RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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

ISSN 2377-8016 : Volume 2018/Issue 47 November 20, 2018

Democrats Urge McNamee's Recusal from Resilience Docket

By Michael Brooks

Bernard McNamee | © *RTO Insider*

WASHINGTON — Senate Democrats on Thursday pressed President Trump's FERC nominee to recuse himself from the commission's ongoing proceeding on resilience because of his role in crafting a controversial Energy Department proposal.

Bernard McNamee, executive director of DOE's Office of Policy, told the Senate Energy and Natural Resources Committee that he would "clearly" be unable to rule on the department's already rebuffed Notice of Proposed Rulemaking for FERC to order RTOs and ISOs to compensate the full operating costs of generators with 90 days of on-site fuel. But he was less direct about whether he would rule on any other proceedings stemming from the NOPR.

McNamee worked on the NOPR as the department's deputy general counsel for energy policy. After the commission unanimously rejected the NOPR in January and opened its own docket to explore how "resilience" is defined, McNamee left DOE to become the director of the Texas Public Policy Foundation's Center for Tenth Amendment Action and Life: Powered initiatives, the latter described as a project to "reframe the national discussion" about fossil

Continued on page 37

Camp Fire Prompts Talk of PG&E Bailout or Breakup

By Hudson Sangree

President Trump and California Gov. Jerry Brown toured the scene of the Camp Fire on Saturday, Nov. 17. Trump called it "total devastation." | *California Governor's Office*

California's deadliest and most destructive wildfire has set off a new round of turmoil in the state's utility sector, with wildly swinging stock prices and questions about what policymakers will — or won't — do to protect the state's investor-owned utilities from fire liability.

As of Monday, the Camp Fire in the Sierra Nevada foothills of Butte County has killed at least 77 people, with 1,000 still missing. It has destroyed more than 10,000 homes and burned 150,000 acres, including nearly the

Continued on page 17

Also in this issue:

RTO Insider

CAISO ERCOT ISO-NE MISO NYISO PJM SPP

Editorial

Editor-in-Chief / Co-Publisher
Rich Heidorn Jr. 202-577-9221

Deputy Editor / Senior Correspondent
Robert Mullin 503-715-6901

Art Director
Mitchell Parizer 718-613-9388

Associate Editor / D.C. Correspondent
Michael Brooks 301-922-7687

Associate Editor
Shawn McFarland 570-856-6738

CAISO/West Correspondent
Hudson Sangree 916-747-3595

ISO-NE/NYISO Correspondent
Michael Kuser 802-681-5581

MISO Correspondent
Amanda Durish Cook 810-288-1847

PJM Correspondent
Rory D. Sweeney 717-679-1638

SPP/ERCOT Correspondent
Tom Kleckner 501-590-4077

Subscriptions

Chief Operating Officer / Co-Publisher
Merry Eisner 240-401-7399

Account Executive
Marge Gold 240-750-9423

RTO Insider LLC
10837 Deborah Drive
Potomac, MD 20854
(301) 299-0375

Subscription Rates:

Payment Frequency	PDF-Only	PDF & Web
Annually:	$1,350.00	$1,650.00
Quarterly:	380.00	475.00
Monthly:	150.00	175.00

See details and Subscriber Agreement at rtoinsider.com.

In this week's issue

NARUC ANNUAL CONFERENCE

Overheard at the 2018 NARUC Annual Meeting

ORLANDO, Fla. — The National Association of Regulatory Utility Commissioners' *annual meeting* attracted about 1,000 regulators, industry representatives, consumer advocates and other stakeholders.

Attendees participated in discussions on the energy-water nexus, physical and cyber challenges to the nation's critical infrastructure and EPA's Affordable Clean Energy Rule proposed in August.

Here are some highlights.

NARUC attendees listen to the Electricity Committee. | © *RTO Insider*

RTOs Agree They are Policy Takers, not Makers

A panel of grid operators engaged in a lively discussion over the balance between states' rights and market operations.

PJM CEO Andy Ott | © *RTO Insider*

PJM CEO Andy Ott referred to his RTO as a "referee," balancing resource adequacy requirements with other states' integrated resource plans.

"Somebody has to step up and say there's a cost shift here, and unfortunately, now that seems to fall on us," Ott said. "The big debate is when you start to have competitive states take action to preserve competitive generation or favor certain generation, the crowd on the other side says, 'Hey, I'm putting my money at risk. It's unfair.'

"One of the big disappointments of the past year was our proposal to accommodate states and still have competition and integrity in the market. Folks are taking that proposal as being against green, anti-environmental, which is absolutely not the case. We've got to create a balance and make sure states' interests are accommodated or respected."

MISO COO Clair Moeller | © *RTO Insider*

"We're policy takers, not policymakers," MISO COO Clair Moeller said. "All of the states maintain their statutory obligation to resource adequacy."

Moeller said MISO's problems are different from PJM's because MISO's residual capacity market is less volatile.

"The economics are between the asset owner and the regulator, predominantly," he said. "The policy of whether we retire this coal plant or don't is policy-driven. The predictability of those retirements is better because of that regulatory compact. It's less volatile on the capacity side because the states maintain that obligation. Our obligation is to maintain the assets people bring to the market."

The Brattle Group's Kathleen Spees | © *RTO Insider*

Kathleen Spees, a principal with The Brattle Group, said she saw another mission for grid operators: help the states achieve their policy objectives.

"First and foremost is a carbon-free policy. Every decision the markets make helps or doesn't help the state meet those goals," Spees said, referring to Moeller's comment on RTOs being policy takers. "I didn't hear a solution for how you guys can use the markets to achieve the states' objectives. Markets have proven to be really effective in achieving reliability."

"We had a successful tranche of transmission construction to accommodate renewable portfolio standards," Moeller said. "No one should confuse the construction to achieve those standards with what got built. What got built was to achieve the economic goals of those states. We're charged with doing things in the public interest. It's not up to us to pick between generation owners and the states. It's up to us to decide this is the best path forward in the consumers' interest."

"We've tried to ensure we're not putting up barriers to what state policies are trying to achieve," said Anne George, ISO-NE's vice president of external affairs. "The states have seen a lot of their environmental policies achieve what they were hoping to achieve. Because they had success, now we're looking at more aggressive targets. They're taking actions to move forward. Our job is to look at the marketplace and see how we have the market facilitate what the states are looking to achieve, and to see that others' part of that regulatory compact have the revenues to provide reliability to the region."

In the end, Ott said, maintaining confidence in the markets is the best way to ensure open competition.

"If we can't have a viable market, then Plan B is to flip back to something like competitive procurement, where it's almost like a synthetic reregulation at a regional level," he said.

Panel: Flexible Resources not Being Fully Used

Speaking on a panel on flexible resources, *Grid Strategies* Vice President Michael Goggin said grid operators are not benefiting from all the capabilities renewable energy and distributed generation offer. Were RTOs to remove barriers to full market participation, he said, flexible resources would be able to provide ancillary services and operating reserves.

"All U.S. ISOs have rules that are either directly or indirectly preventing wind and solar from providing services they never thought they were capable of doing," Goggin said. "Capacity markets are not ideal for bringing out the best of these resources. They're focused on megawatts, not procuring flexibility. Real-time incentives, through operating reserves and ancillary services and energy markets, provide a much better way of procuring that service when it's needed. Self-scheduled resources aren't fully participating in the centralized dispatch, an impediment to bringing about the full capability of these resources."

David Nemtzow, director of the Department of Energy's Building Technologies Office, sug-

NARUC ANNUAL CONFERENCE

gested buildings provide another resource that can be tapped. He noted there are 124 million buildings, 118 million of which are homes, in the U.S. They account for 40% of the country's energy usage, at a cost of $380 billion per year.

"Buildings are an integral part of the electric system. The challenge is to make them flexible without any degradation of the services they provide," Nemtzow said. In addition to reducing demand through LED lighting and sophisticated sensors that adapt cooling/heating systems and lighting to the number of people present, buildings can be "interoperable, integrated systems … that are grid-responsive," he said.

"Buildings can signal the utilities, so when the system is stressed or needs resources, a signal can be sent to the building owner or operator and they can make voluntary decisions and participate with the grid," Nemtzow said.

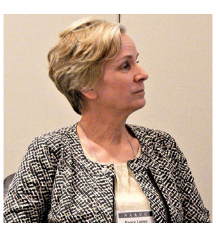
Ric O'Connell, executive director of *GridLab*, said the two most significant trends he sees in the industry are the adoption of large, central renewable generation by utilities and policymakers, and the adoption of distributed energy resources by customers.

"The real question is, how do these two major changes interact?" he said. "Do they complement each other, or do they frustrate each other?"

Answering his own question, O'Connell cited a *paper* he recently published that found the two trends do complement each other. "Part of that is because DERs add flexibility to the grid and enable the addition of more renewables," he said.

"On a utility-scale system, think of wind and solar as must-take. Sometimes, the rest of the system needs to be there for them. DERs are that thing your system operators are constantly grumbling about. This technology isn't actually that new. We're just allowing these resources to expose these characteristics."

O'Connell referred to Minnesota, where he said modeling revealed that DERs' flexibility is key to unlocking higher renewable penetrations, and that limiting DERs would dramatically increase the cost to decarbonize the system. "We have to start thinking about how we connect these new technologies," he said.



Minnesota's Nancy Lange | © *RTO Insider*

Minnesota Public Utilities Commission Chair Nancy Lange, speaking on a separate panel, said the state is doing just that.

Quoting Wayne Gretzky's strategy of skating to where the puck will be, not where it's been, Lange said that in distribution planning, the commission thinks it knows where the puck is going.

"We have 4,500 [electric vehicles] in Minnesota. Are we going to have 10,000 in a year, or 7,000 in a year, or 20,000?" she asked. "Those are some of the skate-to-where-the-puck-is-going questions."

Commissioners Share Their Market Concerns

Left to right: Illinois' John Rosales, Utah's David Clark and Washington's Ann Rendahl follow the conversation. | © *RTO Insider*

During an Electricity Committee devoted to market issues, Western regulators shared with their peers the latest developments in the Western Interconnection: CAISO's expansion of its real-time balancing market; CAISO's and SPP's offerings of reliability coordination services as Peak Reliability enters its last year of business; and SPP's life-support effort to integrate some of the Mountain West Transmission Group.

Utah Public Service Commissioner David Clark quoted NERC CEO Jim Robb, the former Western Electricity Coordinating Council CEO: "The transition that will occur in reliability coordination services in the West is the single most important reliability coordination effort facing the U.S. in the next two years. We have our eye carefully on this transition process."

Clark said Western states outside of California are concerned about CAISO's "further extension" of market services.

"The principal challenge for many is the area of governance," he said. "In Utah, we have a great desire to retain our self-determination, with respect to our energy policy. If we ever become involved in a market being served by vertically integrated utilities, we would want a voice in the government. We would want the operations of that market to be transparent."

New Mexico's Cynthia Hall | © *RTO Insider*

"There's still skepticism with states and utilities in the West when it comes to take that step to join an RTO," New Mexico Public Regulation Commissioner Cynthia Hall said. "There's a growing concern relative to the problems created by seams issues. There's a reticence to becoming a[n RTO] member. The reasons are multiple, not the least of which is if they have to pay to play — they would have to pay a greenhouse gas adder in California."

Illinois Commerce Commissioner John Rosales discussed his problems with PJM's capacity market construct, which he said has succeeded in lowering wholesale prices and the cost of operating reserves.

"What's been somewhat contentious are the parts that don't work well, which is pretty much everything else," he said. "For me, it's inherently flawed and extremely complex. The capacity construct is constantly being revised. … There have been well over 30 revisions, which becomes very frustrating for the states. We don't call it a market, because there are so many features that are administratively determined … price caps, the cost of new energy fluctuates, performance requirements. Most of us agree that generally, this construct fails to send the proper price signals to ensure the proper fuel mix."

Competitive markets have a supporter in Michigan Public Service Commission Chair Sally Talberg, who said, "Whether deregulated or fully regulated or something in between … at the end of the day, we want affordable, reliable service. We all have a common goal in fostering those competitive environments. I feel like we're dancing around with a patchwork of dos and don'ts at the state level, and that creates uncertainty."

Indiana Utility Regulatory Commissioner Sarah Freeman said her concern is with a rapidly changing fuel mix. She said her state expects four coal-fired units to retire by 2023, and she noted there are no new builds on the horizon.

"If it's happening in Indiana, it's happening bigger and faster somewhere else," she said. "Once RTOs become involved, we need to maximize our cooperation and avoid any protectionist tendencies we have."

Seams issues topped Illinois Commissioner Sadzi Oliva's lists of concerns. She said market inefficiencies show up on the seam, "typically as a result of incompatible market rules."

"This increases the ultimate cost to the ratepayers," Oliva said. "The seam between MISO and SPP will be the concern for the majority of us. Illinois' concern is receiving an unwarranted cost allocation." ■

— Tom Kleckner

NARUC ANNUAL CONFERENCE

NARUC Briefs: New Chief Picked, Staffers Honored

Iowa's Wagner Lays out his Vision as NARUC President

ORLANDO, Fla. — Nick Wagner, newly elected president of the National Association of Regulatory Utility Commissioners and member of the Iowa Utilities Board, told the group's annual meeting Nov. 13 that his vision for the organization is more than idle words.

"Utilities, customers and stakeholders are looking to us as commissioners for answers. They expect us to lead," Wagner said, shortly after taking NARUC's reins from John Betkoski, vice chair of the Connecticut Public Utilities Regulatory Authority.

Regulators and staff gather for NARUC's opening session. | © *RTO Insider*

Outgoing NARUC President John Betkoski listens to North Dakota's Julie Fedorchak nominate his successor, Nick Wagner. | © *RTO Insider*

"As we approach the future and move forward, we are going to work on leading the way and exploring opportunities," Wagner said. "This is more than a one-year tagline. What NARUC needs to do is focus on a long-term vision and not a tagline. The issues that are out there? They'll come up. They don't care if I put them in a tagline or not."

Wagner said NARUC will partner with the *National Association of State Energy Officials* (NASEO) to create a task force on comprehensive electricity planning, providing a forum to develop state-led pathways "toward a more resilient, efficient and affordable grid." NASEO is composed of governor-appointed energy officials from each state and U.S. territory.

The task force will include up to 15 commissioners and state energy officials. Colorado Public Utilities Commission Chair Jeffrey Ackermann and Laura Nelson, executive director of the Utah Office of Energy Development, will serve as the group's co-chairs.

"I've challenged the task force to come up with a novel approach outside of a 200-page report that's going to be thrown on a shelf somewhere and never get read, something that commissions can use in the future as they approach this issue," Wagner said.

"Things are changing. Technology is changing. Customer needs and wants are evolving," he continued. "We can look at these changes and focus on exploring opportunities. We can approach our work differently than we've done in a way for 20 years. We can embrace moving forward and look at innovative ways to make this a better experience for everyone involved."

Wagner was elected as NARUC's president during the Nov. 12 opening general session of the organization's 130th annual meeting and education conference.

Incoming President Nick Wagner outlines his plans for 2019 to his fellow members. | © *RTO Insider*

He was appointed to the IUB in May 2013, filling a term that expires next April. He also holds officer positions with the Mid-America Regulatory Conference and the National Council on Electric Policy.

Wagner served in Iowa's House of Representatives from 2008 to 2012. He holds a bachelor's in biomedical engineering and a master's in electrical engineering, both from the University of Iowa.

"I'm looking forward to the year. We've got a lot of good things we can work on as the world changes for utilities," he told RTO Insider. "From the very beginning, I knew this was something I wanted to be involved with and engaged in. I knew it was a great organization. What we do is critical to so many lives."

The membership selected North Carolina's Edward Finley Jr. as first vice president and Idaho's Paul Kjellander as second vice president.

Wagner and nine other NARUC members were reappointed to the group's board of directors: Bob Anthony (Oklahoma), Betty Ann Kane (D.C.), G. O'Neal Hamilton (South Carolina), Carla Peterman (California), Asim Haque (Ohio), Mark Vannoy (Maine), Chris Nelson (South Dakota), Kara Fornstrom (Wyoming) and Angela O'Connor (Massachusetts).

NARUC Hands out Barnich, Innovation Awards

During the opening general ceremony, NARUC bestowed the 2018 Terry Barnich Award to

NARUC ANNUAL CONFERENCE

two commission staffers from Arizona and D.C. for their efforts to provide aid and expertise to regulatory partners abroad.

Elijah Abinah, utilities division director for the Arizona Corporation Commission, provided critical knowledge and assistance to NARUC's long-running partnership with the Nigerian Electricity Regulatory Commission. He has also worked in Uganda and Rwanda, with support from the U.S. Agency for International Development's Power Africa initiative.

Udeozo Ogbue, compliance office chief for the D.C. Public Service Commission, helped lead a partnership exchange with Tanzania's Energy and Water Utilities Regulatory Authority, stressing the fundamentals of pipeline safety and building the authority's capacity to develop rules for gas transmission and distribution. He has helped shape utility regulatory development and direction in Tanzania, Nigeria, Pakistan, India, Japan, South Korea and Mexico.

The *award* is presented in the memory of Terry Barnich, former chairman of the Illinois Commerce Commission, who was killed in Iraq in 2009 while working as the deputy director of the State Department office overseeing U.S. reconstruction projects.

The organization also handed out its *Innovation Awards* for promoting the exchange of knowledge and information that will benefit innovation in regulatory issues, to four individuals and groups.

Haque, chairman of the Ohio Public Utilities Commission, was honored for regulatory and policy innovation for his Power Forward initiative.

Technical innovation awards went to:

- Greenlots in the electricity sector for developing a grid-management solution that allows utilities and grid operators to intelligently control electric vehicle load;
- The San Jose Water Co. in the water industry for revitalizing its largest surface water-treatment facility; and
- The Gas Technology Institute in the gas industry for developing a breakaway disconnect fitting for meter set assemblies.

Travis Kavulla (left) and Nick Wagner listen to a panel. | © *RTO Insider*

An attendee with his minions. | © *RTO Insider*

Electricity Committee Approves Storage Resolution

NARUC's Committee on Electricity during its business meeting approved a resolution recommending five principles to guide member states in modeling energy storage and other flexible resources (*EL-4/ERE-1*):

- Utilities and utility commissions should be well educated about the different types of quantitative models that exist today.
- Utilities should develop, if appropriate, new modeling tools and planning frameworks that allow for a more complete evaluation of energy storage and other flexible resources.
- Planning frameworks and modeling tools should model the full spectrum of services that energy storage and flexible resources are capable of providing.
- Utilities should analyze a range of flexible resource options and current cost assumptions to identify and pursue the most cost-effective opportunities that best meet system needs.
- Regulatory commissions should apply the same basic prudence principles to energy storage investments as to other utility capital plant.

The resolution passed on a voice vote, with one opposing vote and one abstention. It had been tabled during NARUC's summer meeting but incorporated additional input from the Edison Electric Institute and the Energy Storage Association.

A second resolution, championed by Illinois Commerce Commissioner John Rosales, was tabled by a 17-9 vote. The resolution (EL-3) encourages state and FERC action to preserve the rights of states to support environmental preferences in electricity generation.

"I'm very passionate about this," Rosales said. "I tried to make it as general as possible but was told there was vagueness. I feel comfortable moving forward with it. It's timely, and it's needed."

Two other resolutions were also tabled to allow continued discussion:

- CI-1/EL-1/WC-2, which encourages collaboration between state and federal regulators to improve safeguards against cyberthreats to the utility distribution system.
- EL-2, which urges state and federal commissions and grid operators to require that fuel security and resilience evaluations be included in decisions to build new generation. ■

— Tom Kleckner

NARUC ANNUAL CONFERENCE

Regulators Examine MISO-SPP Seams Issues at NARUC

By Tom Kleckner

ORLANDO, Fla. — MISO, SPP and their stakeholders have been flummoxed in recent years by market coordination, interregional planning and other issues across the grid operators' seam. Now, the regulators are stepping in.

On Nov. 11, state regulators from MISO's Organization of MISO States and SPP's Regional State Committee met with staff from both RTOs and other interested stakeholders on the sidelines of the annual meeting of the National Association of Regulatory Utility Commissioners.

Two of the more interested participants were FERC Commissioner Cheryl LaFleur and Iowa Utilities Board Member Nick Wagner, NARUC's newly installed president.

"This is a terrific opportunity to spend time face to face, talking about these things, given the length and complexity of the seam between the two," LaFleur said. "It's a tremendous opportunity to do things better in both respective market operations, as well as transmission and reliability operations on the seam, all to the benefit of the customers."

LaFleur praised the two organizations and their engagement with their RTOs. "It's only logical these would be the two groups best to engage and put your heads together on the issues between the seams," she said.

Wagner, whose state falls within MISO, told RTO Insider he was looking out for Iowa consumers and wants to ensure inefficiencies on the seam "are not costing consumers more than they should be."

"We've seen issues on other seams. It's not a novel issue," Wagner said, referring to the PJM-MISO seam.

Shining a Light

MISO and SPP have been unable to agree on a single interregional project, and their market-to-market (M2M) process has resulted in more than $51 million in payments from MISO to SPP since March 2015, compensation for overloaded transmission elements. In January and September of this year, extreme weather events created emergency situations on MISO's side of the seam. (See *FERC, NERC to Probe January Outages in MISO South* and *3-Degree Forecast Error Triggered MISO September Emergency*.)

Missouri Public Service Commissioner Daniel Hall, who chaired the OMS-RSC liaison committee meeting, told MISO and SPP staff, "Any time we can get the two of you working together, that's a good thing."

Daniel Hall chairs the OMS-RSC meeting alongside Kansas' Shari Feist Albrecht. | © *RTO Insider*

Hall represents OMS on the committee along with Louisiana's Lambert Boissiere, North Dakota's Julie Fedorchak and Minnesota's Matt Schuerger. Kansas' Shari Feist Albrecht, South Dakota's Kristie Fiegen, Arkansas' Kimberly O'Guinn and Texas' DeAnn Walker represent the RSC. Wagner is an ex officio member.

"There's value in shining a light on these seams issues and ongoing efforts to address them," Hall said. "This is an excellent forum where we can identify issues [and] work collaboratively with MISO and SPP and other stakeholders to find solutions and track the progress."

Left to right: FERC's Cheryl LaFleur, Missouri's Daniel Hall and Kansas' Shari Feist Albrecht. | *FERC Commissioner Cheryl LaFleur*

"I know there's a role for FERC," LaFleur said. "I do think there is some comparability between what's happening on the SPP-MISO seam and what happened between PJM and MISO 20 years ago. Though it's a lovefest now, it was very contentious at one point."

"There is some comparability between what's happening on the SPP-MISO seam and what happened between PJM and MISO 20 years ago. Though it's a lovefest now, it was very contentious at one point."

–FERC Commissioner Cheryl LaFleur

The liaison committee — "or task force, or whatever we're calling ourselves," Hall said — reviewed a draft white paper it had requested from MISO and SPP staff. Working with regulatory staffers, the grid operators were to identify barriers to more efficient seams operations and transmission planning, offering solutions whenever possible.

Calling the white paper a "foundational document," Hall said he expects to request additional information from MISO and SPP and solicit stakeholder comments.

The white paper itself will eventually be made public, although the committee is uncertain how it will do so. Both *OMS* and the *RSC* have created web pages for the group.

Adam McKinnie, a Missouri PSC economist who works with both committees, framed the white paper as a means of better understanding the dynamics of issues on the seam. He said its strength was in discussing the history behind previous interregional planning efforts, improvements to the M2M process, contract

NARUC ANNUAL CONFERENCE

Adam McKinnie briefs the committee on a seams white paper. | © *RTO Insider*

path capacity sharing and flowgate allocation.

Citing the complexity involved, McKinnie said the white paper doesn't address pancaked rates, conditional generator interconnection agreements and the grid operators' 2015 settlement agreement on MISO's North-South flows. (See *FERC OKs MISO-SPP Transmission Settlement*.)

Smoke Signal

Asked whether the M2M payments are a symptom of inefficiency, McKinnie said, "These payments are definitely smoke. They are sending signals that there are issues in the area."

The M2M process determines which party has exceeded its allowed usage of an overloaded transmission element. The grid operator over its allotment is required to find a solution that relieves the congestion.

"If MISO is paying SPP, it's because it's cheaper than a transmission solution," McKinnie said.

The usage allotment is based on metrics that date back to 2004. Staff agreed the process needs to be updated, but the RTOs continue to negotiate how to revise the allotment.

The grid operators also face a 2020 renegotiation of their joint operating agreement, in place since 2004. The JOA has been amended "many times" since then, McKinnie said, including implementation of the M2M payments and a FERC Order 1000 compliance filing. The grid operators also have a memorandum of understanding that guides the M2M process.

SPP's Sam Loudenslager and MISO's Melissa Seymour | © *RTO Insider*

Noting MISO and SPP take different positions on fundamental ideas and Tariff and contract interpretations, McKinnie told Hall he thinks the RTOs are "doing a decent job of being focused on the right issues."

"There seems to be some talking past each other," Schuerger pointed out.

"We have worked to close the gap," said Melissa Seymour, MISO's executive director of customer and state affairs for the Central region.

Seymour pointed to the "significant amount of time" MISO staff have spent with SPP in preventing another occurrence of the January event, when severe cold weather and generation shortfalls in MISO South led MISO to exceed its regional dispatch limit on transfers across SPP's system between its northern and southern footprints.

When MISO was forced to declare a maximum generation alert in September, the grid operators agreed communications across the seams was improved.

"We've been meeting on a monthly, sometimes weekly, basis with SPP," Seymour said. "I think camaraderie is better as a result of that September event."

"They don't do a good job of telling their story," McKinnie said.

SPP Director of Regulatory Policy Sam Loudenslager agreed. "We don't publicize the positive events like we probably could." ■

ASSOCIATION OF POWER PRODUCERS OF ONTARIO'S 30TH ANNUAL CONFERENCE

Stressed in US, Capacity Markets Come to Ontario, Alberta

By Rich Heidorn Jr.

Ontario and Alberta are developing capacity markets even as those in the U.S. face increasing stress. Officials described the plans last week at the Association of Power Producers of Ontario's 30th annual conference. | © *RTO Insider*

TORONTO — Ontario and Alberta are developing capacity markets even as those in the U.S. face increasing stress from subsidized resources and growing resistance from states and public power.

The Alberta Electric System Operator (AESO) plans to add a capacity *market* in 2019, with the first contracts awarded in 2020 or 2021. (See related story, "Alberta also Adding Capacity Market," *Overheard at APPrO 2018*.)

Ontario's Independent Electricity System Operator (IESO) is developing an incremental capacity auction as part of its "*Market Renewal*" project, which also includes moving to a single pricing schedule, launching a day-ahead market and improving real-time commitments.

IESO says the Market Renewal program, which was announced in 2016, is "the most significant suite of reforms" since Canada's largest province introduced competitive wholesale markets in 2002 and will produce at least $3.4 billion ($2.6 billion USD) in savings over 10 years.

Ontario has used a mix of regulated and contracted resources to meet its system adequacy needs and to eliminate coal-fired generation and add renewables. But that "approach did not always ensure that capacity was procured most cost effectively, that excess capacity was not procured, and that opportunities existed for innovative and emerging technologies," IESO *acknowledges*.

The capacity market, with the first auction expected in 2023, will reduce costs by getting more competition for future resources, IESO says.

Political Shift

High electric rates were a major issue in last June's provincial elections, when the Progressive Conservative party ended 15 years of Liberal party control. Ontario's electricity rates, the highest in Canada, *rose* four times as fast as inflation between 2006 and 2017. After rate reductions in 2017, Ontario's time-of-use rates now *range* from 6.5 cents/kWh for off-peak to 13.2 cents/kWh for on-peak.

To fund the renewable contracts under the Green Energy Act, and the costs of conservation programs, gas capacity expansions and nuclear power refurbishments, the province added a Global Adjustment surcharge, which *rose* from 1 cent/kWh in 2008 to about 10 cents in 2017.

Since taking office June 29, the new government has:

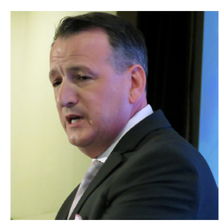
- Forced the resignations of the board and CEO of Hydro One, the province's transmission and distribution utility, which the party accused of waste and mismanagement. The Hydro One Accountability Act, introduced in July, requires a new compensation scheme for executives, the board and the CEO. The previous CEO was nicknamed the "$6 Million Man" for his salary.
- Introduced legislation in September to repeal the 2009 Green Energy Act, which provided feed-in tariffs to expand renewable energy, encourage conservation and create clean energy jobs. Critics said it caused an increase in electricity costs as the province overpaid for power it didn't need. The new government also canceled 758 renewable energy contracts totaling $790 million ($600 million USD) over 20 years and declared a moratorium on new contracts.
- Canceled Ontario's carbon tax and cap-and-trade *program* and prohibited trading of emission allowances.

Still on the government's to-do list are promises to cut electric rates by 12% for "families, farmers and small businesses" and "aggressive reforms" to "stabilize" industrial electric rates.

Mike Richmond, McMillan | © *RTO Insider*

Mike Richmond, co-chair of McMillan LLP's Power and Energy Law Group, displayed the Conservatives' energy plan on a single PowerPoint slide during a presentation at the Association of Power Producers of Ontario's 30th annual conference last week.

"It's not a complicated *plan*. That means there's not a lot of wiggle room to do anything but this," Richmond said. "In fairness, in less than four months, they've already done most of it."



Energy Minister Greg Rickford | © *RTO Insider*

The new energy minister, Greg Rickford, told the conference that his party is committed to lowering high prices that he said had resulted in a "devastating exodus of jobs" during the Liberals' control.

Rickford said the canceling of renewable generation projects was not an attempt to "put renewables out of business."

"It simply suggests that we're looking, in typical Tory pragmatic fashion, [for] solutions that work for families and … businesses.

"Moving forward, we're evaluating and reassessing the structure of energy in the province — the system from regulation to procurement and all points in between — in an effort to drive [electric] costs down."

Is Capacity Market the Answer?

Rickford said he was confident that IESO's Market Renewal initiative and its incremental

ASSOCIATION OF POWER PRODUCERS OF ONTARIO'S 30TH ANNUAL CONFERENCE

capacity auction will lower costs and increase efficiency. "We believe that because other jurisdictions have used capacity markets with much success," he said.

Not everyone at the conference was so sure.

APPrO President David Butters | © *RTO Insider*

"I think people in the sector are — I'm not sure I'd use the word 'skeptical' — but questioning whether in fact that is the right answer to the kind of electricity system we're likely to see in the future," said APPrO President David Butters, who said the auction is unlikely to attract new generation. "It might be an opportunity to extend existing facilities, but there are contractual issues around that have to be considered. But it is probably worthwhile going in that direction, if only to get some experience."

IESO is planning a forward period of three and a half years (although the first auctions may contract one or two years in advance). It will seek one-year commitments for existing resources (six months for seasonal resources) and multiyear commitments for new resources.

In September, IESO released projections showing it may have a capacity shortfall of 1,400 MW during winter and summer peaks beginning in 2023. The shortfalls could rise to 3,700 MW in 2025 before plateauing at 2,000 MW through 2030, when the province expects to have all its nuclear capacity operating again following refurbishment projects. Butters said the projections assume continued use of existing resources whose current contracts will expire, particularly in the late 2020s. IESO, he *says*, must address the gap "without delay."

But IESO CEO Peter Gregg told the confer


IESO CEO Peter Gregg | © *RTO Insider*

Barbara Ellard, IESO's director of markets and procurement, said Market Renewal is an acknowledgment that the grid operator needs different products and services to maintain reliability into the future.

"Market Renewal is really only the first step to get us there. It is about building a better foundation. And a lot of Market Renewal is about price, obviously," she said.

In September, the grid operator *released* its high-level design for the single schedule market, which will introduce locational energy prices, and is intended to align pricing and dispatch, reduce the need for out-of-market payments and enable the launch of a day-ahead market.

IESO currently uses an "unconstrained schedule" to set a single price across the province for every five minutes, which does not account for actual system conditions and operational constraints. To ensure reliability, it runs a separate dispatch schedule that selects units based on system conditions.

Barbara Ellard, IESO | © *RTO Insider*

"Our energy market has many, many flaws," Ellard acknowledged. "We're not right-sized. We often have too much generation on or we have too little generation on as we get into real time. We don't have the right price signals that make sure that we get those right resources operating at the right time.

"On the capacity side … we are looking to make sure we only procure … capacity that we need."

Judy Chang, The Brattle Group | © *RTO Insider*

Judy Chang of The Brattle Group, which IESO hired to produce a cost-benefit analysis for Market Renewal, said there is a limit to what Ontario can learn from more mature markets. "We can't just think about what's been done already in other markets. We really have to build a foundation in a way that's adaptable to the future," she said.

Limit to Grid Defection?

One audience member suggested that with electric production becoming more decentralized with microgrids and behind-the-meter generation, IESO was pursuing a solution that "seems more appropriate for 2002."

"We do not foresee a future any time near where there isn't a wholesale need," Ellard responded. "We are decentralizing, [but] I think some of the modeling that's going to come out is going to show there will be a natural limit to this concept of grid defection. So, from a system operator perspective, whether it is a 10,000-[MW] demand or a 30,000-[MW] demand, we need to figure out how to meet that demand."

In a panel discussion on regulation, speakers criticized both IESO and the Ontario Energy Board, which regulates electric transmission and distribution, and nuclear and baseload hydropower generation.


George Vegh, McCarthy Tetrault | © *RTO Insider*

Attorney George Vegh, the head of McCarthy Tetrault's energy practice, said IESO should face a "reckoning" for its inefficiencies.

"Before we jump in and say we know all the solutions, let's find out what the problems were," said Vegh, former general counsel of the OEB.

"There are some hard questions that we should be asking ourselves. If you look at operational efficiency in particular … someone should be asking the question: 'Why was this not the IESO's day job over the last 15 years?' The things that we're talking about — single-schedule market or day-ahead market — these have been on the agenda for over 10 years."

Ontario Energy Board's Role

Vegh said OEB also has a role in creating a favorable climate for generation investments.

"Investment in long-term assets requires confidence that government will keep its commitments. What makes it credible is constraints and checks and balances."

OEB "hasn't played any role at all," Vegh said. "There has been no oversight. A lot of these decisions were very uneconomic."

Vegh said the OEB should be challenging the assumptions behind IESO's load forecast and reserve requirements.

"All of these things should be looked at much more transparently in a much more open process with the ability to test some of these assumptions instead of just being told: 'Oh, we might have a capacity gap, but we might not.'

"What are the resources that might be available to meet that gap and how should they be evaluated? There's no clear criteria for any of that. We're just told, 'Don't worry, we can change some reserve requirements. We can tweak this and tweak that.' I don't think that's good enough. I think that what we need to do is to have much more independent oversight around these assumptions for planning and the assumptions for procurement."

Minister Rickford also called for ways to "strengthen transparency and trust" in the OEB. "This regulator has not had a significant examination for many years. It is in need, in

ASSOCIATION OF POWER PRODUCERS OF ONTARIO'S 30TH ANNUAL CONFERENCE

some respect, of a modernization," he said.


Brian Rivard, Ivey Energy Policy and Management Centre | © *RTO Insider*

Brian Rivard, director of research at the Ivey Energy Policy and Management Centre, also called for expanded oversight of IESO.

"The onus should be on the IESO to put forth changes ... to the market rules or changes to the market design and prove that it has to do so because there are inefficiencies in the sector, that the remedy it's proposing will correct those inefficiencies and, thirdly, that [in] doing so, the benefits that will be achieved ... [outweigh] the costs. The OEB's there to allow for a transparent review of that."


A.J. Goulding, London Economics | © *RTO Insider*

A.J. Goulding, president of London Economics, lamented that "there's been some chipping away at OEB oversight" in the past decade.

He said OEB's job will become increasingly challenging "as we start thinking about things like ... connection charges, an interconnectivity standard across distribution utilities ... thinking about whether we need to ... extend the principle of open access down to the distribution level."

Role of Energy Ministry

At the same time, Goulding said, the energy ministry should resist temptations to micromanage IESO.

"To me the IESO is the appropriate place for planning for the sector. The ministry's job is policy," he said. "We also need to stop over-planning. Ultimately, if we believe in the incremental capacity mechanism, then we need to let it do its job. We need to make sure that it is technology-neutral and let the market drive choices for future optimization."

APPrO's Butters said he had three words of advice for government. "Leave us alone," he said. "Actually, four words: please," he added, drawing laughter.


Linda Bertoldi, Borden Ladner Gervais | © *RTO Insider*

"Very Canadian," chuckled moderator Linda Bertoldi, chair of Borden Ladner Gervais' National Electricity Markets Group.

"We've got a really good system. We have invested a lot of money in making it reliable and making it cleaner, and there's a cost to that," Butters said. "Let's not make short-term decisions that will have longer-term consequences."


Jason Chee-Aloy, Power Advisory | © *RTO Insider*

Jason Chee-Aloy, managing director at consulting firm Power Advisory, said Ontario "lacks the environment for merchant investment" because of the dearth of bilateral contracting, market rules that don't value flexible generation and excessive regulatory risk and government intervention.

"FERC isn't the end-all and be-all in the U.S. But it is an independent body that issues orders. It doesn't always agree with the system operator. Sometimes it sides with customers; sometimes it sides with producers. We don't have that here. So, I think that weak governance is going to affect how we make decisions on investments."

Brattle's Chang said the U.S. regulatory system is no panacea, noting that her home state of Massachusetts is impacting wholesale markets by signing long-term supply contracts. "The fights between the states and the federal [government] is not something that I would hope for anybody else to have to deal with," she said. ■

ASSOCIATION OF POWER PRODUCERS OF ONTARIO'S 30TH ANNUAL CONFERENCE

Overheard at APPrO 2018

TORONTO — The Association of Power Producers of Ontario's annual conference attracted about 300 people last week, a sharp drop from past years, when more than 500 attended.

David Butters, APPrO | © RTO Insider

But things are looking up, APPrO President Dave Butters told the gathering. After "a couple of difficult years" in which the group cut its office space in half to save $50,000 annually, he said the group collected a record $830,000 in membership revenue in 2018.

Butters said the group may consider a name change under a business plan it will unveil in about a month to broaden its membership. "We want to be an organization that is broader and wider than just centralized generation," he said. "We see [distributed energy resources], storage — all these things are potentially opportunities."

Here are some of the highlights of what we heard.

The Association of Power Producers of Ontario's annual conference attracted about 300 people to Toronto last week. | © RTO Insider

Alberta also Adding Capacity Market

The Alberta Electric System Operator (AESO) plans to add a capacity auction to its energy-only market in late 2019, with the market operational by 2021. AESO said it is making the change to improve reliability, increase price stability, give generators greater revenue certainty and allow market forces to drive innovation and cost discipline.

Evan Bahry, Independent Power Producers Society of Alberta | © RTO Insider

AESO has proposed a one-year term for its capacity market, although that could change, said Evan Bahry, executive director of the Independent Power Producers Society of Alberta (IPPSA).

Bahry said Alberta's market is being challenged by the province's plan to eliminate coal-fired generation and add 5,000 MW of renewables by 2030. "We're a thermal market, reliant on coal and natural gas historically; very little hydro," he said.

The industry also must deal with "a lot of agencies in our marketplace, all of which have their own independent mandates," he said.

"We in our business make 20-, 30-year investments. Billions of dollars are required to replace retiring assets and to meet future load growth. This requires coherence, requires stability," Bahry said. "We're [seeing] greater change … now than we've seen in the last 20 years. That's a lot for investors to digest."

Harsh Critique from TransAlta Boss

Dawn Farrell, TransAlta | © RTO Insider

Dawn Farrell, CEO of Calgary-based TransAlta, offered a harsh critique of policymakers and customers.

Of consumers: "They want electricity to be cheap. They don't want it to be affordable, and they don't want it to be reasonably priced. They want it cheap. They'll pay a lot of money for cable, they'll pay a lot of money for their phones and data streaming and for movies.

Of Alberta's market: "The new market in Alberta has 500 rules. That's not a market. Markets don't have 500 rules."

She said policymakers should take a lesson from the large regional transmission grids in the U.S. "Electricity flows wherever it wants to flow, and you get the benefits of the economies of scale there. And they get the benefits of the different resources in the different jurisdictions. You think about Canada and for some reason there's these invisible lines in between the provinces, which are just political constructs."

She said the failure to take advantage of transmission dooms innovative ideas, such as the proposed pump storage *project* at TransAlta's 355-MW Brazeau hydroelectric plant. "It's too big for Alberta. … It would be great for Alberta and Saskatchewan."

"As a country," she lamented, "we do not have our best interests at heart. We do not think about competitiveness."

New England Faces Another Tight Winter

Robert Ethier, ISO-NE | © RTO Insider

Robert Ethier, vice president of market operations for ISO-NE, discussed the RTO's challenges with insufficient winter gas

ASSOCIATION OF POWER PRODUCERS OF ONTARIO'S 30TH ANNUAL CONFERENCE

supplies and states' reluctance to allow new pipelines or transmission. Asked about a proposed transmission line from Quebec's hydro resources, he said, "We'd love to have it."

He noted the RTO is seeking a reliability-must-run designation for Exelon's Mystic generating station, which has access to LNG storage. The proposal, which is pending before FERC, "has not gone over very well in New England," he said. "It's going to be very expensive." (See *FERC Advances Mystic Cost-of-Service Agreement*.)

He said the RTO is "trying to strike a balance" in shifting to renewables, noting that solar generation, with a capacity factor of less than 5%, "doesn't help at all" in meeting winter needs.

"Our system is not ready to have these old coal and oil units retire," he said.


Dan Dolan, New England Power Generators Association | © RTO Insider

Dan Dolan, president of the New England Power Generators Association, said that although gas prices spiked during last January's deep freeze, the "system … worked."

"In the face of the longest, deepest cold snap in over 100 years, with tremendous outages due to transmission line failures, we didn't have a single reliability shortfall. And we saw tremendous responses in investment and performance from the generators on the system optimizing the fuel infrastructure that does exist," Dolan said.

He said he was concerned about the market providing enough revenue to prevent the retirement of coal and oil generators needed during winter peaks. He said state-contracted resources are projected to grow from the current 17% of the market today to 60% within a decade.

"The question is, is the existing market design sufficient to maintain this half-pregnant status of a tremendous portion of the market being merchant with the rest of the market … made up of resources that are indifferent to that market price? And I would argue that the answer is no, on both the energy and capacity end."

Storage vs. Peakers

It's a question that comes up often at energy conferences: When will storage be versatile and cheap enough to compete with natural gas peakers?

Not soon in the frozen north, speakers said.

Despite declining prices, solar/storage combinations cannot help New England in winter, Dolan said. "It's awfully hard for solar to perform when it's under a foot and a half of snow," he said, adding that current battery storage can only fill gaps for hours, not days.

Bahry said storage will struggle to compete as long as natural gas prices remain cheap. "If we're dealing with gas a buck a [gigajoule], nothing competes … with dispatchable peakers in that pricing environment," he said.

Nuclear Refurbishments


Jeffrey Lyash, CEO of Ontario Power Generation | © RTO Insider

Jeffrey Lyash, CEO of Ontario Power Generation, gave an update on the status of his company's $12.8 billion ($9.7 billion USD) *refurbishment* of the Darlington nuclear plant, calling it "Canada's largest clean energy program."

Darlington is a CANDU (Canada deuterium uranium) pressurized heavy-water reactor that has been producing about 20% of the province's electricity since the early 1990s. Unit 2 was taken offline in 2016, beginning what is expected to be a 10-year project involving all four units. The refurbishment — which Lyash said is far more extensive than projects to extend the lives of U.S. pressurized water reactors and boiling water reactors — is expected to allow the plant to run until 2055.

He said he feels the "weight of responsibility" to deliver the project on time and on budget because Unit 2 is the first of 10 reactors, including six at the Bruce Power plant, scheduled for retrofits. OPG, which is owned by the province, is sharing best practices on the renovations with privately owned Bruce Power, which plans to spend $13 billion.

"The future of the nuclear industry hinges on the success of this project," Lyash said.

The Future of LDCs

Gordon Kaiser, CEO of Alberta's Market Surveillance Administrator and former vice chair of the Ontario Energy Board, had a provocative answer in a panel on what local distribution companies will look like in 2025.


Gordon Kaiser, Alberta Market Surveillance Administrator | © RTO Insider

"They won't exist," he said. Instead they will morph into larger, integrated utilities with generation assets, he predicted. Municipal ownership of LDCs will decline because of the need for professional boards of directors to manage the investments. They will replace boards of municipal "councilors looking for hockey tickets," he said.

Kaiser's vision was not shared by other panelists.

Moderator David McFadden, chair of Toronto Hydro, said municipal utilities are not ready to sell yet.

Toronto Hydro CEO Anthony Haines said LDCs will be even more important in the future.

Former FERC Chair Joseph T. Kelliher, executive vice president of NextEra Energy, said he didn't see such a shift happening in the U.S. either because of the large number of municipal utilities and political obstacles to mergers. He acknowledged, however, that some munis are selling their transmission to escape liability for NERC reliability standards.


Joseph T. Kelliher, NextEra Energy | © RTO Insider

Kelliher said many U.S. utilities remain inattentive to controlling costs despite earnings pressure and flat energy demand. Cost-of-service regulation is of limited use, he said. "I've always thought it was misnamed, because cost-of-service regulation really is profit-level regulation, because it's the rate of return that's regulated, not really the cost," he said. "Cost-of-service regulation is very ineffective in weeding out routine excessive costs."

"Competition hasn't really fully affected LDCs," he continued. "It's remarkable how many utilities are not attentive to controlling costs."

Complexity

Jason Chee-Aloy, Power Advisory | © RTO Insider

Jason Chee-Aloy, managing director at consulting firm Power Advisory, said he senses stakeholder fatigue after more than a decade of competition and repeated changes in market design.

"I do think that stakeholders in general — we're a firm that's all over North America — are starting to throw their hands up in the sense that this stuff is getting really, really complicated," he said. ■

— Rich Heidorn Jr.

CAISO/WECC News

CAISO RC Effort Gets FERC Go-ahead

By Robert Mullin

CAISO cleared a big hurdle in its nearly year-long sprint to become the primary reliability coordinator (RC) in the Western Interconnection as FERC approved a set of Tariff revisions covering the ISO's new services.

"Today we've got some good news from FERC in terms of our ability to move forward," CAISO Regional Integration Director Phil Pettingill told a meeting of the ISO's Board of Governors after the order was issued Wednesday.

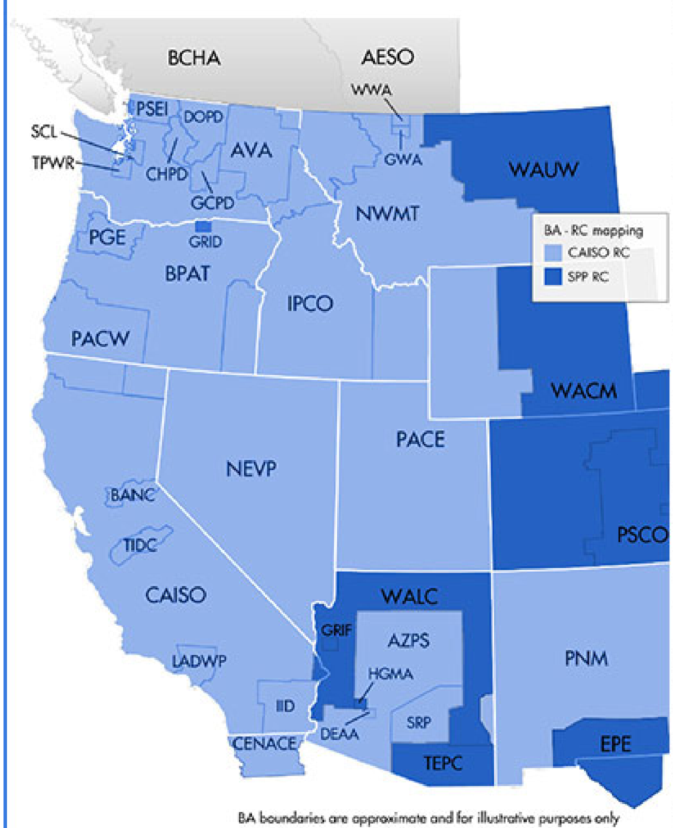
Pettingill said the FERC order will allow the ISO to start signing binding agreements to provide RC services with two dozen entities across the Western Interconnection. About 72% of the region's load is now poised to sign on with CAISO, compared with 12% for SPP. BC Hydro is proceeding with plans to stand up services for its own territory in British Columbia, representing about 7% of load in the area overseen by the Western Electricity Coordinating Council. (See *CAISO RC Wins Most of the West*.)

The Tariff revisons approved by FERC create a new section containing CAISO's RC provisions while also providing a pro forma service agreement and designating a rate schedule to implement service charges (*ER18-2366*). The commission's approval of the service agreement means CAISO could begin onboarding RC customers starting Nov. 15.

CAISO's filing spelled out the functions applicable to an RC under NERC reliability standards, including providing outage coordination; performing operations planning analyses; conducting real-time assessments; monitoring and wide-area situational awareness; administering a system operating limit methodology; approving system restoration plans and facilitating system restoration drills; and issuing operating instructions to RC customers regarding their monitored facilities.

CAISO will also offer optional services such as hosting advanced network applications for a one-time charge of $35,000 to $70,000 (depending on the number of takers) and physical security reviews.

In approving CAISO's RC provisions, FERC rejected protests by some market participants over the ISO's proposal to assess volumetric service charges on generation-only balancing authorities.



AESO	Alberta Electric Systems Operator
AVA	Avista
AZPS	Arizona Public Service
BANC	Balancing Authority of Northern California
BCHA	British Columbia Hydro Authority
BPAT	Bonneville Power Administration-Transmission
CAISO	California ISO
CENACE	Cenace
CHPD	Chelan PUD
DEAA	Arlington Valley Energy
DOPD	Douglas County PUD
EPE	El Paso Electric Company
GCPD	PUD No. 2 of Grant County
GRID	Grid Force Energy
GRIF	Griffith Energy
HGMA	New Harquahala Generating Company
IID	Imperial Irrigation District
IPCO	Idaho Power Company
LADWP	Los Angeles Dept. of Water and Power
NEVP	NV Energy
NWMT	NorthWestern Energy
PACW	PacifiCorp East
PACW	PacifiCorp West
PGE	Portland General Electric
PNM	Public Service Company of New Mexico
PSEI	Puget Sound Energy
PSCO	Public Service Co. of Colorado
SCL	Seattle City Light
SRP	Salt River Project
TIDC	Turlock Irrigation District
TPWR	Tacoma Power
TEPC	Tucson Electric Power
WALC	WAPA Desert SW Region
WACM	WAPA Colorado-Missouri Region
WAUW	WAPA Upper Great Plains West
WWA	NaturEner USA

CAISO will provide RC services for 72% of the Western Interconnection when it and SPP take over from Peak Reliability next year. | *WECC*

The protesters, which include Avangrid, Calpine and Gridforce Energy Management, contended that the ISO's charge, which will be based on annual net generation (NG) rather than net energy for load (NEL), deviates from commission precedent for allocating reliability-associated costs. They argue that an NG-based methodology is unjust and unreasonable because it double charges end users for energy produced in generation-only balancing areas. Peak Reliability currently charges such BAs based on NEL, which translates into minimum assessment rather than a volumetric charge.

"In effect, protesters argue that CAISO will assess a transaction that is sourced from a generation-only balancing authority reliability costs both for its exports from a generation-only balancing authority and its imports to a traditional balancing authority," the commission noted.

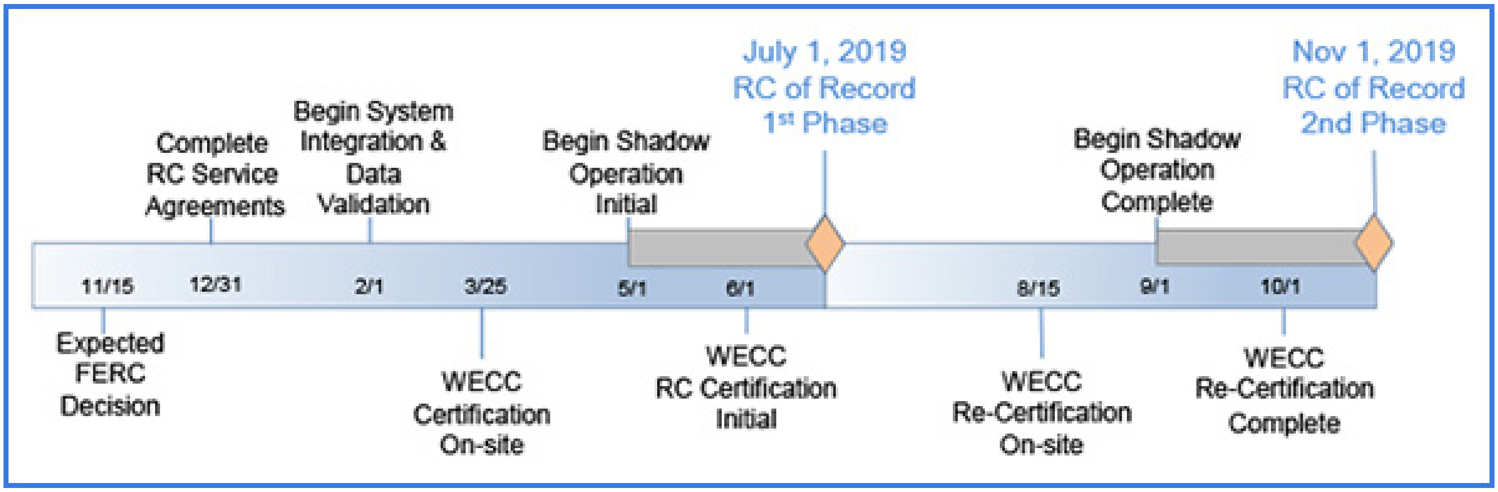
The protesters further contended the NG methodology violates cost-causation principles because generation-only BAs require less RC service than BAs with load. They said CAISO had performed no analysis on the relative level of oversight costs for either type of BA.

But FERC sided with CAISO on the issue, saying neither the Federal Power Act nor commission precedent dictate a just and reasonable rate methodology for RC service. The commission also determined that CAISO's proposed allocation methodology will not result in double-charging.

The commission also rejected the contention the ISO's approach violates cost-causation principles, noting that none of the protesters argued that generation-only BAs do not require or benefit from RC services.

"Rather, protesters assert that CAISO has

CAISO/WECC News



CAISO will shadow Peak Reliability as it readies to take over RC services in much of the West by the end of 2019. | *CAISO*

not justified charging them a rate that they assert will be significantly higher than the rate charged by Peak Reliability," the commission wrote. "Moreover, protesters argue that the RC services required for generation-only balancing authorities are substantially less burdensome as compared to those of a traditional balancing authority with load. CAISO, however, specifically identifies core services that an RC provides and explains that traditional balancing authorities and generation-only balancing authorities all use the vast majority of these core services."

While FERC's decision is significant, CAISO's RC effort is still subject to WECC and NERC certification next year. Still, CAISO is poised to lead the way in effort to fill the void being left by Peak.

Pettingill told Wednesday's board meeting that the ISO had been holding roundtable meetings with SPP, the Alberta Electric System Operator, BC Hydro and Peak to coordinate the transition to a post-Peak West. When the question arose as to who will manage the Western system model, he said, roundtable participants decided it should be CAISO.

The ISO also intends to hold a series of public meetings to address concerns, either quarterly or "as many as needed," he said. ■

Hudson Sangree contributed to this article.

CAISO/WECC News

FERC OKs CAISO Plan to Deal with CRR Shortfalls

By Hudson Sangree

FERC has accepted CAISO's revised proposal to protect electricity ratepayers from funding shortfalls in the ISO's congestion revenue rights market.

CRR holders will 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," the commission said in its Nov. 9 decision (*ER19-26*).

"We agree with CAISO that the proposal reasonably distributes the burden resulting from congestion revenue insufficiency and will help improve the revenue insufficiency and auction revenue shortfall," FERC said. "Rather than relying solely on LSEs to make whole CRR holders in the event those obligations are revenue insufficient, CAISO's proposal distributes the burden to all CRR holders."

CAISO filed its proposed revisions Oct. 1 after FERC rejected an earlier plan to eliminate full funding of CRRs and instead scale payouts to align with revenue collected through the day-ahead market and congestion charges. In rejecting the earlier plan, the commission objected to how the ISO would treat counterflow and prevailing-flow CRRs differently (ER18-2034). (See *CAISO Modifies CRR Plan, Seeks Quick Approval*.)

The ISO acknowledged that its revised proposal relies on "essentially the same methodology" found in its prior proposal, with one "important" modification: a provision to net CRRs with both prevailing-flow and counterflow CRRs within a holder's portfolio before scaling the payment to that holder.

CAISO also noted in its revised filing that CRR revenue shortfalls have continued into this year, and it urged the commission to quickly approve the revised plan to relieve ratepayers from paying costs for fully funding CRRs in 2019. The ISO's Department of Market Monitoring has estimated that the shortfalls — which are allocated based on power consumption — cost California ratepayers about $100 million a year.

In ruling for CAISO, the commission rejected protests by the Western Power Trading Forum, which argued that the ISO's stakeholder process on the revisions had been rushed and that they did not fully address FERC's concerns on symmetry.

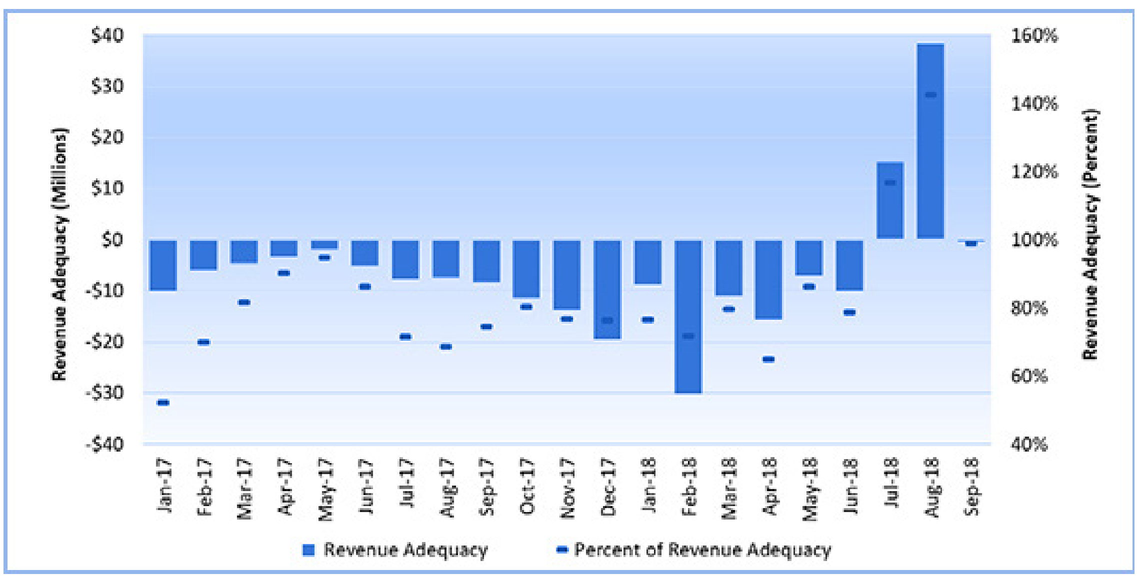
The commission also found that CAISO's plan would curtail a commonly used strategy to exploit market loopholes.

"CAISO's constraint-specific approach … discourages strategies that attempt to exploit differences between the CRR model and the day-ahead market," it said. "Under CAISO's current CRR process, congestion revenue insufficiency and the auction revenue shortfall can be driven by market participants purchasing CRRs over constraints that appear to be nonbinding in the CRR auction but are actually binding in the day-ahead market.

"According to CAISO's analysis, this practice has been a driver of both revenue insufficiency and the auction revenue shortfall. Under CAISO's proposal here, if there is a substantial difference between the CRR model and the day-ahead market such that the payments due to CRR holders vastly outstrip the available congestion revenues, then payments to CRRs will be scaled, making the strategy potentially less viable." ■

"We agree with CAISO that the proposal reasonably distributes the burden resulting from congestion revenue insufficiency and will help improve the revenue insufficiency and auction revenue shortfall."

–FERC



CAISO said the trend of CRR revenue insufficiency has persisted into this year despite a recent uptick in congestion rents because of unusually high flow patterns. | *CAISO*

CAISO/WECC News

Camp Fire Prompts Talk of PG&E Bailout or Breakup

Continued from page 1

entire town of Paradise, which until 10 days ago had 27,000 residents. Thousands who survived are holed up in shelters, tents and RVs, with winter on the way. Many are waiting for word on friends and family members lost in the fire.

Gov. Jerry Brown called the Camp Fire "probably the worst tragedy that California has ever faced, at least from a fire situation," after touring the post-apocalyptic scene in Paradise with President Trump on Saturday. In a joint press conference with Brown, Trump described the scene of an entire town turned to ash as "total devastation."

Picker Addresses PG&E's Woes

After the fire started, San Francisco-based Pacific Gas and Electric watched its stock price plummet from roughly $48/share to less than $18/share — a 62.5% drop in one week. Suspicion quickly fell on the investor-owned utility for starting the fire. (See *Destructive Fires Drive Down PG&E Stock*.)

Southern California Edison faced similar scrutiny, and a big drop in stock price, for the Woolsey Fire, which killed three and destroyed 1,500 structures in Ventura and Los Angeles counties this month. In addition, SCE recently admitted its equipment may have caused last year's Thomas Fire near Santa Barbara, one of the largest fires in state history. (See *Edison Takes Partial Blame for Wildfire in Earnings Call*.)

The Woolsey and Camp fires began the same day, Nov. 8.

That day, PG&E filed a report with the California Public Utilities Commission, saying it had experienced an outage on a 115-kV line and observed damage to a transmission tower near the Camp Fire ignition point. The company later wrote in a news release that the "information provided in this report is preliminary, and PG&E will fully cooperate with any investigations. There has been no determination on the causes of the Camp Fire."

A week later the company informed the PUC that it had experienced a second outage on 12-kV line in Concow, near Paradise, on the morning of Nov. 8, and the California Department of Forestry and Fire Protection identified a second possible second ignition source for the Camp Fire.

The news sent PG&E's share price crashing, but the utility's stock rallied on Thursday after

Smoke from the Camp Fire covered the San Francisco Bay Area and the Sacramento Valley for more than a week, providing a potent reminder of the disaster to the north. | *NASA Earth Observatory*

CPUC President Michael Picker took part in a call with Wall Street analysts in which he said allowing PG&E to go bankrupt wouldn't be good public policy, *Bloomberg* and other media outlets reported.

Picker reiterated those comments in at least two newspaper interviews and discussed the possibility of legislative action to relieve PG&E's financial burden.

The PUC president also said, however, that he was concerned about PG&E's lack of accountability. He told *The Wall Street Journal* that breaking up the company might be an option for regulators to consider. In a news release, Picker said he intended to expand an ongoing investigation into PG&E's "safety culture" that the commission had opened after the San Bruno gas line explosion in 2010.

"In the existing PG&E safety culture investigation proceeding," Picker said in the statement, "I will open a new phase examining the corporate governance, structure and operation of PG&E, including in light of the recent wildfires, to determine the best path forward for Northern Californians to receive safe electrical and gas service in the future."

PG&E's stock rose back to around $24/share Friday after Picker's comments and stood at about $22/share on Monday — less than half of what it was before the Camp Fire started.

In an interview with *The Sacramento Bee*, Picker said he didn't think PG&E was headed toward bankruptcy, as some speculate. He said the company's woes are "a small slice of a bigger shit pie. That's a technical term."

"What is California doing about wildfires?" Picker told the Bee. He called climate change a major unanswered issue, and said, "We have to have other solutions."

Picker did not respond to a request for comment from *RTO Insider.*

What will Lawmakers Do?

The Camp Fire has revived talk of PG&E's safety failings and financial liabilities — and what state policymakers might do to deal with both problems.

The company's financial fate became the subject of concern following a series of devastating wildfires in 2017. State fire investigators have said PG&E was responsible for at least 17 of the 21 blazes. An investigation by Cal Fire has not yet determined the cause of the worst of the 2017 fires: the Tubbs Fire, which wiped out a large part of the city of Santa Rosa, Calif., killing 22 and destroying 5,643 structures in October 2017. Until the Camp Fire, it was the most destructive in state history.

CAISO/WECC News

The 2017 fires could subject PG&E to billions of dollars in liability under California's unique system of holding utilities strictly liable for all damage caused by power lines and equipment, regardless of negligence. (Citigroup estimated PG&E could face $15 billion in liability for the 2017 fires and another $15 billion for the Camp Fire, *The New York Times reported*.)

Earlier this year Brown proposed doing away with the strict-liability standard, known as inverse condemnation, arguing it threatened electric reliability and the state's efforts to completely exclude carbon emissions from its power grid by the middle of the century.

Lawmakers tasked with formulating a major wildfire bill, *SB 901*, ultimately left inverse condemnation intact while creating a method by which utilities could issue long-term bonds to pay for some fire damage. (See *California Wildfire Bill Goes to Governor*.)

Critics protested the bill as a bailout for utilities, but Brown signed the legislation in September.

PG&E executives recently said in an earnings call that the new law was insufficient, and they intend to seek an end to inverse condemnation through the courts and legislature. (See *PG&E Outlines Fire Strategy in Earnings Call*.) That was before the Camp Fire, however, and the anti-utility political backlash it might well create.

In the meantime, SB 901 provides some relief for PG&E for the 2017 fires. It established a financial stress test that would allow IOUs to be held liable for the 2017 wildfires but only to the extent that the costs do not harm ratepayers or materially impact a utility's "ability to provide safe and adequate service." The bill also provides for bond issuance starting in 2019, but the new law left utilities completely exposed to financial liability for 2018 fires.

Picker and others have said the situation likely could be addressed through clean-up legislation that includes the 2018 fires within the scope of SB 901.

Others, however, have called for more aggressive action toward PG&E when the State Legislature reconvenes Dec. 3. Lawmakers

President Trump and California Gov. Jerry Brown toured the scene of the Camp Fire on Saturday, Nov. 17. Trump called it "total devastation." | *California Governor's Office*

could call a special session to deal with IOU wildfire liability, potentially speeding up the lawmaking process.

State Sen. Jerry Hill, a Silicon Valley Democrat and a harsh critic of the utility, told the *Los Angeles Times* he's interested in legislation that could break up PG&E and sell off its pieces to local governments.

"Many have argued that PG&E is too big to fail," Hill said. "I think it's too big to succeed." ■

CAISO/WECC News

Pinnacle West Lauds Ariz. Vote in Q3 Earnings Call

By Hudson Sangree

Pinnacle West Capital is poised to move forward with its own clean energy plans after Arizona voters rejected Proposition 127, the company's CEO said during a *third-quarter earnings call* Nov. 8.

The ballot measure, backed by California billionaire Tom Steyer, would have required the state's power providers to generate at least half their annual sales of electricity from renewable resources by 2030.

Pinnacle and its subsidiary Arizona Public Service, the state's largest utility, fought the measure. The opposing sides spent a combined total of more than $50 million in the race. In the end, state voters rejected Proposition 127 by roughly 70% to 30% of votes cast. (See *High Failure Rate for Western Ballot Measures*.)

"The residents of Arizona voted overwhelmingly to defeat Proposition 127, ensuring the energy policy in Arizona will continue to evolve in a thoughtful and constructive manner," Pinnacle CEO Donald Brandt told analysts on the call. "With Proposition 127 behind us, we can now work with stakeholders to establish forward-thinking energy policies that move towards an increasingly clean energy mix."

Those plans include taking advantage of Arizona's ample sunlight for solar power, he said, and continuing to champion the carbon-free electricity produced by the Palo Verde Generating Station, the nation's largest nuclear plant, in the Arizona desert.

"Arizona is No. 3 nationally in solar energy installed, and our APS energy mix is already 50% clean," Brandt said. "We're on the cutting-edge of advanced battery storage technology. Arizona is uniquely positioned to achieve a cleaner energy mix with our abundant solar resource, leadership in advanced technologies and Palo Verde generating station, the largest clean energy generator in the nation."

The company reported third-quarter 2018 earnings of $315 million ($2.80/share), compared with 2017 Q3 earnings of $276 million ($2.46/share).

In a *news release*, the company said the increased earnings were driven largely by the second-hottest summer on record in Arizona and a corresponding increase in retail sales.

"The average high temperature for this year's third quarter was 105.3 degrees — 1.6% higher than last year's quarter and 1.2% greater than normal based on a rolling 10-year average. The resulting impact in the 2018 third quarter was that residential cooling degree days (a measure of the effects of weather) were 13% higher than in the same 2017 period and 5.4% above 10-year historical averages," the company said in its statement.

The Palo Verde nuclear plant in the Arizona desert is partly owned by Pinnacle West subsidiary Arizona Public Service. | *Nuclear Regulatory Commission*

Call transcript courtesy of Seeking Alpha. ■

Sempra Divesting Solar for LNG, Regulated Ventures

Sempra Energy is on track to sell its renewable energy assets and invest the funds elsewhere, including in LNG projects, the company said in its *third-quarter earnings call* Nov. 7.

"LNG is a key component of Sempra's vision of becoming North America's premier energy infrastructure company," Sempra said during its *slide presentation* accompanying the earnings call.

Sempra, headquartered in San Diego, reported third-quarter earnings of $274 million ($0.99/share), up from $57 million ($0.22/share) in the third quarter of 2017. The company's Q3 2017 earnings were hobbled by the wildfire costs of its subsidiary San Diego Gas & Electric. (See *SDG&E's Wildfire Costs Undercut Sempra Profits*.)

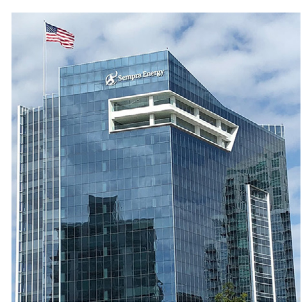
Sempra has been moving away from commodities and putting its money into infrastructure.

In September, the company *announced* it was selling its interest in 980 MW of resources — 11 solar assets across the Southwest, solar and battery storage development projects and a wind facility in Nebraska — to Consolidated Edison.

Sempra is also investing in transmission and distribution infrastructure in Texas.

In October, Sempra said its Oncor utility subsidiary would acquire transmission owner InfraREIT, while Sempra will buy a 50% stake in Sharyland Utilities. (See *Sempra, Oncor Deals Target Texas Transmission*.)

"Our agreement to sell our U.S. solar assets is important. We expect to utilize capital from our solar asset sales to significantly expand our regulated Texas utility platform through Oncor's acquisition of InfraREIT and our acquisition of a 50% interest in Sharyland," CEO Jeffrey W. Martin said in a Q3 earnings *news release*.



Sempra Energy, headquartered in downtown San Diego, released its 2018 Q3 earnings report.

"We also have made significant progress toward our goal of becoming a market leader in North American liquefied natural gas exports, recently securing preliminary commercial agreements for development of several LNG export projects." ■

— Hudson Sangree

ERCOT News

ERCOT Sets Wind, Monthly Demand Records

HOUSTON — ERCOT set a pair of demand records last week, establishing new marks for wind energy generation and November monthly demand as temperatures dipped below freezing in much of the state.

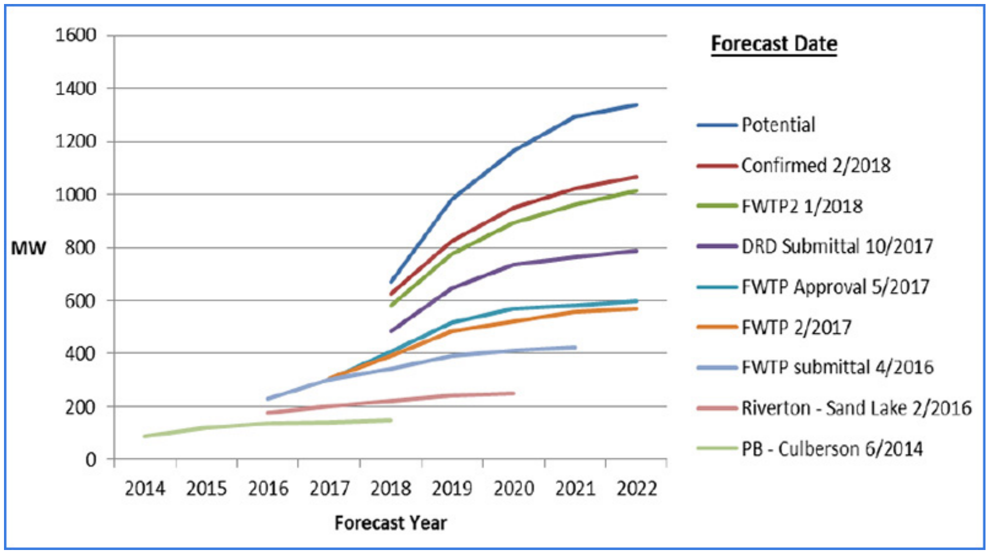
The grid operator recorded 17.9 GW of wind generation on Nov. 12, accounting for more than 40% of the generation in its footprint. That broke the old record 17.5 GW set on Feb 19.

ERCOT, which manages the grid for about 90% of Texas, has more than 21 GW of installed wind generation. It has another 40 GW of wind energy in its *interconnection queue*.

It twice set monthly demand records for November, reaching 55.3 GW the evening of Nov. 13 and 56.3 GW the next morning. That broke the old 2014 mark by more than 5.4 GW.

"We're busting through these records," ERCOT CEO Bill Magness said during a Gulf Coast Power Association luncheon. "We continue to see load growth in Texas."

ERCOT's last capacity, demand and reserves (CDR) report indicated its load will grow from 71.7 GW in 2019 to almost 78 GW in 2023. The grid operator will release an updated CDR in December, but Magness said he expects the load projections to grow again.



Load projections in West Texas| *ERCOT*

Magness shared with his audience a slide of Culberson County in West Texas, where oil and gas exploration has driven demand through the roof. Eight studies have been conducted in the area since 2014, with a load increase each time.

"If you're a planner, this will make your stomach hurt," Magness said. "Every time we've done a forecast, it's gone up dramatically."

The demand record for November was the 10th the grid operator has set since January 2016. Only February and March have demand records that date back to 2015 or earlier. ■

— *Tom Kleckner*

Papalote Creek Wind Farm in South Texas | © *RTO Insider*

Petrochemical plant lights up the night sky over Corpus Christi Bay. | © *RTO Insider*

ISO-NE News

ISO-NE Planning Advisory Committee Briefs

FCA 14 Capacity Zone Development Preview

MARLBOROUGH, Mass. — ISO-NE last week kicked off its formal annual review of the transmission system to delineate zones for Forward Capacity Auction 14, which will be held in February 2020 to cover the 2023/24 capacity commitment period.

Al McBride, the RTO's director of transmission strategy and services, *told* the Planning Advisory Committee that "we're coming out of a significant backlog of interconnection requests in Maine." He noted that FERC's approval last year of clustering has enabled the queue to move forward. (See *FERC Approves ISO-NE Queue Clustering*.)

The first cluster of more than 600 MW is proceeding through the system impact study process, as is an external elective transmission upgrade of 1,200 MW, which are collectively driving the creation of a Maine capacity zone, he said. The RTO is not proposing a Northern Maine capacity zone because the deliverability standard requires new resources in the state to be deliverable throughout the Maine load zone.

"That's a significant number of new resource additions," McBride said. "Maine used to be export-constrained, particularly from north to south, but after the Maine Power Reliability Program upgrades, there has been headroom. This headroom would more than be used up by the projects moving forward in the system impact study process."

The trigger to model an export-constrained zone is based on the quantity of existing and proposed new resources compared with the maximum capacity capability in the zone.

Zone formation is a two-step process: First, identify the potential zonal boundaries and associated transfer limits to be tested for modeling in the Forward Capacity Market; then use objective criteria to determine whether or not the zone meets the trigger to be modeled for the capacity commitment period.

To form capacity zone boundaries, the RTO considers significant changes over the past year, including new transmission upgrades, resource retirements and new capacity resources.

Boundary Specifics

ISO-NE does not expect transmission upgrades in the Southeastern Massachusetts and Rhode Island (SEMA/RI) area to change the boundaries of that area or the Southeast New England zones, McBride said.

Most of the SEMA/RI Reliability Project upgrades have not yet been certified for use in the FCM, and certifications for FCA 14 will be known in January 2019. However, if the SEMA/RI Reliability Project upgrades are certified, planners will assume they will be in place for the 2023/24 period.

Mystic 7 will be retiring with the start of the 2022/23 period. The RTO has previously analyzed different potential future retirement scenarios, including the loss of Mystic 7 and other units, and did not expect such retirements to drive a change in capacity zone boundaries.

Capacity interconnection requests as of Nov. 1 are more than 700 MW from West/Central Massachusetts, with the rest, all nameplate, being more than 4,100 MW from New Hampshire/Vermont; more than 6,200 MW from Maine; more than 7,700 MW from SEMA/RI; and more than 2,700 MW from Connecticut.

SEMA/RI 2028 Needs Assessment

ISO-NE's SEMA/RI 2028 Needs Assessment Scope of Work study assumes the complete retirement of the 2,274-MW Mystic plant and includes analysis assuming that Vineyard Wind and the New England Clean Energy Connect (NECEC) projects will be in service, according to Kannan Sreenivasachar, ISO-NE's transmission planning technical manager.

Sreenivasachar *told* the PAC on Thursday that the study for the 10-year horizon will be using data from the 2018 Capacity, Energy, Loads and Transmission (*CELT*) report to determine the forecasts for the peak load levels evaluated.

All transmission and generation facilities operating as of June 1, 2018, are included in the base cases, and the 34,092-MW 90/10 summer peak load includes 5.5% transmission and distribution losses.

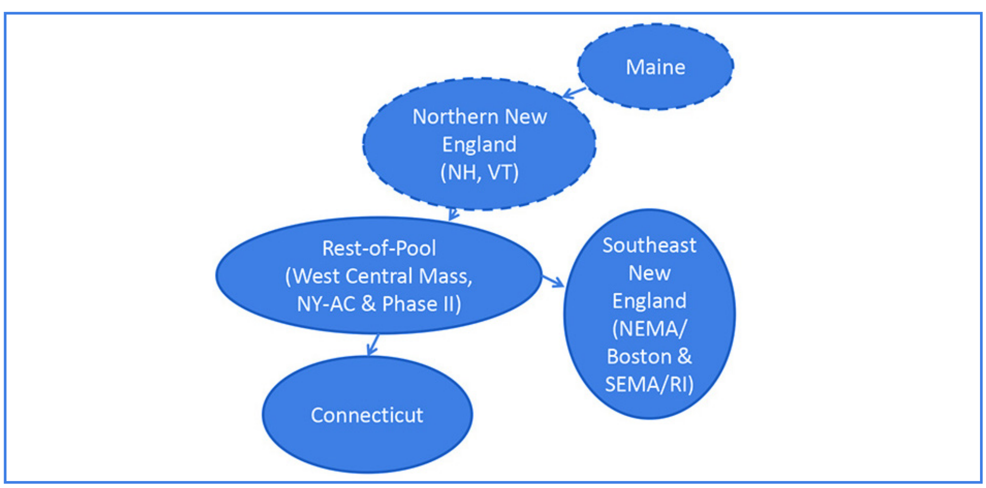
The study evaluates reliability performance and identifies reliability-based needs in the SEMA/RI study area for the year 2028 while considering future load distribution, resource changes based on FCA 12 results, and the 2018 solar and energy efficiency forecasts, Sreenivasachar said.

The study assumes that resources without an obligation (typically through the FCM) cannot be relied upon to resolve a reliability need and are therefore not considered in the steady state analysis. However, they do contribute to the available short-circuit current, as they may be in service as part of the energy dispatch of the system, he said.

The study bases its short-circuit base case on the expected topology in the 2023 compliance steady state base case. No significant project is expected in the 2023-2028 time frame, and hence the 2023 case was considered acceptable, Sreenivasachar said.

Asked about future generation selected in state solicitations, Director of Transmission Planning Brent Oberlin said there were two options.

He said if the RTO finishes the study ahead of



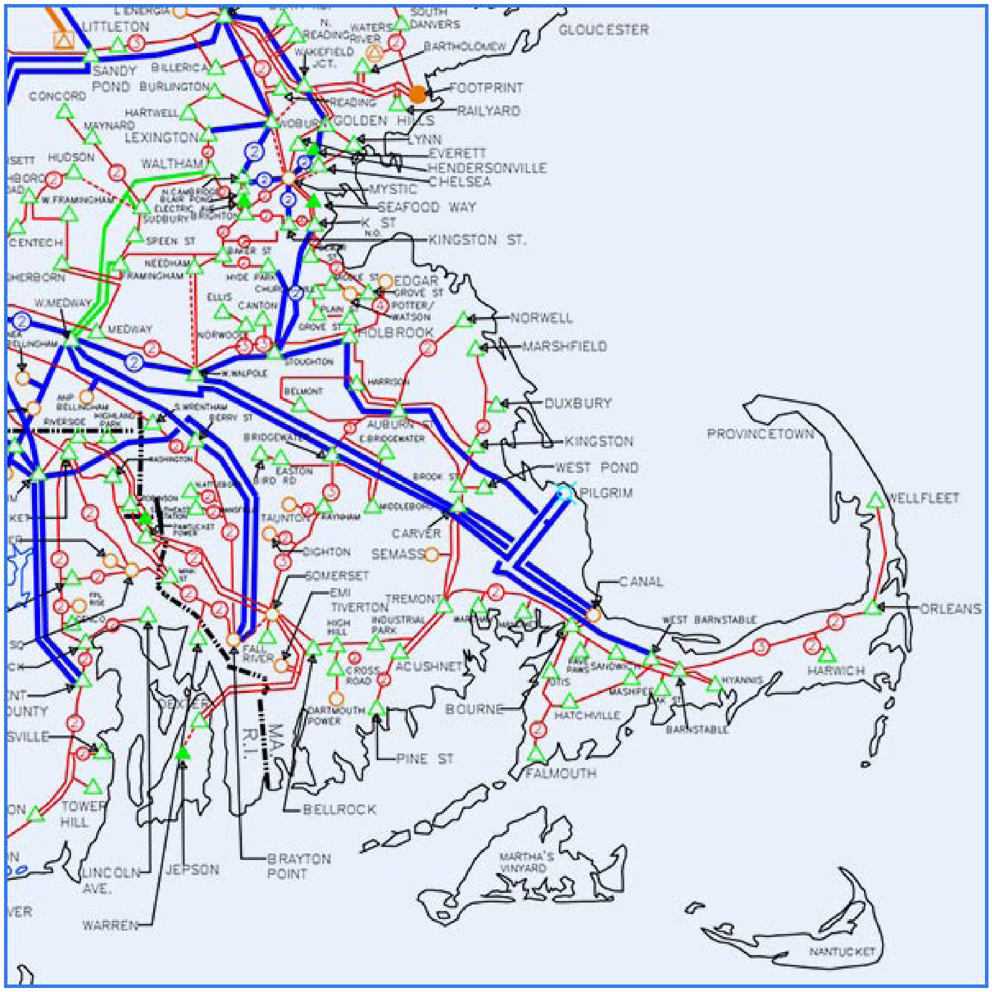
Potential capacity zone construct for FCA 14 | *ISO-NE*

ISO-NE News

final approval of those projects, the identified needs will be based on conditions without the generation in place. Upon approval of the generation, the needs will be changed to those associated with the scenarios that included the generation. If the generation is approved prior to the completion of the study, the needs associated with scenarios that do not model the generation can be ignored.

Stakeholders should submit comments on the study to *pacmatters@iso-ne.com* by Dec. 2. The RTO plans to post the draft study and intermediate study files in the first quarter of next year before completing the study area 2028 Needs Assessment and presenting it to the PAC by Q2 2019.

The RTO's next steps will be to review transmission certifications for FCA 14 with the Reliability Committee in January, and to further discuss the potential capacity zone boundary construct at the PAC in the first quarter of 2019.



This map shows the 115-kV system or Southeast Massachusetts and Rhode Island. | *ISO-NE*

Moody's Sees Region in Good Economic Shape, for Now

Moody's Analytics Director Ed Friedman *told* the PAC that New England is leading the Northeast in economic development, particularly job growth, which is not typically the case, as that occurs more frequently earlier in an economic expansion or business cycle.

"That's been a good development over the past year, but probably not sustainable over the long term," Friedman said.

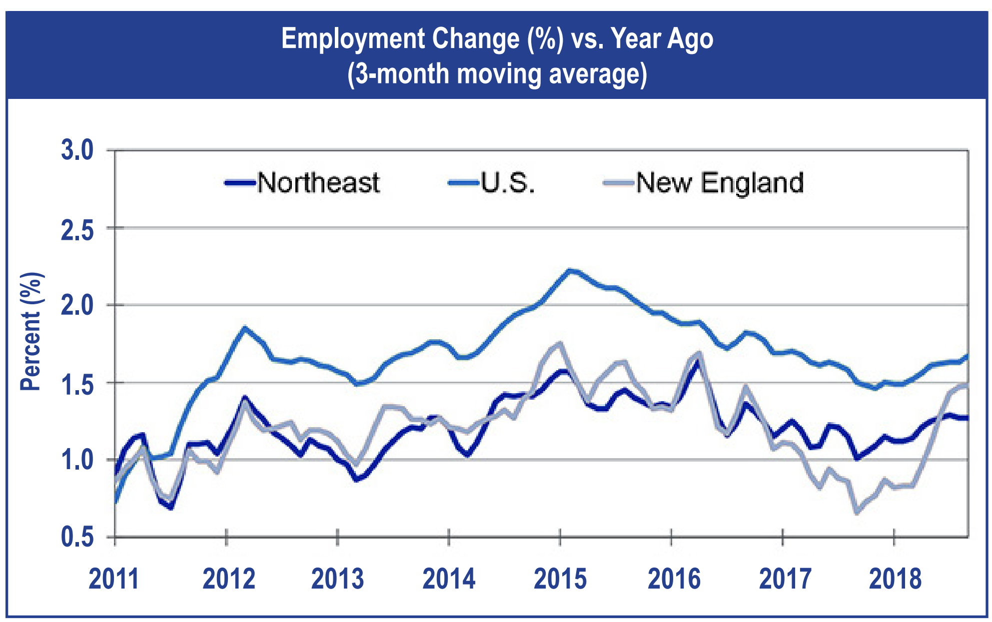
Massachusetts and New Hampshire have led the region in new hiring since last October, both outpacing the national average, with Rhode Island very close to the U.S. figure of about 1.7% in employment growth.

"The drivers are the booming tech sector in Boston ... and in and around the Seaport district," he said.

New England is unfortunately hampered by a generally weak and aging demographic outside places like Massachusetts, which holds back labor force growth, he said. "Very good job growth just cannot go on forever" without a growing population to feed the labor force.

The better than 3% wage gains posted in most of the region's six states over the past year — only Connecticut and Rhode Island fell below that level — will likely continue over the coming year, but consumer confidence in New England is lower than in any other part of the U.S., Friedman said. ■

— Michael Kuser



New England leads the Northeast in employment growth, according to Moody's Analytics.| *Bureau of Labor Statistics, Moody's Analytics*

FERC Extends New ROE Policy to MISO; Seeks Comments

By Rich Heidorn Jr.

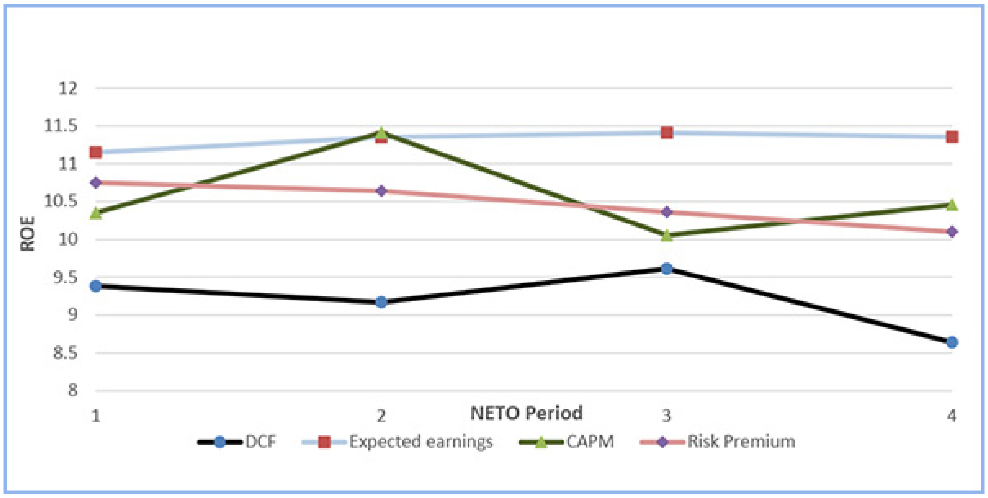
FERC moved Thursday to apply its proposed new methodology for calculating transmission owners' return on equity rates to dockets in MISO and the South.

The commission's directives mirror its Oct. 16 order in a case involving the New England Transmission Owners (NETOs), in which it solicited briefs on its plan to consider other metrics in addition to the discounted cash flow (DCF) model it has relied on since the 1980s.

As in the Oct. 16 "briefing order," the commission ordered parties in ROE litigation over MISO's TOs to submit briefs in a paper hearing (*EL14-12-003, EL15-45*).

Separately, the commission also approved an order providing guidance on how the new methodology should be applied to seven pending ROE proceedings involving units of Entergy, American Electric Power, Southern Co. and others (*EL17-41-001 et al.*).

FERC has proposed giving equal weight to results from the DCF and three other techniques: the capital asset pricing model (CAPM), expected earnings model and risk premium model. (See *FERC Changing ROE Rules; Higher Rates Likely*.)



FERC said the discounted cash flow methodology produced lower ROEs than the three other models for the four test periods at issue in the New England Transmission Owners' proceeding. | *FERC*

Remand

The commission announced its new policy last month in response to the D.C. Circuit Court of Appeals' April 2017 ruling vacating its 2014 order on the NETOs' rates. The court said FERC failed to meet its burden of proof in declaring the NETOs' existing rate unjust and unreasonable. (See *Court Rejects FERC ROE Order for New England*.)

FERC said it would use three of the models — the DCF, CAPM and expected earnings — to establish a composite zone of reasonableness that will determine whether it accepts or dismisses ROE complaints. (The risk premium model results in a single number and cannot produce a range of rates.)

"Under this approach, we would dismiss an ROE complaint if the targeted utility's existing ROE falls within the range of presumptively just and reasonable ROEs for a utility of its risk profile unless that presumption is sufficiently rebutted," the commission said.

When a complaint is warranted, FERC would base any subsequent rate on the average of the results from each of the four models.

The first of two complaints over the MISO TOs' rates was filed for the period Nov. 12, 2013, through Feb. 11, 2015. Under the new formula, averaging the result of the risk premium analysis (10.36%) with the midpoints of the DCF (9.29%), the CAPM analysis (10.06%) and the expected earnings analysis (11.41%) results in a preliminary base ROE of 10.28%, with the incentive-based total ROE capped at 13.06%.

Using DCF alone, FERC reduced the MISO TOs' base ROE from 12.38% to 10.32% in a September 2016 order. (See *FERC Cuts MISO Transmission Owners' ROE to 10.32%*.)

If the commission's revised methodology calculation prevails, it said it will order refunds of amounts collected in excess of 10.28%.

The MISO TOs include units of Ameren, American Transmission Co., Entergy, Indianapolis Power & Light, MidAmerican Energy and ITC Holdings. A second challenge to their 12.38% rate was filed in February 2015, with complainants arguing the base ROE should be no higher than 8.67%.

FERC said parties in the case must submit briefs within 60 days on whether its proposed revisions should apply and, if so, how.

Guidance in Other Dockets

In addition, the commission told litigants in seven other ROE dockets they should address its proposed new methodology in their proceedings.

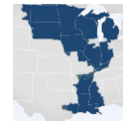
"We do not believe that allowing participants to address the briefing order's proposed new methodology in their ongoing proceedings, and continuing those proceedings without abeyance on that basis, will result in wasted time and resources because we believe that continuing with settlement discussions or hearing procedures will move those proceedings closer to resolution," the commission wrote.

"In addition, these ongoing proceedings involve issues of material fact that the commission determined would be more appropriately addressed in hearing and settlement judge procedures, and the briefing order's proposed new base ROE methodology does not change that determination. While the issues of material fact to be addressed are expanded with the inclusion of the three additional financial models, the most effective procedures for addressing base ROE issues continue to be the ongoing hearing and settlement proceedings."

FERC Chair Neil Chatterjee said he hoped the commission's new policies will reduce delays and "pancaked" rate complaints. He noted that one of the pending complaints has been awaiting resolution for more than five years.

"This means that transmission owners still don't know what they made in 2013, and consumers still face uncertainty about their bills," he said. ■

MISO News



MTEP 18 Advancing with 2 Contentious Projects

By Amanda Durish Cook

The MISO System Planning Committee of the Board of Directors in September. | © *RTO Insider*

MISO staff are seeking to advance the RTO's full 2018 Transmission Expansion Plan despite stakeholder objections to two projects, board members heard last week.

Staff recommend moving ahead with all 442 projects currently spelled out in the $3.3 billion *plan*, but the Planning Advisory Committee *endorsed* only 439 of the proposals, Executive Director of System Planning Aubrey Johnson said during a Nov. 13 conference call of the Board of Directors' System Planning Committee.

The two projects sparking concern at the PAC include the rebuild of the Wabaco-Rochester 161-kV line in southern Minnesota and American Transmission Co.'s Straits of Mackinac project to replace a 138-kV circuit connecting Michigan's Upper and Lower peninsulas. Stakeholders have complained the costs for the Wabaco-Rochester project will shift from generator interconnection customers to local load customers and have said that an alternate solution would better suit the Mackinaw area.

The third proposal not receiving endorsement has stirred less controversy: ITC Midwest's capacitor bank project at the Walters 161/69-kV substation in southern Minnesota, which was only held from endorsement to allow MISO to update the project's details. (See *MISO PAC Puts MTEP 18 to Vote, Removes 3 Projects*.)

The 10 voting *sectors* of MISO's Advisory Committee eventually voted 5.25 in *favor* of the nearly complete MTEP 18, with 2.75 opposed and two abstentions. MISO's sectors can divide their single vote based on differing opinions between organizations and companies within the same sector.

MISO is openly defying the strong objections of at least some stakeholders by recommending that the Wabaco-Rochester line and Straits of Mackinac circuit rebuild move ahead as planned.

Johnson said MISO staff are recommending the $11 million Wabaco-Rochester project despite stakeholder concerns over cost allocation and Xcel Energy's request to defer the project in favor of a larger solution later. The RTO said the project improves market efficiency and has benefits "well in excess of costs" at 6.8:1. Johnson said staff have studied alternatives to the project, including proposals submitted by Xcel.

"The area is experiencing congestion currently, and there are no generator interconnection customers identified as responsible for upgrading this circuit," MISO said.

MISO also continues to recommend ATC's $105 million plan to replace its underwater circuit linking Michigan's Upper and Lower peninsulas, which was damaged last year when the cables were struck by a passing vessel.

While stakeholders agree that ATC's damaged cables should be replaced, some are divided on whether the cables should be installed on the bottom of the lake or in an underwater tunnel. Stakeholders have raised the possibility of an interim solution if the more complex tunnel option is needed. Some have also proposed alternative or joint ownership of the replaced cables.

Johnson said MISO believes the best course of action is ATC "expeditiously" replacing the cables, which solves the immediate planning issue. He also pointed out that ATC has the right to replace its own equipment under the terms of MISO's Transmission Owner Agreement.

Johnson added that MISO "does not address regulatory requirements governing the manner of placement of the cables within the straits, as that is a state siting issue." The siting on the Mackinac project has not been finalized with the Michigan Public Service Commission.

The uncontroversial $11 million Walters substation project was originally proposed as a line and transformer project but has evolved into a capacitor bank installment to improve voltages in the area. The PAC withheld approval so the alternate project could be updated into the MTEP 18 list. MISO said it has since updated the project details and isn't aware of any outstanding stakeholder issues with the project. Johnson said the issue was resolved prior to the close of the PAC meeting in October.

Stakeholder Pushback

During the call, Director Phyllis Currie asked for stakeholder reaction to MISO's decision to move ahead with the Wabaco-Rochester project, but none offered opinions during the open comment period. It was later discovered that technical difficulties prevented stakeholders from getting a line opened on the operator-assisted call. MISO held a special comment period by phone on Nov. 15, and CEO John Bear that same day apologized to stakeholders for the mishap during an Informational Forum.

During the make-up call, stakeholders repeat-

MISO News

ed criticisms of the two proposed projects.

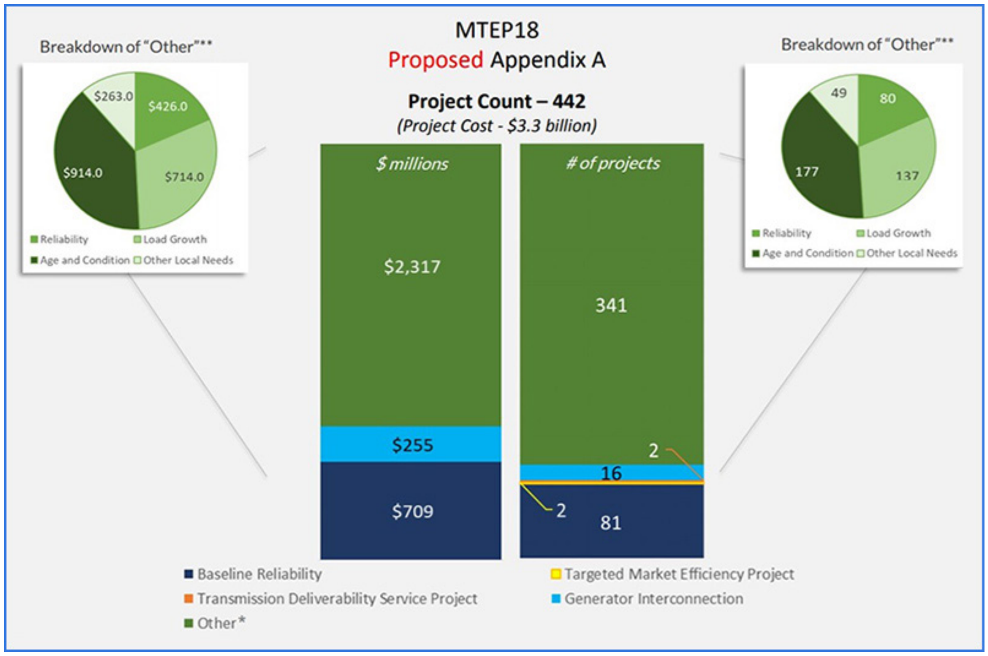
Representatives of Wolverine Power Supply Cooperative said the company submitted an alternative proposal to the Mackinac project and said MISO staff may have been too quick to dismiss it.

But ATC's Brian Drumm said MISO evaluated the project and alternatives properly. He also pointed to ATC's contractual right to perform upgrades on its own equipment.

Dairyland Power Cooperative's Terry Torgerson said MISO's estimated savings on the Wabaco-Rochester line are overstated.

Xcel Energy's Carolyn Wetterlin said Xcel and MISO also "ended on a disagreement" this year concerning the Rochester-Wabaco line. She said the proposed line only shifts congestion into another area. Wetterlin asked that MISO delay the solution until MTEP 19.

The board will vote on whether to approve MTEP 18 in its entirety at its meeting on Dec. 6. ■



MTEP 18 breakdown | *MISO*

OMS Opens Search for New Executive Director

Tanya Paslawski | © *RTO Insider*

The Organization of MISO States is now accepting applicants for a new executive director to replace Tanya Paslawski, who will depart the organization at the end of the year. (See *OMS Executive Director to Exit*.)

OMS said it is seeking a candidate with "extensive understanding of federal and state energy industry regulatory matters and experience leading teams with diverse perspectives." The executive director takes direction from the board of directors to execute the group's strategy on energy industry issues.

"We're looking for someone who is driven, dynamic and skilled at achieving consensus outcomes. Experience with organization administration and boards of directors a plus," Colleen Dougherty, OMS Office Manager, said in a press release.

Resumes will be accepted through Dec. 3 and should be emailed to Dougherty at *colleen@misostates.org*. OMS is headquartered in downtown Des Moines, Iowa.

OMS members recognized Paslawski's four years of work at the group's Nov. 13 meeting.

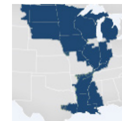
Sally Talberg | © *RTO Insider*

"You were the right person at the right time," Michigan Public Service Commission Chair Sally Talberg told Paslawski, praising her "great skill and vision." Talberg said Paslawski took over OMS when it was a startup in its teenage years and helped transform it into a serious organization. Paslawski thanked OMS members for the opportunity to serve them.

In 2019, OMS will continue its longstanding focus on policy around distributed energy resources. The organization is working with MISO to create stakeholder forums to discuss DER issues. Stakeholder workshops on DER should begin in early 2019, OMS Director of Member Services Marcus Hawkins said. ■

– Amanda Durish Cook

MISO News



MISO Gets 5th Winter Waiver of Offer Cap

By Amanda Durish Cook

Consumers Energy crews this year | *Consumers Energy*

MISO now has a fifth wintertime waiver of its $1,000/MWh offer cap in hand after FERC approved the RTO's request on Nov. 16 (*ER19-27*).

The commission allowed a waiver with conditions identical to the last four. (See *FERC Grants MISO 4th Winter Offer Cap Waiver*.) The waiver is effective from Dec. 1 through April 30, 2019.

"MISO's experiences during the 2014 polar vortex, as well as the cold weather events of January 2018, demonstrate that fuel costs can increase to a level such that the current $1,000/MWh offer cap prevents resources from submitting incremental energy offers that reflect their marginal production costs. If similar weather and natural gas supply conditions materialize in the 2018/2019 winter, some resources could face the untenable position of being forced to offer electricity at levels below their actual cost," FERC said.

Last winter, MISO experienced extreme cold in its North subregion starting Dec. 27, with frigid temperatures hitting the entire footprint Jan. 1 to 6. In all, MISO said the cold snap lasted longer than the 2014 polar vortex. Less than two weeks later, MISO South faced another cold snap. The event is the subject of a joint FERC/NERC investigation, which was announced in early fall. (See *FERC, NERC to Probe January Outages in MISO South*.)

While MISO said published gas index prices did not hit the $67/MMBtu experienced during the polar vortex, "there were a few resources during late December 2017 that offered within a dollar of the $1,000/MWh energy offer price cap due to high intraday prices for procuring non-firm gas." The RTO said its ongoing coordination work with neighboring balancing authorities and a lower outage rate kept prices below 2014 levels.

Entergy Arkansas crews in winter | *Entergy*

However, MISO said its fourth waiver was helpful in that it granted generator operators peace of mind that they could have recovered costs that inched above $1,000/MWh.

MISO has until Oct. 1, 2020, to implement a $2,000/MWh hard cap for verified cost-based incremental energy offers. (See *MISO Granted Longer Deadline for Offer Caps*.) The RTO is all but certain to request another offer cap waiver for the 2019/20 winter.

"After implementing the reforms required by Order No. 831, MISO will no longer require temporary waivers because these reforms are intended to provide for a long-term solution to the issues associated with MISO's offer cap," the commission said.

In its request for this year's waiver, MISO said it couldn't yet tell whether 2014-style price spikes could occur during the 2018/19 winter months.

This year, MISO is using forecasts of a warmer-than-normal winter in much of its footprint, though the RTO says it's prepping for a 40% possibility of entering emergency procedures at least once during the season. (See *MISO Foresees Manageable 2018/19 Winter*.) ■

MISO News

MISO Elects Lange to Board; Keeps 2 Incumbents

Will Consider Extending 1-Year Moratorium to Regulators

By Amanda Durish Cook

MISO's Informational Forum on Nov. 15 | © *RTO Insider*

CARMEL, Ind. — MISO's membership has elected to keep Directors Phyllis Currie and Mark Johnson while also approving the somewhat controversial installment of current Minnesota Public Utilities Commission Chair Nancy Lange.

Stephen Kozey | © *RTO Insider*

MISO Senior Vice President and Board Secretary Stephen Kozey announced the Board of Directors elections results at a Nov. 15 Informational Forum. Voting opened Sept. 27 and concluded Nov. 2.

Each candidate received a majority of membership votes, MISO revealed. Kozey said the eballot performed "soundly" with no outages from election vendor VoteNet.

"It was not hacked," Kozey joked, a tongue-in-cheek reference to the recent fear of cyberattacks on the midterm elections.

Kozey said 96 of 139 members voted, well above the 35-member quorum required.

Members voted Lange to the board despite concern by some stakeholders over a sitting commissioner being appointed to the oversight body. Stakeholders said MISO should consider requiring the same one-year moratorium for regulators in MISO states that it requires of directors coming from member companies. MISO's bylaws require a yearlong cooling period for "directors, officers or employees of a member, user or an affiliate of a member or user." (See *MISO Members Uneasy over Board Nomination*.)

This is the first time MISO has elected either a sitting commissioner or a commissioner from one of the states in its footprint to the board.

Stakeholders noted that Lange made decisions about the grid on behalf of Minnesota customers and utilities up until her election.

Lange will fill the seat vacated by retiring Director Michael Curran, who has served on MISO's board since 2007. The trio will begin their three-year terms on Jan. 1. Lange's *term* at the Minnesota commission doesn't expire until Jan. 7. Kozey has said Lange will avoid overlap by resigning her post at the regulatory agency early.

Kozey said MISO has requested that its board address whether the moratorium should apply to regulators.

"Because of the issue raised by stakeholders, we've asked the Corporate Governance and Strategic Planning Committee [of the Board of Directors] that the applicability of the stay-out be an item that they address," Kozey said.

MISO's Advisory Committee will also discuss the issue at its Dec. 6 meeting during Board Week.

In a *release*, CEO John Bear said MISO is "fortunate to have an exceptional depth of experience across our Board of Directors."

Members also approved a $7,000 raise for all directors, raising the current base retainer from $89,000 to $96,000 per year. (See *MISO Board of Directors Briefs: Sept. 20, 2018*.)

After reporting on election results, Kozey announced that he would be retiring from MISO by the end of the year.

"Thank you for putting up with me and my attempts at humor over the years," Kozey said, choking up. Kozey was one of MISO's 21 original employees in 2000. (See "MISO Looks Back at 15," *MISO Changes to Queue, Auction, Cost Allocation to Dominate 2017*.) Kozey founded the RTO's legal department 18 years ago and served as chief legal officer until 2016.

"We have accomplished so much together, and we are now at a good point for me to transition to retirement. I will miss MISO, the people and working with all of our members, but after a fulfilling and satisfying career, it is time to think about the next stage of my life. I can leave MISO without hesitation that we have the right leadership in place to take this organization into the future," Kozey said later in a *press release*.

MISO said it has a succession plan in place and will announce Kozey's successor later. ■

MISO News

Study: MISO Grid Needs Work at 40% Renewables

By Amanda Durish Cook

MISO will need to take significant steps to reinforce its grid to handle 40% renewable penetration, according to RTO findings released last week.

At that share of renewables in its generation mix, MISO will experience a sharp increase in grid complexity in terms of resource adequacy, steady state operating reliability and hourly energy adequacy. The changes will require the RTO to roll out mitigating measures that could include buildout of new transmission, the study found.

"Interim results indicate integration complexity increasing sharply from 30% to 40% renewable penetration," Policy Studies Manager Jordan Bakke said.

The findings are the latest in MISO's yearslong renewable integration impact assessments, which seek to determine what volume of renewables it can incorporate into its footprint before the integration becomes "significantly" complex. The RTO is in phase two of the three-phase study.

In spring, MISO published study results showing that increased renewable integration, especially solar generation, will shift peak load to evening hours, with a spikier but shorter daily loss-of-load risk. (See *MISO Renewable Study Predicts Later Peak, Narrower LOLE Risk*.)

MISO last month said it could reliably absorb a 20% renewable penetration without undercutting frequency response. (See *MISO: 20% Renewable Limit for Adequate Frequency Response*.)

"We're seeing that as renewable penetration increases, so do the operational complexities," Bakke said.

The RTO now says that the variability swings resulting from 40% renewables could increase curtailment of renewables to about 18.2% of intervals. Bakke said various mitigating measures could halve curtailments.

MISO also said that, under current conditions, an overall capacity mix consisting of 40% renewable resources will translate into actual renewable penetration of just 34.7%, which could increase to 38.5% if the RTO introduces additional measures, including new transmission. Renewables at 40% could serve 41.7% of near-peak load, 67% of light load and 81.3% of load during peak conditions for renewables.

After studying about 11,300 new transmission project candidates, Bakke said MISO identified about 80 that would be cost-effective and allow it to "utilize the diverse variable resources."

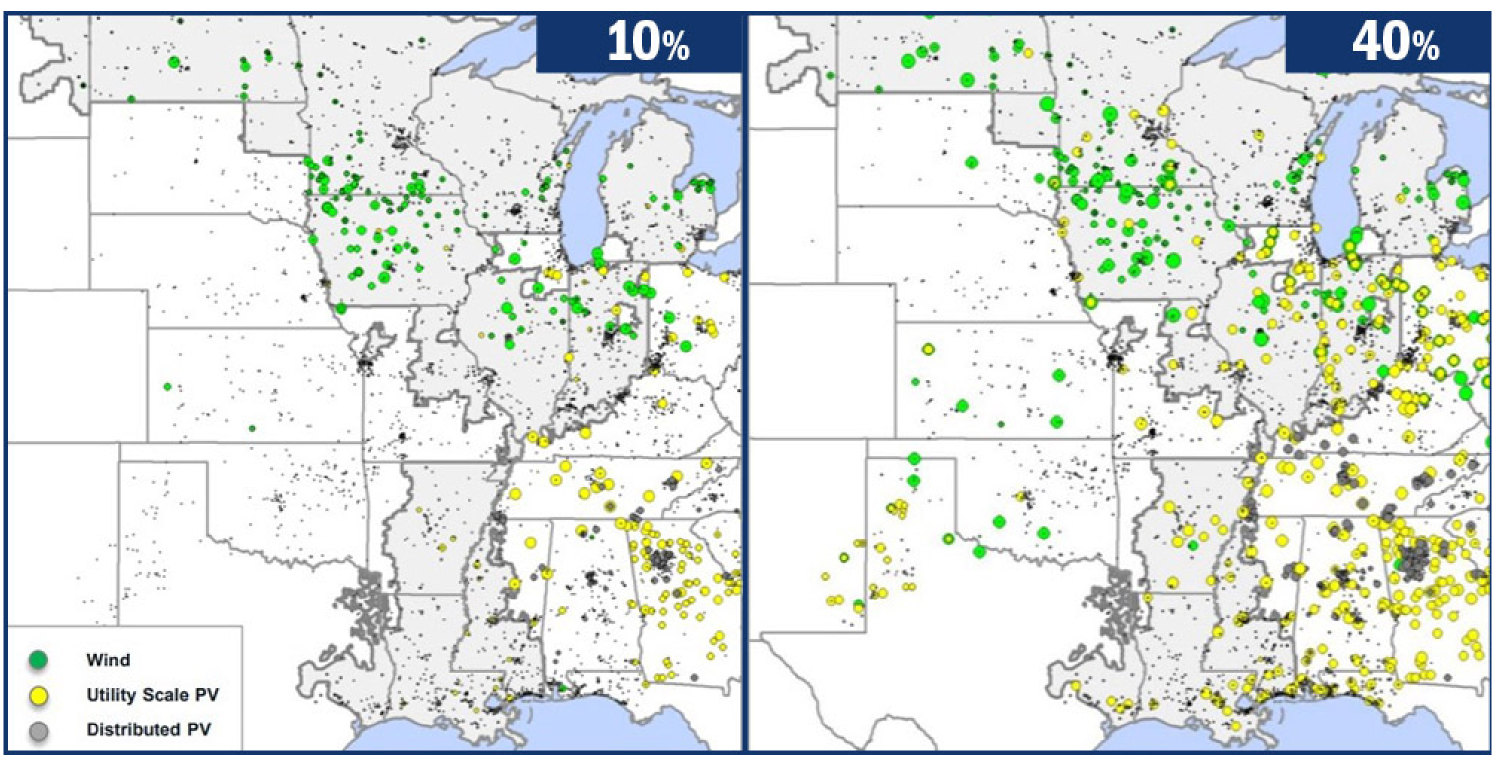
Veriquest's David Harlan said MISO's study did not demonstrate how capacity from gas and coal generation could help facilitate renewable expansion. He said the RTO may want to consider whether its markets are providing the right price incentives so coal and gas generation stay in the market.

But Bakke said the increasing variability resulting from a 40% renewable penetration can be addressed by ramping from its online conventional generators.

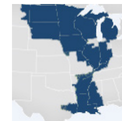
Bakke said MISO's study shows the footprint will continue to need conventional generation. He said even though average ramping needs change slightly at a 40% renewable mix, the remaining conventional generators will have more pronounced requirements, needing to provide greater volumes of up and down ramping.

As MISO nears a mix with 50% renewables, he said, it will experience more renewable energy available than needed for load at certain times of the year, resulting in a "net negative" load.

MISO will hold a workshop on the assessment Nov. 28, where stakeholders will discuss the preliminary impacts of increasing levels of renewable penetration in more detail. ■



The MISO footprint at 10% (left) and 40% renewable penetration | *MISO*



MISO to File Queue Changes Before Year-end

By Amanda Durish Cook

| © RTO Insider

MISO will soon file a proposal with FERC to relieve its overfilled generation queue by implementing more stringent site control requirements and increasing the milestone payments imposed on project owners.

The proposal is down to a final review from the Planning Advisory Committee, stakeholders learned during the committee's Nov. 14 meeting. MISO Resource Interconnection Planning Manager Neil Shah said the RTO will file the queue changes before the end of the year.

"Why is MISO revising its queue again when it just did a queue redesign two, three years ago? And the answer is, yes, the queue reform implemented in 2017 is working, but there are areas that we need to tweak because MISO's queue is getting clogged with numerous projects," Shah said.

Staff say the changes will encourage stalled projects to withdraw from the queue earlier in the process. (See "MISO to File Queue Changes," *MISO Queues up Interconnection Options*.)

Shah said MISO currently conducts unnecessary definitive planning phase (DPP) studies because unready projects enter the first phase of the queue without first securing a location and are nevertheless studied. He said such projects often withdraw too late in the DPP process, affecting other projects and complicating their subsequent studies. The RTO wants to make the queue easier for projects that have site control, are viable "and have done their homework."

MISO will now define site control as 50 acres/MW for wind generation, 5 acres/MW for solar generation, 0.1 acre/MW for battery storage and 10 acres for other resource types. An interconnection customer that wants to secure less land than required will now have to hire consultants to prove their project does not require the full amount of space.

Documentation of exclusive site control will now be due 90 days before MISO begins queue studies. The RTO will also no longer accept a $100,000 cash fee in lieu of site control. Shah said 75% of the projects entering in the April 2018 cycle and 62% of the projects entering in the August 2017 cycle elected to pay the $100,000 fee instead of demonstrating site control.

However, MISO will still allow interconnection customers experiencing regulatory holdups to submit a refundable, $10,000/MW fee along with detailed documentation and affidavits demonstrating the restrictions. It will also change the first milestone payment from a $4,000/MW fee to 10% of the average network upgrade cost from the RTO's last three DPP cycles. The second and third milestone fees will remain unchanged at 10% and 20% of network upgrades costs found in system impact studies, respectively.

MISO will now withdraw a project before the queue's second decision point if the customer fails to demonstrate exclusive site control.

The proposal also alters MISO's current practice of refunding 100% of the first and second milestone payments at the two decision point "off ramps" embedded in the queue, where projects can drop off without risking the most recent fees. The RTO will now only refund 50% of the first milestone payment at the first decision point and 75% of the second milestone payment if a project withdraws at the second decision point.

Shah said MISO is expecting another heavy round of queue entrants in the first quarter of 2019 and that the changes will help in the long term to limit the number of projects that enter and trigger multiple studies. The queue currently contains nearly 80 GW worth of generator projects.

Multiple stakeholders thanked MISO for researching and proposing the queue changes.

"I really appreciate MISO making these changes to progress the queue and not allowing it to reach a stalemate. I really hope this will make

MISO News

things better so we can do our job at the state level," Minnesota Public Utilities Commission staff member Hwikwon Ham said.

Additional work on the queue will continue in 2019. The Interconnection Process Task Force (IPTF) will work early next year to propose rules that allow hybrid generation interconnections and two generators to share one point of interconnection.

The IPTF may also begin work on several stakeholder suggestions currently on hold. They include:

- Reducing phase one of the DPP by 30 days;
- Cutting down the generation interconnection agreement timeline from 150 to 90 days;
- Putting a megawatt limit on the total number of projects that can enter a queue cycle; and
- Reviewing how many projects submit cash versus a letter of credit for milestone fees, possibly opening the credit practice to changes.

Freshly Minted Interconnection Working Group

MISO will also be providing the IPTF with a facelift after agreeing to convert the task force into a more permanent working group.

The IPTF was set to sunset in January. In MISO's stakeholder structure, working groups are more permanent than task forces, which have an expected sunset date.

The Steering Committee approved the move by general consent on Nov. 15, adopting the October consensus from the PAC. MISO's eight voting stakeholder sectors voted 5.33 in favor, with 0.67 opposed and two abstentions, to convert the task force into a working group. (See *MISO Stakeholders Rally to Save Interconnection Group*.) MISO sectors are allowed to split their votes based on differing organization and company opinions within a sector.

Seeing the "overwhelming" vote in favor of the move, MISO Director of Planning Jeff Webb said the RTO will now support the move, despite initially opposing the change. MISO had initially recommended the IPTF merge into the Planning Subcommittee, because both deal with technical issues of modeling and study processes used in its annual Transmission Expansion Plan.

Webb said the RTO believed that a group merger was "pretty consistent with … MISO's stakeholder redesign," which discourages duplicate discussions across stakeholder groups. However, he said MISO will be able to continue to provide staff, liaisons and meeting space for an Interconnection Process Working Group.

PAC Chair Cynthia Crane said it was important for MISO to recognize the strong stakeholder consensus to preserve a working group.

Additionally, the Steering Committee adopted additions to the Stakeholder Governance Guide that clarify rules around sunset dates for MISO groups. The committee added language that parent committees and the Steering Committee "should be diligent in the review and manage of entity sunset dates" of task teams and task forces. The language also specifies that motions for retirement should originate in the groups in question, with the Steering Committee "charged to review and manage sunset dates if applicable."

Parent entities will be responsible for bringing retirement recommendations before the Steering Committee. The revisions also specify that the Advisory Committee can vote to "uphold or modify" Steering Committee retirement recommendations, particularly if the Steering Committee, the group in question or the parent entity disagree on whether to retire the group. ■

FERC Waives VLR Tariff Requirement in MISO South

Entergy Transmission | *Entergy*

FERC last week granted MISO a one-time Tariff waiver allowing the RTO to designate certain Louisiana resources as commercially significant to voltage and local reliability (VLR) without first collecting and studying a year of data to back up the determination (*ER18-2273*).

MISO plans to allocate the majority of VLR commitment costs incurred in the Fancy Point load area on the Mississippi River to Entergy, which has the largest amount of load and stands to benefit most. Entergy said it did not oppose the waiver, which is effective for one year beginning Aug. 22, 2018.

The RTO's Tariff requires it to conduct quarterly VLR issue studies using data from the previous 12 months before it can label VLR commitments "commercially significant."

FERC said the waiver is "narrowly tailored" to allow MISO to make the designation while accumulating the 12 months of data necessary to conduct a study pursuant to its Tariff. It added that the move is "consistent with the principle of cost causation in that it is designed to allocate revenue sufficiency guarantee make-whole payments for VLR commitments to the load in the local balancing areas that benefit from the VLR commitments."

MISO said that absent a waiver, it would be required to allocate VLR commitment costs to the local balancing area where the VLR-committed resource is located, instead of allocating costs on a load-share basis to the entities that benefit from commitments.

FERC found that MISO acted in good faith on the designation by working with affected parties to create an operating guide and convening a special meeting to discuss VLR issues. ■

— Amanda Durish Cook

NYISO News

NYPSC OKs CCA, Rejects Residential EV Charging Tariffs

By Michael Kuser

The New York Public Service Commission on Thursday unanimously approved renewing Westchester County's community choice aggregation (CCA) program, which since 2016 has pooled municipalities to purchase electricity and natural gas in bulk.

The county's Sustainable Westchester is the only active CCA in the state so far (Case *14-M-0564*), though the PSC has approved three others. CCAs also provide consumers increased access to distributed energy resources and efficiency programs and products.

Diane Burman

Commissioner Diane Burman supported the order but asked Department of Public Service staff about low-income provisions in the programs.

Ted Kelly, DPS assistant counsel, said, "As with the other CCA programs, Sustainable Westchester can only serve low-income customers with the start of the new, renewed program if they offer and provide those customers with a guaranteed savings product, and they did discuss that in their master implementation plan and acknowledge that they were aware of and would comply with that requirement."


Ted Kelly

Gregg Sayre

Commissioner Gregg Sayre said that CCAs are consistent with "increased customer choice and a market-based encouragement of new options for clean energy and distributed energy resources."

Home EV Charging Tariff Nixed; Revisions Ordered

The PSC rejected tariff filings for residential electric vehicle charging from all the major investor-owned utilities in the state (Case No. *18-E-0206*) and ordered them to file revisions that implement time-of-use (TOU) rates equal to the traditional residential customer charge.

"The incremental customer charge associated with TOU rates can deter EV customers from adopting the TOU tariff and can impact a customer's decision as to whether to purchase an EV," the commission said. "Minimizing such costs will lower barriers for customers to adopt TOU rates."

John Rhodes

"We know electric vehicles are coming, and we know that it's up to us to make sure that this coming call on the electric system is managed well," PSC Chair John Rhodes said. "That in turn calls for good engineering, but also for good economics and, specifically, good rates."

Mary Ann Sorrentino, acting DPS chief of electric rates and tariffs, testified that the relevant statute (*PBS Section 66-o*) was intended to provide incentives to buy EVs and encourage the adoption of grid-responsible charging times.

New York law requires utilities to file residential EV charging tariffs and to report periodically, but the commission's Nov. 15 *order* defines the reporting as annual and directs Central Hudson Gas & Electric, New York State Electric & Gas, Rochester Gas and Electric, Consolidated Edison and Niagara Mohawk Power to file their annual report every Jan. 30, starting in 2019.


Mary Ann Sorrentino

"The tariffs addressing 66-o are essentially similar in that each of the electric utilities proposed a one-year price guarantee for residential customers with qualifying EVs that go on the residential time-of-use rate for their entire load," Sorrentino said.

Under TOU rates, charges are lower during off-peak hours. The commission has already approved price guarantees for EV owners in Con Ed and Orange and Rockland Utilities service territories to reduce customers' fear of trying a new rate, she said.

"The PSC has a broader proceeding underway to develop its approach to EVs comprehensively [Case *18-E-0138*], but in the meantime, this is a smart, pragmatic adaptation of existing approaches that fits with our principles and makes sense," Rhodes said.


The New York PSC held its regular monthly session in Albany on Nov. 15, 2018.

The commission's order on residential charging rates "complements the broader proceeding" on EV infrastructure and also the proceeding on the value of distributed energy resources (Case *15-E-0751*), Sorrentino said.

Thursday's order also addresses utilities with residential TOU rates that contain incremental meter charges as opposed to increased customer charges, such as National Grid and RG&E, directing that "residential customers with qualifying registered EVs that take service under residential TOU rates shall not be subject to the incremental charge."

The commission in September approved Con Ed expanding its EV charging program, SmartCharge NY, to offer incentives to customers who charge medium- and heavy-duty EVs during off-peak hours. The commission's order (Case *16-E-0060*) said "it is critical to begin testing the efficacy of off-peak charging programs for the full gamut of EVs at a time when EV penetration is comparatively low."

New York's zero-emissions vehicle plan calls for creating statewide EV infrastructure to support 30,000 to 40,000 EV sales by the end of 2018 and 10,000 charging stations by 2021. The commission in September reported 26,470 EVs registered in New York. ■

NYISO News

NYISO Business Issues Committee Briefs

Possible Penalty for External Resources Failing in SRE

NYISO is considering penalizing external resources that fail to perform when dispatched following a supplemental resource evaluation (SRE), Rana Mukerji, senior vice president for market structures, told the Business Issues Committee on Wednesday.

The ISO presented the *proposal* — part of an effort to clarify the minimum deliverability requirements for external capacity from PJM — at the joint Oct. 18 meeting of the ICAP and Market Issues working groups.

It would penalize an external capacity resource selected for an SRE that fails to bid in a way that will get it scheduled, is not available and operating to provide the capacity sold for the duration of the SRE call, or is unable to deliver its energy from its control area to the New York Control Area border.

The penalty would be equal to 1.5 times the applicable spot price multiplied by the number of megawatts of shortfall and the percentage of the SRE call hours that a supplier fails to respond. It would not apply if the resource is in a forced outage during an SRE call; such an instance would instead impact its equivalent forced outage rate (EFORd).

Mukerji, who mentioned the issue during his monthly Broader Regional Market *report*, said the ISO will return to future working groups to continue stakeholder discussions.

He also updated the BIC on a complaint filed in July with FERC by the Independent Power Producers of New York seeking to bar the ISO from allowing PJM resources to sell installed capacity into Zone J using unforced capacity deliverability rights facilities (EL18-189).

NYISO filed an *answer* to IPPNY on Sept. 20, he said. The ISO argued that IPPNY mischaracterized its position and made inaccurate claims regarding alleged reliability threats.

Approves T&D Manual Updates

The BIC unanimously approved Transmission and Distribution Manual updates in conformance with FERC Order 831 on offer caps.

The changes replace "$1,000/MWh" with "$2,000/MWh" in two locations in the manual that refer to day-ahead and real-time exports not designated as a coordinated transaction scheduling interface bid, said Padam Singh, senior energy market business analyst.

Order 831 requires grid operators to cap a resource's incremental energy offer at the higher of $1,000/MWh or its verified cost-based incremental energy offer, and cap verified cost-based incremental energy offers at $2,000/MWh. (See *FERC Grants NYISO 'Cold Snap' Offer Cap Waiver*.)

Automate ICAP Import Rights

The BIC unanimously approved changes to the Installed Capacity Manual for implementation beginning in the Summer 2019 Capability Period.

ICAP Market Operations Engineer Joe Nieminski *said* the manual changes include revised definitions, a request period for first come, first served (FCFS) import rights, and language regarding buyer confirmation and supporting documents.

Beginning with the summer 2019 capability period, NYISO plans to automate the FCFS import rights process to replace the fax process; replace market participants' obligations to provide supporting bilateral contracts with an automated bilateral confirmation process; and automate steps now performed manually by ISO staff.

Day-ahead Demand Response Program Manual Updates

The BIC also approved updates to the day-ahead demand response program (DADRP) manual to comply with FERC Order 745, as *presented* by Sarthak Gupta, associate distributed resources operations engineer.

NYISO last updated the DADRP manual in 2003.

The changes represent an overall refresh, removing obsolete language and replacing redundant language with relevant Tariff and manual references, Gupta said.

BIC Elects Chris Wentlent Vice Chair

The BIC elected Chris Wentlent to a one-year term as committee vice chair. Formerly Exelon's director of state governmental affairs in New York until January 2018, Wentlent now represents the Municipal Electric Utilities Association of New York State (MEUA), which represents municipal utilities and rural electric cooperatives.

MEUA is a member of the Public Power and Environmental Sector.

Chris Wentlent | *LinkedIn*

LBMPs Down 7% in October

NYISO *locational-based marginal prices* averaged $35.85/MWh in October, down 7% from $38.70/MWh in September, but higher than $28.35/MWh in the same month a year ago, Mukerji said in his monthly operations *report*. Day-ahead and real-time, load-weighted LBMPs came in lower compared to September.

Year-to-date monthly energy prices averaged $45.03/MWh through October, a 29% increase from a year ago. October's average sendout was 399 GWh/day in October, lower than 458 GWh/day in September 2018 and higher than 398 GWh/day in the same month last year.

Transco Z6 hub natural gas prices for the month averaged $2.91/MMBtu, up from $2.75/MMBtu in September and up 23.2% from a year ago.

Distillate prices climbed slightly compared to the previous month but were up 32.4% year-over-year. Jet Kerosene Gulf Coast and Ultra Low Sulfur No. 2 Diesel NY Harbor averaged $16.65/MMBtu and $16.66/MMBtu, respectively.

Total uplift costs and uplift per megawatt-hour came in lower than September, with the ISO's 27-cent/MWh local reliability share in October down from 37 cents the previous month, while the statewide share dropped from -48 cents to -56 cents. Uplift, excluding the ISO's cost of operations, was -30 cents/MWh, lower than -11 cents in September.

Thunderstorm alert costs in New York City were 75 cents/MWh, more than double the 33 cents in September. ■

— Michael Kuser

PJM News

NETL Repeats Doubts over PJM Bomb Cyclone Performance

By Rory D. Sweeney

In the latest salvo in an ongoing statistical squabble, the National Energy Technology Laboratory last week accused PJM of providing misleading analysis of its resource availability during last winter's "bomb cyclone."

NETL in March published its own *analysis* of the importance of coal-fired generation during the 13-day cold snap and found that in PJM "demand could not have been met without coal" and "it was primarily coal that responded resiliently, with some contribution from oil-firing units."

Across the six RTOs/ISOs analyzed, the lab found that "coal provided 55% of the incremental daily generation needed" and "fossil and nuclear energy plants provided 89% of electricity during peak demand."

NETL, which is organized under the Department of Energy's Office of Fossil Energy and can trace its roots to a coal-mining research facility established in 1910, said that coal generation increased by approximately 30,000 MW to roughly 50,800 MW per day during the storm. It argued that a "lack of sufficient natural gas pipeline infrastructure" caused price spikes and fuel unavailability as gas demand for home heating surged during the cold spell.

That analysis prompted PJM to publish a *response* in which it said unused gas generation was available throughout the event, but that coal units were cheaper during some periods.

"This is a 'good news' story for coal resources from an economic viewpoint, but the fact that additional coal resources were dispatched due to economics is not a basis to conclude that natural gas resources were not available to meet PJM system demands or that without the coal resources during this period the PJM grid would have faced 'shortfalls leading to interconnect-wide blackouts,'" the RTO wrote, taking issue with some of NETL's conclusions.

Reserves exceeded 23% of peak load demand, "and there were few units that were unable to obtain natural gas transportation, even for most units that relied only on interruptible service," the RTO said.

Regarding the lab's characterization of coal units that came online "suddenly" during the cold weather, PJM said that 57% of coal generation was self-scheduled and 41% was scheduled based on economic offers.

Pleasants Power Station is a coal-fired plant in West Virginia.

For the peak day of Jan. 5, PJM said that 28,883 MW of gas generation was available and "mechanically able to operate but may not be scheduled based on economics."

"While a unit may be 'mechanically able to operate,' this is no indication of whether the output of that unit would be deliverable to serve load," the RTO said.

In April, PJM unveiled a three-phase plan to value fuel security in its markets, and on Nov. 1 it released the summary of a "stress test" study indicating the RTO should develop a market mechanism to compensate fuel security. (See *PJM Begins Campaign for 'Fuel Security' Payments*.)

NETL Response

But NETL responded Nov. 7 that PJM's analysis of its performance remains flawed for several reasons. Among them, the lab said aggregation of available resources at the RTO level was inappropriate because it didn't account for pipeline and transmission constraints.

"Total reserves were likely more than adequate in the aggregate; however, considering gas limitations and forced outages, functional and truly operable reserves were likely significantly less, on the order of half or less that of the reported reserves," NETL wrote. "There was only 601 MW of idle fuel secure generation within the entire footprint at peak, with the balance providing some level of service to the system."

Additionally, gas price spikes made it not only uncompetitive with coal but a lesser alternative to fuel oil, usage of which increased 455% during the bomb cyclone to 111 GWh, NETL said.

"For the last several days of the bomb cyclone, natural gas prices exceeded $20/MMBtu, allowing oil generation to displace gas-fired generation at a price equal to seven times the early December 2017 average PJM natural gas price for generation."

PJM Reaction

But PJM stood by its original analysis.

"NETL seems to take PJM to task for not relying more on coal. However, NETL continues to erroneously conclude that the relative economics of coal and nuclear vs. natural gas during the cold snap, which drove the dispatch of coal units, indicates that the system would have faced shortfalls leading to interconnect-wide blackouts," PJM wrote in an email to *RTO Insider*.

"PJM had adequate amounts of resources to supply power — the price of natural gas relative to coal and nuclear during the cold snap drove the dispatch decisions. … Our analysis of the cold snap showed that, with excellent coordination and cooperation with our members, the grid in the PJM footprint is diverse and strong and remains reliable." ■

PJM News

PJM Reiterates Support for Embattled Transource Project

By Rory D. Sweeney

PJM's highly anticipated re-evaluation of its largest-ever congestion-reducing transmission project reiterated staff's analysis that the project's economic benefits to the region exceed its costs.

The $366.17 million project proposed by Transource Energy — the Independence Energy Connection — would consist of two separate 230-kV double-circuit lines, totaling about 42 miles, across the Maryland-Pennsylvania border. One line would run between the Ringgold substation in Washington County, Md., and a new Rice substation in Franklin County, Pa.; the other would run between the Conastone substation in Harford County, Md., and a new Furnace Run substation in York County, Pa.

The RTO published its findings in a *white paper* released Thursday that showed a final benefit-cost ratio of 1.4, down slightly from the 1.42 staff reported at the September meeting of the Transmission Expansion Advisory Committee.

The slight decrease is attributable to a roughly $8 million increase in the project's 15-year annual revenue requirement to $505.85 million. The benefit — measured in decreased load costs — held steady at $707.29 million.

The actual estimated project costs increased from $366.17 million at the TEAC meeting to $372.2 million in the white paper.

The 1.4 ratio is still higher than the previous 1.32 evaluation from February and well above the RTO's 1.25 threshold to consider projects. The current analysis shows that without the project, reliability violations will materialize as early as 2023 on three 115-kV lines in Adams County, Pa., the 500-kV Peach Bottom-Conastone line and the 500/230-kV transformer at Three Mile Island.

The project will also increase the ability to import power into the Baltimore Gas and Electric locational deliverability area.

Opposition

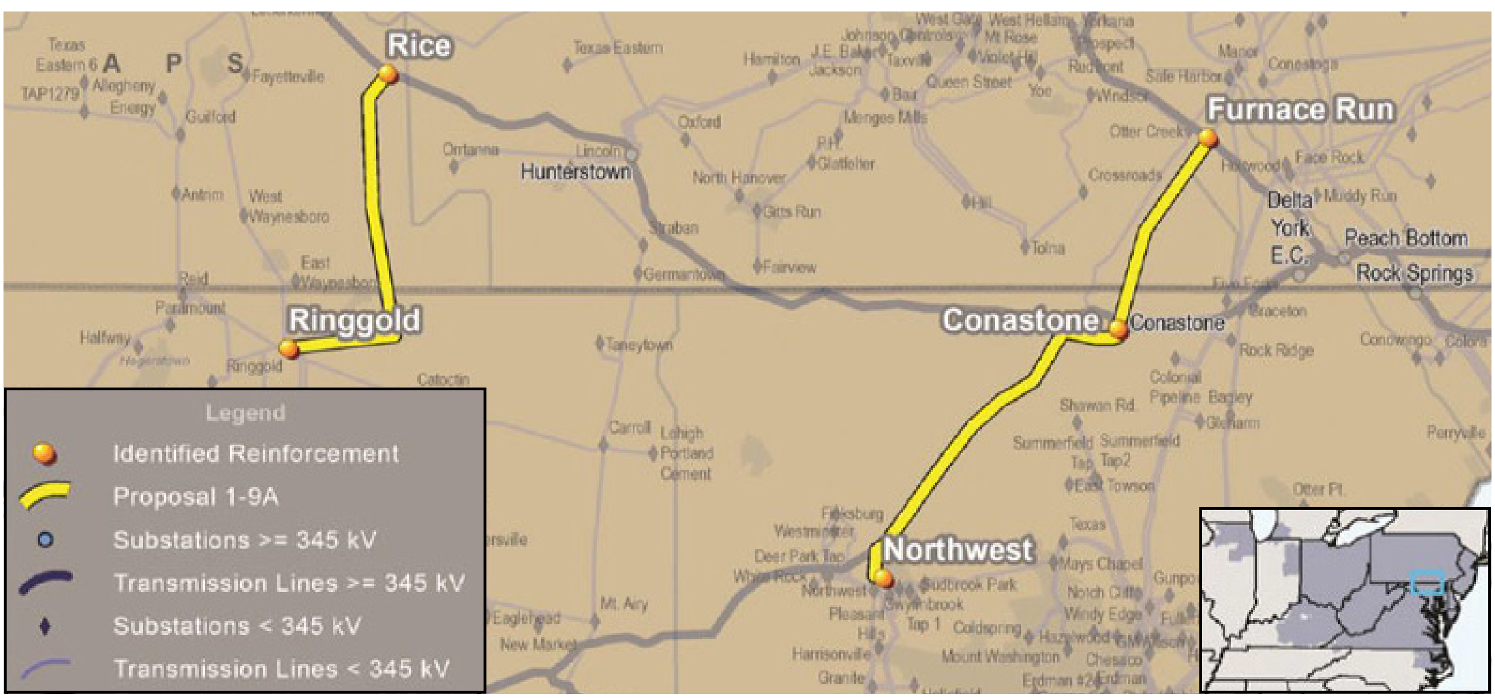
Residents of the region where the lines are planned attended the September TEAC meeting to register their objections, but staff pointed them toward the ongoing project proceedings being held in both states. (See *PJM Redirects Residents' Protests of Tx Project to States*.)

The inclusion of newly identified reliability benefits has done little to sway the residents' opposition, who believe it's a ploy to avert the project's potential failure at the state level.

"Faced with near certain failure, PJM is trying to reposition the IEC as a reliability project," Pennsylvania resident Barron Shaw wrote in a recent blog *post*. "This is a desperate assertion made by an organization that has no credibility remaining. ... Why would anyone believe PJM's assertion that this project was suddenly all about reliability? The load forecast for the target market is flat, and every year the forecast is decreased. New high-voltage lines in York and Harford County have been constructed and are operating at less than 50% capacity. Recent and pending upgrades to move power across the grid in Maryland have drastically cut electrical congestion. The project is simply not needed."

Shaw also accused PJM of fixing the ratio analysis and decried the millions of dollars taxpayers and ratepayers are already on the hook for, whether the project ever gets built or not.

"PJM allowed Transource to announce their new cost estimates one month after PJM announced their recalculated benefits for the project, in effect giving Transource the ability to provide the 'right' answer and save the project from cancellation," he said. "This project is dead, and it is time that PJM admits it and moves on ... before people begin to question why PJM is needed at all." ■



Once referred to as the AP South Congestion Improvement Project, Transource's Independence Energy Connection project would consist of two lines. The western portion would run from the Ringgold substation in Maryland to the Rice substation in Pennsylvania. The eastern line would run from the Conastone station in Maryland to the Furnace Run station in Pennsylvania. | *PJM*

PJM News

Advocacy Group Seeks CFTC Oversight of PJM FTRs

By Rory D. Sweeney

Tyson Slocum, director of Public Citizen's Energy Program, believes PJM's embattled FTR market needs additional federal oversight. | © *RTO Insider*

A public advocacy group is urging the Commodity Futures Trading Commission to start overseeing PJM's embattled financial transmission rights market after a massive default that could saddle stakeholders with more than $180 million in costs.

Public Citizen Energy Program Director Tyson Slocum made the request both in a *letter* to CFTC Chairman J. Christopher Giancarlo and a filing in the docket of a DC Energy complaint before FERC seeking immediate changes to PJM's credit requirement (*EL18-170*).

In the complaint, DC Energy seeks to fast-track changes to PJM's FTR credit policy to forestall what has become a historic portfolio default by GreenHat Energy, causing substantial tension between the RTO and its stakeholders and prompting an investigation by its Board of Managers. (See "GreenHat Default Update," *PJM Market Implementation Committee Briefs: Nov. 7, 2018*.)

On Sept. 25, FERC accepted a PJM filing to impose a 10-cent/MWh minimum monthly requirement on FTR portfolios (ER18-2090) and established a *paper hearing* in the complaint "to determine whether the Tariff is unjust and unreasonable even with PJM's new Tariff revision in place." Comments on the hearing were due Nov. 9.

CFTC Exemption

Slocum argues that CFTC's 2013 decision to exempt FTRs from its jurisdiction was made on the condition that it could "suspend, terminate or otherwise modify or restrict" its order as conditions warranted. GreenHat's default coupled with PJM's subsequent handling and FERC's inaction means CFTC must get involved, according to Slocum.

"It appears PJM's catastrophic failure to properly oversee its FTR market, combined with PJM's misrepresentation of key facts in its [request for the CFTC exemption], should result in the CFTC suspending the exemption it granted," he wrote. "Furthermore, FERC's refusal to take minimum steps to assert regulatory control over the situation forces Public Citizen to conclude that only the CFTC is in a position to protect consumers from abuses in FTR markets going forward."

Calling PJM's staff "incompetent" and "clearly unprepared and overmatched" to handle FTRs, Slocum said any FERC effort to revise credit requirements "will be meaningless" under PJM's "lax" oversight, which is "by design." He noted several examples of what critics have seen as PJM's mishandling of the situation, including failing to increase credit requirements and apparent bungling attempts to seek additional collateral from GreenHat.

Slocum said the conditions of the CFTC exemption appear to have been broken on several counts. First, Public Citizen could find no clear evidence that PJM's Independent Market Monitor was "directly involved" in the negotiations seeking additional collateral as CFTC's order requires. Additionally, GreenHat was purely a financial trader that could not be categorized as among the "commercial participants that are in the business of generating, transmitting and distributing electric energy" that the exemption allows.

No Transparency

Slocum also pointed out that while companies seeking to participate in PJM's competitive energy markets must seek FERC approval to do so and subject themselves to public scrutiny and comment, FTR market participants need only register with the RTO.

"PJM does not offer public notice and comment of FTR applications, and it does not condition their approval by first offering the public an opportunity to inspect the applications," he wrote. "Had Greenhat been required to submit its ownership structure to public notice and comment at FERC, then groups like Public Citizen would have had an opportunity to raise serious concerns about a firm owned by two former JP Morgan traders directly implicated in one of the most brazen market manipulation schemes in history obtaining authorization to trade FTRs." (See *GreenHat: (Some of) the Rest of the Story*.)

Slocum noted that another former trader in PJM's FTR markets, Tokamak Energy Partners, was founded by the head of power trading for Deutsche Bank during the period the company was caught manipulating the California power market.

"Who knows how many frauds and market manipulators have set up shop to trade FTRs. FERC doesn't know, because FERC effectively has ceded regulatory jurisdiction to PJM, and PJM operates its FTR market with little to no public transparency," he wrote.

A PJM spokesperson confirmed that the RTO will be filing a response to the Public Citizen complaint, but the content of that response has not been finalized. ■

SPP

Mont. Wind Farm Exempted from Frequency Response Rule

By Amanda Durish Cook

Montana-Alberta Tie-Line | *Enbridge*

FERC ruled last week that an existing Montana wind farm awaiting a new interconnection is exempt from a recent commission order requiring all new generators to be capable of providing primary frequency response.

The commission's Nov. 15 ruling said Order 842 does not apply to NaturEner's Glacier Wind Farm II, which has been in the queue for Enbridge's Montana-Alberta Tie-Line (MATL) since 2013 and currently the only resource to *request* to join the 214-mile, 230-kV AC *line* extending from Lethbridge, Alberta, to Great Falls, Mont. (*ER18-1788*). The wind farm began operating in SPP in 2009.

Order 842 requires all new generators to be capable of providing primary frequency response as a condition of interconnection. The rule has been in effect since May.

Enbridge's U.S. operating subsidiary for the line, MATL LLP, asked the commission to clarify that Order 842 does not apply to the pending interconnection request, saying the wind farm applied for interconnection and was studied before the rule was issued. The company said requiring frequency response service would "cause significant equipment installations and system restudies that would cause unduly burdensome delays and expenditures." MATL estimated that restudies would cost anywhere from $15,000 to $20,000 and take three to six months.

FERC assured the company that the rule does not apply to the existing generator. The commission pointed out that MATL's pending request involves a generator that has already been in operation under another interconnection agreement for about nine years and has been lined up for interconnection for five years, well before the issuance of the final rule. FERC also said the wind farm has not taken "any action that requires the submission of a new interconnection request."

MATL noted that its has nearly completed the associated interconnection studies with NaturEner and expects to proceed with the negotiation of an interconnection agreement in the near future. ■

FERC & Federal News

Democrats Urge McNamee's Recusal from Resilience Docket

Continued from page 1

fuels. (See *Trump Nominates DOE's McNamee to FERC*.) He returned to the department in his current role in June.

Sen. Catherine Cortez Masto (D-Nev.) asked McNamee whether he would recuse himself "from any issue related to the grid resiliency proposal." McNamee responded, "I understand that the docket in which that proposal was offered has been closed, and I need to consult with ethics counsel about whether or not I could further participate in the issues. ...

"The issue of resilience is constantly coming before FERC, and so I need to consult with ethics counsel to understand what I could or could not participate in," he said.

Sen. Angus King, an independent from Maine who caucuses with the Democrats, picked up this line of questioning later in the hearing.

"I'm surprised you didn't give a direct answer to Sen. Cortez Masto," King said before quoting the *section* of the U.S. Code concerning recusals. "I don't understand any argument where you would have to consult any counsel anywhere on Earth to understand that you have a conflict of interest when it comes to this issue of this so-called Grid Resiliency Pricing Rule, or any version thereof." King asked again whether McNamee would recuse himself.

McNamee responded: "I believe that the statute that you read refers to a specific proceeding, and I would want to talk with counsel or ethics advisers..."

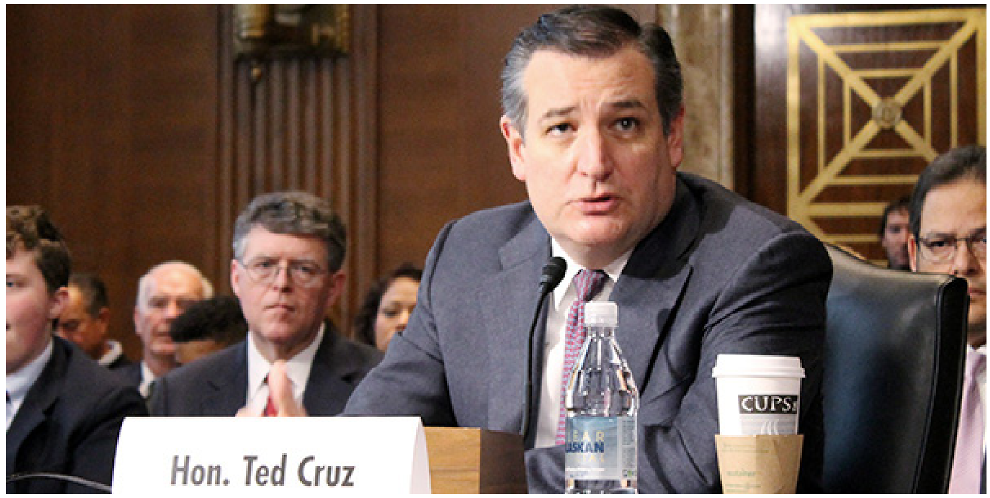
King interrupted him, noting the law says "'expressed an opinion concerning the merits of the particular case in controversy.' You have clearly expressed opinions on the merits of this issue repeatedly and in fact before this committee."

McNamee said it would depend on what specific issue came before the commission and again said he would consult ethics advisers.

"I'm surprised and disappointed that you feel that you have to consult with counsel on something that's so clear," King replied.

After lambasting the NOPR, Sen. Ron Wyden (D-Ore.) said McNamee's nomination wasn't "like the fox guarding the chicken coop. This is like putting the fox inside the chicken coop."

"I think that FERC has a tradition of making decisions, not based on whether they're



Sen. Ted Cruz (R-Texas) introduces his former aide Bernard McNamee, President Trump's nominee to FERC, before the Senate Energy Natural Resources Committee. | *© RTO Insider*

Republican or Democrat though they may be nominated as such, but making them based on working together and what's the right thing to do, and my pledge to you is that I will work in that fashion," McNamee responded.

"I believe you ought to recuse yourself, if you are [confirmed], on matters that deal with the specifics of what got such a resoundingly negative response earlier," Wyden replied.

Most of the two-hour-plus hearing was not devoted to McNamee, as the committee also considered the nominations of Rita Baranwal and Raymond David Vela, Trump's nominees to be DOE's assistant secretary of nuclear energy and director of the National Park Service, respectively.

Committee Chair Lisa Murkowski (R-Alaska) said she plans to advance the nominees to the Senate floor shortly after Thanksgiving so they can be confirmed before the current Congress adjourns at the end of the year. If they are not voted on by then, Trump would need to resubmit them next year.

"I really don't want to see all the good effort that this committee has put into advancing these nominees fall by the wayside," she said, addressing committee members. "So I would ask that you all work with me to clear the nominations in [our] jurisdiction before the end of the year."

'Impartial Arbiter'

McNamee told the committee that he understood the importance of FERC's independent, apolitical status, and the difference between his work at DOE and the role of commissioner.

"If confirmed, I commit that I will be a fair, objective and impartial arbiter in the cases and issues that would confront me as a commissioner," he said in his opening statement. "My decisions will be based on the law and the facts, not politics. And I don't just say this because I'm trying to get your vote; it's something I believe."

King and Sen. Tina Smith (D-Minn.) quoted from an op-ed McNamee wrote for *The Hill* in April: "Some suggest that we can replace fossil fuels with renewable resources to meet our needs, but they never explain how."

"As I am grappling with your ability to be a neutral arbiter of the facts and this very important role at FERC, can you just explain to me how you would do that given what appears to me to be a bias?" Smith asked.

McNamee pointed to his time as an energy lawyer with Virginia-based McGuireWoods, during which he said he helped get three utility-scale solar facilities built in the state. He also said he worked on Virginia's and North Carolina's renewable portfolio standards.

"So I understand the role that renewables can play in our electric mix," he said. But "I think the primary thing for FERC is to make sure that they're not picking and choosing what the resources should be but ensuring that the markets are able to function so that resources can compete and that the market decides what's the right resource."

FERC & Federal News

But McNamee also dodged efforts by coal-state senators — Joe Manchin (D-W.Va.), John Barrasso (R-Wyo.) and John Hoeven (R-N.D.) — to get him to tout the importance of coal-fired plants to reliability.

He also distanced himself from Trump's June 1 order to Energy Secretary Rick Perry to prevent further coal and nuclear plant closures under both Federal Power Act Section 202c and the Defense Production Act of 1950. (See *Trump Orders Coal, Nuke Bailout, Citing National Security*.) Asked by Sen. Martin Heinrich (D-N.M.) whether he believed that there was an urgent threat to the grid, McNamee said, "The secretary currently has not issued a 202c, and I have no reason to second-guess his determination about whether or not there is an emergency currently. And it does not appear at this point on a general, nationwide basis that there's an emergency."

"So that would be a 'no'?" Heinrich asked.

"It's only a 'no' in that I don't have access to all the information the secretary does," McNamee replied.

The status of Trump's order with DOE is unknown; reports surfaced last month that the department has tabled it in the face of free-market conservative backlash. Its details are only known through a memo that was leaked in May. When asked about it by Heinrich, McNamee said he was not with the department when the memo was drafted. "My understanding is that it's in the intergovernmental process. I've not been involved in that process for the past few months."

The committee also considered Rita Baranwal (left) and Raymond David Vela (right), Trump's nominees to be the Energy Department's assistant secretary of nuclear energy and director of the National Park Service, respectively. | © *RTO Insider*

Speaking to reporters after the hearing, Murkowski said she was satisfied with McNamee's responses regarding the NOPR. "What I took away was that his role when he was at the Department of Energy was to take the secretary's directive and to draft that policy. His role at the FERC would be different than that, and I would expect that he would respect those lanes.

"As far as the recusal issue goes, I think it is appropriate that he would consult with counsel. He stated clearly that that case he had worked on … has been closed down. So if it is a question as to that, then it seems to me you've got a recusal issue going on. But if it's a question as to something else that spins off from it, is it something that would require a recusal? I think that's where you get your lawyers in there, and you make clear one way or another. And he said he would follow that guidance, which is the appropriate course." ■

FERC: Order 845 Compliance Unaffected by Rehearing Bids

FERC last week clarified that rehearing requests on its April 19 order revising its pro forma large generator interconnection procedures did not affect transmission operators' compliance obligations spelled out in the order (*RM17-8-002*).

Order 845, which set new rules to increase the transparency and timeliness of the interconnection process, took effect July 23, 75 days after its *publication* in the *Federal Register*. (See *FERC Order Seeks to Reduce Time, Uncertainty on Interconnections*.)

The order required transmission providers to submit compliance filings adopting the rule's requirements as revisions to their large generator interconnection procedures (LGIP) and large generator interconnection agreements (LGIA) within 90 days of the publication.

On June 18, however, the commission issued a procedural order giving itself more time to consider about 20 rehearing requests on the rulemaking. On Oct. 3, the Office of the Secretary issued a notice granting a motion by the Edison Electric Institute to delay the compliance filings until 90 days after the commission rules on rehearing.

Blue Canyon wind farm | *EDP Renewables*

The American Wind Energy Association challenged the secretary's notice, arguing that extending the deadline for compliance filings was a departure from commission precedent that rehearing requests do not stay commission orders. AWEA said the extension notice effectively stays Order 845 "indefinitely until a rehearing request is issued."

But the commission said the extension notice "does not change or stay Order No. 845's effective date, but simply extends the date that compliance filings are due."

Order 845 adopted all but four of 14 potential rule changes in the commission's December 2016 Notice of Proposed Rulemaking revising the pro forma LGIP and LGIA. The rulemaking, which was prompted by AWEA's complaint over backlogs in interconnection queues, applies to generators larger than 20 MW. ■

— Rich Heidorn Jr.

FERC & Federal News

Revised NERC GMD Standard Approved

By Rich Heidorn Jr.

FERC on Thursday approved NERC's revised geomagnetic disturbance reliability standard, which broadens the definition of GMDs, requires grid operators to collect certain data and imposes deadlines for corrective actions (*RM18-8, RM15-11-003*).

NERC created Reliability Standard TPL-007-2 (Transmission System Planned Performance for Geomagnetic Disturbance Events) in response to FERC's directives to improve how its initial GMD standard, approved in 2016, addressed the risks from "locally enhanced" events. (See *FERC Pushes NERC Further on GMD Rules*.)

Thursday's order (Order 851) directed NERC to revise the standard further to require the implementation of corrective action plans for responding to vulnerabilities to "supplemental" GMD events and to authorize case-by-case extensions of deadlines on corrective action plans. The commission also accepted NERC's revised GMD research work plan.

'Supplemental' GMD Events

GMDs occur when the sun ejects charged particles that cause changes in Earth's magnetic fields, potentially causing geomagnetically induced currents (GIC) that can cause voltage instability or collapse, damaging connected equipment.

NERC's original standard required applicable entities — planning coordinators, transmission planners, transmission owners and generation owners connected at 200 kV or higher — to assess the vulnerability of their transmission systems to a "benchmark GMD event." The benchmark was defined as a one-in-100-year event that would cause an 8-V/km "reference peak geoelectric field amplitude" at 60 degrees north geomagnetic latitude using Quebec's ground conductivity.

Entities that fail to meet certain performance requirements based on the results of the benchmark assessment must implement corrective action plans.

The new standard addresses FERC's directive to revise the benchmark GMD event definition so that it is not based solely on the averaging of magnetometer readings over a geographic area. Going forward, entities will have to conduct vulnerability and thermal impact assessments on "supplemental" events.

NERC defined the supplemental GMD event using individual station measurements rather than spatially averaged measurements, acknowledging that geomagnetic fields during severe GMD events can be "spatially non-uniform" with localized peaks that could affect reliability. The supplemental GMD event definition contains a higher, non-spatially averaged reference peak geoelectric field amplitude component than the benchmark event definition (12 V/km versus 8 V/km).

The new rule also requires the collection of GIC monitoring and magnetometer data and adds a one-year deadline for the completion of corrective action plans and two- and four-year deadlines for completing mitigation involving non-hardware and hardware, respectively.

GMD storm in Fairbanks, Alaska, April 2011 | *NASA*

Case-by-Case Review

NERC had proposed allowing entities to exceed deadlines for corrective actions when "situations beyond the control of the responsible entity [arise]," which FERC said was inconsistent with its prior directive that extensions be considered on a case-by-case basis.

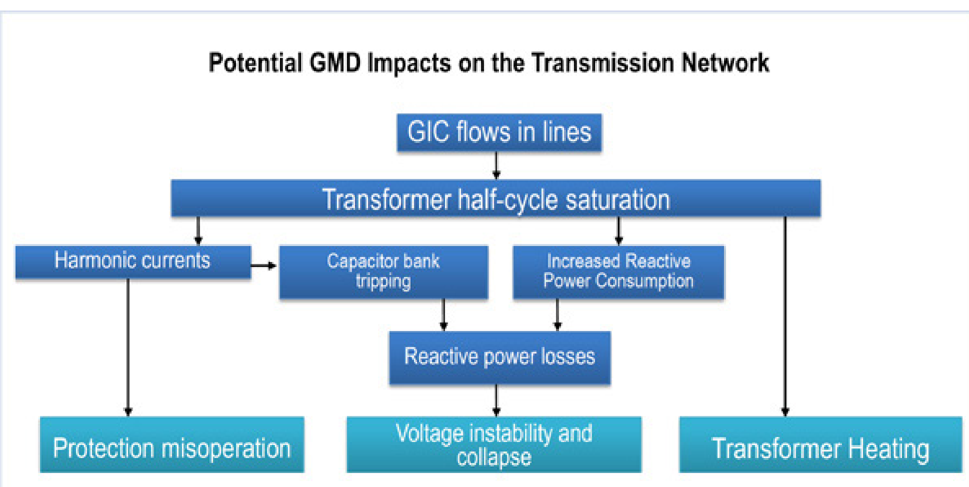
"While we generally agree with the standard of review that NERC states it will use to assess the merits of extension requests, we conclude that such assessments should be made before any time extensions are permitted," the commission said. "By requiring prior approval of extension requests, the modified reliability standard will limit the potential for unwarranted delays in implementing corrective action plans while also providing NERC with an advance and more holistic understanding of where, to whom and for how long extensions are granted."

Additional Directives

FERC said NERC did not go far enough in the revised standard, which requires entities to assess supplemental GMD event vulnerabilities but not to implement corrective action plans to address them. NERC would have required entities only to make "an evaluation of possible actions to reduce the likelihood or mitigate the consequences and adverse impacts of the events if a supplemental GMD event is assessed to result in cascading."

FERC disagreed with commenters who said requiring corrective action plans is premature. "We see no basis, technical or otherwise, for not requiring corrective action plans for assessed supplemental GMD event vulnerabilities," the commission said.

The rule is effective 60 days after publication in the *Federal Register*. ■



Potential impacts of geomagnetic disturbances on the transmission system | *PJM*

FERC & Federal News

FERC Acts on Tax Cuts

Transmission owners will be required to reduce their rates to reflect reduced corporate income taxes under a Notice of Proposed Rulemaking issued by FERC on Thursday (*RM19-5*).

The NOPR is a response to the December 2017 Tax Cuts and Jobs Act, which cut maximum corporate income tax rates to 21% from 35%.

It would require public utility transmission providers with rates under an Open Access Transmission Tariff, a transmission owner tariff or a rate schedule to modify the accumulated deferred income taxes (ADIT) incorporated in their rates. ADIT is used to account for timing differences between the computation of taxable income for reporting to the IRS and that used for regulatory accounting and ratemaking.

TOs with formula rates would be required to deduct excess ADIT from their rate bases and complete a new worksheet annually to track ADIT. Utilities with stated rates would be required to return any excess ADIT to customers.

In related actions, FERC also:

- Issued a policy statement providing guidance on how other FERC-jurisdictional public utilities, natural gas pipelines and oil pipelines handle the accounting and ratemaking treatment of ADIT (*PL19-2*);
- Approved Edison Electric Institute's request for accounting guidance on recording a reclassification of any stranded tax effects from the law (*AC18-59*);
- *Acted* on 46 of the Federal Power Act Section 206 show-cause investigations initiated in March, when the commission directed utilities whose transmission tariffs reference tax rates of 35% to reduce the rates to 21% or show why they did not need to do so; and
- Accepted three interstate natural gas pipeline rate reductions and one settlement in response to Order 849, which requires pipelines to provide a one-time report estimating their returns on equity before and after the new tax law and changes to the commission's tax allowance policies. The rate reductions involved Millennium Pipeline (*RP19-65*), North Baja Pipeline (*RP19-71*) and Vector Pipeline (*RP19-60*).

Commissioner Richard Glick said he was troubled by a clause in the settlement with Kern River Gas Transmission (*RP19-55*) that would undo its rate reduction if FERC initiates a rate proceeding in the future under Section 5 of the Natural Gas Act.

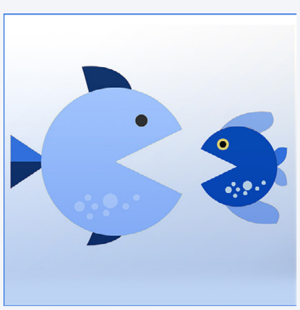
"In my opinion, Kern River in this settlement is essentially holding the commission hostage," Glick said. "What I think this really highlights is the fact that the Natural Gas Act doesn't have a refund provision like the Federal Power Act does. So, again, I want to call on Congress to add a refund provision to the Natural Gas Act which mirrors the refund provision in the Federal Power Act so that we can ensure that consumers are protected."

Senate Majority Leader Mitch McConnell, House Speaker Paul Ryan and Vice President Mike Pence celebrated the passage of the corporate tax cut with President Trump in November 2017. | *The White House*

Comments on the NOPR will be due 30 days after date of publication in the *Federal Register*. ■

— Rich Heidorn Jr.

FERC Proposes $10M Threshold on Merger Reviews



| *123rf*

FERC would no longer review mergers valued at less than $10 million under a Notice of Proposed Rulemaking issued Thursday (*RM19-4*). The NOPR would implement congressional direction under an amendment to Section 203 of the Federal Power Act.

"The commission interprets the amendment … as establishing a $10 million threshold, but not removing the commission's jurisdiction to review transactions with a higher value that involve a public utility's acquisition of facilities from nonpublic utilities if those facilities will be subject to the commission's jurisdiction after the transaction is consummated," FERC said.

The NOPR also would require mergers or consolidations by public utilities valued at more than $1 million to notify the commission of the transactions.

"Although the [smaller] transactions … are unlikely to present concerns under the commission's public interest analysis and public utilities entering into these transactions are not required to secure an order of the commission … the information the commission proposes to require in the notification filing will allow the commission to collect information about the transaction should a question arise related to the underlying facilities and the commission's oversight under the Federal Power Act," FERC said.

"This may seem like just a simple legislative change, but its impact in relieving administrative burdens on regulated entities is significant," Chairman Neil Chatterjee said.

Comments on the NOPR will be due 30 days after its publication in the *Federal Register*. ■

— Rich Heidorn Jr.

FERC & Federal News

DOE Workshop Gathers Input for Tx Congestion Study

By Rory D. Sweeney

| © RTO Insider

Amid an uptick in spending on transmission infrastructure that has attracted increased scrutiny from those paying the bills, customers and developers met Thursday for a workshop on how to get to the grid of the future.

The Department of Energy convened the *daylong session* at the National Rural Electric Cooperative Association's conference center in Arlington, Va., to gather information for the department's 2019 electric transmission congestion study.

Ed Tatum | *© RTO Insider*

American Municipal Power's Ed Tatum summed up what transmission customers want: "Sunshine is the best."

Tatum wasn't alone in his call for transparency. Traci Bone, an attorney with the California Public Utilities Commission, took issue with transmission projects that receive little or no RTO review. Known as supplemental projects in PJM, they are usually developed by incumbent transmission owners within their own zones to address their own planning criteria. (See *FERC Upholds PJM TOs' Supplemental Project Rules*.)

She noted FERC's rejection in September of a complaint by the CPUC and others who argued that Pacific Gas and Electric and Southern California Edison are violating Order 890's transparency provisions because much of their transmission planning is done without stakeholder input or review. (See *'Asset Management' not Subject to Order 890, FERC Rules*.)

It's "very concerning" that FERC has taken "such divergent views" from ratepayers, she said.

During audience questions following Bone's panel, Exelon's David Weaver criticized it as "a very one-sided panel" and said the decision to spend on resilience and security upgrades is not as straightforward as addressing reliability criteria.

"I think it can be perceived that wrong investments are being made," he said.

"Not so much that they're making the wrong investments, but we don't know what investments they're making," Bone responded. "We need to have a say in that."

LS Power's Sharon Segner, who was also on the panel, argued for increased competition for transmission projects. Following a stakeholder campaign led in part by Segner earlier this year, PJM has begun considering developers' cost-containment guarantees as part of its analysis of competitive transmission proposals. (See *Cost Containment Clears MC Vote Despite PJM Plea*.)

Segner noted that eight states — North Dakota, South Dakota, Minnesota, Oklahoma, Nebraska, Alabama, North Carolina and Indiana — have passed right of first refusal laws "to thwart Order 1000" and FERC's efforts to introduce competition. Order 1000 eliminated ROFRs from FERC-approved tariffs and agreements, but the commission says it is powerless to block states from enacting such laws to protect incumbents' monopolies.

Public Engagement

The workshop also looked at the importance of public engagement in getting large interregional projects completed. Dan Belin, of engineering firm Ecology & Environment, compared the permitting processes of the Great Northern Transmission Line — to link Minnesota with Manitoba's hydro resources — and Northern Pass, which would have delivered Quebec hydropower into New England.

Great Northern "had a very robust public-involvement program" that included engagement with the Minnesota Department of Commerce prior to submitting its application, Belin said. The project was approved within the state Public Utilities Commission's statutory 15-month timeline.

Northern Pass held no meetings prior to submitting its application. The filing attracted 9,000 public comments, and the seven-year review eventually ended in rejection by New Hampshire.

"That significantly draws out the process," Belin said. "The public involvement piece was a big differentiator between the two projects."

"What we saw in Minnesota is not typical and it should be more typical," said Rich Sedano, president of the Regulatory Assistance Project.

He described transmission development as "a

FERC & Federal News

public process that is largely shielded from the public" and advocated for improving transparency and public engagement. The process should also remain within state authority, and the industry should "accept the stress it's going to cause," he said.

Bess Gorman, assistant general counsel with National Grid, suggested involving the public in the tangible benefits of projects, such as finding ways to include them in benefiting from cost savings.

"As much as you can do," she said of the need for public engagement. "That's how you're going to get the project through."

Rob Gramlich | © *RTO Insider*

Rob Gramlich, president of consulting firm Grid Strategies, credited transmission expansions such as MISO's multi value projects, highway/byway projects in SPP and ERCOT's Competitive Renewable Energy Zones with precipitating the growth in renewables.

"I don't think we would have half of the wind industry that we have without these plans in the middle of the country," he said.

Culture Change

Others discussed difficulties winning approval for interregional projects. EDF Renewables' Omar Martino described a "quadruple hurdle" for one project that required satisfying individual criteria of MISO and SPP and their mutual criteria in addition to securing local approval. The host utility vetoed the project, he said, because it preferred to use an operating guide.

"Something is just not right," he said. "There's a gap that needs to be fixed."

He and others called for culture changes at decisional bodies throughout the process.

"You have to create these programs ... inside utilities, inside the RTOs. You also have to have the right culture, the right leadership, the right guidance," he said.

Gramlich said "the concepts are generally in Order 1000" for interregional planning, "but it didn't get the job done," and decisions since then have "weakened" it.

"Nobody wants to pay for something they don't benefit from, so there's a healthy skepticism in the RTO process," he said.

On Nov. 9, the Governors' Wind and Solar Energy Coalition wrote a *letter* to FERC advocating for unifying the Eastern, Western and Texas interconnections via ultra-high-voltage lines. The coalition, which includes 19 state governors, compared the proposal to creating the nation's interstate highway system 60 years ago and the $315 billion grid China is building today.

The coalition cited a *study* by Iowa State University that estimated the impact of two transmission expansion scenarios: a $40 billion investment in transmission that could allow renewable penetration to rise to 40% nationwide, and an $80 billion investment that could push renewables to 50%.

Cost Allocation

Determining how much transmission is needed and who's going to pay for it are also obstacles to such ambitious proposals.

In the first morning panel, PJM's Ken Seiler said that reliability has vastly increased from earlier in his career when "we were hanging on by our fingertips" daily during late-afternoon summer peaks.

Tatum, who shared the panel with Seiler, agreed that there's no clear measure to "know if we're over- or under-building" the grid. But he said that it is clear that developers are now making up for a "dearth of investment" in previous years. He noted that PJM is on track to add $7 billion to its Regional Transmission Expansion Plan this year, which would be the biggest addition in the plan's history.

And then there's the question of who picks up what portion of the tab.

"Everything goes really, really well until you get in to the concept of cost allocation," Seiler said. "Once you start talking about money ... that's when the discussion gets really, really tough."

Participants and audience members cited several examples of cost allocation fights, notably the ongoing debate over the Artificial Island project, PJM's first competitive project under Order 1000. (See ***Del. Group Seeks to Block Artificial Island Project***.)

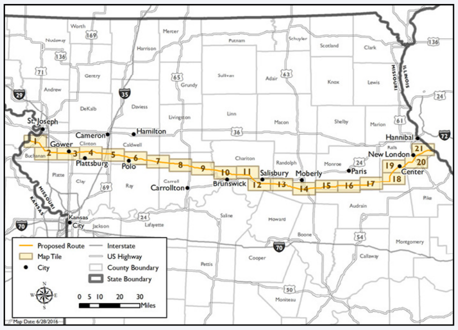
"It's really all about the cost allocation, but if you can solve that, the rest of this stuff is easier," Gramlich said.

He advocated for broad, beneficiary-pays allocations in which many stakeholders shoulder smaller portions of the bill. Still, that won't solve everything.

"There is no perfect solution for cost allocation except [to] pay a lot of lawyers for a lot of litigation," Exelon's Steve Naumann said. ■

Company Briefs

Clean Line Sells Grain Belt Express to Invenergy



Clean Line Energy Partners last week announced it has agreed to sell its Grain Belt Express project to Invenergy.

The companies did not disclose details of the deal, including the purchase price. Clean Line also did not say why it decided to sell the 780-mile HVDC project. Earlier this year the company sold the Oklahoma assets of its Plains & Eastern Clean Line project to NextEra Energy and its Western Spirit project in New Mexico to Pattern Development. Another project, the Rock Island Clean Line, was removed from the company's website.

The Missouri Public Service Commission has rejected Grain Belt three times, but the state Supreme Court remanded the case back to the commission in July. A new round of public hearings on the project is scheduled for Dec. 7-8.

More: *Energy News Network*

AEP Announces $33B Capex Plan

American Electric Power last week announced it would spend $33 billion in capital investments over the next five years in its existing infrastructure.

About 75% of the investment will be focused on its transmission and distribution assets. It also has about $2.7 billion in new renewable resources planned for the same period.

"AEP's capital investments over the next five years will be focused on advanced infrastructure, innovative technologies and cleaner generation resources," CEO Nick Akins said.

More: *Columbia Business First*

APPA CEO Kelly to Retire at End of 2019

The American Public Power Association last week announced that its CEO, **Sue Kelly**, will retire at the end of next year.

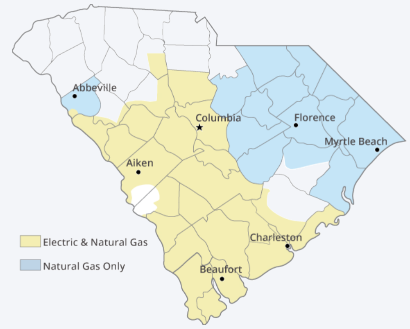
Kelly has been with APPA since 2004 and has served as CEO since 2014. The group's board of directors will begin searching for her replacement next month.

"Sue is committed to ensuring the Association continues to thrive in 2019," board Chair Coleman Smoak said. "She and her excellent staff will continue their good work throughout next year to make this a smooth transition."

More: *American Public Power Association*

Dominion CEO Threatens to Pull out of SCANA Deal

Dominion Energy CEO Thomas Farrell last week reiterated his company's stance that it would pull out of a deal to purchase SCANA if it is forced to cut subsidiary SCE&G's rates further than it has already promised.



Testifying before the South Carolina Public Service Commission, in its 11th day of hearings on the failure of the V.C. Summer nuclear expansion, Farrell said his company's offer to buy out SCANA and reduce customers' rates by an average of $10/month is the best solution for the state.

The state Office of Regulatory Staff wants to securitize SCE&G's nuclear debt and repay customers the costs of the failed project, which would lower the utility's profit.

More: *The State*

After Brief Spike, Gas Futures Plunge Back Down

Panicky gas futures traders sent prices on a roller coaster ride last week after reports showed a colder forecast for this winter one day, but higher-than-expected inventories the next.

Prices surged 18% to $4.83/MMBtu on Wednesday after news that this month would experience sustained low temperatures, heightening anxiety over already low inventories. But prices rebounded by Thursday, after the U.S. Energy Information Administration showed supplies rose by 39 Bcf.

The total gas in storage, however, is only 3.247 Tcf, 15% below the five-year average, 14% below last year and at a 15-year low.

More: *CNBC*

Federal Briefs

UCS Sues DOE, FERC over Bailout Order Info

The Union of Concerned Scientists last week sued the Department of Energy and FERC for failing to respond to its request for information under the Freedom of Information Act about President Trump's order to prevent the closure of certain power plants.

The organization said it submitted several requests to the department and commission in an effort "to determine whether outside private interests have been influencing government regulators' decisions."

"There's a glaring lack of transparency in the current administration around their repeated, failed attempts to bail out coal plants owned by the president's political supporters," said Rob Cowin, UCS director of energy and climate government affairs.

More: *Union of Concerned Scientists*

Governors Urge FERC to Lead on Unified Grid

A group of state governors last week sent a letter to FERC asking it to begin discussions with RTOs, states and stakeholders around unifying the three interconnections in the continental U.S.

The Governors' Wind & Solar Energy Coalition based their proposal off a National Renewable Energy Laboratory study, presented in July, that concluded that a single U.S. grid could lower delivery costs and ease access to renewable resources.

"Modernizing the nation's electrical transmission and distribution system is as important to our states' economic development today as creating the nation's interstate highway system was 60 years ago," the governors wrote. "It is nearly impossible to transmit electricity among the nation's three major grids. ... As a result, very little electricity moves among these regions, further weakening the reliability of the nation's overall transmission system."

More: *State House News Service*

TVA CEO Johnson to Retire Next Year

Tennessee Valley Authority CEO **Bill Johnson** last week told the utility's board he would retire sometime next year.

Johnson is the federally owned utility's second CEO and has served for nearly six years. He said he would stay on until his successor is found.

"You know, when I came to TVA, I didn't mean to hang around this long," Johnson said at the meeting. "But I caught the bug. I caught the TVA bug and the public power bug, and it's been a fascinating six years for me."

More: *WPLN*

DOE to Fund Advanced Coal Power Tech

The Department of Energy last week announced it will fund research and development for a new, advanced type of coal plant.

Dubbed the Coal FIRST (Flexible, Innovative, Resilient, Small, Transformative) initiative, the department said it will issue a request for proposals next year for plant designs. The plants must be 50 to 350 MW, have a more than 40% higher heating value, be capable of co-firing natural gas and integrate with storage resources. They also must have "near-zero emissions, with options to consider plant designs that inherently emit no or low amounts of carbon dioxide (amounts that are equal to or lower than natural gas technologies) or could be retrofitted with carbon capture without significant plant modifications."

"Coal-fired power plants optimized as baseload resources are being increasingly relied on as load-following resources to support electricity generated from intermittent renewable capacity, as well as to provide critical ancillary services to the grid," the department said. "In addition, wide-scale retirements of the nation's existing fleet of coal-fired power plants — without replacement — may lead to a significant undermining of the resiliency of America's electricity supply."

More: *Department of Energy*

State Briefs

ARIZONA

SRP Plans Massive Increase in Solar Use

The Salt River Project plans to increase the amount of solar it uses to serve load by 1,000 MW by 2025, officials said last week.

The amount is the maximum the utility can handle on its system without disruptions, CEO Mike Hummel told board members at a meeting. SRP currently uses about 200 MW of solar to serve its load. That's in addition to the 180 MW in rooftop solar its customers use, which is expected to grow to 300 MW over the same period.

While the Corporation Commission sets renewable standards for the state's investor-owned utilities, the board of the government-owned utility sets its own goals. The new plan means SRP will get 16% of its supply from renewables (11% from solar alone) by 2025, compared to the mandated 15% from other utilities.

More: *The Arizona Republic*

ARKANSAS

Entergy to Phase out Coal in State Under Settlement

Entergy Arkansas will close its two coal-fired power plants in the state under a settlement reached with the Sierra Club and the National Parks Conservation Association last week.

The groups had sued Entergy, alleging that the company violated the federal Clean Air Act by upgrading the plants without EPA permission and increased their emissions.

Entergy agreed to close the 1,659-MW White Bluff and 1,678-MW Independence coal plants by 2028 and 2030, respectively.

It also agreed to close the 528-MW Lake Catherine gas-fired plant by 2027.

More: *Arkansas Democrat-Gazette*

BRITISH COLUMBIA

BC Hydro: Increased Outages Stem from Extreme Weather

The increased frequency of extreme weather events has led to more outages and will only get worse, according to a new report by BC Hydro.

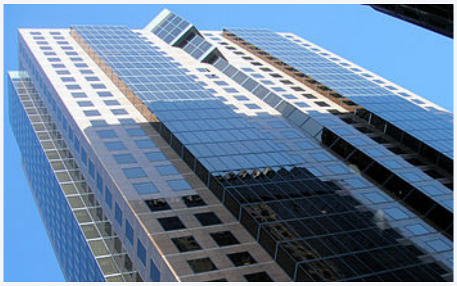
The province-owned utility said 148 storm events caused power outages for 1.18 million customers last year, up from 323,000 customers affected by 52 storms in 2013.

Nearly 60% of outages are caused by falling trees or branches, owing to the fact that the province has about three times more trees per kilometer of distribution line than any other utility in North America, according to the utility.

More: *CBC News*

CALIFORNIA

Court Denies SDG&E Appeal to Pass on Wildfire Costs



The state's 4th District Court of Appeal last week denied San Diego Gas & Electric's appeal of a Public Utilities Commission decision to reject the utility's attempt to pass $379 million to wildfire costs to ratepayers.

In affirming the commission's unanimous November 2017 decision, the court said there was ample evidence that the utility's equipment caused the deadly Witch, Geujito and Rice fires in 2007.

"SDG&E did not meet its burden to show that it reasonably and prudently operated and maintained those facilities," the court said. "In sum, SDG&E has failed to demonstrate that the [PUC] erred on the claims it asserts."

More: *San Diego Union-Tribune*

CONNECTICUT

Despite Indictments, CMEEC Reappoints Officials

The Connecticut Municipal Electric Energy Cooperative's board of directors reappointed all of the co-op's current officers at its annual meeting last week, despite the indictment of three of them in federal court the week prior.

The three officials, along with two former board members, were charged with theft of federal funds for spending U.S. Energy Department loans on lavish trips. The officials included the company's CEO and CFO and one current board member.

One board member attempted to overhaul the board's officer positions at the meeting to remove those who had gone on the trips but were not charged. He was overruled by a vote of 10-5.

More: *The Day*

DELAWARE

Delmarva Customers to See Gas Rate Decrease

Delmarva Power will reduce its natural gas rates to reflect the reduced corporate income tax rate under a settlement approved by the Public Service Commission last week.

The average customer will see a decrease of $4.36, or 4.6%, on their monthly bills beginning Dec. 8. Delmarva's gas rate reduction follows an August agreement to reduce its electricity rates by 1.2%.

More: *Delaware Public Media*

KANSAS

Kansas State Inks Wind Energy Deal with Westar

Kansas State University will power half of its Manhattan campus with wind generation by 2020 under a deal reached with Westar Energy, the school announced last week.

The electricity will be generated by the 300-MW Soldier Creek Wind Energy Center, expected to be online by 2020, and will cost a fixed rate of 1.8 cents/kWh for 20 years. The university currently pays 2.3 cents/kWh for the 113 GWh/year it consumes.

More: *The Kansas City Star*

MANITOBA

Manitoba Hydro's $52M Loss an Improvement over 2017

Manitoba Hydro posted a net loss of $52 million (about $39.5 million USD) for the first half of fiscal year 2018 — a 44% increase over the -$93 million ($70.6 million USD) it posted for the first half last year.

The province-owned utility reported a 10% increase in revenue from electricity sales off a 3.6% rate increase. It also slashed expenditures by $19 million by cutting 900 positions, following a directive by the provincial government.

More: *CBC News*

MASSACHUSETTS

NTSB: Lax NiSource Oversight Led to Explosion

The National Transportation Safety Board last week said NiSource's Columbia Gas of Massachusetts failed to properly oversee its natural gas pipeline network, which led to deadly explosions in three communities in September.

The board said a field engineer it interviewed as part of its investigation into the explosions — which killed one person, injured 21 and damaged 131 buildings — told it that he did not recognize the critical role of pressure sensors as the company was replacing cast-iron pipe with plastic lines. The engineer also did not document the location of the regulator-sensing lines that, when disconnected, flooded the system with high-pressure gas.

The state's attorney general is exploring criminal charges. The disaster was the largest natural gas-related accident since the 2010 San Bruno explosions, which damaged or destroyed 108 buildings.

More: *Reuters*

MINNESOTA

Study: State Can Economically Reach Renewables Goal

Getting 70% of its electricity from renewable resources by 2050 would be no more costly to the state than getting it from new natural gas-fired generation, a study commissioned by the state Department of Commerce found.

The Solar Potential Analysis Report, released last week, was conducted by the Center for Energy and Environment, the Great Plains Institute and Clean Power Research, and funded by the U.S. Department of Energy. It was undertaken as a result of a state law passed in 2013 that mandated a goal of 10% solar by 2030. Most of the state's renewable capacity is wind generation, with solar only making up 1.2%.

The report also found that grid reliability would not be impacted by reaching the state's renewable goals.

More: *Star Tribune*

MISSISSIPPI

Mississippi Power Requests Rate Decrease

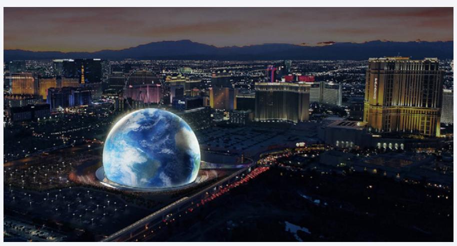
Mississippi Power last week filed a rate decrease request with the Public Service Commission, reflecting the lower cost of natural gas.

If approved by the PSC, the average customer would begin seeing a decrease of $4.14, or 3%, off their monthly bills beginning in February.

More: *Hattiesburg American*

NEVADA

Uncompleted Concert Venue Already Looking for Alt Supplier



Developers of the MSG Sphere Las Vegas, a massive, sphere-shaped concert venue under construction near The Venetian on the Las Vegas Strip, have already notified NV Energy it would not be taking standard offer service from the utility.

MSG Las Vegas filed for approval to purchase electricity from an alterative supplier from the Public Utilities Commission late last month. But while several casinos have complained about having to pay NV Energy's exit fee, MSG argued it should not have to pay, as it has never been a customer of the utility.

The venue is expected to be completed by late 2020.

More: *Las Vegas Review-Journal*

NORTH CAROLINA

Groups Seeking Limits on Utility Lobbying Spending

NC WARN and Friends of the Earth last week asked the Utilities Commission to implement new rules to prevent utilities from spending ratepayer money on lobbying, donations and political contributions.

The groups specifically allege that Duke Energy skirts the law and falsely reports its lobbying spending as coming from shareholders and employees.

"The claims by this organization about our company are patently false and misleading," Duke said in response to the filing. "The dollars used to fund these efforts are funded by shareholders in accordance with the law."

More: *WFAE*

NORTH DAKOTA

Overcapacity Crowd Delays County Hearing on Wind Farm

The Burleigh County Planning and Zoning Commission last week was forced to reschedule a public hearing on the proposed Burleigh-Emmons Wind Farm, as space in the Bismarck City/County Building ran out for residents wishing to testify.

The 300-MW facility by Pure New Energy USA would consist of 70 turbines over about 15,000 acres. Many residents who arrived to speak at the hearing wore red T-shirts with a wind turbine crossed over with the no-symbol in white and said they were against the project.

More: *The Bismarck Tribune*