RTO Insider
Your Eyes and Ears on the Organized Electric Markets
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LaFleur Braces for Honorable's Departure, 'FERC 2.0'

Since she was appointed to FERC in 2010, acting Chair Cheryl LaFleur has served with seven commissioners and two chairmen, Jon Wellinghoff and Norman Bay.

Now, after operating without a quorum since February, she is about to be joined by as many as four new commissioners appointed by President Trump. It will be the biggest turnover at the commission since at least 1993 — a transition she has come to call "FERC 2.0." (See *Trump Nominates Republicans Powelson, Chatterjee to FERC*; *No 2nd Term for FERC's Colette Honorable*.)

The chairman sat down for an interview last week with *RTO Insider* editor Rich Heidorn Jr., a former FERC staffer, about whether the commission can maintain its reputation for nonpartisanship, her reflections on the commission's May 1-2 technical conference on tensions between state policies and wholesale markets, and the grid security study ordered by Energy Secretary Rick Perry. The following transcript has been edited for clarity and length.

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IPPNY Annual Spring Conference

NYISO Carbon Adder to Test FERC's Independence, IPPNY Panelists Say

The Independent Power Producers of New York's 31st Annual Spring Conference was held at the new Albany Capital Center, where the IPPNY logo was displayed in lights in the ceiling. | *© RTO Insider*

By Rich Heidorn Jr.

ALBANY, N.Y. — NYISO's plan to integrate carbon into its markets will test the independence of FERC under President Trump, speakers told the Independent Power Producers of New York's 31st Annual Spring Conference last week.

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BlueIndy EV Sharing Program Resumes Growth After Difficult 2016

By Amanda Durish Cook

INDIANAPOLIS — Coming off a bumpy 2016, Indianapolis' first-in-the-nation electric car-sharing service is looking to resume its expansion with the construction of new charging stations and a campaign to attract more members.

And the French company backing the BlueIndy program hopes to transplant the model to California, which is aggressively pursuing the adoption of electric vehicles as part of its policies to reduce greenhouse gas emissions.

Launched by the Bolloré Group in September 2015, BlueIndy boasts about 300 cars and 85 five-port charging stations around the Indi-

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More IPPNY Coverage

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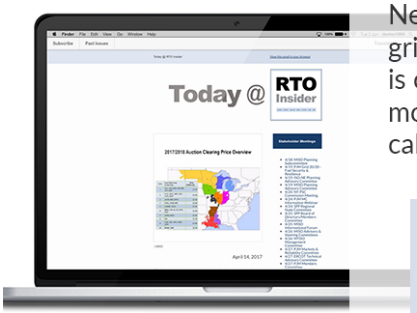
IN THIS WEEK'S ISSUE

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



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IPPNY Annual Spring Conference

NYISO Carbon Adder to Test FERC's Independence, IPPNY Panelists Say

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The IPPNY gathering came one week after a FERC technical conference at which NYISO CEO Brad Jones outlined plans to respond to the state's zero-emission credits for its upstate nuclear plants. Jones told FERC that the ISO has hired the Brattle Group to develop a plan that would incorporate the social cost of carbon into generation offers and reflect it in energy clearing prices. PJM also is considering a similar mechanism for some of its states. (See *NYISO Sees Carbon Adder as Way to Link ZECs to Markets*.)

Speakers at the IPPNY conference disagreed over whether FERC under President Trump would approve the ISO's proposal.

In a keynote speech, acting FERC Chair Cheryl LaFleur, a Democrat, indicated she was open to the idea. But she would need to find allies among Trump's four appointees to the commission to prevail.

From left to right: Sam Newell, The Brattle Group; Raymond Gifford, Wilkinson Barker Knauer; and Romany Webb, Sabin Center for Climate Change Law. | © *RTO Insider*

Pushing the Boundaries

One IPPNY speaker, **Romany Webb**, a fellow at Columbia Law School's Sabin Center for Climate Change Law, outlined a recent paper she coauthored that concludes FERC has the authority to approve a carbon charge adopted by a wholesale market operator such as NYISO.

"Obviously, the Federal Power Act doesn't authorize FERC to price carbon, and it sort of approaches an area of environmental regulation that has traditionally been considered outside of FERC's authority," she conceded. "So it would really push the boundary of what has to date been the limit of FERC's authority. But it would do so in ways that are consistent with that authority."

She noted that FERC has traditionally shown deference to grid operators' market designs, requiring only that they be just and reasonable. "When an ISO makes changes, it doesn't have to show that the old rules were somehow deficient or the new rules are somehow superior."

Webb said NYISO could argue that a uniform carbon adder is needed to "rationalize" New York policy because the ZEC program doesn't apply equally to all generators. It could also say that the current markets are skewed by their failure to capture carbon

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Cuomo Names NYSERDA CEO as PSC Chair

Rhodes

ALBANY, N.Y. — Gov. Andrew Cuomo has nominated John Rhodes, CEO of the New York State Energy Research and Development Authority, to chair the Public Service Commission, NYSERDA Chairman Richard Kauffman said Wednesday.

"John represents continuity," Kauffman told several hundred attendees at the Independent Power Producers of New York annual meeting. "If you know his background, he's someone committed to markets."

The PSC has been operating with only interim Chair Gregg Sayre and Commissioner Diane Burman since March, when Chair Audrey Zibelman resigned and Commissioner Patricia Acampora retired. The commission also has had a two-year-long vacancy. (See *NY REV Won't Lose Momentum, Departing Zibelman Says*.)

The Cuomo administration has taken a position that the two existing commissioners are sufficient for a quorum, but that interpretation "hasn't been tested," said state Sen. Joseph Griffo (R), chairman of the Senate Committee on Energy and Telecommunications, who spoke to the IPPNY conference before Kauffman.

Kauffman said Cuomo, a Democrat, intends to name nominees for the other two vacant seats soon enough to ensure their confirmation before the end of the current legislative session in June.

But Griffo said that the Senate will "carefully vet" Cuomo's nominees. "It's not going to be a *pro forma* type of submission," he said.

Rhodes has run NYSERDA since September 2013, following stints as director for the Center for Market Innovation at the Natural Resources Defense Council and chief operating officer at Good Energies, an investment firm focused on renewable energy and energy efficiency.

He is a former partner at Booz Allen Hamilton and has also worked as a trader and general manager at Metallgesellschaft, a German mining, metals and engineering firm. He has a bachelor's degree in history from Princeton University and a master's degree in management from Yale.

— Rich Heidorn Jr.

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externalities, including the risks severe weather from climate change poses to the grid.

"The validity of that kind of charge comes down to how it's structured," she said. Using the federal government's social cost of carbon — calculated using a discount rate of 5% to limit the cost impact — would produce an initial carbon price of $12.82/ton.

'Never Going to Happen'

"I agree with Romany that the most elegant solution is you price carbon into the market," responded former Colorado regulator **Raymond Gifford**, a partner with Wilkinson Barker Knauer. "It's never going to happen. … A fully constituted FERC is not going to sign off on a carbon imposition."

In addition to being in conflict with Trump's pledge to bring back coal jobs, Gifford said, a carbon price would be difficult to sell politically.

"If you look through our regulatory history, the best subsidies are the hidden subsidies. … Once you make that price signal transparent … the politics of sustaining it become damn near impossible. That's where the elegant, economists' solution runs into the political economy of regulation. And in that fight, the political economy of regulation will win 99 times out of 100."

Reregulation

A more likely outcome, Gifford said, is a return to some form of reregulation by the states, "maybe continuing to exist uncomfortably in a regional wholesale market."

"What we have now is an engineering model of the market that has been stressed past the breaking point," he said. "When this many states are doing versions of the same things and some of them are red states and some of them are blue states, you clearly don't have a consensus that markets are the way to do this."

Gifford said he is hopeful that courts will rule on challenges to the state actions in a way that provides clarity to the markets and states — even if prior state-federal jurisdiction rulings have not done so. (See *Court's Reticence Frustrates Energy Bar*.)

"Our best hope for a categorical and clear answer going forward is for a court to tell us whether or not these state actions are permissible," he said. "Now, I know courts don't always give you a categorical answer, but I think anything is better than the regulatory muddle that we have right now."

Carbon Price a Political Question

The Brattle Group's **Sam Newell**, who is leading the ISO's effort to develop a carbon adder, said he's "hopeful" that the ISO's effort will win FERC approval. But determining the size of the charge is anything but straightforward, he acknowledged.

"The costs of carbon [are] not easily boiled down to a number. It's not like we're talking about a very simple externality where you're harming somebody else's property and its very immediate and quantifiable," he said. "You have questions like, how do you deal with the global impact? How do you deal with impacts over centuries and discount them? Most importantly … how do you deal with if there's a 10% chance of catastrophic outcomes? It becomes almost entirely a political question of how willing are people to support and pay for decarbonization?"

Trump Nominees Will Decide

Last week, Trump nominated Pennsylvania Public Utility Commissioner Robert Powelson and Neil Chatterjee, senior energy policy adviser to Senate Majority Leader Mitch McConnell (R-Ky.), to fill two Republican vacancies on FERC.

The president can also nominate a third Republican and a replacement for Democrat Colette Honorable, who announced last month she won't seek a new term when hers expires in June. Numerous reports have identified Kevin McIntyre, co-head of the energy practice at law firm Jones Day, as the third Republican nominee and likely chairman. (See *Trump Nominates Republicans Powelson, Chatterjee to FERC*.)

In a 2015 interview with Bloomberg Government, Chatterjee said that as the majority leader's aide, he viewed all legislative proposals based on the impact on Kentucky, a coal state that is his home as well as McConnell's.

"For anyone coming to our office to raise a policy issue, the first thing they have to explain is how this will affect Kentucky," Chatterjee said. "Is this a proposal that will lead to job creation or economic growth in the commonwealth? Or is it going to adversely affect people in the Bluegrass [State]?"

McConnell bitterly opposed the Obama administration's Clean Power Plan and urged state officials to refuse to comply with it.

Whether Chatterjee will carry his Kentucky-centric view to FERC is an issue Democrats will likely raise at his Senate confirmation hearing.

They also may challenge Powelson, who has been criticized by environmentalists as beholden to the natural gas industry in Pennsylvania, home of the Marcellus Shale.

"As to the political likelihood that FERC [under Trump] is going to approve carbon pricing, that is above my pay grade," LaFleur told the IPPNY audience. "On a good day, I know what Cheryl LaFleur thinks. I don't pretend to know what anyone else thinks. And I also don't prejudge what individuals are going to come in and decide after they get there. But I do think a single-state ISO should have the best chance of reaching a negotiated solution … and I encourage the continuing efforts by the ISO and others to work on that effort."

LaFleur said a carbon adder would be on firmer legal ground if it resulted from a Federal Power Act Section 205 filing by the ISO.

"I'm fairly certain that our ability to approve

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"I think it's going to be really tough in this kind of polarized environment for FERC to say to New York: 'You want a carbon tax? Go for it.'"

Raymond Gifford, Wilkinson Barker Knauer

IPPNY Annual Spring Conference

Tensions Between Cuomo Administration, NYISO on Display at IPPNY Conference

By Rich Heidorn Jr.

ALBANY, N.Y. — At FERC's technical conference May 1 and 2, several commenters observed that it is easier to coordinate state policy with wholesale markets when the market is a single state, as in NYISO.

But there was no groupthink on display at the Independent Power Producers of New York's 31st Annual Spring Conference last week, where industry stakeholders and state and ISO officials debated carbon policy, zero-emission credits for nuclear plants, the closure of the Indian Point nuclear plant and the Champlain-Hudson transmission line.

In particular, the conference highlighted the differences between the administration of Democratic Gov. Andrew Cuomo and the Republican-controlled State Senate, the ISO and IPPNY itself.

Arguably, no state officials are pushing more ambitious changes for the electric industry than New York's — with the Reforming the Energy Vision initiative — for transitioning to a less centralized, more renewable-based future.

Richard Kauffman, chairman of the New York State Energy Research and Development Authority and Cuomo's top energy official, began his speech to IPPNY by acknowledging the tensions.

"That was quite a pointed introduction," he joked when IPPNY CEO **Gavin Donohue** welcomed him to the podium after laying out the organization's complaints over the state's "out-of-market" policies.

'Love Letter' to ISO

Kauffman also acknowledged that "It's no secret that we haven't been in very good alignment with the NYISO."

"I'm sure that Brad Jones keeps a copy of my love letter to him on his dartboard," he said, referring to the missive he sent last July in response to comments the ISO filed with the Public Service Commission on the state's Clean Energy Standard.

The letter dismissed NYISO's filing as "misleading, incomplete and grossly inaccurate" and lectured the ISO on the need to combat climate change. Kauffman also accused the ISO of being "held captive" by stakeholders representing "status quo interest that are threatened by the renewable future" — singling out IPPNY by name.

At the conference, Kauffman declined to offer an opinion on the ISO's carbon adder plan, saying officials of NYSERDA and the Department of Public Service had just begun to review it. (See related story, *NYISO Carbon Adder to Test FERC's Independence, IPPNY Panelists Say*, p.1.)

But he made it clear any ISO plan would have to "harmonize" with REV and insisted the state's actions were justified responses to market imperfections.

"We recognize the valuable role the federal wholesale markets can play," he said. "But the truth is in our view those wholesale markets are not living up to their potential because of a failure to effectively harmonize with the states' public policy. … Given the uncertainty in Washington, the state will not cede what it considers its role in energy and environmental policy."

REV's Objective

He said REV's objective is to provide market-based incentives for private capital to build "the 21st century grid" with "a mix of central station production and distribution with distributed nodes; where supply and demand are dynamic and electrons can flow in more than one direction."

The new grid must be "both more energy and capital efficient," he said. "Fifty-four percent average capacity utilization — which is what our entire system is in New York state, a number which is declining — is a low number in terms of capital efficiency.

"We can't achieve the governor's mandate of 50% renewables by 2030 by doing things the same way. ... We've been bolting things onto a system that it wasn't designed for. Those things include renewables and [distributed energy resources]. ... And the same way we've been physically bolting renewables and DER onto the grid never intended for these resources, we've recog-

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a proposal and prevail on appeal would be stronger if a proposal was brought to us under Section 205 and it was agreed upon and proposed by stakeholders in a region," she said. "I can't guarantee that would prevail, but I think that would put us in a much stronger position than if we *imposed* carbon pricing under Section 206, [which] I think would be far more vulnerable on appeal."

FERC's Independence

Former FERC and New Mexico Public Service Commissioner **Suedeen Kelly** said she saw a big difference between the independence of the two agencies.

"The concept of an independent commission … didn't exist in New Mexico. And so the politics of the governor's office and the Legislature have a lot of effect," she said. "But FERC, historically has … been very independent."

Gifford agreed that FERC has been "relatively insulated" from politics. "It's certainly not the basket case of the [Federal Communications Commission], which is the prototypical lawless agency.

"But it is, I think, going to be very difficult for this — I know two of the folks who are headed [to FERC] pretty well — I think it's going to be really tough in this kind of polarized environment for FERC to say to New York: 'You want a carbon tax? Go for it.'"

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Tensions Between Cuomo Administration, NYISO on Display at IPPNY Conference

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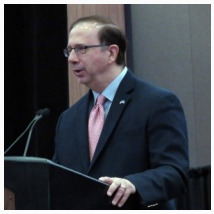
nized that we can't keep bolting on policies onto a policy regime that was not intended for that purpose either."

Kauffman said he would not answer questions about ZECs because of the suit filed by IPPNY members Dynegy, Eastern Generation and NRG Energy claiming the ZECs intrude on FERC's jurisdiction. He said only that "the governor did not want to lose ground in carbon emissions by the upstate plants closing." (See *Federal Suit Challenges NY Nuclear Subsidies*.)

Donohue concluded Kauffman's session by imploring him, Jones and Scott Weiner, the DPS' deputy for markets and innovation, to "keep working to come up with this market fix so that Chairwoman [Cheryl] LaFleur … can help us implement something to save our markets in New York."

Cuomo vs. Legislature



The Cuomo administration's differences with the State Legislature were also on display as State Sen. **Joseph Griffo** (R), chairman of the Senate Committee on Energy and Telecommunications, told the conference that the Senate will "carefully vet" Cuomo's nominees to the PSC. "It's not going to be a *pro forma* type of submission," he said. (See related story, *Cuomo Names NYSERDA CEO as PSC Chair*, p.3.)

New York State Assemblywoman **Amy Paulin** (D), chair of the Committee on Energy, outlined her objections to the statewide cost allocation of the ZEC subsidies, saying the costs for the upstate generators should not be imposed on her Westchester County constituents. Assembly members were left fuming in March when the PSC and NYSERDA declined to send witnesses to a hearing on the program and Exelon sent no senior executive with knowledge of the subsidy negotiations. (See *NY Legislators Frustrated by Lack of Answers at ZEC Hearing*.)

> **"Given the uncertainty in Washington, the state will not cede what it considers its role in energy and environmental policy."**
>
> **Richard Kauffman, NYSERDA**

Indian Point

Some legislators are also upset with Cuomo's deal to shut down the Indian Point nuclear plant by 2021. The governor has long opposed the plant because of its proximity to New York City.

In March, ISO and PSC officials told a joint hearing chaired by Paulin and Griffo that they are not concerned about replacing the capacity of the 2,069-MW plant, saying energy efficiency, transmission upgrades and the ISO's wholesale market will ensure reliability.

IPPNY Chair **John Reese**, senior vice president of Eastern Generation, indicated in remarks to the conference that he is not satisfied with those assurances. "What does the future look like? We have no idea," he said.

Reese said the ISO should begin an impact study on the retirement immediately rather than waiting for a formal retirement notice, which might not come until 2020 or later. "It takes a minimum of four to six years to build infrastructure in N.Y. If Indian Point presents an issue on [power] supply, we need to know now."

Champlain-Hudson Transmission Line

"What should definitely be off the table [among potential Indian Point replacements] is the remarkably uneconomic Champlain-Hudson [Power] Express transmission line," Donohue said.

Earlier this year, Paulin and Griffo introduced what Paulin called an IPPNY "priority bill" that would prohibit the New York Power Authority from purchasing energy from the proposed line (A07685, S05126.)

IPPNY claims the project — which would transmit 1,000 MW of Canadian hydropower to the New York metro area — could not be built without direct or indirect subsidies, such as "extra-market contracts" with a state entity. The project was proposed by Transmission Developers Inc., which claims the $2.2 billion project would be one of the largest investments in New York state history.

"The state's view has not changed," Kauffman said. "TDI is a merchant line. This means a customer or customers need to sign up for the power. ... The cost of the transmission line will not be passed along to any ratepayers."

IPPNY Annual Spring Conference

Overheard

ALBANY, N.Y. — About 200 industry stakeholders and state and NYISO officials discussed carbon policy, zero-emission credits, and other pressing and contentious issues at the Independent Power Producers of New York's 31st Annual Spring Conference last week. Here's some of what we heard.

From left to right: Steven Croley, Latham & Watkins; James Taylor, Spark of Freedom Foundation; and Kit Kennedy, Natural Resources Defense Council. | *© RTO Insider*

New Venue, Tighter Security

This year's conference was held at the new Albany Capital Center. IPPNY CEO Gavin Donohue is chairman of the Albany Convention Center Authority, which built the $78 million project a block from the state capitol.

Event organizers ordered tighter security than in years past. No one without a registration badge was allowed near the event.

"You know what happened at the last conference," recounted Donohue, referring to the May 2016 event at the Desmond Hotel, when anti-pipeline protesters took over the stage as then-FERC Chair Norman Bay was speaking.

Energy Policy Under Trump

In a panel on energy policy under President Trump, attorney Steven Croley, a partner with Latham & Watkins who served as general counsel for the Department of Energy under President Barack Obama, led the audience in a "thought experiment" comparing Trump's energy policy with that of a fictional third Obama term.

Croley said Trump will have a smaller impact than some critics fear, calling the policy differences between the two administrations "susceptible to exaggeration," Croley said.

For example, he said the scale of LNG exports will be driven by world demand, not any new federal policy.

Neither Trump nor Obama would back federal funding of utility-scale solar projects. The Obama administration funded five such projects, but the falling prices of solar technology made additional federal support unnecessary, he said.

Croley acknowledged that Trump has substantial discretion over how aggressively to enforce existing environmental rules but said that states or environmental groups will likely sue if they believe Trump's EPA is ignoring major violations.

"[Non-governmental organizations], states [and] state regulators are all important drivers of national policy too. They will fill what is perceived to be a regulatory gap or regulatory inaction to some extent," he said. "Every White House will create its antibodies. Believe me, that's how it works."

Indeed, Kit Kennedy, director of the energy and transportation program for the Natural Resources Defense Council, said her organization has increased its litigation team, which has filed 10 lawsuits against Trump's efforts to roll back environmental policies. She said the organization is also increasingly looking to state and local governments for leadership.

She was more alarmed than Croley, saying "what the president says and does really matters."

"We're seeing an onslaught on bedrock environmental safeguards and laws from President Trump today that we've never seen before," she said. "The situation is fundamentally different" from the Reagan and Bush administrations.

Kennedy engaged in a more vigorous debate with James Taylor, an adviser to the presidential campaign of Energy Secretary Rick Perry and president of the Spark of Freedom Foundation, which promotes natural gas, hydro and nuclear power as "affordable" and "environmentally friendly" sources.

"Renewable is not synonymous with green," Taylor said, citing the environmental impact of mining for rare earth minerals used in solar panels — which he said is worse than uranium mining.

"Wind turbines kill 1.5 million birds and bats each and every year in this country, including many endangered and protected species. It also requires hundreds of square miles of wind turbines to replace a single conventional power plant. For conservationists, that should trouble us."

He said federal policy should be based on "full spectrum" environmental impact analyses "that [go] beyond the renewable and non-renewable definition and looks beyond carbon dioxide emissions."

Problems with New Demand Curve

IPPNY Chair John Reese, senior vice president of Eastern Generation, celebrated the completion of NYISO's demand curve reset but criticized FERC's decision to not include the costs of environmental controls for the proxy upstate unit.

"It takes about two years to go through that process and lots of pain and suffering and gnashing of teeth. I think IPPNY did a great job in representing the needs of generators and what it takes to get market investment," he said.

But he said FERC erred in its January order, which rejected requests by IPPNY and the ISO to assume selective catalytic reduction (SCR) emissions controls for the proxy unit for zones C and F.

In its prior reset, NYISO proposed that the New York Control Area peaking plant operate under an annual operating hours limit in lieu of installing SCR. FERC said that assumption still holds, despite the ISO's contention that peakers without the controls risk not obtaining necessary air permits. FERC rejected as "speculative" IPPNY's contention that the state's Siting Board is likely to require tougher controls in the future. (See *FERC OKs NYISO Demand Curve Reset*.)

"If you've done business in New York — if you have developed projects — to imagine that you could build a fossil generator in upstate New York without State of New York controls is just foolishness," Reese said. "It just cannot be done."

IPPNY filed a rehearing request on the issue in February (ER17-386).

LaFleur Braces for 'FERC 2.0' Under Trump

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RTO Insider: So first off, a week after the technical conference, are you more or less optimistic about the future of the wholesale markets than you were before?

Cheryl LaFleur: I would say that the conference met our expectations, which I think were difficult to fulfill. We wanted to have all the different views represented and aired in a very transparent way to try to frame the issues and I think that happened. We wanted to get a better sense of what the consequences were of the different potential solutions, and I think to a large measure, that happened. And we wanted to create a sense of momentum behind the issue without having the ability to vote out anything to create a sense of momentum, and I think we did create a sense of momentum that we are now trying to sustain.

RTO Insider: In your opening remarks May 1, you talked about feeling like you had been punched in the gut when you read Sue Tierney's words from the 2013 capacity market technical conference. In retrospect, do you feel like the 2013 conference was a missed opportunity? Or do you not have time for regrets about that? (See *Power Markets at Risk from State Actions, Speakers Tell FERC*; *Capacity Market Attracts Praise, Criticism at FERC*.)

LaFleur: Well, I don't think this particular issue of state policies and the markets was really fully framed in 2013. Although I do clearly ... Dr. Tierney did allude to it, and I remember at that 2013 conference, her distinctly talking about the Clean Power Plan and so forth, which nobody else was talking about then. I think actually, in my opinion, quite a lot came out of the 2013 tech conference. As part in response to conversations at that tech conference, we saw a settlement achieved in New England, which led to the sloped demand curve and the renewables exemption, which was very clearly discussed at the conference. And in some ways the Capacity Performance, Pay-for-Performance proposals that we saw come out of [PJM and] New England in some ways were generated by things at that conference so I thought that was one of our more productive conferences.

I said at the time of the 2013 conference and it's still true, that there's two competing things we hear all the time. The first is: Stop making changes in the capacity markets. And the second is: Make my change please. And I think the concept that when we've had a successful tech conference, it'll be when nothing changes anymore because the world is going to be, as it is may be, illusory. Because I think the issues that are framed now in the 2017 tech conference have evolved.

RTO Insider: So, there was a reference earlier today to the Rick Perry comments and this need to study grid reliability. Isn't that kind of a slap in the face to what you guys at FERC have been doing for the last couple of years?

LaFleur: Well, FERC and DOE we have always worked in parallel or in a complementary way. I mean, they made [us] aware they were putting out the memo. Presumably they're going to do this study. I don't remember when the 60 days run out, but it's relatively soon and it'll be a piece that's part of the conversation.

RTO Insider: So, would it surprise you if they came up with anything you haven't already talked about?

LaFleur: I can't surmise that. I mean, there's always new things under the sun.

RTO Insider: So let's talk about the quorum news. How well do you know Powelson and Chatterjee?

LaFleur: I know both of them. In general, I'm saying I'm very happy that we got the news. I appreciate the White House making the announcement. I appreciate Sen. [Lisa] Murkowski [R-Alaska, chair of the Senate Energy and Natural Resources Committee] saying she was going to act on them quickly. I tried to sort of in general not comment on individuals. But I do know these gentlemen. I'm very happy to see this news this week.

RTO Insider: And do you have any sense of when the player to be named later [third Republican nominee] may be named?

LaFleur: I read in the press soon, but hopefully soon.

"We have … a moment in time here and now to confront this issue and try to put ourselves on a path to resolution. I don't want our successors to be sitting in this room in 2021 having the exact same conversation or picking up the pieces of a mess that we failed to avert."

LaFleur's opening comments at the May 1, 2017, technical conference

RTO Insider: What came out of the conference that perhaps most surprised you?

LaFleur: Nothing was really surprising, but I think it was very important and informative to hear the different views of the different states, and we only saw [a] microcosm. I believe we had three of the PJM states there, and it was interesting to see where they were coming from I thought. Hearing the New England states — their representatives were very honest about some of the things they would and would not accept. I think that in itself, if that's all we got out of the day, that would've had value. Because I mean they chose to come into a forum that was a FERC forum and express those views and that was very important.

RTO Insider: How does that play out when, let's say, you get that filing from ISO New England for this two-tier capacity auction? Does having heard from the states give you some sense of, well here's what the political realities are and we have to kind of take that into account?

LaFleur: Well I would first of all hope that in the process that's going to ensue between now and whenever any filing is made that there would be a discourse with the states as they go along. I feel like I'm on a little bit of a tour now because I'm in New York, doing PJM in a few weeks and then I'm going to [the New England Conference of Public Utilities Commissioners' Annual Symposium]. And I know between the NECPUC meeting and then the [New England Power Pool] summer meeting, ISO New England will be talking a lot to the states. Certainly here in New York, one state, one ISO, so I would hope a lot of that would happen as they go along and it wouldn't be a case of picking up a filing and finding out a state was unhappy that I didn't know before.

RTO Insider: In other words, them filing an intervention.

LaFleur: Or I mean I would hope that we would've known where the states were on the issues as we went along. Because really, as I said at the conference, the regional markets exist because of changes in state policy that gave rise to them. And they exist with the support of the states so they're very important constituencies.

RTO Insider: If in fact the capacity market becomes less central to, let's say operations in PJM, because public power persuades the commission that they should have more latitude, is that necessarily a failure of the markets? Or would you say that the capacity markets have always been kind of a Rube Goldbergian device, and so it's to be

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LaFleur Braces for 'FERC 2.0' Under Trump

Continued from page 8

expected some people may want to opt out of it?

LaFleur: There are different ways you can do resource adequacy, and a spectrum of different ways you can do resource adequacy, and I try to have an open mind about the ways that the regions do it. If you look at the way the Southwest Power Pool does resource advocacy versus California versus New England, there's different models.

I feel the only failure would be if we didn't plan for resource adequacy and stumbled into something. Or if something fell between the cracks in the federal government and the state government. But different systems that different states come up with, I have an open mind.

RTO Insider: How, if at all, do you expect the new commissioners to change the dynamics on the commission? As long as I've been following the commission — back to when I worked there under Pat Wood — what I've always been impressed by in the FERC building, as opposed to much of the rest of Washington, is the lack of partisanship. We rarely mention commissioners' party affiliations because you don't really see that playing out in how they vote. Any reason to think that might change under the new regime?

LaFleur: Well I think FERC does have the strong tradition of bipartisanship and making decisions based on the facts and the law, and I certainly hope that we'll continue and that the new commissioners, as they're sworn in, will continue in that tradition. I think in terms of the dynamics — not partisanship, just the dynamics in general — we'll see a change in the commission the likes of which we haven't seen since 1993, maybe even more. Because generally, you have one commissioner at a time come on, you have the four who were there and one individual comes on. And every time a new person comes, it changes the shape of the whole. But to have up to four come on at a time — including a chairman — that's a big turnover. In 1993, four came at once, but the chairman was there already. So, that's a big turnover. But I believe the tradition of — or more than a tradition — the expectation of making decisions by the record and bipartisanship will continue.

RTO Insider: Somebody had floated the notion that the president is not actually required to appoint two Democrats to the other seats. He can appoint three Republicans, but he can appoint independents or what have you. Have you heard anything about that — that there is going to be any change in the way they handle that?

LaFleur: No I believe the law says only three of the president's party. I have heard no changes.

RTO Insider: So you don't anticipate that's likely to happen.

LaFleur: The White House has not shared with me their plans. I've said all along my hope is that they appoint people who are experienced in energy, and so far, they have.

RTO Insider: And along the lines of that, have you been given any indication whether they might continue you in an interim position as chair for a while after the new commissioners are sworn in?

LaFleur: No.

RTO Insider: Okay. We'll all have to wait to find out.

LaFleur: I mean there's so many different ways this can go. I think a lot also is riding on when the third nomination comes, and how these nominations proceed. But, regardless of how long I'm chairman, my focus right now is on getting the backlog and the issues that are pending before us framed in the best way we can to help the onboarding commissioners come up to speed, and helping the work of the commission to move forward. I intend to stay afterward as a commissioner so I'll be there for the transition. But even if I weren't, the FERC staff will be there, and many of them have been there through several chairmen.

RTO Insider: Is there anything that I haven't asked you about that you want to put out there as your message coming out of either the tech conference, or just kind of the state of play right now?

LaFleur: Well I guess I would just say on the tech conference, we have not yet issued, I don't believe, our request for comments, but we hope to hear from voices beyond the ones who spoke at the tech conference. We know there were people who volunteered to speak, and others who might not have volunteered, but have something to say, and we hope to hear from them.

LaFleur at the IPPNY Spring Conference

The only other thing you haven't asked about is Commissioner [Colette] Honorable, which is also, it was only a couple weeks ago that happened. I was very sorry to hear her plans, although it's obviously up to her. But she's been a wonderful colleague and a great addition to the commission.

RTO Insider: Well we kind of assumed that prior to Commissioner Bay leaving, that her position would go to a Republican to make the balance. Once he left, in theory she could have stuck around. Do you know if she had an indication from the White House that she would not be reappointed?

LaFleur: I don't know any of that, and it's not my place to say. While we're talking about the new guys, she was great. She is great; she's still there.

RTO Insider: And let me ask you one last question about the criticism of the public interest groups who claim they were not allowed to testify at the conference, and also about a lack of transparency in the RTOs. [See *Public Interest Groups Cry Foul over Technical Conference, RTO Transparency*.] I just wondered if you had any response on that, any comment on that.

LaFleur: Well we tried to balance the panels and have a consumer viewpoint on every one of the panels, and I think we did, but as I said, we're going to be putting out a request for comments and we certainly hope to hear from others as well.

RTO Insider: Are you happy with the level of transparency in the RTOs?

LaFleur: I really don't have any comment on that. We have an obligation to oversee their stakeholder processes and the way they decide things, and I asked a question about that at the tech conference in fact.

RTO Insider: I must have missed that.

LaFleur: I don't want to prejudge the ... I don't really have any comment. No, I think I picked up on one of the [witnesses] that said something about the stakeholder processes.

RTO Insider: Well thank you very much for your time, appreciate it.

LaFleur: Thanks a lot.

"We'll see a change in the commission the likes of which we haven't seen since 1993, maybe even more. Because generally, you have one commissioner at a time come on … and every time a new person comes, it changes the shape of the whole. But to have up to four come on at a time — including a chairman — that's a big turnover. In 1993, four came at once, but the chairman was there already."

New England Energy Conference

NECA 2017: Embrace Disruption for Reliable New England Grid

By Michael Kuser

GROTON, Conn. — The best strategy to deal with change in the energy sector is to embrace it. So said some of the more than 250 participants at the Northeast Energy and Commerce Association and Connecticut Power and Energy Society's 24th New England Energy Conference last week.

NECA President Tina Bennett, a principal consultant with Daymark Energy Advisors, said that the electric markets should "accept disruption" from new technologies by creating a new regulatory landscape.

NECA President Tina Bennett | © *RTO Insider*

"The model today is not really conducive for where we want to go in the future," Bennett said, citing the growing impact of distributed energy resources. "What are the things we can do today from a regulatory perspective and from a business model perspective that can open up possibilities for the disruption to happen?"

Former Massachusetts Undersecretary of Energy **Barbara Kates-Garnick**, now a professor of practice at Tufts University, agreed.

"We are going to have to accept disruption, but that is something that we as the energy industry haven't been easily able to accept," she said. "The future is not linear, it's not a straight line, and we're going to have to design processes that have off ramps and that also enable rewards for those people and those entities that take risk."

Angela M. O'Connor, chairman of the Massachusetts Department of Public Utilities, said her state is "at a crossroads. We're number one in the nation in energy efficiency, but our programs are also the most expensive in the country. When lighting requirements change, what will the next programs and the benefits look like?"

DERs' Impact

RTOs are trying to automate their grids, but high penetration of distributed energy resources means they have to operate their feeders with less flexibility at times depending on renewable penetration levels, or "hosting capacity," said **Scott Higgins**, director of distributed energy and microgrids for Schneider Electric.

The job of managing the grid is complicated by different market participants — independent power producers, utilities and behind-the-meter "energy prosumers" — each having different goals, contracts and control systems.

To illustrate the challenge, Higgins mentioned the use of battery storage to shave a "prosumer's" peak in the middle of the day. "But we also have a demand response event coming up later in the afternoon and the control system will need to recharge the

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New England Energy Conference

NECA 2017: Embrace Disruption for Reliable New England Grid

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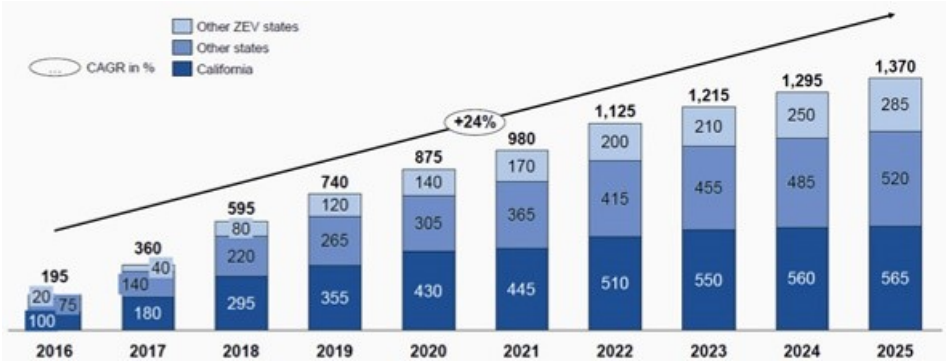
battery for that. The DR event benefits the prosumer, but it is initiated by the utility, so at some point the control algorithm decides to stop peak shaving and to charge the battery. What if the prosumer has an economic interest in peak shaving longer and foregoing the demand response event that day? Contracts and control systems both have to draw the line at some point between serving one customer constituent and another."

With the huge investments needed in upgrading transmission and developing renewables, "we can make use of that grid; we don't need to be trying to escape the grid," said **Jeffrey Roark** of the Electric Power Research Institute.

Alan Trotta, director of wholesale power contracts for United Illuminating, offered some statistics illustrating the growth of DER. "In 2011 we had fewer than 100 requests for interconnection with distributed generation units," he said. In 2016 "there were over 3,000 requests and over 2,300 new behind-the-meter generators interconnected."



Forecast of new U.S. EV sales (in thousands) 2016-2025 | *Stahl Automotive Consultants*

For maximum cost-effectiveness of decarbonization of the grid, go big, said Trotta, referring to the difference in customer costs between grid-scale renewables and DERs. "The economies of scale are real and we see it in actual procurement results." Speaking about the evolving role of the grid, Trotta said, "The grid is changing because the needs of the users are changing, and by users, I mean customers, generators, potential storage developers [and] people in the transportation sector."

Electric Vehicles

Many in the industry are confident that electric vehicles will cause an increase in loads after years of flat or declining power demand. Martin Stahl, managing director of Germany-based Stahl Automotive Consultants, forecast that EV sales in the U.S. will increase seven-fold to nearly 1.4 million by 2025. The main constraint on EVs, he said, is a lack of charging infrastructure.

Stahl said utilities are committed to building an EV charging infrastructure in Germany, where the decision to give up nuclear power increased renewable commitments and

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New England Energy Conference

NECA 2017: Embrace Disruption for Reliable New England Grid

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added stress to the grid.

Well-placed chargers are essential to avoiding excessive spending on public and private charging infrastructure, Stahl said. "But more important is the demand response function, either regulated or behind-the-meter," he said. Fast-charging equipment is expensive and needs to be connected to higher voltage lines, while at-home charging is almost invisible to utilities. "We are exploring with clients how to ensure that emerging load can be put to a good time of the day," he said.

For example, he estimated that with good location planning and optimization, EV charging could decrease the average residential ratepayer bill by nearly 10%, versus a 1.5% increase with no optimization.

Timing

Timing is crucial to those who seek to introduce change, Stahl said. "The ones who do that too early are also on the wrong side of the game. We saw that especially with electric vehicles, where the early players did not make it."

ENGIE North America CEO **Frank Demaille** said his company and Axium Infrastructure US recently signed a $1.2 billion 50-year contract with Ohio State University to map and implement the school's energy sustainability strategy. One initial goal is to reduce energy consumption at the 485-building campus by 25% within 10 years. A contract with such a long lifespan means "you can really build something with a strong partner," Demaille said.

New Rate Designs

Decoupling revenues from sales is a good start to make utilities "indifferent to increasing energy efficiency on their system," Trotta said. Referring to the expansion of net metering, however, Trotta said, "We may need to see new rate structures in the future that send the appropriate economic signals to all of the users of the grid."

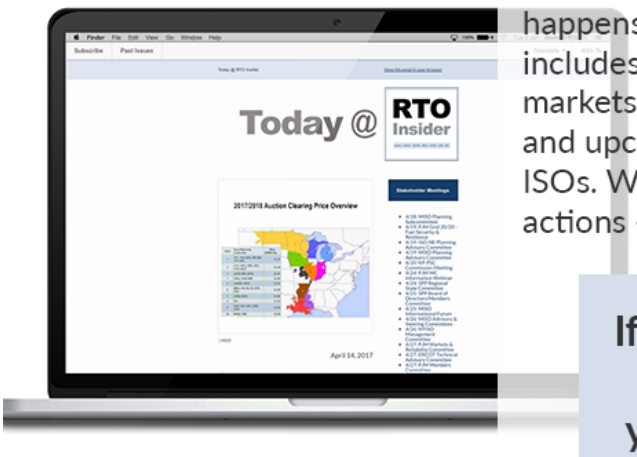
There's no doubt that the market structure and the rate design need to change, O'Connor said. "We want utilities to do much more now under the same rate structure from 20 years ago."

States, RTOs in Conflict?

On whether RTOs' focus on reliability conflicts with the environmental goals of states, **Macky McCleary** of the Rhode Island Division of Public Utilities and Carriers said he preferred to acknowledge tension, rather than conflict. "It's a shared concern, and the ISO can help make it cheaper to achieve those environmental goals," he said.

"The only resources left to rely on the existing wholesale markets in New England are natural gas generators and old nukes," said Susan Tierney, senior adviser with The Analysis Group. "Policymakers in the states are making a big bet that those markets will remain sustainable."

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



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CAISO News

Hydro, Solar Boost CAISO Summer Outlook; Aliso Concerns Remain

By Robert Mullin

CAISO should have sufficient generation to meet peak demand this summer, although questions still linger about the adequacy of Southern California natural gas supplies in the face of a heat wave.

The ISO's 2017 Summer Loads and Resources Assessment, which describes the grid operator's preparedness for California's season of peak electricity usage, paints a generally promising picture. Under "normal" summer conditions, operating reserve margins will average 19.5%, compared with the 15% required by the Public Utilities Commission.

About 52,785 MW of capacity is expected to be on hand to meet this summer's predicted peak load of 46,877 MW, which would be 0.6% more than the weather normalized peak for 2016.

"The slight overall demand increase is a result of projected modest economic and demographic growth over 2016, tempered by utility projections of new behind-the-meter solar installations over the past year," the report said.

Summer peak demand could spike to 48,845 MW under conditions that occur only once every 10 years, CAISO said.

The ISO expects 3,090 MW of new generation will have entered commercial operation during the 12 months leading up to this June, 2,566 MW of which is in the southern part of the system — service territories controlled by Southern California Edison and San Diego Gas and Electric.

Nearly three-quarters of the new resources consist of solar (74%), followed by natural gas (23%), storage batteries (3%) and a fraction of a percent each for hydro and biofuel.

California's hydro conditions have "vastly improved" over last year, the ISO noted. On April 28, statewide snow water content stood at 158% of normal for April 1, typically the peak date for Sierra Nevada snowpack. The state is also experiencing a near record year for precipitation.

"This abundance of rain has nearly all reservoirs near capacity and needing to spill water to make room for spring snow runoff," CAISO said.

But uncertainty still looms over the outlook for Southern California, where gas-fired generators confront a second summer of fuel supply restrictions stemming from the closure of the Aliso Canyon storage facility. (See *Aliso Canyon Gas Restrictions Cloud Summer Outlook*.)

The ISO pointed out that its analysis is a "system level" assessment and does not account for gas curtailment risks associated with emergency restrictions on the pipeline system operated by Southern California Gas, owner of the facility north of Los Angeles.

"There are limitations in attempting to shift power supply from resources affected by Aliso Canyon to resources that are not affected because of certain factors such as local generation requirements, transmission constraints and other resource availability issues," CAISO said in its report.

A joint agency report to be released later this month will address the ongoing risks to the grid posed by continued prohibition on gas injections into Aliso Canyon. The report's authors include CAISO, the PUC, the California Energy Commission and the Los Angeles Department of Water and Power.

Mild conditions and a series of temporary ISO market measures helped the region's grid to weather last summer without any major incidents related to constrained gas

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CAISO News

CAISO Initiative Could Toss Lifeline to Struggling Generators

By Robert Mullin

A new CAISO initiative could allow power producers a way to temporarily suspend the operation of an unprofitable generating plant — and possibly provide compensation to plants denied permission to do so.

That would crack the door for the ISO to issue a type of capacity payment to some financially struggling generators not needed to maintain system reliability, even if it falls far short of establishing a capacity market.

The Temporary Suspension of Resource Operations initiative will explore under what circumstances the ISO might permit a resource owner to temporarily pull a money-losing generator out of the market short of the "mothball" and retirement procedures already spelled out in the ISO's Business Practice Manual.

"The initiative will assess how potentially allowing this type of resource status change would interact with other requirements of the CAISO Tariff, contracts, and with grid and market operations," the ISO said in an issue paper describing the scope of the effort.

CAISO said it was seeking to address the issue in response to stakeholder comments filed in a 2016 FERC proceeding over the ISO's refusal to approve outage requests for three of four units at the 965-MW La Paloma combined cycle plant 140 miles north of Los Angeles (EL16-88).

Completed in 2003, La Paloma — like other gas-fired plants in California — has in recent years struggled to compete in the wholesale market because of depressed prices, largely driven by lower-priced renewable resources. The owners estimated that the plant would lose $39 million annually under

La Paloma plant | *California Public Health Services Department*

continuous operation and asked that CAISO allow them to shut down the three units from July to November 2016.

The ISO rejected the plant owners' requests because they were made for economic — and not physical — reasons. It also rebuffed an additional request to compensate the units by designating them as reliability-must-run resources, contending that they were not needed for reliability purposes. At that time, 42 MW of the plant's Unit 2 were under an RMR agreement.

Last December, two months after FERC refused to overturn the ISO's decision, La Paloma filed for bankruptcy, citing $524 million in debt and an "inhospitable regulatory environment."

While market participants generally agreed with CAISO's decision, some suggested that FERC direct the ISO to amend its Tariff to address revenue shortfalls for conventional generators. FERC rejected the request.

The new initiative seeks to address at least some of those stakeholder concerns. In its filings with FERC, CAISO acknowledged the importance of keeping conventional generation available to help integrate the growing volume of renewables on its system and noted that it was actively pursuing market changes to compensate generators for their needed characteristics.

The ISO seeks to keep the scope narrow, avoiding a discussion of using the current outage management system — which is intended for maintenance outages — for economic requests.

"The distinction here is that this initiative will look at the conditions under which the CAISO may allow a participating generator to temporarily suspend the operation of its generating unit," the ISO said in its paper. "The solution will likely involve a process and a new method for requesting and then reporting a temporary suspension of operations."

Perhaps most significantly, the ISO wants stakeholders to consider the need for a mechanism to compensate generators not needed for resource adequacy but denied permission to suspend operations, including a potential cost allocation scheme.

The initiative will also explore maximum and minimum time limits for temporary suspensions, timelines for requesting suspension and whether suspended resources should maintain a level of readiness to return to the ISO market if it's needed.

The ISO additionally expects to consider whether a generator can switch operation from one balancing authority area to a neighboring one for an extended period of time and how that would affect resource adequacy accounting.

Under current rules, owners that plan to mothball a generator must provide CAISO 60 days' notice before shutting down and submit a "long-range" outage request. To maintain its repowering rights and deliverability status, the plant must provide a repowering plan within one year of closing.

CAISO will kick off the initiative with a May 19 stakeholder call.

Hydro, Solar Boost CAISO Summer Outlook; Aliso Concerns Remain

Continued from page 13

supplies. FERC last December approved an ISO proposal to extend those measures through November 2017. (See *FERC OKs One-Year Extension for CAISO's Aliso Canyon Gas Rules*.)

The ISO last winter also said it would adopt a recently approved West-wide reliability measure to help ensure that it has sufficient capability to transmit power into Southern California via the Path 26 transmission line when needed. The new measure approved by Peak Reliability — the West's reliability coordinator — allows a system operator to selectively relax a transmission network's seasonal performance standards in response to "credible multiple contingences" under emergency conditions. (See *CAISO to Rely on New Emergency Measure to East Path 26 Transfers*.)

CAISO NEWS

Monitor Report Shows Sharp Decline in CAISO Costs

Support Signaled for Ending EIM Restrictions

By Robert Mullin

CAISO's wholesale costs to serve load last year fell by 9% to $7.4 billion, the lowest nominal expense since 2008, according to an annual market performance report from the ISO's internal Monitor.

The Department of Market Monitoring also used the report to signal its growing support for lifting FERC-imposed bidding restrictions on some participants in the Western Energy Imbalance Market (EIM).

The Monitor attributed much of the drop in wholesale costs to a 9% decline in prices for natural gas, with increased output form solar and hydroelectric resources and decreased transmission congestion also contributing. Electricity prices averaged $34/MWh over the year, down $3 from 2015.

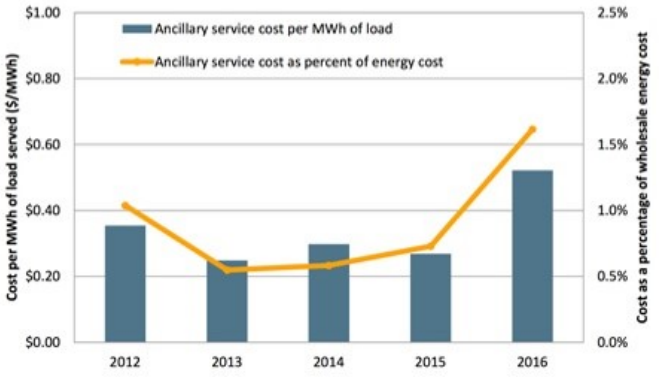
The report noted the impact of CAISO's growing number of low-cost solar resources, which accounted for about 83% of the 2,300 MW of new summer peak generating capacity installed in the ISO during 2016, along with 300 MW of newly built gas-fired peaking generation and 50 MW of additional energy storage.

"Solar energy is expected to continue to increase at a high rate during the next few years as a result of projects under construction to meet California's renewable portfolio standards," the Monitor said in its report. "This continues to increase the need for flexible and fast ramping capacity that can be dispatched by the ISO to integrate increased amounts of variable energy efficiently and reliably."

Renewable integration efforts during the first half of 2016 drove sharp increases in ancillary services costs, which nearly doubled to $119 million, accounting for 1.6% of total wholesale energy costs, compared with 0.7% in 2015.

During the second quarter, ancillary services costs averaged 81 cents/MWh, more than 50% above the yearly average. The increase in large part stemmed from the ISO's expanded seasonal procurement to manage a growing surplus of solar and hydro during California's spring run-off. (See *CAISO: Forecasting Challenges Drove Increased Regulation Requirements*.)

The Monitor estimates about 1.6% of solar generation was dispatched down in the real-time market last year, with the largest reductions — about 3.4% — occurring during March as a result of low seasonal loads coinciding with relatively high solar output.



Ancillary service cost as a percentage of wholesale energy cost | *CAISO*

"More solar generation was economically dispatched down in 2016 compared to 2015 primarily because there was more inexpensive hydroelectric generation available throughout the year," the Monitor said.

Just 0.3% of forecasted wind output was dispatched lower in real time throughout the year, which the Monitor attributed to the tendency of wind resources to bid into the market at relatively lower prices than solar.

Non-economic curtailments of renewable resources declined last year, the Monitor noted, likely because of the expansion of the EIM, the West's only real-time energy market. The EIM's inclusion of NV Energy in late 2015 and Arizona Public Service last fall significantly increased imbalance transfer capacity out of California, increasingly turning the state into an exporter of renewable generation to other areas of the West. (See *EIM Report Show Continued Growth in CAISO Exports*.)

The Monitor said improved transfer capability helped ensure competitiveness in the EIM, with mitigation of bids triggered by congestion occurring in the market's participating balancing areas during only 1 to 4% of intervals.

"This increased structural competitiveness provides a basis for DMM to support removing special bidding restrictions currently placed by FERC on some Energy Imbalance Market participants," the Monitor said, referring to Berkshire Hathaway Energy affiliates PacifiCorp and NV Energy.

FERC last year rejected a request by the two companies to rehear a 2015 decision prohibiting them from bidding generation into the EIM at market-based rates. The commission determined that both companies must provide market power analysis for EIM sub-markets as well as the market as a whole, a condition that would apply to any EIM member (See *Berkshire Denied Rehearing on Market Power*.)

The Monitor said that analysis it performed last year indicates that the inclusion of NV Energy's transfer capacity "dramatically" reduced PacifiCorp's potential to exercise market power in the EIM by significantly improving the links between the ISO and PacifiCorp's balancing area.

"This structural competitiveness mitigates the potential for the exercise of market power through both economic and physical withholding during most intervals," the Monitor said.

CAISO has "partially" addressed some of the Monitor's own recommendations for improving competitiveness in the EIM, the Monitor noted, including increased enforcement of measures meant to account for internal transmission constraints and improved modeling of PacifiCorp transmission limits to better reflect the congestion impact of contracted line capacity.

The Monitor said it would support eliminating the bidding restrictions once all the concerns in FERC's orders have been addressed.

ERCOT News

NextEra's Rejected Oncor Bid Gets Second Look

By Tom Kleckner

Texas regulators on Wednesday agreed to reconsider its recent rejection of a proposed acquisition of Oncor by Florida-based NextEra Energy, which sought a review of the decision.

The state's Public Utility Commission will rehear the case (Docket 46238) during its May 18 open meeting, the first without longtime Chairman Donna Nelson, who is retiring May 15. No replacement has yet been named to the three-person panel. (See *Texas PUC Chair Nelson Stepping Down*.)

The PUC last month unanimously rejected NextEra's $18.7 billion bid for the Texas utility, saying the risks outweighed the promised benefits. (See *Texas Commission Denies NextEra's Bid for Oncor*.)

In a filing made earlier this week, NextEra said the commission went beyond the scope of its powers when it found the acquisition not to be in the public interest, calling the PUC's order "unprecedented."

"The order represents an expansion of power that exceeds the limits set by the Legislature and the bounds of the commission's own precedent," NextEra said, listing 14 points of error ranging from "the exercise of authority not granted by the Legislature to reliance on facts not in evidence."

The company said the order also ignores "Moody's determination that NextEra Energy's acquisition … will unequivocally benefit Oncor," and that it fails "to give any consideration to the benefits and protections" of the 73 regulatory commitments the company made to the PUC.

NextEra requested the commission give it as much time as allowed by law to "encourage possible settlement discussions."

At stake is a $275 million termination fee that NextEra would be liable for should the deal fail for certain reasons.

The PUC has until June 7 to act on NextEra's request.

Oncor's future is central to parent company Energy Future Holdings' bid to exit Chapter 11 bankruptcy proceedings, which have now dragged on for three years. The PUC rejected Hunt Consolidated's bid for Oncor last year.

ERCOT Sets New April Demand Record

ERCOT last month set a new record for April peak demand, registering a high of 53,420 MW during the hour ending 5 p.m. on April 28, easily exceeding forecasted demand of 51,622 MW.

That marked a 4.88% increase from the high for the same month last year, when the Texas grid operator recorded a peak of 50,932 MW.

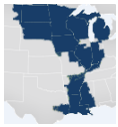
ERCOT's previous high for the month occurred April 18, 2006, when unseasonably high temperatures led to a peak of 51,800 MW.

The ISO generated more than 26 million MWh of electricity in April, bettering the forecast of 25,872,676 MWh. For the year, it has produced 102.4 million MWh, up from 100.5 million MWh through April 2016.

Coal last month surpassed natural gas as ERCOT's primary fuel source for the first time since January, accounting for 33.57% of the ISO's energy production. Gas accounted for 33.31% of energy produced and wind another 24.88%. Nuclear dropped to 7.08% of energy production, down from its previous 2017 low of 12.67% in March.

— Tom Kleckner

MISO NEWS



MISO Exploring Multiday Market

By Amanda Durish Cook

CARMEL, Ind. — MISO is testing the waters for creating a multiday energy market that would keep generators with long start-up times switched on for more than one day.

The effort has strong backing from stakeholders, who last year assigned the introduction of multiday financial commitments a "high priority" in the RTO's Market Roadmap. (See *MISO Projects Reordered Following Stakeholder Frustration*.)

MISO says the change will result in more cost-efficient unit cycling and more diversity in the selection of resources called up for commitment. Market participants have said that relying on the routine cycling of baseload units can lead to inefficient unit commitment and higher maintenance and capital costs when a slow-moving unit is repeatedly switched on and off to conform to a next-day schedule.

RTO staff will begin analyzing historical market data in order to assess the costs and benefits of committing units over multiple days, MISO Markets System Analyst Chuck Hansen said at a May 11 Market Subcommittee meeting. The existing day-ahead market is not designed to accommodate units with long lead times or high start-up costs, he said.

Hansen

"For units with a long lead time, the day-ahead market is going to think that it's not profitable to start that unit," he said, adding that the day-ahead market does not typically commit units to serve reliability needs.

But MISO could stretch its market model to notify units days ahead of time when they will be needed.

Still, a multiday market raises the question of who pays for the risk of overcommitting resources. Hansen said that risk could either be assigned to market participants, or MISO could take on the risk with the creation of multiday revenue sufficiency guarantees, which could result in increased uplift payments. Stakeholders could even agree to eliminate the day-ahead market in favor of a multiday market, although it would be a huge undertaking, he said.

Wind units — forecasted only a day out — and forced outages could complicate how slow-response units are scheduled. Hansen also told stakeholders that the "potential to improve unit commitments may be limited" compared to self-scheduling. Resources with high production costs will almost never be committed, even in a multiday commitment market, Hansen said. On the flip side, resources with low production costs can self-commit and remain running.

A multiday market could be useful for even faster-ramping gas-fired units, which must complete their weekend gas reservations on Fridays, Northern Indiana Public Service Co.'s Bill SeDoris said.

MISO market engineer Shu Xu said the RTO would not include the elimination of the day-ahead market in its cost-benefit analysis because the scenario is impossible to test with current software.

That comment prompted DTE Energy's Nick Griffin to ask if MISO's impending market system overhaul would allow a multiday market to completely replace a day-ahead market. Dhiman Chatterjee, MISO's senior manager of market analysis, responded that, given the target deadline for completing a cost-benefit analysis, the RTO could not wait on the development of an entirely new market software platform just to test for such a far-fetched scenario.

MISO hopes to complete its analysis late this year and produce a conceptual design for a new multiday financial commitment market during the first half of 2018.

Market Subcommittee Briefs

Several Factors in Spring MISO South Maximum Generation Event

CARMEL, Ind. — MISO last month called on load-modifying resources for the first time in 10 years after it declared an unusual mid-spring maximum generation emergency in the southern part of its footprint.

Unseasonably high loads coupled with a large number of generation and transmission outages precipitated the April 4 event in MISO South, RTO officials said in an emergency review.

The region lost almost 1,500 MW of generation just after midnight when a large unit unexpectedly went down. MISO issued a maximum generation alert around 8 a.m., and by 1 p.m., all resources were in use, with LMRs called up about two hours later. To compound conditions, temperatures topped 80 degrees Fahrenheit, exceeding April averages by about 8 degrees and driving unexpectedly high load.

Benbow

"What we saw is temperatures that were more typical for May," Rob Benbow, senior director of systemwide operations, said at a May 11 Market Subcommittee meeting.

Transmission outages were also higher than normal, with some lines down from earlier severe weather and seasonal maintenance, stranding generation in some cases. Spring maintenance season also sidelined a large number of generators.

All told, MISO called up about 730 MW of LMRs in MISO South to cover a projected 447-MW energy shortfall, marking the first time the RTO has relied on the resources since 2007.

"It's the first time we've deployed load-modifying resources in quite some time," Benbow said. "This isn't unusual where you've got a lot of maintenance outages and high load in shoulder times."

MISO forecasts a 79.3% probability that it will again call up LMRs this summer. (See *MISO Slims Summer Reserve Prediction*.)

Benbow said MISO's new emergency pricing floors were initiated during the event and worked as intended. By about 9:30 p.m., emergency operations were lifted.

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"I fully support overdoing it," ITC's Ray Kershaw said. "When you hit the button, you're not sure how many peakers are going to show up. … You did your job, that's for sure."

MISO is still collecting meter data from the event and will evaluate the performance of the LMRs, Benbow said. Stakeholders asked whether operators of those resources are required to respond to run requests from MISO outside of summer peak conditions, an issue RTO staff said they would investigate.

Benbow credited successful management of the emergency event to MISO's extensive drills. "You only get this through training," he said.

MISO Officially Expands ELMP

MISO this month expanded its extended locational marginal pricing (ELMP) program to allow online units with one-hour start-up times to set prices.

The program — now entering its second phase — was previously available only to 10-minute fast-start resources.

The move means that 58% of MISO's capacity is eligible to qualify as peaking resources, compared with 8% beforehand.

FERC accepted MISO's filing to expand ELMP in an April 20 letter order (ER17-1081).

Twelve newly eligible resources participated in ELMP price-setting during the first day of implementation, said Concong Wang, MISO market design engineer.

MISO's second phase of ELMP fell short of its Independent Market Monitor's recommendation that price-setting be extended to all resources with a two-hour minimum run time. (See "MISO to Expand ELMP Price Setting, but not to IMM's Specs," *MISO Market Subcommittee Briefs*.)

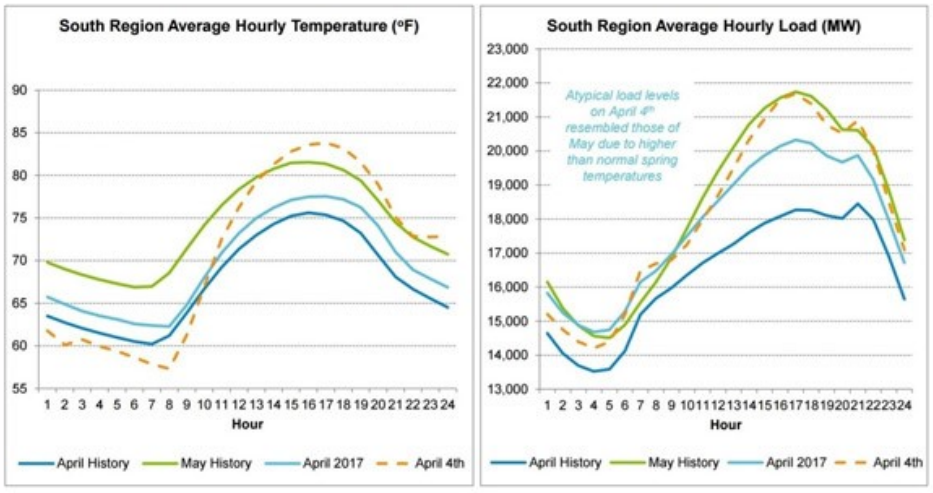
Wang said MISO will present a post-implementation analysis at the December MSC meeting, after collection of about six months' worth of data.

Additionally, the RTO is planning to discuss a potential new trading hub in Mississippi at the June 8 MSC meeting, Director of Forward Operations Planning Kevin Sherd said.

Proposal Would Address Cost Recovery Gap

MISO will revise its Tariff to address two possible gaps in cost recovery when units are manually redispatched offline.

The new language will allow generators to recover start-up costs and day-ahead margin assistance payments during required minimum down times following an RTO-ordered decommittment.



April 4, 2017 max gen event | *MISO*

Howard

"We currently don't allow for recovery of start-up costs when a resource is taken offline," said MISO Market Quality Manager Jason Howard.

When MISO decommits a day-ahead resource, the day-ahead margin assurance payment does reimburse the resource for minimum down times or start-up costs. (See "Potential Cost Recovery Gap in Manual Redispatch," *MISO Market Subcommittee Briefs*.)

MISO will file the language by the end of May and seek a next-day effective date, Howard said.

He also said he would have to follow up on a question by Customized Energy Solutions' Ted Kuhn, who asked if MISO enforces any limits on a resource's minimum downtime.

MISO, PJM in 'General' Agreement over Pseudo-Tie Congestion Remedy

MISO and PJM are in "general" agreement about using an interim rebate program to handle their overlapping pseudo-tie congestion charges, according to MISO Director of Forward Operations Planning Kevin Vannoy.

Vannoy said PJM is still reviewing a slight modification to the original agreement: that the RTOs exchange information about firm flow entitlements a day before a flow date to better predict the effect of congestion on pricing.

The RTOs proposed the rebate solution in early March as a stopgap. A longer-term solution will involve scheduling pseudo-ties in the day-ahead process. (See *MISO, PJM Propose Solution to Pseudo-Tie Congestion Problem*.) They have postponed their ambitious June 1 implementation date for the program to early September. Staff from both will review the solution again at the May 23 Joint and Common Market Initiative meeting held at MISO's Carmel, Ind., headquarters.

— Amanda Durish Cook

MISO NEWS

Resource Adequacy Subcommittee Briefs

Sluggish Midwest Undercuts Capacity Clearing Price


Harmon

CARMEL, Ind. — Capacity prices last month cleared at just $1.50/MW-day across MISO because of increased supply and low demand, John Harmon, MISO senior manager of capacity market administration, said during a post-mortem of the RTO's April capacity auction. (See *All Zones at $1.50/MW-day in 5th MISO Capacity Auction*.)

Coal accounted for most of the auction's 135 GW of cleared capacity at 53,332 MW, followed by natural gas (48,784 MW) and nuclear (12,885 MW).

A key factor in depressing demand and prices: the overall rise in self-scheduled offers and fixed resource adequacy plans (FRAPs), which increased by more than 10% in zones 4 and 8.

Speaking at a May 10 meeting of the Resource Adequacy Subcommittee, Harmon said changes in offering behavior flattened the offer curve compared with last year's auction, which saw prices clear at $2.99/MW-day in MISO South, $19.72/MW-day in Zone 1 and $72/MW-day in zones 2, 3, 4, 5, 6 and 7.

Indianapolis Power and Light's Ted Leffler pointed out that many offers in this year's auction came in at less than a dollar, with some entered at just a penny.

"There were no instances of mitigation for physical or economic withholding," Harmon confirmed.

American Electric Power's Kent Feliks wondered if MISO had to contact any resources in order to enforce a new rule that imposes a 50-MW physical withholding ceiling on affiliated market participants collectively, rather than on each affiliated company individually. The new rule won tentative FERC approval mid-March with forewarning that the rule may not be just or reasonable. (See *FERC Staff OKs MISO Mitigation Changes; Refunds Possible*.)

"There were a few phone calls, largely from late offers," Harmon said, noting that some resources bid into the auction near the end of the three-day offer window.

"MISO acting as a conduit to affiliates makes us a little uneasy," Feliks replied.

Some stakeholders have argued that FERC Order 697 already prohibits affiliates from colluding to dodge withholding mitigation and MISO and its Independent Market Monitor's new rule is unjustified. (See *MISO Plans Additional Capacity Auction Revamps for 2017*.)

RASC Chair Chris Plante expressed surprise that stakeholders didn't have more to say about the auction results, given the low clearing prices.


Laura Rauch addresses the RASC. | © RTO Insider

Stakeholders Won't Debate Single Year of MISO-SPP Settlement

Stakeholders voted overwhelmingly to end debate about whether costs for MISO's transmission use settlement with SPP should be allocated by capacity benefit to holders of transmission service requests above the 1,000-MW contract path linking MISO Midwest to MISO South.

Laura Rauch, MISO manager of resource adequacy coordination, said the RTO agreed that the allocation amounts in question were too small to warrant more presentations and feedback cycles.

The RTO had previously asked stakeholders about holding discussions about how to allocate costs for the 300 MW in requests for 2018/19 that exceed the current limit on the North-South interface. Staff warned that the cost split may be negligible, and the matter was put to a stakeholder vote last month via a motion prepared by the Load-Serving Entity Coalition. (See "Single Year of SPP-MISO Settlement Allocation on Ballot," *MISO Resource Adequacy Subcommittee Briefs*.)

MISO to Keep Current OMS Survey Format

MISO will stick with using the existing format for its annual resource adequacy survey with the Organization of MISO States, while examining next year's project estimate approach in light of a new interconnection queue process, RTO staff said.

Rauch said that while stakeholders had not reached consensus on how to display survey results, most believe the RTO should do more to emphasize a fuller range of capacity possibilities. Staff were considering a "floating" results format, but it failed to garner stakeholder favor. (See "MISO Still Tweaking OMS-MISO Survey Format," *MISO Resource Adequacy Subcommittee Briefs*.)

MISO is still uncertain about how survey results will be affected by the roll-out of FERC-approved improvements to the interconnection queue, which could increase capacity counts through a quicker turnaround of project approvals. Rauch said it will continue to look into revising its project estimates in future surveys.

This year, MISO and OMS will count 35% of

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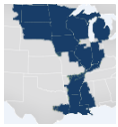

Federal Hydro Customers Seek Change in MISO Capacity Rules

By Amanda Durish Cook

CARMEL, Ind. — Customers of the Southwestern Power Administration (SWPA) asked MISO on Wednesday to change how it accredits their hydropower allocations from the federal power marketing administration, saying current rules are shortchanging them and denying the RTO full use of the resources' seasonal peaking capacity.

"We didn't come today with a fix. … We're going to hope that the people in the room come up with a solution and a fix in future meetings," Rick Henley, of Jonesboro City Water and Light in northeast Arkansas, told stakeholders at a May 10 Resource Adequacy Subcommittee meeting. Appearing on behalf of SWPA customers with Aiden Smith, the agency's vice president of transmission strategy, Henley offered a problem statement outlining their concerns.

Move from SPP to MISO

SWPA markets about 2,000 MW of power produced by 24 U.S. Army Corps of Engineers hydropower projects, most of them located in the SPP footprint.

When Entergy joined MISO in 2013, it added 27 SWPA customers to the RTO's footprint in addition to one existing customer. "As a result, the vast majority of SWPA's federal hydropower customers were not present in MISO's stakeholder processes when the rules concerning resource adequacy were crafted," the problem statement said.

Henley

The problem, Henley said, is that MISO's resource adequacy rules treat the hydro assets as baseload power when they were designed to provide peaking power. He said MISO could reap reliability benefits in the summer and winter if it modified its requirements for hydro assets.

MISO's Business Practices Manuals require the Use-Limited Resource type to be available for the four peak hours of the day (1,460 hours/year). But because SWPA's contracts with Jonesboro and other "preference customers" typically only guarantee power for 1,200 hours/year, MISO revised its rules to give the SWPA customers a reduced capacity credit of 82% of their federal allocations to spread the guaranteed amount of firm energy across 1,460 hours.

Intended as Peaking Power

"While the federal preference customers are very grateful for this compromise, MISO, its footprint and the customers could be better served by federal hydropower if it was used as intended as peaking power," the problem statement says.

It noted that SWPA hydropower has 236 MW of import capability into MISO. It said one unnamed preference customer with a 100-MW allotment is not importing into the RTO because of the current rules but would do so if the problem were resolved.

"We have a 1,200-hour product that does not conform with MISO's 1,460-hour resource adequacy rules," Henley said. "We're scheduling now as a baseload resource, and we think it reduces the ability of the federal hydropower when it's most needed and valuable in the MISO footprint. If we can bring more resources to the table, you [would] think that would bring down prices for everyone."

Jonesboro City Water and Light, which has

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Resource Adequacy Subcommittee Briefs

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projects in the definitive planning phase of the queue toward future available capacity, in addition to the typical counting of all generation projects with signed interconnection agreements. The new approach was announced after multiple stakeholders voiced displeasure at what they saw as overly conservative results. (See *OMS-MISO Survey Moves Ahead with New Calculation*.)

Attorney Jim Dauphinais, speaking on behalf of Illinois Industrial Energy Consumers, said trade press and policymakers tend to take zonal capacity projections at their word and ignore the import capability of neighboring zones, which can solve capacity shortfalls.

"Those are negative amounts, and there is some concern with that, but import capability can solve that, and somehow that needs to come through so that policymakers aren't left with the impression that this is a big problem," Dauphinais said. "I think sometimes the press and policymakers miss" import capability. He also suggested that MISO post results by state rather than by local resource zones.

Ted Kuhn of Customized Energy Solutions said that even the scaling of the shortfalls versus surpluses on the findings graph is off, with shortfalls drawn visibly larger than their identical surplus counterparts in 2016 results. Rauch examined the graph and agreed that shortfalls were exaggerated in illustrations.

MISO and OMS will present results of the survey mid-June.

MISO to Study Effects of Extended Outages

MISO is still considering whether to bar resources on extended outages from participating in Planning Resource Auctions — or to make changes to capture the risk of such outages in its loss-of-load expectation (LOLE) analyses.

Harmon said the RTO will review its current LOLE study against actual recent outages and present results to stakeholders by mid-July.

MISO's Tariff does not currently prohibit auction participation for resources on outages for 90 days up to the entire planning year. Staff last month asked stakeholders to suggest maximum outage lengths that would disqualify a resource from PRA participation. (See *MISO May Bar Units on Extended Outage from Capacity Auctions*.)

— Amanda Durish Cook

MISO NEWS

MISO Slims Summer Reserve Prediction

By Amanda Durish Cook

MISO's summer planning reserve margins will remain firmly above requirements even after it shaved nearly half a percentage point from an initial assessment for the season.

The grid operator now predicts an 18.8% reserve margin, down 0.4% from a March estimate — made before the Planning Reserve Auction — and 0.6% above last summer's reserve. (See *Anemic Loads, Plentiful DR Boost MISO Summer Outlook*.)

Reserve margins could range anywhere from 14.1 to 19.7% throughout the summer, and MISO sees a high probability (79.3%) for calling up load-modifying resources and a much lower one (12%) for exhausting its 10.2 GW of LMRs and dipping into operating reserves. The chance of load shedding stands at 5%.

Based on forecasts for above-normal temperatures in its footprint this summer, the RTO expects peak demand to hit 125.1 GW, with 148.5 GW of available capacity on hand to meet it. Summer demand peaked at 120.7 GW last year.

"We are expecting to have sufficient resources in the footprint," Todd Ramey, MISO vice president of system operations, said during an annual summer readiness workshop on May 8.

While forecasts for declining demand are driving up the base reserve margin, the increased Midwest-South regional transfer limit is providing extra wiggle room, the RTO said.

"We appreciate the ongoing efforts of load-serving entities and states to ensure adequate resources are in place," Ramey said in a press release.

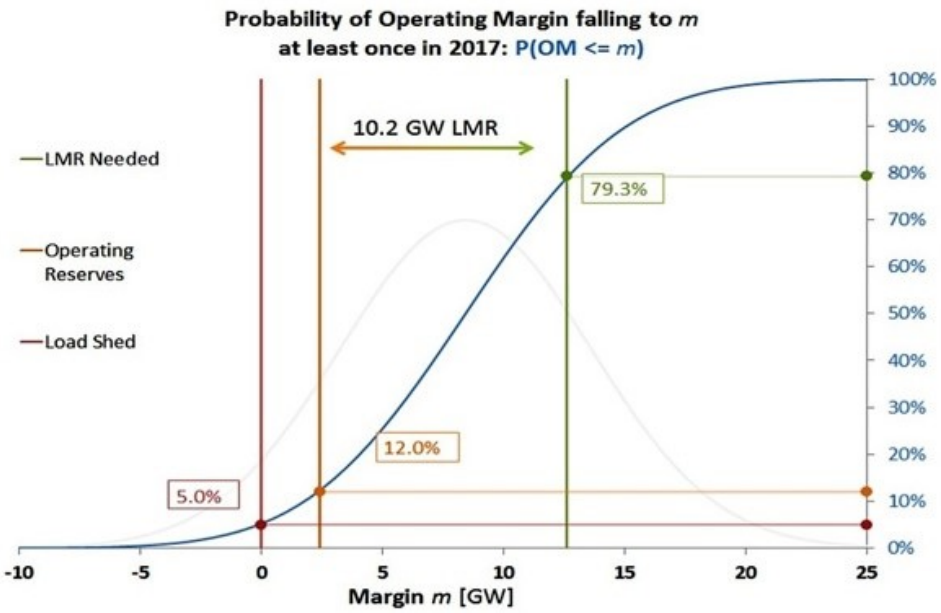
The forecasted above-normal summer temperatures "can pose some operational challenges," said Darius Monson, MISO resource adequacy adviser. "It's worth noting, in a high-load scenario, we are planning to rely heavily on demand response resources."

The summer reserve estimates include total firm imports, DR and energy efficiency resources based on cleared megawatts in the 2017/18 capacity auction. Non-firm deliveries were excluded from the summer assessment.

"In reality, there might be additional non-firm support," Monson said.

The RTO also assumed that planned and forced outages would be consistent with the previous five years, and that no MISO South capacity would be stranded in a post-outage situation.

MISO will also hold realistic hurricane simulations with MISO South operators May 23-24 and June 20-21, a first for the RTO, which ordinarily holds less-detailed hurricane drills, according to Marty Sas, senior manager of South reliability coordination. The exercise will start with an intact system and simulate a 31-hour storm that takes nearly 200 transmission lines and 25 generators out of service.



MISO summer reserve margin | *MISO*

Federal Hydro Customers Seek Change in MISO Capacity Rules

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a 303-MW peak demand for 36,000 customers, has an 80-MW hydropower allocation from SWPA. "It's a pretty big deal for us," Henley said of the hydropower share. "We think there's a better way to utilize this resource within MISO constraints."

David Sapper of Customized Energy Solutions said stakeholders have long considered asking MISO to revise its resource adequacy rules, saying it's difficult for any fuel type to meet the availability requirements.

RASC liaison Shawn McFarlane said MISO can examine the issue with stakeholders, but he said the RTO would not commit to a timeline. He said it could work to compile statistics on hydropower use for stakeholders.

"Obviously, anything we apply has to work generally; we cannot create one-offs," McFarlane said.

RASC Chair Chris Plante said stakeholder process dictates that the issue is first sent to the Steering Committee, which would decide which committee works on it. Steering Committee Chair Tia Elliott said her committee would most likely move the issue to the RASC at the May 24 meeting.

MISO News

BlueIndy EV Sharing Program Resumes Growth After Difficult 2016

Continued from page 1

ana capital. The company has planned for an additional 200 cars and 115 stations, but events last year halted expansion.

"We haven't changed the goal, but the construction slowed down a lot in 2016," BlueIndy President Hervé Muller said in an interview. "We had to deal with some political issues and had to sign a contract with the city."

BlueIndy put a hold on construction during most the year while negotiating an agreement with the Indianapolis City-County Council, which contended that the process for placing stations lacked transparency. Business owners also complained the stations were taking up parking spaces near their storefronts.

The company and the council eventually settled on a franchise agreement last fall that allows the city to possibly relocate up to seven stations and requires the company to pay the city $45,000 per year to compensate for lost parking meters. Business owners must show that they have suffered financially to get a charging station moved.

"That was unfortunate and it took a lot of tension and most of 2016 to negotiate the agreement," Muller said. "We think that phase is behind us, learning the political environment. That page has turned."

Rideshares in Sync with Public Transit

BlueIndy has yet to uproot any charging stations, although a recently voter-approved rapid transit bus route might require some relocations. Still, Muller is not concerned that buses will infringe on his company's growth.

"The two are not competing," he said. "If you need to go somewhere, and you don't have a car, what are your options? On some days, instead of using the bus, you might use the cars. We think it's all complementary. It's to give options to people who don't own a car or don't want to own a car."

Muller said Bolloré's AutoLib' sharing service happily coexists with the expansive public transit in Paris, which he considers the company's showcase city.

BlueIndy in the city ... | © RTO Insider

"There's no debate there whether we are taking a rider from public transit," he said. Bolloré has similar rideshare services in Lyon and Bordeaux in France; London; and Turin, Italy. The company will soon expand to Singapore.

Unlikely Host

The company is currently building five new charging stations in Indianapolis and awaiting word on a backlog of notices submitted to the city for review of prospective locations. Each station costs anywhere from $50,000 to $100,000.

Bolloré has converted its Midwestern host into an unlikely early adopter of EV technology. The company's 400-plus public chargers give Indianapolis the distinction of having the largest network of public charging stations of any U.S. city. While the number of private charging stations in Los Angeles might currently outstrip those in the Indiana city, Muller noted that BlueIndy charging stations can be used by anyone.

Navigating the American political landscape for construction approval is not unlike working with government officials in France, Muller said.

"Our goal is to work well with local political power. That's why we're selective about the cities we go to," he said. "It is a transformation of the city, and we do believe that electric vehicle sharing must happen in the public right of way."

Bolloré has a 15-year contract with Indianapolis and anticipates investing a total of $41 million in BlueIndy, with the city funding $6 million and Indianapolis Power and Light contributing about $3 million. The company has hired about 40 full-time and part-time staff in Indianapolis to run the program and has contracted with local construction unions to erect charging stations.

Residents can sign up for membership at a charging station kiosk or the BlueIndy website, and reserve cars or charging spots via the website or an app. Members are charged according to a metered payment structure based on the first 20 minutes of use and a per-minute charge thereafter. Membership packages, which come with a monthly fee, reduce the per-minute charge by up to half.

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... and in the suburbs too. | © RTO Insider

MISO NEWS

BlueIndy EV Sharing Program Resumes Growth After Difficult 2016

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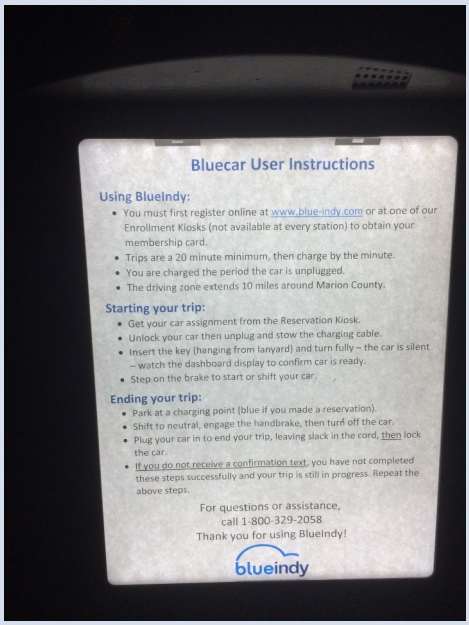
A daily rental, requiring no commitment, costs $8 for the first 20 minutes, then 40 cents/minute. With a one-year membership (about $120), the charge is $4 for the first 20 minutes and 20 cents/minute afterward.

BlueIndy is now focused on expanding its membership, currently 1,500 active members that take about 1,000 rides per week.

"That is really the measure of the service — how often the cars are used," Muller said.

While the company doesn't maintain detailed demographics on its current users, it does collect information through member surveys, which Muller said shows "a large contingent of young users, millennials and students," as well as retired people and families that want to become a one-car family. The company last year also rolled out targeted discounts to encourage college students to join.

Muller estimates that BlueIndy's profitability is still a few years out: "The nature of our business is a big infrastructure investment. We know that we're going to spend millions and millions of dollars. We generally anticipate that it takes five to seven years to break even and after that we can recoup our investment."



© RTO Insider

A BlueIndy charing station | © RTO Insider

Bolloré Goes West

Having gained a foothold in the U.S., Bolloré is now eyeing a West Coast expansion with a BlueLA pilot program underway that will consist of 100 vehicles and 200 charging ports by the end of spring.

"Los Angeles is a fantastic city for our service," Muller said. "We had always envisioned to employ our service in California. It's starting as a pilot, but there's a long-term vision to deploy a service similar to what we have in Paris or Singapore."

The California Air Resources Board granted Los Angeles $1.6 million for the pilot, but Muller said Bolloré expects a similar 80-20 funding split like that in Indianapolis, with the company paying the lion's share for construction and cars, and the city and local utilities picking up the rest.

Los Angeles Mayor Eric Garcetti said the stations will target low-income areas where residents are less likely to own cars. "We are so proud that we can now launch the nation's first pilot program for electric vehicle sharing in disadvantaged communities. That is real progress," Garcetti said.

© RTO Insider

Bolloré is not currently considering any other U.S. cities for expansion.

"We make a big investment in the charging infrastructure, so we make a careful decision," Muller explained.

Different Locations, Same Cars

The EVs used for the service — Bolloré's Bluecars — are nearly identical worldwide. The two-door, four-seater hatchback was developed with Italian automotive design firm Pininfarina and is manufactured in Italy. The cars have a top speed of 81 mph and an on-board computer for navigation.

While the Bluecars' 30-kWh lithium metal polymer batteries can last for a 150-mile trip on a single charge, Muller said the total useful life of the battery is still unknown because the technology is so new. The batteries, which are produced in Bolloré's factories, passed the five-year mark in 2016 in France with heavy use, and the company has yet to replace any of the recyclable batteries.

"We think it should outlast most batteries on the market. There is no known end of life for the batteries right now. We can say that they are exceeding our expectations," Muller said.

"We think it should outlast most batteries on the market. There is no known end of life for the batteries right now."

BlueIndy President Hervé Muller

PJM NEWS

PJM Differs with Monitor in State of the Market Response

By Rory D. Sweeney

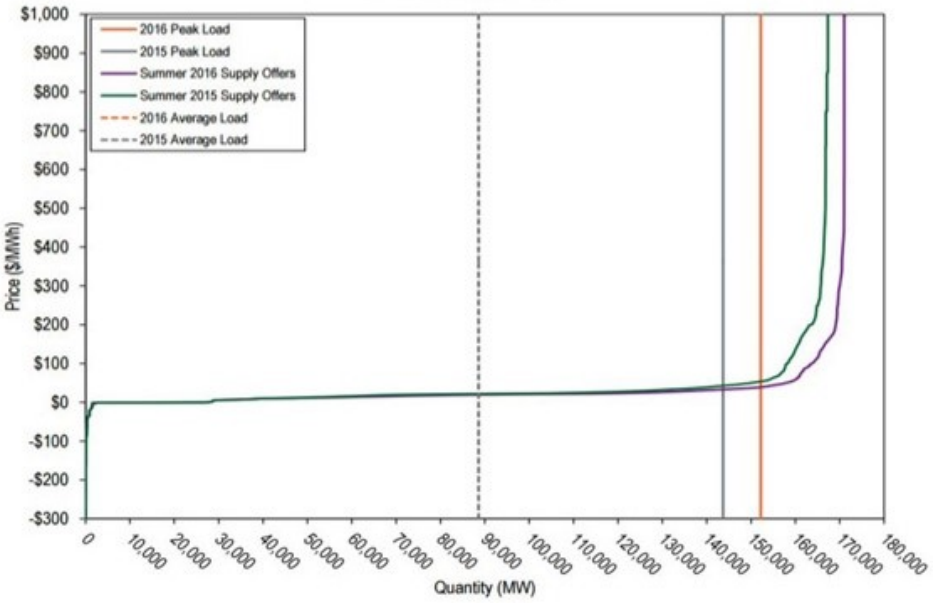
While PJM and its Independent Market Monitor agree that its markets "work" and are competitive, they disagree on what might make them better.

Those differences were highlighted last week when the Monitor released its first quarterly State of the Market report of the year, followed by PJM's response to the Monitor's 2016 report.

The quarterly update revised just two of the Monitor's existing recommendations for Incremental Auctions. It added a proposal that PJM should hold only one IA annually, three months prior to the start of the delivery year.

It also recommended that the RTO release cleared capacity at those auctions "only in cases where the combination of quantities released and associated prices would increase the welfare of capacity market resource owners and load" with consideration for both capacity and energy market benefits.

In response to the Monitor's original recommendations, PJM agreed "that the structure and format of Incremental Auctions should be reviewed" and pointed to the recently created Incremental Auction Senior Task Force to address those concerns.



Average PJM aggregate real-time generation supply curves in summer 2015 and 2016 | *PJM*

But PJM disagreed with many of the Monitor's other recommendations, including how to handle demand response resources and uplift. PJM said the *EPSA v. FERC* Supreme Court case ruled that DR should receive full LMP payments and — despite the Monitor's recommendation that "any generation component of their retail rate" be subtracted from DR payments — doesn't plan to challenge the ruling.

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PJM NEWS

PJM Differs with Monitor in State of the Market Response

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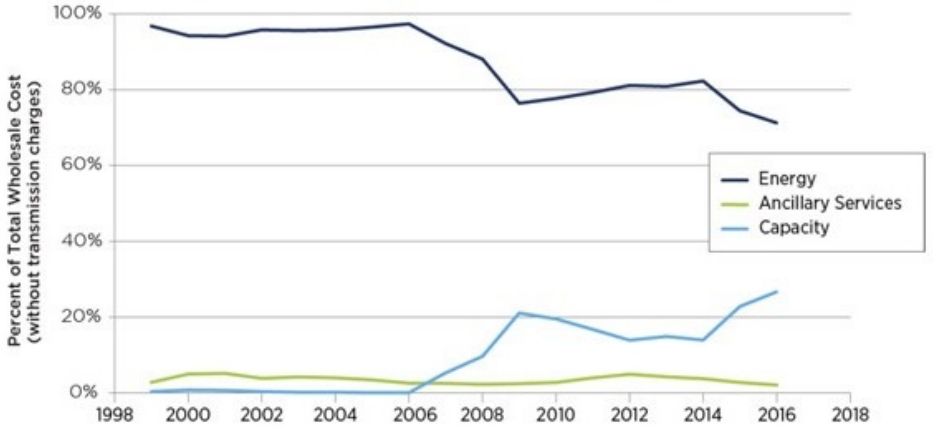
On uplift, PJM said many of the Monitor's recommendations were considered by the Energy Market Uplift Senior Task Force, which debated the issue for several years before coming to a consensus on a three-phase plan that was endorsed by members — despite ongoing controversy — during April's Markets and Reliability Committee meeting. PJM is waiting to submit the plan for FERC approval until the commission has a quorum. (See *PJM MRC OKs Uplift Solution over Financial Marketers' Opposition*.)

The largest rift between the Monitor and PJM seems to be whether to allow inflexible units to set LMPs. The Monitor opposes the idea, but PJM argued that "allowing inflexible units to set [LMP] would create an outcome in which [LMP] increases more consistently as load increases."

PJM believes that — along with the addition of a load-following product — allowing inflexible resources to set LMP would reduce uplift, increase system flexibility and promote enhanced gas-electric coordination.

The changes would also benefit what appears to be PJM's goal of increasing its energy market prices. In its response, PJM raised concerns about steadily declining prices thanks to cheap, efficient gas units, increasing renewables and stagnant demand growth partially attributable to energy-efficiency improvements.



Shift from energy and ancillary services to capacity | *PJM*

Recent low prices, combined with hesitancy to invest in the market and public-policy actions in order to address socioeconomic concerns, "test market price formation and long-term viability," PJM said.

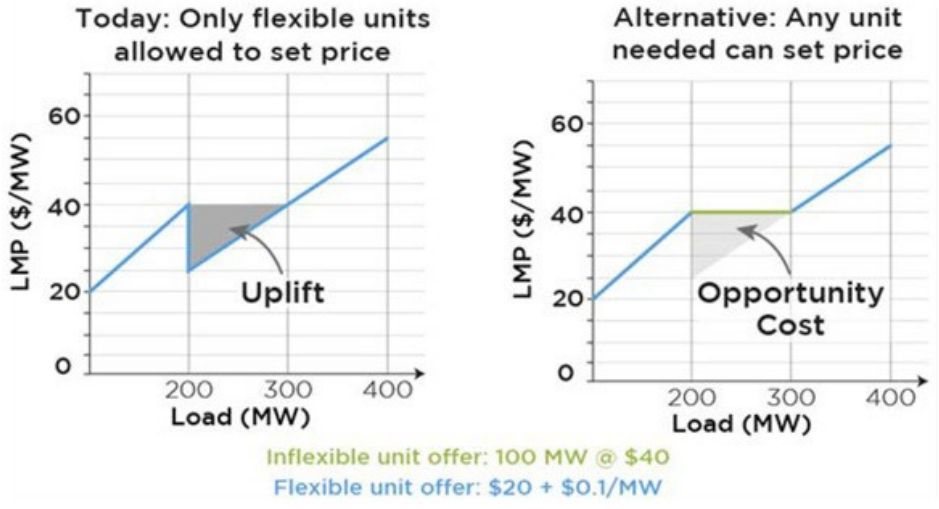
The effects of units not properly incentivized to follow PJM's dispatch signals, along with an increasing role for the capacity market in resource entry/exit decisions, "accumulate over the longer term to create unintended bias toward low capital-cost resources with high operating costs," it said.

Low prices have created a recent rush to subsidize unprofitable generation, such as through the creation of zero-emission credits in New York and Illinois. PJM and the Monitor agree that's ill-advised.

"Although some state subsidies may intend to address the financial problems that some generators face due to declining energy prices, paradoxically, the subsidies actually may make the problem worse because they further depress market prices, causing needs for more subsidies," PJM said. "As the 2016 State of the Market Report indicates, however, subsidies are contagious and could spread. If subsidies do become more widespread, they could deter new entry while the suppressed price could artificially raise demand, causing supply shortages in the long term."

Instead, PJM suggests pricing carbon at the state level if necessary, or implementing its "capacity market repricing" proposal that would allow subsidized resources to be counted toward PJM's installed reserve margin without impacting the capacity clearing price.

While PJM and the Monitor remain at odds on the role of inflexible units in the market, the RTO is working toward some of the Monitor's recommendations. The RTO will bring a problem statement to the Market Implementation Committee or the MRC to create comparable flexibility of the operating parameters in the cost-based offer and price-based parameter limited schedule (PLS) with the non-PLS price-based offer. It will also address the Monitor's recommendation that market participants have at least one cost schedule with the same fuel type and parameters as that of their offered price schedule.



Current vs. alternate LMP-setting logic | *PJM*

SPP News

SPP Members Again Struggle with Solutions to Z2 Credits

By Tom Kleckner

SPP stakeholders' effort to simplify the RTO's complicated crediting system for transmission upgrades continues to spin its wheels.

Members once again discussed alternatives to SPP's cumbersome Z2 process during an all-day meeting in Kansas City on Wednesday, but they adjourned without reaching any major decisions. (See *SPP Z2 Panel Sees ILTCRs as Cure to 'Mess of Complexity'*.)

"It feels like we're going over the same material every time," said the group's chair, Kansas City Power & Light's Denise Buffington. "At some point, we have to get to where we can make a decision. We have to pull the trigger eventually, and it's clear to me we're not ready."

The group did agree to schedule two additional meetings next month to improve its chances of presenting a recommendation in July to the Strategic Planning and Markets and Operations Policy committees.

The task force rehashed the pros and cons of two of the alternatives they have settled on: staff recommendations to replace Z2 credits with incremental long-term congestion rights (ILTCRs) or credit payment obligations (CPOs) under a Tariff schedule.

Westar Energy's Grant Wilkerson has proposed a third alternative, in which only upgrades that create transfer capability would receive credits under the Tariff.

Under Attachment Z2 of SPP's Tariff, members are assigned financial credits and obligations for sponsored upgrades. The task force is trying to simplify the process while still meeting FERC requirements.

Several stakeholders raised concerns over using ILTCRs to replace Z2 credits, arguing that SPP's transmission congestion rights (TCR) market is not yet fully functioning. Charles Cates, the RTO's manager of transmission services, disputed that perception, saying the market is "working very well."

"Seventy-eight percent of the load entities are fully hedged," Cates said. "It's a perception I do not agree with."

"That's not a perception OGE shares," Oklahoma Gas and Electric's Greg McAuley said. "If you dilute a TCR market that's not fully functional because you've never really used an ILTCR yet … I don't know why you would do that intentionally.

"Z2 is functioning. Some people may not like it, but it's doing the job it was designed to do. From OGE's perspective, we're getting credits for the upgrades that have been put in palace, and we're also paying for upgrades that have been in place. We have a system that's in place and working."

"I'm hearing that we're trading one set of problems for another set of problems," NextEra Energy Resources' Aundrea Williams said. "I want to make sure we don't lose sight of the ultimate goal of simplification and transparency. I don't want us to completely discount [that] Z2 can be improved, but the objective doesn't have to be to get rid of it."

Cates, who has been tasked with developing the ILTCR alternative, warned against changes to SPP's market design.

"The unintended consequences of going this route could be profound — or not. It's hard to say at this point," he said to laughter. "If we're not careful, the complaints I hear about the TCR market not working — which I personally don't agree with — could get more loud."

The moments of levity, while lightening the mood, did not diminish the difficulty of the task before the group.

"The problem I have now is every time I think I understand it, I don't," McAuley said. "I don't have a problem going back to MOPC and saying this is a complicated animal. I don't want to approve one of these [alternatives] and have a bigger mess on our hands because we didn't understand it."

STAKEHOLDER SOAPBOX

Organized Markets for the Future

By Rob Gramlich


Gramlich

As soon as new commissioners are seated at FERC, they will have fundamental and controversial market design questions to resolve.

Some of those questions will be decided in states in terms of the benefits of those policies to those states, and some will be decided by courts in terms of their legality. For their part, the new commissioners will need to choose sides in the never-ending supplier vs. customer debate on capacity obligations and markets.

Or will they?

The Great Divide

The FERC technical conference on potential conflicts between state policy and RTOs/ISOs on May 1 and 2 revealed the same splits as in 2013 and previous commission reviews of capacity markets. Suppliers believe prices should be higher to attract and retain needed resources, while wholesale customers believe capacity markets fail to serve their needs. The main outcome of the 2013 review, which was to improve price formation, has helped a little, and more can still be done there to reflect scarcity in prices.

Carbon pricing was endorsed by many participants as the best economic policy solution for current market challenges, but that doesn't seem to be a silver bullet either, as putting it in FERC-jurisdictional tariffs was not widely embraced by states. Searching for a third way, ISO-NE and PJM introduced proposals to raise capacity market prices. But explicitly discriminating between supply sources in terms of eligibility and pricing based on someone's determination of what is "subsidized" and by how much seems hardly like a way to reduce litigation. The higher capacity prices will also lead to further unneeded entry on top of today's generation surplus that customers will not be happy about paying for.

So this customer-supplier divide remains. And PJM's recent Capacity Performance changes, now in litigation, created more capacity market enemies by preventing renewable energy resources from selling their capacity value. No wonder there was so much frustration at the conference.

What if we re-evaluate the fundamental objectives of capacity obligations? Do some of the debates become moot?

Mandatory Capacity Obligations No Longer Necessary?

When FERC reluctantly accepted mandatory capacity obligations on load-serving entities in the early 2000s, it was for three reasons that may no longer exist: 1) "resources take years to develop," 2) "spot prices that are subject to mitigation measures may not produce an adequate level of … investment" and 3) "regional resources are made available to all regional load-serving entities" with no ability to curtail those customers who failed to procure enough.[1]

Point 1 is no longer true, with demand response and batteries now able to enter markets and provide peak energy within six months. Point 2 can be fixed with scarcity pricing and raising offer caps. Point 3 may not be true any longer either, with improvements in metering, control and scarcity pricing. So maybe capacity markets are only fighting the last battle and failing to solve future challenges.

Resource Adequacy Responsibility in the Future

The commission appropriately wants to make sure someone is responsible for generation meeting load at all times. As with any market in any sector, primary responsibility should be put on customers to procure the supply they need. Wholesale customers today have a range of preferences in terms of resource types, fuel price risk management and environmental attributes.

Some LSEs will be guided or required by states in their resource planning. Either way, their resource choices should be respected and supported to do most of the resource planning work. They have newfound abilities to cover themselves now that batteries can be deployed in six months with exactly as much as is needed, along with DR, in contrast to the past when they had to plan three or more years ahead for lumpy generation assets.

Reliability when Scarcity Conditions Arise

When it comes down to real time, and scarcity exists, RTOs and FERC still need to make sure the system can be balanced. Scarcity conditions may occur at very different times of day and year than in the past, as we are seeing in California and other markets, given different load and supply stack shapes. Reliability during these scarcity conditions can be satisfied if either a) pricing prevents LSEs from demanding more power than is available, or b) the system operator can physically curtail loads that caused the shortage.

We should allow for the possibility that efficient real-time energy markets with today's pricing and control systems will do the job. RTOs could define short-term products purely according to system requirements and allow all sources to compete on a level playing field. Technology neutrality would help attract batteries, different demand sources and other new technologies to enter to serve system needs. ERCOT is closest to this market vision at this point, though it isn't fully there.

Completing the Transition

With primary reliance on bilateral contracting for resource adequacy and RTOs focused on their core mission of bid-based security-constrained economic dispatch in real time as a backstop, we can take the competition training wheels off and support a bright, clean, efficient and reliable future power system. We can accommodate rather than work against state policies. We can pull back on RTO mission creep and thereby encourage greater participation in the efficient regional energy markets that are needed for clean energy development in the non-RTO parts of the country. Let's see if we're ready to move past the old debates and design the RTO markets of the future.

[1]SMD NOPR, July 2002, par.461, citing Power System Economics by Steven Stoft.

Rob Gramlich, founder of Grid Strategies LLC, was Economic Advisor to FERC Chairman Pat Wood III in 2001-2005 and Senior Economist in the PJM Market Monitoring Unit covering capacity markets in 1999. Most recently, he was Senior VP for Government and Public Affairs for the American Wind Energy Association.

Duke Angles for More Resource Control amid Declining Electricity Profits

By Rory D. Sweeney

Duke Energy is asking North Carolina officials to revisit state rules around renewables and provide the utility with greater control over what generation resources it must use, company executives said during a first-quarter earnings call last week.

The largest utility in the U.S. posted a first-quarter profit of $716 million ($1.02/share) compared with $694 million ($1.01/share) a year ago. The increase was helped in part by last year's acquisition of Piedmont Natural Gas.

Adjusted earnings per share were $1.04, down from $1.13 in the first quarter of 2016 and just missing analyst expectations. Executives attributed the decline to mild weather — along with the sale of Duke's international energy business in December — and announced plans to cut about $100 million in expenses.

Duke's electric business reported income of $635 million, down $9 million year over year, while earnings at its commercial renewable energy arm, which sells solar and wind power to other utilities and corporate customers, fell by $1 million to $25 million.

The company is pursuing two separate actions through North Carolina's government to exert increased control over the generation it must use to serve customers.

First, Duke has asked the North Carolina Utilities Commission to reduce what the utility must pay qualified facilities under the Public Utility Regulatory Policies Act, which requires electric utilities to pay such facilities the avoided costs of not building traditional power plants. In its filing, Duke said that rate has dropped to $35/MWh from currently recognized rates of $55 to $85.

Company CEO Lynn Good said that action went to hearing in mid-April.

Duke is also lobbying members of the state legislature to develop an annual competitive process that sets out a determined volume of renewable resources.

"What's being proposed is an opportunity to move this development of renewables and solar in the state into a more sustainable model," Good said. "A competitive process would impact [the] price to customers and [we] believe that better planning and better pricing would create a more sustainable market. … We believe it's costing customers about $1 billion more than a market price would cost them over a 12-year period."

The explanation came as Good and other company executives described plans to shift renewable investment toward regulated jurisdictions rather than commercial. Duke has $2.5 billion slated in its five-year plan for such investments, about $1.5 billion for regulated regions and $1 billion in commercial.

"Returns are tight, [and] the tax position is uncertain for us at least over the next couple of years," Good said. "We feel like we have a really strong portfolio of 3,000 MW [of] wind and solar, backed by a long-term contract."

Good noted that the "majority" of Duke's revenue in renewables comes from wind production tax credits as investment tax credits from solar construction dropped by a penny year over year.

She highlighted a $25 billion, 10-year plan for grid modernization, which includes investments to automatically reroute power and accelerate grid restoration when necessary. She also described plans to spend $4.9 billion to bury underground "select sections of poorly performing overhead lines, many located in hard-to-access areas" in the Carolinas.

"We found that our heaviest concentration of densely vegetated lands that cause outages are really preponderantly in the Carolinas," said Lee Mazzocchi, of the company's Grid Solutions group.

While Good touted a 2016 safety achievement award for Duke's Midwestern local distribution companies, she omitted any discussion of environmental safety issues at coal ash piles that the company estimates will cost $5 billion to address. Only one question from analysts touched on the subject, and that was simply to ask if the company's plans were changing in light of potential changes on the federal level.

Good said they were not.

AEP, Dynegy Swap Merchant Assets

American Electric Power and Dynegy last week completed the transfer of their stakes in a pair of Ohio coal-fired plants that the two companies own in common.

The transfer is part of AEP's strategic review of its merchant assets.

AEP sold its 330-MW (25.4%) share of the Zimmer plant and will assume Dynegy's 312-MW (40%) interest in the Conesville plant. As part of the deal, AEP returned a $58 million letter of credit to Dynegy.

Columbus, Ohio-based AEP now owns 92% of Conesville's four units, with Dayton Power & Light holding the remaining 129 MW of Unit 4.

AEP's other competitive assets in Ohio include a 595-MW unit of the Cardinal plant near Brilliant, Ohio; 603 MW of the Stuart plant near Aberdeen, Ohio; and a 48-MW hydro plant near Racine, Ohio.

The Stuart plant, of which AEP owns a 26% share, is expected to be retired by June 2018.

AEP CEO Nick Akins made reference to the swap during the company's April 27 earnings call with financial analysts when he said, "We continue to explore our strategic alternatives with [Conesville and Cardinal] and, in the case of Cardinal, seeking ways to enable a more modern and efficient relationship … as we explore our strategic alternatives in parallel."

Conesville power plant | *Ohio Citizen Action*

AEP created its competitive generation company, AEP Generation Resources, in early 2014 after separating its distribution and transmission operations in Ohio from its AEP Ohio-owned generation assets.

— Tom Kleckner

COMPANY BRIEFS

Regulators Approve $1.51B Rate Hike for PG&E

California regulators Thursday authorized a rate hike for Pacific Gas and Electric that would increase revenue by $1.51 billion over the next three years, far below the $2.26 billion increase the utility originally requested.

The decision increases PG&E's revenue from ratepayers by $88 million this year to cover its costs of operations and infrastructure, which had previously been set at $7.92 billion. The company's authorized revenue will increase by $444 million in 2018 and $361 million in 2019.

PG&E estimates that a typical residential customer's monthly bill will go up by 1% for the rest of 2017.

More: *San Francisco Chronicle*

Southern to Finish Vogtle Project for Westinghouse

Southern Co. will finish work at the Vogtle nuclear plant, taking over for the bankrupt Westinghouse Electric, under an agreement struck Friday night.

Toshiba, Westinghouse's parent company, will remain responsible for about $3.6 billion in guarantees for the project, payable over at least three years, a person with knowledge of the discussions told Bloomberg. Southern Co. agreed to extend to June 3 an interim contract with Westinghouse while the companies finalize arrangements.

The deal hinges on the owners of the V.C. Summer Station, including SCANA, reaching a similar deal with Toshiba, so the utilities can pool resources, the source said.

More: *Bloomberg*

Tesla Accepting Deposits for Solar Roofs

Tesla is now accepting $1,000 deposits for its new solar roof system, with installations scheduled to begin in June.

The upfront cost of replacing the roof on a 2,467-square-foot home — the median size of a new, single-family home in the U.S., according to the Census Bureau — with the solar tile system is $46,400, according to Tesla's online tool.

More: *NPR*

AWEA Names Amy Farrell as Senior VP

Farrell

The American Wind Energy Association announced that it hired Amy Farrell, director of market development at the American Petroleum Institute, as its senior vice president for government and public affairs, effective June 16.

Farrell will oversee federal regulatory affairs, state policy, public affairs and industry research. She will serve on AWEA's executive team and work closely with Jim Reilly, who continues as senior vice president for federal legislative affairs.

From 2013 through 2015, Farrell served as vice president for market development at America's Natural Gas Alliance.

More: *American Wind Energy Association*

SolarWorld Files for Insolvency, Citing Declining Prices

German solar panel maker SolarWorld has filed for insolvency, citing "ongoing price erosion" in the industry.

The company issued a statement saying it is currently evaluating whether its subsidiaries, which include SolarWorld Americas, also must file for insolvency. SolarWorld Americas hosts the largest crystalline silicon photovoltaic manufacturing facility in the Western Hemisphere in Oregon.

SolarWorld has led several trade cases alleging unfair competition by Chinese solar manufacturers in the U.S. and Europe.

More: *Greentech Media*; *pv magazine*

Dominion Shareholders Approve New Name, Logo

Dominion shareholders Wednesday approved changing the company name from Dominion Resources to Dominion Energy to align the branding with the company's business operations.

"In short, we produce energy — electricity — and we transport energy — electricity and natural gas," CEO Thomas F. Farrell II said.

Dominion also will adopt a blue-and-white "D" as its new logo.

In other business at the company's yearly shareholders meeting, shareholders rejected proposals related to lobbying disclosures, nominating a board member with environmental expertise, preparing a report on methane emissions and publishing a risk assessment of Dominion's investment in fossil fuel power generation.

More: *Richmond Times-Dispatch*

Study: Forest Residue Offers Significant Emissions Benefits

Schiller Station | *Conservation Law Foundation*

The Biomass Power Association has released a study finding that emissions from a biomass power facility using forest residue-based fuel are 115% lower than those of a natural gas facility in one year.

The "Carbon Intensity of Harvesting Residue-Based Electricity: Case Study of Eversource Energy" found that the carbon savings decrease over time and stabilize at 98% at the 100-year mark after considering emissions from logging activities.

Researchers examined the carbon intensity of Eversource Energy's Schiller Station, a 50-MW biomass power plant in New Hampshire, and compared it to a typical combined cycle natural gas facility.

More: *Biomass Magazine*

NextEra Begins Construction on Largest Solar Facility in Ark.

NextEra Energy Resources broke ground last week on what will be the largest solar facility in Arkansas.

The Stuttgart Solar Energy Center, which will span 475 acres about 7 miles southeast of Stuttgart, will include more than 350,000

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Company Briefs

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photovoltaic solar panels with the capacity to generate 81 MW. The electricity will go to Entergy Arkansas customers under a 20-year power purchase agreement.

Construction will take about nine months.

More: *NextEra Energy Resources*

FirstEnergy Sued for Alleged Breach of Fixed-Rate Contract

An Ohio company is seeking class action status for a lawsuit filed last week against FirstEnergy in federal court, claiming it breached a contract to provide electricity at a fixed rate.

Schwebel Baking says FirstEnergy charged it higher electricity rates during a chilly winter even though its fixed-rate contract did not include cold weather as a reason for a price increase. The company is seeking unspecified damages for late fees, penalties or interest charges levied by FirstEnergy.

FirstEnergy has not yet filed a response to the suit.

More: *WFMJ*

Dynegy Cites FirstEnergy's Words As Reason to Deny it Subsidies

Dynegy's CEO used past testimony by FirstEnergy's general counsel before Ohio regulators to make his case as to why FirstEnergy shouldn't receive zero-emission credits for its Davis-Besse and Perry nuclear plants.

Testifying before the House Public Utilities Committee, Dynegy CEO Bob Flexon cited October 2011 testimony by FirstEnergy General Counsel Leila Vespoli before the same committee. Back then, she testified against subsidies, saying that subsidizing one electric generator over another creates obstacles to private investment, increases prices for customers and shifts the risks associated with generation-related investments from shareholders to customers.

More: *Columbus Business First*

Federal Briefs

Utility Group Petitions EPA to Dispose of Coal Ash Regulations

The Utility Solid Waste Activities Group on Friday filed a petition with EPA asking it to do away with regulations governing the disposal of coal ash.

The group is asking EPA Administrator Scott Pruitt to reconsider broad sections of the Coal Combustion Residuals Rule, saying the regulations are ill-conceived and burdensome. The agency spent years developing the rules following a series of highly publicized spills.

"Cutting back protections at this point would be reckless and would put people's health at risk," said Lisa Evans, a lawyer with Earthjustice.

More: *The Associated Press*

Lawmakers Reintroduce Wind Incentive Legislation

Sens. Edward J. Markey (D-Mass.) and Sheldon Whitehouse (D-R.I.) along with Rep. Jim Langevin (D-R.I.) have reintroduced the Offshore Wind Incentives for New Development Act, which would extend the 30% Investment Tax Credit for offshore wind through 2025.

The 2015 omnibus bill extended the Production Tax Credit and Investment Tax Credit for wind projects until 2019. But because of the time required to plan and permit offshore wind projects, the Department of Energy has found no additional projects are likely to be able to qualify for these tax credits before they expire.

More: *North American Wind Power*

Property Owners Sue to Stop Nexus Pipeline

More than 60 property owners in northeast Ohio filed a federal lawsuit Friday to prevent FERC from issuing a certificate of approval to begin construction of the proposed $2 billion Nexus natural gas pipeline.

The suit, filed against FERC and Nexus Gas Transmission, asks the court to order the commission to overturn the final environmental impact statement submitted by Nexus last November for the pipeline's route through northern Ohio and Michigan, as it goes to Canada. The litigants also ask the court to prevent FERC from allowing construction of the pipeline to begin, and order Nexus to stay off their property and stop attempting to negotiate with them.

Nexus had planned to begin construction on the pipeline earlier this year and finish it by year-end. However, when FERC Commissioner Norman Bay resigned, the agency didn't have the quorum necessary to approve the pipeline.

More: *The Plain Dealer*

Longview Asks FERC to Intercede in $195M Pleasants Deal

Pleasants power plant

Longview Power is asking FERC to intercede in Mon Power's proposed $195 million acquisition of its 40-year-old Pleasants power station in West Virginia from Allegheny Energy Supply, with CEO Jeff Keefer describing the transaction as a bailout.

FirstEnergy, which owns both Mon Power and Allegheny, maintains the deal would preserve coal-related jobs and provide other economic benefits to the state, and that it needs the additional capacity to fill a 1,300-MW shortfall it anticipates over the next 10 years.

Keefer said the sale would allow FirstEnergy to shift the underperforming plant out of the deregulated market in Ohio and into West Virginia's regulated market, and that it

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FEDERAL BRIEFS

Continued from page 30

"grossly exaggerated" the need for additional capacity. In its 37-page protest, Longview suggests that Mon Power's requests for proposals in December was rigged so that only Pleasants could achieve 100% compliance.

More: *The State Journal*

Tillerson Signs Declaration Affirming Need for Climate Action

Tillerson

Secretary of State Rex Tillerson signed a document Thursday affirming the need for international action against climate change at a meeting of the Artic Council in Alaska.

The Fairbanks Declaration, which Tillerson signed with foreign ministers from the other seven nations of the council, noted the Paris Agreement's "entry into force" and implementation and called for global action to reduce greenhouse gas pollution.

Tillerson told the council, which meets every two years to work on climate change and other issues facing the North, that the Trump administration was not going to rush to decide whether to leave or weaken U.S. commitments to Paris.

More: *Reuters; Los Angeles Times*

Trump Signs Cybersecurity Executive Order

President Trump last week signed an executive order directing the departments of Energy and Homeland Security to assess "the potential scope and duration of a prolonged power outage" resulting from a cyberattack and identify "any gaps or shortcomings in assets or capabilities required to mitigate the consequences of such an incident." The assessment is due within 90 days.

The order also makes departmental secretaries and agency directors responsible for cybersecurity, rather than allowing them to delegate responsibilities to their staffs, and directs them to use protections developed by the National Institute of Standards and Technology (NIST).

"It is something that we have asked the private sector to implement, and not forced upon ourselves," Assistant to the President Tom Bossert told reporters last week. "From this point forward, departments and agencies shall practice what we preach and implement that same NIST framework for risk management and risk reduction." The order received a mixed reception from IT security experts, with some saying the order is unlikely to result in material improvements in the government's security.

More: *Govinfosecurity; The Hill*

Natural Gas Takes Lead over Coal In Northeast's Generation Mix

Over the past 10 years, natural gas has almost doubled its share of the U.S. Northeast's generation mix, coming in at 41% in 2016, compared with 23% in 2006, according to data from the Energy Information Administration.

In contrast, coal-fired generation fell from 31% to 11% of the region's mix over the same period. Low-cost natural gas from the Marcellus Shale and other regional shale plays and environmental policies at the federal and regional levels are cited for coal's decline.

Nuclear generation remained relatively constant at about 34%. Non-hydro renewable generation made up 5% in 2016 but had the largest percentage growth rate over the past decade.

More: *U.S. Energy Information Administration*

Nuclear Generation Expected To Drop as Plants Retire

About 25% of the nuclear capacity now operating in the U.S. that doesn't have announced retirement plans will be removed from service by 2050, according to data from the Energy Information Administration.

Nuclear energy presently accounts for about 20% of the nation's electricity generation and is expected to decline to 11% in 2050.

Almost all nuclear plants presently in use need a license renewal before 2050 to operate beyond the 60-year period covered by their original 40-year operating license and the 20-year license extension that nearly 90% of them have either already received or have applied for. The capital investment required to extend the life of these plants beyond 60 years is presently unknown and could vary significantly among facilities.

More: *U.S. Energy Information Administration*

States Sue Trump over Restart of Coal Leases on Fed Lands

Four states filed a lawsuit last week over President Trump's decision to lift the Obama-era moratorium on coal leases for federal lands without studying the environmental effects or what's best for taxpayers.

The attorneys general of California, New Mexico, New York and Washington, all Democrats, said restarting the coal lease program without a federal review risks worsening the impact of climate change while depriving taxpayers of the fair market value of the publicly owned coal.

The Interior Department's Bureau of Land Management administers 306 coal leases in 10 states. In 2016, President Barack Obama halted new leases to conduct an environmental study and a review of the royalties that mining companies pay the federal government for extracted coal.

More: *The Associated Press*

Ex-Military Brass: Climate Change Threatens National Security

Mattis

A group of 17 retired senior military officers has sent letters to Secretary of State Rex Tillerson and Defense Secretary James Mattis calling for the U.S. to uphold its commitments under the Paris Agreement.

The group, which includes three four-star veterans, says climate change poses a critical national security risk. In the letter to Tillerson, they cited the impact on critical infrastructure and the increased likelihood of humanitarian disasters, state failure and conflict.

The White House postponed a meeting of top aides to discuss whether the U.S. should withdraw from the international climate agreement.

More: *Bloomberg; ABC News*

State Briefs

Report: Boston, New York and Seattle Lead in Energy Efficiency

For the third time in a row, Boston ranked as the most energy-efficient large city in the U.S., according to the American Council for an Energy Efficient Economy's third biannual City Energy Efficiency Scorecard.

Boston scored 84.5 out of a possible 100 points on the scorecard, which ranks the 51 largest U.S. cities based on five criteria: local government operations, community-wide initiatives, building policies, energy and water utilities, and transportation policies. The city scored high for efficiency of city operations, enforcement of the Massachusetts Stretch Energy Code, a stricter energy standard adopted by the state in 2009, and its Building Energy Reporting and Disclosure ordinance. It achieved a perfect score for having energy-efficient public utilities and for the Renew Boston program, which helps residents and businesses implement energy-saving measures.

New York and Seattle rounded out the top three, with Los Angeles and Portland, Ore., tied for fourth. Detroit, Oklahoma City and Birmingham, Ala., came in as the least energy-efficient.

More: *Next City*

CALIFORNIA

Stakeholders Weigh in on Cap-and-Trade Overhaul

The Senate Environmental Quality Committee heard from environmental groups, industry officials and others Wednesday who said the state's cap-and-trade program needs changes if lawmakers decide to extend it beyond its expiration in 2020.

Lawmakers are considering two bills to continue the program. AB378 would largely continue the current program with some tweaks, including efforts to reduce air pollutants at industrial facilities. SB775 would end the current program in favor of a new system that taxes carbon but does not have a hard cap on emissions. Under the bill, much of the revenue would provide dividends to state residents to offset higher costs for gas and electricity.

Lobbyists representing oil interests, manufacturers and an electrical utility said they support extending the program but want to see price caps and other mechanisms to control their costs.

More: *The Associated Press*

CONNECTICUT

Millstone Support Bill Passes Committee

A bill that would allow the Millstone nuclear plant to sell power directly to the state's electric companies passed a legislative committee last week and is going to the full General Assembly.

The bill, which passed the Appropriations Committee by a 23-21 vote, is intended to keep the plant from closing. It would allow Dominion, the plant's owner, to submit bids to the state for five-year electric contracts with state power companies. Millstone presently sells power on the wholesale market, which results in lower rates.

More: *ctpost*

NEW YORK

Con Ed Transformer Spills Gallons of Oil into East River

A Consolidated Edison transformer containing 37,000 gallons of insulating oil used with electric equipment malfunctioned Sunday, causing thousands of gallons of oil to be released into the East River.

Con Ed officials said they have recovered approximately 500 gallons of oil in the cleanup process, and they believe half the oil is still insider the transformer, which is located at a Brooklyn substation.

The spill, which could be seen for miles, caused a voltage dip that caused major delays on several subway lines as well as delays for NYC Ferry, which travels near the East River.

More: *WPIX*

EV Charging Stations Coming to Downtown Buffalo Parking Ramps

Buffalo parking officials are planning to install 16 electric vehicle charging stations in the city's eight downtown city-owned parking ramps after an informal review found that about 20 to 30 electric cars use the ramps each day.

The estimated cost of the project is $195,201, Parking Commissioner Kevin Helfer said. He said a grant from the state Department of Environmental Conservation's Zero Emission Vehicle and Infrastructure Rebate Program would cover $162,688, and the remaining funds would come from the city's parking enterprise fund. The initial plan is for motorists to continue paying the normal parking rates without having to pay extra to use the stations.

The city hopes to have the project completed by summer.

More: *The Buffalo News*

NORTH DAKOTA

EPA Approves Proposal for State Regulation of CO2 Wells

EPA Administrator Scott Pruitt approved a proposal last week that would make the state the first with the authority to regulate underground wells used for long-term storage of waste carbon dioxide captured from coal-fired power plants, paving the way for advancement of carbon capture and sequestration technology.

The proposal, which languished under the Obama administration, requires that the state's rules for CO_2 wells be as stringent as federal standards approved in 2010. EPA would oversee the program.

A final decision will be made after a 60-day public comment period that will follow publication in the *Federal Register*.

More: *The Associated Press*

VIRGINIA

Governor Signs 4 Bills Boosting Solar Industry

Gov. Terry McAuliffe signed four bills this week to boost the state's solar industry.

SB 1393 allows community solar programs in the service territories of Appalachian Power, Dominion Energy and the state's electric cooperatives. SB 1258 converts the

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STATE BRIEFS

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state's Solar Energy Development Authority to the Solar Energy and Battery Storage Development Authority and expands the authority by four seats. SB 1395 increases the maximum size of renewable projects from 100 MW to 125 MW and exempts residential rooftops from needing a Certificate of Public Convenience and Necessity. HB 2390 creates a power purchase agreement pilot program to encourage private colleges and universities to add solar to their electricity portfolio.

McAuliffe

The state presently ranks 38th in the U.S. for installed solar, with 2 MW, according to the National Renewable Energy Laboratory.

More: *pv magazine*

Lawsuits Allege Dominion Contaminated Water with Coal Ash

Two families living near Dominion Energy's Possum Point plant have filed multimillion-dollar lawsuits against the utility, claiming its release of 27.5 gallons of untreated water from one of its coal ash ponds in May 2015 contaminated their drinking water and caused their property values to decline.

Dan and Patty Marrow are seeking $6 million and their neighbor Brian West is seeking $3 million in the suits filed in Prince William County.

In May 2015, Dominion decided to release the untreated water from one of its coal ash ponds into Quantico Creek. The water flowed into a natural pond between the Marrows' property and Dominion's ash ponds before it eventually drained into the creek. EPA is presently investigating. Dominion maintains the discharge complied with a state permit.

More: *InsideNoVa; Prince William Times*

Md. PSC OKs 368 MW in Offshore Wind Projects

By Rich Heidorn Jr.

Maryland regulators on Thursday approved two offshore wind projects totaling 368 MW, setting in motion what the state called the nation's "first large-scale" offshore wind deployment.

The Public Service Commission awarded offshore renewable energy credits (ORECs) to US Wind and Deepwater Wind's Skipjack Offshore Energy.

PSC Chairman W. Kevin Hughes said the approval "brings to fruition the General Assembly's efforts to establish Maryland as a regional hub for this burgeoning industry."

The PSC awarded the credits at a levelized price of $131.93/MWh for 20 years, beginning when the plants start generating.

US Wind's 62-turbine, 248-MW project, 12 to 15 nautical miles offshore, has an estimated cost of $1.375 billion and is expected to begin operations in January 2020. It will connect to the grid at the Indian River Substation in Delaware.

Skipjack's 15-turbine, 120-MW project, 17 to 21 miles off the coast, is estimated at $720 million and has a target in-service date of November 2022. It will connect to the grid at a substation in Ocean City, Md.

Conditions

The PSC's order included more than two dozen conditions, including requirements that the developers create almost 5,000 direct jobs during the development, construction and operating phases of the projects.

The companies will be required to use port facilities in the Baltimore region and Ocean City for construction, operations and maintenance, fund almost $40 million in upgrades at the Tradepoint Atlantic (formerly Sparrows Point) shipyard in Baltimore County and invest at least $76 million in a steel fabrication plant in the state (Case No. 9431).

To address concerns about the ability to see the turbines from the shore, the order also requires US Wind to locate its project as far to the east of the designated wind energy area as practical. "Each developer also must take advantage of the best commercially available technology to lessen views of the wind turbines by beach-goers and residents, both during the day and at night," Commissioner Anthony O'Donnell said.

The two companies must notify the PSC by May 25 whether they accept the conditions. The projects also are subject to the federal government's approval of site assessment, construction and operations plans.

"As we review the details of the commission's order, we thank the Public Service Commission for the trust that they have placed in Deepwater Wind," CEO Jeff Grybowski said in a statement. "We look forward to continuing our dialogue with the Ocean City community about the Skipjack Wind Farm. Our goal is to build a project that the entire community is proud of."

Deepwater Wind operates the first offshore wind project in the U.S., the 30-MW Block Island project off Rhode Island that began operations in December. (See *Offshore Wind Industry Looks for Next Gust of Support*.)

US Wind, a subsidiary of Italy's Toto Holdings, thanked the PSC for the decision in a statement, saying "Maryland is now the undisputed national leader for offshore wind."

"This marks the real start toward an extensive offshore wind industry that will one day soon stretch from Cape Cod, Mass., to Cape Hatteras, N.C., and provide as much as a third of the East Coast's electricity," the Chesapeake Climate Action Network said in a statement.

Cost to Ratepayers

An analysis conducted for the PSC estimated the ORECs will cost residential customers less than $1.40/month and boost rates for commercial and industrial customers by less than 1.4% — below the limit set by the legislature in the Maryland Offshore Wind Energy Act of 2013. The law allows offshore wind to comprise up to 2.5% of total retail electricity sales.

The projects are part of the state's plan to reduce carbon emissions 40% by 2030 and will allow electric suppliers to replace some renewable energy credits produced in other states. Maryland's renewable portfolio standard requires production of 25% of electricity from renewables by 2020.

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