 200 MW from the Revolution Wind project being developed by Ørsted US Offshore Wind, formerly Deepwater Wind. Another award will create 165 MW of new solar generation in Connecticut and throughout New England, including two projects paired with energy storage.

Punting Price Negotiations

The selection of Millstone's bid follows a Nov. 16 draft decision by the state's Public Utilities Regulatory Authority (PURA) categorizing the 2,111 MW plant as "an existing resource at risk for retirement" without ratepayer support (Case [18-05-04](#)).

"We agreed with PURA that the Millstone nuclear facility is at risk of early retirement and created an evaluation framework that lets us compare the costs of retaining the resource with the cost of replacing it over time with a variety of renewable resources," said Department of Energy and Environmental Protection

(DEEP) Commissioner Robert Klee.

Out of 24 different bids from Millstone, DEEP selected a 10-year bid for about 50% percent of the plant's output.

"DEEP selected and treated this option as though it were two separate bids: one for the next several years when they are not considered at risk due to their existing market commitments, and one for the latter years," said the press release.

The award selection directs Connecticut's electric distribution companies, Eversource and United Illuminating (UI), to negotiate the price downward to better reflect a reasonable rate of return for Dominion.

"The selected price for the first three years reflects Dominion's submitted energy-only price. For the at-risk period of the bid, 2022 to 2029, Eversource and UI are directed to negotiate for a price that reflects the costs and risks Dominion faces. The negotiations are requested to conclude by March 31, 2019," the release said.

While a normal utility rate of return on equity is 9%, DEEP said it would consider 12% to 15% reasonable for a merchant power plant with a long-term contract.

However, "Dominion has sought a rate of return that is not in the best interests of ratepayers," said the regulator.

Seabrook Station did not seek at-risk consideration and therefore did not disclose its operating costs to PURA.

"It was selected on the basis of its price of 3.3 cents/kWh levelized (3.9 cents/kWh nominal), which beats the market forecast and is projected to save Connecticut ratepayers \$18 million per year over its eight-year term. The Seabrook contract begins in 2022 and is for 1.9 million MWh," said the release.

Offshore Wind and Solar

Connecticut officials in June announced they would purchase 200 MW of output from the Revolution Wind project, adding to Rhode Island's 400-MW procurement. (See [Conn. Awards 200-MW OSW, 50-MW Fuel Cell Deals.](#))

The additional 100-MW "procurement is another step forward for Connecticut in growing its commitment to offshore wind," said Emily



Millstone Power Station | Dominion Energy

ISO-NE NEWS

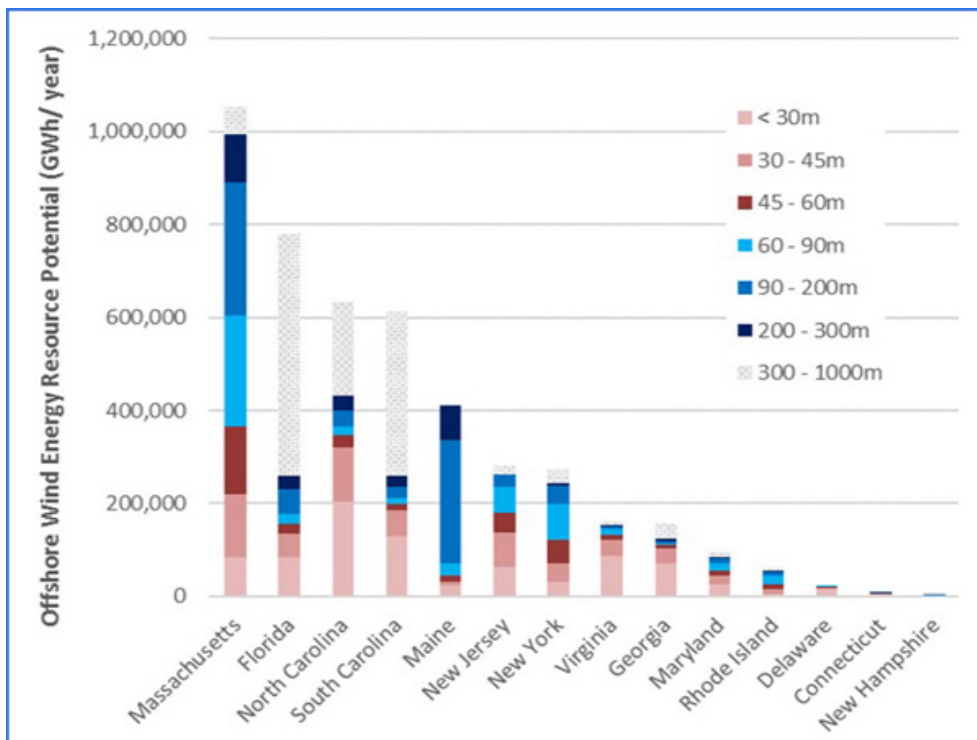


Lewis, senior policy analyst at Acadia Center. "Adding more offshore wind to the state's clean energy portfolio will continue the momentum of this growing industry ... To ensure continued growth of this industry in Connecticut, the state should set an offshore wind mandate similar to other east coast states."

As a result of drafting behind larger procurement processes in Massachusetts and Rhode Island, Connecticut obtained a 600-MW price for 200 MW of offshore wind and was also able to leverage the developer's investment criteria, Matt Morrissey, vice president of Ørsted US Offshore Wind, said at an event in October. (See "Offshore Wind Savvy," *Connecticut Explores its Energy Future at CPES Event.*)

While bid details remain confidential until the contracts are signed, state officials disclosed that Ørsted US Offshore Wind committed an additional \$13.7 million to Connecticut and the port of New London for infrastructure enhancements, economic development and education.

The nine solar projects chosen include "the first selections of grid-scale energy storage as part of Connecticut's energy procurements," with an average levelized cost of about 4.9 cents/kWh, the release said. ■



Atlantic offshore wind resource energy potential in Terawatt-hours/year by state showing water depths above and below 60 meters. About 61% of the East Coast resource area above 60-m depth. | *National Offshore Wind Research and Development Consortium*

Continued from page 12

Regional emissions of SO₂, NO_x and CO₂ declined in 2017 compared to the previous year, according to preliminary data, with lower emissions due largely to a decline in electricity generation by power plants that use fossil fuels, said the report. The year-over-year declines continued long-term reductions in the emissions produced by New England power plants.

NEPOOL Press Ban Proceeding

In August, the New England Power Pool asked FERC to approve amendments to its Agreement to codify an unwritten policy of banning news reporters and the public from attending the group's stakeholder meetings (ER18-2208). The group drafted the revisions after *RTO Insider* reporter Michael Kuser applied for membership in NEPOOL's Participants Committee as an End User customer in March.

RTO Insider responded to NEPOOL's filing with a Section 206 complaint asking the commission to overturn the organization's ban or terminate the group's role and direct ISO-NE to adopt an open stakeholder process like those used by other RTOs (EL18-196). New England is the only one of seven U.S. regions served by RTOs or ISOs where the press and public are prohibited from attending stakeholder meetings.

In a *motion to dismiss* *RTO Insider's* protest, NEPOOL said FERC lacks jurisdiction to force changes and that the *publication* lacks standing to challenge the rules. (See *NEPOOL: FERC Can't Change Press, Public Ban.*)

RTO Insider's filed response included letters submitted by six U.S. senators and 12 members of the House of Representatives calling on FERC to open the meetings. (See *New England Senators Urge FERC to End Press Ban.*)

It also included a copy of a Sept. 6 *RTO Insider* article quoting former FERC Commissioners Pat Wood and Nora Brownell as saying they

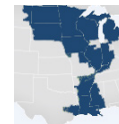
were unaware of NEPOOL's closed-door policy when they approved it as ISO-NE's stakeholder body. (See *Wood, Brownell: Unaware of Press Ban When OK'd NEPOOL.*)

Public Citizen filed comments *challenging* NEPOOL's claim that its members "voted overwhelmingly against having press reporters as NEPOOL members" at the June 26 Participants Committee meeting. Only 115 of NEPOOL's more than 500 members were present or had proxies at the meeting.

While 32 votes were cast in favor of the press ban, 24 members were opposed and 59 abstained. In addition, NEPOOL records show that six officers or their associates represented companies that provided 21 of the 32 votes for the ban.

The six have conflicts of interest in voting for the ban because they earn income selling "intelligence" about NEPOOL proceedings, said Tyson Slocum, director of Public Citizen's Energy Program.

The matter is pending before the commission. ■



MISO to Address Growing Supply Shortage in New Year

By Amanda Durish Cook

MISO will spend much of 2019 working on how it can prevent the increasingly frequent emergency conditions it experienced in 2018.

In spring, CEO John Bear said 2018 marked “13 years in standing up what is one of the world’s largest energy markets.” But that undertaking didn’t come without challenges, and MISO zeroed in on efforts exploring how it can temper them in 2019.

Last year roared in with an extreme cold snap and multiple generation outages in MISO South that forced the RTO to call a maximum generation event, later prompting FERC and NERC to open a joint investigation into its causes. (See [FERC, NERC to Probe January Outages in MISO South](#).) South was also subject to a second maximum generation event in September. (See [MISO: Sept. Emergency Response Improved by Jan. Event](#).)

Stopgap Filings

By then, MISO had decided to file expected Tariff changes earlier than planned, hoping to free up an additional 5 to 10 GW of capacity in time for the spring 2019 outage season. (See [MISO, Stakeholders at Odds over Resource Availability Filings](#).)

“There’s some discomfort with where we are, so some were asking what we could do before ... the spring outage season,” MISO Director of Resource Adequacy Coordination Laura Rauch said during a Nov. 7 Resource Adequacy Subcommittee meeting.

MISO made two FERC filings Dec. 21 that will require load-modifying resources (LMRs) to produce seasonal availability documentation and subject demand response to annual capability testing ([ER19-650](#), [ER19-651](#)). A filing for a new 120-day notice time for planned outages will follow in January.

“The MISO region is transitioning from a generation portfolio dominated by coal and nuclear generation resources to a portfolio that relies on an increasing quantity of intermittent and emergency-only resources — even to meet MISO’s planning reserve requirements,” the RTO explained in both filings. “Baseload generation retirements have increased the pace of this transition and have caused MISO to operate with actual capacity margins that have consistently been decreasing towards minimum resource requirements. ... Operating at



MISO Board of Directors in December | © RTO Insider

or near minimum reserve margin requirements exposes the MISO region to greater impacts from correlated risks (e.g., extreme weather events and natural gas availability).”

Almost 12 GW (about 9%) of MISO resources are classified as LMRs, accessible only as part of emergency load management. The RTO had not called on LMRs for a decade after a localized Wisconsin emergency in February 2007 but has relied on them three times since 2017.

MISO Independent Market Monitor David Patton has suggested “deep-sixing” the RTO’s current forced outage calculations in favor of a four-season capacity auction that will use generators’ averaged economic maximums during a season. That way, he argued, outages will be better anticipated, and MISO can dispense with members’ questionable outage reporting.

“Outage reporting is just not that reliable,” Patton said during an Oct. 11 Market Subcommittee meeting.

In addition to the three smaller FERC filings, MISO will this year focus on developing long-term fixes to keep its fleet more available during peak demand times. The RTO *aims* to implement the longer-term solutions throughout the first half of 2021.

MISO will also dedicate time in 2019 to devising a new load forecasting process. The RTO hopes to implement an approach that would have both Purdue University’s State Utility Forecasting Group and consulting firm Applied Energy Group working with 20-year forecasts provided by load-serving entities. (See [MISO Presents Load Forecasting Compromise](#).)

Low Capacity Prices

In his 2017 State of the Market *report* issued last June, Patton said the “fundamental problem” with diminishing capacity can be traced to “the relatively low net revenues generated in MISO’s markets.” (See [MISO Clears at \\$10/MW-day in 2018/19 Capacity Auction](#).)

By Patton’s count, MISO lost 3.8 GW of resources in 2017, mainly comprising gas-fired resources in MISO South and coal-fired resources in the Midwest. In contrast, the RTO added just 1.2 GW of new resources.

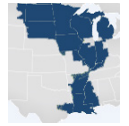
Patton continues to call for a more “functional” capacity market in MISO and has also blamed FERC for not issuing a rule set on RTO capacity markets.

“I think we may have to wait for this to play out in court,” Patton said during a June meeting of the MISO Board of Directors’ Markets Committee, predicting that competitive asset owners would soon sue. They have just as much right to recover costs as regulated utilities, he contended.

“I don’t think it’s right to ignore the competitive suppliers and think their issues are immaterial,” Patton added.

Some stakeholders have said MISO’s recent auction clearing prices do not reflect the tighter operating conditions that it claims, with many pointing out that for the past three years, clearing prices never come close to MISO’s \$25/MW-day conduct threshold. The 2019/20 capacity auction will be the first to use external capacity zones. (See [FERC OKs MISO External Capacity Zones, Dispute Deadlines](#).)

MISO NEWS



Packed Queue and Storage Beginnings

MISO might find some future capacity relief in its brimming interconnection queue and new rules that will open its markets to storage resources.

But the interconnection queue poses its own complications, as most of the proposed assets are intermittent resources.

During the June board meeting, MISO President Clair Moeller said that bringing on all the 90 GW then in the queue would lead to 40% renewables in the RTO's resource mix. According to an ongoing MISO study on renewable penetration, such a mix would result in an "inflection point" where it becomes more difficult to manage the system.

"We're going to need some pretty significant transfer capability or we're going to be curtailing," Moeller said.

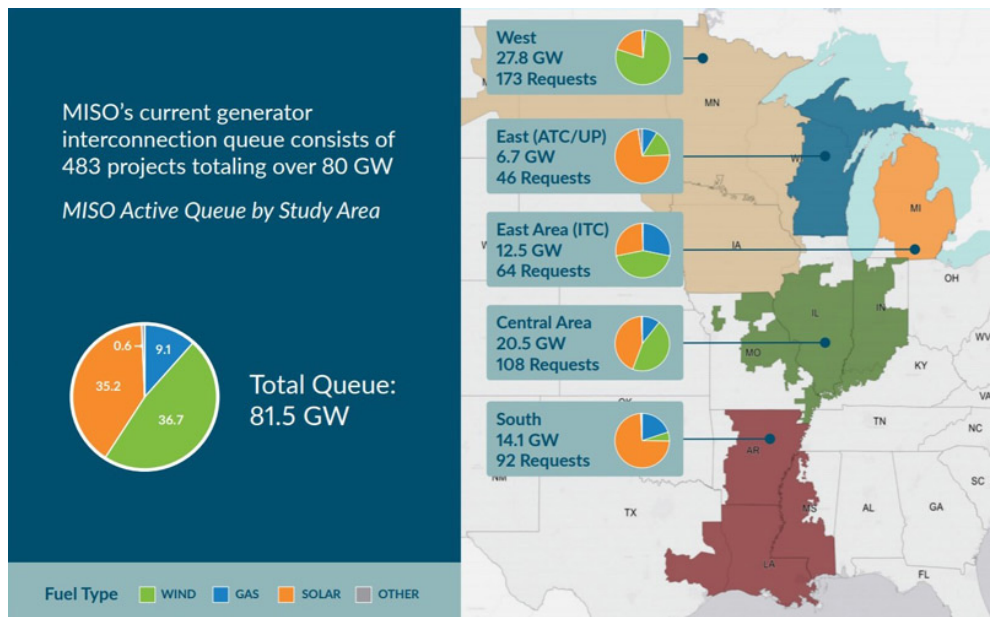
Since then, the queue has shrunk to about 82 GW because of dropouts.

MISO also filed to comply with FERC Order 841 in early December, outlining a participation model requiring storage resources commit to the market through four main modes: discharging, charging, continuous and outage status ([ER19-465](#)).

The first three modes carry must-run designations and will be cleared between a resource's minimum and maximum discharge limits. The plan also allows for emergency commitments. For metering purposes, withdrawals will be treated as negative generation and categorized as wholesale. (See [MISO Offers Storage Proposal, Promises to Exceed Order 841](#).) MISO is requesting its plan become effective Dec. 3, 2019.

"Allowing electric storage resources to participate fully in MISO's markets will enhance competition, promote greater market efficiency and help support the resilience of the bulk power system," Executive Vice President Richard Doying said in a [release](#).

Meanwhile, MISO is accelerating storage-



MISO interconnection queue as of December 2018 | MISO

as-transmission rules. So far, the RTO is only considering pared down rules that would allow storage to function simply as transmission into the MTEP 19 cycle, buying it time to consider broader rules for resources that serve both market and transmission functions. To include storage projects in its 2019 Transmission Expansion Plan, MISO will make a limited Tariff filing in February – if it is "aggressive" enough to meet the timeline, Director of Planning Jeff Webb said during a Nov. 14 Planning Advisory Committee meeting.

"If we have storage projects in the MTEP, but no rules for them, then we won't accept them because there is no policy," Webb said.

Hartburg-Sabine in the Books

MISO this year bid out its second-ever competitive transmission project, awarding construction of the proposed Hartburg-Sabine line in East Texas to NextEra Energy.

NextEra proposes to spend \$115 million on a new 23-mile 500-kV line, four short 230-kV

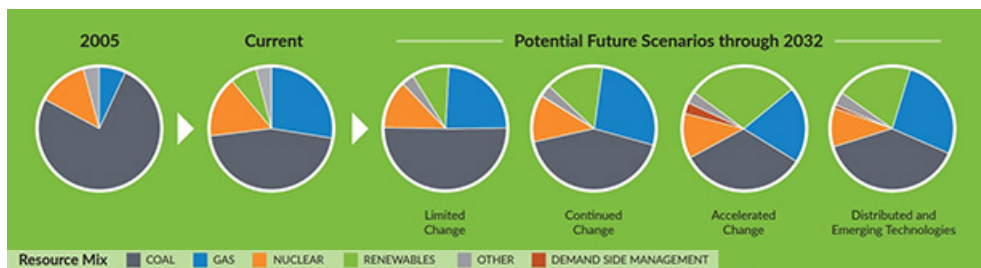
lines and a new Stonewood 500-kV substation, crossing Orange, Newton and Jasper counties in East Texas. The company estimates the project will have a 2.2:1 benefit-cost ratio and will be in service by June 2023. MISO said NextEra's proposal had the third-lowest cost per mile of 500-kV line at \$3.2 million. (See [NextEra Wins Bid to Build MISO's 2nd Competitive Project](#).)

"NextEra thoroughly identified, considered and discussed environmental risks and mitigation and was among the most thorough in completion of supporting design studies for the project," MISO said in a selection [report](#). The company took into account the high-water mark during Hurricane Harvey and ensured the substation site will not be within a 100-year or 500-year floodplain, according to the RTO.

So Long, and Thanks for the Metairie

By the end of 2019, MISO will have shuttered one of its four office spaces, closing its Metairie, La., office late in the year at a cost of about \$900,000, saving the RTO about \$500,000 every year thereafter. (See [MISO to Turn out Lights on Louisiana Office](#).)

The RTO is also one year closer to overseeing market operations on a new modular market platform. By the end of 2019, it will announce its chosen vendor to construct the platform, which will be pieced in gradually from 2020 to 2024. (See "Market Platform Replacement Enters Year 3," [MISO Board of Directors Briefs: Dec. 6, 2018](#).) ■



MISO fuel mix under MTEP 18 futures | MISO

NYISO NEWS



New York Looks to Expand Energy Programs in 2019 Offshore Wind, Carbon Pricing, Storage Dominate Agenda

By Michael Kuser

After winning a third term in November, Gov. Andrew M. Cuomo last month announced 2019 plans that include tackling climate change with a program reminiscent of Franklin D. Roosevelt's first 100 days as president during the Great Depression.

"New York must be the most progressive state in the nation moving to renewables," Cuomo said Dec. 17. "There is new economic growth potential, and New York will launch the Green New Deal to make New York's electricity 100% carbon neutral by 2040 and ultimately eliminate the state's entire carbon footprint."

Cuomo's effort will build on the state's energy-related progress over the past year, which included a draft carbon pricing proposal, energy storage programs and new targets for offshore wind and energy efficiency.

The same day Cuomo spoke, the state's Integrating Public Policy Task Force (IPPTF) met for the last time before handing over its final carbon pricing proposal to NYISO's stakeholder process. The ISO will pick up work on the market design this month through its Market Issues Working Group. (See [IPPTF Hands off Carbon Pricing Proposal to NYISO.](#))

NYISO and the New York Public Service Commission created the task force in 2017 to explore ways to price carbon into the wholesale electricity markets to align them with state decarbonization policies, including the zero-emission credit program for uneconomic nuclear plants.



Con Edison CEO John McAvoy (right) leads New York Gov. Andrew M. Cuomo on a tour of a substation in Astoria Queens where an electrical fault on 138,000-volt equipment caused a sustained electrical arc flash visible across a wide area of the city on Dec. 27. Cuomo asked state regulators to investigate the incident, which disrupted operations at LaGuardia Airport and a nearby subway line. | Gov. Cuomo

NYISO published the [IPPTF Carbon Pricing Proposal](#) on Dec. 7 after recommending it no longer require emissions-free resources with existing renewable energy credit contracts pay the carbon component of locational-based marginal prices (LBMPc). The requirement would create "a distortion in the market ... that places the ISO in the position of picking winners and losers," an ISO official said. (See [IPPTF Updates Carbon Charge Analysis, Treatment of RECs.](#))

Offshore Wind is Coming

2018 should prove to be a watershed year for the development of offshore wind, now poised to become a significant source of New

York's energy over the next decade. Early last year, Gov. Cuomo released the comprehensive [New York State Offshore Wind Master Plan](#), which calls for 2.4 GW of offshore resources by 2030.

authorized state agencies to procure 800 MW by this year. (See [NYPSC: Offshore Wind 'Ready for Prime Time'](#).) In consultation with the New York Power Authority and the Long Island Power Authority, the New York State Energy Research and Development Authority on Nov. 8 followed up with a request for proposals for 800 MW of offshore wind energy ([ORECRFP18-1](#)).

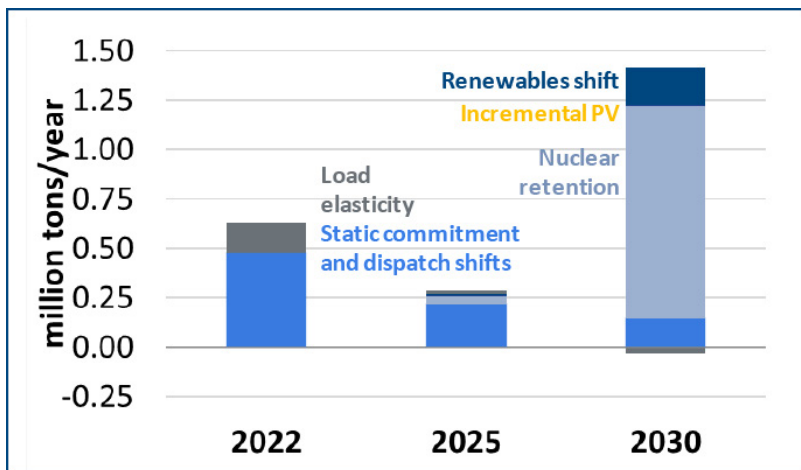
NYISERDA expects to announce the first offshore wind contract award in the second quarter of 2019 and, if needed, issue a second solicitation this year to meet the 800-MW goal of the first tranche.

The U.S. Department of Energy last year awarded a NYISERDA \$20.5 million grant to lead a nationwide research and development consortium for the offshore wind industry, with the state matching the federal funds. The consortium in November issued its [R&D Roadmap](#), and in December published its first [report](#), an examination of several technical challenges facing the industry.

Energy Storage

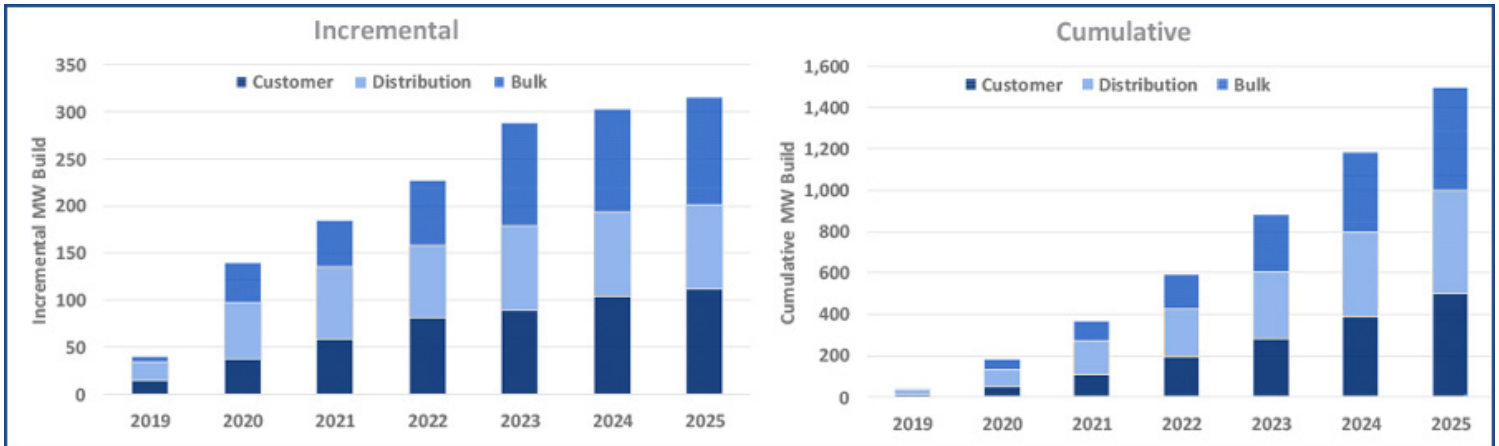
The consortium will issue a series of RFPs throughout the four years of federal funding, with the first R&D solicitation planned for next month. Initial project awards are expected to be selected by the end of March.

New York regulators last month approved measures that will sharply increase the state's



Emissions reductions from a carbon charge in New York | The Brattle Group

NYISO NEWS



Energy Storage: Deployment scenario resulting in 1,500 MW of energy storage by 2025 | NYISERDA

energy storage and efficiency targets. The state's Department of Public Service and NYISERDA in June issued New York's Energy Storage *Roadmap*, and the PSC adopted many of its recommendations.

Rulings by the PSC last year doubled New York's existing 2025 storage goal to 3,000 MW by 2030 and require the state's utilities to reduce building energy use by an additional 31 trillion British thermal units (Tbtu) to meet an energy efficiency target of 185 Tbtu by 2025. (See *NYPSC Expands Storage, Energy Efficiency Programs*.)

The commission's Dec. 13 storage order (Case *18-E-0130*) said that the targeted deployment of energy storage "will result in reductions in system peak load demand during critical periods, increases in the overall efficiency and resiliency of the electric grid, and displacement of fossil fuel-based generation."

Resulting public benefits include more than

\$3 billion in gross lifetime benefits to New York's utility customers, creation of approximately 30,000 jobs, about 2 million metric tons of avoided greenhouse gas emissions and improved public health by avoiding air-pollutant emissions such as nitrogen oxides, sulfur oxides and particulates.

The order also authorized \$310 million in market incentives to be administered by NYISERDA for pairing storage with solar projects, in addition to the \$40 million announced the previous month. It also directed the utilities to hold competitive procurements for 350 MW of bulk-sited storage systems.

NYISERDA and the DPS also developed the state-mandated energy efficiency targets (Case *18-M-0084*), which now include a 3% annual reduction in electricity sales by 2025 and 5 Tbtu of savings from the installation of heat pumps, which help reduce emissions from the heating and cooling of buildings.

CEO Transition

NYISO CEO Brad Jones left the organization abruptly in mid-October and was replaced — at least temporarily — by General Counsel Robert Fernandez. The ISO declined to elaborate on the reason for the departure, except to say it was "a personal decision by Brad." (See *Brad Jones out at NYISO*.)

Stakeholders told *RTO Insider* that senior ISO officials at the time told them the news was a surprise to them. "It's a really big mystery ... it came out of nowhere," said one stakeholder who asked not to be identified.

The ISO's Board of Directors has yet to say whether it will initiate a search for another chief executive. Fernandez was named the ISO's general counsel and chief compliance officer in 2000 after stints at Long Island Lighting Co. and independent power producer Sithe Energies. ■

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NYISO Board Partially Reverses AC Tx Project Selection

Segment B Switched to National Grid/Transco

By Michael Kuser

The NYISO Board of Directors on Thursday issued a mixed *decision* on the ISO Management Committee’s selections for the AC Public Policy Transmission Project.

While the board accepted the committee’s recommendation for one segment, it switched the other to a competing proposal by National Grid and New York Transco.

The Management Committee – along with ISO staff – had backed two joint proposals by North America Transmission and the New York Power Authority to build two 345-kV transmission projects to address persistent transmission congestion at the Central East (Segment A) electrical interface and Upstate New York/Southeast New York (UPNY/SENY, or Segment B) interface. (See [NYISO MC Supports AC Transmission Projects](#).) Cost estimates for both projects ranged from \$900 million to \$1.1 billion.

Advised by consultant Substation Engineering Co., ISO staff recommended Project T027, a double-circuit 345-kV line from Edic to New Scotland for Segment A. For Segment B, it endorsed Project T029, a standard 345-kV line from Knickerbocker to Pleasant Valley, despite claims from one bidder that there was a “virtual” tie in benefits among competing projects.

But the board concluded that “the most efficient or cost-effective solution” for Segment B is Project T019, proposed by National Grid’s Niagara Mohawk Power and NY Transco.

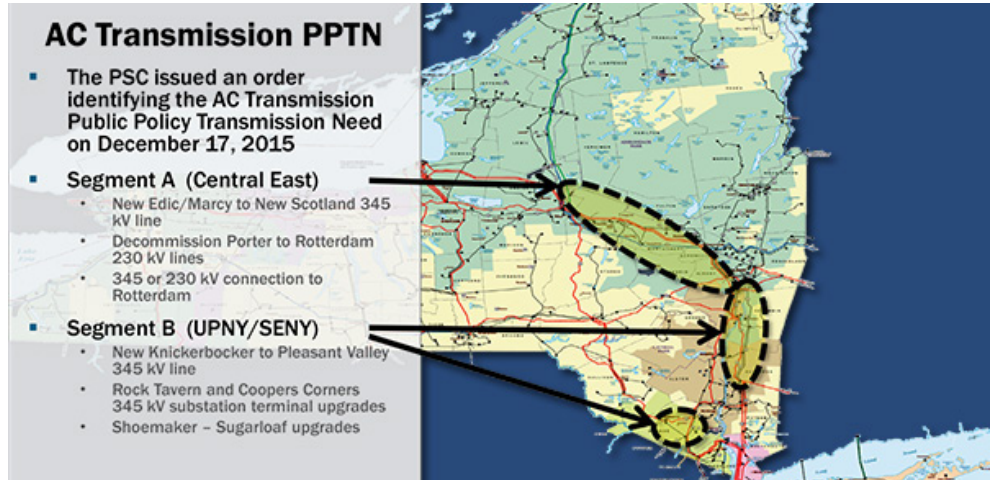
“In evaluating Segment B projects, the Board concludes that Project T019’s additional transfer capability drives superior performance across a number of important selection metrics,” the board wrote in its decision.

Table A-3: Cost per MW Ratio

Project	Segment B Independent Cost Estimate (2018 \$M)	Incremental UPNY/SENY (MW)	Cost per MW
T027+T019	\$479	2,100	0.228
T027+T022	\$373	1,600	0.233
T027+T023	\$424	1,550	0.274
T027+T029	\$422	1,475	0.286
T027+T030	\$441	1,600	0.276
T027+T032	\$536	1,525	0.351

The results show that T019 has the lowest Cost per MW ratio of all the Segment B projects.

Based on updated transfer limits, project T019 has the lowest cost/MW ratio of all the Segment B projects (\$/MW). | NYISO



AC Public Policy Transmission Need in NY | NYISO

The board directed ISO staff to modify the *draft report* for the project accordingly.

Listening to Stakeholders

NYISO staff had analyzed seven proposals for Segment A and six for Segment B before making their choices. However, when the Business Issues Committee recommended the projects last June, several losing bidders protested the ISO’s selection process. (See [NYISO BIC Backs AC Tx Projects; Losing Bidders Protest](#).)

At the June BIC meeting, New York Transco general counsel Kathleen Carrigan read comments the company submitted jointly with National Grid, arguing NYISO’s own metrics showed the National Grid/NY Transco proposal paired with T029 would produce consistently better performance than the ISO’s favored project.

Project T019 includes “a basic controllable series compensation element to preserve the proposed 345-kV transmission line physical designs that the commission deemed the most environmentally and siting friendly in the underlying AC transmission proceedings,” the comments noted.

When combined, T027 and T019 increase voltage

transfer across Central East by 875 MW and UPNY/SENY by 2,100 MW, the companies contended.

“This is a far greater increase than the combination of T027 and T029, which only increases transfer capability along Central East by 825 MW and UPNY/SENY by 1,325 MW,” Carrigan told *RTO Insider* after the June meeting.

“Projects T027 and T019 have the highest Central East N-1-1 voltage transfer capability of any studied project combination and far surpass combination T027 and T029 with respect to the incremental UPNY/SENY N-1-1 thermal transfer capability. The baseline 20-year incremental energy produced by projects T027 and T019 nearly *doubles* that of projects T027 and T029. And finally, T027 and T019 produce the highest production cost savings than any other Segment B combination,” Carrigan said.

Additional analysis ordered by the board supported Carrigan’s assertions, finding that when paired, T027 and T019 produced the lowest cost per MW, at \$228k/MW.

The ISO estimated T027 will cost \$577 million to \$750 million, the higher figure including a 30% contingency, while T019 is estimated at \$479 million.

The board’s conclusions are summarized in an *Addendum* to the Draft AC Transmission Public Policy Transmission Planning Report, which goes back to the MC for further review and comment before board members can make their final determination on project selection. ■



PJM Ponders New Capacity Rules — Again — in 2019

By Rich Heidom Jr.

PJM ended an era in 2018 with the retirement of Chairman Howard Schneider, who had served on the Board of Managers since the RTO's inception in 1997. But in many ways, the year was much like those before, with capacity and energy market rules under constant redesign. Some stakeholders have grown weary of the churn.

The year also saw battles between transmission owners and load interests and the biggest default in PJM history, which raised questions about the RTO's credit practices.

Here's a review of some of the biggest PJM stories of 2018, and a look at what's ahead in 2019.

Capacity

2017 ended with PJM and its stakeholders at odds over the best way to insulate the capacity market from state-subsidized generation. RTO officials had rejected the Independent Market Monitor's proposal, endorsed by stakeholders, to extend the minimum offer price rule (MOPR) to all units indefinitely, with carve outs for states' renewable portfolios and public power self-supply.

PJM's board responded by asking FERC to choose between the IMM plan and staff's capacity repricing proposal, under which the RTO would have accepted bids from subsidized resources in its capacity auctions but then isolate them during a second stage and reset the price without them (ER18-1314).

FERC rejected both proposals and ordered PJM to expand the MOPR — which now covers only new gas-fired units — to all capacity receiving out-of-market payments, including renewable energy credits. The commission recommended creating an "alternative" fixed resource requirement allowing states to pull subsidized resources and associated loads from the capacity auction. The 3-2 ruling, which partially granted a 2016 complaint led by Calpine (EL16-49), initiated a Section 206 proceeding in a new docket (EL18-178).

PJM responded with an Oct. 2 brief outlining its proposal for an "extended resource carve out" that would allow subsidized resources to obtain capacity commitments without clearing the capacity market, while creating a mechanism to restore prices to "the theoretically correct competitive level."



Former PJM Board Chairman Howard Schneider and CEO Andy Ott listen to consumer and public advocates at last year's PJM annual meeting. | © RTO Insider

"Making room, outside the auction, to accept subsidized generation as a PJM 'capacity resource' ineluctably will degrade auction prices," PJM said. "Unless the commission is prepared to accept a mechanism to adjust prices to their 'correct' level, this trade-off must be understood as an unavoidable consequence that comes once uneconomic resources are relieved from having to participate in the market." (See [Little Common Ground in PJM Capacity Revamp Filings](#).)

Stakeholders offered at least seven other alternatives for the MOPR and numerous modifications on FERC's FRR concept and PJM's carve out. In initial filings and reply comments filed in November, the stakeholders generally fell into two camps. One argued for a rejection of any carve out, calling instead for a "clean," MOPR-only construct that extended to all resources. The other generally supported the concept of the FRR Alternative but argued that because of the repricing mechanism, PJM's extended resource carve out would inflate capacity prices. (See [PJM Stakeholders Hold Their Lines in Capacity Battle](#).)

The stakes are large, as illustrated by two of the most recent filings in the docket. On Dec. 6, eight generation developers, including Calpine and Tenaska, **warned** that the FRR Alternative "would in fact end the competitive PJM capacity market as we know it," without a mechanism to avoid price suppression of competitive resources.

Public power and renewable advocates, including the American Public Power Association, the National Rural Electric Cooperative As-

sociation and the Natural Resources Defense Council, **responded** with a Dec. 21 letter to the commission. "We agree that states and locally governed utilities have the authority to make resource choices, and that it is not the role of the Regional Transmission Organization (RTO) to shield market participants from the effect of those policies," they said.

BRA Results 'Not Competitive'

In 2018, the second Base Residual Auction, in which all resources had to meet the Capacity Performance requirements, saw prices jump 83% in most of the RTO. But the IMM **reported** in August that the results of the auction were "not competitive" because prices were not capped at the net avoidable cost rate. The analysis said offers exceeding net ACR, while permitted by current rules, amounted to "economic withholding" and boosted total auction revenue by 41.5%. PJM insisted the rules had been followed, saying "the proper forum for such concerns about competitiveness of offers is the Federal Energy Regulatory Commission."

In April, the commission held a technical conference to consider whether the RTO should move from a year-round to a seasonal capacity construct. Although it has yet to issue an order on the merits of the issue, FERC signaled its concerns in **denying** rehearing requests in the docket in August (EL17-32, EL17-36). "Given that PJM is a summer peaking system, ... the move to a single, annual capacity product may have pushed valuable summer-only resources out of the capacity market and thereby increased capacity costs with little or no

PJM NEWS



reliability benefit," it said.

While it's not known when or how FERC will rule on these issues, one thing is clear: State officials will be upset with any rules that make their initiatives more difficult or more costly.

States' efforts to preserve their nuclear fleets continued in 2018, with New Jersey approving zero-emission certificates (ZECs) in May. In September, a federal appellate court upheld a similar program in Illinois, ruling the initiative did not violate the Federal Power Act.

After a year in which some state regulators threatened to *leave* the RTO or *end* the capacity market, RTO officials are in a very difficult spot.

"Almost nobody is happy with the state of [PJM and ISO-NE's] capacity markets," APPA CEO Sue Kelly observed at a conference in September. (See *'Almost Nobody is Happy' with Capacity Markets at Conference.*)

Aiding Coal, Nuclear Generation

In the energy market, PJM officials are trying to win stakeholder approval for a plan to allow large, inflexible generators such as coal and nuclear plants to set market prices. PJM's board told stakeholders in December that it will make a unilateral FERC filing supporting its price formation proposal if they do not act by Jan. 31. Stakeholders have heard first reads on three alternative proposals.

"We feel we are correctly criticized as a region



PJM's Stu Bresler (left) and Peak CEO Marie Jordan pitching their combined services at the Colorado PUC in March 2018. | © RTO Insider

for not addressing known price anomalies," CEO Andy Ott told the Markets and Reliability Committee's Dec. 20 meeting. "There is a very strong opinion by the board that we are long overdue for these changes."

PJM also is pushing to compensate generators for their "fuel security," another initiative that could benefit struggling coal and nuclear generators. PJM released a report on the issue in December, saying that while there is no imminent threat, "fuel security is an important component of reliability and resilience — espe-

cially if multiple risks come to fruition."

PJM said the compensation could be achieved through the capacity market or through a winter reserve product in the energy market.

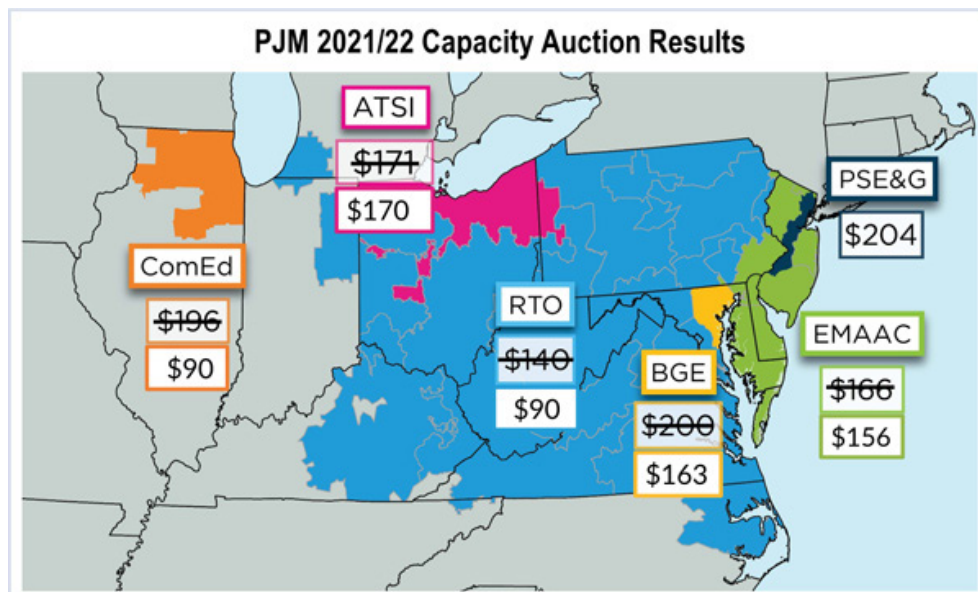
Regardless of what the RTO decides, the proposal is likely to be viewed skeptically by stakeholders representing load, who have long complained of the costs of PJM's large reserve margins and increasingly restrictive Capacity Performance rules.

Transmission Owners vs. Load

Load interests spent much of 2018 battling with transmission owners over their supplemental projects, which address individual planning criteria and are not subject to competition or PJM's analysis for inclusion in its Regional Transmission Expansion Plan. In September, FERC approved TOs' compliance filing in response to the commission's February show cause order requiring them to increase stakeholder engagement in the development of supplemental projects (EL16-71, ER17-179). (See *FERC Upholds PJM TOs' Supplemental Project Rules.*)

FERC also weighed in on a highly charged cost allocation issue, saying the solution-based distribution factor (DFAX) method is unjust and unreasonable for projects that address stability-related reliability issues. (See *FERC Rethinking DFAX for Stability Transmission Projects.*)

In May, PJM stakeholders endorsed a proposal requiring PJM to evaluate cost commitments — including construction costs, return on equity and capital structure — in its analysis of competitive bids for transmission construction.



The Market Monitor's analysis found that clearing prices in the 2018 Base Residual Auction would have been lower everywhere but the PSE&G zone had prices been capped at net avoidable cost rate. Not identified is the DEOK zone, which cleared with the rest of the RTO at \$140/MW-day, but would have priced at \$128/MW-day. | PJM, Monitoring Analytics

PJM NEWS



Western Market

In February, PJM and Peak Reliability, the reliability coordinator (RC) for the Western Electricity Coordinating Council (WECC), proposed creating an energy market as an alternative to the Western Energy Imbalance Market (EIM) managed by CAISO. But the effort quickly unraveled after CAISO said it would begin offering its own RC services at costs much lower than Peak's. Seeing its customers defect to CAISO and a competing RC offering from SPP, Peak abruptly announced in July it would cease operations.

Ott said in October that PJM remains interested in the idea but that the pace of talks has slowed since Peak's announced departure.

(See [Q&A: PJM's Ott Still Looking West.](#))

GreenHat Default

In the cross fire between load and supply, PJM officials often take shrapnel over their policy choices. But the RTO rarely faces the kind of questions about its competence that followed the default of FTR trader GreenHat Energy.

The company — run by two traders who were involved in a scheme to manipulate the CAISO and MISO markets between 2010 and 2012 — amassed 890 million MWh of FTRs (the largest FTR portfolio in PJM) with only about \$600,000 of collateral.

The company's *collapse* in June was the biggest default in PJM history. The incident led to calls for changes to PJM's credit policy and



GreenHat listed its address as 826 Orange Ave., Suite 565 Coronado, Calif. — a UPS store between a nail salon and a RiteAid. | © RTO Insider

questions about the RTO's failure to respond promptly to warnings from other FTR traders, which allowed GreenHat's \$10 million loss in 2017 to grow to more than \$100 million.

An investigative committee of the Board of Managers is expected to issue a report on what went wrong as soon as February.

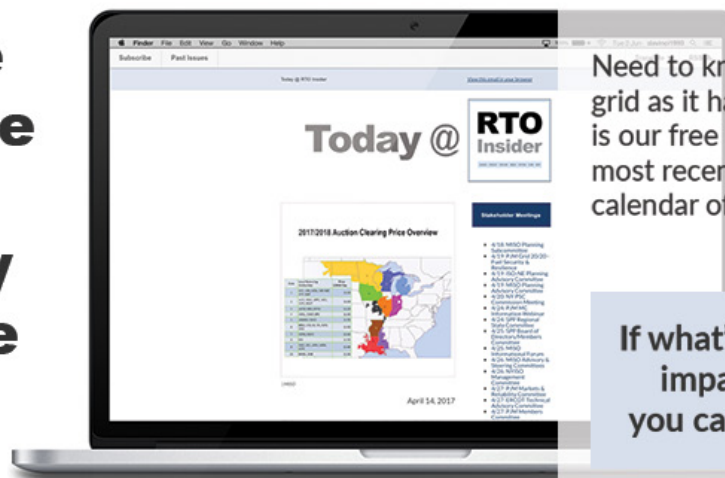
Market Monitor: New Contract, More Oversight

The year also brought a new contract for Mon-

itoring Analytics, PJM's Independent Market Monitor, led by Joe Bowring.

The contract, which was extended through 2025, requires the Monitor to submit to an annual independent audit. In addition, the Board of Managers announced in December that it had hired former FERC General Counsel Michael Bardee as an external liaison to receive direct member feedback on the Monitor and report it to the board's Competitive Markets Committee. ■

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SPP Still Looking West — and Inward

By Tom Kleckner

SPP will partially sate its hunger for expansion this year when it begins providing reliability coordinator (RC) services to more than a dozen entities in the Western Interconnection.

At the same time, the RTO continues to reinvent itself with a pair of stakeholder-led initiatives that may change the way it allocates transmission costs and recovers its administrative fee.

A year ago, SPP was well on its way to adding Mountain West Transmission Group participants as members, following much the same process as it did in adding Nebraska's public utilities in 2009 and the Integrated System in 2015. However, those plans were blown up in April by Xcel Energy's surprise decision to leave Mountain West, taking almost half the group's load with it. (See [Xcel Leaving Mountain West](#); [SPP Integration at Risk](#).)

Opportunity soon presented itself again several months later, when Peak Reliability, the RC provider for much of the Western Interconnection since 2011, announced it would cease operations by the end of 2019. (See [Peak Reliability to Wind Down Operations](#).)

While CAISO signed RC contracts with the bulk of Western load, SPP picked up about 12%, including most of the original Mountain West members. Among the entities: Xcel's



SPP's Paul Suskie, HITT Chair Tom Kent, HITT Vice-Chair Rob Janssen monitor the conversation during team's kickoff meeting. | © RTO Insider

Public Service Company of Colorado subsidiary. (See [CAISO RC Wins Most of the West](#).)

"We've worked hard over the last several months to demonstrate the quality and breadth of our service in terms of technical expertise, a customer-centric approach to doing business and the integrity of our people and processes," SPP COO Carl Monroe said at the time.

The contracts will add two more states — Arizona and Utah — to SPP's now 16-state footprint. The current timetable has SPP assuming Peak's RC services on Dec. 3, though the Western Electricity Coordinating Council

would like to see that pushed up to Nov. 1 to coincide with CAISO's transition date. SPP stakeholders are resisting the move.

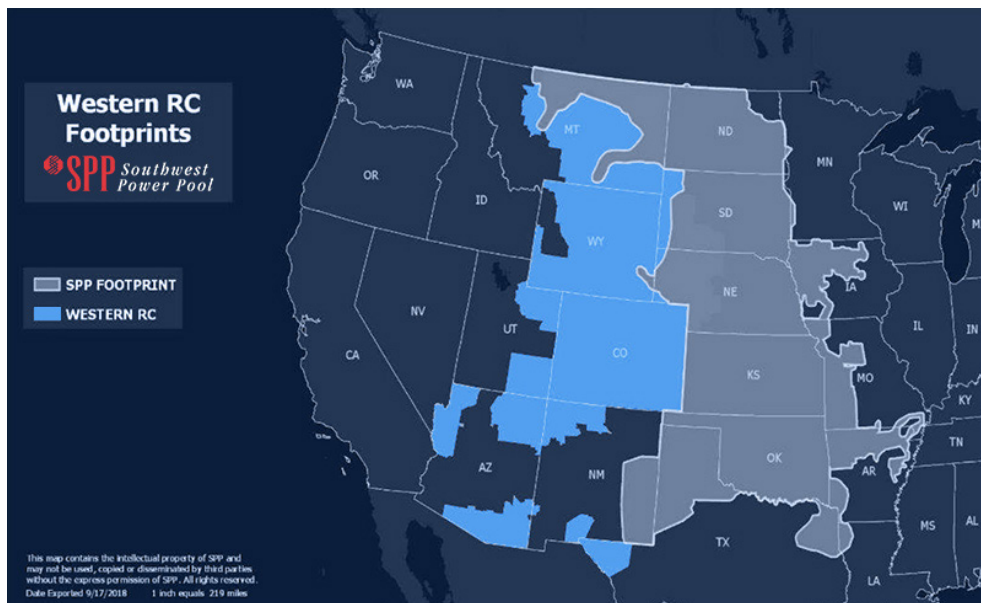
HITT Squad

The events out West are just some of the dramatic changes that have taken place within the industry and the markets over the last decade. To accommodate those changes and plan for a changing future, SPP last year created the Holistic Integrated Tariff Team (HITT), comprising RTO directors, state regulators and members, to determine the best way to align its planning processes, cost-allocation methodologies, and market products and services.

The HITT spent much of 2018 listening to presentations from staff, market participants, consultants and stakeholders, hashing over ideas that have been discussed in other working groups or brought up by stakeholders time and again.

"There's certainly a lot of work that's been going on through the different groups in SPP ... we don't want to overlap that or re-digest those things," said Nebraska Public Power District's Tom Kent, HITT chair. "We want to build off the work that's already being done and make sure we can account for the work that's being done in those other groups and support them. We don't want to retrace ground other groups are working on."

The team is only now discussing how to organize a report with its final recommendations. The report is due to the Board of Directors and Members Committee in April, but the HITT has also scheduled an educational session before the Markets and Operations Policy



SPP's Western RC footprint | SPP

SPP



Committee's January meeting in New Orleans.

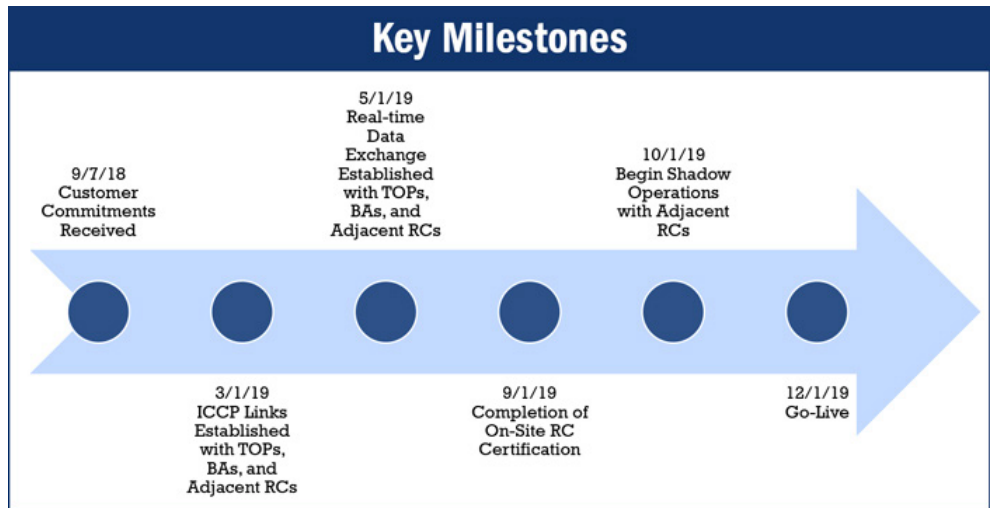
The HITT was modeled after the 2008/09 Synergistic Planning Project Team, which resulted in SPP's Integrated Transmission Planning process and the highway/byway cost allocation methodology. Under the methodology, "highway" projects rated at more than 300 kV are allocated 100% systemwide on a load-ratio-share basis. "Byway" projects (100 to 300 kV) are funded two-thirds within the transmission zone and one-third systemwide.

The RTO has approved or built \$6.3 billion in transmission infrastructure since 2010, with another \$2.9 billion to be completed by 2022.

Spreading the Fee

The Schedule 1A Task Force's objective is slightly less daunting: determine whether there is a better way to recover SPP's administrative fee.

The fee, which is being reduced this year to 39.4 cents/MWh from 42.9 cents/MWh, is collected under Schedule 1A of SPP's Tariff on transmission contracts between transmission providers and customers. Point-to-point contracts are billed against reserved transmission capacity, and network service is billed against



SPP's Western RC timeline | SPP

the prior year's average monthly zonal peak.

The problem is, different state regulators use different calculations and rely on historical data for current-year costs. The Integrated Marketplace has also required additional staff and IT costs, which has increased the amount to be collected.

SPP CFO Tom Dunn has proposed using ener-

gy metrics to reduce the fee, as financial-only players not currently paying Schedule 1A fees would also be contributing.

The task force is currently evaluating how best to recover costs in SPP's transmission congestion rights market. The group was to present its recommendations during the January governance meetings, but it has a meeting scheduled for Feb. 5. ■

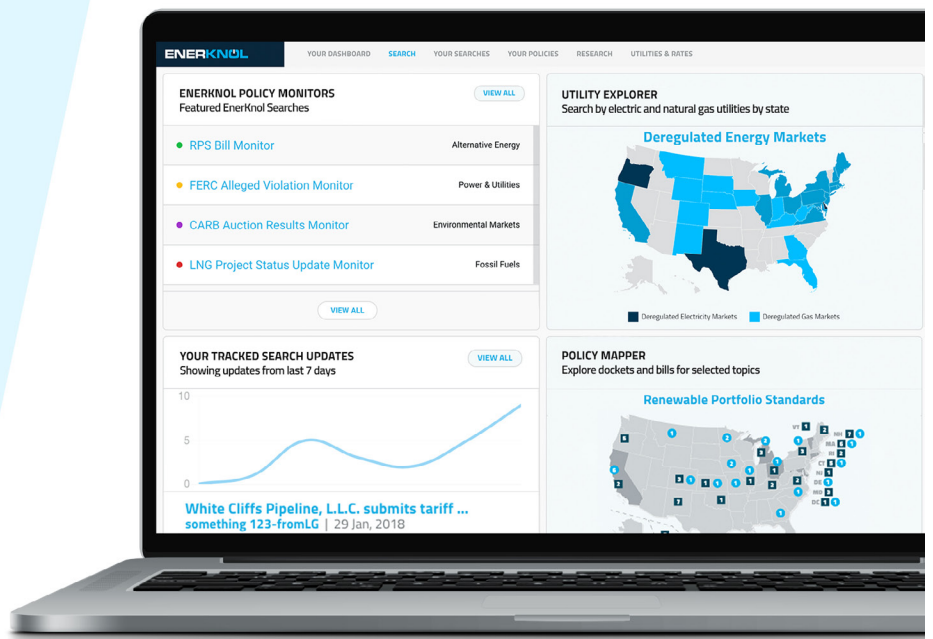
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