# RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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ISSN 2377-8016 : Volume 2018/Issue 30 July 24, 2018


# Peak Reliability to Wind Down Operations

*By Robert Mullin*

Peak Reliability shook the West on Wednesday, saying it will wind down its role as a reliability coordinator (RC) and withdraw from an effort to develop a regional electricity market competing with CAISO.

The Vancouver, Wash.-based company said it expects to shut its doors as early as Dec. 31, 2019, after transitioning its customers to other RCs. It was feedback from those customers commenting on Peak's budget discussions that prompted the move to cease operations, according to CEO Marie Jordan.

"At this point, we've received overwhelming feedback from a supermajority of our funders that there's more support for the wind-down budget scenario and the wind-down of Peak," Jordan said during a call to

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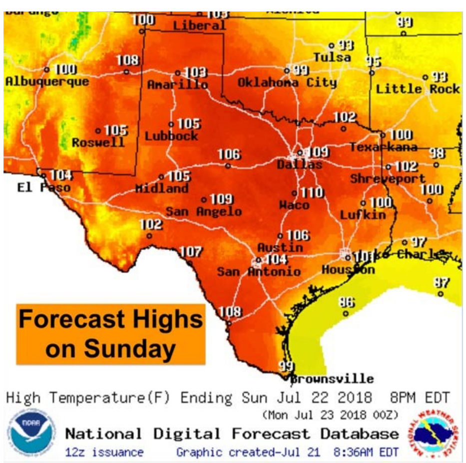


## ERCOT Shatters Demand Records as Texas Bakes (p.11)

# DOE Rejects NARUC Invites on Coal, Nuke Bailout

*By Rich Heidorn Jr.*

SCOTTSDALE, Ariz. — State regulators were forced to scramble the programming at their summer meeting last week when Department of Energy officials belatedly rejected invitations to talk about the Trump administration's proposed coal and nuclear bailouts.

The National Association of Regulatory Utility Commissioners invited officials from DOE's Office of Fossil Energy and Office of Nuclear Energy to speak on a panel July 17 on Trump's directive to subsidize at-risk nuclear and coal generators ("When the

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## More from NARUC Summer Policy Summit

| © RTO Insider



# FERC Rethinking DFAX for Stability Tx Projects

*By Rory D. Sweeney*

FERC on Thursday signaled a change in its thinking about how RTOs should allocate costs for projects that improve grid stability, reopening proceedings regarding PJM's controversial Bergen-Linden Corridor (BLC) and Artificial Island projects in New Jersey.

For reliability projects, PJM assigns 50% of the costs of regional facilities (500-kV lines or higher and double 345-kV lines) and "necessary" lower-voltage facilities required to support regional lines on a load-ratio share basis. The other 50% is allocated using the solution-based distribution factor (DFAX) method. All costs of lower-voltage facilities not supporting regional lines are allocated via DFAX.

Complaints against both projects argued that the DFAX method failed to align allo-

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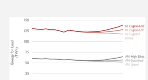
## 2nd Load Shed of PJM's CP Era Follows Closely on 1st (p.23)

## FERC News



FERC Commissioner Robert Powelson's colleagues celebrated his tenure on Thursday. | *FERC*

## Also in this issue:









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# In This Week's Issue



NARUC Summer Policy Summit

# Gas Industry Plays Defense

*By Rich Heidorn Jr.*

SCOTTSDALE, Ariz. — The natural gas industry found itself on the defensive at the National Association of Regulatory Utility Commissioners' Summer Policy Summit last week as panelists debated pipelines' resilience and ability to withstand cyberattacks.

During a panel ominously titled "Handling and Preparing for Attacks on the Natural Gas Network from Rising Cyberthreats," Rebecca Massello, of the Interstate Natural Gas Association of America (INGAA), noted there were no gas outages during last winter's "bomb cyclone" for generators with firm service.

"What history shows is that pipeline outages are very rare, and when they do occur they're localized in nature. And I want to tell you, that's not by accident," said Massello, director of security, reliability and resilience for the group, which represents interstate pipelines. "It's actually inherent in the way the system is designed and the way it has continued to evolve over time. Today we have more supply diversity than ever before, with natural gas regions all over the country. We also have more looping lines and multiple pathways to reroute gas in the event there is an incident."

"Interconnects and multiple pipeline feeds support system resilience, help with contingency planning and keep disruptions localized," said Kimberly Denbow of the American Gas Association, which represents local distribution companies. "Because of the way natural gas utilities must operate, blackouts … and rolling brownouts are not operationally feasible. We build resilience on the front end."

Paul Stockton, managing director of security and risk management firm Sonecon, said he's less concerned about weather than Chinese and Russian hackers.

Stockton, former assistant secretary of defense for homeland defense and Americas' security affairs, quoted Director of National Intelligence Dan Coats, who told a think tank earlier this month that the Department of Homeland Security and FBI "have detected Russian government actors targeting government and businesses in the energy, nuclear, water, aviation and critical manufacturing sectors."

"The warning lights are blinking red again" the way they were before the Sept. 11 attacks, Coats said.

### Gas Industry Cybersecurity

Denbow pushed back on suggestions that the gas industry is vulnerable because it lacks the mandatory cybersecurity rules of the electric sector.

"The argument that natural gas systems lack resilience because they lack cybersecurity regulations is unfounded," she said, calling gas industrial control systems "our crown jewels."

She said the industry's cybersecurity procedures are informed by standards, including the Transportation Security Administration's pipeline security guidelines, the National Institute of Standards and Technology cybersecurity framework, American Petroleum Institute standards and the Department of Energy's cybersecurity capability maturity model. AGA in 2014 helped create a downstream natural gas information sharing and analysis center (ISAC), which is now located on the floor of the electricity ISAC in D.C.

Left to right: Kimberly Denbow, American Gas Association; Rebecca Massello, Interstate Natural Gas Association of America; Fritz Hirst, NERC; and Paul Stockton, Sonecon. | *© RTO Insider*

### Communications Disruptions

Stockton cited retired boxer Mike Tyson's often repeated adage that "'Everybody has a plan until they get punched in the mouth.'

"I think that's true for information sharing," Stockton said. "In a blue-sky day like today — no event going forward — everybody's sharing better and better. … If there is an attack by a major state on the energy sector represented here, you bet we should assume that adversaries will go against Internet-based communications, public switched telephones — none of that stuff is gonna work. Power companies and natural gas companies have pretty good [communications] inside their own company — push-to-talk radios, things like that. But between sectors: nada, nothing" will work.

Stockton said regulators should identify single points of failure such as multiple utilities using the industrial control systems of the same vendor. "That's why I'm a big fan of fuel diversity for electric generation," he said. With nuclear and coal in addition to renewables and gas, he said, "it's much harder for the adversary to take everything down simultaneously."

### Solutions

Stockton, a consultant for Exelon, which is seeking subsidies for its struggling nuclear plants, says state regulators should help define attributes of fuel resilience and create a "design basis threat" for the electric and gas sectors, like that issued by the Nuclear Regulatory Commission.

"You can fly a 747 into [a nuclear plant] and the containment vessel can survive," Stockton said. "That's no accident: There's a design basis threat that they have to meet."

(Stockton overstated the NRC's requirements. In 2009, the commission required all *new* nuclear plants to ensure their reactor containments could withstand a crash by a

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## NARUC Summer Policy Summit

# NARUC Talks Innovation at the 'Water-Energy Nexus'

*By Rich Heidorn Jr.*

SCOTTSDALE, Ariz. — It used to take SUEZ in North America four years to apprentice an operator at its Boise, Idaho, water utility, with its 90 "pressure planes" (service territories), 80 tanks and 60-plus source wells.

But after developing an algorithm based on 10 years of supervisory control and data acquisition throughout its network, SUEZ created a system that sets the optimal setting for every pump and integrates data from its power utility to determine the best time to run them.

The result: a 10% reduction in the water company's energy demand and a $350,000 rebate from the power company.

But that wasn't the biggest achievement, David Stanton, SUEZ's president of utility operations and federal services, told the National Association of Regulatory Utility Commissioners' Summer Policy Summit last week. Stanton was invited to speak at last Monday's general session by NARUC President Jack Betkoski, who has made the "water-energy nexus" the centerpiece of his year as head of the state regulators.

"Because we're capturing knowledge in the system, we now can train operators within six months," Stanton said. "So we're actually solving what I think is a much more systemic big problem" — an aging workforce.

Left to right: Dan Arvizu, New Mexico State University; David Stanton, SUEZ in North America; and Oded Distel, Israel NewTech. | *© RTO Insider*

Stanton said the new system illustrates his company's need to "reinvent" its information technology. "Traditionally we talk about technology in the context of physical assets. But more and more I'm thinking that the data … that's coming is going to change the physical technology asset that we want to deploy dramatically. So we really have to solve for data innovation first."

That means not using enterprise resource planning (ERP) systems

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# Gas Industry Plays Defense

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large commercial aircraft. But it rejected proposals that existing reactors be retrofitted with similar protections. "Deliberate attacks by large airliners loaded with fuel, such as those that crashed into the World Trade Center and Pentagon, were not analyzed when design requirements for today's reactors were determined," the Congressional Research Service wrote in a 2014 report.)

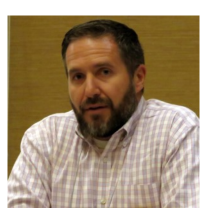
Stockton said industry should prepare for threats like Timothy McVeigh's 1995 truck bomb attack in Oklahoma City and the coordinated hijackings by al-Qaeda terrorists on Sept. 11, 2001.

"Folks, Russia is not going to attack a single gas pipeline and expose themselves to retaliation. They're going to try and take down the energy sector. It will be a comprehensive attack."

Gas industry representatives urged against overreacting to what Massello called the "fear and uncertainty and doubt [of scenarios that haven't] happened before."

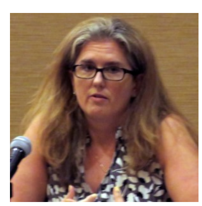
"Rather than try to fix portions of the system that are not broken, let's hone in on those areas where concentrated problem-solving will yield measurable results," said Denbow, who noted that the leading cause of pipeline disruptions is third-party excavation damage.

"For as long as gas utilities must contend with third-party excavators who hit our lines and disrupt our systems, gas control operators will continue exercising their training with respect to rerouting gas supplies and with respect to workarounds, resort[ing] to manual operations when necessary and minimizing the impact to firm service and residential customers," she said. "This is what they do on a daily basis. This is not new to us."



In a second panel ("What Does the Future Hold for Gas-Electric Interdependencies and Where Does Resilience Fit In?"), **Todd Snitchler**, director of market development for the American Petroleum Institute, had a similar message.

"We can't underestimate the importance of getting this right, but I think we have to keep in balance … to be realistic in our assessment," he said. "There is a long track record of successful performance."



In the same panel, **Kathleen Barron**, Exelon's senior vice president of federal regulatory affairs and wholesale market policy, said it was too soon to discuss concerns over the potential cost of resilience efforts.

"Our perspective is all this conversation about what's the remedy, who gets paid, is your interest aligned with mine … is really premature. The question we need to answer is … based on a reasonable set of assumptions, what we should be planning for."

Referring to PJM's current fuel security study, she said, "Once that evaluation is

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## NARUC Summer Policy Summit

# NARUC Talks Innovation at the 'Water-Energy Nexus'

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like SAP and Oracle for managing big data. "You need ERPs for financials and maybe billing, but you want an innovative environment … that is safe and secure and isolated from your ERP. The future of IT has much more to do with the sources of data and operations than it does big back-office ERPs."

### 'Benchmark Like Crazy'

Four years into what Stanton called the company's "smart utility" program, he shared his lessons learned.

"We benchmark like crazy. Everything we do that we like, we go find somebody that's already done it and does it really well. And we go worldwide with the benchmarking."

SUEZ implemented innovations "at scale" but at one regional utility at a time, Stanton said. "And then once it worked, we hopscotched that out to other regions.

"We never went out and did everything at once, and as a result, we were running 12 or 14 projects around our utility footprint nationwide. … We never bet the ranch on one idea. If something didn't work, we could throw it out."

But getting other regions to buy in was a problem, Stanton said. "A lot of utilities run their regions with a strong president or general manager for each region. Getting them to work together … is like a 'Game of Thrones' type of activity.

"Once we had enough of these project implementations working, I made 50% of the bonus of each leader dependent on their ability to get what they implemented adopted by the other utilities. So half their bonus all the sudden was based on, 'If I do it your way for your project, you have to do it my way for my project. We've got to work this out.'

"In two weeks, we had everything worked out. We had heard for years that New York couldn't do it like New Jersey. … So that solved the cultural problem almost overnight."

### 'First Customer' Syndrome

Also appearing on the panel was Oded Distel, founder and director of Israel NewTech, a program in the country's Ministry of Industry, Trade and Labor that supports research in the water and renewable energy sectors. Distel described how Israel overcame the reluctance of utilities to become the "first customer" for new technologies.

"We encourage utilities … and tech companies to come together. They form a joint project for the first implementation of a new technology and then the government supports those projects. The money is not huge but … the guy who has to make the decision — the head of the utility, the chief engineer — feels that he's not alone. He's part of a national effort. … If something fails, he's not left there alone to pay the price," Distel said. "The influence over the utilities was amazing. All of the sudden, they opened up, and they started thinking and having discussions in a totally different manner."

Dan Arvizu, recently appointed chancellor of New Mexico State University, told regulators about his experience as director of the National Renewable Energy Laboratory between 2005 and 2015.

"Even though our public policy at the federal level — and many times at the state level — aspired to do certain things, the technology was typically ahead of the policy, and the finance was way behind," he said.

He offered his own advice for innovating: "You need to think big, you need to try small, you need to fail fast and then regroup and then try and scale again."

And he had a warning for utilities about the new customer choices that will become available from the falling prices of renewables and energy storage. "If utilities are not on the forefront [of the transformation], they could become obsolete," he said.

# Gas Industry Plays Defense

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done, and we figure out what our vulnerabilities are, then we can figure out how we should … adjust the market rules to accommodate them." (See *Stakeholders Debate PJM Fuel Security Scope*.)

Moderator **Angela O'Connor**, chair of the Massachusetts Department of Public Utilities, disagreed. "I don't think that any part of that conversation is premature," she said.

### Departure from Markets?

Amanda Frazier, vice president of regulatory policy for Vistra Energy, said it is "disheartening … that the conversation has switched and there's so much discussion around moving away from markets in the name of resilience."

"I would dispute the narrative that there's any particular fuel source that is at risk of extinction," she said, noting that half of the active nuclear plants receive regulated rates of return. "If all of the subsidized and unsubsidized but at-risk merchant nuclear plants closed tomorrow, we would still have 80% of our civilian nuclear plants up and operating," she said.

While Vistra's 10-K securities filing mentions catastrophic events as a material risk, "we mention regulatory intervention in about six different ways … because those are what really keep us up at night: Are the regulators [and] politicians going to continue to support competitive markets, which have delivered resilient and reliable electric generation across this country?"

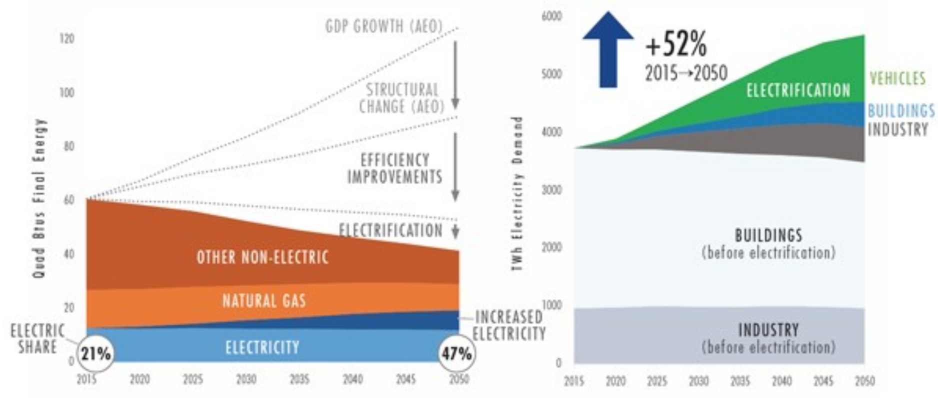
Pennsylvania Public Utility Commissioner John Coleman said regulators' decisions have become more complex "as we've added in all the other fuel source attributes into this dialog."

"I hope that we have the intellectual horsepower in this room and within the NARUC community to be able to solve this. … The drama around all of these discussions need[s] to go down a level. … I am confident that we have the ability to figure that out without having external forces trying to dictate how this is going to work."

## NARUC Summer Policy Summit

# State Regulators Hear Challenges, Promise of Electrification

*By Rich Heidorn Jr.*




Transformation scenario projections for U.S. total final energy by fuel (left) and electric demand by sector (right). | *National Electrification Assessment, EPRI*

SCOTTSDALE, Ariz. — The Electric Power Research Institute says electrification of transportation and buildings could boost U.S. electric load growth by as much as 52% by 2050. That's 1.2% per year.

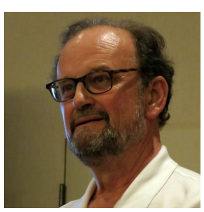
"Compared to 2005 to 2015, that's a lot. … Compared to the 1990s, that's not much," said Tom Wilson, EPRI's principal technical executive, who briefed state regulators on the organization's April 2018 National Electrification Assessment at the National Association of Regulatory Utility Commissioners' Summer Policy Summit last week.

The promise of electrification, and the challenges to achieving it, were recurrent themes at the NARUC conference, which attracted more than 800 regulators, utility officials and others.

### Charging Infrastructure

Speakers said reducing electric vehicles' costs and increasing charging infrastructure are among the biggest obstacles to reaching the top end of EPRI's forecast (its "Transformation" scenario, which assumes a $50/ton $CO_2$ price in 2020).

"We have to get cost out of the vehicle without sacrificing durability, reliability," Britta Gross, General Motors' director of advanced vehicle commercialization policy, said during a dinner panel sponsored by the Brattle Group on the sidelines of the conference. "The next four or five years will be crucial."



Former NARUC President **Phil Jones**, now executive director of the Alliance for Transportation Electrification, decried the "woefully inadequate" vehicle charging infrastructure during the Brattle panel and an earlier NARUC session on the effects of electrification.

Jones said developing DC fast-charging infrastructure will be challenging for regulators because the system is likely to see low utilization rates initially. That will call for creative rate structures, said Jones, who served 12 years on the Washington Utilities and Transportation Commission.

"The problem is demand charges kind of kill the business case for that. So, for utilities to put that into a proposal, you all are going to have to grapple with that," he told the regulators. "Do you spread those costs out over two years, five years, 10 years?"

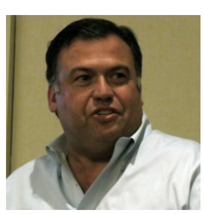
Gross said the U.S. has only 1,300 DC fast chargers, which can deliver 50 kW and provide a 90-mile charge in 30 minutes. "We need 10 times as much DC fast charging and 20 times as much Level 2 charging," a 240-V AC outlet that can charge in 5.5 hours.

"Benefits accrue at scale," she said. "How do we get there?"

### Utilities' Role

The Brattle panel focused on whether utilities should help build some of the infrastructure.

"Absolutely they should [be involved] … because there are market failures and gaps today," Jones said. "The infrastructure we have through the non-utility competitive model today is totally insufficient in each of the states that you live in. Do the utilities need to do everything? No, but the utilities in our view … have a very important role in catalyzing the market."



Attorney **Paul Afonso**, a board member of Braemar Energy Ventures, disagreed with Jones' declaration that the market has failed. Braemar has invested $141 million in ChargePoint, which builds EV charging infrastructure.

"We can't condemn [the market] to failure before we get it to start," he said. "The utility has a relationship … with their customers that's unique. … There need not be, nor should there be, disintermediation between that. So [ChargePoint is] working with pilots in Columbus with [American Electric Power]. That [charging] station [is branded] AEP. And it's our network that runs the network software."

Brattle principal Jurgen Weiss said European regulators have generally opposed utility ownership of charging infrastructure. "There are lots of potential players out there. It's entirely understandable how it could be a competitive service — in the long run. But we're not in the long run; we're hardly in the short run. … We're trying to get something to scale."

Weiss insisted the need for capital is so large there will be room for investments both by utilities and private capital.

"It's worth considering utilities being part of this game for the next 'X' years, and then … we can collectively reconsider whether this is not a flourishing competitive market," he said.

To overcome range anxiety, drivers need to know charging stations are available "even if they will never use" them, Weiss continued. "We will probably need to build more than we need."

Indeed, according to Gross, 95% of vehicle

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# State Regulators Hear Challenges, Promise of Electrification

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charging currently occurs at home or work. How the charging network is marketed may be more important than its size, she said.

"If you could just find a way to tell a story better with 20 stations around your state, it's a lot better than wasting your money on 200 stations. … In Michigan, if every DC fast-charge station was near a lighthouse in Michigan you'd [say], 'Oh, I know what that means,'" she said. "Storytelling can go a long way to raising the perception of the availability of infrastructure without having to make it ubiquitous."

Jones said the development of charging infrastructure has been hurt by proprietary charging systems that "can't talk to each other."

"It reminds me of the telecom days 10 to 15 years ago. So, we have Tesla with a proprietary system. We have many … vendors building out proprietary systems, both on the network management side — the back end — and even on the front end, we have plug issues."

Jones said regulators should insist on open standards as a condition for ratepayer-funded investments by utilities.

Utilities also will have a role in planning systems, Jones said. "We have the West Coast electric highway. This was politically driven by the governors and state [transportation departments]. They decided [to use] DC [fast charging]. … Has that been incorporated into the utility [integrated resource plans] in Oregon, Washington and California? No. … We have the Electrify America Network that's building out a charging infrastructure on its own. Is that coordinated with the [state] commissions? … No. … From a planning standpoint it's kind of a mess, so I would just posit that the utilities have a big role to play."

Jones said several states are leading the transition to EVs, naming Michigan, Maryland, Ohio, Washington, California and Oregon.

### Role for Oil Companies?

From the Brattle audience, Betty Ann Kane, chair of the D.C. Public Service Commission, asked why service stations haven't jumped at the chance to install charging stations.

Gross said oil companies have shown little interest "in what feels like a logical answer."

Jones said his organization has talked with the American Petroleum Institute and National Association of Convenience Stores.

"They are studying the opportunity … but they aren't coming around to the realization that this is a real opportunity. And in fact, in many states in the Midwest, they are opposing us. … And others in the industry are kind of aligning with the oil and gas interests to oppose utility investments in this infrastructure."

Weiss was blunt. Oil companies "want to slow this [transition away from gasoline-powered cars] down as long as they can," he said. "The oil companies are going to come around. The question is how quickly."

### New Value Proposition

Weiss said EV proponents need to change the way regulators look at benefits and costs, noting that electricity purchases represent only 1.6% of disposable income. "There's just not a lot of money in there compared to the [fuel cost] savings [of] changing from internal combustion engine car to driving an EV. … You probably don't even have to look at greenhouse gases" as a benefit.

**Emily Levin** of the Vermont Energy Investment Corp. raised a similar concern in a second NARUC session on energy efficiency's role in electrification.

"The boundaries we've drawn in a lot of cases around energy efficiency programs are too narrow, in having goals around kilowatt-hour savings," she said. For example, EE programs on heat pumps "often don't count the fuel savings, the gas or the oil savings. … They only count the increment of savings from an efficient heat pump over a baseline heat pump. … They're leaving a lot of savings on the table."

She called for "next generation" goals that consider carbon emissions or focus on peak demand reductions rather than baseload cuts.

In the same session, **Jim Lazar**, senior adviser for the Regulatory Assistance Project, recalled his work on projects 30 years ago that concluded that natural gas space and water heat were superior to electric space and water heat for new construction. "But then heat pumps weren't very efficient. Heat pump water heaters weren't available. Wind and solar were not real grid resources," he said. "Every assumption we made in those papers is now obsolete."

Now, he said, the most efficient new homes use too little energy to justify both natural gas and electric service connections.

Sheryl Carter, director of the Natural Resources Defense Council power sector, briefed regulators on the findings of the organization's 2017 study outlining a strategy for reducing greenhouse gas emissions by 80% by 2050 from 1990 levels through increased efficiency, electrification and renewable generation. It envisions electricity supplying 45% of all energy needs, up from the current 20%.

NRDC says its strategy would increase U.S. energy costs by only 1%, an annual cost of $22 billion that it says would produce more than $154 billion a year in health and environmental benefits.

In an earlier NARUC session, Chris McGill, vice president of energy analysis and standards for the American Gas Association, criticized those who want to quickly eliminate fossil fuels.

"What problem are you trying to solve?" he asked. "Is natural gas no longer a good consumer value? Do we no longer have an enormous resource base? Do we no longer have a huge legacy infrastructure? … Natural gas use in the household here in the U.S. accounts for 4% of greenhouse gas emissions … a pretty small target."

McGill cited an AGA-funded study that found a "policy-driven" electrification of the residential sector would cost $590 billion to $1.2 trillion by 2035, the equivalent of $572 to $806/ton of $CO_2$.

"When I hear discussions around electrification — that it's going to happen very quickly … and it's not going to cost anybody anything, I believe that is preposterous."

NARUC Summer Policy Summit

# DOE Rejects NARUC Invites on Coal, Nuke Bailout

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President Says You Can't Retire: The Impacts of Section 202c on the Electricity Industry") but neither office was represented.

In addition, Assistant Energy Secretary Bruce J. Walker, who was scheduled to speak at the Summer Policy Summit's General Session on July 16, instead appeared at the Fairmont Scottsdale Princess hotel ballroom on a screen via a recorded cellphone video.

Bruce Walker in June

Walker, appointed by President Trump last year as head of the Office of Electricity, said he was unable to attend because of "weather problems in New York." DOE said Walker was scheduled to fly from New York to Phoenix via Denver but missed his connecting flight because of delays at LaGuardia Airport and was unable to reschedule to arrive at the conference in time.

The Maryland Public Service Commission told *RTO Insider* that DOE's nuclear energy representative canceled the day before the panel discussion.

"We received an email on Monday, July 16 from DOE's Office of Nuclear Energy that they would be unable to send a representative to speak at the joint subcommittee panel on July 17 due to scheduling conflicts," Amanda Best, an aide to Maryland Commissioner Anthony O'Donnell, who was to moderate the session, said in an email. "A representative from the DOE Office of Fossil Energy was also unable to attend."

DOE's absence led some NARUC attendees to speculate that the department wanted to avoid questioning by regulators and reporters about its plans for implementing Trump's directive.

DOE spokeswoman Shaylyn Hynes didn't deny it.

"There is an interagency policy review process underway regarding grid resilience and examining multiple policy options," she said in a statement. "It would have been premature for DOE representatives to discuss the specifics of that process while it remains ongoing."

Walker angered members of the House Committee on Science, Space, and Technology's Subcommittee on Energy last month when he testified that his agency had no estimates on the cost of the bailouts, which Trump had ordered a week earlier. Walker responded to Democratic members' questions tersely and without elaboration. (See *Dems Hit Coal, Nuke Bailout at House Hearing*.)

Walker's name has been among those floated as a potential replacement for FERC Commissioner Robert Powelson, an outspoken opponent of the bailouts, who is resigning in mid-August to become CEO of the National Association of Water Companies. (See related story, *FERC Says Farewell to Powelson*, p.32.)

At the conference, however, NARUC members passed a resolution asking that Trump appoint a replacement with state regulatory experience. "No one understands better than state commissioners the real-world, often unintended, effects of federal policy at the ground level on consumers, and how such policies complement, interfere or interact with related state programs or local/regional market conditions/demographics," the regulators said.

Powelson, former chairman of the Pennsylvania Public Utility Commission, is the only former state regulator on FERC.

### Quicker Recovery for Cyber Investments

Walker spoke for less than four minutes on the video, reading from notes while sitting in what looked like an airport corridor.

"What I wanted to speak about directly was the need for all of us within the regulatory framework to acknowledge the changes that are necessary in the general rate case filings so that they better adapt to and address the problems we see today," he said. "Specifically, in the cybersecurity world, the investments that are being made today become obsolete within six months. Our regulatory models today don't necessarily recognize that, and one of the things we collectively need to do is — using a risk-based approach process — properly align the rate case mechanisms and the recovery aspects for the utilities that we work with so that they can properly recover their investments."

NARUC passed a resolution at the summer meeting encouraging regulators to "explore and examine alternative rate recovery mechanisms to accelerate the modernization, replacement and enhancement of the nation's electric system."

Carl Pechman, director of the National Regulatory Research Institute, NARUC's research arm, said Walker's "concerns about the rate treatment of cyber activities is real."

"In light of these issues, the NRRI is planning to undertake a survey and deep dive on the ratemaking of assets that have short and difficult-to-predict asset lives," Pechman said in an email. "We look forward to working with our nation's public utility commissions and the U.S. DOE to help assure that cost recovery and rate mechanisms support national priorities of cybersecurity."

"Regulators should and mostly do have discretion with regard to the treatment of capital and operating costs, including consideration of risk and obsolescence, and the alignment of cost recovery to useful life," Janice Beecher, director of Michigan State University's Institute of Public Utilities, said in an email. "Potential obsolescence within one year raises several issues. The regulatory policy community would benefit from research and information-sharing in this area, given its criticality."

### States' Role in National Security

Walker said that although national security is generally considered a federal function, states have an important role because they regulate the utilities that power the 16 critical infrastructure sectors.

"We will continue to work through our Electric Sector Coordinating Council and the Oil and Natural Gas [Subsector] Coordinating Council to work with the asset owners to develop short-term executable strategies for cyber, physical and [electromagnetic pulses]," he said.

"The investments we are looking to drive are designed to reduce risk. Thus, as you become aware of investor requests designed to address these three specific areas, I would implore you all to take the threat very seriously and find a way to support the investment."

## CAISO NEWS

# Peak Reliability to Wind Down Operations

Continued from page 1

announce the decision.

Jordan said it was in the best interest of reliability "that we respond sooner than later and begin planning now for that orderly transition from Peak as the RC."

"I have therefore engaged executive leadership within the interconnection to begin discussions on what an orderly transition for Peak would look like in a wind-down scenario," she said.

Jordan noted that funder support for an alternative budget scenario outlining a slimmed-down "transitional" RC was "almost non-existent at this time." The transitional RC plan Peak floated in May would have cut executive jobs, reduced the size of the board of directors and eliminated some administrative processes in an effort to keep the organization afloat past 2019. (See Peak Details Vision for 'Transitional RC.) It would have reduced Peak's funding requirement from $48 million this year to $28.7 million if all current funders but CAISO stayed on board. By comparison, CAISO last month said it estimated it would budget just $18.5 million to provide RC services to the entire Western Interconnection. (See CAISO Puts $18.5 million Price Tag on RC Services.)

By Wednesday, only two of Peak's 52 funders had submitted letters of intent (LOIs) indicating their support for the transitional proposal. Still, Peak said it will continue to accept funder comments on the transitional RC draft funding amount until July 30 and post its proposed budget and "strategic direction" Aug. 6, as scheduled.

### Picking up the Pieces

Peak's decision marks a rapid turnabout for an organization that just months ago was pushing ahead with plans to develop a "marketplace built by and for the West" in partnership with PJM subsidiary PJM Connext. (See Peak, PJM Pitch "Marketplace for the West.)

Jordan said Peak would be ending its relationship with PJM "to prevent the wind-down of Peak from creating an unnecessary distraction to the PJM Connext initiative, which has over the past several months gained traction among the Western entities."

While that effort may be hobbled by the absence of Peak, PJM said in a statement that it will "continue conversations" with potential participants to develop a "member-owned market for the West."

"While some revision of the business plan will be required to describe how the business will be organized in the absence of Peak, the fundamental nature of the proposition and its value remain unchanged," the RTO said.

Peak's fall could spell opportunity for yet another RC service provider looking to expand into the West.

"Peak's announcement comes at a time when SPP is devoting significant effort to developing plans to provide unparalleled reliability coordinator services in the West," SPP COO Carl Monroe told *RTO Insider*.

Continued on page 10

## CAISO News

# Peak Reliability to Wind Down Operations

Continued from page 9

"We are appreciative for Peak's commitment to ensure an orderly transition of RC services to other providers, and hope their customers and others see this as an opportunity to partner with SPP as we bring new levels of value and reliability to the Western Interconnection, just as we have done in the Eastern Interconnection since 1941."

During Wednesday's call, Jordan said she saw the potential for an RC competitor to CAISO.

"I think it would be foolish of me to assume that there's just one option," she said. "It's my personal belief [that] there is room for more than one RC in the Western Interconnection."

### Failed Gamble?

In some ways, Peak may have been undone by its own ambitions. Within weeks of the company's announcement that it planned to develop market services in conjunction with PJM — putting it in direct conflict with CAISO's regionalization aspirations — CAISO declared that it was "reluctantly" leaving Peak to itself become an RC. It said it could provide RC services "at significantly reduced costs."

In April, shortly after Peak and PJM entered the "commitment phase" of their proposed market effort and issued an abstract of their business plan, CAISO divulged that most of the Western Interconnection had signed nonbinding LOIs for its RC services after it proposed to charge rates dramatically undercutting Peak's. By early May, Peak's vulnerability had become more apparent when it issued the transitional RC plan, what looked like a last-ditch effort to stem the loss of most its funding base.

In June 2017, Jordan testified along with Monroe before the Colorado Public Utilities Commission to keep Mountain West Transmission Group from defecting to SPP for RC services. (See *SPP, Peak Reliability Pitch RC Services for Mountain West*.)

"A single RC has been a very important piece of the vision for reliability in the West," Jordan told the PUC. "Based on feedback I get from our funding members, our model is becoming so much more reliable for them, from the time we started … to where we are today. It's been tremendous growth."

A year later Peak said it would close its doors.

For its part, CAISO was diplomatic about Wednesday's development and said Peak's decision has "little direct impact" on its plans to offer RC services.

"Our design of the RC function is scalable and has always incorporated the ability to serve a significant portion of the load in the Western Interconnection," ISO spokesperson Anne Gonzales said in an email. "The ISO is committed to working with Peak and others in the West on a transition that focuses on reliability, as balancing authorities and transmission operators make their selection of an RC service provider."

More than 170 staff in Peak's Vancouver and Salt Lake City offices will lose their jobs as the company winds down its operations. Jordan said Peak will offer six months of severance to every employee to retain them, pointing out they will still be needed to run the organization into 2020 to perform close-out audits and wrap up other business.

"It's been a challenging time for all of us and our employees, so I appreciate everyone's interest in Peak and the support that you'll give us going forward," Jordan told stakeholders on the call.

*Tom Kleckner contributed to this article.*

## ERCOT NEWS

# ERCOT Shatters Demand Records as Texas Bakes

*By Tom Kleckner*

Hell may be hotter, but it has nothing on Texas these days.

A high-pressure system that has swamped much of the state with triple-digit temperatures has triggered numerous heat advisories and led to all-time systemwide peak records in ERCOT.

The grid operator broke its previous high for system demand on Thursday, when load topped out at 73.3 GW between 4 and 5 p.m. That was more than 2 GW over the previous record of 71.1 GW, set in August 2016.

All told, demand surpassed the old record nine times last week as temperatures reached 110 degrees Fahrenheit and heat indexes were as high as 115. On Sunday, ERCOT set a new weekend demand record of 71.4 GW between 5 and 6 p.m., breaking the old mark set last July by almost 3 GW after surpassing it three times on Saturday.

The ISO came up short of another record Monday but cracked 73 GW for the second and third times during the intervals ending at 4 and 5 p.m. System load also exceeded the 2016 record during the intervals ending at 3 and 6 p.m.

| Date | Time | Peak Usage |
|---|---|---|
| 7/19/18 | 4-5 p.m. | 73,259 |
| 7/23/18 | 4-5 p.m. | 73,059 |
| 7/23/18 | 3-4 p.m. | 73,041 |
| 7/20/18 | 4-5 p.m. | 72,926 |
| 7/20/18 | 5-6 p.m. | 72,700 |
| 7/19/18 | 3-4 p.m. | 72,691 |
| 7/23/18 | 5-7 p.m. | 72,634 |
| 7/20/18 | 3-4 p.m. | 72,300 |
| 7/18/18 | 4-5 p.m. | 72,192 |
| 7/23/18 | 2-3 p.m. | 72,033 |
| 7/22/18 | 5-6 p.m. | 71,444 |
| 7/18/18 | 3-4 p.m. | 71,438 |
| 7/23/18 | 6-7 p.m. | 71,271 |
| 7/20/18 | 6-7 p.m. | 71,212 |
| 8/11/16 | 4-5 p.m. | 71,110 |

Top 15 ERCOT demand records, as of July 23 10 p.m. CT | *ERCOT*

Demand has exceeded 70 GW every day since July 16. The grid operator in spring projected a peak demand of 72.97 GW in August, assuming normal weather conditions.

Through it all, ERCOT has met demand without issuing conservation appeals. Staff in spring said it would have as much as 78.2 GW of capacity available, with a planning reserve margin of 11%. (See *ERCOT Gains Additional Capacity to Meet Summer Demand*.)

"Everyone in the ERCOT market — from our operators to generators to transmission providers to retailers — is doing what they can to keep the power on for consumers," said ERCOT spokesperson Theresa Gage.

Dallas/Fort Worth International Airport set a daily record for the third day in a row Saturday at 109, while Waco has broken its daily record five consecutive days, topping out at 109. Lubbock in West Texas saw a daily low of 81 on Thursday, the first daily low in the 80s in more than 100 years of record-keeping, according to The Weather Channel.

Houston and Dallas both opened cooling centers over the weekend for residents without access to air conditioning.

A jet stream is expected to shift the high-pressure dome to the West this week, cooling Texas temperatures down into the 90s.

"We fully expect to keep hitting new demand records as summer 2018 continues," ERCOT said in a written statement.

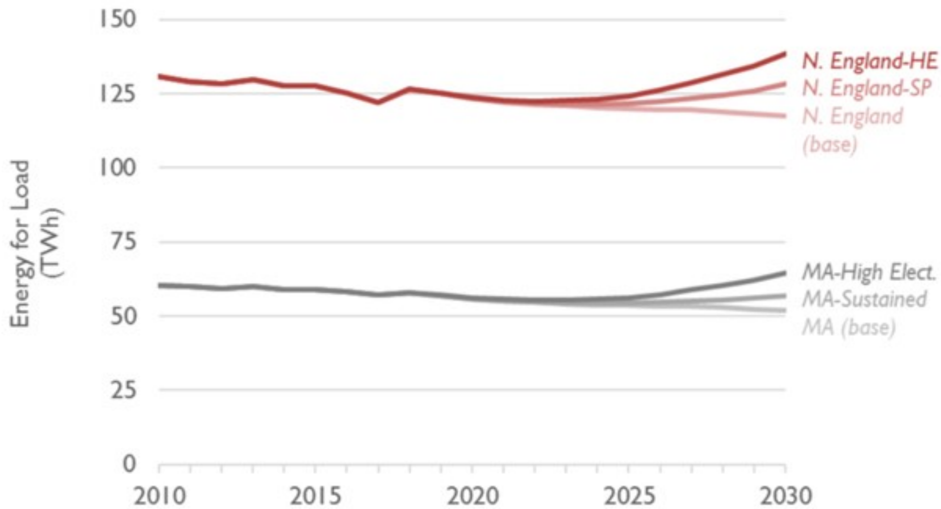
Real-time hub average prices peaked at $1,922.20/MWh on Thursday in the 15-minute interval ending at 4 p.m. Wednesday's high price of $2,281.95/MWh in the West zone was the highest seen since August 2015, when they hit $2,233/MWh, according to Bloomberg data.

Several retail providers have asked their customers to reduce their usage between 2 and 6 p.m. Cirro Energy, Reliant Energy and Xcel Energy have all offered conservations tips to their customers.

## ISO-NE NEWS

# Massachusetts Seeks Input on Energy Plans

*By Michael Kuser*




2030 electric consumption is projected at 11% above 2018 under aggressive policies leading to high electrification in New England. | *Synapse*

WESTFIELD, Mass. — Massachusetts officials last week held three hearings across the state to get public input ahead of a September release of the statutorily mandated Comprehensive Energy Plan (CEP).

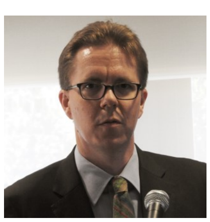
The state's Department of Energy Resources is preparing the plan to project the state's 2030 energy demands for electricity, transportation and thermal conditioning and help it meet its greenhouse gas emissions targets. The state's Global Warming Solutions Act (GWSA) requires a 25% reduction in emissions by 2020 from the 1990 baseline and an 80% reduction by 2050.

The state accounts for 45% of electricity demand in New England.

Joanne Morin | *© RTO Insider*

"This report is really looking at supply and demand of energy going forward," DOER Deputy Commissioner Joanne Morin said on July 19. "The CEP is going to demonstrate the modeling, the impact and required balance in pursuing these goals simultaneously, and looking at different pathways that we could take with our energy future."

State lawmakers are now considering legislation to increase the state's renewable energy and reduce high-cost peak demand. Earlier this year, two senators touted a goal to achieve 100% renewable electricity by 2035 and to make the heating and transportation sectors 100% powered by renewables by 2050.



Asa Hopkins | *© RTO Insider*

Asa Hopkins of Synapse Energy Economics, the DOER's consultant on the energy plan, sought feedback on its assumptions and analysis of 2030 scenarios.

"Have we got it right or have we got it wrong? Should we be designing these policy features in some different way?" Hopkins asked.

The public has until July 31 to submit comments at the CEP website.

"That's not much time for public comment," said Rosemary Wessel, director of "No Fracked Gas in Mass," a program of the Berkshire Environmental Action Team.

Wessel also complained about what she called a lack of transparency in clean energy data, saying the DOER shows state emissions data only up to 2014. She also said the DOER website "has become much harder to use."

Several audience members murmured their agreement to the website assessment, and Morin said, "I'll have to follow up on that."

### Soft or Hard Push?

Hopkins' study included a status quo scenario and also analyzed the impact of adjusting "key levers," including efficiency, renewables and electrification via electric vehicles and heat pumps.

Under the status quo or "sustained policies" scenario, renewables would supply 45.5 TWh in 2030, or about 35% of electricity in the region, with Massachusetts hitting its 25% renewable portfolio standard target.

Under a "high renewables" scenario, the amount increases to 38% (49 TWh), with all of the increment serving Massachusetts, which would get about half its electricity from Class I renewables in 2030, Hopkins said.

"We're looking at electrification, which in the case of electric vehicles, is associated with a substantial increase in efficiency, as it is with heat pumps, so there's a common thread there," Hopkins said. "There are distinctly more heat pumps in Massachusetts than there are EVs, but more people consciously see EVs than see heat pumps."

Because they're moving heat rather than generating it, heat pumps have efficiencies well over 100%.

"A typical seasonal average in Massachusetts would probably be well over 200%, and for a heat pump water heater it will go up well over 300%," Hopkins said. A 300% efficient heat pump produces three units of heat for every unit of energy, Hopkins explained.

The "high electrification and high renewables" scenario includes a "clean peak" idea to incentivize generation or energy dispatch to be available to meet winter and summer peaks without emissions.

The scenario for increased efficiency,

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## ISO-NE News

# Massachusetts Seeks Input on Energy Plans

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electrification and renewables would reduce the average commercial building's heat energy by 25% or more with the state getting 50% of its electricity from renewables, Hopkins said.

Enhancing both electrification and renewables would push wind and solar growth to 33.7 TWh in 2030, while natural gas use would be 29% lower than today.

"Once those clean peak resources are there, it's not like they're only there on the peak day; they also run all the rest of the time around the year and are impacting what's going on with dispatch of different resources," Hopkins said.

Massachusetts has a goal of 300,000 EVs on the road by 2025 and 1.7 million in 2030. Hopkins said the state can probably only reach 160,000 EVs by 2025 under current policies but could exceed its EV goals by enhancing all policy levers.

Several people asked about energy storage and whether EVs can act as batteries for the grid.

"The place where storage makes a difference is on an hourly basis," Hopkins said. "One learning from this is that what you assume about the load shape of when all those 1.2 million or 1.7 million EVs are charging, it really matters a lot. And what you assume then about when those batteries will charge and discharge really matters a lot."

If peaks are in the afternoon and you have everyone charge their cars overnight, "you create a giant super-peak at 3 in the morning," Hopkins said. "That's probably not the actual path forward, but things we learn there can flow into policy development."

### Solar Woes

Robert Camus, a Granby selectman and member of the town's energy committee, said that if the state wants to increase solar energy by 50% by 2030, it should change policies to promote local ownership of solar farms.

"The SMART [Solar Massachusetts Renewable Target] program awards Eversource [Energy] and National Grid so much each year, but there's no differentiating between a private landowner and a municipality," Camus said. "If the municipality was to have the solar field, versus a private landowner, you'd have a lot more advantages."

If a private landowner makes a deal with a solar developer, the money goes to one individual, he said.

"If you go to the municipality, every taxpayer in that town gets a share of the money, which would decrease the demand of the municipalities on the administration every year for money for schools, infrastructure and everything else," Camus said. "If the money goes to the taxpayer[s] of Massachusetts rather than to out-of-state developers, we can more enhance our own economic growth, because the money stays."

He suggested that the SMART program devote 75% of its money to municipalities, leaving 25% for individual landowners.

Morin directed Camus to contact Michael Judge, director of DOER's renewable energy division. The CEP is intended to complement another effort, the Clean Energy and Climate Plan (CECP), which talks about emissions targets and how the state is going to meet them, Morin said.

## ISO-NE NEWS

# Anbaric Pushes Offshore Grid Plans

By Michael Kuser

While the U.S. is keen to benefit from the declining costs of developing offshore wind energy, it appears less focused on learning how the industry matured in Europe, where it was pioneered in 1991.

That's the assessment of two industry experts who, admittedly, have a stake in the issue.

"We see [regulators] focusing on the generation resource and assuming the transmission is going to be there, and not providing for the transmission necessary to get to scale," said Stephen Conant, partner with Anbaric Development Partners, an independent transmission company.

The U.S. may be late to the game, but East Coast states are moving fast to join in.

In May, New Jersey set a goal of 3,500 MW of offshore wind by 2030, while Massachusetts awarded a contract for 800 MW and Rhode Island agreed to procure 400 MW. In June, Connecticut signed on for 200 MW, while New York regulators this month authorized state agencies to procure 800 MW by next year, the first phase of a plan to develop 2,400 MW by 2030. (See *NYPSC: Offshore Wind 'Ready for Prime Time'*.)

Conant and his colleague Kevin T. Knobloch spoke to *RTO Insider* about Anbaric's efforts to develop open access offshore transmission grids to facilitate offshore growth, particularly off the coasts of Massachusetts and New York.

### Integrated Planning

In contrast to the U.S. approach, the European energy sector first builds out the transmission system and then has generators compete to an offshore interconnection point, Conant said.

"For example, in Germany, rather than have independent generators lead, they have 14 export cables with 34 different generators connecting to them," Conant said. "That optimizes the export cables so you get the maximum amount of capacity and you optimize the terrestrial interconnection points."

FERC in February granted Anbaric the right "to charge negotiated rates for transmission rights on a proposed integrated offshore transmission system that includes two HVDC transmission lines connecting Massachusetts offshore wind generation to the ISO-NE transmission system" (ER18-435).

The company's Massachusetts Ocean Grid project would have two 1,000-MW HVDC transmission lines capable of delivering power from off the coast of Massachusetts to ISO-NE's Southeast Massachusetts load zone.

Two 1,000-MW offshore platforms with AC switching stations would be linked by a subsea AC cable, and the electric energy would be converted to DC and transferred by two subsea HVDC cables to onshore convertor stations at two separate 345-kV substations.

### Legislative Remedy

The Massachusetts offshore wind solicitation (83C) called for an expandable — and nondiscriminatory — transmission system, which means it would be open to all comers and not limited to one developer or generator.

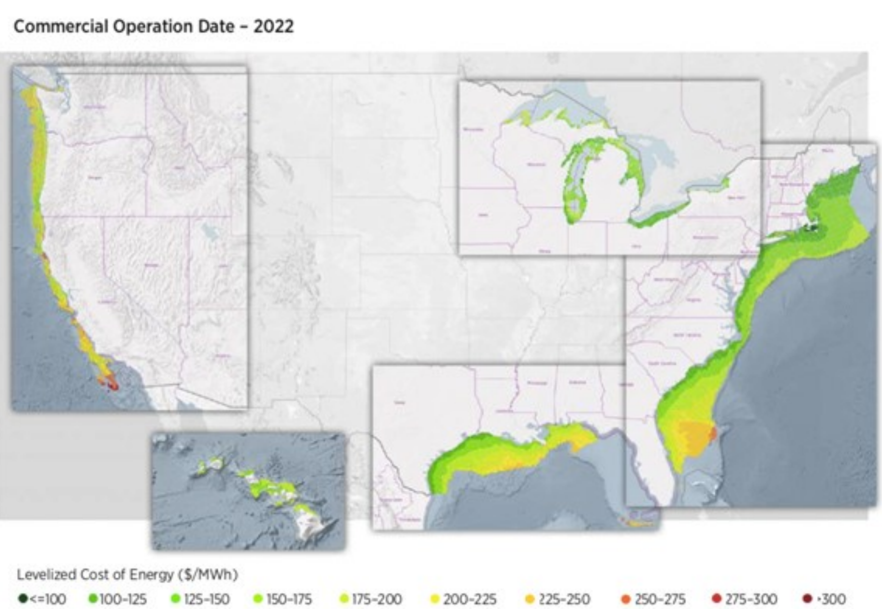
However, nothing in the legislation authorizing the solicitation obligated it to be open to entities other than the generation developers that own the offshore leases.

"We're in the process right now of some legislative activity to try to make changes in Massachusetts that would allow transmission to be separate from the generation and allow independent transmission companies to participate in that process," Conant said.

As Massachusetts lawmakers consider a bill (H.4756) to increase the state's renewable energy and reduce high-cost peak hours, Anbaric is lobbying to include an amendment that would allow independent transmission developers to participate in the next offshore wind solicitation.

"We thought things could be done better, and some of that comes from our looking at what's been done in Europe, where they really develop the transmission separate from generation, which is really how they do the onshore grid here in the U.S.," Conant said.

One of the upshots of the European approach: Generators are submitting zero-subsidy bids into the market.




The levelized costs for U.S. offshore wind has fallen steadily, making its development increasingly attractive in the relatively shallow waters off the Northeast coast. | *DOE, DOI*

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## ISO-NE NEWS

# Anbaric Pushes Offshore Grid Plans

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"So you've got the generators essentially bidding in at market prices, and we think that's where folks in Massachusetts and up and down the East Coast want to be," Conant said. "You don't need these long-term contracts and subsidies in order to do that."

### New York Groundwork

Anbaric has a history of bringing energy into New York under water. The company was part of the consortium that built the 660-MW Neptune HVDC cable linking PJM to Long Island, and also helped construct the 660-MW Hudson project connecting midtown Manhattan to the RTO.

Knobloch, president of Anbaric subsidiary New York OceanGrid, noted the company is preparing a FERC filing for authority to sell transmission rights at negotiated rates both in New York and New Jersey.

Beyond having to navigate multiple regulators, there is also the matter of working through the NYISO interconnection queue, where Anbaric has an advanced position (363) for a 500-MW line connecting into Ruland Road on Long Island because of its work on the Poseidon transmission project, which was intended to bring in power from New Jersey.

"And we have follow-on interconnection requests for an additional 700-MW DC at Ruland Road, and then for an 800-MW AC line up into Ruland Road," Knobloch said. "Because the queue 363 was part of the Poseidon project, our hope is to win the blessing of NYISO to repurpose that for our offshore wind project, because the on-land route is precisely the same ... the material facts are identical."

Anbaric has also filed an HVDC interconnection request with NYISO for 1,200 MW and additional 800-MW AC into the Farragut substation in Brooklyn for its hoped-for offshore wind grid.

"We wish that the [Public Service Commission] had decided to incorporate planned open access offshore transmission into Phase 1 [of the solicitation], but we note that they signaled that [the New York State Energy Research and Development Authority] should begin thinking about a planned transmission approach now and use the next year or two that way," Knobloch said. "We appreciate that."

Anbaric has also nearly completed the New York Department of Environmental Conservation's environmental permitting process for both the on-land and state waters portions of its offshore grid.

The company several months ago submitted an application with the U.S. Bureau of Ocean Energy Management for rights of way and right of use, which Knobloch expects to be approved within a year, given the Trump administration's willingness to speed up permitting processes. The process from conception to start of construction for any large transmission project takes roughly eight years, he said.

"Any offshore wind generator who wants to develop transmission, they're going to have to go through these same processes," Knobloch said. "To our knowledge, no one else has put in their interconnection requests to NYISO for offshore wind."

### Skewed Background

New York is making a competitive solicitation with only one company, Equinor, owning an offshore wind area lease close to the city. BOEM plans to lease two new areas off the Massachusetts coast later this year and is studying a proposal from New York for additional leases there.

"You've got some very large European developers who've been successful in Europe, and I think it's fair to say there's a degree to which they're trying to corner the market a bit," Conant said.

"They're using a lot of influence and spending a lot of time in capitol buildings, and some of it is a little bit of disinformation," he said.

For example, Conant contends, those developers don't tell the full story of Germany's experience. Although they emphasize the mistakes the industry made in the early years of the offshore wind industry, they neglect to relate all of what they learned.

"But the lesson learned is that you need to do the transmission first," Conant said.

"Early on in Germany, the delays caused costly headaches. Developers cite that as a reason to have control over transmission, but it's only part of the story, the beginning," agreed Knobloch. "The Danes and the Germans quickly moved to planning transmission before soliciting offshore wind generation."

## MISO NEWS

# Midcontinent Must Play Catch-up on EVs, Group Says

*By Amanda Durish Cook*

Tesla charging station in a supermarket parking lot in Carmel, Ind. | © *RTO Insider*

Middle America is falling behind other U.S. regions in the adoption of electric vehicles, but utilities could play a key role in turning that around, according to a group of industry leaders, government officials and automakers.

"We clearly are not anywhere near California in terms of adoption to date," Great Plains Institute Vice President Brendan Jordan said of the MISO footprint during an interview with *RTO Insider*.

Jordan said the midcontinent region — the Midwestern states and those directly south of them — lacks state-by-state policies like a zero-emissions mandate on car sales or incentives that automakers refer to as "cash on the hood" that can reduce the cost of a new EV.

He pointed out that — for a time — Georgia had one of the highest rates of EV sales in the country because of a state policy that offered a $5,000 tax credit. Sales in the state dropped sharply when Georgia ended the program in 2015.

Jordan's views are backed by findings in an April white paper from the Midcontinent Transportation Electrification Collaborative (M-TEC), a joint effort of GPI and ChargeUp Midwest. The group comprises more than two dozen state government representatives; electric utilities and cooperatives; charging companies; environmental organizations; and automakers General Motors and Nissan.

The group's aim: to increase EV use and infrastructure and decarbonize the transportation sector. It says that with some grid transformation, meeting EV demand could concurrently benefit utility customers, the economy and the environment.

But the MISO footprint — along with Ohio — currently has inadequate charging infrastructure to support widespread EV adoption, the white paper contends.

"The midcontinent region is falling behind other regions and falling behind what analysis indicates is needed in preparing for increased EV adoption. ... Adequate public charging is a prerequisite for increased EV adoption as cited by numerous studies that establish a connection between EV adoption and adequate charging infrastructure," M-TEC said.

### Utilities Need to Lead

ExxonMobil estimates about 100 million EVs will be in use worldwide by 2040; Bloomberg puts that figure at 530 million. The National Renewable Energy Laboratory recently predicted that about 600,000 charging plugs will be needed to support about 15 million EVs in the U.S., with 400 DC fast-charge stations needed along interstates for long-distance travel.

Jordan said utilities should take the lead in encouraging adoption when states elect not to create incentives.

"Some investment from utilities might help adoption," he said.

Utilities can provide education and outreach, monetary assistance for charging and reduced rates for charging times, Jordan said.

And he thinks that while states' roles in stimulating EV purchases should not be ignored, utilities are positioned to act today, a sentiment echoed in the white paper.

"We're not saying that states won't or shouldn't take action. Obviously, states should take action. We wanted to separate out that role that utilities can play independent of state policy," Jordan said. "I think the point is the utilities don't need to wait around for states to take action. There are moves they can make that are good for the environment and good for their customers. They shouldn't wait around for states to take the lead."

That's not to say midcontinent utilities are completely inactive on the EV front. Earlier this month, DTE Energy filed a $328 million rate request with the Michigan Public Service Commission that includes a $13 million pilot program for EV charging stations, while Consumers Energy also recently proposed a $7.5 million EV pilot program.

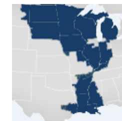
AEP Ohio's $10 million EV pilot program won approval from the Public Utilities Commission of Ohio in April, and Xcel Energy that month also rolled out a revised charge-at-home pilot program for 100 customers after gaining approval from the Minnesota Public Utilities Commission. Madison Gas and Electric also maintains charge-at-home pilot program where customers can have a car charger installed for a $20 monthly fee.

While private charging companies and automakers' public stations should exist, Jordan said the reality is most EV charging will be done at the residential level.

"Charging on a public station at a fast-charge station while on a road trip isn't a

*Continued on page 17*

## MISO NEWS



# Little Work Needed to Comply with Order 835, MISO Says

*By Amanda Durish Cook*

CARMEL, Ind. — MISO staff say the RTO is mostly up to speed with a recent FERC order aimed at increasing the transparency of the generator interconnection processes — but they continue to tackle issues related an overbooked queue.

Compliance with Order 845 largely involves inserting FERC-directed language and existing Business Practices Manual text into the Tariff, MISO said last week.

Chris Supino | *© RTO Insider*

"Most of the compliance directives we already comply with in some shape or form," counsel Chris Supino told stakeholders at a July 17 Interconnection Process Task Force meeting. He said MISO is "early" in its compliance plan and plans to share draft Tariff language in September.

"Most of these are fairly administrative; some we'll have some more discussion around," Supino said.

FERC issued the order in April, setting out 10 new rules intended to increase the transparency and timeliness of RTO generator interconnection processes. (See *FERC Order Seeks to Reduce Time, Uncertainty on Interconnections*.) MISO in mid-May joined an ISO/RTO Council request to extend the original Aug. 7 filing deadline, which FERC pushed out to Nov. 5.

Supino said most of MISO's remaining work will focus on a new requirement to post quarterly summary statistics on its queue, including the number of withdrawn projects, completed projects and delayed projects; the proportion of studies completed by Tariff deadlines; and average study completion time.

MISO is now also obligated to file informational reports for four consecutive quarters if it misses deadlines on 25% or more queue studies during two consecutive quarters. The reports must explain reasons for the delays, steps taken to minimize them and the total number of employee and consultant hours spent on studies during the quarter.

Supino told stakeholders:

- MISO generally complies with a directive to list specific study processes and assumptions because it already posts study models for review on its nonpublic Open Access Same-Time Information System. It will examine how the directive interacts with its existing nondisclosure agreements and whether it should issue more NDAs in order to share the models

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# Midcontinent Must Play Catch-up on EVs

*Continued from page 16*

big part of use, but it will be critical," Jordan said. "The fact is that 90 or 95% of charging is going to take place at home.

"I don't think anyone is saying that utilities should make all those investments, but the fact is that there's a gap there," he said. Jordan pointed out that up to 15% of each state's settlement from the Volkswagen emissions scandal can be spent on light-duty EV infrastructure, and Minnesota has already issued a request for proposals for DC fast-charging stations using its Volkswagen settlement funds.

### Taming Load

Electric demand from EV charging could boost sluggish load growth, M-TEC says. "Transportation electrification is a huge part of that," Jordan added.

Jordan thinks EVs can absorb MISO's abundant nighttime wind generation. The M-TEC white paper argues EV adoption would only minimally increase the daily system peak, and that the controllable nature of EVs can over time can flatten the load curve and increase overall system efficiency.

"I think, generally speaking, there needs to be programs in place to control when charging takes place," Jordan said. "At high levels of EV adoption, you can make a real observable difference in the load curve."

The white paper points out that multiple studies from consulting firm M.J. Bradley project that additional utility revenues from EV charging will likely exceed the cost to supply the demand, putting downward pressure on utility rates.

Jordan also says interested consumers don't have to wait until the later 2020s to purchase EVs, when costs are expected to fall into parity with traditional vehicles.

"I would argue that regular folks can afford some form of EV today," he said, adding that used EVs are becoming more available as leases are turned in. Operations and maintenance are much cheaper over the life of the car despite a high upfront cost, he added.

Jordan also said EV fuel costs tend to be spent locally because they draw from a local electric source. "You can power a car on electricity a lot cheaper than you can power it on fuel or diesel," he added.

### Decarbonized Everything

With the white paper published, the group will now focus on modeling a completely decarbonized transportation system in the midcontinent to show it is economically feasible. Jordan said the modeling will be completed this fall.

Meanwhile, the group will hold a one-day conference July 24 to reveal a plan to completely decarbonize the electric sector by 2050.

"Step 1 is electric sector decarbonization and step 2 is transportation decarbonization," Jordan explained.

He also said GPI and Midcontinent Power Sector Collaborative are in the process of raising money to model decarbonized buildings, industry and agriculture.

"We plan to model the entire [decarbonized] economy eventually," Jordan said.

## MISO NEWS

# Little Work Needed to Comply with Order 835, MISO Says

Continued from page 17

with a broader group.

- The RTO will revise its generator interconnection agreement to give customers the option to build interconnection facilities and standalone network upgrades regardless of whether a transmission owner can meet a customer's proposed in-service dates. It will also likely leverage its existing alternative dispute resolution language used for settlements to apply to members' queue disputes.
- MISO's net zero interconnection option should cover a directive to allow customers to utilize or transfer surplus interconnection service at existing generating facilities. Net zero permits customers to transfer existing interconnection rights to a new generator at the existing point of interconnection, provided the total interconnection does not exceed the original service limit granted in the interconnection queue.
- MISO will revise procedures to allow interconnection customers to request service lower than their generating facility capacity.
- The Tariff will be updated to include a definition of permissible technological advancements to generators that it can accommodate without a change being considered a material change, something FERC has left up to the RTOs. Instead of listing every permutation of acceptable changes, MISO will instead develop a standard to study changes.

### Further GIP Alterations

Meanwhile, MISO is once again tinkering with its proposal to make generation owners more accountable for site control earlier in the interconnection queue.

MISO is now proposing to require that interconnection customers have 90% site control at the time of application based on a per acre format, with 50 acres/MW for wind generation, 5 acres/MW for solar, 1 acre/MW for battery storage and a flat 50 acres for conventional generation. All generation types must provide a detailed site map showing turbine layout. All generators would be required to demonstrate 100% site control by the second decision point of the queue.

Apex Clean Energy's Swaraj Jammalamadaka asked whether it is fair to require generation developers to hold that amount of land especially if MISO's queue studies become delayed.

"It's not a bad thing to have site control, but is this reasonable?" he asked.

Neil Shah | © RTO Insider

WEC Energy Group's Chris Plante also questioned whether the flat 50-acre requirement for conventional units was a reasonable standard. Neil Shah, MISO manager of resource interconnection, said the requirement was based on SPP standards, but staff are open to stakeholder suggestions.

MISO last month softened its original stance that developers should provide evidence of 100% site control before their projects can enter the queue and unveiled a plan to increase the deposit due upon entry from the current $100,000 to anywhere between $500,000 and $2 million in cash, depending on project size. (See "MISO Softens Site Control Requirements in Queue Streamline," MISO Planning Advisory Committee Briefs: June 13, 2018.) Now, the cash deposit option will only apply to projects that demonstrate regulatory restrictions to procuring site control.

MISO also still plans to remove its dynamic stability, short-circuit and affected-system analyses from the first phase of the definitive planning phase. Staff said the revisions are needed because the overbooked queue currently contains almost 93 GW of prospective generation.

"It's in a glut, or it's clogged, and everyone, MISO included, needs to do something," Shah said.

### Revised Milestones

MISO also plans to revise the queue's existing milestone payment and refund structure to include a percentage of upgrades identified in affected-system studies and introduce more monetary risk for customers who keep unprepared projects in the queue.

The RTO plans to keep its current format of a $4,000/MW initial payment upon entering the DPP with two subsequent milestone payments based on a percentage of upgrade costs. However, MISO now proposes to introduce upgrade costs found in affected-system studies that occur during the phase two system impact study. The third milestone payment will now consist of 10% of necessary network upgrades and another 10% of costs associated with needed upgrades uncovered in the affected-system study. The two combined percentages are a departure from MISO's existing third milestone payment of a flat 20% of network upgrades.

Multiple stakeholders said MISO's proposal will make milestone payments more burdensome and riskier to stakeholders by adding the affected studies element.

Jammalamadaka pointed out that MISO cannot control the outcome of affected system studies, which to date have shown inconsistent findings.

"That more money should be a percentage of something that's predictable," Jammalamadaka said.

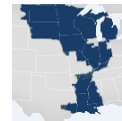
Milestone refunds will also be slightly altered under the plan. MISO will offer to refund 50% (instead of the current 100% ) of the second and third milestone payments if a project opts to withdraw at the corresponding decision points. Projects that do not elect to withdraw at a decision point risk losing their entire milestone payment even if they fail to complete a GIA.

Shah said none of the refund changes will affect the penalty-free withdrawal options that MISO built into its queue overhaul last year. Penalty-free withdrawals are allowed in MISO if network upgrade costs increase too dramatically from one phase to another in the DPP.

"We want to make sure the new rules

Continued on page 19

## MISO NEWS



# MISO Files Revised Upgrade Funding Provisions

*By Amanda Durish Cook*

CARMEL, Ind. — MISO has submitted a preemptive Section 205 filing to retain the option to allow new generators to self-fund interconnection transmission upgrades after the D.C. Circuit Court of Appeals vacated related FERC orders from 2015, stakeholders learned last week.

Mike Blackwell | *© RTO Insider*

"We asked for the commission to issue an order within the requisite 60 days," MISO counsel Mike Blackwell said during a July 17 Interconnection Process Task Force meeting.

MISO policy previously allowed incoming generators to self-fund new construction regardless of whether transmission owners wanted to fund the construction themselves. FERC in 2015 directed MISO to remove the option for a TO to elect to fund the interconnection upgrades.

The D.C. Circuit in January vacated FERC's decisions on the self-funding option, saying the commission didn't consider complaints from Ameren and five other TOs who claimed the policy forced them to accept "risk-bearing additions to their network with zero return" and essentially act as "nonprofit managers" of network "appendages." The TOs had argued the Federal Power Act and Constitution prohibits FERC from forcing them to construct and operate generator-funded network upgrades. The case was remanded back to FERC. (See *MISO Awaits FERC Following Remand on Tx Upgrade Funding*.)

MISO made two separate filings July 5: one to reflect the *vacatur* (ER18-1964), and the other to propose a revised option that removes the requirement that an interconnection customer must consent before a TO can fund an interconnection upgrade (ER18-1965), a move intended to preserve the option for generators to self-fund upgrades. If FERC agrees, the change would apply to MISO's generator interconnection agreement, Facility Construction Agreement and Multi Party Facility Construction Agreement.

### Fallout Undetermined

Blackwell said a FERC decision on MISO's filing could affect GIAs dating back to 2015. In both early July filings, MISO committed to working "with parties to GIAs executed since June 24, 2015," over the next three months to "establish a process for reviewing and revising those agreements to reflect the legal consequences."

Wind on the Wires' Rhonda Peters asked if the impacts of the decision could render some past GIAs uneconomic.

"MISO's intent is merely to bring its Tariffs up to a state that's as current as possible. We haven't analyzed the financial impacts for specific interconnection projects," Blackwell said of the proposed revision.

Peters also asked what would happen if the terms of an upgrade change after it is already funded. Blackwell said he would consult MISO staff on the consequences of such a scenario before attempting to answer the question.

In its filing, MISO warned FERC that not accepting its agreement amendments in a timely manner could have dire consequences: "MISO estimates that agreements already in process contain millions of dollars of affected systems upgrades. … These agreements (and the parties to them) would be subject to significant confusion and uncertainty if the commission does not act promptly to accept this filing, and delays associated with such confusion and renegotiations of agreements of this magnitude could implicate the timely construction of these upgrades."

# Little Work Needed to Comply with Order 835, MISO Says

*Continued from page 18*

accomplish the goal of moving projects and incentivize the not-ready projects to get out as early as possible and potentially not even enter the queue," Shah said. "We want ready projects to progress through the process. We want non-ready projects to drop out as soon as possible. This is our intent with this proposal, and we want to process the queue as quickly as possible."

"We're not changing too many things here," said MISO Resource Utilization Director Vikram Godbole. "If you're not willing to put money up for your project, maybe you don't belong in the [definitive planning phase], I'm sorry to say. We're designing a process for real and ready projects." Godbole added it would be impossible to eradicate all speculative projects from the queue.

Shah said MISO hopes to file the new queue milestone details by the latter half of September.

Some stakeholders indicated that they might contest the filing with FERC.

MISO's Patrick Brown reminded stakeholders that the RTO will collect two more rounds of feedback on the proposal, including a discussion before the Planning Advisory Committee.

"This is not set in stone. This is wet cement here. I think it's a little premature to talk about contesting the filing," he said.

Brown pointed out that MISO estimates it currently has a 20% completion rate of prospective projects that enter the queue. He said MISO is trying to "thin the herd to the most viable projects" and said he hopes the RTO can achieve a 50% completion rate of queue entrants in the future.

## NYISO News

# NY Sets Carbon Pricing Timeline, Reviews Progress

*By Michael Kuser*

RENSSELAER, N.Y. — NYISO said last week it could implement carbon pricing in New York's wholesale electricity markets no earlier than the second quarter of 2021.

That "date is intended to provide certainty to energy trading markets that are currently pricing power prior to Q2 2021," Michael DeSocio, senior manager for market design, told a July 16 meeting of the state's Integrating Public Policy Task Force (IPPTF), the group exploring how to incorporate the cost of $CO_2$ emissions into NYISO's markets.

The ISO also proposed wholesale market suppliers with active renewable energy credit contracts dated prior to Jan. 1, 2020, not be eligible to receive the carbon portion of the market's locational-based marginal prices (LBMP) as part of their payment for supplying energy.

The cutoff date would help reduce or eliminate the potential for double payments to resources eligible for REC payments, DeSocio said.

### Emissions Reporting

Speaking at the meeting, Ethan Avallone, NYISO senior market design specialist, presented proposals on emissions reporting, billing and bilateral transactions under a carbon pricing scheme.

The ISO is proposing to develop a process for generators to report how much carbon they are emitting and later true-up their data based on actual emissions. It would issue applicable charges or credits to adjust payments based on reported actual emissions.

Representing New York City, Couch White attorney Kevin Lang asked, "If what they're reporting is their actual emissions, what is the true-up?"

"In some cases, the initial reporting could be an estimate of emissions," Avallone said.

"Our understanding also is that there's a lot of validation that happens to some of this data, so it's allowing for that validation process to happen," added IPPTF Chair Nicole Bouchez, the ISO's principal economist.

Some $CO_2$-emitting resources submit emissions data to EPA, while others provide data to the state's Department of Environmental Conservation. Some resources submit no data at all. But the majority of emitting resources should already have processes in place enabling them to provide data to the ISO, Avallone said.

### Billing Overview

The proposal calls for emitting resources to provide NYISO with weekly emissions data estimates during the billing month, while also providing updated emissions data when available. Bills from the ISO become final roughly eight months after the initial monthly invoice.

NYISO envisions that adjustments to the carbon charge would be paid to or collect-

Continued on page 21

# FERC Affirms Denial to Extend NY Tidal Power Pilot

FERC on Thursday affirmed its denial to extend the 10-year pilot license for what could be the country's first commercial project for producing tidal power (P-12611-011).

Verdant Power's proposed 1,050-kW Roosevelt Island Tidal Energy Project on New York's East River was previously issued a FERC pilot license for 2012-2021.

Last December, the company requested an extension until 2026 to "acquire operational monitoring data" on the hydrokinetic pilot project, contending the technology involved is not at "commercial readiness." Commission staff denied the extension request in May, saying that "barring extraordinary circumstances, 10 years should be enough time to complete a testing program and to make a decision on whether to file an application for a build-out license."

Site of Roosevelt Island Tidal Energy Project on the East River. | © *RTO Insider*

Verdant requested a rehearing on the grounds that there is no prescribed timespan for pilot licenses and no stakeholders made "credible" objections to the extension request. New York environmental nonprofit Riverkeeper expressed concerns about protecting the endangered Atlantic sturgeon and requested use of a fish-friendly turbine design.

But FERC stuck with staff, saying Verdant still has more than 16 months before the company must file a final license application "to continue testing its technology and [acquire] additional data."

FERC said in a 2008 white paper that an ideal hydrokinetic pilot project would be "small, short-term and located in environmentally non-sensitive areas." In its order, the commission pointed out that the Roosevelt Island project already has double the recommended five-year pilot license time suggested in that white paper.

"If we were to accept Verdant's argument, there is no indication that even 15 years would be a sufficient amount of time to determine whether to file an application for relicensing," FERC added.

*— Amanda Durish Cook*

## NYISO NEWS

# NY Sets Carbon Pricing Timeline, Reviews Progress

*Continued from page 20*

ed from emitting resources that provide emissions data updates before a specified deadline for emissions reporting, which could be consistent with the current billing challenge period of up to five months after the initial invoice.

Resources subject to the Regional Greenhous Gas Initiative would be charged the gross social cost of carbon (SCC) minus the most recently posted quarterly RGGI price. Suppliers not covered by RGGI would incur a carbon price equal to the gross SCC.

Lang suggested greater granularity in the RGGI price calculation could help the ISO minimize the risk of over- or underpaying generators.

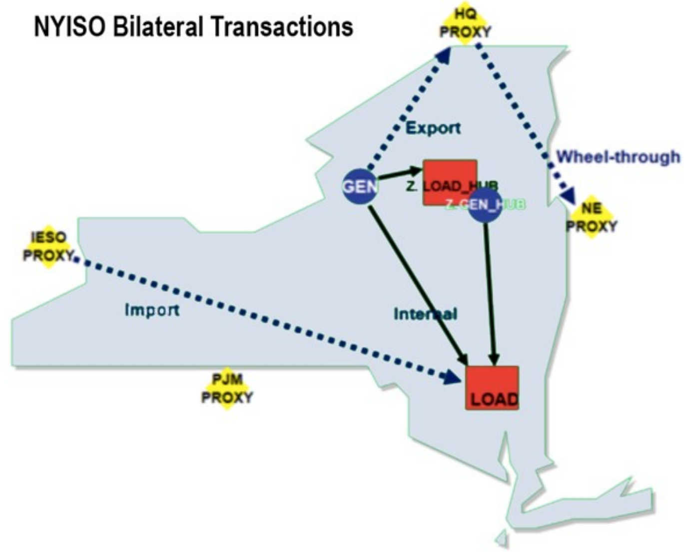
He said previous RGGI prices have fluctuated and future price estimates vary significantly, adding that generators purchase RGGI allowances at different times and in multiple ways.

For those reasons, Lang said he was concerned about basing the carbon price adjustment solely on a quarterly auction price.

In response to a request to use the actual RGGI price paid by the resource instead of the quarterly price, Bouchez said such a move would shift the risk from asset owners to consumers.

"In our markets, we push that risk onto the asset owners," Bouchez said. "They're the ones best suited to manage that, and the consumers shouldn't have to pay for that risk."

The ISO additionally proposed that $CO_2$-emitting resources injecting into the grid to fulfill a bilateral transaction would also be




| NYISO

subject to the carbon charge.

Transmission customers purchasing energy through bilateral transactions would receive an allocation of the carbon residual. This treatment would be similar to how other billing residuals are allocated to transmission customers' actual energy withdrawal, Avallone said.

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NYISO NEWS

# NY Sets Carbon Pricing Timeline, Reviews Progress

*Continued from page 21*

**Progress Check**

Bouchez presented a review of draft recommendations for expected changes to the carbon pricing straw proposal presented in April. (See *NYISO Floats Carbon Pricing Straw Proposal*.)

The plan calls for the IPPTF to deliver draft recommendations by Aug. 1, including suggestions regarding additional meetings or work anticipated by the task force. The group will finalize recommendations by the end of October and issue the proposal by the end of December 2018.

"We would request that when NYISO issues its straw proposal Aug. 1, [New York Department of Public Service] staff at the same time give a status update on how the process is going and whether or not it's still supported. It would be helpful to understand DPS' plans with regard to timeline and decision points on issues that are within its control, as in the setting of the carbon price," said Ben Carron, National Grid's senior analyst for regulatory strategy and integrated analytics.

"We're still as committed as we were day one to review pricing carbon and determine whether or not it's cost effective," DPS Manager Alan Michaels responded.

The IPPTF said it foresees no changes to the concept of carbon pricing, and the analysis will use the gross SCC as recommended by DPS staff in April, which was based on a value already adopted by the Public Service Commission using the figure from the Interagency Working Group on Social Cost of Greenhouse Gases.

The PSC's March 2017 Value of Distributed Energy Resources order (15-E-0751) set the compensation value at the higher of the Tier 1 REC or SCC minus RGGI. Converted by DPS to dollars per ton, the latter figure would gradually increase over the coming decade from $40.74/ton in 2020 to $56.77/ton in 2030.

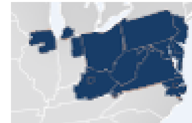
The carbon charge will be applied to internal suppliers, and the task force will add more details to the emissions reporting proposal and also consider that emitting resources might only report EPA-accepted data.

The task force's remaining work includes adding details to the proposal to estimate the carbon component of the LBMP for transparency, and application of the carbon charge to external transactions, which will reflect the July 9 presentation on benefits and drawbacks of the two options considered. (See *New York Looks at Carbon Price Impact on LBMPs*.)

Regarding allocation of the carbon charge residuals to loads, issue Track 5 of the carbon pricing initiative will report the allocations of all three possible methodologies, as well as changes to other ISO markets and planning processes, Bouchez said.

The task force next meets Aug. 6 at NYISO headquarters to review draft recommendations for issue Track 5 regarding customer impacts, especially the assumptions used in modeling a dynamic change case.

## PJM NEWS



# PJM Unveils Locational Reserve Procurement Plan

By Rory D. Sweeney

VALLEY FORGE, Pa. — PJM last week rolled out a proposal to procure reserves on a more granular level, a move the RTO hopes will shift more generator revenues back into the energy market.

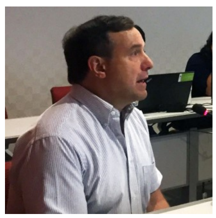
"I do think that, philosophically, energy is the primary product in these markets," PJM's Stu Bresler said at a July 17 meeting of the Energy Price Formation Senior Task Force.

PJM is "not pricing reserves as well as we could," Bresler said, adding that he expects the revenue distribution between energy and capacity markets to effectively work itself out if reserves prices are developed "as right as we can" make them.

The meeting began with PJM's Cheryl Mae Velasco and Patricio Rocha-Garrido explaining that under current rules, a unit's capacity can count as both synchronized reserves and more general primary reserves (which includes non-synchronized reserves), and that a unit would be compensated at a price that reflects providing each. For example, a unit can count as both $20/MW synch and $10/MW primary reserves and be paid a combined $30/MW. The amounts are calculated using "shadow prices" indicated by operating reserve demand curves (ORDCs) that are based on the probability of falling below the minimum reliability requirements for synch and primary reserves.

The shadow prices can vary extensively based on system circumstances, and even fall to $0/MWh, but the penalty factors are capped at $850/MWh. The payment, which is then also combined with a locational LMP, is designed to entice units to respond when called upon.

### Shifting the Curves



Angelo Marcino | © RTO Insider

PJM's Angelo Marcino discussed staff's thoughts on how the ORDC can be adjusted to give grid operators more operational flexibility but still make sure that activity is captured in the market. They had been considering developing an "extreme day" ORDC but are now looking at revising on a case-by-case basis to adjust the reserve requirement rather than the slope of the curve, he said. The changes would be classified as either "market" adjustments that are determined through PJM's clearing engine or "out of market" adjustments that grid operators assign based on issues observed that are not modeled in the RTO's software.

PJM would ensure real-time notification of the adjustments and be responsible for keeping a historical record of them.

PJM's Lisa Morelli also discussed staff's concerns that current reserve zone modeling of the RTO zone with the Mid-Atlantic Dominion (MAD) sub-zone "doesn't always accurately reflect the constraints dispatch is most concerned with overloading," which can exacerbate constraints and result in reserve prices that don't accurately reflect system conditions.

PJM is recommending including nodal reserve pricing and flexible sub-zone modeling in the task force's discussion. The RTO would define several reserve subzones but only tackle one at a time. They could be defined by three categories of constraints: reactive transfer interfaces; 345-kV or larger actual overload constraints; or contingency overloads exceeding the load dump limit on a facility that is 345 kV or larger. PJM would notify participants about their use as early as possible, but provide at least one day's advance notice.

Each subzone would have its own ORDCs for synch and primary reserves that would remain consistent with the RTO-wide methodology. Staff confirmed that units that hadn't been assigned for reserves and are offline for some other reason wouldn't be eligible to receive primary reserve payments.

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# 2nd Load Shed of PJM's CP Era Follows Quickly on 1st

PJM on Wednesday ordered its second load-shed event since implementing Capacity Performance in 2015, less than two months after ordering the first. (See *PJM Experiences First Load Shed in the CP Era*.)

Both events were in the American Electric Power zone.

The July 18 event occurred on the border between West Virginia and Virginia, PJM spokesperson Jeff Shields said. An AEP equipment issue led to other equipment being taken out of service, which resulted in "severe" low voltages in the area around Bluefield and Princeton in West Virginia.

PJM called on AEP at 11:14 a.m. to reduce load in the area by 32 MW to return the voltages to acceptable levels. Keeping the voltages low would have risked "potential further voltage problems and equipment damage that could cause wider problems," Shields said, but assured that didn't include any potential for cascading outages.

The order lasted for 83 minutes until PJM canceled it at 12:37 p.m. after the equipment was returned to service. Approximately 13,000 customers were affected.

While both events trigger the significant performance-related bonuses and penalties introduced with CP, no resources were impacted by either incident. The May 29 event was caused by transmission equipment unexpectedly tripping offline in the area of several planned transmission line outages, causing constraints that had potential to cause a cascading outage. (See "Load Shed Details," *PJM Operating Committee Briefs: July 10, 2018*.) Prior to these events, PJM last ordered load shedding during the 2013 heat wave.

PJM plans to review the most recent event at its Members Committee meeting on July 23.

*— Rory D. Sweeney*

## PJM NEWS

# PJM Unveils Locational Reserve Procurement Plan

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### 'Philosophical Issues'

The proposal sparked discussion from stakeholders about the potential implications.

Susan Bruce, representing the PJM Industrial Customers Coalition, said she was "comforted" to hear that the issues the proposal is meant to address don't happen often but said she has "philosophical issues" with the market ramifications.

"PJM benefits as a reserve-sharing concept," she said.

Bresler's comments about energy as a primary market prompted Roy Shanker, a consultant for several generators, to warn that when the energy and ancillary services markets become "large enough, the behavior of the demand curve has to be examined."

Bresler agreed that the capacity market's variable resource requirement demand curve and the energy market's ORDCs are connected.

Bruce asked that PJM and its Independent Market Monitor attempt to find "areas of consensus" on the topic.

"As much as can be done to narrow those gaps, especially from a customer perspective, that would be highly valued," she said.

Bresler said staff are "working pretty hard" with the Monitor to come to agreement and that "the sooner that happens, the better off we and the stakeholder community will be."

PJM also remained noncommittal on Bruce's request for simulations to see how the proposal shifts revenues between the capacity and energy markets.

"Certainly industrial customers are concerned given their high volume usage," she said.

PJM staff expressed concerned that stakeholders would judge the proposals on the simulated outcomes rather than the logic of the methodology.

"We do want to have principled reasons for the changes we're making," Bruce said, but she added that insight into the potential impact "would be a useful tool … so we can make the right choices before it's too late."

James Wilson of Wilson Energy Economics, who consults for several member states' consumer advocates, said he was interested in "understand[ing] the consequences at a nitty-gritty level, not at an aggregate level."

Bresler said that could be helpful with the caveat that nothing can be extrapolated to suggest larger consequences.

The meeting concluded with PJM's Vince Stefanowicz explaining the next steps for developing the real-time 30-minute reserves product. The operational justification and methodology for defining the procurement target were endorsed at the July meeting of the Operating Committee and are moving on to be considered by the Markets and Reliability and Members committees. (See "Real-time 30-minute Reserves," *PJM Operating Committee Briefs: July 10, 2018*.)

The price formation task force will focus on pricing the reserve target and optimizing with other ancillary services, determining what resources are eligible and coordinating real-time dispatch, he said.

GT Power Group's Dave Pratzon asked that the discussion include an analysis to identify why the reserve deficiencies are occurring in the first place.

# FERC Rethinking DFAX for Stability Transmission Projects

Continued from page 1

cations with benefits.

In addressing requests for rehearing of complaints about cost allocations for the BLC project, FERC on Thursday ordered settlement judge procedures to urge the parties into settlement, saying the underlying facts in the complaint "have significantly changed" (EL15-67-003, *et al.*).

FERC also granted rehearing of its April 2016 order rejecting a complaint by Delaware and Maryland regulators, who argued that the DFAX method, as applied to Artificial Island, does not produce an allocation of Regional Transmission Expansion Plan project costs roughly commensurate with the benefits (EL15-95-003).

### BLC

The commission urged a settlement of the BLC dispute rather than rule on a rehearing request over its April 2016 order denying a complaint from Linden VFT over the projects and two others totaling $1.3 billion. Linden, Consolidated Edison, the New York Power Authority and Hudson Transmission Partners — the operator of another merchant transmission line into New York City — requested rehearing of the decision.

Since then, one of the projects was canceled and the costs for another were reassigned entirely to Public Service Electric and Gas, so that only the allocations for BLC, totaling $1.2 billion, remain in contention.

Linden's complaint was that the reliability issues upon which the projects were based are not related to power flows, so PJM's solution-based DFAX method, which identifies beneficiaries based on flows, did not align costs with benefits. While the formula is split 50/50 between load-ratio share and DFAX, the allocation ends up weighted toward the DFAX. Of the $1.3 billion in allocations Linden initially complained about, approximately $400 million was allocated on a load-ratio share basis and $900 million based on DFAX.

Even though BLC is in PSE&G's zone, the company was allocated only about $88.4 million of the costs. Con Ed was allocated approximately $720.4 million, Linden $9.6 million and Hudson $103.2 million.

FERC denied Linden's complaint, ruling that the company failed to prove the DFAX method was unjust and unreasonable. In urging a settlement before ruling on rehearing, the commission said, "the circumstances regarding the cost responsibility assignments … have significantly changed."

In May 2017, Con Ed canceled a wheeling agreement with PSE&G that had made the wheel part of cost responsibility assignments in the RTEP. With the wheel eliminated, PJM reassigned the costs that had been allocated to Con Ed.

In December, FERC granted Linden's and Hudson's request to convert their firm transmission withdrawal rights to non-firm rights, allowing the merchant facilities to escape RTEP cost allocations. PJM subsequently reassigned to PSE&G the costs Hudson and Linden had been allocated. (See *PSE&G on the Hook for Bergen-Linden Costs*.)

The chief judge has 15 days to assign a settlement judge, who will report back in 30 days after being appointed. The chief judge will then allow more time if a settlement remains unfinished or inform FERC that there's an impasse that can't be settled.

### Artificial Island

As in the Linden complaint, the commission initially rejected the Delaware and Maryland regulators' complaint over the use of the DFAX cost allocation for Artificial Island. The project would add new transmission between New Jersey and Delaware to address stability limits on generation at the Salem and Hope Creek nuclear plants and transmission constraints that sometimes prevent the generators from exporting power at full capacity.

About $242 million (87%) of the cost of the project was assigned under DFAX and the remaining $38 million assigned based on load-ratio share.

The state commissions requested rehearing in April 2016, along with the states' public advocates, Old Dominion Electric Cooperative, Easton Utilities and the Delaware Municipal Electric Corp. LSP Transmission Holdings also requested rehearing separately.

In granting a paper hearing, FERC said it now believes the DFAX method is unjust and unreasonable for projects that address stability-related reliability issues. The commission cited a statement from PJM in the docket that "stability is analytically unique compared to voltage or thermal overloads" because it results from "an imbalance of generation and load caused by a sudden event on the transmission system where the rotational inertia of the generator could cause the generator to lose synchronism with the rest of the transmission system."

Generators oscillate to re-establish balance, but the severity of the oscillation is dependent on the strength of the transmis-

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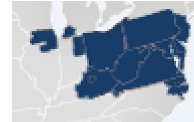
The Hope Creek and Salem nuclear units on Artificial Island in southern New Jersey | *BHI Energy*

## PJM NEWS



# MRC/MC Preview

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

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

## Markets and Reliability Committee

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

Members will be asked to endorse the following manual changes:

A. Manual 3A: Energy Management System (EMS) Model Updates and Quality Assurance (QA). Revisions developed to include or update technical specifications and procedures.

B. Manual 11: Energy & Ancillary Services Market Operations. Revisions developed to address inconsistencies between PJM's governing documents regarding price-based offers above $1,000. The RTO hopes to introduce additional system controls to improve validation of price-based offers by November. (See "Energy Market Caps," *PJM Market Implementation Committee Briefs: July 11, 2018*.)

C. Manual 14A: New Services Requests Study Process and Manual 14G: Generation Interconnection Requests. PJM is seeking to split out part of Manual 14A into a new Manual 14G to better organize interconnection information. (See "Interconnection Procedure Split," *PJM PC/TEAC Briefs: June 7, 2018*.)

### 3. Governing Document Revisions for Seasonal Demand Response Registration (9:30-9:45)

Members will be asked to endorse revisions to Manual 18: PJM Capacity Market, the Tariff and the Reliability Assurance Agreement associated with the registration process for aggregated seasonal demand response resources. (See "Seasonal Aggregation," *PJM Market Implementation Committee Briefs: July 11, 2018*.)

### 4. Revisions to RAA and Manual 18: PJM Capacity Market (9:45-10:00)

Members will be asked to endorse revisions to the RAA and Manual 18 associated with changes developed by the Demand Response Subcommittee to address issues identified with atypically low customer load during winter peak load calculation period. The Market Implementation Committee endorsed the changes in June.

### 5. Fuel Requirements for Black Start Resources Problem Statement & Issue Charge (10:00-10:20)

Members will be asked to approve a proposed problem statement and issue charge on fuel requirements for black start resources. (See "Black Start Fuel Assurance," *PJM Operating Committee Briefs: July 10, 2018*.)

### 6. FTR Credit Proposal (10:20-10:50)

Members will be asked to endorse proposed Tariff revisions to implement a 10-cent/MWh minimum monthly credit requirement for financial transmission rights bids submitted in auctions and cleared positions held in FTR portfolios. (See "Credit Requirements," *PJM Market Implementation Committee Briefs: July 11, 2018*.)

### 7. VOM Packages (10:50-11:30)

Members will be asked to endorse one of four proposals on what maintenance cost components should be included in generators' cost-based offers. A proposal sponsored by American Electric Power will be considered first, followed by proposals from PJM, the Independent Market Monitor and Rockland Electric. (See "VOM Update," *PJM Market Implementation Committee Briefs: July 11, 2018*.)

## Members Committee

### 1. FTR Credit Proposal (1:10-1:25)

Members will be asked to endorse proposed Tariff revisions to implement a minimum per-megawatt-hour FTR credit requirement. (See MRC item 6 above.)

### 2. VOM Packages (1:25-1:40)

Members will be asked to endorse the proposal on where and how to include VOM costs in generators' offers that is endorsed in the MRC meeting. (See MRC item 7 above).

*— Rory D. Sweeney*

# FERC Rethinking DFAX for Stability Tx Projects

Continued from page 25

sion system, FERC said. A weaker transmission system will cause the issues to last longer and be more severe, which could ultimately result in damage to the generator and cause additional outages of other system elements. Stability-related projects "provide additional outlets" for generators to address the issues.

FERC established a paper hearing to consider an appropriate alternative. Stakeholders have 60 days to provide their comment on proposals from PJM and Exelon. The PJM proposals were filed in the docket by the state commissions after the RTO unveiled them last year. (See *PJM: AI Costs Would Shift to NJ, PA Under New Allocations*.)

The first alternative, which PJM called a "direct extension" of the DFAX, would reduce Delmarva Power & Light's responsibility to about 7% while raising the bill for PSE&G to more than 42%. New Jersey's other utilities — Jersey Central Power & Light and Atlantic City Electric — would pick up 13% and 7.3%, respectively. PECO Energy would shoulder about 20% of the costs.

PJM's second "stability deviation method" would allocate 19% to PSE&G, 15% to PECO, 12.5% to PPL, 12.4% to JCP&L, 10.4% to Delmarva Power & Light, 7.2% to ACE and about 5% to Met-Ed.

Exelon presented its proposal as comments in the docket. Its "hybrid method" could assign some portion of cost responsibility for benefits identified by flows on transmission projects that address stability issues in proportion with the benefits identified by PJM's approaches.

## SPP NEWS

# SPP Stakeholders to Study Admin Fee Changes

*By Tom Kleckner*

SPP CFO Tom Dunn explains potential changes to the administrative fee's recovery. | *© RTO Insider*

OMAHA, Neb. — SPP's Markets and Operations Policy Committee last week agreed to create a task force to evaluate a proposal that would change the recovery mechanism for the RTO's administrative fee.

Saying the RTO's Finance Committee "is at a point where maybe we change the recovery methods," SPP CFO Tom Dunn pitched the committee's recommendation to change the fee's billing units from transmission metrics to energy metrics by charging market transactions.

The administrative fee, currently 42.9 cents/MWh, is collected under Schedule 1A of SPP's Tariff on transmission contracts between transmission providers and customers. Point-to-point contracts are billed against reserved transmission capacity, and network service is billed against the prior year's average monthly zonal peak.

Speaking at last week's MOPC meeting, Dunn said regulators have issues with how some companies recover their costs, pointing to the use of historical data for current year costs and inconsistent calculations. The Integrated Marketplace has also resulted in a staff increase and additional IT costs, which have increased the costs to be collected.

"Is there a way we can eliminate or mitigate issues utility customers are having with regulators?" Dunn asked.

He said using energy metrics could potentially reduce the administrative fee to 15 cents/MWh, because financial-only players who are currently not paying Schedule 1A fees would also be contributing. But Dunn also cautioned against adding the "new universe" of market participants.

"From an SPP Inc. standpoint, that's not necessarily ideal," Dunn said. "Our customer base is monopolistic entities carrying investment grade ratings. When you change that mix, you slightly change the credit outlook of SPP — slightly."

The new scheme would also result in independent power producers paying more.

"The value that members and market participants realize in the marketplace comes through in terms of the energy cost customers pay," said Board Chair Larry Altenbaumer, who also sits on the Finance Committee. "The largest cost component is the 1A fee, which is easy for regulators to lay their eyes on. Our recommendation basically does an automatic netting and captures the energy cost the consumer pays. Some regulatory agencies, we think, would allow this to pass through. Others we're not clear on."

Dunn said he had talked with MOPC leadership about setting up a task force, noting that full market participation would "result in a solution that's tenable for everybody." The group would return to the committee in January with a recommendation for approval, with the new fee going into effect in 2020.

SPP legal counsel visited with FERC in March and "talked through the concept," Dunn said.

"FERC's big concern is consistency across the markets," he told members. "All of the organized markets have an unbundled rate structure. We don't want to be put in a position where we're showing the commission was wrong to put unbundled rates in regulated markets. It's an issue we would have to address."

Some stakeholders expressed concerns about forecasting energy usage, which is largely impacted by weather.

"I'm not sure how that brings stability to the administrative fee and cost recovery," said Midwest Energy's Bill Dowling.

Dunn responded that energy metrics would improve load forecasts, as market participants would be using 365 data points for each entity, as opposed to 12 data points from the previous year. He added that the methodology change would allow midyear adjustments to true up the remainder of the year should there be under- or over-recovery.

"The simpler we can do it, the better it is for everyone. We don't want to focus on precision so that we gin up another Z2," Dunn said, referring to SPP's troubled method for assigning financial credits and obligations for sponsored transmission upgrades.

"What's beneficial is keeping rate decisions simpler. We want something that doesn't drive administrative costs and is easier to administer," he said.

MOPC Chair Paul Malone, of Nebraska Public Power District, recommended the task force meet monthly.

"Continuing to lay everything on transmission doesn't make sense to me on the surface," he said.

## SPP NEWS

# MOPC Briefs

### NDVER-to-DVER Conversion Approved 2nd Time Around


| © RTO Insider

OMAHA, Neb. — Given a proverbial second bite of the apple, SPP stakeholders easily approved a revision request that requires non-dispatchable variable energy resources (NDVERs) to register as dispatchable variable energy resources (DVERs) within a multiyear transition period.

The Markets and Operations Policy Committee rejected the measure (RR272) during its April meeting. The Board of Directors/Members Committee tabled the request but asked for a review of RR272's economic impact and that the Market Working Group build greater consensus among the membership. (See "Board Forced to Table NDVER Conversion Change," *SPP Board of Directors/Members Committee Briefs: April 24, 2018*.)

MWG Chair Richard Ross, of American Electric Power, began discussion of the change by noting he was one of the few people in the meeting room wearing a tie.

"I'm not trying to make anyone nervous," he quipped. "But if you get unruly, I'll take the tie off."

There was no need. The measure passed with more than 81% approval, almost 20 points better than it fared in April. It was opposed by only two transmission owners (Empire District Electric and Omaha Public Power District) and eight transmission customers with various ties to renewable energy. Seven transmission customers abstained.

"We wanted to see this happen, sooner than now," said Southwestern Public Service's Bill Grant. "This is a compromise we can live with. It took a lot of work to get to this point, but we've moved to a point where most people are happy."

Staff shared its analysis of RR272's economic effects, which compared the conversion of NDVERs to DVERs against a base case using real-time security-constrained economic dispatch data. They found the conversion resulted in improved congestion management and, with it, better convergence of real-time and day-ahead prices. That resulted in about $15,000 in additional monthly real-time energy payments to converted NDVERs and about $20,000 in additional revenue to other resources.

The data also indicated a significant reduction in the number of operating hours with negative pricing.

The MWG revised the proposal to exempt run-of-river hydro not capable of following dispatch instructions and to provide additional time for certain NDVERS to convert. They now face a deadline of either Jan. 1, 2021, or the 10-year anniversary of a resource's original commercial operation date.

Market Monitoring Unit Executive Director Keith Collins said he supports the proposal, saying the benefits come from "an increase in prices at locations that are primarily non-dispatchable."

"We're investing upgrades for controls we don't own, which increases the [power purchase agreements] for our customers. That's not something we're keen on," said Empire's Aaron Doll. "Our specific limitation is contractual language that limits curtailments to a certain amount in a 24-hour period. The dispatch signal puts us in bad spot pretty quickly. Anything short of providing an exemption for entities with contract language that precludes curtailment is not something we can support."

The MOPC also approved RR266, which would model a joint-owned unit (JOU) as a single resource in market-clearing decisions, while performing an after-the-fact allocation of revenues based on ownership shares. Other JOU shares would be used for settlement purposes, and each share would exist only in the context of settlements where final clearing results are split based on the submitted ownership share percentages.

The change is contingent upon final approval by the Regional Tariff and Operating Reliably working groups. Nebraska Public Power District and Oklahoma Gas & Electric's Transmission and Electric Services divisions opposed the measure, citing problems with the language.

"We have a couple of JOU situations we manage fine ourselves," said OG&E-Transmission's Greg McAuley. "We'll continue to pound the table as it relates to some of these administrative costs."

Stakeholders approved against minimal opposition three other revision requests brought forward by the MWG:

- RR306, which would minimize potential gaming opportunities identified by the MMU. The change allows market-committed resources that have a minimum run time extending beyond initial reliability unit commitment or day-ahead commitment periods to be eligible for make-whole payments after their initial commitment period.
- RR304, which streamlines the process by which frequently constrained areas are re-evaluated, in order to make adjustments in a timely manner.
- RR312, which would calculate the FERC Schedule 12 rate based on current data. The change aligns the collections of revenue against the customers' megawatt-hours being assessed.

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## SPP News

# MOPC Briefs

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### SPP Prepared for January's 'Big Chill'

Staff's update on what they call "The Big Chill," the abnormally frigid temperatures Jan. 17-18 that led to heavy north-south transfers of MISO flow across SPP's system and a maximum generation alert in MISO South, caused one member to recall his scouting days.

"I wouldn't call this an emergency event," said MOPC Chair Paul Malone, of NPPD. "It was pretty well known we would have severe weather over a wide area. That begs for proper planning. As the Boy Scout motto says, 'Be prepared!'"

"Let's just say, some people are surprised every day by what happens," said SPP COO Carl Monroe, "and some people were surprised that day."

MISO exceeded its 3,000-MW regional dispatch limit on transfers between its North and South regions over the SPP system during the event and was forced to make emergency purchases from Southern Co.

SPP Vice President of Operations Bruce Rew said the RTO never had to issue an emergency alert, as it was never short of generation. "It was uncomfortable for us," he said. "We have to make sure it doesn't happen again."

David Kelley, SPP's director of seams and market design, credited SPP's and MISO's neighboring reliability coordinators with helping to prevent load shed and keeping the lights on during the event. He said recent discussions among the Regional Transfers Operating Committee (RTOC), a six-person group comprising two representatives each from SPP, MISO and joint parties to a 2016 settlement agreement, centered on better understanding the non-firm, available nature of MISO's north-south flows and their effects on neighboring entities. (See *SPP, MISO Reach Deal to End Transmission Dispute*.)

"Anything over 1,000 GW is on a non-firm, as-available basis. To us, that means SPP's service should not be in jeopardy of load shed," Kelley said. "When this event happens again, and will happen again, we'll be prepared."

Kelley said staff has also met with FERC staff to "ensure FERC had a clear understanding of what happened that day," given "very inaccurate statements that found their way into the media." (See *SPP Seeks FERC Meet in MISO Tx Dispute*.)

Kelly also briefed the MOPC on a proposed interregional project with Missouri-based Associated Electric Cooperative Inc., a new 345/161-kV transformer at AECI's Morgan Substation near Springfield and the rebuild of a 161-kV line.

The project's regional cost allocation was rejected by FERC last year. (SPP would be responsible for 89% of the $13.75 million in engineering and construction costs). SPP staff have since developed data that indicate the project would yield the region $17 million in load ratio share benefits by eliminating the need for upgrades at City Utilities of Springfield's John Twitty Energy Center and also reduce day-ahead market uplift costs.

"We feel like we're in much better shape," said Kelley, who met with FERC staff on July 12. "They look forward to seeing our next filing."

Kelley said that filing should be made in late July or early August.

Left to right: SPP's Carl Monroe, NPPD's Paul Malone, NE Texas Electric Co-op's Jason Atwood and GDS Associates' Jack Madden anchor the MOPC's head table. | © *RTO Insider*

### Stakeholders Endorse $47.4M in Near-term Tx Work

The MOPC endorsed the Transmission Working Group's recommendation to approve the Integrated Transmission Planning process's 2018 near-term assessment portfolio, a package of 13 transmission projects with an estimated cost of $47.4 million.

However, when taking into account four withdrawn projects from previous assessments that cost a total of $53 million, the portfolio has a net cost of -$5.6 million.

Several of the Kansas and Missouri projects are being driven by the retirement of about 1.9 GW of 50- to 60-year-old generation later this year and in early 2019.

The projects will solve 101 reliability needs. They include a new 345-kV, 50-MVAR reactor at City Utilities' Brookline substation, a project originally identified as an interregional project with AECI.

OG&E's Travis Hyde, who chairs the TWG, noted SPP approved nearly $8 billion in construction between 2006 and 2014. With the strategic shift to maintaining "an economical, optimized transmission system," he said, the RTO has since approved just more than $1 billion in base plan funded investment.

Staff developed a summary presentation of the assessment using a story map tool.

Stakeholders also endorsed NorthWestern Energy's sponsored upgrade of less than 4 miles of new 115-kV line in Aberdeen, S.D., and a working group recommendation to approve the 2019 ITP's needs sensitivity scope addressing study results affected by

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# MOPC Briefs

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Lubbock Power & Light's potential exit from the system.

## RC Efforts in West Absorb MWTG Integration

Monroe told members that the integration of the Mountain West Transmission Group has been "subsumed" in the debate out West over who will provide reliability coordinator (RC) services — a debate that involves SPP.

The RTO said in June that it plans to offer RC services in the Western Interconnection, matching an earlier announcement by CAISO. Not coincidentally, Peak Reliability said last week it will wind down its RC role by the end of 2019. (See related story, *Peak Reliability to Wind Down Operations*, p.1.)

"There's still interest in [joining SPP]," Monroe said. "The importance of making sure RC is provided, and in an efficient and reliable way, has subsumed their work right now."

SPP's efforts to integrate Mountain West were dealt a blow in April when Xcel Energy announced it was withdrawing from the Rocky Mountains group and its efforts to join the RTO. (See *Xcel Leaving Mountain West; SPP Integration at Risk*.)

Monroe said there have been no changes to the Mountain West's initial proposal to join SPP, adding he hopes to be able to provide "what kind of a footprint we would have with RC services" by Sept 1.

"As we work through the process, our intent is to meet the goals of what we normally do through contract service, which is providing benefits back to the members themselves," he said.

## MRO's Patrick Welcomes New Entities

Midwest Reliability Organization CEO Sara Patrick introduced herself to SPP members, many of whom were among the 100 registered entities that joined the organization after the SPP Regional Entity's recent dissolution. (See *SPP RE Ending Compliance Monitoring, Enforcement Activities*.)

Patrick said all compliance monitoring and enforcement program (CMEP) data was successfully transferred from the SPP RE to MRO on July 3, and that all entities in its expanded footprint are now using MRO's webCDMS portal.

Patrick gave credit to the SPP RE's staff in a "well-coordinated" transition and data transfer. The $1.5 million in transition costs will be recovered by transferring assessments from the SPP RE to MRO, she said.

The MRO's board of directors last month approved a $4.3 million increase, reflecting the expanded footprint. Patrick said the budget will result in $4.8 million in savings, when compared to the combined MRO and SPP RE budgets.

The board also agreed to add four new directors next year, including two regional directors from the SPP RE's footprint.

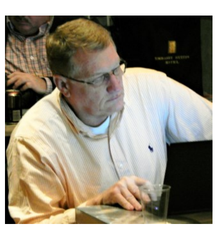
## MOPC Sends Two Initiatives Back

The MOPC declined to take action on a pair of work efforts, asking that both be returned to the stakeholder process for further clarification.

Following an update on SPP's prioritization process for revision requests and project proposals, stakeholders debated potential improvements to the process before the committee's leadership said it would return to the next meeting in October with ideas on how to proceed.

Stakeholders complained about a lack of transparency, the amount of information they had to deal with and not knowing where decision-making authority lies. Staff said it stopped the quarterly meetings because of a lack of feedback.

Several members familiar with ERCOT's stakeholder process suggested the Texas grid operator's Protocol Revisions Subcommittee (PRS) as a good model to follow. Tenaska's John Varnell, who once chaired the PRS, said if members listened in on the group's meetings, "You will see how we can do better at this process."



Mike Wise | *© RTO Insider*

"That's one thing that ERCOT does quite well," said Golden Spread Electric Cooperative's Mike Wise, who sits on ERCOT's MOPC equivalent, the Technical Advisory Committee.

"[The PRS] does a really good job of ensuring financial stability or accountability. [Members] debate [revision requests] quite substantially before they ever enter in the queue for approval at the TAC. Many of us want this to be like what we have at ERCOT. It puts more decision-making in the hands of the stakeholders, rather than SPP."

Grant, who headed the task force that developed the prioritization process, called for more stakeholder involvement in the process. He reminded the committee that the task force hasn't been disbanded.

"If we're going to spend the time and effort to improve the process, we need better participation and more dedication to the issue," he said. "It doesn't matter what we set up if the stakeholders aren't going to participate in the process."

The MOPC also sent back a Credit Practices Working Group (CPWG) revision request, saying it needed more information and noting the Finance Committee had tabled the request. The CPWG reports to the committee.

The CPWG's RR311 would change the way reference prices are used to estimate the settlement exposure of transmission congestion rights (TCRs). The group's analysis of a two-year period indicated its proposed methodology would have reduced collateralization in the TCR market by $124 million to $327 million, and more than doubled under-collateralization from $17 million to $39 million.

Staff recommended tabling the change, saying it needed more analysis in light of a market participant's recent default in PJM's financial transmission rights market. (See "Credit and Default," *PJM MRC/MC Briefs: June 21, 2018*.)

"It sounds like the hesitancy to move forward is lack of understanding of what's happening in the PJM situation," said Kansas City Power & Light's Denise Buffington.

Given that the CPWG has yet to gain approval from the Finance Committee and the Regional Tariff Working Group, stakeholders agreed to send CPWG RR311 back to the working group so that it can be proper-

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## SPP NEWS

# MOPC Briefs

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ly shepherded through the stakeholder process.

### Members Endorse RRs, Process Language Change

Members endorsed language changes to improve efficiency of the revision request process by reducing the time it takes to gain approval for a change and removing duplicate references that cause unnecessary changes.

The proposal (RR291) would allow a revision with approved "normal status" to progress through the stakeholder process while its primary working group waits on the impact analysis. It would also revise language to reference the applicable documents as SPP revision request documents and remove their multiple references.

The MOPC's consent agenda, which passed unanimously, included nine revision requests and a new baseline cost estimate for SPS' 115-kV loop rebuild in West Texas. The project's original cost of $28.4 million was reduced almost 23% to $21.9 million.

- BPWG RR307: Clarifies that partial service may be offered to short-term transmission service requests when the full amount requested cannot be granted.
- CTPTF RR279: Modifies the competitive project proposal process to allow a re-evaluation request before awarding a notice to construct.
- MWG RR177: Clarifies references to NERC standards in the Integrated Marketplace's protocols and the Tariff's Attachment AE, the marketplace's governance, to eliminate confusion over whether entities are performing obligations for market or NERC standard reasons. Also modifies the attachment's definition of operating reserve to that defined in the Tariff.
- MWG RR277: Corrects language in Attachment AE to accurately reflect the settlement formula for the auction revenue rights daily amount by reversing the sequence of the source and sink.
- MWG RR310: Adds three reporting requirements to comply with FERC Order 844: zonal make-whole payment reports, resource-specific make-whole payment reports and operator-initiated commitment reports. Also requires public posting of transmission constraint penalty factors; circumstances if violation relaxation limits (VRLs) could set prices; and procedures for temporarily changing VRLs in the Tariff.
- ORWG RR309: Removes section 7.3.1 (FAC-011-3 System Operating Limits Methodology) from SPP's planning criteria and places it in a separate document for reliability coordination purposes.
- RTWG RR278: Corrects Attachment O's Addendum 1 to include only current and applicable interregional coordination agreements and an update link to the joint operating agreement with MISO.
- RTWG RR315: Removes references to the SPP RE in the governing documents.
- RTWG RR314: Adds clarifying language to the ITP manual addressing ambiguity in the base reliability and short-circuit model builds.

*— Tom Kleckner*

## FERC & FEDERAL NEWS

# FERC Says Farewell to Powelson

### *McIntyre Soldiers Through Pain*

*By Michael Brooks*

WASHINGTON — FERC celebrated departing Commissioner Robert Powelson's brief tenure Thursday, with colleagues extolling his candidness and defense of competitive energy markets.

After only a year on the commission, Powelson is leaving in mid-August to become CEO of the National Association of Water Companies. (See *Powelson Leaving FERC to Head Water Lobby*.)

The former National Association of Regulatory Utility Commissioners chairman was his usual joking self as he thanked fellow commissioners and staff until he began talking about his wife and two sons, when he choked up.

"They have been very supportive of me, and they have persevered through commutes [and] travel," Powelson said, fighting back tears.

Powelson has been unafraid to speak his mind while at FERC. He once tweeted a debate challenge to coal magnate Robert Murray and ribbed then EPA Administrator Scott Pruitt at a storage industry conference for his excessive travel expenses. He also elevated the sports trash talk at commission meetings as an outspoken Philadelphia fan, enjoying a rivalry with Commissioner Cheryl LaFleur, a Boston native.

"I also respect your fierce independence and your commitment to the independence of FERC," LaFleur said. "And your unbridled wit — I think that's a euphemism for 'complete lack of filter' — made commission meetings and Twitter more enjoyable while you were here." As a parting gift, she gave him a mug that said, "I don't care how they do it here. I'm from Pennsylvania."

"It's very rare in this town that you find someone who's willing to speak unfiltered in a variety of different ways, but without the need to be in lockstep with one political party or another," Commissioner Richard Glick said. "But Commissioner Powelson certainly has shown the freedom to be able to speak his mind. And everyone in this room knows that Commissioner Powelson has always told us what he thinks, every single time, no matter what the issue is."

Commissioner Neil Chatterjee, former energy adviser to Senate Majority Leader Mitch McConnell (R-Ky.), said he had vetted Powelson for a seat on the commission in 2011. Powelson, however, had just become chair of the Pennsylvania Public Utility Commission and "felt he didn't want to leave the commission too quickly, which, as I think about it and reflect on it today, is rather ironic."

"That was a lifetime ago," he continued amid laughter. "Cheryl used to vote for pipelines back then with no regard whatsoever for emissions."


| *FERC*

### McIntyre Toughs it out

FERC Chairman Kevin McIntyre, with spokeswoman Mary O'Driscoll, speaks with reporters after Thursday's commission meeting. | *© RTO Insider*

The hour-and-a-half meeting appeared taxing for Chairman Kevin McIntyre, who revealed in March that he had undergone surgery and treatment for a brain tumor. (See *McIntyre Discloses Brain Tumor Surgery*.)

On the commission's podcast, "Open Access" last Tuesday, McIntyre said he has been suffering severe back pain since before July 4, later determined to be the result of compression fractures in two of his vertebrae. He also stumbled and fell on July 4, injuring his left arm.

In a departure from normal procedure, the doors to the commission meeting room were locked until five minutes before Thursday's meeting was scheduled to begin at 10 a.m. McIntyre was already seated when staff, visitors and reporters were allowed in.

He remained seated throughout, excusing himself for not standing during the Pledge of Allegiance. His arm in a sling, he read slowly and deliberately, stumbling over some words.

FERC spokeswoman Mary O'Driscoll declined to answer a reporter's question as to why there was a delay in opening the doors.

Normally open to talk about subjects not discussed at open meetings, McIntyre took few questions from reporters after Thursday's session and was not asked about his injuries.

After the press conference, McIntyre remained seated in the hearing room as reporters and staff left. O'Driscoll said the room needed to be cleared for another meeting.

In Tuesday's podcast, McIntyre said he was hoping to take time off soon. "Some major R&R would be really great if I'm able to arrange that consistent with my FERC responsibilities."

## FERC & FEDERAL NEWS


# FERC Orders Pipelines to Pass Through Tax Savings

*By Rich Heidorn Jr.*


FERC staff present the final rule at Thursday's commission meeting. | *FERC*

With two commissioners calling for additional action to protect consumers, FERC this week issued a final rule requiring natural gas pipelines to reflect the federal corporate income tax cut in their rates (RM18-11).

The July 18 order largely follows the commission's Notice of Proposed Rulemaking in March, prompted by the Tax Cuts and Jobs Act, which reduced the federal corporate income rate to a flat 21%. (See *FERC Orders Rate Revisions to Reflect New Tax Law*.)

The NOPR would have required interstate pipelines to file a one-time report (FERC Form 501-G) to estimate the company's return on equity before and after the tax cut took effect Jan. 1.

The final rule makes changes to the proposed form, including eliminating accumulated deferred income tax (ADIT) from the cost of service for pipelines that do not pay taxes — consistent with a separate order on rehearing of its revised policy statement on income taxes, also issued Wednesday (PL17-1-001).

The rule gives a pipeline several options for addressing changes to its revenue requirements, including making a filing under Section 4 of the Natural Gas Act to reduce its rates. Companies that do so will be granted a three-year moratorium on NGA Section 5 rate investigations if the pipeline's Form 501-G shows an ROE of 12% or less.

Pipelines also can file either a prepackaged uncontested rate settlement or a general NGA Section 4 rate case. The commission said it will not initiate Section 5 rate investigations for pipelines that choose this option by Dec. 31.

The rule will take effect 45 days after publication in the *Federal Register*.

### Call for Congressional Action

Democratic Commissioners Cheryl LaFleur and Richard Glick issued a joint concurrence calling on Congress to amend NGA Section 5 to provide the commission with refund authority like that for electric rates under the Federal Power Act.

"We believe that current law provides a perverse incentive for protracted litigation and creates an asymmetry of leverage between pipelines seeking a rate increase under Section 4 of the NGA and complainants or the commission under Section 5," they wrote.

"We believe that our lack of refund authority affected the balance the commission was able to strike in today's order. It is a clear tenet of cost-of-service ratemaking that tax savings should flow through to ratepayers, and the commission is rightly pursuing that goal in the final rule. However, because our Section 5 'stick' under the NGA cannot effectively deliver timely relief to customers, the final rule proffers a series of 'carrots' in the hope that pipelines will exercise their Section 4 filing rights to quickly flow those tax benefits back to their customers. While we think the balance struck in the final rule is reasonable in light of our limited refund authority, we believe that the commission would be better equipped to protect customers if the law were amended."

### Dissents on Certificates

On Thursday, LaFleur and Glick also continued their campaign to force the commission to assess pipeline projects' impact on greenhouse gas emissions. (See *Dem Dissents Show FERC Divide on Carbon*.)

Glick dissented on four gas pipeline certificate orders (Columbia Gas Transmission, CP17-80; Texas Eastern Transmission, CP18-10; Northwest Pipeline, CP17-441; and Millennium Pipeline, CP16-486-001).

LaFleur also cited the lack of GHG considerations in concurring opinions on three of the orders and indicated she would issue a partial dissent later on Millennium Pipeline.

GHG emissions are also certain to be a point of contention as the commission reconsiders its 1999 policy statement on pipeline certificates (PL18-1). Comments on the Notice of Inquiry are due Wednesday. (See *FERC Outlines Gas Pipeline Rule Review*.)

## FERC & FEDERAL NEWS


# FERC Orders Expanded Cybersecurity Reporting

By Rich Heidorn Jr.

FERC on Thursday ordered expanded reporting of cybersecurity incidents, saying attempts not currently reported could lead to bigger, more successful attacks.

The commission gave NERC six months to revise its critical infrastructure protection (CIP) reliability standards to mandate reporting of incidents that compromise, or attempt to compromise, a responsible entity's electronic security perimeter (ESP) or associated electronic access control or monitoring systems (EACMS) (RM18-2).

FERC said the new rules will improve threat awareness by covering the installation of malware and other "incidents that might facilitate subsequent efforts to harm the reliable operation of the [bulk electric system]."

Under the current CIP-008-5 (Cyber Security – Incident Reporting and Response Planning), incidents must be reported only if they "compromised or disrupted one or more reliability tasks."

The final rule adopts the Notice of Proposed Rulemaking the commission issued in December, which concluded that "the current reporting threshold may understate the true scope of cyber-related threats facing the bulk power system, particularly given the lack of any reportable incidents in 2015 and 2016." (See *FERC Orders Tightened Cyber Reporting Rules*.)

The commission's order also calls for standardizing cybersecurity incident reports to improve the quality of reporting and allow easier comparisons and analyses. The reports will require information on the impact, or intended impact, of the intrusion; the attack "vector" used; and the level of intrusion achieved or attempted.

In addition to continuing to send the reports to the Department of Energy's Electricity Information Sharing and Analysis Center (E-ISAC), the reports would also be distributed to the Department of Homeland Security's Industrial Control Systems Cyber Emergency Response Team (ICS-CERT). NERC will be required to file an annual report with the commission with anonymized summaries of the reports.

### Seeking Balance

In its 2017 State of Reliability Report, NERC recommended redefining reportable incidents "to be more granular and include zero-consequence incidents that might be precursors to something more serious." Although NERC received no reports of cybersecurity incidents during 2016, it noted that DOE's Electric Disturbance Reporting Form OE-417 included two suspected cyberattacks and two actual attacks for the same period and that ICS-CERT responded to 59 cybersecurity incidents in the energy sector in 2016.

"Our directive is intended to result in a measured broadening of the existing reporting requirement in reliability standard CIP-008-5, consistent with NERC's recommendation, rather than a wholesale change in cyber incident reporting that supplants or otherwise chills voluntary reporting, as some commenters maintain," the commission wrote. "Indeed, as NERC contends, we believe that the new 'baseline understanding, coupled with the additional context from voluntary reports received by the E-ISAC, [will] allow NERC and the E-ISAC to share that information broadly through the electric industry to better prepare entities to protect their critical infrastructure.'"

The ESP is defined by NERC as the "logical border surrounding a network to which

Continued on page 35

# FERC Teaming up with PHMSA on LNG Applications

By Michael Brooks

WASHINGTON — FERC is collaborating with the Transportation Department's Pipeline and Hazardous Materials Safety Administration to process the 15 applications for LNG terminals before the commission, Chairman Kevin McIntyre announced Thursday.

"The new collaborative procedures, which will be implemented imminently, will significantly reduce the time required to review LNG project applications by taking full advantage of the expertise of our federal partners at PHMSA, the safety experts, to study potential impacts to public safety of each and every LNG terminal proposal," McIntyre said at the commission's monthly open meeting.

FERC and PHMSA staff are still working out the details and will issue a formal memorandum of understanding "as soon as possible," he said.

McIntyre alluded to the announcement last Tuesday on the commission's podcast, "Open Access."

"In just the last few days, we have made truly significant strides in reforming the permitting process with our federal partners," he told commission spokeswoman Mary O'Driscoll.

McIntyre also denied that FERC had sent letters to several export terminal developers notifying them that their applications could be delayed by 12 to 18 months as it struggles to deal with its backlog, as reported by Bloomberg on July 11. Bloomberg had corrected the story to remove references to the letters, but it still says FERC "is preparing to notify" developers of the delays, citing anonymous sources. (*RTO Insider* noted Bloomberg's report in an article about a Senate Energy and Natural Resources Committee hearing at which the subject of delayed natural gas pipeline and LNG project approvals was discussed. See *Senate Talks Gas Infrastructure amid Increasing Delays*.)

The commission has in the past six months revised the notice schedules for three projects, McIntyre said, but it has not issued any new schedules in that time frame.

"FERC staff is very cognizant of the financial market impacts of its LNG project schedules," he said. "Moreover, since we have been working diligently to streamline our permitting process and are still making significant strides in that direction, the release of any schedules to date would have been premature."


# FERC Orders Expanded Cybersecurity Reporting

Continued from page 34

BES cyber systems are connected using a routable protocol." EACMS include firewalls, authentication servers, security event monitoring systems, intrusion detection systems and alerting systems.

"Since responsible entities are already required to monitor and log system activity under reliability standard CIP-007-6, the incremental burden of reporting of the compromise or attempted compromise of an EACMS that performs the identified functions should be limited, especially when compared to the benefit of the enhanced situational awareness that such reporting will provide," the commission said.

### Report Preferable to Data Request

The commission concluded a reporting requirement is preferable to a "perpetual" data request to collect the same information, saying it is "more aligned with the seriousness and magnitude of the current threat environment, and more likely to improve awareness of existing and future cybersecurity threats and potential vulnerabilities."

It noted that "the commission will have the ability to review and ultimately approve the standard, as opposed to the opportunity for informal review that the commission would have of a data request."

### Timelines

The commission told NERC that it should consider the threat posed by attacks in developing its reporting thresholds and timelines.

"Higher risk incidents, such as detecting malware within the ESP and associated EACMS or an incident that disrupted one or more reliability tasks, could trigger the report to be submitted to the E-ISAC and ICS-CERT within a more urgent time frame, such as within one hour, similar to the current reporting deadline in reliability standard CIP-008-5. For lower risk incidents, such as the detection of attempts at unauthorized access to the responsible entity's ESP or associated EACMS, an initial reporting time frame between eight and 24 hours would provide an early indication of potential cyberattacks. For situations where a responsible entity identifies other suspicious activity associated with an ESP or associated EACMS, a monthly report could, as NERC states, assist in the analysis of trends in activity over time."

### Top Challenge

Commissioner Neil Chatterjee said protecting the grid from cybersecurity threats is one of FERC's top challenges. "Both the Department of Homeland Security and Federal Bureau of Investigation have issued multiple public reports describing intrusion campaigns by Russian government cyber actors against our critical infrastructure, including the electric grid," he said in a statement. "While thankfully none of these intrusions have resulted in an actual power outage, they do represent an unsettling uptick in attempts to undermine America's critical infrastructure systems."

"Cyber threats to the bulk power system are ever changing, and they are a matter that commands constant vigilance," added Chairman Kevin McIntyre.

### Split Ruling on NERC Rules of Procedure

In a separate order, FERC also approved in part and denied in part NERC's proposed revisions to its Rules of Procedure (RR17-6).

The commission approved NERC's proposed revisions to Section 900 to clarify the scope and governance structure of its training and continuing education programs.

But it ordered NERC to restore sections of its personnel certification rules the safety organization had proposed for deletion from Section 300. The commission said it disagreed with NERC's contention that the sections, pertaining to procedures for suspending an operator's certification, dispute resolution and disciplinary action were "programmatic detail" that can be transferred to NERC manuals.

"If these provisions were removed from the NERC Rules of Procedure and remain only in a NERC manual, they would be subject to further change with minimal, if any, stakeholder input and without commission review," FERC said. "This is not appropriate because changes in the provisions for suspension, dispute resolution or disciplinary actions could have a significant impact on a stakeholder's or individual's rights and obligations."

# Mo. Supreme Court: PSC Erred in Denying Grain Belt Express

*By Amanda Durish Cook and Rich Heidorn Jr,*

The Missouri Supreme Court ruled last week that the state Public Service Commission can issue the Grain Belt Express transmission project a certificate of convenience and necessity (CCN) without obtaining consent from each impacted county (SC96993).

The unanimous decision cleared one obstacle hindering Clean Line Energy Partners' embattled, $2.3 billion, 780-mile line, which would transmit Kansas wind generation through Missouri and Illinois to PJM at the western border of Indiana.

"We think this is obviously a huge step forward," Clean Line President Michael Skelly said in an interview.

Missouri regulators rejected Grain Belt Express in 2017, citing precedent from a state Court of Appeals' decision that certificates require consent from each county affected by the proposed construction.

Although four of the five commissioners said they found the project worthy, they said their hands were tied by precedent, as the Caldwell County Commission refused to allow the transmission line to cross public roads. (See *Clean Line Ponders Options After Grain Belt Rejection*.) Speaking at a Midwest Energy Policy Series in April, PSC Chairman Daniel Hall said it didn't make sense that county commissioners "can decide the fate of interstate transmission lines." (See *New Midwest Infrastructure Must Respect Trends, Experts Say*.)

But the Supreme Court said the commission confused a *line* CCN — which does not require prior county assent — with an *area* CCN, which does. An area CCN would have been necessary if the Grain Belt Express was intended to supply retail service.

It concluded that the commission mistakenly analyzed the application under the wrong subsection of rules.

The court reversed the PSC's decision and remanded the case


| Clean Line Energy Partners

back to the commission to issue a new order.

### County Opposition Remains

The Supreme Court acknowledged that Clean Line will still need county assent to construct facilities impacting publicly owned roads under state law. "But such assent is not relevant to the commission's decision in issuing a line CCN," the court said.

The project would cross 206 miles through eight Missouri counties.

Landowner group Block Grain Belt Express Missouri said that it will continue to lobby county commissioners to withhold approval. The group said the ruling was an "empty victory" and maintains that the line has little chance of success.

"We disagree with the decision of the Supreme Court and are disappointed by it. A ruling requiring county consent prior to approval by the PSC would have likely been the end of the road for Grain Belt Express. However, Grain Belt is still far from being approved and built. We will continue to fight for our farms and property rights and against unnecessary use of eminent domain," the group's Russ Pisciotta said in a statement.

### Clean Line Optimistic

Clean Line's Skelly told *RTO Insider* he didn't expect problems winning counties' approvals for road crossings. "We'll work with the counties to figure that out," he said. "You always have to have road-crossing agreements."

Skelly said the company, which already has CCNs from Kansas and Indiana, is planning to refile its application in Illinois, where its certificate was rescinded by a state appellate court in March because it did not qualify as a public utility in the state. Illinois law requires that a public utility "owns, controls, operates or manages, within this state, directly or indirectly, for public use, any plant, equipment or property used or to be used for" public utility purposes.

"We believe that the Illinois commission recognized the need for new transmission, and we believe we will be able to craft a successful application in Illinois," Skelly said.

"The courts have laid out a pretty clear path" for overcoming their objections, Skelly added. "It could be as simple as owning land. It could be teaming up with an Illinois-based utility. It could be owning a substation."

Grain Belt's DC-AC converter station is slated to be attached to American Electric Power's Sullivan 765-kV substation in Illinois, near the Indiana border. "A lot of that power is going to end up in Illinois," Skelly said.

# FERC Grants KCP&L Greater Missouri's Dividends Petition

*By Tom Kleckner*

FERC last week found that KCP&L Greater Missouri Operations' proposed payment of dividends complies with the Federal Power Act (EL18-146).

The commission found that Greater Missouri had clearly identified the source of its proposed dividends and that "nothing in the record indicates that the dividends will be excessive." FERC found that the dividends would be "generally consistent with the amount and timing of the dividends" the utility has traditionally paid to its parent Great Plains Energy.

The commission said that, "consistent with prior precedent," the issuance of dividends would not harm GPE. It conditioned its approval on the utility's compliance with its capitalization and credit rating commitments.

Greater Missouri filed the petition in May, saying it had deferred income tax assets and liabilities related to its regulated operations and significant deferred income tax assets for net operating losses (NOLs) generated prior to it's acquisition by GPE in 2008. The utility said last year's Tax Cuts and Jobs Act required it to revalue all of its deferred tax assets and liabilities in December based on the lower 21% corporate tax rate, and to revise its assumptions regarding the use of certain tax credits and NOLs.

The utility recognized a $111.6 million one-time, non-cash charge to income tax expense, approximately 1.6 times its average net income from 2014 through 2016 ($71.4 million). The charge caused Greater Missouri to have an accumulated deficit in its retained earnings account, which, according to FPA Section 305a, restricted the utility's ability to pay dividends to GPE.

Section 305a forbids any public utility's officer or director to receive "for his own benefit" any security issued or to share in any of the proceeds from any funds properly included in the capital account. The commission said a key concern was "corporate officials raiding corporate coffers for their personal financial benefit."

FERC used a three-factor analysis to determine whether the proposed dividends payment violated the FPA. The commission considered whether: (1) the utility clearly identified the dividends' sources; (2) the dividends would be excessive; and (3) the proposed dividends would have an adverse effect on the value of shareholders' interests.

GPE recently acquired Kansas-based Westar Energy. (See *Westar-Great Plains Merger Wins Final Approval*.)

# Company Briefs

## Dominion Offered to Boost SCE&G Refund if Lawmakers Killed Bill

Dominion Energy offered to increase the refund it would give South Carolina Electric & Gas customers upon completing its acquisition of SCE&G parent SCANA if the state's lawmakers voted down a bill temporarily cutting rates for customers, according to South Carolina Senate Majority Leader Shane Massey.

The bill, which cut SCE&G customers' bills by most of what they were paying for the utility's failed attempt to expand the V.C. Summer nuclear power plant, passed easily, but SCANA is challenging its constitutionality in a lawsuit.

Chet Wade, Dominion's vice president for corporate communications, said the company facilitated discussions with South Carolina legislators in an attempt to avoid litigation. Dominion offered to buy SCANA on Jan. 3 for $7.9 billion in stock and the assumption of $6.7 billion in SCANA debt. (See *Dominion to Buy Distressed SCANA for $8B*.)

More: *WIS*

## Retirements Cut Reactive Revenues at AES Ohio

FERC on July 20 approved a reduction in AES Ohio Generation's revenue requirement to reflect retirements at the Stuart and Killen generating plants.

Annual reactive service payments will drop to $168,693 from $1,789,725. Being retired are Stuart's coal-fired Units 2 through 4 and four diesel units, and the Killen generating station units, which include one coal-fired unit and one combustion turbine. The reduction is retroactive to June 1, 2018.

More: *ER18-1664*

## 10.1% ROE for NextEra Energy Transmission MidAtlantic

NextEra Energy Transmission MidAtlantic will receive a return on equity of 10.1%, including a 50-basis-point adder for RTO participation, under an uncontested settlement approved by FERC on July 20.

The company had sought an ROE of 11%, including the adder for participating in PJM. The new ROE will be retroactive to Nov. 30, 2016.

More: *ER16-2716-004*

## Eversource, Contractor Sued Over Electrocution Death

Eversource Energy and a contractor it employed are being sued for allegedly contributing to the death of utility worker Marco Antonio Silva in Wilton, Conn.

Silva died on June 9, 2016, when, while preparing a site for installation of a utility pole, his equipment came into contact with a high-voltage transmission line. Nara Rodrigues-Feitosa, Silva's widow, filed a lawsuit against Eversource and Silva's employer, KTI Utility Construction & Maintenance, in Connecticut Superior Court on July 11.

The lawsuit alleges that Silva's death could have been avoided had KTI followed safety guidelines and Eversouce de-energized the line.

More: *The Hour*

## Navigant Adds 4 to Global Energy Segment

Navigant said July 18 that four senior-level industry professionals have joined its global energy segment.

Ed Batalla, Lon Huber and Maurits Ornstein have joined the segment as directors based in Miami, New York and The Hague, Netherlands, respectively. Mark Henderson has joined as a senior executive adviser based in Toronto.

More: *Navigant*

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# Company Briefs

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## SC Gov. Appoints Himself to Santee Cooper Committee


McMaster

South Carolina Gov. Henry McMaster has appointed himself to a nine-member committee that will meet this fall to decide if the state should sell Santee Cooper as a result of the utility's role in a failed attempt to add two reactors to the V.C. Summer nuclear power plant that cost it and its partner in the expansion $9 billion.

Citing multiple unnamed sources, *The State* reported the other appointees are four state senators and four state representatives, with three Republicans and one Democrat from each house.

More: *The State*

## Co-ops Seek to Keep Santee Cooper Suit in Circuit Court

The 20 electric cooperatives that are the largest customers of South Carolina-owned utility Santee Cooper said in a July 17 filing with the state Supreme Court that a lower court is the right venue for sorting out the factual questions involving the failed attempt by the utility and SCANA to expand the V.C. Summer nuclear power plant.

The co-ops, which are responsible for paying $3 billion of the $4 billion in debt that Santee Cooper racked up in the expansion attempt, have sued the utility, saying that their customers shouldn't have to continue paying for a project that was never completed.

Santee Cooper in June asked the Supreme Court to rule that it has the legal right to charge its customers, including the co-ops, for the debt.

More: *The State*

## SCE&G Turns over 'Confidential' VC Summer Documents

South Carolina Electric & Gas on July 20 gave the South Carolina Office of Regulatory Staff a hard drive full of documents related to the failed attempt to expand the V.C. Summer nuclear power plant, but the SCANA subsidiary marked them all "confidential."

The utility also produced a 49-page log of documents that it is withholding from regulators because it says they are covered by attorney-client privilege, also marking it "confidential."

"There is no basis for this designation," Matthew Richardson, an attorney representing Regulatory Staff, wrote in a letter to SCE&G.

More: *The State*

## Xcel Completes Portales Loop Transmission Upgrade

Xcel Energy said Thursday it has completed its Portales Loop project, a $29 million upgrade to its transmission system around Portales, N.M.

Over five years, the company built two substations; rebuilt and expanded an existing substation; performed a major upgrade to the Portales interchange; and built 23 miles of new 115-kV transmission line to connect the substations, which distribute power into the city's neighborhoods. The transmission line replaces a 69-kV line.

The Portales Loop is one of many projects Xcel is undertaking as part of its Power to the Plains initiative, which is meant to boost the capacity and reliability of its New Mexico and Texas electric delivery systems.

More: *KVII*; *Albuquerque Business First*

## Facebook to Finance 6 Solar Projects in Oregon, Utah

Facebook said July 18 it will finance the construction of six solar projects totaling 437 MW of capacity to offset the power used by the five data centers on its campus in Prineville, Ore.

Two of the projects will be south of Prineville and the other four will be on PacifiCorp's grid in Utah.

PacifiCorp will contract with other companies to build and own the projects, which Facebook expects to be up and running by the end of 2020.

More: *The Oregonian*

## Colorado Springs Utilities Adding 95 MW of Solar by 2020

Colorado Springs Utilities said July 17 it has signed agreements to have two solar arrays with 95 MW of capacity built for it.

Solar developr juwi will build the 60-MW Palmer Solar Project just south of Colorado Springs, Colo., and a subsidiary of NextEra Energy Resources will build the 35-MW Grazing Yak Project just south of Calhan, Colo.

The utility expects the Palmer Solar Project to be completed by 2020 and the Grazing Yak Project to completed by the end of 2019.

More: *The Gazette*

## Quinbrook Plans to Fund 690-MW Nev. Solar Project

Quinbrook Infrastructure Partners said July 16 it intends to fund the 690-MW Gemini Solar Project, which is planned for nearly 44,000 acres of Bureau of Land Management-supervised property 25 miles northeast of downtown Las Vegas.

The project, which would include as much as 240 MW of storage, would be among the largest of its kind in the U.S. and cost $1 billion to build.

Quinbrook said its partner, Arevia Power, would oversee the project's development and construction.

More: *Quinbrook Infrastructure Partners*; *Bloomberg*; *pv magazine*

## Minnesota Waste-to-Energy Plant to be Sold or Closed

The Elk River Resource Recovery Project will shut down next March if a buyer can't be found for the Elk River, Minn.-based waste-to-energy power plant, officials with it said July 16.

The estimated selling price for the plant is $37 million, which is the amount of debt left on it. Project Manager Tim Steinbeck said the plant can no longer sell power at a price that covers its costs.

More: *Pioneer Press*

# Federal Briefs

## Two Co-op Execs Appointed to DOE Electricity Advisory Committee

Clay Koplin and Shaun Mann have been appointed to two-year terms on the Department of Energy's Electricity Advisory Committee, the National Rural Electric Cooperative Association said July 20.

Koplin is the CEO of Cordova Electric Cooperative. Mann is the research and development manager of Tri-State Generation and Transmission Association.

The two join Pam Silberstein, NRECA regulatory issues director, who has served on the committee for the past four years.

More: *National Rural Electric Cooperative Association*

## Power Tops Oil and Gas in Global Investment Again

The power sector received the biggest share of global energy investments in 2017, topping oil and gas for the second consecutive year, the International Energy Agency said July 17.

Power got more than $750 billion in investments while oil and gas got $715 billion, according to IEA's "World Energy Investment 2018" report.

Total energy investment last year was $1.2 trillion, down 2% from the year before in real dollars.

More: *International Energy Agency*

## PREPA Gets 3rd Leader in a Week

Puerto Rico Gov. Ricardo Rosello on July 18 named Jose Ortiz to be the executive director of the Puerto Rico Electric Power Authority, making the former chairman of the bankrupt utility's board of directors the third person to hold the post in less than a week.

Walter Higgins resigned as PREPA's executive director July 12 after less than four months on the job. His initial replacement, PREPA board member Rafael Diaz-Granados, quit a day after being named to the post along with four directors, after Rosello blasted them for agreeing to pay Diaz-Granados $750,000 a year.

Ortiz's annual salary will be $250,000.

More: *Reuters*

## Proposed Coal, Nuclear Bailout Could Cost $34 Billion

Keeping struggling nuclear and coal-fired power plants open for two years, as a draft Department of Energy memo suggests doing, would cost $34 billion, according to a study commissioned by energy and technology groups that oppose the proposal.

"Arresting the retirement of uneconomic generating assets in the current market environment will likely prove quite costly," says the report, which was prepared by The Brattle Group.

The groups that paid for the study include the American Petroleum Institute, Advanced Energy Economy and American Wind Energy Association.

More: *Houston Chronicle*

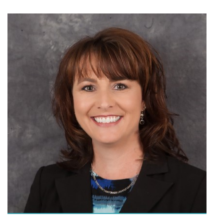
## House Approves Resolution Saying Carbon Tax Bad for Economy

The House of Representatives on July 19 voted 229-180 to approve a resolution denouncing a carbon tax as detrimental to the economy, a week before Rep. Carlos Curbelo (R-Fla.) plans to introduce a bill that would create a carbon fee.

Only six Republicans voted against the resolution. Four, including Curbelo, belong to the Climate Solution Group, a bipartisan caucus that includes 43 GOP members. Seven Democrats voted for the resolution.

More: *InsideClimate News*

## Melanie Frye Named WECC President, CEO


Frye

Melanie Frye has been selected to be the Western Electricity Coordinating Council's president and CEO, the WECC Board of Directors said July 16.

Frye had been WECC's vice president of reliability planning and performance analysis. She joined WECC in 2007. Her selection fills a vacancy created when Jim Robb left to become president and CEO of NERC.

More: *Western Electricity Coordinating Council*

## Wheeler Signs Rollback Of Coal Ash Regulations

Acting EPA Administrator Andrew Wheeler on July 18 signed and finalized new standards for handling coal ash that loosen those put in place by the Obama administration in 2015 after two major coal ash spills.

The standards will extend the life of some existing coal ash ponds from April 2019 until October 2020, empower states to suspend groundwater monitoring around the ponds in certain cases and give states the power to certify whether the ponds meet standards.

More: *CNN*; *The Washington Post*

## Commerce Department to Investigate Uranium Imports

Secretary Wilbur Ross said July 18 the Commerce Department will open an investigation into whether imported uranium ore and related products threaten national security.

The investigation was requested by two U.S. uranium mining companies, Ur-Energy and Energy Fuels, which say low-priced imports, especially from competitors that receive subsidies from their governments, have caused them to cut jobs in recent years.

Nuclear power producers have warned that sharp restrictions on uranium imports could lead to plant closures.

More: *The New York Times*

## EPRI Gets $1.8M DOE Solar Forecasting 2 Program Award

The Electric Power Research Institute said July 17 it has been awarded $1.8 million by the Department of Energy to develop and demonstrate new methods of operating power systems with high penetrations of solar energy.

The award was made under the department's Solar Forecasting 2 funding program, which is meant to advance predictive modeling capabilities for solar generation.

EPRi said its project will use actual data from three energy companies to develop a platform enabling new power system operating methods and tools.

More: *Electric Power Research Institute*

# State Briefs

## ARIZONA

### Pinnacle-backed Group Challenges Referendum Signatures

A group backed by Arizona Public Service's parent, Pinnacle West Capital, filed a lawsuit in Maricopa County Superior Court on July 19 saying more than 75% of the 480,464 signatures collected to get a renewable energy referendum on the ballot in November are invalid.

Arizonans for Affordable Energy alleges in the lawsuit that no more than 106,441 of the signatures that Clean Energy for a Healthy Arizona submitted to the secretary of state's office on July 5 are valid.

If approved, the referendum would require the state's utilities to get 50% of their power from renewable sources by 2030.

More: *Arizona Republic*; *Phoenix Business Journals*

### Corporation Commission Names Interim Executive Director

ACC commissioners vote unanimously to appoint Matt Neubert as interim executive director. | *Arizona Corporation Commission*

The Corporation Commission on July 19 appointed Matt Neubert to be its interim executive director, replacing Ted Vogt who resigned after concerns arose about a conflict of interest.

Neubert has been the director of the commission's securities division for 15 years. Prior to that, he served as director of registration and compliance within the securities division.

Vogt stepped down after commissioners said he failed to disclose that his wife worked for a lobbying company tied to Arizona Public Service, the state's largest electric utility.

More: *The Arizona Republic*

## CALIFORNIA

### IID Sues Riverside County Over Net Metering Ordinance

The Imperial Irrigation District has sued Riverside County over an ordinance approved July 17 that directs the public power agency to reinstate its net metering program, which it replaced two years ago with a program that offers a lower reimbursement for rooftop solar power.

The ordinance requires IID to bring back net metering in unincorporated areas of Riverside County, which are governed by the county's supervisors. It's based on a section of the Water Code that says water districts that sell power outside their water service boundaries, such as IID, can be regulated by cities and counties in the areas where they provide power but not water.

IID sued in Riverside County Superior Court the week before the ordinance was passed, which was when the supervisors took a preliminary vote on it. IID also slammed the county's board of supervisors for allowing Vincent Battaglia, founder of Palm Desert-based rooftop solar installer Renova Energy, to defend the ordinance on the county's behalf and reimburse the county for the legal expense of defending the ordinance.

More: *Desert Sun*

### Distributed Solar Saved Utilities $650M to $730M

Distributed solar generation enabled utilities in CAISO to spend $650 million to $730 million less on power for their customers from 2013 through 2015, according to a report by researchers from Carnegie Mellon University and the National Renewable Energy Laboratory.

"A retrospective analysis of the market price response to distributed photovoltaic generation in California," which is slated to be published in *Energy Policy* in October, found that distributed solar reduced the hourly mean whole electricity price by up to 3.2 cents/kWh during the peak period of 12 to 1 p.m.

The researchers used 15-minute solar electricity production estimates in the study, as that is the interval generators bid for in the day-ahead market.

More: *pv magazine*

### Report: Expanding CAISO Would Cut Costs, Create Jobs

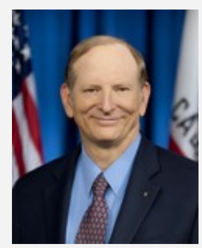
Expanding CAISO would lower energy costs, increase renewable energy use and create 10,000 to 20,000 jobs a year in the state by 2030, think tank Next10 said in a report released July 17.

"A Regional Power Market for the West: Risks and Benefit" includes two RTO scenarios. Under one, the state would continue buying most of its power in-state or from nearby sources. By 2030, the report says, that would create an additional 20,000 jobs a year through lower energy costs and the construction of wind, solar and geothermal projects.

The second scenario, in which the state would buy its energy from anywhere, would create an extra 10,000 jobs a year by 2030, according to the report.

More: *The Orange County Register*

### Pro-PG&E Wildfire Bill Sponsor's Son a Utility Employee



Bill Quirk

State Assemblyman Bill Quirk, who wrote a bill that would make Pacific Gas and Electric customers cover the costs of settling lawsuits from last year's wildfires, has a son who works for the utility.

Ian Quirk's LinkedIn page says he is an "expert portfolio management analyst" who has been employed by PG&E since July 2009 and did a four-month internship with the company in 2008.

"The member's decision to introduce AB33 has nothing to do with his son working at PG&E," said Tomasa Duenas, Quirk's chief of staff. "It has everything to do with fire victims and protecting ratepayers."

More: *San Francisco Chronicle*

### Emails Reveal Private Meetings Between Regulators, CAISO

Officials from the Public Utilities Commission, CAISO, the Energy Commission, the Air Resources Board and the Water Resources Control Board met privately as a group called the Energy Principals to

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# STATE BRIEFS

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discuss issues of mutual concern, including cases before their organizations, according to emails recently released by the PUC under a court order.

Members of Gov. Jerry Brown's administration, energy producers and other industry stakeholders also attended the meetings, which were held through most of 2014, the emails show.

PUC spokeswoman Terrie Prosper said the meetings were held periodically so public officials could discuss cross-cutting issues of importance to the state and that there was never a quorum of commissioners at the meetings. She declined to say if the meetings are still happening.

More: *The San Diego Union-Tribune*

## IDAHO

### Hydro One-Avista Hearing Postponed After Shakeup

The Public Utilities Commission has postponed a technical hearing on Hydro One's $5.3 billion acquisition of Avista scheduled for July 23 because of the retirement of Hydro One's CEO and resignation of its board of directors.

The commission hasn't announced a new date for the hearing, which was meant to address concerns about the deal raised in earlier public comments and testimony. It said Avista must file an update if a new Hydro One CEO and board aren't in place by Aug. 15.

The province of Ontario is Hydro One's largest shareholder with a 47% stake in the company and the power to remove its board. In his campaign, Premier Doug Ford called for replacing the company's CEO and board.

More: *The Spokesman-Review*

## INDIANA

### IPL Files Settlement Agreement Limiting Rate, Charge Increases

Indianapolis Power & Light has filed with the Utility Regulatory Commission a settlement agreement in a rate case that would boost its annual revenue by $43.9 million rather than the $124.5 million it initially sought last year or the $96.7 million increase it subsequently sought in February.

The settlement also holds the fixed monthly charge for customers using more than 325 kWh/month to $17, rather than boosting it to $27, as IPL originally had requested. The proposed increase had generated a lot of flak for the utility.

More: *Indianapolis Star*

## MAINE

### CMP Hit with Class Action Suit Alleging Overbilling

Three law firms on July 19 filed a class action lawsuit in Cumberland County Superior Court alleging that Central Maine Power overbilled nearly 300,000 of its customers last year, possibly by tens of millions of dollars

The class representative is Mark Levesque of Scarborough, who says CMP overbilled him by $1,000 over several months and told him the bills were his fault.

The Public Utilities Commission and an independent auditor are investigating CMP for overbilling. The Avangrid subsidiary has been unable to identify any system problems that artificially increased electricity usages or bills, but it stands ready to adjust customers' accounts if billing errors are discovered, a CMP spokeswoman said.

More: *The Associated Press*

## NEW YORK

### Brookhaven: Caithness

Caithness Long Island II concept art | *Caithness*

### Power Plant Permit Expired

The town of Brookhaven's planning director, Tullio Bertoli, has informed Caithness Long Island that its permit to build a second power plant in Yaphank has expired and won't be renewed.

Caithness had sought to build a 600-MW plant on Zorn Boulevard, using a permit issued by the town in 2014 for a 750-MW plant that was never built. Caithness sought to build the plant adjacent to one it opened in 2009.

Caithness had said power generated by the new plant would be sold statewide and back up solar and wind farms. Company officials said the plant would save Long Island Power Authority ratepayers $75 million a year. The company was notified on July 16 that its permit for the plant had expired.

More: *Newsday*

### FERC Rejects Rehearing On Constitution Pipeline


Project map | *Constitution Pipeline*

FERC on Thursday rejected Constitution Pipeline's request for rehearing of the commission's January ruling that the Department of Environmental Conservation acted within its authority in denying the project a water quality certification.

The project, which received a FERC certificate in December 2014, has been stalled since the state denied it the water permit on April 22, 2016. The commission's January order rejected Constitution's request for a declaratory order that the state had waived its rights under the Clean Water Act by taking too long to rule. (See *FERC Upholds New York Denial of Constitution Pipeline*.)

The commission's order Thursday reaffirmed its previous ruling that the state acted within a one-year deadline, saying the clock started on April 27, 2015, when Constitution filed its third application for the project after withdrawing two earlier attempts.

More: *CP18-5-001*

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# STATE BRIEFS

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## NORTH CAROLINA

### Regulators Say No PURPA Obligation for Duke

The Utilities Commission has agreed with Duke Energy that the power company isn't required to buy power from three of Cube Hydro's four dams on the Yadkin River under the Public Utility Regulatory Policies Act.

Cube Hydro had been selling power from the dams on the open market but was seeking to get a better price for the power and a 10-year contract from Duke under PURPA.

Duke had argued it was under no obligation to buy power from the dams under PURPA because Cube Hydro missed a key paperwork deadline in 2016.

More: *WUNC*

## RHODE ISLAND

### National Grid Seeks Rate Hike, Cites High ISO-NE Prices

National Grid on July 18 asked the Public Utilities Commission to approve a rate hike that would raise its customers' bills by 19 to 21% on Oct. 1 to reflect the price it will have to pay to buy power.

The company said the increase would boost the monthly bill of a residential customer using 500 kWh/month by $18.97 to $118.60 and the monthly bill of a commercial customer using 1,000 kWh by about 21%.

National Grid and the state Division of Public Utilities and Carriers both largely attribute the rate increase to high prices in ISO-NE's power markets.

More: *Providence Journal*

## WASHINGTON

### Regulators to Recommend Approval Of Controversial Solar Farm

The Energy Facility Site Evaluation Council on July 17 voted 5-1 to approve a controversial 25-MW solar project that would spread across five sites in Kittitas County.

The council will submit its recommendation to Gov. Jay Inslee, who will have 60 days to decide whether to give the Columbia Solar Project the go-ahead.

Seattle-based Tuusso Energy is proposing to build the project, which would be one of the first solar farms in the state.

More: *Seattle Times*

## WEST VIRGINIA

### Mountain Valley Pipeline Racks Up 5th Water Quality Violation

The Department of Environmental Protection has cited the Mountain Valley Pipeline for water quality violations along the project's construction route for the fifth time since April.

The department said pipeline crews failed to maintain erosion control devices, and sediment-laden water was leaving the pipeline construction site in Doddridge County.

More: *Charleston Gazette-Mail*

## WISCONSIN

### MG&E Files Proposal to Lower Electric Rates Nearly 2%

Madison Gas and Electric on July 17 filed a settlement agreement with the Public Service Commission that would lower its electric rates 1.94%.

The rate decrease would reflect the company's savings from the Tax Cuts and Jobs Act and the lower cost of renewable generation. MG&E said it would lower the typical residential electric bill by $15.97 a year, or $1.33 a month. If approved by the PSC, it would take effect Jan. 1, 2019.

More: *Milwaukee Journal Sentinel*