



Dem Dissents Show FERC Divide on Carbon

By Rich Heidorn Jr.

Democratic FERC Commissioners Cheryl LaFleur and Richard Glick have split with the Republican majority over its refusal to consider greenhouse gas emissions in two pipeline orders, the first skirmishes in what may be an escalating debate before the commission and in the courts.

The split came first in Wednesday's order on remand confirming as in the public interest the 685-mile Southeast Market Pipelines Project, which will supply four gas-fired generators in Florida ([CP14-554, et al.](#)).

In August, a split D.C. Circuit Court of Appeals panel remanded FERC's February 2016 approval of the pipeline, ruling 2-1 that FERC must consider the impact of greenhouse gas emissions when licensing gas pipelines ([16-1329](#)). (See [FERC Must Consider GHG Impact of Pipelines, DC Circuit Rules.](#))

The court ruled in favor of a petition by the Sierra Club, ordering FERC to quantify and consider the project's downstream GHG emissions or explain why it could not do so. The court also directed the commission to explain whether it still adheres to its prior position that the social cost of carbon tool is not useful in performing its review under the National Energy Policy Act.

Glick opposed the pipeline in Wednesday's vote. LaFleur — the only current commissioner who took part in the 2016 order — supported the approval along with the three Republican commissioners but issued a partial dissent.

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Whitehouse: Business Can Move GOP on Carbon ([p.5](#))



FERC Commissioner Robert Powelson speaks at the ACORE Renewable Energy Policy Forum on Wednesday ([p.6](#)). Powelson also appeared at a forum in Boston on Friday, saying New England needs to overcome its aversion to new energy infrastructure ([p.14](#)). *RTO Insider* also has coverage of the New York Battery and Energy Storage Technology Consortium's conference ([p.26](#)) and a meeting of the Connecticut Power & Energy Society ([p.11](#)).

FERC Orders Rate Revisions to Reflect Tax Cuts

By Michael Brooks

WASHINGTON — FERC on Thursday ordered 48 electric utilities to revise their transmission rates to reflect the recently enacted Tax Cuts and Jobs Act, which reduced the corporate income tax rate from 35% to 21%.

The utilities required to file changes — which include Portland General Electric, West Penn Power, New York State Electric and Gas, NorthWestern Corp. and Pacific

Gas and Electric — all include a fixed line item of 35% in their transmission tariffs. Most utilities use formula rates that include an annually adjusted input for their tax payments, so they do not need to file any changes, FERC staff said at the commission's monthly open meeting.

FERC issued its directive in two separate, nearly identical orders: [one](#) in which the full commission participated, and the [other](#) in which Chairman Kevin McIntyre recused

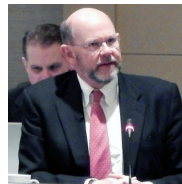
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NERC Names WECC Chief to Top Post

By Jason Fordney

NERC said Friday that it has appointed Western Electricity Coordinating Council chief Jim Robb as its new president and CEO, effective April 9.

Robb, who has led WECC since 2014, has more than 30 years of experience as a power sector engineer,



Jim Robb | © *RTO Insider*

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COUNTERFLOW

BY STEVE HUNTOON

German La La Land

It's what you know that ain't so ...

That will get you in trouble.

The February *Fortnightly* features an article about the German Energiewende ("Energy Transition") that makes three basic claims: (1) Germany is successfully decarbonizing with renewables, (2) Energiewende is "good news for consumers" and (3) there will be no adverse impact on electric reliability.¹



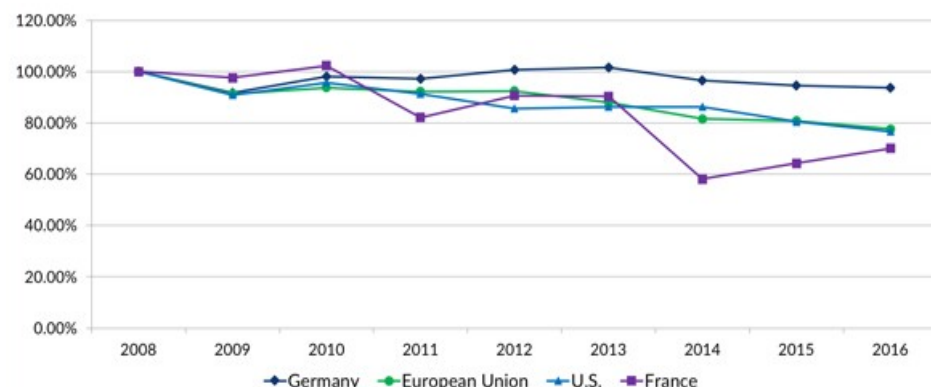
The first two claims are simply wrong. The third cannot be correct.

Wrong: German Electricity is Decarbonizing

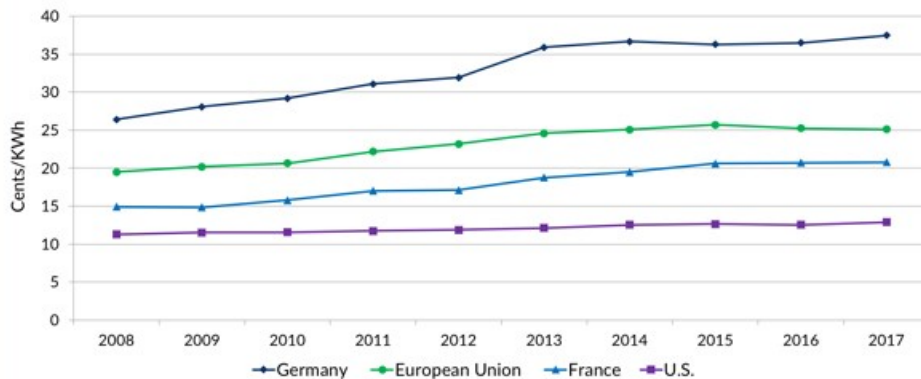
German electricity isn't decarbonizing. Because of its tragic decision to close nuclear plants, Germany is substituting coal and renewables for nuclear.

Despite the increase in renewable generation that *Fortnightly* extols, there has been no material decrease in carbon dioxide emissions from German electric generation. Germany is doing much worse than the European Union generally, much worse than the U.S. and much worse than France, as shown by changes in electric sector carbon dioxide emissions.² (See below.)

In a nutshell, Germany is substituting coal and renewables for nuclear,³ while the U.S. and France are substituting natural gas and renewables for coal.⁴ Germany isn't making a serious dent in its carbon dioxide emissions from electricity, while other nations are.



% change in electric sector carbon emissions (2008 baseline) | Data from EIA, Eurostat



Residential electricity prices | Data from EIA, Eurostat

Does Germany "point the way"? No way.

Wrong: Energiewende is Good News for Consumers

Truth is that Energiewende has driven Germany's sky-high electricity prices even higher. Here are Germany's residential prices relative to the European Union, France and the U.S.⁵ (See above).

Does Germany "point the way"? No way.

It may be hard for Americans to get their heads around it, but German residential electric prices are now *three times* U.S. prices.

For U.S. regulators out there, how many years of a 10% price increase *each year* would it take for the average U.S. residential price to reach the average German residential price?

The answer is 12 years. But the torches and pitchforks appear long before then. Like

Year 2.

By the way, Energiewende hasn't yet hit stride. Germany is planning much more costly renewable and transmission projects that are estimated to ultimately cost 25,000 euros per family household.⁶ That's \$30,750 American.

Does Germany "point the way"? No way.

Cannot be Right: No Impact on Reliability

The *Fortnightly* article claims that decarbonization has/will have no adverse impact on reliability. This claim is premature and cannot be correct.

The vision seems to be that Germany gets rid of all nuclear plants and all coal plants, and will rely on a combination of renewable resources, flexible fossil (presumably natural gas) generation, demand response and storage (batteries).

Fortnightly seems to think this is feasible because "Germany already produces hours of nearly 100% renewable electricity on the system." According a German spokeswoman, "Baseload is no longer needed," otherwise it could 'block the grid.'"

Say what? The problem isn't hours when solar and wind generate enough to meet demand. The problem is all those other hours when they don't, like these sorts of hours *and days and weeks* (see next page):⁷

Renewables generated very little for a two week period. The vast bulk of demand had to be met with existing conventional power plants.

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COUNTERFLOW

BY STEVE HUNTOON

German La La Land

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Supposed Reliability Fixes

Now let's look at the supposed fixes when existing nuclear and coal power plants are eliminated: flexible fossil fuel (natural gas) generation? Creating a new fleet of gas generators with the necessary pipeline infrastructure would be astronomically expensive and make Germany even more dependent on Vladimir Putin's natural gas.

By the way, the new German coalition agreement's sole reference to natural gas is: "Make Germany a location for liquefied natural gas (LNG) infrastructure."⁸ No such LNG infrastructure exists, and the one proposed LNG terminal looks like more of a pipe dream.⁹ And a very expensive one at that.

OK, how about demand response? An optimistic estimate of theoretically possible DR is about 10% of Germany's total demand,¹⁰ requiring a new infrastructure and, of course, customers' agreement.

Not only is the potential small, but the demand reduction is for one or two hours max. The chart above shows solar and wind can take a powder for days on end.

Batteries fall prey to this same problem. The cost of batteries is typically quoted in terms of four hours of stored energy for each hour of maximum output. What if you

need battery output to last eight hours? Then the nominal cost of batteries doubles. If you need 24 hours, then the nominal cost of batteries goes up six times.

So when we think about the need to cover days of renewable *non-generation*, we should understand that the cost of batteries is many times the current publicized cost. And we can understand why no sophisticated industry player is flocking to batteries (unless subsidized by Other People's Money — in which case they're a great idea of course).

The claim that Germany can maintain reliability without nuclear and with only "very small amounts of fossil fuels," as the article says, sounds like it came from the breatharians, who believe they only need air, and not food, to survive. We don't hear from them too often — at least not the same ones. For the obvious reason.

The *Fortnightly* article goes on to cite customer outage and loss-of-load expectation (LOLE) data and projections supposedly demonstrating continued reliability under Energiewende. But the vast bulk of customer outages are attributable to distribution and transmission problems, not resource problems (as the article itself notes at the outset citing a Rhodium Group report). So outage data, especially with renewables still a minority of total resources, says nothing about future resource adequacy.

As for LOLE projections, the article relies on studies that assume that more than 30 GW of coal plants remain in Germany¹¹ — which is the *opposite* of the article's premise that they are eliminated. You can't eat your cake and have it too.

In summary, Germany's future without nuclear and without coal has no plausible means of meeting customer demand.

Does Germany "point the way"? No way.

Bottom Line

Energiewende isn't decarbonizing German electricity, only increasing sky-high electric prices, which it will continue to do indefinitely. And reliability can't be sustained on the equivalent of thin air.

Energiewende does point a way. The wrong way.

Steve Huntoon is a former president of the Energy Bar Association, with 30 years of experience advising and representing energy companies and institutions. He received a B.A. in economics and a J.D. from the University of Virginia. He is the principal in Energy Counsel, LLP, www.energy-counsel.com.

¹ <https://www.fortnightly.com/fortnightly/2018/02/how-german-energiewendes-renewables-integration-points-way>.

² 2008 emissions set at baseline of 100% for all data that is tons of carbon dioxide emissions. First year is 2008 because that is the first year of Eurostat data here, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=en_v_ac_ainah_r2&lang ("Electricity, gas, steam and air conditioning supply.") I thank Aldyen Donnelly of Vancouver for pointing me to the Eurostat database. U.S. emissions from EPA data here, <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks> (Table 2-4, EPA inventory archives used for years 2008-2011).

³ For discussions of this phenomenon, <http://www.eiu.com/industry/article/1205236504/is-germanys-energiewende-cutting-ghg-emissions/2017-03-20>, <https://www.economist.com/news/europe/21731171-thanks-panicked-decision-shut-its-nuclear-plants-germany-carbon-laggard-germany>.

⁴ <https://www.edf.fr/en/the-edf-group/our-commitments/corporate-social-responsibility/doing-even-more-to-reduce-co2-emissions>.

⁵ European prices from Eurostat data here, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_pc_205&lang=en (select time frame back to 2008 and prices including all taxes and levies; prices converted to U.S. cents/kWh at 1.23 euro/dollar exchange rate). U.S. prices from Energy Information Administration data here, https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_03.

⁶ <http://energypost.eu/energiewende-running-limits/>.

⁷ <http://energypost.eu/end-energiewende/>.

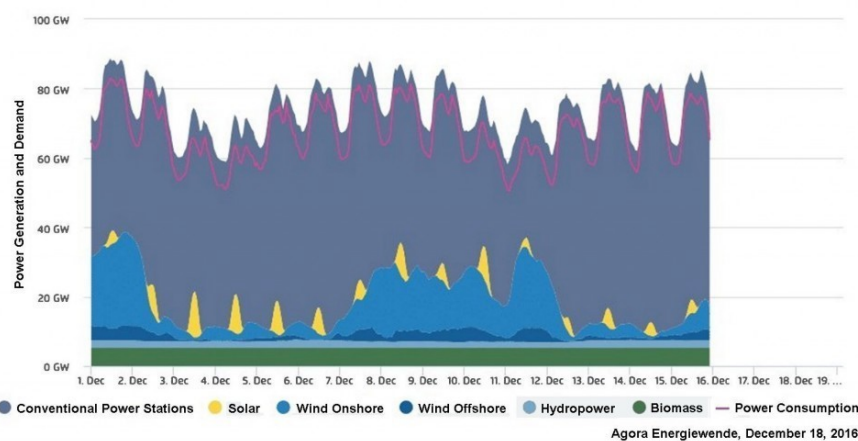
⁸ <https://www.cleanenergywire.org/factsheets/climate-and-energy-germanys-government-coalition-draft-treaty>.

⁹ <http://interfaxenergy.com/gasdaily/article/29453/german-lng-terminal-plans-draw-mixed-response>.

¹⁰ https://www.diw.de/de/diw_01.c.532689.de/presse/diw_roundup/demand_response_in_germany_technical_potential_benefits_and_regulatory_challenges.html.

¹¹ https://www.entsoe.eu/Documents/TYNDP2018_MAF_2017_Market%20Data_provisional.xlsx (Tab BE 2025, Germany columns for "Hard coal" and "Lignite" assume 31.3 GW of coal capacity and, by the way, 27.6 GW of natural gas capacity); https://www.entsoe.eu/Documents/SDC%20documents/MAF/MAF2016_market_modelling_data.xlsx (prior year version with similar coal and gas natural capacities); https://www.bmwi.de/Redaktion/DE/Downloads/V/versorgungssicherheit-in-deutschland-und-seinen-nachbarlaendern-en.pdf?__blob=publicationFile&v=3 (pdf page 32).

Power Generation and Demand, Germany December 2016



ACORE Renewable Energy Policy Forum

Whitehouse: Business Can Move GOP on Carbon

By Rich Heidorn Jr.

WASHINGTON — A dozen Senate Republicans are willing to consider a price on carbon emissions but need political cover from business lobbying groups to proceed, Sen. Sheldon Whitehouse (D-R.I.) told the American Council on Renewable Energy (ACORE) Renewable Energy Policy Forum on Wednesday.

Whitehouse spoke to the group the day after giving his 200th floor speech on climate change, or as he put it, “banging my head against the wall of Castle Denial.”

“The day that corporate America steps in on this issue in Congress and does not abandon the field to the fossil fuel industry, you’ll have much more balance. And when that balance happens, it gives running room to Republicans,” said Whitehouse, who has served since 2007. “I will assure you there are at least a dozen Republicans in the Senate who want to work on a carbon bill. ... They just don’t want it to be their last political act.”

Seeking ‘Good-Guy Corporations’

Whitehouse said Republicans in Congress won’t move on climate change until “the good-guy corporations” who are expanding their renewable energy purchases and have progressive climate policies put their lobbying muscle behind the effort.

“Even the corporations you think would show up on climate ... when they come to Congress, it’s ‘Abandon all hope, ye who enter here,’” Whitehouse said, citing Coca-Cola and Pepsi. “The American Beverage Association, which is their trade association, doesn’t lift a finger on anything related to renewables or climate. Indeed, it funnels money through the [U.S.] Chamber of Commerce, which is probably my most powerful and inveterate adversary on all things renewable and all things climate.”

He also noted that TechNet, the lobbying organization whose members include Apple and Google, has not included climate policy among its legislative priorities. “You look at the policies of Apple, Google, Facebook [and] Microsoft, it’s weird that they would not put climate or even renewable energy into their [lobbying] priority list. It gets even weirder when you look at the rest of the members of TechNet, which includes



Sen. Sheldon Whitehouse | © RTO Insider

Sunrun, Bloom Energy [and] SolarCity. They are actually in the green energy business and they have not been able to get green energy into their own trade association’s list of priorities.”

Although some oil company CEOs have said “we take climate change seriously; we know that our product is causing it and we support a carbon price’ ... their entire legislative apparatus is still fully dedicated to making sure that none of that stuff [passes] Congress,” Whitehouse continued.

He said he is cautiously encouraged by news that the four oil majors are considering supporting a \$40/ton price on emitted carbon.

“That’s only 10 bucks away from where my bill is. That’s within negotiating range. Now I’m ready to talk, if we can start to get something done. But they have to be serious about it,” he said. “I’ve got to see [the American Petroleum Institute] move. I’ve got to see the U.S. Chamber move. I’ve got to see their political apparatus get into alignment with their CEOs’ statements.”

Litigation over climate change is putting increasing pressure on corporations, he said. “As the lawsuits pile up and as discovery begins to become more of a threat, as security regulators begin to say, ‘Hey, wait a minute. These reserves you’re reporting: let’s measure them against 2 degrees centigrade or 1.5 degrees and see how real they really are.’”

He told his audience to take “full advantage” of court rulings supporting a social cost of carbon. “Under the Trump admin-

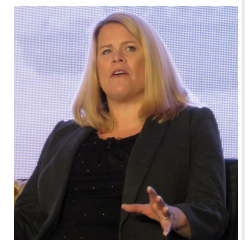
istration, they’re not going to want to look at that. But there are three circuit courts of appeal and probably a dozen district courts — as well as a number of administrative agencies, both state and federal — that have said: ‘Look, when you’re dealing with these energy questions, if you haven’t baked the social cost of carbon pollution into your analysis, you are not meeting the standard of basing your decision on substantial evidence and avoiding decisions that are arbitrary and capricious.’” (See related story, *Dem Dissents Show FERC Divide on Carbon*, [p.1.](#))

To be acceptable to Republicans, Whitehouse said, carbon legislation must be based on a market-based price, be revenue-neutral and “border adjustable, so the cement plant in Texas doesn’t have to compete unfairly with a cement plant in Mexico.”

“There’s nothing about this that is inherently partisan,” he said. “The partisanship is a feature of the manner in which the fossil fuel industry deploys its political forces.”

He acknowledged that carbon legislation will be a tougher sell among House GOP members, who face re-election every two years and, he said, are more dependent on party leadership for campaign funds.

Heather Reams, managing director of [Citizens for Responsible Energy Solutions](#), which is seeking to build Republican support for what it calls “common-sense, conservative solutions” on energy, agreed.



Heather Reams | © RTO Insider

“We’ve got to meet [House] members where they are,” she said, speaking on a panel earlier in the day. “We’ve got to recognize we can’t go in with a one-size-fits-all message and say, ‘Here you go.’ ... That’s not going to work in the House.”

She called for what she called “storytelling.”

“This is not [just] a renewable business or clean energy [story]. It is business. It is a massive part of our economy. It’s growing rapidly. Why do you want to abandon that?”

ACORE Renewable Energy Policy Forum

Overheard

WASHINGTON — The American Council on Renewable Energy's (ACORE) 15th Renewable Energy Policy Forum brought regulators, federal officials, investors and others to a downtown D.C. hotel for discussions on environmental policy, the growth of markets in the West and the Department of Energy's budget. Here's some of the highlights.

Western Markets

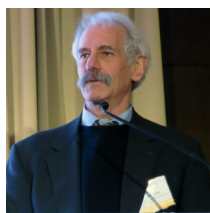
Several speakers discussed the growth of the Western Energy Imbalance Market (EIM) and SPP's planned expansion with Mountain West.

FERC Commissioner **Robert Powelson** said the developments of markets in the West is remarkable given the distrust that remains from the 2000-2001 Western energy crisis.



"Who could have thunk it ... that today around the CAISO market that you could see markets like the Energy Imbalance Market or the potential expansion of the Southwest Power Pool bringing together an eclectic group of state regulators, renewable investors, vertically integrated utilities and all doing it under the guise of market development," Powelson said.

"Yes, there were a lot of lessons learned post-California energy crisis. But today these markets — especially EIM — have enormous potential for this industry. And I think we need to stay the course in supporting the market design and more importantly staying away from collapsing these markets with regressive policy actions."



"I think that you're going to see probably a Rocky Mountain state [market] formed around Southwest Power Pool ... then you're probably going to see one that's more coastal in nature that'll be more North-South," said California Public Utilities Commission President **Michael Picker**. "I think eventually they'll grow together. There may be some transfers across the seams. There's always going to be too much

Wyoming wind for any of the other Rocky Mountain states to swallow. But they'll want to go talk to the [public utilities] in the Pacific Northwest — they're seeing California as their more natural market than going east."

"By 2020, two-thirds of the Western Interconnection will be participating [in EIM]. That's great," said **Patrick Reiten**, senior vice president of government relations for Berkshire Hathaway Energy. "That's only within-hour energy. You want to get to hour-ahead energy. You want to get to day-ahead."



Converting CAISO to a multiple-state RTO would require a change in California law, he noted. (See related story, *CAISO Presses Lawmakers on RTO Conversion*, p.8.)

"I was pleased to hear President Picker express some optimism in terms of state legislation to enable that," he continued. "But there may be an interim step with the EIM entities actually engaging in a day-ahead market — day-ahead unit commitment — without full ISO membership. That would require some flexibility on FERC's behalf."

Reiten said the markets' promise would be enhanced by making it easier to build transmission. He recounted his experience winning federal permits for PacifiCorp's *Energy Gateway* projects, which could add as much as 2,000 miles of transmission.

"It took us 10 years to federally permit those. And you can imagine what happens in 10 years between envisioning the project and actually delivering [power]. Loads change, markets change, regulations change. And so when you have that kind of lag, the risk profile [for] making the investment obviously goes up. We need to change that."

Reiten said any federal infrastructure legislation should include changes to siting and permitting policies and the National Environmental Policy Act. "We need three things: ... We need a single point of accountability — a lead federal agency that has power to make decisions. We need concrete timelines — and that gets a little sensitive because we're talking about NEPA reform. And then we need to make sure that federal decisions aren't revisited in the pendency of the permitting process so we can get out of the 'Groundhog Day' syn-

drome. If you can get those three things, that should shorten the permitting timeline [and] reduce the risk. We'll see more transmission developed."

Decarbonizing Transportation

Picker also had some advice for ACORE's members in addressing his state's "glut" of renewable energy.

"Rather than taking a bigger share of the existing market, think of how you could partner with the existing electric utilities or other parties to foster the electrification of transportation. In California, 20% of our carbon emissions come from the electric industry, 30% come from buildings, 40% come from transportation. So the utilities are taking a great interest in this. They see that as probably being a more natural thing for them to do, which is to build things rather than just to sell electricity. If California is going to meet its carbon goals, decarbonizing transportation becomes more important than decarbonizing the slimmer and slimmer margins in the electric industry."

Solar Industry: 'It Could Have Been Worse'



Christopher Mansour, vice president of federal affairs for the Solar Energy Industries Association, said his industry is unhappy about the Trump administration's

tariffs on imported solar energy cells and panels but relieved that the investment and production tax credits survived the tax cut bill signed by the president in December.

"We don't like the 30% tariff. It's not good. It's not going to be helpful to our industry in general," said Mansour, whose organization has estimated the tariffs will cost 23,000 industry jobs. "On the other hand, given the policy environment we're in, it could have been worse."

SEIA is now backing a bill by Sens. Dean Heller (R-Nev.) and Martin Heinrich (D-N.M.) to create an investment tax credit for storage. "We're hopeful. We came close this last go-round with the continuing resolution, which put in a bunch of tax extenders. We came close with that."

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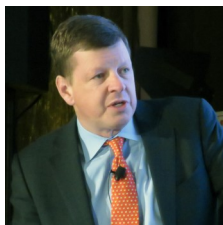
ACORE Renewable Energy Policy Forum

Overheard

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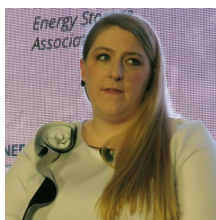
Storage Role Outside of RTO Markets

Todd Glass, a partner in Wilson Sonsini Goodrich & Rosati, who moderated a panel on grid resilience, noted that FERC Order 841 — which directs RTOs and ISOs to



remove barriers preventing storage from participating in energy, capacity and ancillary service markets — does not apply to utilities outside the organized markets. (See [FERC Rules to Boost Storage Role in Markets.](#))

How will storage make inroads with them, he asked?



“In terms of the rest of the country, in the vertically integrated markets, that’s on groups like us and ACORE and others to get out there and educate our state

regulators and work with our utilities to have storage recognized as part of the [integrated resource plan] process,” responded Marissa Gillett, vice president of external relations for the Energy Storage Association.

Ott Promises to Protect Markets

ACORE CEO Gregory Wetstone said his group is relieved that FERC rejected the Department of Energy’s call for coal price supports but concerned about policies that may result from the commission’s resilience docket.



“We’re worried that we see traces of the



Andy Ott | © RTO Insider

[DOE proposal] in various market design and pricing proposals,” he told PJM CEO Andy Ott, after Ott put in a plug for the RTO’s proposal to allow inflexible generators to set clearing prices.

Ott assured Wetstone that competition is the “hallmark” of PJM. Ott also said a repricing proposal the RTO will file later this month will be designed to allow state clean energy procurements to coexist with its markets.

“We really can’t put one of these above the other. We need to make sure both are equally accommodated so that ... when a state does make that decision it shouldn’t be penalized. But we need to figure out a way that the market signal remains healthy.”

DOE Budget



Menezes cited the department’s battery storage goals for 2030: reducing the price to \$100/kWh, increasing the range to 300 miles per charge and reducing the charging time to less than 15 minutes. “In pursuit of

that goal last year, we made an award for up to \$15 million for research projects on batteries and vehicle electrification technologies to enable extreme fast charging,” he said.

“You’ve made a phenomenal case for innovation, R&D investment and — I guess I would argue — opposition to the proposed DOE budget, which eliminates ARPA-E ... proposes a 66% reduction in [the Office of Energy Efficiency and Renewable Energy, and] eliminates the loan guarantee program,” Wetstone told him.

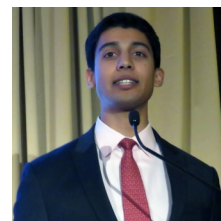
Menezes responded that all department research projects come with defined goals, such as reducing costs or reaching production thresholds.

“The point is that ... our job is to do early-stage research and move it along the technological readiness levels eventually getting it to where it’s commercially deployable,” Menezes said. “So, sure you can continue spending money there, but then potentially where would be the opportunities for new energy breakthroughs?”

“I think the case is there that there’s lots of good things that need to be done that the national labs would be immensely helpful with,” Wetstone persisted.

100% Renewables a ‘Red Herring’

Varun Sivaram, Philip D. Reed fellow for science and technology at the Council on Foreign Relations, and author of the newly released “Taming the Sun,” is under age 30, but even he doesn’t think he’ll live to see 100% renewable energy.



“Forget about 100% renewables. I don’t even want to talk about that. [It’s a] red herring — hugely expensive,” he said. “We should focus on getting as far toward that goal as possible, but laying out 100[%] as this magical milestone, I don’t think is a good or useful idea.”

— Rich Heidorn Jr.

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CAISO NEWS



CAISO Presses Lawmakers on RTO Conversion

By Jason Fordney

SACRAMENTO, Calif. — CAISO officials on Wednesday urged California lawmakers to pass legislation that would convert the grid operator into an RTO, saying a regionalized grid would benefit the state.



Chris Holden |
© RTO Insider

CAISO executives told Assembly Utilities and Energy Committee Chairman Chris Holden (D) that they support his regionalization bill (AB 813), which represents a third attempt to regionalize the ISO. The bill is getting opposition from some quarters.

“A regional grid will be good for California,” CAISO Director of Regional Integration Phil Pettingill told the committee. He said a “major evolution” is occurring in the West, with utilities looking for ways to procure more renewables, in alignment with California’s goals.

Mark Rothleder, CAISO vice president of market quality and renewable integration, pointed out that the West is an interconnected system with 38 balancing authority areas. He said the state’s goal of generating 50% of its electricity with renewables by 2030 is achievable but faces challenges dealing with the “duck curve” load shape of California energy demand.

The curve shows that the state’s load dips in the middle of the day as solar resources increase output, then ramps up steeply in the evening as the sun sets. The steep ramps require CAISO to lean on fast-ramping generation to meet evening demand, which regionalization supporters say could be tapped more easily from inland renewables under a regional grid. The arrangement would also allow California to export more of its surplus solar during the day.

State Assemblyman Bill Quirk (D) acknowledged there are reservations across the region about “about getting in bed with the 800-pound gorilla we call California.” But despite the misgivings and the complications, “I am convinced we can come up with a fair way of doing this.”



Holden hears from CAISO Vice President Mark Rothleder (left) and Policy Development Manager Phil Pettingill. | © RTO Insider

Quirk recently proposed separate legislation on the committee’s April 4 agenda that would require California utilities to procure power from gas-fired plants that cannot make sufficient profit in CAISO markets.

Jan Smutny-Jones, CEO of the Independent Energy Producers Association, said regionalization would help lower California’s costs for reaching its carbon reduction goals.

“The rest of the West isn’t going to decarbonize because California tells them to, but they will buy cheap electrons,” he said. He said California will continue to have control over its resource decisions, CO₂ policy, generation siting, and retail rates and programs.

“All of those things you do today, you can continue to do in the future, and that is important to recognize,” he said.

But Matt Freedman, attorney for The Utility Reform Network, warned that regionalization could force California to conform to policies of the Trump administration, which he said is hostile to the state and its clean energy goals. He also suggested that FERC would exert more control over the new RTO, and that “this is not your father’s FERC.”

Holden is taking a cautious tack on the regionalization effort, saying the hearing was “an opportunity to look at the contours of AB 813.” He added that he is trying to make the process as transparent as possible after the regionalization skeptics raised many issues during last year’s effort, including concerns by labor groups about the exporting of energy-related jobs.

“We recognized that an issue of this magnitude required a little more conversation on a broader scale,” Holden said.

As of press time, [AB 813](#) was not listed on the agenda for the committee’s April 4 hearing.



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CAISO Day-ahead Could be Tailored for West

By Jason Fordney

LOS ANGELES — CAISO's proposal to extend its day-ahead market across the Western Energy Imbalance Market (EIM) could be tailored to uniquely fit a region historically resistant to organized markets, a key participant in the roll-out of the EIM said.

The ISO's Extended Day-Ahead Market (EDAM) proposal could also be done without the political and economic entanglements involved with an RTO, Portland General Electric Director of Transmission Services Sarah Edmonds said during a March 9 public meeting of the EIM Regional Issues Forum (RIF). It could strike a balance between an ISO transmission access charge and a full RTO construct, she said.

"It is possible that with EDAM, a different construct will be born," Edmonds said, adding that her comments reflected her own opinions, but they are "illustrative of the kinds of questions and issues the EIM community would be looking at" to determine their interest in day-ahead market participation.

In her previous job as general counsel for PacifiCorp, Edmonds served on the EIM's Transitional Committee, which advised CAISO's Board of Governors on the development of the market's governance structure.

A "winning feature" of the EIM has been that participating balancing authority areas retain their responsibilities and control, Edmonds said, pointing also to the benefits of voluntary participation and no exit fee. But as they explore EDAM, industry participants will need to address the many issues around how excess transmission capacity is shared. (See [CAISO Plan Extends Day-Ahead Market to EIM](#).)

As for an RTO, the issue of governance — which was still being debated in the California legislature when last year's regionalization effort stalled — is "center stage," Edmonds said. Lawmakers are working on new legislation this session. (See [Calif. Lawmakers Relaunch CAISO Regionalization](#).)

Governance is important because "the power of who gets to decide what issue is a big deal when you are talking about what comes with a full regional ISO," Edmonds said.

Industry stakeholders still have many questions about transmission development and costs in a Western RTO because of the longer transmission lines, distance between loads and other planning considerations such as increased adoptions of distributed energy. Other complications include state roles in resource adequacy planning, transmission access charges and a regional transmission planning framework, she said.

"These issues really come up and are of particular concern in a regional ISO



Sarah Edmonds | © RTO Insider

context," she said, adding that there is also a "deeply ingrained culture of self-determination in the West."

'A Lot of Work'

Kathy Anderson, Idaho Power systems operations leader, told the RIF that her utility has been working on EIM implementation for two years and is due to go fully live on April 4, having shifted the date from April 1 because of the Easter holiday. One of the uses of the market will be to acquire renewable energy from qualifying facilities under the Public Utilities Regulatory Policies Act.

Anderson told the forum that the two-year process to integrate into the EIM has not been easy.

"I don't think I really appreciated it until I was right in the middle of it. It was a lot of work," Anderson said. "There were very few places in the company that we didn't touch with this."

The company employed three full-time external contractors and hired 6 employees to work directly on the EIM. It also required new software applications and outage management system.

Idaho Power and Canadian marketer Powerex have been in parallel operations with the EIM, in preparation for going live early next month. (See [FERC Approves Powerex EIM Agreement](#) and [EIM Participants Seek Resource Test Tweaks](#).)



The Western EIM Regional Issues Forum met last week in Los Angeles. | © RTO Insider



NRG Set to Retire California Gas Plants

By Jason Fordney

Environmental groups are celebrating NRG Energy's announcement that it will retire three gas-fired plants in Southern California.

But while the company's GenOn subsidiary has filed paperwork to shut down the units, recent market dynamics could keep them online if they're required for reliability.

NRG on Feb. 28 alerted the California Public Utilities Commission that it plans to retire Etiwanda Units 3 and 4 on June 1. The company also notified regulators that it will shut down Ormond Beach Units 1 and 2 on Oct. 1 and the Ellwood Generating Station on Jan. 1, 2019.

The Sierra Club and other groups on March 9 said the closure of the plants is part of a trend in the state toward renewable power and energy storage.

But the proposed retirement of gas plants in California is complicated by broader issues playing out in the state's wholesale electricity.

While other gas-fired plants in the state



Puente Power plant | California Energy Commission

have filed notices to retire, they have also been identified as necessary to support system reliability and receive reliability-must-run payments from CAISO to remain online. The RMRs are expensive and controversial, facing strong opposition from the CPUC, which recently replaced a series of Calpine RMRs with solicitations to procure energy storage. (See [CPUC Retires Diablo Canyon, Replaces Calpine RMRs.](#))

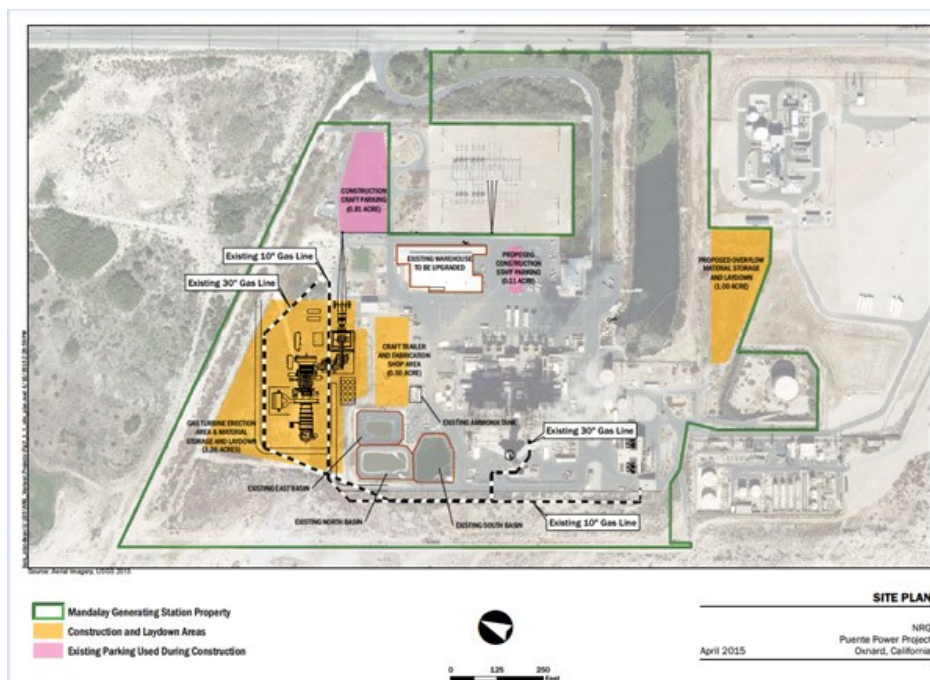
When asked whether the NRG plants are slated for RMR contracts, company spokesman David Knox told *RTO Insider*: "We have filed the paperwork to close them. I do not want to speak for the CAISO or CPUC, but [I] am confident that in

response to the filings, they will conduct the reviews to determine if they are needed for reliability beyond those dates."

With no coal plants remaining in California, natural gas has become an increasing target for environmental and other groups opposed to fossil fuel generation. NRG in October 2017 asked the California Energy Commission to suspend its review of the proposed 262-MW Puente plant in Oxnard after two commissioners issued an "unusual" notice recommending denial of the plant. (See [NRG Signals Pull-out on Proposed Puente Plant.](#))

The developments occur within a larger restructuring of NRG, which has undertaken plans to boost its share price. NRG last month announced that it was selling its NRG Yield, South Central Generating, and Boston Energy Trading and Marketing subsidiaries for nearly \$2.9 billion and initiating a \$1 billion stock buyback program. (See [NRG Selling Renewable, Other Assets for 2.8 Billion and NRG Announces \\$1 Billion Stock Buyback, \\$70 Million Sale.](#)) The company last year said it would seek to raise \$2.5 billion to \$4 billion in cash through asset sales.

Also, on March 15, Calpine requested the California Energy Commission suspend its application for the proposed 275-MW Mission Rock Energy Center, a gas-fired/storage facility in Ventura County. The company said that California policies have been in transition since the plant was proposed on Dec. 31, 2015, and that Southern California Edison's latest request for offers for reliability support in the Moorpark subarea "does not appear to present an opportunity for Mission Rock Energy Center."



Puente Site Plan | NRG



Conn. Officials Talk State Policy, Wider Trends

By Michael Kuser

CROMWELL, Conn. — State officials last week shared their musings on a range of subjects, including the state's energy agenda, regulatory woes and China's approach to siting nuclear plants.

At a March 14 meeting of the Connecticut Power & Energy Society, Eric Johnson — the group's president and director of external affairs for ISO-NE — introduced the speakers a day after New England had been hit by its third nor'easter in two weeks.

"I see some weary utility people in the room who have been pulling storm duty and lines-down duty perhaps," Johnson said. "I know in our house, folks are ready for spring."



Jack Betkoski, vice chairman of the Public Utilities Regulatory Authority, noted his agency will hold its first technical conference on grid modernization April 3 and also

has a docket open on the nationwide issue of tax reform.

The PURA continues "to look into best practices of electric suppliers," he said. "We continue to work hard and cooperatively with the companies that come up with procedures that will make life easier for the companies and also make life easier for us as the regulatory agency."

Regulatory Independence

Betkoski also pointed to a state-level trend around the country to "blow up" regulatory agencies, citing situations in South Carolina, where the House of Representatives has voted to fire the seven-member Public Service Commission after the abandonment of constructing two units at the V.C. Summer nuclear plant, and Tennessee, where the government changed the structure of the Regulatory Authority — now the Public Utility Commission — with regulators now working part-time.



The Connecticut Power & Energy Society had a dinner meeting on March 14. | © RTO Insider

People need to be educated that "we're kind of like judges, and we need to be independent," Betkoski said. "The legislature ... serves a great purpose and comes up with great tools for us to work with, but you still have to maintain the independence of the regulatory body and the legislative body. I think that's imperative, and when that starts to be compromised I don't think anybody wins."

Soon after becoming NARUC president last August, Betkoski went to China and Japan to see their coal-fired and nuclear plants.

"China has an interesting way of siting their nuclear plants: They just take over a whole town and say this is the way it's happening," Betkoski said. "I said, 'What was here before?' A town. They've got five nuclear plants now and that's just the way they do it over there."

Comprehensive Energy Strategy



Comprehensive Energy Strategy (CES) released last month.

Babbidge said the strategy is intended to be

comprehensive without getting too far into the details. "We're trying get to the point and also trying to cover every topic," she said.

Among other things, the plan calls for increasing the state's renewable portfolio standard to 40% of total electric usage by 2030, from 24% in 2018. Environmentalists protested the plan's emphasis on natural gas as a clean resource, and University of Connecticut students rallied outside the capitol in Hartford last month to push the state to support more renewables.

The CES recommends that Babbidge's division of DEEP increase its engagement with other states and regional organizations to help shape policy at FERC and ISO-NE.

In addition, the plan recommends the state streamline permitting and siting and work to make the average cost of solar PV installations fall below residential rates, and that DEEP monitor waste-to-energy facilities as long-term power purchase agreements expire and operating costs increase.

"One of the big themes is ensuring sustainable and equitable funding for energy efficiency," Babbidge said. "This really speaks to the legislative diversions, and they need to make sure that [for] our clean energy programs, both on the efficiency side and the Green Bank, that the funding is secure."

ISO-NE NEWS



PAC Briefs

ISO-NE's draft 10-year Capacity, Energy, Loads and Transmission (CELT) forecast is reducing projected summer loads in 2026 by nearly 6% in part because of a sharp increase in projected energy efficiency, RTO officials told the Planning Advisory Committee on Thursday.

The draft 2018 CELT reduces the net annual energy forecast by 4.5% lower in 2025 with the net summer 2026 50/50 forecast reduced by 6.0% and the summer 90/10 forecast cut by 5.8%.

The behind-the-meter solar photovoltaic forecast for 2026 is about 0.6% higher, with energy efficiency boosted by 16.2%. The new report foresees about the same regional economic growth through 2026 as last year's forecast.

The gross 50/50 load forecast — calculated before reductions from passive demand resources (PDR) and behind-the-meter PV — was cut by 2.7%, and the gross 90/10 forecast was 2.8% lower. The gross annual energy consumption forecast increased by 0.3%.

The solar PV forecast included the expected impact of the tariffs imposed on solar panels by the Trump administration. It also includes a 0.5%/year PV degradation rate to account for solar panels' declining

conversion efficiency over time, based on research by the National Renewable Energy Laboratory.

The RTO develops the CELT 10-year forecast as part of its annual forecast process.

The finalized forecasts will be shared at the April 26 PAC and published by May 1.

Update on Transmission Projects

ISO-NE has put 22 upgrades in service since October, the RTO said in its transmission projects and asset condition update, including the new Scobie-Tewksbury 345-kV line and five other projects in the Boston area.

The RTO reported an \$11.9 million increase in the estimate cost for Project 945-Adams in Central Western Massachusetts (installing two new 115-kV breakers and replace two existing 115-kV breakers and associated line relocations). The cost increased because of "an enhanced understanding of the multiple site condition impacts on the construction plan," the RTO said.

That increase was more than offset by a \$12.3 million reduction in the estimated cost of Pittsfield/Greenfield Projects 1662, 1664, 1665 and 1663 because of "project cost alignments."

No new reliability or market efficiency-

based transmission system upgrades have been added to the Regional System Plan project list since October. However, 36 new projects totaling \$549.5 million have been added to the Asset Condition list, largely for the replacement of aging infrastructure.

Eastern Connecticut 2027 Needs Assessment

The PAC heard an update on the 2027 Eastern Connecticut (ECT) Needs Assessment, which is evaluating reliability needs for the 10-year period extending until 2027.

The draft needs analysis found violations of low-voltage and high-voltage reliability criteria for first and second contingencies as well as some severe thermal violations in some areas following second contingencies. All the violations were also found to be present in 2020.

ISO-NE announced the needs analysis last June. The previous ECT 2022 Needs Assessment report was finalized in June 2015 but work on solutions to address the region's time-sensitive needs were suspended in February 2017 pending a review of RTO criteria, assumptions and methodologies impacting needs assessments and solutions studies.

The RTO said the review had "sufficiently progressed" to allow initiation of the new study.

The final scope of work was posted earlier this month, along with responses to stakeholder comments.

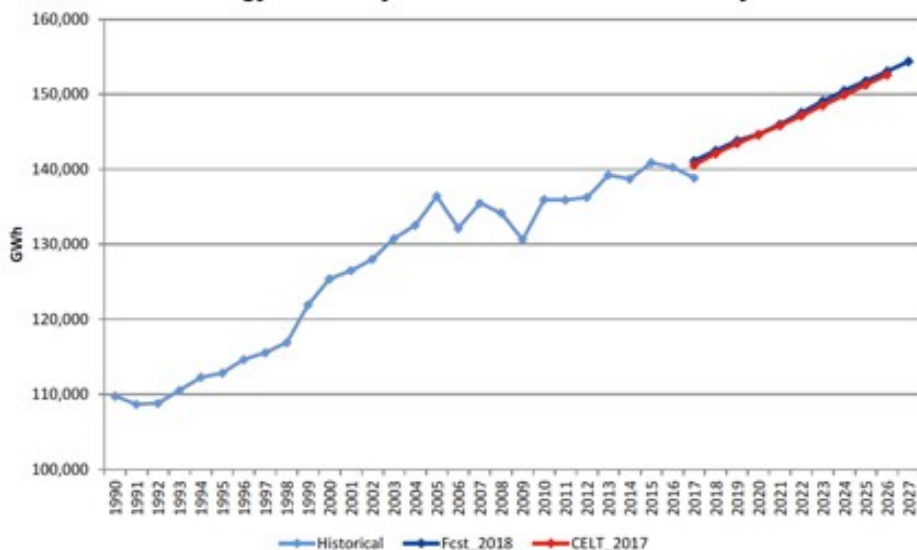
The study area is a rectangle bounded by the Long Island Sound on the south and the Massachusetts border on the north, with the eastern boundary the Rhode Island border and the western boundary just west of New London.

"This area hasn't been studied in a long, long time," said Brian Forshaw, a consultant for Connecticut Municipal Electric Energy Cooperative (CMEEC). "So, we're glad to see things are progressing from a needs assessment to solutions studies."

He said, however, that the needs assessment was "more limited than it should have been" and criticized the "top-down" load forecast.

New England Gross Energy History and Forecast

Net Load + Energy Efficiency + BTM PV - Federal Efficiency Standards



ISO-NE's draft 2018 CELT report increases the gross annual energy consumption forecast by 0.3% over the 2017 study. | ISO-NE

Continued on page 13

ISO-NE NEWS



PAC Briefs

Continued from page 12

The finalized needs assessment will be posted by May 31. The RTO will work with Eversource Energy and CMEEC to address the needs on their transmission systems.

Eversource Equipment Replacements

Eversource made a presentation on the replacement of its Montville 16X 115/69-kV transformer, which is at its end of life after 67 years. Total project cost is estimated at \$6.3 million (-25%/+50%).

The company also provided an update on replacement of the Card Street 11F-5X autotransformer, which was originally presented in September.

The September PAC presentation recommended its replacement with a three-phase spare unit located at the Montville 4J Substation. Eversource said it conducted a re-evaluation that determined the summer long-term emergency rating of the replacement could be increased from 458 MVA to 512 MVA. The existing autotransformer is rated at 491 MVA. The estimated cost remains \$8.6 million (+50%/-25%).

Transmission Planning Technical Guide

ISO-NE is continuing its revisions to the Transmission Planning Technical Guide, which was reorganized last year to a new format with four main sections: Introduction, Modeling Assumptions, Reliability Criteria and Guidelines, and Analysis Methodology.

Revision 2 was posted on the ISO website on Nov. 14, 2017.

Staff is now updating the appendices for consistency with the RTO's style guide and publication template:

- App. A – Terms and Definitions (Expected Q2 2018): Adding/removing terms and definitions; adding references to NERC and Northeast Power Coordinating Council glossary of terms.
- App. B – Fast Start Generation List: Retired after change to probabilistic methods for base case dispatches of transmission needs assessments and solution studies.
- App. C – DR Modeling Guide (Expected Q2 2018): New terminology associated with price responsive demand (PRD).
- App. D – Damping Criteria: Retired after criteria moved to Section 3.3.3 of Technical Guide.
- App. E – Voltage Sag Guideline (Expected Q2 2018): Update to clarify

methodology.

- App. F – 2000 STF Memo (Draft Posted March 2018): Updated diagrams for clarity.
- App. G – Phase Shifter Guide (Draft Posted March 2018): Changed name from Modeling Guide to Phase Shifter Guide to focus on content of appendix; remove Sackett Phase Shifter and 3rd Waltham Phase Shifter; update all descriptions to match current operating practices.
- App. H – No-Fault Contingencies (Draft Posted March 2018): Updated to current version of Planning Procedure No. 3.
- App. I – Transfer Methodology (Draft Posted March 2018): Reorganized structure to align with Technical Guide format; new terminology associated with PRD.
- App. J – Load Modeling Guide (Draft Posted March 2018): Added descriptions for solar PV modeling; added equations to explain methodologies; new terminology associated with PRD; adding Area-Owner-Zone-Bus assignments.

Stakeholders can provide comments for 15 days after the posting of each document on the PAC website to PACMatters@iso-ne.com. Comments on Appendices F, G and H are due April 3.

The PAC's next meeting is April 26 at the Doubletree Hotel in Milford, Mass.

– Rich Heidorn Jr.

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Raab Associates' 157th New England Electricity Restructuring Roundtable

Powelson Tells New England to Learn from Pennsylvania

By Michael Kuser

BOSTON — FERC Commissioner Robert Powelson said last week that New England needs to overcome its aversion to new energy infrastructure to avoid natural gas shortages in the winter.

"You all burned 2 million barrels of oil during this recent bomb cyclone," Powelson said at Raab Associates' 157th New England Electricity Restructuring Roundtable on Friday. "We didn't do that in Pennsylvania; we burned a lot of natural gas, we ran economic nuclear plants and we integrated renewables with close to 1,400 MW of wind capacity." (See [Van Welie: ISO-NE in 'Race' to Replace Retirements.](#))

Paired in a session with ISO-NE CEO Gordon van Welie, Powelson was the only FERC commissioner who voted against accepting the RTO's Competitive Auctions with Sponsored Resources (CASPR), the grid operator's two-stage capacity auction to accommodate state renewable energy procurements.

Powelson wrote a dissent calling the construct "a complicated, patchwork solution that will neither accommodate the desires of the states, nor send proper price signals to market participants." (See [Split FERC Approves ISO-NE CASPR Plan.](#))

"Here you are today, with 15 million customers in the New England market during these weather events paying some of the highest gas [and electricity] costs in the country," Powelson said. "My good friend here [van Welie] will say, 'Well that was the least-cost resource.' Well so much for your [greenhouse gas] requirements that you've set forth as state regulators."

Powelson did say he was "extremely impressed" with the RTO's capacity auction results last month, where the clearing prices were the second-lowest in the history of the market. (See [ISO-NE Capacity Prices Hit 5-Year Low.](#))

Despite his praise of some aspects of the New England wholesale electricity market, Powelson joked, "Gordon, I might have you come down to PJM, do a little 12-step program."

Tectonic Baseload Shift

Extreme weather events put regulators on



Robert Powelson | © RTO Insider

a "tipping point" of addressing reliability, Powelson said.

"We're seeing this tectonic shift in our baseload resources of accelerated retirements of coal and nuclear plants," he said. "Last time I checked, we're not building coal plants in New England — is that correct? By the way, I live in Pennsylvania, and we're not building a lot of coal plants in Pennsylvania; in fact, I don't think we're building any."

"I looked at the last two capacity auctions; the clearing resource is a combined cycle gas plant with a 6,600 heat rate, sourced under the greatest blessing we have — and I don't want any boos in this room, but Marcellus shale has had a profound impact on my state's economy," he said.

Powelson continued a theme he had taken up earlier in the week at the American Council on Renewable Energy's (ACORE) Renewable Energy Policy Forum in D.C., where he said that ISO-NE's Operational Fuel Security Analysis report issued in January was "like a horror story." The study found the region will face energy shortfalls because of inadequate natural gas supplies in almost every fuel-mix scenario by winter 2024/2025. (See [Report: Fuel Security Key Risk for New England Grid.](#))

"Siting is hard, but you gotta get there," he told the ACORE conference Wednesday, citing the region's inability to win approvals for new gas pipelines or transmission to import Canadian hydro.

"Fifteen million customers in [New England]

paid the highest gas-basis costs in the country and they were less than 200 miles from the Leidy gas hub in Pennsylvania in a \$2.34/MMBtu trading market," he continued. "I recognize it's probably going to be hard to get 30-inch pipe into New England, but in lieu of that, we've got to solve this problem. ... This is all going to be a failed experiment if we have reliability issues in the New England states."

Massachusetts Sierra Club Director and Newton City Councilor Emily Norton challenged Powelson at the Boston conference, saying she was "surprised and disturbed" at his "lack of attention to the full costs" inherent in choosing fracked gas, such as the water pollution in Pennsylvania.

"To that customer or to your constituent, I think they should have peace of mind that they're going to have safe, affordable and sustainable energy to their homes," Powelson said. "A lot of people in Pennsylvania are switching fuel from oil to natural gas. Not everybody can afford a rooftop solar installation on their house, or a battery storage behind that, or for that matter, a propane or natural gas-fueled Generac or Cummings generator."

ISO-NE's 2025 outlook has some alarming points for a regulator, he said. He added that he had read about the risk of rolling blackouts and other emergency measures becoming necessary in New England if the region didn't act to secure the supply of natural gas for its generators.

"Look, what happens with Millstone?" Powelson said. "I don't know, I'll leave that to Connecticut, [PURA Vice Chairman Jack] Betkoski and others, and Gov. [Dannel] Malloy. What happens more recently in this post-bomb cyclone with lack of adequate gas supply where you're dealing with storage issues here in the New England market? There's a case where storage is meeting your demand right now, but we don't have adequate pipelines into the market."

"The reality for this region is that state governors, both Democrat and Republican, are committed to incent investment and development policies that support that investment, which is a good thing," Powelson said. "In lieu of a national energy policy, the states have to drive that. ... The states are getting ahead of the federal government. So be it."

Continued on page 15

Raab Associates' 157th New England Electricity Restructuring Roundtable

Panel: Northeastern States' Offshore Wind a 'Regional Resource'

By Michael Kuser

BOSTON — The numerous East Coast offshore wind projects being developed through individual state procurements should be viewed as regional resources, panelists told a New England energy conference last week.

The 10 GW of offshore wind slated for the region has already reached a critical mass that has lowered financing costs and promises local suppliers a real market rather than a one-off opportunity, a panel of three offshore developers and one state regulator said during the Raab Associates' 157th New England Electricity Restructuring Roundtable on Friday.

Massachusetts in 2016 set a goal to develop 1,600 MW of offshore wind by 2030, followed last year by New York, which is targeting 2,400 MW by 2030. New Jersey this year topped both with a target of

3,500 MW by the same year.

While slightly behind Massachusetts, New York is in a hurry to get rolling and plans to issue its first 400-MW offshore wind solicitation this fall, followed by a similar one in 2019, said **Alicia Barton**, head of the New York State Energy Research and Development Authority. (See [NY Offshore Wind Plan Faces Tx Challenge](#).)

"I think people are looking at this the wrong way, looking at it state by state," Barton said. "These are all leases in federal waters and this will be a growing Northeast regional resource rather than a state-by-state resource."

Although New York's Public Service Commission will make the final determination, NYSERDA would propose to provide eligibility to projects that can either deliver

directly into NYISO or through an adjacent control area, she said.

"We are eager to send the message that all of these leaseholders should be looking at this New York market opportunity and this procurement coming up," Barton said.

First Actor Advantage

Representatives of the three developers who bid into Massachusetts' offshore wind solicitation in December supported Barton's regional resource theme, but each

would first like to win the Massachusetts contract.

Orsted North America President **Thomas Brostrom** said his company will soon announce the first



Continued on page 16

Powelson Tells New England to Learn from Pennsylvania

Continued from page 14

... But we're also building a lot of things in the PJM footprint."

Resilience of the Grid

Closing on the topic of resilience, Powelson said that he and his fellow FERC commissioners "are in a very good spot."

"The feedback from the RTOs has been what we expected," he said. "If a resource needs to close and exit the market, there should be orderly entry and exit, and I use my example of PJM, where roughly 13,000 MW have come offline. That's the reality of the market."

Price suppression created by resources like cheap natural gas is displacing uneconomical resources, "so why should we go out there and pick winners and losers in a market?" Powelson said. "To do what? Hurt the other, more efficient units in the market or send bad market signals?"

Van Welie said the question is how much further the RTO can go with retirements before they must slow them down.



Gordon van Welie | © RTO Insider

The National Oceanic and Atmospheric Administration last fall "forecast a return to 'normal' winter after two unseasonably warm ones, whatever 'normal' is in New England anymore," van Welie said. "But no one was predicting a 100-year cold snap over the Christmas-New Year break."

The RTO's winter preparedness program created an incentive for the oil-burning generators to fill up going into the winter, but when it came to resupplying during the winter, they were buying on the spot mar-

ket, van Welie said. (See [ISO-NE Plans for Hybrid Grid, Flat Loads, More Gas](#).)

"And they were competing with home heating on the spot market," van Welie said. "So then we hit all kinds of logistics problems, where truck drivers don't have enough hours to move the fuel around, and the oil suppliers are going to supply homes before they're going to supply generators."

The RTO's job is "to procure the reliability services we need through the wholesale market construct," he said. "In our resiliency filing with FERC, we are asking for a year to work things out, asking to wait until the second quarter of 2019."

Moderator Jonathan Raab asked van Welie: "If CASPR is a transition mechanism, what might be a long-term solution to help states 'achieve' their climate reduction commitments without undermining the integrity of wholesale markets?"

"The obvious answer is carbon pricing, but we're not going to do that as none of the states want to," van Welie said. "It's really going to have to be the states that take the lead on that."

— Rich Heidorn Jr. reported from the ACORE conference in D.C.

Raab Associates' 157th New England Electricity Restructuring Roundtable

Panel: Northeastern States' Offshore Wind a 'Regional Resource'

Continued from page 15

offshore wind factory in the U.S., to be located in Massachusetts. He said Orsted has "entered into an exclusive arrangement with a very large and recognized European manufacturing company" for the facility.

For the solicitation, Orsted partnered with Eversource Energy to form Bay State Wind, which proposed a 400-MW or 800-MW wind farm 25 miles off New Bedford, to be paired with a 55-MW battery storage facility.

"You create an industry when you have volume and pipeline," Brostrom said. "You have basically a pipeline of 10 GW; that's why we think we can create a local supply chain now."

The growing reality of a Northeast offshore wind industry is already influencing bankers, who have quickly reduced the cost of project financing, he said.

In its initial request for proposals in its 83C solicitation last July, Massachusetts sought a minimum of 400 MW of offshore wind but said it would consider bids of up to 800 MW if it determines that a larger proposal "is both superior to other proposals submitted in response to this RFP and is likely to produce significantly more economic net benefits to ratepayers."

The three developers, Bay State, Deepwater Wind and Vineyard Wind (the last of which is a joint venture between Avangrid Renewables and Copenhagen Infrastructure Partners), placed their bids in December and the state will announce winners on April 23, with contracts to be submitted at

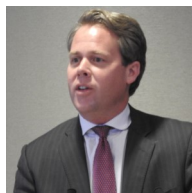


Moderator Jonathan Raab speaks to the Roundtable audience. | © RTO Insider

the end of July. (See Mass. Receives Three OSW Proposals, Including Storage, Tx.)

Economic Impact

Brostrom presented Orsted as the global leader in offshore wind, but **Matthew Morrissey**, vice president of Deepwater, said his company was the leader in the Americas, having built the 30-MW Block Island project, the only offshore wind farm operating in the U.S.



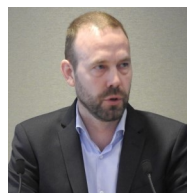
Deepwater also signed a contract with the Long Island Power Authority last year for the 90-MW South Fork project, scheduled to become operational in 2022.

In Massachusetts, Deepwater proposed two versions of Revolution Wind, a 200-

MW wind farm consisting of about 25 turbines, or one double that size.

"Revolution Wind contains a very innovative, expandable transmission system, a pumped storage offering and, for a project of this scale, enormous economic impact," Morrissey said. "The Brattle Group provided us with a study – 2,700 jobs, \$300 million in economic impact, and we are committed to delivering our power in 2023."

Deepwater's proposal includes an agreement with the largest hydroelectric pumped storage facility in New England, the 1,200-MW Northfield Mountain station operated by FirstLight Power Resources.



"The reason why timing matters here – Alicia said it's a regional industry and I fully agree with that – but the reality is that the first projects will decide where the first

part of the supply chain goes," said **Lars Pedersen**, CEO of Vineyard Wind, which submitted proposals for 400-MW and 800-MW wind farms with approximately 50 and 100 turbines, respectively. "And if you follow the logic from Europe, the more of a head start you get, the more likely you are to get more of the supply chain."

There will be supply chain up and down the East Coast, as there should be, Pedersen said, but Massachusetts has an "incredible" starting advantage with the harbor in New Bedford. He said that synergies on the transmission side of the project would enable his company to build an 800-MW line for essentially the same cost as a 400-MW one.



From left to right: Lars Pederson, Thomas Brostrom, Matthew Morrissey and Alicia Barton. | © RTO Insider

MISO NEWS



Stakeholders Debate MISO Cost Allocation Plan

By Amanda Durish Cook

CARMEL, Ind. — Stakeholders are questioning a MISO proposal that would draw a sharp distinction between the cost allocation eligibility for interregional and internal projects.

The preliminary proposal would make cost sharing available to 100-kV projects along the PJM and SPP seams but limit it to internal market efficiency projects of 230 kV and above.

MISO staff have expressed confidence about the proposal — unveiled last month — and say the change will capture a reality in the footprint, where 230-kV lines are prevalent. (See [MISO Recommends Cost-Sharing for Sub-345 kV Tx.](#)) The plan also respects FERC’s 2016 order requiring MISO to lower its voltage threshold to 100 kV on interregional projects with PJM.

“Views can change in the next few months, but right now, we’re on a good path,” MISO Director of Strategy Jesse Moser said of the allocation proposal during a March 15 Regional Expansion Criteria and Benefits Working Group meeting.

Several stakeholders at the meeting asked MISO to consider lowering the internal market efficiency project voltage threshold to 100 kV, while others favored the 230-kV limit — and a few preferred keeping the 345-kV limit.

Ottertail Power’s Stacie Hebert said her company favors maintaining the 345-kV

market efficiency project threshold, but it thought 230 kV was a “reasonable compromise.”

Moser said the divergent stakeholder views he’s heard on the proposal suggest MISO may have struck a compromise.

But WEC Energy Group’s Chris Plante said he couldn’t understand the reason for the differing thresholds.

“We have difficulties reconciling a 100-kV interregional voltage threshold with a 230-kV voltage threshold for MISO market efficiency projects,” Plante said.

While Plante said his company could become comfortable with MISO’s proposed removal of the postage stamp rate, he asked the RTO to also examine the possibility of implementing separate postage stamp rates for the Midwest and South regions. Since Entergy joined the RTO in 2013, MISO South has been subject to an integration transition period, which limits cost sharing in the region.

Madison Gas and Electric’s Megan Wisersky also said her company supported “consistency between internal and interregional projects” and a regional postage stamp rate.

Changing Nature

MISO has recommended that it scrap its current footprint-wide postage stamp rate for market efficiency projects. The RTO currently allocates 80% of project costs to local resource zones based on expected

benefits and recovers the other 20% via postage stamp allocation to all regional load.

The RTO wants to assign all costs to benefiting transmission pricing zones and work with stakeholders to create more specific benefit metrics and cost allocation zones. It currently relies on the postage stamp rate as a means of recognizing both benefits not currently quantified within its cost allocation and the changing nature of beneficiaries as the resource fleet evolves.

MISO planning coordinator Davey Lopez said the RTO’s current interregional cost-sharing rules are inconsistent and complicate interregional planning. To remedy this, Lopez said MISO must lower its SPP interregional cost-sharing threshold to 100 kV, matching its threshold with PJM.

“Most of the existing tie lines between MISO and SPP are less than 230 kV,” Lopez added.

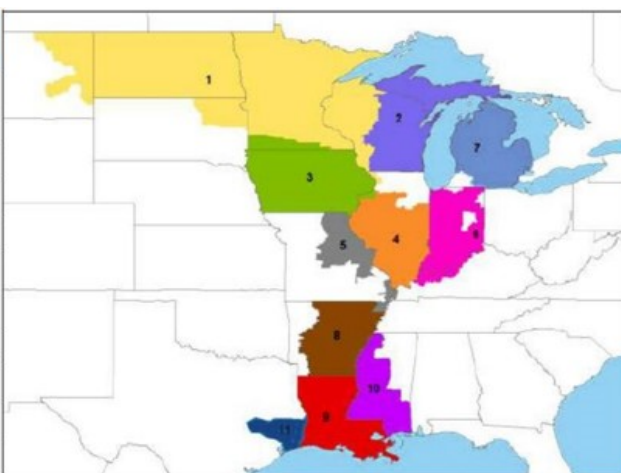
MISO’s Tariff does not currently define regional cost allocation for sub-345-kV economic projects with PJM (although a plan is due in October in response to a FERC directive) and still requires economic projects with SPP to be at least 345 kV to be eligible for regional cost-sharing. The Tariff also doesn’t address sub-345-kV interregional projects located wholly outside of MISO.

More Cost Allocation Zones

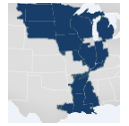
Other stakeholders at the meeting called on MISO to provide more detailed benefit metrics regarding a plan to further refine and shrink its existing cost allocation zones, which are currently based on the historic grouping of transmission pricing zones by state jurisdiction. They are nearly identical to the 10 local resource zones used in the annual capacity auction, although MISO this year won FERC approval to carve out an 11th zone in Texas for more specific cost allocation for the impending 500-kV Hartburg-Sabine project, the RTO’s only competitively bid transmission project this year. (See [MISO Board Approves Texas Competitive Tx Project.](#))

MISO staff stressed they haven’t established a position on rearranging existing transmission pricing zones or valuing new benefit criteria. Discussions on the new cost allocation plan will continue through fall.

Cost Allocation Zones	Transmission Pricing Zone(s)
1	DPC, GRE, MDU, MP, NSP, OTP, SMP
2	ATC
3	ITCM, MEC, MPW
4	AMIL, CWLP, SIPC
5	AMMO, CWLD
6	BREC, DEI, HE, IPL, NIPS, VECT
7	METC, ITC
8	EATO
9	CLCE, ELTO, ENTO, LAFA
10	EMTO, SME
11	ETTO



MISO cost allocation zones | MISO



FERC Affirms Ruling Favoring Entergy Bandwidth Calculation

By Amanda Durish Cook

FERC last week affirmed an initial decision approving how Entergy has equalized production costs among its operating companies, batting away several grievances raised by Louisiana regulators.

The commission affirmed three findings from an administrative law judge's 2016 ruling on the company's bandwidth payments (EL10-65-005), determining that Entergy:

- Properly accounted for the 9.3% interest sale and leaseback of the Waterford 3 nuclear plant near New Orleans in its accumulated deferred income taxes when it characterized the sale as financing and excluded it from bandwidth formula payments;
- Can keep interruptible load in its system monthly coincident peaks used to develop the 2010 and 2011 bandwidth calculations, although all other years of Entergy's bandwidth payments exclude interruptible load; and
- Appropriately accounted for the costs of



River Bend | Entergy

the allowance for funds used during construction (AFUDC) for the River Bend nuclear plant north of Baton Rouge in bandwidth payment calculations.

The allocation of 2007-2015 production costs among Entergy's half dozen operating companies under its multistate system agreement has been a source of disagreement for a decade. Before 2015, the

companies functioned as one system, although each had different operating costs. Under the arrangement, Entergy's low-cost operating companies made payments to the highest-cost company in the system using a "bandwidth" remedy that ensured no operating company had production costs more than 11% above or below the system average.

In a 2010 filing with FERC, the Louisiana Public Service Commission contended that Entergy's bandwidth payment calculation suffered from several inconsistencies. Among its complaints: 1) The formula needed to include the company's Waterford 3 sale and leaseback account as production costs, and 2) the demand responsibility factor for allocating fixed costs and the reserve equalization cost credit for interruptible load used to calculate 2010-2011 bandwidth payments was incorrect and warranted refunds. The PSC also said the bandwidth formula should include certain River Bend plant-related costs excluded from Entergy's total production costs, arguing that the company should not have treated the plant's AFUDC

Continued on page 19

MISO Plan Provides Tx Treatment for HVDC Lines

By Amanda Durish Cook

CARMEL, Ind. — MISO and its stakeholders have agreed on a plan to treat merchant HVDC lines as transmission instead of generation when physically connecting to the RTO's system.

A year in the works, the proposed Tariff revision would subject merchant HVDC lines to MISO's traditional transmission schedule charges and make them ineligible for interconnection service. The RTO will file the proposal with FERC by the end of this month.

Speaking at a March 14 Planning Advisory Committee meeting, MISO Director of Resource Utilization Vikram Godbole said the proposal does not prescribe any revenue plans for developers of merchant HVDC service. Developers would instead be responsible for determining the "net econom-



Vikram Godbole |
© RTO Insider

ic viability of their merchant HVDC project by considering their revenue streams and cost to connect to MISO transmission," he said.

Some stakeholders asked how the RTO will treat transmission upgrades needed to connect HVDC lines in the interconnection queue.

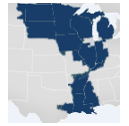
"They're not going to have interconnection rights," Godbole said, adding that the lines will instead connect to the MISO system at a 0-MW status.

Under the changes, MISO will hold discussions with HVDC developers and owners before grid connection to determine whether a line is designed to withdraw or

inject energy into the system, Godbole said. The RTO will require upstream generators contracting with injecting lines to procure network resource service through the interconnection queue, subject to system impact studies. Those units will be modeled like MISO's other network resources, showing up in planning studies. Merchant HVDC customers that have secured injection rights and interconnection customers will share the costs of any needed network upgrades.

Meanwhile, merchant HVDC developers will be required to acquire MISO injection rights or a precertification that the system will be able to reliably handle the capacity and energy from proposed lines at the point of connection. (See "HVDC Interconnection," MISO Eyes Small Queue Changes, Merchant DC Interconnections.)

Godbole acknowledged that MISO may eventually need to develop a more nuanced connection plan for merchant HVDC lines, but that, for now, it is focused on allowing such lines to connect to the system.



Stakeholders Mull BTM Impact on MISO Tx Planning

By Amanda Durish Cook

CARMEL, Ind. — After six months of little progress, stakeholders are now asking MISO to consider changing its billing practices to reflect how behind-the meter resources use the transmission system.



Jeff Webb | © RTO Insider

But the RTO says it's still collecting stakeholder input before it develops an official stance on multiple BTM measures.

"In large part, we're still in listening mode here," MISO Director of Planning Jeff Webb said at a

March 14 Planning Advisory Committee meeting.

The RTO is still working with stakeholders to determine whether it should account for net or gross BTM load when it assesses network integration transmission service.

"I think that's the debate here: whether behind-the-meter uses the transmission system for load, uses it sufficiently enough or uses it on peak," Webb said. "Under what circumstances are costs incurred [from load typically served by BTM generation] when building the transmission system?"

The RTO must also settle on planning study assumptions for both registered and unreg-

istered BTM generation and determine whether BTM retirements should be subject to a formal Attachment Y notice and subsequent reliability studies.

Last year, WEC Energy Group proposed that all resources be required to register with MISO as a network resource before being authorized to fulfill capacity obligations. That proposal aligns with an existing RTO plan to implement a one-time deliverability test for BTM generators that could trigger a requirement to acquire network service in an upcoming capacity auction. (See [WEC Takes Stab at MISO Behind-the-Meter Definition](#).)

Webb said MISO will continue to discuss how to plan for BTM generation at the PAC's April meeting and that the conversation would likely extend until the end of the year.

"We'll make some sort of strawman proposal and let people beat up on that for awhile until we get something," Webb said. "Let's keep the dialogue going here."

Stakeholders: Tx Charge Rewrite?

The question of how to bill BTM generation for transmission use sparked a larger conversation on revising transmission use charges in the face changing load shapes in MISO.

Veriquest Group's David Harlan said MISO is headed for a future of more complex and "spiky" load shapes attributable in part to

BTM generation, possibly requiring the RTO to reassess how it bills for transmission use.

"In the past we've expected load shapes to be fairly predictable and planned around peak. I think what we're increasingly seeing is that when you connect to the transmission or distribution system, there's an option value. You can either inject or withdraw. What's the proper way of accounting for that option right?"

Wisconsin Public Service's Chris Plante said his company has also been discussing a more nuanced approach to transmission billing.

"I think more and more we're not just building transmission for the peak, but for energy withdrawal," Plante said.

Representing Illinois Industrial Energy Consumers, Jim Dauphinais said he'd like to see the transmission charge issue contained within the broader BTM subject, noting that MISO's Regional Expansion Criteria and Benefits Working Group is responsible for proposing transmission cost-sharing policies.

Webb said he supported limiting the issue to how MISO plans for and bills for BTM generation — for now.

"I think maybe we bite off what we can here," Webb said. "I think we're in a — every generation says this — but we're in a transitional period. There's growing uncertainty about the load that we plan for."

FERC Affirms Ruling Favoring Entergy Bandwidth Calculation

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as a regulatory asset and liability, even though it was apparently ordered to do so in a 1991 order ([U-17282](#)).

However, FERC said accumulated deferred income taxes associated with Waterford 3 are not "properly includable for commission cost-of-service purposes." The commission also determined that Entergy in 1991 did not have the requisite data to make accounting changes for the River Bend AFUDC, and that the company had correct-

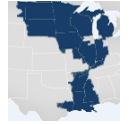
ly accounted for AFUDC in regulatory asset and liability accounts by recording it in plant-in-service accounts.

"We are in no position to speculate on the Louisiana commission's intentions," FERC said of whether the Louisiana PSC actually meant for Entergy to create the regulatory asset and liability nearly 30 years ago.

FERC also said it already resolved the interruptible load issue in a 2012 order that required Entergy to remove all of it from its cost allocation in response to the Louisiana commission's 2007 complaint ([EL07-52-](#)

[001](#)). "No further relief is available in this separate proceeding," FERC said.

The commission also agreed with the judge's position that it had "already ruled on the interruptible load issue and provided relief to the maximum extent possible when it prescribed refunds for the refund effective period from April 3, 2007, through July 3, 2008, and prospectively from May 7, 2012." The administrative law judge in 2016 said the appropriate time for the Louisiana PSC to "have asked for extraordinary relief beyond the 15-month refund period" would have been in 2012.



Michigan Groups Contest Presque Isle Cost Allocation

By Amanda Durish Cook

In a case pending before a federal court early next month, Michigan regulators have joined with load-serving entities to challenge a 2016 FERC order that reallocated most costs for the Presque Isle system support resource (SSR) agreements to consumers in the state's Upper Peninsula.

Under the suit filed with the D.C. Circuit Court of Appeals late last year, the parties contend that FERC decided to change the longstanding allocation of costs within MISO's American Transmission Co. pricing zone covering northern Michigan and Wisconsin without substantial supporting evidence. The change saddled Michigan LSEs with surcharges that amount to retroactive rate increases, a practice prohibited by the Federal Power Act, the parties argue (15-1098).

The complainants include the Michigan Public Service Commission, Constellation Energy, Cloverland Electric Cooperative, Tilden Mining Co., the cities of Mackinac Island and Escanaba, Upper Peninsula Power Co., the Sault Ste. Marie Tribe of Chippewa Indians and Verso Corp.

Dueling Presque Isle Proceedings

In a separate but related proceeding, FERC

last year ordered Presque Isle owner Wisconsin Electric Power Co. to refund Michigan LSEs \$23 million in overcharges stemming from the SSRs over 2014/15. The commission last month accepted MISO's plan to distribute those refunds. (See [FERC Approves Presque Isle Refund Calculation.](#))

But in their case, the Michigan parties argue that the refunds are only part of the equation, considering that ratepayers now bear nearly all SSR costs for the coal-fired plant, which represents a break from MISO precedent. Under the original 2014 SSR agreement, costs to keep the plant running for reliability were allocated across the ATC zone, with Upper Peninsula ratepayers paying 8% and Wisconsin ratepayers responsible for the rest.

After two years and a complaint by Wisconsin's Public Service Commission that the state was paying for a majority of the SSR but not receiving a majority of the benefits, FERC allowed MISO to shift 98% of the SSR costs to LSEs in the sparsely populated Upper Peninsula. That change in part stemmed from NERC's 2014 decision to separate the Upper Peninsula from Wisconsin into its own local balancing authority. FERC at the time said it was unjust to allocate SSR costs on a *pro rata* basis to all LSEs in the ATC footprint, deciding that costs instead must be allocated to LSEs that require the operation of the plant for reliability purposes.

bility purposes.

But the Michigan parties argue that, in re-assigning the costs for the SSR, FERC improperly relied upon a preliminary loadshed study that showed Wisconsin receiving only 42% of the reliability benefits from Presque Isle, while a final study showed the state receiving 86% of the benefits.

The reallocation applies retroactively — back to 2014, which means that after receiving \$23 million in refunds for the overpayment, Upper Peninsula ratepayers could then owe more than \$20 million in retroactive surcharges to implement the change in SSR allocation. The Michigan parties contend that any surcharge is unlawful, but MISO has been cleared by FERC to begin assessing surcharges this month according to the same 10-month schedule for disbursing the refunds.

The D.C. Circuit will hear oral arguments in the case on April 6, with a decision expected by summer. The Michigan PSC and other complainants have filed for a temporary stay of MISO's assessment of the surcharges while the case is being argued, contending that the "immediate implementation of surcharges to reallocate Presque Isle SSR costs threatens to impose significant irreparable harm on some Michigan LSEs."

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MISO NEWS



MISO Cleared to Collect More Customer Info

By Amanda Durish Cook

FERC last week approved MISO Tariff revisions allowing the RTO to gather more information about proposed energy resources before they enter the interconnection queue.

Key among the changes is a requirement that a developer provide clearer upfront information about who will own a generating unit once it clears the queue.

In its ruling, FERC agreed the changes will “provide greater clarity to interconnection customers and greater transparency to all parties in the interconnection process” (ER18-636). The new measures became effective March 1.

Under the new rules, interconnection customers must provide MISO upfront documentation of “legally binding relationships” with parties that may claim ownership rights to a facility during the interconnection process.

MISO said the change will reduce the time it spends confirming ownership changes and will be necessary only when an interconnection customer “reasonably anticipates” another entity may claim ownership rights. The documentation would be limited

to “that necessary to confirm the legal status and relationship of the relevant entities,” the RTO said.

Interconnection customers associated with a project can sometimes change during the definitive planning phase (DPP) of the interconnection queue, MISO said in its filing. In those cases, the RTO must confirm the legal status and relationship between the original and newly designated interconnection customers, creating an “administrative burden ... that hinders the ability of MISO staff to administer other aspects” of the DPP.

“Requiring documentation proving legally binding relationships with entities that the interconnection customer reasonably anticipates may claim rights under the interconnection request upfront in the interconnection request form will ease administrative burden if a facility changes ownership later in the interconnection process,” FERC said, adding the change will help expedite projects moving through the DPP.

The commission rejected EDF Renewable Energy’s protest that MISO didn’t justify its need for the additional detail and that the changes would give the RTO more information than it needed. The company alternatively proposed that interconnection customers provide MISO with documenta-

tion “confirming a legally binding status upon requesting a name change,” rather than at the outset of the process. FERC said EDF was conflating name changes with changes in ownership status.

The Tariff revisions also require interconnection customers to provide MISO with IRS W-9 forms; banking information (including for other companies that may claim ownership in a generating facility); GPS coordinates for the point of interconnection for a project; descriptions of the number of generators, inverters and transformers involved in the interconnection request; and additional contact information when a customer uses an agent.

They also expand the service options listed on MISO’s interconnection request form, allowing customers to specify a net-zero interconnection service request for an existing facility with no increase in capacity; indicate whether a request should be considered for the RTO’s fast-tracked process offered to small generating facilities; and inform MISO when a request for network resource interconnection service is intended for an existing facility.

The new rules additionally stipulate that net-zero interconnection customers must attach a system impact study to their requests and provide MISO with all necessary data before generator interconnection agreement negotiations can begin.

Michigan Groups Contest Presque Isle Cost Allocation

Continued from page 20

“If MISO begins to invoice surcharges this month, it is anticipated that LSEs paying such surcharges will include the surcharge amounts in their bills to retail ratepayers, assuming that is even feasible,” the PSC said.

‘Middle of the Game’

“This is a reallocation of costs where the surcharges arising from the reallocation will exceed the refunds due to the reduction in permissible SSR costs,” Bill Demarest, an attorney representing Tilden, said in an interview with *RTO Insider*. “The surcharges are to pay for reallocation of the SSR costs after the substantial reduction in costs or-

dered by FERC.”

Cloverland attorney Christine Ryan said the reallocation is unfair to Upper Peninsula ratepayers that have for years contributed to grid costs with Wisconsin.

“We can’t just change the rules in the middle of the game. Upper Peninsula customers have shared the costs of this system over the years,” Ryan said.

Demarest agrees, contending that Upper Peninsula ratepayers have subsidized transmission upgrades in the past that have benefited only Wisconsin ratepayers.

Complicating matters is whether Upper Peninsula ratepayers can afford to shoulder all Presque Isle SSR costs over MISO’s 10-month schedule.

“Our client Cloverland is a good example of

the problem,” Ryan said. “They are small; they serve a rural population. That part of Michigan is economically depressed. This will be a significant charge that Cloverland will have to pass on to its customers. Administratively, this is a very difficult thing to manage.” If Michigan ratepayers are found to be almost exclusively responsible for the retroactive surcharges, LSEs face the prospect of calculating customer responsibility and tracking down those customers that have relocated during the intervening four years.

The two attorneys also argue that, in changing the historical allocation pattern for the purposes of the Presque Isle SSR, FERC ignored its own finding in Order 1000 to treat generation and transmission-based reliability solutions comparably.

“FERC was going against their own policies here, we pointed that out and they ignored that,” Demarest said.



NYPSC Approves Higher Rates for Bitcoin Miners

The New York Public Service Commission on Thursday ruled that upstate municipal power authorities can charge higher electricity rates to cryptocurrency companies in order to prevent disproportionate increases in local retail rates.

The intense computer processing by cryptocurrency companies, such as Bitcoin miners, requires large amounts of electricity, prompting them to move their server farms upstate for the relatively cheap hydropower.

The order ([18-E-0126](#)) cited the situation in Plattsburgh, where monthly bills for average residential customers increased nearly \$10 in January because of two cryptocurrency companies operating there.

The New York Municipal Power Agency, an association of 36 municipal power authorities in the state, petitioned the commission regarding concerns that these high-density load customers were having a negative impact on local power supplies.

Cryptocurrency companies look for commercial or industrial facilities where they can access the large amounts of power required for their banks of computers to create — or “mine” — digital currency.

The commission “must ensure business customers pay an appropriate price for the electricity they use,” said PSC Chair John B. Rhodes. “This is especially true in small communities with finite amounts of low-cost power available.”

In some cases, such currency miners account for 33% of a municipal utility’s total load, an “extraordinary amount” of power for a single customer to use, the commission said. By comparison, a large paper manufacturer employing hundreds of workers might use one-quarter the amount of electricity per square foot of such customers.

PSC Slashes National Grid Electric Rate Increase

The PSC approved three-year electric and gas rate plans for National Grid that came up far short of the company’s requests.

The ruling ([17-G-0239](#)) limits electricity



John B. Rhodes |
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revenue increases in the first year to only \$43 million (1.7%), rather than the \$326 million (13%) sought by the utility. Natural gas revenue increases in the first year were capped at \$13 million (2.4%), compared to the requested \$81 million (14%).

A typical residential customer using 600 kWh of electricity per month under the new rate plan would see a total monthly bill increase of \$2.22 (2.9%) in the first year starting in April 2018, \$3.03 (3.8%) in the second year and \$3.25 (3.9%) in the third year. Eligible low-income electric customers will see a bill reduction of up to 55%.

The plan “includes a nation-leading affordability policy that substantially lowers bills for most low-income customers,” Rhodes said. “It moves forward the state’s climate agenda by expanding energy efficiency while funding non-wire alternatives and other REV-like initiatives for smarter investments.”

PSC Continues Crackdown on ESCOs

The commission ruled to restrict three energy service companies (ESCOs) from serving low-income customers while granting a fourth company its petition to serve them after demonstrating that it could guarantee a 1% savings against the utility price.

The March 15 actions ([17-G-0239](#)) included suspending the ability of Flanders Energy to market to and enroll new residential and nonresidential customers and directing the company to refund any overcharges to customers that it enrolled without

proper authorization. Flanders does business in Consolidated Edison’s service territory.

The commission also denied separate petitions from Drift Marketplace and M&R Energy Resources for rehearing on original orders denying the companies’ requests to serve low-income customers. Neither company was able to demonstrate how it was going to guarantee savings, the rulings said. Drift does business in Con Ed’s territory, while M&R operates in the Central Hudson Gas & Electric and Orange & Rockland Utilities areas.

“Our ongoing efforts to reform the ESCO market remains a priority,” Rhodes said. “In instances where an ESCO proves they are fair to customers, we allow them to continue their activities in New York to bring choice and energy services to customers.” (See [NYPSC Limits ESCO Service, Sets New DER Compensation](#).)

The commission approved New Wave Energy’s petition, which stated the company will immediately assign all its customers that participate in the utility assistance program to its guaranteed savings product. New Wave operates in the National Grid, New York State Electric and Gas, National Fuel Gas and Rochester Gas & Electric service territories.

The state’s Department of Public Service has provided evidence that many ESCOs have been significantly overcharging many mass market customers. It has also found many ESCOs have abused customers via high-pressure and deceptive sales tactics, teaser contracts and exploiting vulnerable elderly, immigrant and low-income

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| NYSEG

NYISO NEWS



NYPSC Approves Higher Rates for Bitcoin Miners

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populations.

PSC Approves Tier 2 Changes to CES

The PSC expanded Tier 2 of the state’s Clean Energy Standard, changing Maintenance Tier eligibility to include certain renewable facilities in operation prior to Jan. 1, 2015, and establishing delivery requirements into New York consistent with those for Tier 1.

The order ([15-E-0302](#)) applies only to eligible, pre-existing renewable facilities and expands the number of projects eligible for funding under the program in cases of need. The commission also increased the size threshold for eligible existing

hydropower facilities from 5 MW to 10 MW, and provided for a streamlined review process, as well as a standard contract term of three years with the potential for contract renewals.

The commission said the changes will reduce the administrative burden on facilities seeking maintenance support and will better reward the environmental contributions of existing baseline renewable resources.

PSC Hems on Public Policy Tx Planning

The commission on Friday declined to identify and refer any public policy transmission planning requirements to NYISO.

The March 16 order ([16-E-0558](#)) directed DPS staff to work with the ISO and the

New York Transmission Owners to identify potential transmission constraints on the bulk and non-bulk systems that may warrant the future identification of a public policy requirement, considering current and projected resources.

The commission said that while it “recognizes that there are certain regions, such as the northern and southwestern parts of the state, where additional transmission facilities may support the deployment of renewable resources, the extent and magnitude of such needs requires further consideration.”

NYISO’s Tariff, approved by FERC, says that the PSC may identify which public policies, if any, constitute requirements; if the commission identifies such a need, the ISO will then solicit and evaluate proposed solutions to it.

— Michael Kuser

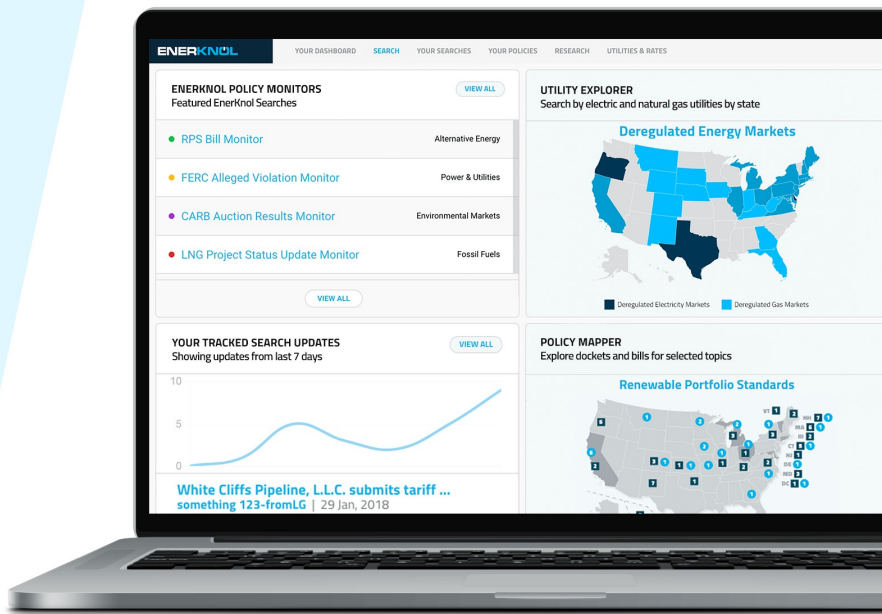
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NYISO NEWS



Business Issues Committee Briefs

Natural Gas Prices Drop from Cold Snap Highs

RENSELAER, N.Y. — NYISO energy prices averaged \$33.83/MWh in February, down sharply from their cold snap average of \$99.55 in January but up 9.3% from the same month a year ago, Rob Pike, director of market design, told the ISO's Business Issues Committee on Thursday.

The ISO's year-to-date monthly energy prices averaged \$72.85/MWh in February, up 92% from a year earlier. Average send-out was 426 GWh/day, compared with 463 GWh/day in January and 418 GWh/day a year ago.

New York natural gas prices for the month averaged \$3.14/MMBtu at the Transco Z6 hub, down from \$17.94 in January. Prices were up 11.1% from a year ago.

Distillate prices gained 19.3% year over year, with Jet Kerosene Gulf Coast averaging \$13.72/MMBtu. Ultra Low Sulfur No. 2 Diesel NY Harbor averaged \$13.86/MMBtu, compared with \$14.83 in January.

The ISO's local reliability share was 14 cents/MWh, lower than 59 cents the previ-

ous month, while the statewide share of -64 cents/MWh was higher than -\$1.52 in January. Total uplift costs also rose from January.

Broader Regional Markets

Reviewing the Broader Regional Markets [report](#), Pike highlighted NYISO's ongoing work to clarify the minimum requirements for delivering external capacity into the Installed Capacity (ICAP) market. The BIC in January approved ICAP Manual revisions covering deliverability requirements for capacity imports from PJM, which become effective May 1. (See "BIC Recommends ICAP Manual Revisions," *NYISO Business Issues Committee Briefs: Jan. 17, 2018*.)

Pike also noted that NYISO last month urged FERC to deny a complaint by the New Jersey Board of Public Utilities against the ISO, PJM, Consolidated Edison, Linden VFT, Hudson Transmission Partners and the New York Power Authority. The complaint challenges the implementation of the mutual benefits provisions in the NYISO-PJM Joint Operating Agreement and requests amendments to it.

"First, the complaint was an impermissible collateral attack on prior FERC orders, attempting to reopen matters that have been addressed or are being addressed in other proceedings," the ISO said in its FERC filing. "Additionally, the complaint is inconsistent with an Order No. 1000 cost allocation principle requiring voluntary agreement for the NYISO to be allocated costs."

The ISO further argued that the complaint is inconsistent with the provisions of the JOA and tariffs that address cross-border cost allocation. The BPU also misinterpreted provisions of the JOA spelling out that NYISO and PJM not charge each other for mutual benefits, the ISO said.

External Deliverability Rights

The BIC recommended that the Management Committee approve Tariff revisions that would create external-to-Rest of State (ROS) deliverability rights, which would improve the ability for transfer capability into ROS to participate in the capacity market.

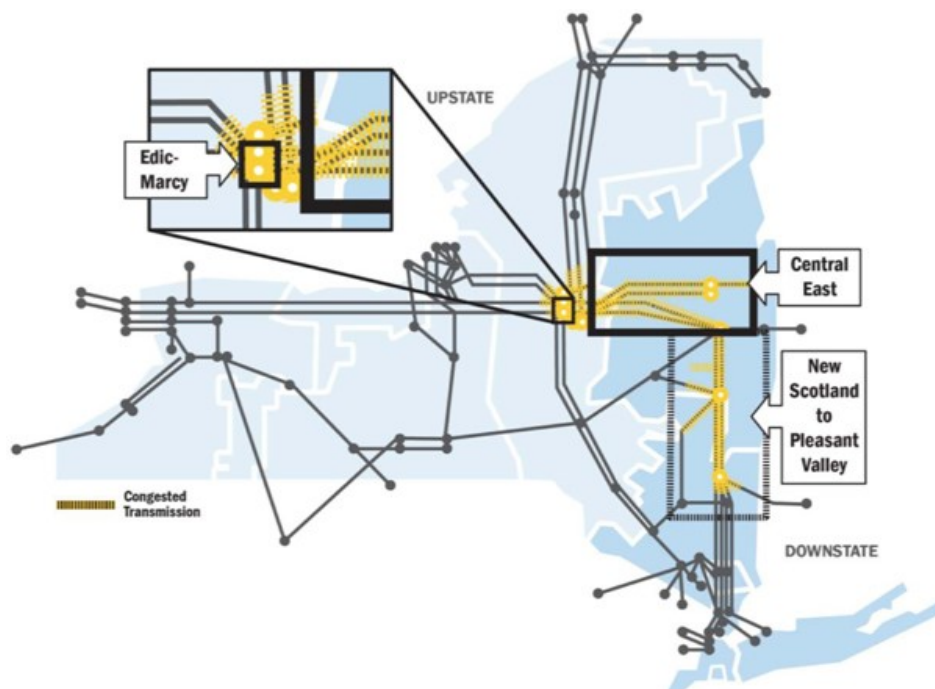
Ethan D. Avallone, senior market design specialist, said Hydro-Quebec US (HQUS) proposed that the ISO develop a method for awarding capacity resource interconnection service (CRIS) to entities that create increased transfer capability through transmission upgrades over external interfaces.

FERC in January 2017 granted HQUS a waiver (ER17-505) making it eligible to receive CRIS corresponding to the incremental transfer capability created by its Cedars Rapids Transmission intertie project. The commission noted that the issue was not addressed earlier because of other priorities and not because of objections from the ISO or other stakeholders.

2017 Congestion Assessment and Resource Integration Study

The BIC also voted to recommend that the Management Committee ask the Board of Directors to approve the ISO's 2017 Congestion Assessment and Resource Integration Study (CARIS) Phase 1 [report](#).

Tim Duffy, economic planning manager, [presented](#) the draft report, which he said provides analysis of the potential costs and benefits of relieving congestion on the New



The 2017 CARIS includes six studies on three areas, Edic-Marcy, Central East and New Scotland-Pleasant Valley. | NYISO

Continued on page 25

NYISO NEWS



Business Issues Committee Briefs

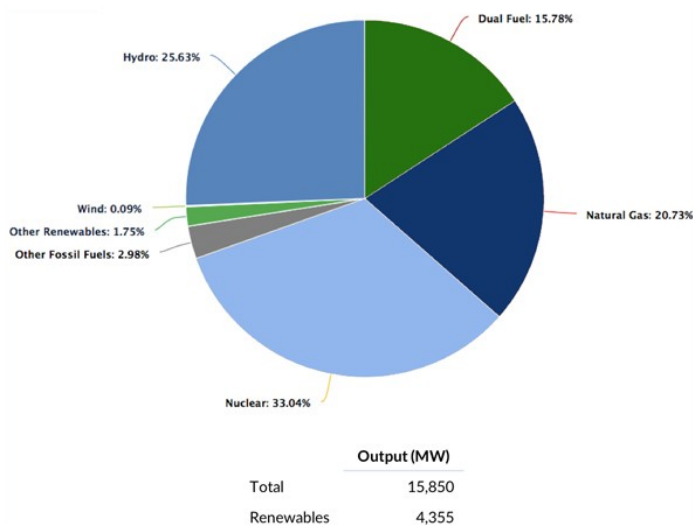
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York grid by using generic transmission, generation, demand response and energy-efficiency solutions.

One stakeholder expressed skepticism about the rationality of the projected resource mix used to theoretically meet the state's goals to get 50% of its energy from renewables by 2030.

"We certainly recognize that any of these numbers could be argued with, but the objective was to get to the 2030 goals," Duffy said.

The study presents a series of metrics for a wide range of poten-



Real-time fuel mix, March 12, 2018. NYISO is updating its manual for combined cycle generating units equipped to switch from gas to oil. | NYISO

tial futures and scenarios. One set of results can be viewed as a "business as usual" case, incorporating incremental resource changes based on the ISO's study inclusion rules, Duffy said.

Some results identify limited opportunities for transmission build-out based solely on production cost reductions. A second set of results is more forward-looking and captures impacts of changes on the grid through large-scale growth in renewable resources and implementation of energy-efficiency programs.

The ISO identified the three transmission elements – or groups of elements – where congestion was most prevalent in the New York Control Area based on an analysis of historic and projected congestion, and potential production cost savings.

Manual Update on Fuel Swap Testing

The BIC approved sending the Operations Committee a proposed update to the Ancillary Services Manual covering automatic fuel swap capability testing.

Harris Miller, associate operations engineer, said automatic fuel swap tests are required each capability period by combined cycle generating units that participate in Con Ed's minimum oil burn program and are equipped to automatically switch from gas to oil.

Each applicable generating unit must demonstrate a swap from natural gas to oil after an actual loss of gas pressure, a simulated loss of pressure, or an operator-initiated swap.

The swap must occur within a time frame consistent with the design parameters of the unit, must not exceed 60 seconds and should occur during stable operation while the unit remains synchronized to the transmission system. Each unit must coordinate real-time automatic swap tests with both the ISO and Con Ed.

In the event of a failed test, the operator must identify the cause of failure, undertake remedial action, and keep Con Ed and the ISO informed about its progress fixing the problem.

– Michael Kuser

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NYISO NEWS



Overheard at Capture the Energy 2018

ALBANY, N.Y. — With the cost of energy storage declining worldwide, New York plans to ride the wave of the technology to a cleaner energy future, targeting deployment of 1,500 MW by 2025.

Participants heard that and more at the Capture the Energy 2018 conference on Wednesday, hosted by the New York Battery and Energy Storage Technology (NY-BEST) Consortium.

William Acker, executive director of NY-BEST, said three key factors are driving the use of energy storage.

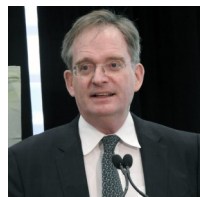


“We talk about increasing the efficiency of the grid, about reducing peak load and serving as a peaking facility for the grid,” Acker said. “We talk about increasing renewables.”

And the “linchpin,” according to Acker: resilience.

“We were over at National Grid yesterday and we were talking about resilience, that resilience means something different from reliability,” Acker said. “Reliability is how well you do on typical operating days; resilience is how well you do in the face of adversity. Winston Churchill had resilience. It’s how well you do when you’re facing the storms.”

‘God Wants Storage’



New York Public Service Commission Chair **John Rhodes**, whom the governor tapped to lead his energy storage initiative, said the state’s Reforming the Energy Vision “can

be an awesomely complex interweaving of multiple proceedings, but it’s kind of a complicated machine that’s trying to do something simple.”

“It’s good to keep in mind what that simple thing is: arrive at an energy system that is cleaner, that’s more affordable, that’s more resilient, that’s always reliable,” Rhodes said. “Basically, the energy system that’s right and necessary for New Yorkers.”

He said the grid contains latent value that is not currently being captured or monetized. A natural approach to remedying that shortcoming would be to reveal and reward that value, whether it relates to carbon reduction, location, firming and time-based capabilities, or the provision of system-level services.

Rhodes also emphasized the benefits of markets at scale.

“We know that when markets get big, costs come down, innovative companies find different ways to persuade different kinds of customers with a different kind of proposition appealing to their different motivations,” Rhodes said. “We want that. We don’t want one-offs. If we’re doing things, we’d rather see first-of-a-kind innovations than one-of-a-kind innovations.”

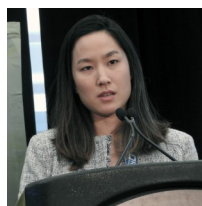
“As a regulator, and as a contributor to this agenda, we’re obviously trying to encourage more innovation and more investment — other people’s money,” he said. “And we’re obviously going to try to do that as smartly as possible. We are going to as much as possible stay in the mode of being solution-agnostic. We want to specify the problem and have the world come up with solutions, harvest the benefits of competition, pick the best and set the others aside.”

Rhodes said the preliminary results of a storage study New York is developing already indicate that the lifetime benefits of the state’s 1,500 MW by 2025 storage goal “completely and clearly” exceed costs.

“And they also reveal that God wants storage to be in Zones J and K [New York City and Long Island]. Amazingly, it’s confirming what everybody expected,” Rhodes said.

Costs and Goals

Yayoi Sekine, a Bloomberg energy analyst, spoke about the decreasing cost of lithium-ion batteries and the increasing penetration of electric vehicles in the automobile market. She predicted the cost of the batteries will drop from the current \$209/kWh to \$70/kWh by 2030, and that EVs will make up one-third of all motor



vehicles by 2040.

The world has moved from a scenario in which the people talking about EVs “seemed kind of crazy” to one in which more than 1 million EVs were sold last year, with major automakers moving into the market, Sekine said.

Joe Martens, director of the New York Offshore Wind Alliance, detailed some of the “stunning” developments in offshore wind mentioned by Rhodes.

Wind farms are growing in scale along with the size of wind turbines, Martens said, noting that General Electric this month announced the development of the largest-ever offshore wind turbine, a 12-MW giant standing 853 feet tall.

“New York is off to a very good start,” Martens said, noting that the state has set a goal of 2.5 GW of offshore wind by 2030 and issued a master plan for the industry, while the Long Island Power Authority last year signed a contract with Deepwater Wind for 90 MW of wind power from what will be the largest offshore wind farm in the U.S. when it becomes operational in 2022.

The state plans to conduct offshore wind solicitations over the next two years, each a minimum of 400 MW. (See [NY Offshore Wind Plan Faces Tx Challenge](#).)

Also last year, the New York State Energy Research and Development Authority recommended that the U.S. Bureau of Ocean Energy Management establish at least four new wind energy areas off the state’s coast, each capable of siting a minimum of 800 MW of generation, Martens said.

“There is cause for optimism” regarding the prospects of combining storage with offshore wind projects in New York, Martens said. The Massachusetts offshore wind solicitation in December provided one hopeful sign, with two out of three bidders pairing storage with their generation plans. (See [Mass. Receives Three OSW Proposals, Including Storage, Tx.](#))

Martens also mentioned Statoil’s recent bid to combine offshore wind with storage off the coast of Scotland. “The purpose of that was to teach the battery when to hold back and store electricity and when to send power to the grid, which is obviously the Holy Grail of trying to figure out how to maximize profits,” he said.

— Michael Kuser



Emissions and Dispatch Top Talk at NY Task Force

By Michael Kuser

New York stakeholders last Monday wrestled with the complex issue of how to evaluate the impact of a carbon charge on the dispatch of energy resources — especially in neighboring regions.

It was part of an ongoing effort by the Integrating Public Policy Task Force (IPPTF) to determine how to price carbon emissions into NYISO's wholesale electricity market.

The group, a joint effort between NYISO and the state's Department of Public Service, also discussed a method for calculating marginal emission rates, the allocation of carbon revenues and the effect of carbon pricing on customer bills — all part of "Track 5" of the carbon pricing initiative.

The group also touched on issues related to "Track 4," which covers the interaction of carbon pricing with other state and regional programs, such as the renewable energy credit and zero-emissions credit programs, as well as the Regional Greenhouse Gas Initiative.

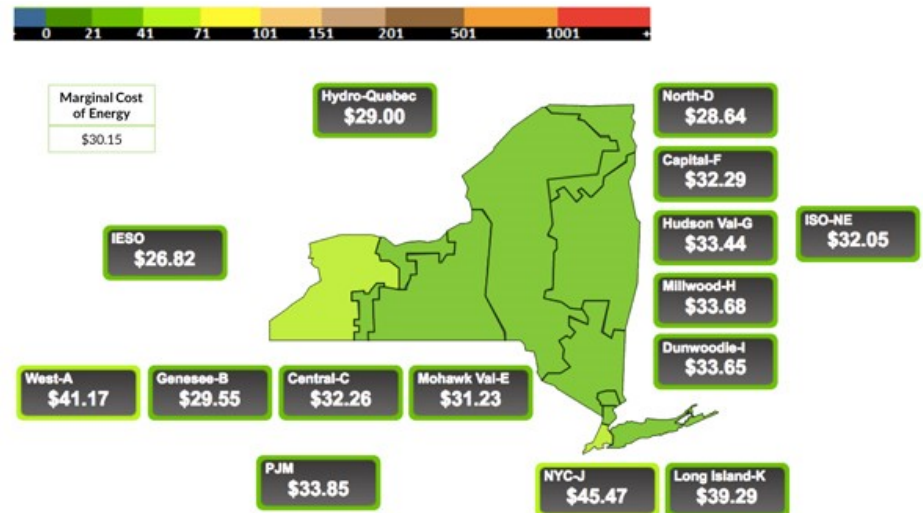
Assumptions and Metrics

"We are interested in looking at not just the financial impacts but also at what happens to emissions," said task force co-chair Nicole Bouchez, NYISO market design specialist.

"How do we assume the cases?" Bouchez asked. "Do we assume there's a change in RGGI or not? In realization that we're not going to be able to run dozens of permutations, what are the key assumptions?"

If the group "ends up modeling emissions in neighboring regions, for example in Ontario, which trades with MISO, then you have to model all of MISO's resources," she said. "While Ontario may look like a low-carbon import ... if all it's doing is causing MISO coal use to go up, then not so much."

Marc Montalvo, representing the DPS Utility Intervention Unit, said, "If we're designing a policy and implementation, if success is highly dependent on having perfect or near-perfect information about



Day-ahead market zonal LBMPs, March 12, 2018 at 10:29 a.m. | NYISO

our neighbors' emissions rates and those kinds of things, then it's probably not a good policy in the first instance."

Bouchez said the group's May 7 and 21 meetings would focus "on how to structure the analysis, what questions, what metrics we'll be reporting, etc."

Defining Impacts

During a discussion of the impact of carbon pricing on consumer costs, Bouchez said the ISO's locational-based marginal pricing (LBMP) represents "only the beginning of impacts on consumers because we're also going to be looking at the return of these residuals associated with a carbon charge to consumers, so you can't just look at the LBMP increase on its own." The "residuals" refer to leftover money refunded to load under a carbon pricing scheme.

Representing a coalition of large industrial, commercial and institutional energy users, Couch White attorney Michael Mager said his clients were seeking "two big things" from the impact analyses. First, "a thorough, unbiased analysis" of the impacts on market prices and what consumers are paying.

"And the second piece is, what are the emission reductions, if any, that reasonably could be anticipated if this were to be

done," Mager said.

New York could see some really material carbon reductions if it starts retiring unused RGGI allowances, he said.

"On the other hand, if nothing is being done to RGGI whatsoever, and it's just going to simply reduce the price of allowances that are going to be then used up by other states such that there's little to no reduction in carbon throughout the RGGI region, then this whole effort strikes us as somewhat symbolic and not getting much for any price impacts," he said.

Howard Fromer of PSEG Power New York asked, "Consumer impacts compared to what?"

"And the what is not identified here," Fromer said. "Obviously, the what, in my mind, has to include the fact that New York state right now is already spending and writing checks on a monthly basis and potentially, over the period that we're talking about, could be spending billions of dollars."

Fromer said that, aside from considering dispatch issues, the task force process also needs to consider the impact of a carbon charge on price signals, demand response and investment in the state's 40,000-MW generation fleet.

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Emissions and Dispatch Top Talk at NY Task Force

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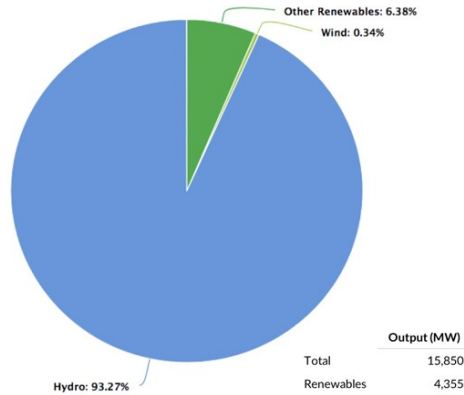
No Pot of Money

Stakeholders asked how the trend of increasing electrification — in the transportation sector, for example — should affect pricing carbon into the wholesale market.

Bouchez said many experts have told her the price of electricity has very little to do with electrification.

Bob Wyman of Dandelion Energy countered that electricity prices definitely affect consumer choices in New York City, where Consolidated Edison learned that city residents who install heat pumps use them for air conditioning but simply turn them off in winter because of high electricity prices for heating.

“Whether this approach is complementary or designed to supplant the mandated programs [such as the state’s Clean Energy Standard] ... to the extent that you are supplementing the existing programs, the issue is always about what are the incremental benefits, does it affect dispatch, new investment, how are the effects by



Renewable energy generated within New York state, March 12, 2018 at 9:25 a.m. | NYISO

zones, and you have to address those transition overlap and windfall revenue questions as part of the impact analysis,” said James Brew of Nucor Steel Auburn.

He said New York is relatively unique in trying to pursue both mandated and market programs, which means any analysis has to examine how the two programs interact.

David Clarke, director of wholesale market policy at the Long Island Power Authority, said carbon revenue collections within RGGI states would be a useful metric for examining the cost of abatement.

“I know we’re going to be looking at how much folks are paying for carbon allowances within New York as kind of the pot of money that we’re going to be splitting, but it would also be useful, depending on what scenario you are running, to find out what folks are collecting in terms of RGGI revenues within the other RGGI states,” Clarke said.

“There will be no pot of money,” Bouchez said. “I’ve been talking about them as residuals, which is how NYISO sees them, residuals being the difference between what we collect and what we pay out. How you allocate that within the wholesale settlements is a question. Do you give it back on a per-megawatt-hour basis? Do you give it back based on the impact of the increase in the LBMP?”

Warren Myers, DPS chief of regulatory economics, said that the joint staff are “nowhere near having an answer” on how to integrate multiple analyses into something useful but that “the work would get done by rolling up our sleeves” over the next few months.

The task force’s next meeting, to discuss Track 5 at NYISO headquarters, was March 19. Check back with *RTO Insider* for full coverage.

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If You're not at the Table, You May be on the Menu

Contact Marge Gold (marge.gold@rtoinsider.com)



PJM Stakeholders Explore Cost Containment Complexities

By Rory D. Sweeney

There's more to transmission planning cost containment than simply comparing estimates among proposals, stakeholders learned last week at a special session of the PJM Planning Committee on the issue.

While all sides presented differing opinions, they also seemed to strike a conciliatory tone.

Staff highlighted procedural and process challenges of adding cost containment as a factor in decisions, including the potential impact the extra analysis would have on the timing of developing planning models. They also explained that project costs often must be considered as a range, rather than a specific number, which complicates comparisons.

LS Power's Sharon Segner walked through the final two of four templates her company has proposed to help PJM standardize its comparison of transmission proposals based on several factors, including transparency, the strength of the cost-containment proposal and developers' rate requirements. Her cost-cap analysis, for example, would create a checklist of attributes, and proposals would be categorized based on how many of those attributes PJM believed each one had.

"If it's a weak cost cap, it's essentially treated as a cost estimate," Segner explained, noting that estimates would be calculated based on the in-service year rather than at the time of the proposal.

"We want a better understanding about how PJM values cost containment. ... From my company's standpoint, we think there needs to be improvement [in the PJM comparative cost analysis] from the status quo," she said. "There's been a lot of good points raised by the transmission owners in saying ... these projects have to meet the technical need and they have to solve the technical problem. ... That is my company's position as well."

A series of events at January's Markets and Reliability Committee meeting culminated in the issue going back to the Planning Committee for additional consideration and LS retaining control of the main proposal



Stakeholders at PJM's special Planning Committee meeting on cost containment last week. | © RTO Insider

that the MRC will consider. To ensure its proposal has enough support to be implemented, LS narrowed the focus of revenue requirement caps to include just total all-in return on equity and capital structure cap proposals and removed the ability to offer caps on operations and maintenance costs. A representative for NextEra Energy supported removing the operations and maintenance cost-cap option. The proposal goes back before the MRC at its May meeting. (See "Transmission Flashpoint," [PJM Markets and Reliability Committee Briefs: Jan. 25, 2018](#).)

Creativity v. Risk

Transource Energy's Brian Weber made a presentation that endorsed some of the LS goals but also opposed the overall proposal. He said it would put the focus on cost containment and "severely limit" what developers offer, moving PJM away from the "creative solutions" of the sponsorship model for transmission planning and toward the procurement model used in other RTOs/ISOs.

PJM's sponsorship model is similar to that used for architecture proposals, where bidders are encouraged to develop their own creative solution to necessary criteria and staff are prepared to consider a wide range of potential factors. The procurement model is more like the bidding process for construction contractors, where the design has already been chosen and applicants are mostly competing on cost. A hybrid approach that tries to focus on both creativity and cost could limit the ability to achieve

either of them.

RTO staff underscored the implication in their analysis of the changes necessary to consider cost-containment factors.

"Almost everyone else in the industry has one bucket of risks," PJM's Mark Sims said. "It adds a dimension to the level of analysis that PJM has to do."

"I think the pragmatic reality of this is that developers will limit their submissions" due to their project designs being subsequently awarded to undercutting competitors, Weber said, adding that the plan "provides pretty significant disincentive to provide value" through creativity.

Erik Heinle with the D.C. Office of the People's Counsel praised the technical creativity and asked why it couldn't be replicated on the financial side.

"Great technical flexibility should be matched with flexibility and creativity in the cost arena as well," he said.

"There is a difference between creativity and blind risk taking," Weber responded. "Which risks should developers be expected to take? They should be expected to take the risks that they can control."

Earlier in the meeting, PSEG Services' Vilna Gaston had said she hoped that incorporating those cost-focused measures wouldn't lead to a situation like the fatal bridge collapse in Florida on March 15. Ruth Ann Price with Delaware's Division of the Public Advocate agreed and noted that media

Continued on page 41



PJM Responds to Pa. Concerns About Baseload Plants

By Rory D. Sweeney

PJM's Board of Managers have assured Pennsylvania legislators that the state has ample power generation for its needs and cautioned that fuel diversity will not ensure reliability.

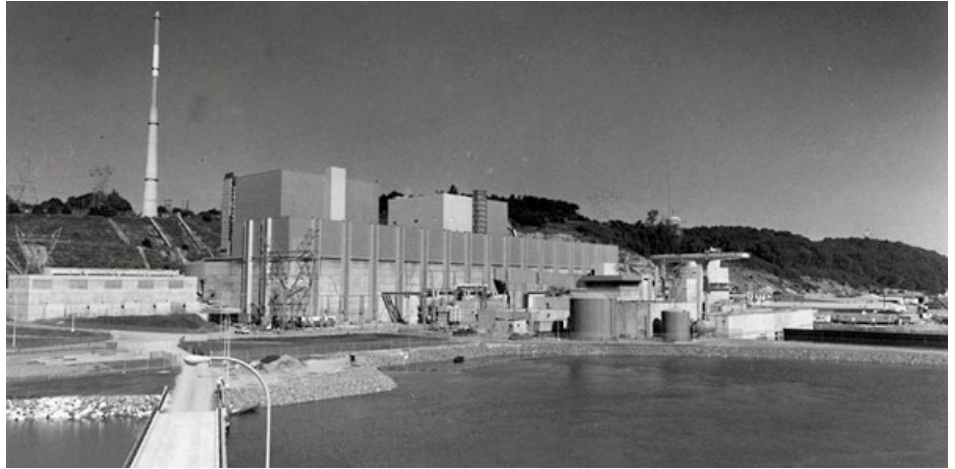
The RTO was responding to a Feb. 9 letter from the state legislature's Nuclear Energy Caucus with its own letter dated March 6 that seemed intended to assuage lawmakers' fears about of blackouts and grid interruptions caused by inadequate resources. While the caucus's message referred only to "baseload" units, it did voice support for several FERC and PJM initiatives that would benefit coal and nuclear plants.

"We are losing confidence in the ability of wholesale electric markets to ensure Pennsylvania maintains a diverse supply of baseload generation resources that ensure stable prices for our citizens and a reliable and resilient electrical grid," the caucus wrote. "Pennsylvania's baseload power plants continue to face the risk of premature retirement, and we do not see expeditious and sufficient action being taken by PJM or the Federal Energy Regulatory Commission to correct the market flaws at the heart of this problem — flaws that PJM itself acknowledges."

PJM's Independent Market Monitor noted in its 2017 State of the Market report that just 52% of coal-fired plants in the RTO recovered their avoidable costs in 2017. All of Pennsylvania's five nuclear facilities made enough money to cover their costs last year, although none did in 2016, the report showed. Three Mile Island has seen negative revenues since 2015 and will continue to through 2020 unless market changes occur, while the other four will remain profitable through that year. (See [IMM Report Says PJM Prices Sufficient.](#))

Adequacy Assured

PJM CEO Andy Ott penned the response to the caucus, which defended the RTO's operations. Ott noted that Pennsylvania has built more than 12,000 MW of new generation over the 20 years that the RTO has managed its grid, calling it "a direct result of the investment signals sent by the PJM



Peach Bottom nuclear plant in 1974

wholesale market."

In the past six years, Pennsylvania has produced between 18 and 27% more energy than it needed, equating to about 6,500 MW of generation, or nearly two-thirds of the Keystone State's nuclear fleet, Ott said.

While the caucus's letter never mentioned costs, Ott remained focused on them, noting that "PJM markets have yielded reliability at the lowest cost for Pennsylvania."

Diversity Necessary?

The caucus said its "concern has only been heightened by" the cold snap in January known as the "bomb cyclone." (See [PJM: Cold Snap Uplift Shows Need for Pricing Changes.](#))

"The dramatic increase in wholesale power prices during that period highlight the risk of overreliance on any single fuel source, a risk we believe PJM can and should avoid by swiftly enacting reforms," the legislators wrote. "We believe that [PJM's price-formation proposal] is an important first step in recognizing the benefits of fuel diversity within this market, and one that will help keep our grid — and power prices — stable for many years to come."

Ott noted in his response that both the RTO and Pennsylvania are more fuel-diverse today than ever, but downplayed the significance of that fact.

"Fuel diversity, however, is not a metric

with which PJM can measure reliability," he said. "Instead, fuel security — the certainty of fuel availability for power production — affects reliability."

Market Changes

The caucus supported PJM's efforts to revise its energy price-formation methodology, calling the current process "a flaw in its market rules that unfairly disadvantages certain low-cost baseload generation resources" by not allowing them to set clearing prices. As a result, "market prices are artificially low and do not reflect the true cost of meeting customer demand." It gave PJM "credit" for developing "a potential solution."

The RTO's solution is a controversial plan to allow large, inflexible units like coal and nuclear to set clearing prices. Currently, those plants' bids are often among the highest of dispatched units, but only "flexible" units that can regulate their output in response to price signals are allowed to set prices. The inflexible units receive subsequent "uplift" payments to cover their operating costs. In PJM's plan, those units would set price and the flexible units would be paid additional revenue to back down their output to avoid oversupply.

Critics of the plan argue that plants that don't receive enough revenue in the competitive market should take that as a signal

Continued on page 31

PJM NEWS



MRC/MC Preview

Below is a summary of the issues scheduled to be brought to a vote at the Markets and Reliability and Members committees Thursday. Each item is listed by agenda number, description and projected time of discussion, followed by a summary of the issue and links to prior coverage in *RTO Insider*. After the meetings, Independent Market Monitor Joe Bowring will provide a briefing on the 2017 State of the Market Report.

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

(There appears to be an error in PJM's posted agenda for the MRC. The times for Items 3 and 4 overlap.)

Markets and Reliability Committee

2. PJM Manuals (9:10-9:40)

Members will be asked to endorse the following proposed manual changes:

A. Manual 1: Control Center and Data Exchange Requirements. The revisions were developed as part of a periodic review and encompass real-time system monitoring

and communication requirements, including external resources.

B. Manual 3A: Energy Management System (EMS) Model Updates and Quality Assurance (QA). The revisions were developed to implement new NERC standards for transmission owners to monitor and report the quality of their real-time assessments in intervals of at most 30 minutes.

C. Manual 14A: New Services Request Process and Manual 14E: Additional Information for Upgrade and Transmission Interconnection Projects. Revisions developed to implement previously approved revisions to PJM's transmission service and upgrade requests. (See "Transmission Issues," *PJM PC/TEAC Briefs: Feb. 8, 2018*.)

D. Manual 33: Administrative Services for PJM Interconnection Agreement. Revisions developed as part of a comprehensive periodic review to clarify and streamline language.

E. Manual 37: Reliability Coordination. Revisions developed to clarify language and simplify references to NERC standards.

3. Energy Price Formation Senior Task Force (EPFSTF) (9:40-10:15)

Members will be asked to endorse a pro-

posed charter for the EPFSTF and proposed revisions to the energy price-formation issue charge related to development of a real-time, 30-minute reserve product. (See "30-Minute Reserves," *PJM Operating Committee Briefs: March 6, 2018*.)

4. Tariff Revisions to Address Overlapping Congestion (9:30-9:45)

Members will be asked to endorse Tariff and Operating Agreement revisions to address overlapping congestion. A vote on the proposal was held over from February's MRC meeting to address concerns about cancellation of certain market-to-market payments. (See "Overlapping Congestion," *PJM Markets and Reliability Committee Briefs: Feb. 22, 2018*.)

Members Committee

1. Tariff and Operating Agreement Revisions to Address Overlapping Congestion (1:10-1:30)

Members will be asked to endorse proposed Tariff and Operating Agreement revisions to address overlapping congestion. (See MRC Item 4 above.)

— Rory D. Sweeney

PJM Responds to Pa. Concerns About Baseload Plants

Continued from page 30

to shut down, not change the rules.

The caucus called the proposal "an important first step" but said it "will not fully correct the existing market flaws nor fully provide the compensation necessary to maintain baseload resources." Still, a failure to implement the plan "will continue to inequitably exacerbate the financial challenges" those units face, the lawmakers said.

While Ott did not specifically address PJM's price-formation proposal, he acknowledged "there is room for markets to more sharply define power grid requirements."

"Efforts are underway to improve wholesale market price efficiency for all the resources that rely upon the wholesale market to compensate them for their services, and appropriately to provide transparent invest-

ment signals," he assured the legislators.

Ott has previously said that the proposal would result in increased energy prices but decreased uplift and capacity prices. (See "PJM Pushes Price Formation Plan," *FERC, RTOs: Grid Performed Better in Jan. Cold Snap vs. 2014*.)

Monitor's Position

In his market report, Monitor Joe Bowring said the changes were not based on market flaws. Nearly 79% of the \$24.7 million in uplift costs from day-ahead operating reserve differences were paid to coal units in 2017, but not because of market design issues, he said.

"That actually has to do with some very specific circumstances about coal units that have nothing to do with convexity and non-convexity and would not be affected by PJM's price-formation proposal," Bowring

said.

FERC Resilience

The caucus also applauded PJM's proposal as "entirely consistent" with the state legislature's resolution in October calling on FERC to address the U.S. Department of Energy's Notice of Proposed Rulemaking to financially support baseload generation. FERC denied the NOPR request in January but opened a docket to investigate concerns about the resilience of the nation's energy grid.

The caucus endorsed the new docket as "an early step" and said it plans to press for any recommended changes that emerge from it.

"We are encouraged that FERC valued our concerns," the caucus wrote. "You should know that as elected lawmakers ultimately responsible for our commonwealth's energy policy, we will engage in the discussion and strongly support urgent implementation of critical findings."



SPP Begins Work of Integrating Mountain West

By Tom Kleckner

SPP's Board of Directors and Members Committee last week approved a set of conditions that will guide Mountain West Transmission Group's pending membership into the RTO.

SPP said the board's endorsement during a special meeting in Dallas represents "a vote of confidence in the value of Mountain West's membership and the benefits it will bring to SPP's existing members, the Mountain West entities" and their customers.

COO Carl Monroe, who has been leading the RTO's team during the negotiations, told *RTO Insider* he has been pleased with the work so far.

"We have been able to alleviate some of [Mountain West's] concerns with joining SPP," Monroe said Wednesday. "We've been able to work together and move forward. We're pleased to come to this point, where we have general agreement of the things that are required to have Mountain West join SPP."

The board approved 18 policy statements and directed staff and stakeholders to begin revising SPP's Tariff, bylaws, membership agreement and other governing documents. The RTO's Corporate Governance Committee and working groups will

coordinate the work through the normal stakeholder process.

Changes to SPP's Governing Documents Tariff will be presented for approval by stakeholder groups prior to going to the Members Committee and board.

The policies govern the terms of SPP membership, governance, the cost to operate the four DC ties in the SPP footprint, transmission planning and resource adequacy, and rates and revenue. SPP's Regional State Committee would be expanded to include state commissioners from the Mountain West region.

SPP has scheduled a webinar on March 22 to provide further detail on the policies.

SPP and Mountain West members have been meeting behind closed doors since October to discuss the move. Monroe told stakeholders in January that a small negotiating team had been working to resolve a subset of "real contentious" issues. The Mountain West entities have suggested several governance changes important to their side of the footprint. (See SPP, Mountain West Resolving 'Contentious' Issues.)

Mountain West has said studies have shown participating in SPP's markets and efficiently using the DC ties between the two footprints would yield annual savings of \$80 million to \$154 million for its mem-

bers. The entities also expect to realize additional benefits from regional transmission planning and SPP's other services.

SPP has estimated its current members could receive more than \$500 million in total net benefits over the first 10 years of Mountain West's membership through reduced administrative costs because of a larger customer rate base, adjusted production cost savings from east-west energy exchanges and capacity cost savings from increased load diversity.

The RTO projects it will take about two years to fully integrate the Mountain West entities as members, but it plans to begin reliability coordination services in late 2019.

SPP currently serves a 546,000-square-mile, 14-state region. Mountain West's membership would add 165,000 square miles, 16,000 miles of transmission lines, 21 GW of generating capacity and parts of three more states (Arizona, Colorado and Utah) to the RTO's footprint.

Mountain West, which primarily services Colorado, Wyoming and Nebraska, began discussing RTO membership in 2013. It announced in January 2017 it was pursuing membership in SPP, and discussions entered a public phase in October. (See SPP, Mountain West Integration Work Goes Public.)

SPP Hits 60% Penetration Level, as Promised

Two years ago, SPP said a staff wind-integration study had found the RTO could "reliably handle" wind penetration levels of up to 60% of load with a few operational modifications. (See Study: 60% Wind Penetration Possible in SPP.)

On Friday morning, it happened. At 3:45 a.m. March 16, wind accounted for 13,928.94 MW of the system's total load of 22,998.71 MW, a penetration level of 60.56%.

SPP said the record was among nearly a dozen it has set in the previous 90 days. Last year, it became the first North American RTO to exceed wind penetration levels of greater than 50%. Wind penetration reached as high as 56.25% in December,

when SPP set its record for wind demand at 15.7 GW.

The RTO has added almost 12.5 GW of wind capacity since 2010, giving it 17.75 GW of installed wind. With the addition of another 5.3 GW that have interconnection agreements but are not yet in service, SPP's wind capacity will exceed its minimum load of 20.42 GW. Another 35 GW of wind capacity is under various stages of review in the generator interconnection queue.

"We are continuously evaluating the development of generation resources in our footprint to ensure a safe and reliable operation," said Bruce Rew, SPP's vice president of operations. "As additional generation is constructed, we will compare those impacts

to our forward-looking studies to ensure a reliable grid."

At the time of the 2015 wind integration study, SPP's wind penetration levels were approaching 39% and its record wind peak was 9,948 MW. The report recommended installing voltage reactive support capabilities for existing wind farms; enhanced operations tools to monitor real-time voltage stability limits; allowing the reliability coordinator additional flexibility in redispatching; and new planning criteria for and evaluation of phasor measurement units to provide real-time situational awareness.

Rew said the RTO has improved its wind forecasting capabilities and made "numerous" changes since 2015 through its market and reliability coordination processes.

— Tom Kleckner



FERC Rejects TO Complaint on SPP Zonal Placements

By Tom Kleckner

FERC last week denied a complaint by SPP transmission owners that the RTO's transmission zonal placement is unjust and unreasonable, saying the members did not meet their burden of proof to back up their claims (EL18-20).

The companies filed their complaint in October, arguing that a "loophole" in SPP's Tariff forces customers within an existing zone to pay a share of the legacy costs for transmission lines newly integrated into the zone. That practice, the complainants said, runs counter to the "no legacy cost shift" protections SPP has established to prevent cost shifting between zones. (See [SPP Tx Owners Take Zonal Placement Concerns to FERC](#).)

The TOs contended SPP's zonal integration decisions create unjustified rate increases in the form of cost shifts between customers. They argued the Tariff is unduly discriminatory because the cost shift burden is not evenly distributed and the disparate rate treatment is not based on any differences in service or the customers.

The legacy TOs said SPP's recent creation

or expansion of multi-owner zones highlighted various notice and equity issues that did not exist in historical single-owner zones.

Kansas City Power & Light made the filing and was joined by American Electric Power (on behalf of subsidiaries Public Service Company of Oklahoma and Southwestern Electric Power Co.); City Utilities of Springfield, Mo.; KCP&L Greater Missouri Operations; Nebraska Public Power District; Oklahoma Gas & Electric; Omaha Public Power District; Southwestern Public Service; Sunflower Electric Power; Mid-Kansas Electric; Westar Energy; and Western Farmers Electric Cooperative.

The companies filed after failing to revise the Tariff to include a mechanism holding customers in an existing zone harmless from network integration transmission service rate increases of more than 2% or \$1 million (whichever is lower). The proposal was rejected by both the Markets and Operations Policy Committee and the Board of Directors in July. (See [SPP Board Rejects Changes to Tx Zonal-Placement Rules](#).)

The commission said that although it was denying their complaint, "this does not alter

the rights that existing SPP transmission owners ... have to represent their interests and take action to address cost shifts that may result from zonal integration."

Pointing to SPP's newly revised TO zonal placement process that sets notice and information-exchange requirements for potential new TOs, the commission said existing owners retain their ability to negotiate with the RTO and new owners about zonal integration issues and to design measures to mitigate potential cost shifts. (See "SPC Approves Zonal Placement Process Document," [SPP Strategic Planning Committee Briefs: July 13, 2017](#).)

In addition, parties can participate in SPP's stakeholder process to develop and consider proposals to address this issue with more comprehensive participation by all stakeholders, FERC said.

SPP argued that not every cost shift resulting from placing a new TO in an existing zone is unjust and unreasonable. It said FERC has never taken a "rigid view" that rate impacts and cost shifts are universally and patently unjust and unreasonable, but instead "recognizes that matters of rate design involve judgment on

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Basin Electric Freed of PURPA Purchases over 20 MW

By Robert Mullin

FERC last week approved Basin Electric Power Cooperative's requests to eliminate its obligation to purchase power and capacity from generating facilities over 20 MW under the Public Utility Regulatory Policies Act.

The consumer-owned co-op, which provides supplemental wholesale power to 141 rural electric member systems in MISO and SPP, last year assumed the mandatory obligations of its members to purchase output from PURPA qualifying facilities — QFs of 150 kW or more in the case of SPP.

In its rulings — one for QFs in MISO (QM18-7) and one for SPP (QM18-6) — the commission agreed to terminate Basin's mandatory purchase obligation under FERC regulations, which stipulate that QFs in excess of 20 MW of net capacity in the two RTOs have nondiscriminatory access to a market, satisfying PURPA's requirements.

The commission dismissed the combined protests of two wind farm developers, Thomas Mattson and David VanderLeest, who argued that Basin was attempting to "rewrite" and "violate" PURPA and other



Crow Lake wind facility | Basin Electric

laws intended to protect small generators.

Mattson and VanderLeest contended that larger developers have received "substantially" better power purchase agreement terms from Basin than smaller developers, causing the complainants to lose out on a number of proposed projects because of expiring option agreements.

"Basin destroys their competition, keeping all small cooperatives under their rule," their protest said. "QF wind farms would provide less costly power than Basin, reducing customer rates while providing economic stability for the small cooperative."

The developers asked FERC to take six actions, including an order to reduce inter-connection costs.

The commission said the issues raised in the protest went beyond the scope of the proceedings. "Mattson and VanderLeest allege, among other things, delays in providing developers with accurate long-term avoided costs rates and failures in the overall implementation and enforcement of PURPA at the federal and state levels," the commission said. The Basin proceedings were limited to whether QFs in MISO and SPP have nondiscriminatory access to a market that satisfies PURPA's requirements, it said.

FERC cited Order 688, in which it "explained that there can be factors unique to individual QFs, including operational characteristics and transmission limitations, that prevent such QFs from having nondiscriminatory access to the markets described in Section 210(m)(1) of PURPA.

"However, Mattson and VanderLeest's protest does not discuss those factors or otherwise attempt to rebut the arguments in the [Basin] application," FERC said.

Basin's territory includes portions of Colorado, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, South Dakota and Wyoming.

FERC Rejects TO Complaint on SPP Zonal Placements

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a myriad of facts."

The RTO asserted that its Tariff is not unjust and unreasonable because it does not require SPP to involve itself in evaluating and mitigating cost shifts. Those determinations are best addressed by the commission on a case-by-case basis, SPP said.

Proposed Tariff Revisions Set for Settlement

The commission set for settlement hearing SPP's proposed Tariff revisions to add an annual transmission revenue requirement (ATTR) and implement a formula rate template for transmission service using

South Central MCN's facilities, when the utility acquires them and transfers their functional control to the RTO (ER18-99).

In an order related to the hearing, FERC also approved South Central's purchase of transmission lines and related assets from the city of Nixa, Mo. (EC17-126).

FERC said its preliminary analysis indicates that SPP's proposed Tariff revisions "may be unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful," but it accepted and suspended them to become effective the first day of the month after South Central acquires the Nixa assets, subject to refund and the outcome of other ongoing proceedings before the commission (ER15-2594, ER17-953 and EL18-16).

The commission granted SPP's waiver

request of its regulations regarding cost-of-service statements, consistent with its prior approval of formula rates. However, it allowed the administrative law judge to provide for "appropriate discovery of such information."

SPP filed its request in October, proposing to incorporate South Central's previously accepted formula rate to populate the utility's ATTR with certain Nixa transmission facilities. SPP said the assets, about 10 miles of 69-kV lines and associated infrastructure, interconnect with its system in the Southwestern Power Administration (SPA) and City Utilities of Springfield pricing zones, but are not included in SPP rates.

The RTO proposed placing the Nixa assets

Continued on page 35



DC Circuit Rejects NorthWestern Appeal of Reg Service Ruling

By Tom Kleckner

The D.C. Circuit Court of Appeals on Friday upheld FERC's determination that NorthWestern Energy's proposal to recover the costs of a generating station providing regulation service was not just and reasonable.

The court rejected NorthWestern's claim that FERC's decision was "arbitrary and capricious" and violated the Administrative Procedure Act's requirement that an agency's decision be "reasonable and reasonably explained" (No. 16-117).

The Midwest utility had filed with FERC to revise its rates to recover the costs for its Dave Gates Generating Station, a gas-fired facility built in Montana to provide its own regulation service, after purchasing 60 MW annually of the service from other utilities became too expensive. The 150-MW plant went into service in 2011.

NorthWestern proposed to use Gates to supply 105 MW of regulation service to all its customers. Retail customers would pay for 45 MW at a state-approved rate, separate from Schedule 3 under NorthWestern's Tariff with FERC. Retail and wholesale customers would pay for the remaining 60 MW under Schedule 3, which was calculated by multiplying the plant's revenue requirement by 0.57 (the ratio of 60/105).

The utility also proposed to charge customers for fuel costs but credit them for any revenue the Gates plant might bring in from off-system sales and other nonregulation service sales; charge customers for the regulation service that it purchased during



Dave Gates Generating Station | Corval Group

a 2012 outage; and charge customers for any regulation service that NorthWestern might need to purchase during future outages.

FERC affirmed an administrative law judge's order reducing NorthWestern's proposed rate by: (1) multiplying the revenue requirement by a different cost-calculation ratio of 0.13 (19/150); (2) excluding fuel costs from the Schedule 3 rate and rejecting the utility's crediting arrangement; (3) requiring the utility to make a separate filing to recover costs associated with the 2012 outage; and (4) requiring it to make separate filings before charging customers for any regulation service that it might need to purchase during future outages.

The commission directed NorthWestern to refund its customers the difference between the proposed rate and the modified rate. It also denied a request for rehearing.

NorthWestern raised four challenges in arguing the case before the D.C. Circuit in December. It said FERC "unreasonably" reduced the numerator of its proposed cost-calculation ratio from 60 MW to 19 MW, but the court said the commission

"reasonably modified" the calculation after determining that only 19 MW were needed to serve Schedule 3 customers.

The utility also contended that the commission arbitrarily increased the denominator of its proposed calculation from 105 MW to 150 MW. The court disagreed, noting that under FERC precedent, the denominator should reflect the nameplate capacity (150 MW), not just the megawatts that NorthWestern planned to devote to regulation service.

Third, NorthWestern argued that FERC inadequately explained its decision not to allow fuel costs and failed to account for the fact that the utility may be able to retroactively recover fuel costs. The court ruled otherwise.

Finally, the utility said the commission acted arbitrarily by requiring it to make separate Section 205 filings to recover costs associated with the 2012 outage and for any regulation service that it might need to purchase during future outages. FERC adopted the ALJ's reasoning, which justified the separate proceedings on reasonable grounds, and "acted reasonably here as well," the court ruled.

Writing for the court, Judge Brett Kavanaugh said he was not persuaded by NorthWestern's challenge of FERC's order for refunds. He noted that the commission "concluded that NorthWestern over-collected from its Schedule 3 customers, making this the kind of case in which FERC ordinarily orders refunds."

"That determination was reasonable," he said.

FERC Rejects TO Complaint on SPP Zonal Placements

Continued from page 34

and their associated ATRR in the SPA zone, using the revised zonal placement process. The Nixa assets would be the first facilities subject to the revised process.

FERC noted that South Central's formula rates and implementation protocols are the subject of several ongoing proceedings before the commission, and that the utility

has also filed a request for rehearing or clarification.

"Accordingly, certain provisions of South Central's previously approved formula rate template and implementation protocols could change based on the outcome of those proceedings," FERC said.

AEP, KCP&L, Sunflower, Mid-Kansas, Westar and Xcel Energy took issue with SPP's rate-impact analysis under the new

process.

The TOs argued that SPP's calculation of a 46% rate increase "appears to be a simple comparison of total zonal ATRR before and after South Central's integration." They said that because network service rates are based on ATRR and load ratio share, it would be necessary to evaluate the ATRR and any associated changes in load to

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FERC Rejects TO Complaint on SPP Zonal Placements

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accurately determine the rate impact.

The TOs also contended that the rate impact on existing customers in the SPA zone “is further obfuscated” by the fact that Nixa’s load transitioned to SPP network service in June 2017, but the transfer of facilities and recovery of their ATRR through zonal rates would not occur until a later date.

SPP argued that it did not fail to calculate the impact of adding load because South Central is not a load-serving entity and the Nixa load had already begun service in the zone. That meant there was no change in load associated with the assets’ integration, the RTO said.

Responding to a complaint that it “did not provide sufficient evidence” of the assets’ actual rate impact in the SPA zone, SPP said it provided the information “directly to each SPP transmission customer” in the zone during the zonal-placement process.

South Central, a transmission-only SPP member, said it intends to transfer functional control of the facilities to the RTO once the transaction closes. The facilities will be incorporated into the utility’s ATRR in its zone.

FERC found the transaction to be in the public interest because:

- It does not involve the transfer of generation facilities or the combination of transmission facilities with affiliated generation in the same market, and thus would not have an adverse effect on competition;
- It would not have an adverse effect on rates, as potential rate increases in the SPA zone would be attributable to incorporating the Nixa facilities, not the change in ownership; and
- It would not have an adverse effect on regulation. The commission said it found no evidence that either state or federal regulation will be impaired by the transaction, and noted that no party alleges that regulation would be impaired by the transaction and no state

commission has requested that FERC address the effect on state regulation.

South Central said the ATRR for transmission service using the Nixa facilities will be recovered pursuant to its formula rate from SPP ratepayers in the zone. Nixa currently recovers its costs to own and operate the assets directly from retail customers through a bundled rate that includes its costs for generation, transmission and distribution service.

The utility acknowledged that “there will be a ‘rate impact’ in the broadest sense” because of the new arrangement but said that the zone’s customers will see only “very small” increases in their rates, pointing to an estimated annual difference of \$87,000 between its ATRR and Nixa’s ownership. It said those increases will be offset by the transaction’s benefits.

South Central is a subsidiary of GridLiance, a competitive transmission company that collaborates with public power utilities. The Nixa municipality serves more than 9,000 retail customers.

– Tom Kleckner

If You’re not at the Table, You May be on the Menu

RTO Insider is the only media “inside the room” at RTO/ISO stakeholder meetings. We alert you to rule changes that could affect your business – months before they’re filed at FERC. Plus we monitor the news at FERC, EPA, CFTC, Congress, federal and state courts, and state legislatures and regulatory commissions.

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For more information, contact Marge Gold (marge.gold@rtoinsider.com)

COMPANY BRIEFS

BGE Deploying Proterra Electric Shuttle Buses

Baltimore Gas and Electric will deploy two 40-foot Proterra Catalyst E2 electric buses to shuttle workers between its downtown Baltimore headquarters and its Spring Gardens campus in South Baltimore, Proterra said on March 15.

The deployment will eliminate the usage of more than 11,000 gallons of diesel fuel and the emission of more than 480,000 pounds of greenhouse gas emissions annually and is part of BGE's grid modernization strategy.

BGE is getting vouchers of \$20,000 per bus from the Maryland Freedom Fleet Voucher program. The vouchers are the first the program has provided for electric buses.

More: [Proterra](#)

Retired Con Ed of New York President Joins Ameren's Board

Craig Ivey has been elected to Ameren's board of directors effective March 9, the board said on March 13.

Ivey served as president of Consolidated Edison Company of New York from 2009 through 2017 before retiring. The company is the subsidiary of Consolidated Edison that serves New York City and Westchester County.

From 1985 through 2009, Ivey worked at Dominion Resources, where his last position was senior vice president for transmission and distribution.

More: [Ameren](#)



Ivey

Debra Reed to Step Down from Top Sempra Energy Positions

Debra Reed said March 12 she is stepping down as Sempra Energy's president and CEO on May 1 and as its executive chair on Dec. 1.

Sempra's board of directors elected Jeff Martin, the company's chief financial officer, to succeed Reed as CEO and Joseph Householder, its group president of infrastructure businesses, to succeed her as president.

Reed has been with Sempra for 40 years. Her departure comes on the heels of Sempra clearing the last hurdle in its bid to buy Energy Future Holdings' 80.03% interest in Oncor, Texas' largest utility. (See [Texas PUC OKs Sempra-Oncor Deal, LP&L Transfer.](#))

More: [San Diego Union-Tribune](#)

FEDERAL BRIEFS

Trump Considering more Shake-ups to Cabinet

After firing Secretary of State Rex Tillerson last week, President Trump may not be finished rearranging his cabinet, as multiple media outlets reported he has considered Energy Secretary Rick Perry and EPA Administrator Scott Pruitt for new jobs.



Tillerson

Perry told reporters last week he is not interested in heading the Veteran Affairs Department. Anonymous White House sources told reporters that VA Secretary David Shulkin has fallen out of favor with the president after the department's inspector general accused Shulkin of spending time on an official trip sightseeing.

Meanwhile, EPA Administrator Scott Pruitt is still being considered to replace Attorney General Jeff Sessions, according to Republican sources in regular contact with the White House. Numerous sources — as well as weekend tweets by Trump himself — have indicated the president wants to fire Special Counsel Robert Mueller, who was appointed by Deputy Attorney General Rod

Rosenstein to investigate Russian interference into the 2016 presidential election. Sessions has recused himself from the investigation, and Trump has repeatedly publicly criticized him for that. Pruitt has made it known that he is interested in the job.

More: [The Associated Press](#); [The Wall Street Journal](#); [Vanity Fair](#); [The New York Times](#)

Russian Cyberattacks Targeted Plants, Grid

The Trump administration on March 15 accused Russia of engineering a series of cyberattacks that gave it the ability to sabotage or shut down power plants in the U.S. and Europe that the administration didn't identify.

U.S. officials and private security firms said the attacks on U.S. and European nuclear power plants and water and electric systems were a signal by Russia that it could disrupt critical facilities in the West in the event of a conflict. They said the attacks picked up speed in late 2015, the same time that Russian interference in the American election was underway, but that different groups were behind the two campaigns, suggesting that at least three separate Russian cyberoperations were underway simultaneously.

The attacks affected some of the nuclear plants' corporate networks but none of their safety, security or emergency preparedness functions, the Nuclear Regulatory Commission said. FERC said it didn't affect interstate power transmission.

More: [The New York Times](#); [The Associated Press](#)

Perry: Programs Targeted For Budget Cuts Obsolete

Energy Secretary Rick Perry told a House subcommittee on March 15 that he is proposing funding cuts to some Department of Energy offices and programs because they have accomplished their goals, not because he doesn't like them.



Perry

As examples, Perry cited programs on vehicle technology and solar energy, both of which have met their goals for each of the last five years. "We consider that to be meeting the goals that we put in place, and if you meet the goals — those are mature and they don't need to be funded going

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Utilities Urge Extension of EV Credit

A coalition of the country's largest utilities last week urged Congress to maintain an electric vehicle tax credit and remove the cap that limits the benefit to the first 200,000 manufactured vehicles.

In a March 13 [letter](#) to congressional leaders, the 36 energy companies asked Congress to maintain the EV tax credit in its fiscal year 2018 omnibus spending legislation and eliminate the existing cap in order to accelerate the adoption of EVs and "boost our economic and national security."

"First-mover companies — all American manufacturers — are all likely to hit the existing 200,000 vehicle-per-manufacturer cap this year, just as a new generation of affordable, state-of-the-art EVs hits the market," the letter says. "These automakers created thousands of American EV jobs by making early investments in EV research and development, manufacturing capacity

and charging infrastructure."

Signatories to the letter include American Electric Power, Consolidated Edison, Duke Energy, Edison International, Florida Power & Light, Long Island Power Authority, National Grid, NV Energy, Pacific Gas and Electric, Public Service Enterprise Group, Seattle City Light and National Grid.

The utilities said they "look forward" to a time when EVs can support grid resources, help integrate intermittent renewable generation and provide demand response. Eliminating the cap would provide certainty to automakers and consumers, and support jobs, the utilities said.

Section 30D of the Internal Revenue Service code provides a credit of up to \$7,500 for EVs. It was originally included in the Energy Improvement and Extension Act of 2008 and was amended in the American Recovery and Reinvestment Act of 2009. The credit begins to phase out when at least 200,000 EVs have been sold for use in the U.S.

— Jason Fordney



| eMotorWerks

FEDERAL BRIEFS

Continued from page 37

forward," Perry said.

Perry is proposing that the Office of Energy Efficiency and Renewable Energy, which administers the programs, have its funding cut by about two-thirds. His overall request for the department is \$30.6 billion, slightly more than its current budget.

More: [The Hill](#)

Three-Quarters of Utilities in Early Stage of EV Planning

Of 486 American utilities surveyed for a report released March 14 by the Smart Electric Power Alliance, 74% said they were in the early stage of planning for the widespread adoption of electric vehicles.

Of the 141 investor-owned utilities surveyed, 8% had progressed to the late stage of planning for EVs and 45% were in the intermediate stage. More than 80% of the municipal utilities and cooperatives surveyed were in the early stage.

"Our research shows that the situation right now is similar to what we saw with the growth of distributed solar," said Erika Myers, SEPA's director of research and the report's lead author. "If the predictions are correct, many utilities will be caught unprepared, with few ready to take full

advantage of this demand by leveraging EVs as a grid asset."

More: [Greentech Media](#)

Annual US Solar Generation Installation Posted First Decline

U.S. solar generation installation fell last year for the first time since GTM Research and the Solar Energy Industries Association began releasing their "Solar Insight Report" in 2010.

The latest edition of the report, released March 15, found that 10.6 GW of solar generation was installed in 2016, down from 15 GW in 2017, but 40% higher than the 7.5 GW that was installed in 2015.

Only two of the states that were tops in residential solar installation in 2016 saw growth in installation last year.

More: [Greentech Media](#)

Ill. Rep. Wants Senate to Fund Yucca Mountain in Omnibus

U.S. Rep. John Shimkus (R-Ill.) is urging Senate GOP leaders to include \$150 million in the fiscal 2018 omnibus spending package to revive the licensing process for constructing a repository for radioactive waste from the nation's power plants at Yucca Mountain, Nev.

The final decision on whether to include the money in the bill will largely be up to Senate Majority Leader Mitch McConnell (R-Ky.). Nevada's congressional delegation opposes building the repository, and the state's Republican senator, Dean Heller, is up for re-election in the fall.

President Trump has asked for funding to revive the Yucca Mountain project in his two budget requests, but it has not been approved.

More: [Washington Examiner](#)

Judge Rules EPA Broke Law by not Announcing Ozone Designations

A federal district court judge in California ruled March 12 that EPA broke the law when it failed to announce by last Oct. 1 which areas of the country were or weren't in compliance with a 2015 rule that set the limit for ground-level ozone at 70 parts per billion.

EPA Administrator Scott Pruitt later announced findings for areas of the country that were in compliance with the rule but failed to announce findings for areas that weren't in compliance with it.

Agency spokeswoman Liz Bowman said the agency is working on determining the findings.

More: [The Hill](#)

STATE BRIEFS

ARIZONA

Regulators Want Utilities To Reduce Gas Use

The Corporation Commission on March 13 voted 3-2 to “not acknowledge” the integrated resources plans of Arizona Public Service, Tucson Electric Power and UNS Electric because they overestimate power demand growth and rely too much on natural gas generation.

The commission also voted to require the utilities to analyze scenarios with more renewables, storage and demand management in future planning processes, and to establish a moratorium on the acquisition or construction of large amounts of natural gas generation through the end of the year.

More: [Arizona Daily Sun](#)

ILLINOIS

Court Sends Grain Belt Express Back to Regulators

 A state Court of Appeals on March 13 reversed the Commerce Commission's decision approving permits for the Grain Belt Express transmission project.

The court ruled that the project's developer, Clean Line Energy Partners, didn't qualify as a public utility because it didn't own, control or manage infrastructure assets in the state, and therefore shouldn't have been allowed to go through an expedited review process to get permits for the project. The decision means Clean Line must show the commission that it meets the criteria necessary for it to be classified as a public utility.

More: [Columbia Daily Tribune](#)

MARYLAND

House Kills Bill Requiring Wind Farms to be 26 Miles Offshore

The House Economic Matters Committee on March 12 gave an unfavorable report to a bill requiring offshore wind turbines to be set at least 26 miles off the coast, killing the legislation, which had been requested by Ocean City.

Existing regulations allow wind turbines to

be placed from 10 to 30 miles offshore. US Wind, one of the two companies that has leased an area for a wind farm off the state's coast, agreed under pressure from Ocean City to build its turbines 17 miles offshore, rather than 12 miles. City officials, however, say the agreement isn't legally binding and US Wind's federal permits indicate it's seeking to build future phases of its facility as close as 12.9 miles from the coast.

More: [The Daily Times](#)

NEW HAMPSHIRE

Northern Pass Appeal Put off Until at Least End of Month



The Site Evaluation Committee voted on March 12 not to take up Eversource Energy's appeal of its denial of a permit for the Northern Pass transmission project until after it issues its written decision in the case.

The committee expects to issue its decision in late March. That could sink the project as Massachusetts has said it will replace Northern Pass with a transmission project proposed by Avangrid's Central Maine Power subsidiary in conjunction with Hydro-Quebec if New Hampshire doesn't give Northern Pass a permit by March 27.

More: [New Hampshire Public Radio](#)

NEW JERSEY

BPU Investigating Utilities' Response to Nor'easters

The Board of Public Utilities on March 12 launched an investigation into the state's electric utilities' response to the nor'easters that hit the state March 2 and March 7.

Board President Joseph L. Fiordaliso said the investigation is being conducted at the direction of Gov. Phil Murphy. As part of it, the board will hold five public hearings, including three within the area served by Jersey Central Power & Light.

The BPU also will look at whether the state's utilities followed the more than 100 utility storm protocols it implemented following Superstorm Sandy and Hurricane Irene.

More: [The Bernardsville News](#)

Legislators Breaking Nuclear Subsidy Bill into 3 Bills

With the approval of Gov. Phil Murphy, lawmakers plans to break legislation that would subsidize the state's nuclear power plants into three separate bills that would provide nuclear subsidies, promote clean energy and revive a wind project off the coast of Atlantic City.

The bills were expected to be introduced March 13 but had not been made available as of press time. Their supporters hope to get them through the Legislature before it breaks for budget deliberations at the end of the month.

More: [NJ Spotlight](#)

NEW YORK

Former Cuomo Aide Guilty, Mistrial For Kelly in CPV Bribery Case

A former top aide to Gov. Andrew Cuomo was convicted last week for accepting more than \$300,000 in bribes, including a “low-show” job for his wife with Competitive Power Ventures.

A federal jury in Manhattan on March 13 convicted Joseph Percoco, Cuomo's former executive deputy secretary, of two counts of conspiracy to commit fraud and one count of bribery following an eight-week trial. Percoco was acquitted of extortion, conspiracy to commit extortion and one of two bribery counts. Facing as much as 50 years in prison, he is scheduled to be sentenced on June 11.

Prosecutors said CPV paid Percoco's wife \$285,000 over three years in exchange for favors, including his help winning approval of the company's 650-MW natural gas-fired [Valley Energy Center](#) in Orange County. The plant is [undergoing](#) final testing before going into commercial operation. (See [Competitive Power Ventures Lobbyist, Former Cuomo Aides Named in Bribery Indictment](#).)

However, U.S. District Judge Valerie Caproni declared a mistrial for former CPV executive Peter Galbraith Kelly Jr. after the jury deadlocked.

More: [The Wall Street Journal](#); [The New York Times](#)

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STATE BRIEFS

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DPS Has Begun Investigation of Utility Responses to Nor'easters

Gov. Andrew Cuomo on March 14 said that the Department of Public Service has formally notified the chief executives of the state's major electric utility companies that it has begun an investigation into their preparedness for and response to the two early March Nor'easters, which caused more than 590,000 homes and businesses to lose power, some for as long as 10 days.

"In the wake of recent storms, it is abundantly clear that some utilities failed to meet our expectations," Cuomo said. "New York will hold these utility companies accountable, and we will take action to ensure that outages like the ones experienced in March do not happen again."

The utilities whose performance is being investigated are Consolidated Edison, National Grid, New York State Electric and Gas, Rochester Gas and Electric, Orange and Rockland, Central Hudson Gas & Electric and PSEG Long Island.

More: [Gov. Andrew Cuomo](#)

County Board Says Con Ed, NYSE&G Should Pay Outage Costs

The Westchester County Board of

Legislators on March 12 unanimously passed a resolution saying Consolidated Edison and New York State Electric and Gas should pay the cost of the government overtime incurred — and the warming shelters that were necessary — during extended power outages earlier this month.

The companies also should offer a rebate or rate reduction to customers and pay businesses for revenue they lost during the outages, which were caused by two nor'easters that hit the county in a week.

The resolution backs up County Executive George Latimer's call for the companies' CEOs to resign, which he issued on March 7.

More: [The Journal News](#)

Appeals Panel Denies Request to Review FERC Pipeline Order

A three-judge panel of the 2nd U.S. Circuit Court of Appeals on March 12 denied the Department of Environmental Conservation's petition to review FERC's order authorizing the construction of the Millennium Pipeline.

"We conclude that the department waived its authority to review Millennium's request for a water quality certification under the Clean Water Act by failing to act on that

request within one year," U.S. Circuit Judge Jose Cabranes wrote for the panel.

"We certainly disagree with the decision and are reviewing our options to determine any appropriate next steps regarding this pipeline project," department spokeswoman Erica Ringewald said in a statement.

More: [Courthouse News Service](#); [Reuters](#)

VIRGINIA

Regulators Deny Dominion Request To Strike Testimony in Pipeline Case



The State Corporation Commission released an order

on March 12 denying Dominion Energy's request to strike testimony that its Atlantic Coast Pipeline would cost ratepayers as much as \$2.3 billion from the record regarding its integrated resource plan.

Gregory Lander, a natural gas industry analyst retained by environmental groups opposed to the 600-mile-long pipeline, used Dominion's own data to come to his conclusion.

Dominion says the project will cut its customers' bills and boost employment.

More: [Richmond Times-Dispatch](#)

FERC Orders Rate Revisions to Reflect Tax Cuts

Continued from page 1

himself. The latter order is addressed to 15 utilities, including several American Electric Power subsidiaries, Baltimore Gas and Electric, Black Hills Power, San Diego Gas & Electric and UNS Electric.

Most of the utilities in the orders have their own docket; the commission grouped three FirstEnergy subsidiaries into one docket and two NV Energy subsidiaries into another.

The utilities are required to file their changes, or show why they should not be required to, within 60 days of the dates of the orders.

FERC also granted two requests to lower transmission rates to reflect the new law: one from Public Service Company of Colo-



FERC staff present the orders resulting from their examination of the Tax Cuts and Jobs Act. | FERC

rado (ER18-840) and another from multiple MISO transmission owners, including Ameren Illinois, ITC Midwest, Montana-Dakota Utilities and Northern Indiana Public Service Co. (ER18-783).

MLPs, Gas Pipeline NOPR

The commission also issued a revised policy

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PJM Stakeholders Explore Cost Containment Complexities

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coverage showed the bridge contractor had several past successes along with several safety complaints.

Weber touched on this concern in his response to Heinle, noting that he has seen developers take risks in their cost-capped agreements filed at FERC and that he is confident they could not have had the time to perform the due diligence necessary to ensure they're doing it correctly.

Building Consensus

Alex Stern with Public Service Electric and Gas presented transmission owners' analysis of how easily the current proposals could implement design components that were previously identified. The analysis found that PJM's original proposal could implement the principles with relative ease; however, it was vetoed at the MRC meeting in January.

Stern said he "fully respect[s]" concerns about gold-plating the system but acknowledged that "PSE&G would probably be at a competitive disadvantage because we're not going to lower our standards for the customers of our state and anything we're involved in ... to the minimums that were set in [the Designated Entity Design Stand-

ards Task Force]. We'll try to abide by what we believe are the right standards."

He said a reasonable alternative would be limiting cost caps to construction costs.

"We're not supportive of cost caps. Having said that, as part of the negotiation and consensus building, we were willing to try to consider taking that step. ... I don't like it, but I would concede ... that it's probably the one that provides bang for the buck to the ratepayer with an ability to track and achieve objectives. It's probably the most enforceable," Stern said, suggesting that implementing cost containment is such a big change that it should be eased into slowly.

"The sponsorship model might not be the best model for complex cost caps and there are challenges. I'm not suggesting it's not doable; I'm suggesting there's more challenges with it," he said. "And that begs the question, do we change up the paradigm to facilitate broad-based cost caps recognizing there'll be impacts to [the Reliability Pricing Model], they'll be impacts to the [Regional Transmission Expansion Plan], there'll be impacts to the interconnection queue ... or do we start smaller and see how things work first?"

Heinle and Price urged implementing some way to standardize comparisons so their offices have a better chance to engage in the process. Price said staff in her office

who don't fully understand the process will immediately decline expensive projects, "so I need information to convince them."

"If we compare apples to apples to apples, it becomes a lot easier," she said. "I think most offices want to be actively involved in projects in their regions, but they need to the tools to be reasonably [informed]."

PJM's Steve Herling said the process is already completely optimized and there is no lag time available for additional analysis on understanding and comparing values.

"There comes a time where there's nothing left you can do. ... You've got a fixed start time and a fixed end time and everything you add has to fit in between" to finish the annual RPM case build, he said. "We don't believe you can fit it in the time frame you have. There is more work required than can be fit into this schedule."

He pointed out that it might not be possible to standardize the process to show whether costs are comparative costs.

"There are going to be times when something is a little more than you need and there's going to be times when it's a lot more than you need. People make proposals. Our job is to figure out whether it's a little more than we need or a lot more than we need and then figure out is the additional cost worth it," he said.

FERC Orders Rate Revisions to Reflect Tax Cuts

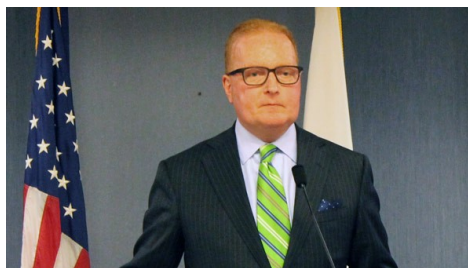
Continued from page 40

to no longer permit master limited partnerships (MLPs) to recover an income tax allowance in their costs of service (PL17-1).

In its 2016 ruling in *United Airlines v. FERC*, the D.C. Circuit Court of Appeals found the commission had failed to demonstrate that MLPs were not double recovering when they receive both an income tax allowance and a return on equity based on the discounted cash flow methodology, remanding the case back to FERC.

Reflecting its new policy, FERC issued an order on the remanded case, denying SFPP, a Kinder Morgan subsidiary, an income tax allowance for its West Line, a 515-mile oil pipeline that runs from the Los Angeles Basin to Phoenix, Ariz. (IS08-390).

Shortly after the commission issued its order, shares for multiple MLPs took a sharp



FERC Chair Kevin McIntyre at a press conference after the open meeting. | © RTO Insider

downturn, news outlets reported.

FERC's revised policy statement also directed oil pipeline MLPs to reflect the elimination of income tax allowance in their Form No. 6 filings, which the commission will use in its 2020 review of the oil index pipeline level.

For natural gas pipelines, FERC issued a Notice of Proposed Rulemaking that would require them to make a one-time informa-

tional filing to allow the commission to evaluate whether their rates are just and reasonable under the new tax law and its new policy statement (RM18-11). However, gas pipelines would also be able to simply file reduced rates.

Notice of Inquiry

FERC also opened a broad inquiry into the effects of the tax law on all the industries it regulates (RM18-12).

Commissioners and staff said they were particularly interested in accumulated deferred income taxes — money that companies collect from ratepayers in anticipation of paying income tax — and bonus depreciation, a tax incentive that allows companies to immediately deduct the purchase of certain business properties.

Comments on the Notice of Inquiry are due 60 days after its publication in the *Federal Register*.

Dem Dissents Show FERC Divide on Carbon

Continued from page 1

The project involves three pipelines, including the nearly 500-mile Sabal Trail, which will connect the other two pipelines between Tallapoosa County, Ala., and Osceola County, Fla., south of Orlando. Scheduled for completion in 2021, the project has a capacity of more than 1 Bcfd. It will supply two new plants — Florida Power & Light's Okeechobee Clean Energy Center and Duke Energy's Citrus County Combined Cycle Plant — and FPL's existing Martin County Power Plant and Riviera Beach Clean Energy Center.

LaFleur: 'Causal Relationship'

LaFleur said she agreed with the court that the downstream GHG emissions that result from burning gas transported by the pipelines are an indirect impact of the project and that those emissions are "reasonably foreseeable."

The final Supplemental Environmental Impact Statement (SEIS) estimates that the project will indirectly result in annual gross downstream GHG emissions of 14.5 million metric tons of carbon dioxide-equivalent units (CO_{2e}). Reflecting the reductions in GHG emissions that will occur as the gas-fired generators replace coal-fired units and displace oil as an alternate fuel, the SEIS calculated annual net downstream GHG emissions of 8.36 million metric tons CO_{2e}. (See table.)

The majority contended that the emissions data cannot "meaningfully inform" the commission's public interest determination.

"We are required by NEPA to reach a determination regarding the significance of all environmental impacts, including downstream GHG emissions. It is our responsibility to use the best information we have to make that determination," LaFleur said. "In this case, we can gauge significance by comparing the gross and net GHG emissions of the SMP Project to the total state and national emission inventories to calculate how the SMP Project increases those GHG inventories," she continued. "Here, I believe that a net increase of 3.6% of the Florida inventory for a single pipeline project is significant. Due to the need of the project, I believe that increase is acceptable but should be disclosed and assessed."

LaFleur also parted with the majority view that the social cost of carbon is not an ap-

Facility	Annual CO _{2e} (Million Metric Tons) ¹
FPL Okeechobee Clean Energy Center	5.46
Duke Energy Citrus County Combined Cycle Plant	5.64
FPL Martin County Power Plant	1.40
Additional or uncommitted capacity	2.00
Total Downstream CO2 Emissions	14.50
Duke Energy Citrus County coal retirement change	-3.87
FPL Martin County change due to switch from oil/natural gas to only natural gas	-2.27
Net Increase in Downstream Permitted Emissions	8.36

¹Annual potential-to-emit emission from FDEP air quality permits.

GHG emissions from generators supplied by Southeast Market Pipelines Project | FERC

propriate tool for evaluating the impact of GHG emissions. "That is precisely the use for which the social cost of carbon was developed — it is a scientifically derived tool to translate tonnage of carbon dioxide or other GHGs to the cost of long-term climate harm."

She said concerns over the lack of consensus on the appropriate discount rate could be addressed by calculating it using a range of rates.

LaFleur said the commission should conduct a detailed cost-benefit analysis of the project, "including more information on the need for a project, the likely end-uses of the transported gas and the alternatives." She said she would press the issue in the "generic" pipeline review proceeding announced by Chairman Kevin McIntyre in December. (See [FERC to Review Gas Pipeline Approval Process](#).)

Glick: 'Willful Ignorance'

Glick said the order failed to properly address either of the two issues raised by the court "and, as such, does not adequately respond to the court's mandate."

"Climate change is the single most significant threat to humanity, fundamentally threatening our environment, economy, national security and human health. It is difficult to understand how NEPA's demand that an agency take a 'hard look' at the environmental impacts of its actions can be satisfied if the impacts of GHG emissions are ignored," he wrote.

Glick said the commission "is engaging in a collateral attack on the court's decision by suggesting that it is not the commission's 'job' to consider whether emissions from 'the end use of the gas would be too harm-

ful to the environment.'

"It is absurd to even contemplate NEPA not applying to the most significant environmental issue of our time," Glick continued.

He said the commission's "willful ignorance of readily available analytical tools" undermines public confidence in its consideration of pipeline applications. "I fear that today's order, by limiting analysis of the environmental impacts of a proposed pipeline, will both increase the commission's litigation risk and contribute further to the cynicism of the pipeline siting process."

Previous D.C. Circuit rulings had found that FERC did not have to consider the climate-change effects of exporting natural gas in its licensing of LNG terminals. If the circuit court again rejects FERC's Southeast Markets order, it could be up to the Supreme Court to settle the inconsistency.

Majority's Comments

The majority said its staff "had no basis for determining the significance of impacts from these emissions" because "there is no widely accepted standard to ascribe significance to a given rate or volume of GHG emissions."

"There are no conditions the commission can impose on the construction of jurisdictional facilities that will affect the end-use-related GHG emissions," the majority continued. "The only way for the commission to reflect consideration of the downstream emissions in its decision-making would be, as the court observed, to deny the certificate. However, were we to deny a pipeline certificate on the basis of impacts stemming from the end use of the gas transported, that decision would rest on a finding

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Dem Dissents Show FERC Divide on Carbon

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not 'that the pipeline would be too harmful to the environment,' but rather that the end use of the gas would be too harmful to the environment. The commission believes that it is for Congress or the executive branch to decide national policy on the use of natural gas and that the commission's job is to review applications before it on a case-by-case basis."

The commission said the social cost of carbon tool is more appropriate for regulators whose responsibilities are tied more directly to fossil fuel production or consumption, such as the Bureau of Land Management and the Bureau of Ocean Energy Management.

It noted that the Council on Environmental Quality does not require agencies to conduct a monetary cost-benefit analysis for NEPA review.

The majority also rejected as outside the scope of the SEIS and the court's mandate issues regarding GHG emissions from upstream production of natural gas, environmental justice and the project's effect on the supply and demand for natural gas and substitute energy sources.

Second Pipeline Dissent

Glick and LaFleur also dissented in part

Thursday on an order granting a certificate of public convenience and necessity to DTE Midstream's proposed 14-mile Birdsboro Pipeline, which will supply up to 79,000 dekatherms per day of firm transportation service to the 450-MW Birdsboro Power Facility in Berks County, Pa. (CP17-409).

As in the Southeast Market order, LaFleur and Glick dissented over the commission's refusal to use the social cost of carbon to consider the significance of the project's environmental impacts.

They also cited concerns over the commission's "'new policy' approach towards motions to intervene out of time," articulated in a Feb. 27 order involving Tennessee Gas Pipeline (CP16-4-001).

"Today's order suggests that good cause for late intervention does not exist where an entity seeking to participate as a party in the proceeding submits a motion on the same day it learned that the application had been submitted," they wrote in their DTE Midstream dissent. "While we agree that late interventions should be limited to parties that demonstrate good cause, we are concerned by the potential consequences of the commission's pronouncement, particularly as it would apply to landowners and community organizations that lack sufficient resources to keep up with every

docket."

Dissent in Hydro Case

LaFleur and Glick also joined in a partial dissent in a case involving two small U.S. Army Corps of Engineers hydropower projects in West Virginia: the 5-MW Morgantown Lock and Dam and 6-MW Opekiska Lock and Dam (P-13753-003, P-13762-003).

The majority denied rehearing requests of staff's Sept. 29, 2017, orders authorizing the dams on the Monongahela River, upholding staff's determination that the West Virginia Department of Environmental Protection waived its Clean Water Action Section 401 water quality certification authority by failing to act on the licensee's applications within one year of receipt.

LaFleur and Glick said that although the state missed its deadline, they would have included the state's "modest requests to enhance recreational use of the project lands" — including a permanent public restroom instead of a portable restroom, trash receptacles and fishing piers — which were not opposed by the Army Corps.

"It is commission practice to consider incorporating the late-filed conditions into the license as recommendations ... as long as they do not interfere with the licensee's safe and effective operation of the hydroelectric facility for electric generation," they wrote.

NERC Names WECC Chief to Top Post

Continued from page 1

consultant and senior executive. He formerly served in senior roles at both Northeast Utilities (now Eversource Energy) and Reliant Energy.

"The board took this duty very seriously by engaging in a comprehensive, nationwide search culminating in the unanimous selection of Jim Robb," NERC Board of Trustees Chairman Roy Thilly said in a [statement](#). "We are confident that Jim will provide the combination of strong leadership, vision and commitment to the reliability and security of the bulk power system across North America that is essential to NERC's continuing success."

NERC has been without a CEO since Gerry Cauley stepped down last November after being arrested for allegedly assaulting his estranged wife, who told police he had been involved in a sexual relationship with a female employee at the agency. (See

[Cauley Resigns; NERC Launches Search for Replacement.](#))

Cauley had served as NERC CEO since January 2010 and was often the face of the reliability agency in hearings before FERC and Congress. NERC General Counsel Charles Berardesco has been serving as acting CEO.

As head of WECC, Robb led NERC's largest Regional Entity, "where he improved member relations, strengthened the management team and expanded collaboration with NERC and other Regional Entities," NERC said. WECC's territory covers all or part of 14 Western states, Alberta and British Columbia in Canada, and the northern portion of Baja California in Mexico.

"I have been fortunate to lead WECC and be a part of the NERC-enterprise family for the past four years, and I look forward to the next chapter of my career leading the" FERC-certified Electric Reliability Organization, Robb said. "This experience, combined with my past industry knowledge, has pre-

pared me for this exciting opportunity at NERC."

WECC said it will search for a replacement for Robb over the next several months. It has appointed Vice President and General Counsel Steven Goodwill as interim CEO. Goodwill is not a candidate for the top job.

In a written statement, WECC Board of Directors Chair Kristine Hafner said Robb's "unrelenting focus on effectively and efficiently reducing risks to the reliability and security of the bulk power system in the Western Interconnection has been vital to the 80 million people within our footprint who rely on power for their day-to-day lives."

Salt Lake City-based WECC is in the midst of revamping its operations following its 2014 restructuring into the current WECC and Vancouver, Wash.-based Peak Reliability. (See [WECC Finding New Direction in Old Mission.](#)) Among the changes in the works to refocus the RE on its reliability functions is a renaming to Reliability West. Other changes in the organization's bylaws are proposed for a possible June vote by WECC members.

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