RTO Insider
Your Eyes and Ears on the Organized Electric Markets
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ISSN 2377-8016 : Volume 2018/Issue 5 January 30, 2018

Tariffs to Pinch US Solar Growth; Factory Surge Unlikely

By Jason Fordney and Rich Heidorn Jr.

President Trump's decision to impose tariffs on imported solar cells and modules may not spur domestic manufacturing, but it will boost costs, slowing the fast-growing sector, analysts said last week.

The tariffs, based on recommendations from the International Trade Commission (ITC), start at 30% for the first year and drop by 5% each year over the following four years, with the first 2.5 GW of imported solar equipment exempt.

Bloomberg New Energy Finance and ClearView Energy Partners separately predicted the decision will boost the cost of utility-scale solar by 10% and home rooftop units by 4%. ClearView, citing data from the National Renewable Energy Laboratory, also predicted a 6% increase in the cost of distributed commercial solar projects.


| SEIA

GTM Research estimated it may cut U.S. installations by 11% over the next five years.

Expansion Plans

U.S. Trade Representative Robert Lighthizer announced Trump's decision to impose tariffs on imported solar cells and modules and washing machines last Monday. Trump said they will create jobs in the U.S. "Our [manufacturers] have been decimated, and those companies are going to be coming back strong," he said in a televised signing ceremony Jan. 23.

Greentech Media reported that several of the 14 crystalline-silicon cell and module manufacturers in the U.S. have announced expansion plans: Texas-based module manufacturer Mission Solar Energy, which had to lay off workers in early 2017, said last week it is hiring 50 new employees to increase production and move to a 24/7 schedule. Earlier this month, California-based Solaria announced it had raised $23 million in financing to expand its manufacturing capacity. Tesla said last week it is "committed to expanding its domestic man-

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FERC, RTOs: Grid Performed Better in Jan. Cold Snap vs. 2014

ISO-NE 'Very Close to the Edge'; PJM Seeks 'Next Level' on Gas-Electric


PJM CEO Andy Ott (left) and FERC Chair Kevin McIntyre | © *RTO Insider*

By Rich Heidorn Jr.

WASHINGTON — Generation operators fared better during the early January cold snap than in the 2014 polar vortex, officials told Congress last week, but New England needs to take urgent action to prevent major reliability problems.

"Although we are still receiving and reviewing data, it appears that, notwithstanding stress in several regions, overall the bulk power system performed relatively well,"

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McIntyre Wades into Capitol Hill Fuel Wars (p.31)

Northern Pass Cleans up in Massachusetts RFP

By Michael Kuser

Eversource Energy and Hydro-Québec were the big — and only — winners in a solicitation to provide Massachusetts with 9.45 TWh of renewable energy each year, state officials revealed Thursday.

The selection of the companies' joint Northern Pass transmission project means that an additional 1,090 MW of hydropower will be delivered into the New England grid via a new 192-mile HVDC line.

The project contains no provisions for delivering other forms of renewables and was the only one selected among a handful

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NY Offshore Wind Plan Faces Transmission Challenge (p.20)

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Subscription Rates:

Payment Frequency	PDF-Only	PDF & Web
Annually:	$1,350.00	$1,650.00
Quarterly:	380.00	475.00
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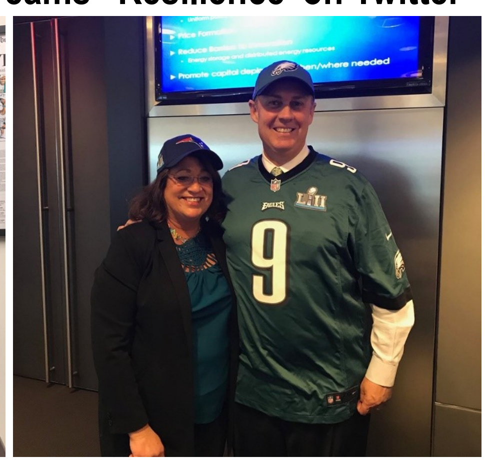
IN THIS WEEK'S ISSUE

LaFleur, Powelson Dispute Teams' 'Resilience' on Twitter



RTO Insider normally doesn't take sides — especially not in trash talking between FERC commissioners. But because this publication was founded by two former Philadelphia residents, we are exercising our prerogative in this instance to ask: Haven't the Patriots won enough? Fly, Eagles, fly! (Note: The Washington Redskins fans on staff strongly dissent from this endorsement.) | *Cheryl LaFleur and Robert Powelson*

CAISO NEWS

EIM Body Tables Nominating Process Changes

By Jason Fordney

FOLSOM, Calif. — The Energy Imbalance Market (EIM) Governing Body last week rejected CAISO's move to change how members of the panel are nominated, saying the idea "appeared to come out of nowhere."


Doug Howe | © RTO Insider

Chairman Doug Howe made the "out of nowhere" comment as the board unanimously tabled any decision on the ISO's proposed revisions to the nomination process.

"What problem are we trying to solve here?" Howe said after a CAISO briefing on the proposal during a Jan. 23 meeting of the panel. "For me, it's 'I really don't know.'" He said the changes could create confusion in the market. "It doesn't strike me as sending the right message out."

The rejected proposal would have eliminated the EIM Nominating Committee's obligation to use an executive search firm to help fill Governing Body vacancies, instead encouraging committee members to rely more on their own contacts. The plan would also have altered a current policy that allows the committee to re-nominate sitting body members without considering other candidates.


Kristine Schmidt | © RTO Insider

Governing Body member Kristine Schmidt said the proposal would saddle the Nominating Committee with the "heavy lifting" normally performed by a search firm. This would include tasks such as defining the scope of the work, evaluating qualifications and accreditations, narrowing the list, and conducting interviews.

"In my opinion, that is the work of the executive search firm," Schmidt said, adding that the proposal should be vetted by the committee and the EIM Body of State Regulators.

"The changes that are being proposed trouble me greatly," she said, contending that they appeared to be the product of a few individuals, and "there is no sunshine on that decision." She added that "the process is working just fine to date."

Looming Term Expirations


Carl Linvill | © RTO Insider

Created in 2016 to oversee the rapidly expanding regional market, the five-member Governing Body has decisional authority over EIM matters. The current members were all among the first to be seated on the body, and the terms of Howe and Carl Linvill are set to expire on June 30, while Vice Chair Valerie Fong and John Prescott's terms expire June 30, 2019.

Schmidt, whose term expires in 2020, was the only member to be reappointed to the body after her inaugural, one-year term ended last year. (See *EIM Governing Body OKs Charter Expansion; Retains Schmidt*.) A former executive at ITC Holdings and Xcel Energy, Schmidt served as chair during her first term, which was truncated to stagger the normally three-year terms for members.

CAISO's proposal would have altered the policy around reappointing a member that has expressed a wish to be re-nominated. Current practice dictates that the Nominating Committee "should determine whether it wants to re-nominate the departing member without interviewing other candidates." If the committee decides against re-nomination, it is required to use the outside firm to find at least two other candidates.

The proposed change would have obligated the Nominating Committee to consider the current member but "also normally consider additional qualified candidates." It also would have specified that the committee interview and consider at least two candidates for each position when a sitting member is not seeking re-nomination.

CAISO has cited the expense of hiring an outside consultant as a reason for the proposed changes. (See *CAISO Proposes EIM Governance Changes*.)

The ISO also proposed to change the process for determining whether the Governing Body — rather than its Board of Governors — has decisional authority over an ISO proposal. CAISO currently makes that determination, but a dispute resolution process is triggered if the chair of either the ISO board or EIM body challenge the decision and cannot conclude an agreement on the issue.


Valerie Fong | © RTO Insider

CAISO's proposal would have allowed ISO management to directly consult with the objecting chair. Any change resulting from that consultation would then be subject to a vote by both chairs, a process the ISO thinks would avoid further meetings and delays.

Fong said that CAISO must take "a more holistic approach" to EIM governance changes, calling the proposal "confusing for the market and confusing for us."

Body Briefed on ISO Roadmap

During the Jan. 24 meeting, CAISO staff told the Governing Body that the EIM could expand as a result of the ISO's proposal to extend its day-ahead energy market into what is now a regional balancing market. (See *CAISO Plan Extends Day-Ahead Market to EIM*.) The ISO is focused on the day-ahead market to better manage the load curve and is working on a package of other changes. The ISO is also pursuing efforts to support reliability-must-run payments for needed gas generators and to lower market barriers for distributed energy resources.

CAISO Director of Market and Infrastructure Policy Greg Cook briefed the Governing Body on the final roadmap posted Jan. 12. Out of the 16 initiatives CAISO is undertaking this year, 12 are related to the EIM, he said.

"You have a busy year coming up in front of you," Cook told body members.

CAISO NEWS

CAISO Floats Reliability Programs Revamp

By Jason Fordney

CAISO last week kicked off an effort to implement major changes in the way it procures backstop generation needed to maintain grid reliability, in the face of growing stakeholder dissatisfaction over increased use of the practice.

The ISO is reviewing its reliability-must-run (RMR) and capacity procurement mechanism (CPM) programs and considering combining the two. It considers both backstop procurements to be "last resorts" to guarantee adequate capacity when it identifies generation deficiencies, as well as to prepare for unexpected events on the grid.

CAISO is undertaking the effort "to address concerns identified by the ISO and by other stakeholders" in light of recent RMR and CPM designations, it said in a Jan. 23 straw proposal and issue paper.

"This initiative will review the RMR tariff provisions, *pro forma* agreement and procurement process, and seek to clarify and align the use of RMR procurement and backstop procurement under the CPM tariff," CAISO said.

CAISO has recently increased its reliance on RMRs and CPMs for gas-fired power plants, which are unpopular with owners of other resources competing in the market, as well as state regulators who favor non-fossil-based resources. The ISO in recent months has inked contracts with gas plants, citing misalignments with state resource adequacy programs as one reason for doing so.

The initiative will also look at reworking the ISO's Condition 1 and Condition 2 classifications for RMR units, which have different payment structures. The former recover only a portion of their revenue requirement, while the latter operate under a full cost-of-service payment methodology.

Following recommendations from the ISO's Internal Market Monitor, the proposal seeks to remove certain limits on market participation currently imposed on Condition 2 resources and make both types of units subject to must-offer obligations for energy and ancillary services. In a protest of the Metcalf RMR filed at FERC, the Monitor said consumers are currently bearing full costs for Condition 2 facilities that are barred from CAISO markets in many hours.

The grid operator's Board of Governors in November approved the latest RMRs, with Governor Ashutosh Bhagwat saying: "I am going to hold my nose very, very hard" while voting in favor. (See *Board Decisions Highlight CAISO Market Problems*.)

But the California Public Utilities Commission responded on Jan. 11 by fast-tracking a nullification of the RMRs. (See *CPUC Retires Diablo Canyon, Replaces Calpine RMRs*.) Representatives from the CPUC and Pacific Gas and Electric told the ISO board in public meetings that they opposed the contracts.

Grid planners are being pushed into backstop procurements to maintain longer-term reliability as gas generators fail to obtain contracts under California's resource adequacy program. CAISO has 852 MW of capacity under RMR, including Dynegy's Oakland units and Calpine's Feather River, Yuba City and Metcalf Energy Center plants, all of which were signed in September-November 2017.

The involuntary RMRs receive a negotiated rate, and CPMs receive a market-based price subject to a cap. The cost of the contracts eventually falls on retail ratepayers, which must shoulder tens of millions of dollars, often with relatively short notice.

Some power marketers say the rapid growth of community choice aggregators has further scrambled the procurement picture as customers depart from investor-owned utilities, leaving a small rate base to shoulder the costs.

CAISO said it wants to develop the first phase of the new program enhancements in time for May approval by the board. A second phase would be in place this fall to be used in 2019 and would clarify when RMR is used instead of CPM and explore whether the two designations can be merged.

The ISO has already posted a detailed presentation for stakeholder meeting today to be led by Keith Johnson, manager of infrastructure and regulatory policy.

CAISO NEWS

CAISO Launches Interconnection Initiative

By Jason Fordney

CAISO this month launched a sweeping set of updates to its interconnection policies, an annual process made increasingly complex by a rapidly changing resource mix.

The effort "will likely address some substantial concepts but also a myriad of minor concepts that have not been addressed in some time," the ISO said of its 2018 Interconnection Process Enhancements (IPE) initiative.

"Once we finalize the scope of the initiative, we will be able to determine the issues that will be included in this year's process and the timing for development," CAISO said.

The program is divided into six broad categories: deliverability; energy storage; generator interconnection agreements; interconnection cost responsibility and financial security; interconnection requests; and modifications.

A Jan. 17 issue paper defined the proposals that CAISO is considering. The document includes 42 potential topics and will be developed into a draft final proposal, but the ISO has not specified when it would be presented to the Board of Governors for approval.

The deliverability category alone contains nearly a dozen topic areas related to transmission planning, criteria for commercial viability and transparency into the availability of deliverability.

Other major tasks laid out in the IPE paper include:

- Ensuring the development of the most viable projects;
- Giving projects with power purchase agreements a greater opportunity for deliverability; and
- Providing resource developers reasonable timelines for interconnection.

The ISO expects a March ruling from FERC on last year's more narrowly tailored IPE package, which was expedited to obtain a ruling before the next transmission plan deliverability (TPD) allocation takes place in March.

A TPD allocation provides resources the transmission capacity required to deliver power during peak conditions and is a condition of receiving full capacity deliverability status, which is critical for eligibility to be counted as resource adequacy.

CAISO twice a year allocates TPD to generating projects that meet certain criteria. The 2017 IPE package proposes a third TPD allocation, which FERC is likely to approve.

The TPD allocation process works well during periods of high procurement, CAISO said. However, renewable procurements have recently slowed significantly, resulting in few projects meeting the criteria to qualify for a TPD allocation.

There are also uncertainties around renewable procurement that will affect the ability of a resource to obtain power purchase agreements. CAISO noted that the California Public Utilities Commission has proposed establishing a two-year resource procurement cycle to meet the targets of integrated resource plans, with the first procurement proposed for the end of 2018. But modeling used by the commission for the program shows a minimal need for renewable procurement until 2026 because California utilities are on track to meet — or exceed — renewable portfolio standard targets, the ISO said.

"The IRP will have significant impacts on interconnection customer's ability to obtain PPAs for their projects," CAISO said.

In a Jan. 24 presentation, CAISO discussed items that stakeholders requested be included in the IPE, including a proposal that would allow interconnection customers to replace their entire project with storage during the interconnection process. But CAISO has only approved up to 10% conversion to battery from an existing project during the process.

"A complete change of technology from existing technology requires a study to determine the new electrical characteristics and the impact to the grid," CAISO said in explaining that it would not explore that topic in IPE 2018.

The energy storage category of IPE 2018 is focused on distributed energy resources, wholly replacing existing facilities and deliverability assessment for energy storage.

The ISO is taking comment on the IPE package through Feb. 7 and said stakeholders should suggest other items that might be included.

CAISO NEWS

CAISO Moves Ahead with Load-Shifting, DR Products

By Jason Fordney

CAISO is delving into the next phase of a yearslong effort to integrate more storage and demand response into its markets.

Up next: a new load-shifting product intended to reduce renewable curtailment and overgeneration, among other ideas.

The ISO Board of Governors last year approved Energy Storage and Distributed Energy Resources Phase 2 (ESDER 2), which will provide distributed energy resources and a storage foothold in the ISO's markets. (See New CAISO Rules Spell Increased DER Role.)

CAISO and its market participants now will confront new complexities during the scoping phase of ESDER 3. Storage companies are heavily involved in developing a load-shifting product to allow behind-the-meter resources to participate in DR, but CAISO also will evaluate resources other than storage. The ISO is focused on BTM storage where charge and discharge can be metered and monitored directly.

The industry's goal is to have a product launched by spring 2019, Ted Ko, of storage company Stem, said at a Jan. 16 ESDER workshop. The intent is to have the "minimum necessary design" to allow storage and other resources to participate in load shifting — the practice of charging batteries during periods of low demand and negative prices and discharging during ramps. During previous meetings and workshops, stakeholders developed a definition of a "shift resource" that can demonstrate its ability to shift loads. Stakeholders also are exploring issues around registration, metering, bidding and settlement.

"This is 1.0," Ko said of the load-shifting product. "We are not trying to design the full product." He also said the ISO should not intend to solve all the problems in the first round.

"Let's try really, really hard to not make the perfect be the enemy of the good," he said.

Storage companies have increased their pressure on CAISO to develop the load-shifting product, which was deferred from ESDER 2. (See Storage Advocates Urge CAISO on DR Product and CAISO Load-Shifting Product to Target Energy Storage.)

Aside from the load-shifting product under the ESDER 3 DR track, CAISO is also addressing DR modeling limitations, dealing with weather-sensitive DR resources and recognizing load curtailment provided from BTM vehicle charging equipment.

ESDER 3 will also examine "multiple-use applications" that allow DR and DER to "stack" services across different wholesale and retail market segments, increasing their potential for compensation. CAISO wants to use that track of the initiative to enable 24/7 participation for DER and create a wholesale market participation model for microgrids.

CEC Announces Microgrid Grants

DER got another boost Jan. 19 when the California Energy Commission issued a notice of proposed award of $22 million in grants to deploy microgrids, the first batch in its latest $44 million competitive microgrid solicitation. (See California Awarding $45 Million for Microgrids.)

The proposed recipients include Native American tribes, Lawrence Berkeley National Laboratory, University of California, San Diego Unified Port District, Electric Power Research Institute and others. The funding is contingent upon approval by the full commission.

ERCOT NEWS

TAC Briefs

TAC Asks WMS to Investigate 2 Market Events

AUSTIN, Texas — ERCOT's Technical Advisory Committee last week asked its Wholesale Market Subcommittee (WMS) to determine what went wrong during two recent market events.

On Jan. 22, ERCOT disabled the 69-kV contingencies being solved by the day-ahead market (DAM) software, with the exception of a contingency included in a real-time binding constraint during the previous 30 days. Staff issued a market notice at the time.

ERCOT's Carrie Bivens said staff followed protocols by issuing the notice. "The alternative was aborting the DAM run," she said.

On Jan. 23, real-time prices jumped to $5,800/MWh for 15 minutes, forcing ERCOT to deploy non-spinning reserves. Prices also exceeded the energy offer cap of $9,000/MWh during two five-minute intervals.

The ISO said it was the first time market prices reached the $9,000 price cap during two security constrained economic dispatch (SCED) intervals, pointing to ramping issues because of cold weather and higher-than-expected load around 7 a.m. Resource adequacy was not a problem, ERCOT said.

Staff's David Maggio said ERCOT doesn't intend to reprice the event, noting the systems were "working as expected."

"We don't see any issue with how things worked out," he said.

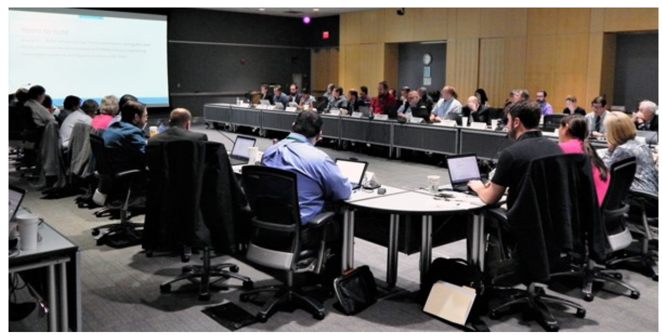
Staff said the two events were unrelated, prompting Citigroup's Eric Goff to respond, "They felt related to everyone."

"The issue that caused the DAM software problem was unrelated to ramp constraining in real time," Bivens said. "They just happened on the same operating day."

The contingencies were restored Jan. 24 for the following operating day.

"We need a discussion at WMS, because you're determining winners and losers when you turn off contingencies," Morgan Stanley's Clayton Greer said during the TAC's Jan. 25 meeting.

The WMS next meets Jan. 31. The subcommittee will also provide real-time co-optimization training following its meeting.



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ERCOT Sees 62% Drop in RUC Practices

ERCOT staff's annual reliability unit commitment (RUC) report to the TAC last week revealed a more than 62% drop in the practice.

Maggio said that 562 instructed RUC resource-hours last year resulted in 534 effective RUC resource-hours, compared to 1,514 and 1,417, respectively, for all of 2016.

Of those resource-hours, 163 were successfully bought back, a clawback percentage

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Sempra, Oncor Add More Parties to Settlement Agreement

By Tom Kleckner

Sempra Energy and Oncor said Thursday they have added three more parties to a settlement agreement covering Sempra's proposed $9.45 billion acquisition of Energy Future Holdings, which includes the bankrupt company's 80% ownership of Oncor.

The companies said Energy Freedom Coalition of America, Nucor Steel and Golden Spread Electric Cooperative have joined a settlement previously agreed to by six other parties in December. The settling parties have agreed that the acquisition is in the public interest, meets Texas statutory standards, and provides tangible and quantifiable benefits, Sempra and Oncor said. (See *Sempra, Oncor Reach Deal with Texas Stakeholders*.)

Texas Legal Services Center, a nonprofit law firm that provides free legal representation and advice to low-income persons and Medicare recipients, is the lone holdout intervenor.

The agreement includes regulatory commitments that preserve the existing Oncor ring-fence and the independence of its board of directors. It also extinguishes all debt currently held by EFH and Energy Future Intermediate Holding Co.

With the latest agreement, California-based Sempra moves another step closer to acquiring Oncor, Texas' largest utility. The companies joined with Public Utility Commission of Texas staff on Jan. 5 to request that the PUC approve the acquisition, consistent with the governance, regulatory and operating commitments in the settlement agreement (Docket 47675).

During a brief discussion at the PUC's open meeting Thursday, Chair DeAnn Walker told her colleagues she will be meeting with each FERC commissioner at the same time the PUC has scheduled its hearing on the merits of the deal. The PUC set the hearing for Feb. 21-23, but Walker's FERC meetings are on Feb. 22, suggesting the PUC won't need all three days.

"If it goes longer than half a day on the 21st, I don't think any of us should be happy with the use of our time," Walker said.

The PUC is expected to make a decision by early April. The EFH transaction is also subject to approval by the U.S. Bankruptcy Court.

Sempra agreed to acquire EFH last August. In September, the U.S. Bankruptcy Court for the District of Delaware approved EFH's entry into the merger agreement with Sempra.

ERCOT NEWS

LP&L Finalizing Agreements in ERCOT Move

Lubbock Power & Light told Texas regulators last week that it continues to hammer out settlement agreements that will resolve most of the arguments in the utility's proposed migration of 470 MW of load from SPP to ERCOT.

Chris Brewster, legal counsel for LP&L, told the Public Utility Commission on Jan. 25 that the utility has modified a settlement agreement reached Jan. 17 with PUC staff and several consumer groups. (See *Texas Regulators Noncommittal After LP&L Hearings*.)

He also said the utility has reached a separate agreement in principle on the SPP side that involves an upfront payment from LP&L to SPP and Southwestern Public Service, which serves Lubbock's load under a pair of long-term contracts. Brewster did not disclose monetary figures or further details in the agreement, which had not been filed with the PUC as of Friday afternoon.

The Texas parties agreed the only outstanding issue in the proceeding (Docket 47576) pertains to who will build the $360 million in infrastructure ERCOT has projected would be needed to connect LP&L's load with its system.

"The discussions are ongoing," Brewster told the PUC. "The parties in West Texas have a perspective on that."

The commissioners discussed whether to carve out the transmission construction issue separately, but they decided to allow Brewster a chance to include it in the settlement agreements. Brewster will update the PUC at its next open meeting on Feb. 15.

PUC Opens Rulemaking on Distributed Battery Storage

The commission voted to dismiss an AEP Texas request to connect battery storage facilities to the ERCOT grid (Docket 46368), instead opening a rulemaking to "develop a framework within which [it] can consider a broader range of technologies and study the potential impacts to the competitive retail market and energy-only wholesale market in ERCOT."

Chair DeAnn Walker said in a memo that AEP's proposal included issues that need "additional commission review and information," and suggested the PUC "take a wider view of the innovative concepts raised in this docket as well as other potential technological solutions."

An administrative law judge had approved AEP's proposal to connect a pair of utility-scale lithium-ion battery facilities to the ERCOT system in West Texas, but the company ran into broad industry opposition when the ALJ ordered the facilities to be classified as distribution assets and included in AEP's cost-of-service rates. (See *PUCT Considering Rulemaking over AEP Battery Proposal*.)

In her memo, Walker said she "firmly" believed the energy consumed by the batteries should not be treated as unaccounted for — or unmetered — energy, as AEP proposed.

"The rulemaking should address a method by which any energy necessary for the implementation of a solution can be measured and accounted for within the market," she said.

Walker also suggested amending PUC rules to require a utility to obtain a certificate of convenience and necessity to use "non-traditional technologies to solve distribution problems."

"We're excited about seeing this technology get into our market," said Commissioner Brandy Marty Marquez. "Batteries are the commonsensical response to the renewables we'll see in our market."

Commissioner Arthur D'Andrea said he had concerns about allowing "regulated utilities to play in this space."

"The energy does overhang the market," he said.

Commission Issues Favorable Entergy Orders

In a pair of actions related to Entergy Texas, the PUC signed off on a report analyzing the costs and benefits of MISO membership and approved the company's request to build a 230-kV transmission line in southeast Texas.

The commission requested the report when it approved the transfer of operational control of Entergy's assets to MISO in October 2012. The PUC declined Texas Industrial Energy Consumers' proposal to impose reporting requirements on Entergy, agreeing with staff that it already can request information from the utility as it deems necessary.

— Tom Kleckner

TAC Briefs

Continued from page 7

similar to previous years. The total RUC make-whole amount was about $540,000, which was covered through capacity short charges.

The 534 effective RUC resource-hours were all a result of congestion (433), capacity (66) and Hurricane Harvey (35). No resource-hours were committed for ancillary service shortages, system inertia or extreme cold weather/start-up failures.

Maggio pointed to several recent improvements as causing the drop in RUCs, including reducing shadow price caps for transmission constraints from about $1 million/MWh to about $100,000/MWh and a nodal protocol revision request (NPRR744) that used a common trigger to fix the opt-out decision inconsistency between the SCED and settlements systems.

Staff and stakeholders are still working to

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ERCOT NEWS

TAC Briefs

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improve both RUC functionality and transparency, Maggio said.

In other staff reports:

- Assistant General Counsel Vickie Leady told stakeholders that staff have developed a definition of "affiliate" in line with the typical corporate use of the word. The proposed bylaw amendment clarifies when an affiliate relationship arises between two or more ERCOT members.
- Members will be allocated almost $26,000 in resettlements from the Greens Bayou Unit 5 reliability-must-run contract, after certain costs were not fully settled before applicable true-up dates. The RMR, ERCOT's first since 2011, was approved in June 2016 and terminated effective May 29, 2017.
- Controller Sean Taylor said the ISO forecasts the system administration fee will be adequate and he "sees no need for a change" through 2019. Stakeholders had requested advance notice of any fee increases during the 2016-17 budget process.

Task Force Looks at Subcommittees' Restructuring

Stakeholders agreed to form a task force to combine or restructure the TAC's Retail Market (RMS) and Commercial Operations (COPS) subcommittees. The task force will begin its work Feb. 5, with the intention of reporting back to the committee for its Feb. 22 meeting.

Leadership from the two subcommittees met over the holidays and agreed on three options for restructuring them. The initiative is a result of the TAC's annual structural review of its subcommittees and input from the Board of Directors' Human Resources and Governance Committee.

Reliant Energy Retail Services' Rebecca Reed Zerwas will lead the task force, after she was "'volun-told' to get this started."

The RMS and COPS will continue in their current forms until a solution is endorsed by the TAC.

TAC Elects Helton Chair, Coleman Vice Chair

Diana Coleman and Bob Helton | *© RTO Insider*

The committee unanimously elected Dynegy's Bob Helton as its chairman, a position he has essentially held since September. Previously vice chair, Helton stepped into the role vacated by Adrianne Brandt, who left San Antonio's CPS Energy to join Chair DeAnn Walker's staff at the Public Utility Commission of Texas.

Diana Coleman, senior market specialist with the Office of Public Utility Counsel, was elected vice chair.

NPRR Clarifies ERCOT's Jurisdictional Status Quo

The TAC unanimously endorsed NPRR861, which clarifies ERCOT can and will take all actions necessary to preserve its jurisdictional status quo and market participants with respect to FERC. Possible actions include, but are not limited to, ordering the disconnection of transmission facilities and denial or curtailment of an electronic tag.

The PUC in December instructed the ISO to draw up the NPRR over concerns that transmission projects along the U.S. border with Mexico may threaten ERCOT's electrical separation from the rest of the country and the PUC's exclusive jurisdiction over the Texas grid operator. (See "Fending off FERC," *Texas PUC Challenging SPP-Mountain West Intertie Costs*.)

FERC's jurisdiction is derived from the Federal Power Act, which gives the commission broad authority to regulate interstate commerce by public utilities. FERC does not have plenary jurisdiction over the ISO because the energy generated in the region is not transmitted in interstate commerce, except for certain interconnections ordered by the commission that do not give rise to broader jurisdiction.

The committee also unanimously endorsed six other NPRRs, a system change request (SCR) and a nodal operating guide revision request (NOGRR):

- NPRR819: Removes language referencing "data errors" for resettlement of the DAM and real-time market (RTM); gives the ERCOT board authority to direct a DAM resettlement parallel to its authority to direct an RTM resettlement; removes references to undefined "declarations" of resettlements; changes the thresholds that determine a resettlement; and fixes a semantics error.
- NPRR841: Determines in real time the day-ahead make-whole payment by incorporating the ancillary services infeasibility charge, approved with NPRR782, into the payment's analysis.
- NPRR842: Defines a "study area" as an ERCOT-designated "geographic region," separate from a weather zone or load zone, used primarily for study purposes.
- NPRR844: Corrects the current process of including capacity that is modeled but not yet commercially operational in the outage scheduler, which is then reflected in the outage report.
- NPRR852: Creates a more efficient approval process when updating the congestion revenue right activity calendar; removes unnecessary "advisory approval" language; and moves the calendar's approval from the TAC to the WMS.
- NPRR855: Clarifies the criteria for including new and retiring resources in the seasonal peak average capacity estimation calculations used for ERCOT's Capacity, Demand and Reserves report. The revisions apply to wind, solar, DC ties, hydro and all-inclusive generation resources within private-use networks.
- NOGRR169: Aligns the guide's language with NERC Reliability Standard PRC-002-2 (Define Regional Disturbance Monitoring and Reporting Requirements) to determine required locations for NERC-required disturbance monitoring equipment. This relieves the burden on facility owners to adhere to two vastly different requirements for the same purpose.
- SCR794: Updates how the SCED limit is calculated by the Transmission Constraint Manager to consider how the megavolt-ampere flows compare to actual limits.

— Tom Kleckner

ISO-NE NEWS

FERC Accepts Disputed GIA for Rhode Island Generator

By Michael Kuser

FERC on Friday accepted an unexecuted large generator interconnection agreement (LGIA) filed by ISO-NE and National Grid for Clear River Energy's 1,100-MW natural gas-fired plant in Burrillville, R.I. (EL18-349).

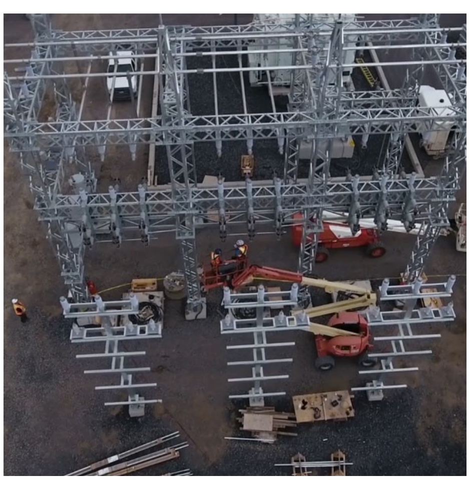
The commission's Jan. 26 order rejected Clear River's protests over the dates for providing financial security for the cost of required transmission upgrades; its request to self-build certain interconnection facilities; its cost responsibility for transmission upgrades; and its request for additional data backing the cost allocation.

A GE turbine is hauled in for the Clear River Energy Center. | *Invenergy*

Clear River's twin one-by-one combined cycle generating units will interconnect with the grid at National Grid's existing Sherman Road 345-kV switching station through a new 345-kV generator lead line. During LGIA negotiations, Clear River requested to push back the initial commercial operation date two years, to May 31, 2021. National Grid confirmed that it could meet the new deadlines.

Clear River complained that the unexecuted agreement would require it to begin spending up to $88 million prior to the project's permits being secured.

The commission ruled that the milestones developed by National Grid were based on the schedule proposed by Clear River.



Construction of Clear River Energy Center | *Invenergy*

"Clear River's request to adjust the dates by which it must issue its notices to proceed and post security appears to be due to permitting delays. We note that, if Clear River prefers to proceed once it receives the required permits, then it is free to propose later key milestone dates. National Grid has stated that it will re-evaluate the other milestones should Clear River avail itself of this option."

The commission also rejected Clear River's request to self-build its interconnection facilities, saying that option is only available if National Grid is unable to meet Clear River's milestone dates.

FERC also found that ISO-NE had provided all the information it is required to in justifying Clear River's $44 million in transmission upgrades.

It also rejected Clear River's request to restudy its cost obligation because of the two-year delay in its proposed commercial operational date. The company said some upgrades in its LGIA will not be necessary because of several transmission projects expected to be online by 2021 in the Southeast Massachusetts/Rhode Island area: the New Grand Army switching station; upgrades to the Somerset Substation; and upgrades to transmission lines X3 and W4.

FERC said Clear River's decision to delay its commercial operating date was not grounds for triggering a restudy under ISO-NE's Tariff.

In November, Clear River had filed a separate complaint asking FERC to eliminate provisions in the RTO's *pro forma* LGIA that permit the direct assignment to interconnection customers of network upgrade-related operations and maintenance costs (EL18-31). On Jan. 23, however, the company filed to withdraw the complaint.

"Clear River believes it has shown that, given the nature of the relevant upgrades (which consist almost entirely of replacing or relocating existing network facilities), there very likely would be no monetary impact on Rhode Island ratepayers whatsoever. Nevertheless, the relief sought by Clear River has proven contentious in the Rhode Island Energy Facility Siting Board (EFSB) proceeding regarding Clear River's application for the permits necessary for the project to be constructed," the company said. "Accordingly, in order to remove this issue from being considered in any way in the EFSB proceeding — and to eliminate even the false perception of negative ratepayer impact — Clear River is submitting this notice of withdrawal."

FERC's Jan. 26 order noted that the notice of withdrawal remains pending. "The commission's determination in this case should not be read as prejudging the resolution of any substantive issue in that proceeding," it said.

ISO-NE NEWS

Northern Pass Cleans up in Massachusetts RFP

Continued from page 1

of proposals dominated by hydroelectric output from Québec. (See Hydro-Québec Dominates Mass. Clean Energy Bids.) A separate Eversource bid that included Canadian wind energy was not accepted.

Massachusetts issued its solicitation for a high volume of hydro and Class I renewables (wind, solar or energy storage) last July.

"We collaborated with the legislature to propose and sign the bipartisan energy legislation that enables today's procurement, and we look forward to working with all stakeholders involved to ensure it delivers a cost-effective and reliable energy future that makes substantial progress in reducing our carbon emissions," Massachusetts Gov. Charlie Baker said.

The Massachusetts Department of Energy Resources worked with distribution utilities Eversource, National Grid and Unitil on the solicitation. Any contract awarded under the MA 83D request for proposals must be negotiated by March 27 and submitted to the state's Department of Public Utilities by April 25.

All New Hampshire

Northern Pass would run from Des Cantons, Québec, to Deerfield, N.H., where it will convert to AC and interconnect with ISO-NE.

The New Hampshire Site Evaluation Committee is scheduled to complete permit deliberations for the project Feb. 23 and issue a written decision by the end of March.

In a summary of its final application briefing filed with the committee Jan. 19, Eversource said that Northern Pass would "provide New Hampshire residents with more than $3 billion in benefits at no cost to the state's energy customers," employ 2,600 people during construction, and "reduce regional greenhouse gas emissions by more than 3.2 million tons per year, equal to the emissions of 670,000 cars."

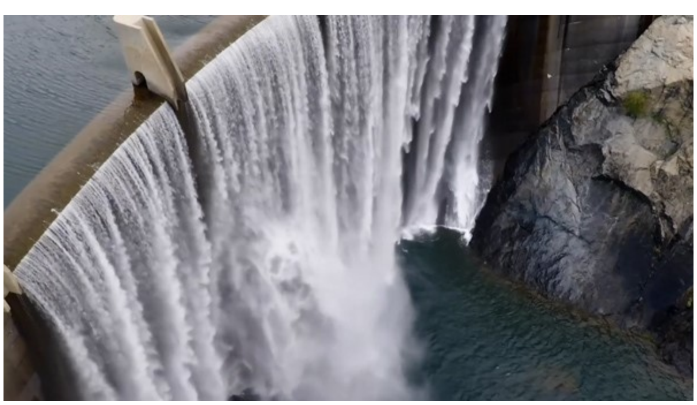
The province of Québec last month granted Hydro-Québec a permit to build the project.

Different Takes

"We are pleased with the decision announced today, and appreciate the thorough review by the Massachusetts bid evaluation team," Eversource Executive Vice President Lee Olivier said in a statement Thursday.

"This is a major milestone in the energy transition underway in the Northeast. ... Hydro-Québec's clean, reliable power, along with our proven delivery capability were highly valued by decision-makers," said Hydro-Québec CEO Éric Martel.

Brian Murphy, business manager of the International Brotherhood of Electrical Workers Local 104, said that the project "not only brings tremendous clean energy benefits to our region but will also provide opportunity for thousands of working families in Massachusetts and New Hampshire. The IBEW looks forward to getting to work on the Northern Pass project in the coming months."



| Hydro-Quebec

Not everyone agreed with the Massachusetts decision.

"Providing long-term guarantees to the two largest utilities in the region is the wrong way forward for Massachusetts," New England Power Generators Association President Dan Dolan said in a statement. "Eversource and Hydro-Québec are asking for Massachusetts consumers to guarantee them revenue through an above-market contract for electricity for the next two decades. Eversource wrote the RFP, and by picking their own project as the winner, have made consumers the losers."

Northern Pass route map | *Eversource*

The Conservation Law Foundation earlier this month tried to sway Baker against the project with a full-page ad in *The Boston Globe*, saying Northern Pass should be disqualified on environmental and ethical grounds, and accusing the developers of having misrepresented in its bid the level of public support the project enjoys in New Hampshire.

No Wind Today

Northern Pass's win came one day after Maine Gov. Paul LePage imposed a moratorium on new wind energy projects in western and coastal Maine and set up a commission to study the effect of wind turbines on tourism. Jeremy Payne, executive director of the Maine Renewable Energy Association, called the governor's action "an attempt to thwart billions of dollars of investment that is looking at Maine," according to the *Portland Press*

Continued on page 12

ISO-NE NEWS

Northern Pass Cleans up in Massachusetts RFP

Continued from page 11

Herald.

Chris O'Neil, a Portland-based consultant and former state representative who often lobbies for wind energy opponents in Maine's capital, told *RTO Insider* that Massachusetts did the right thing by ignoring Maine wind in its search for clean energy.

"The RFP scoring is more favorable to dispatchable power that can guarantee 9.4 TWh ... because the ISO-NE has lost and is losing some 5,000 MW of baseload and peak load generation," O'Neil said. "Wind cannot perform these baseload and peak load functions. What New England needs is the good stuff. But the ISO-NE would do well to move forward with the other two HVDC projects also."

He was referring to Maine-based Emera's proposed Atlantic Link, a 375-mile submarine HVDC transmission line from New Brunswick to Plymouth, Mass., to deliver 5.69 TWh of clean energy per year; and National Grid and Citizens Energy's Granite State Power Link, a 59-mile HVDC line from northern Vermont to New Hampshire that would deliver 1,200 MW of new wind power from Canada.

But Wind is Coming

But if wind energy was a loser in the most recent solicitation, its prospects are brighter elsewhere. Baker last year signed a law requiring Massachusetts to contract for 1,200 MW of renewable energy, including hydro, onshore wind and solar. A separate clause in the Act to Promote Energy Diversity mandated that the state solicit proposals for at least 1,600 MW of offshore wind energy, which it did in December.

Those projects will be selected in April with contracts due to be submitted at the end of July.

Bay State Wind, a joint venture between Ørsted and Eversource, proposed building either a 400-MW or 800-MW wind farm 25 miles off New Bedford. It would be paired with a 55-MW battery storage facility.

Deepwater Wind proposed two versions of Revolution Wind, a wind farm of consisting of about 25 turbines generating 200 MW, or a project double that size to generate 400 MW. Deepwater is proposing to firm up the project's output through an agreement with the 1,200-MW Northfield Mountain hydroelectric pumped storage facility operated by FirstLight Power Resources.

Vineyard Wind, a joint venture of Avangrid Renewables and Copenhagen Infrastructure Partners submitted proposals for 400-MW and 800-MW wind farms, with approximately 50 and 100 turbines, respectively. (See Mass. Receives Three OSW Proposals, Including Storage, Tx.)

ISO-NE News

FERC Denies CPower DR Audit Waiver

By Michael Kuser

FERC last week denied CPower's request for a one-time waiver to replace the results of a failed demand response audit with those of a more successful one conducted a week later (ER18-185).

In its request, the energy management company said that it had asked ISO-NE on July 17, 2017, to perform an audit of its real-time demand response resources (RTDRs). But when the RTO initiated the audit July 19, a communications problem prevented CPower from receiving the audit dispatch signal, causing most of the company's resources to fail to perform. CPower pointed out that ISO-NE is the only RTO in the country that does not back up DR dispatch signals with an email, text message or phone call.

As a result of the failed audit, CPower concluded the month with a demand reduction value of nearly zero.

ISO-NE's Tariff requires seasonal testing of RTDRs to establish their capabilities and ensure they are available to respond during an emergency event.

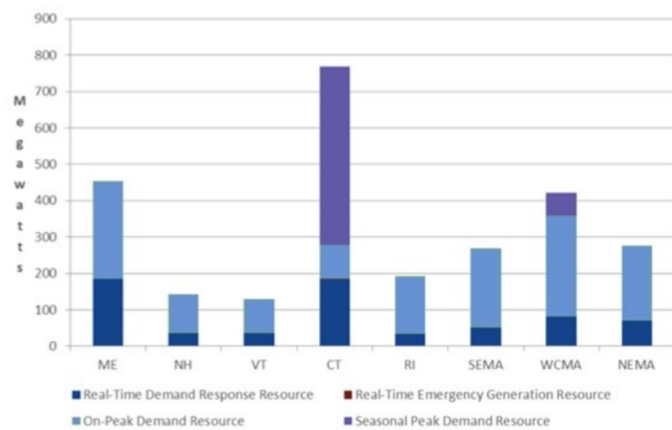
The RTO suggested that CPower request a second audit to "mitigate partially" the negative impacts of the first. A July 26 audit demonstrated 94% of the claimed capacity that CPower had registered in the RTDR program, and the company asked the grid operator to replace the July 19 results with those of July 26.

ISO-NE denied the request, saying its Tariff stipulates that a second audit cannot replace an initial audit conducted during that same month. It further argued that allowing RTDRs "another bite at the apple" to replace a poor performance during an audit could compromise the significance of such audits or impact future performance.

The RTO also said that granting the waiver would harm third parties by requiring the resettlement of capacity payments away from resources that followed dispatch instructions and performed well during their audits.

FERC agreed with ISO-NE, saying that CPower's request was "not of limited scope because it would require rerunning market settlements" and thereby affect other market participants. The commission also noted that allowing resettlement would result in preferential treatment for CPower compared with other RTDRs that also performed poorly in the audits.

"Further, granting waiver would have broad implications on the effectiveness of auditing rules. It could undermine the integrity of audits — which by their nature test performance during unpredictable conditions — and impact future performance of RTDR," the commission said.



| ISO-NE

ISO-NE NEWS

FERC OKs ISO-NE FCA 12 Filing; Rejects Protests

By Michael Kuser

FERC accepted ISO-NE's informational filing for Forward Capacity Auction 12, rejecting protests from a demand response provider and renewable generators over qualification rules (ER18-264).

The commission's Jan. 19 order agreed with the RTO's list of resources that qualified for the Feb. 5 auction for the 2021/22 delivery year. It also approved the three capacity zones to be modeled, which are unchanged from FCA 11.

Efficiency Maine Trust — a quasi-state agency that administers energy efficiency programs in Maine and is overseen by the state Public Utilities Commission — protested the RTO's methodology for calculating existing capacity qualification values.

The agency said ISO-NE inappropriately subtracts the amount of expiring measures from a demand resource's qualified capacity from a prior FCA, rather than from the demand resource's actual and known performance capacity, as reported in ISO-NE's energy efficiency measure database.

ISO-NE rules define qualified capacity — the quantity for which a capacity supplier is compensated — as the lower of the resource's summer or winter qualified capacity. When a capacity supplier's summer and winter qualified capacity is significantly different, as is the case with the Efficiency Maine programs, the supplier will not receive compensation for the higher seasonal capacity unless it can pair the higher capacity with other resources in a composite offer.

Efficiency Maine said the RTO's rules would deny it compensation for $3.7 million in capacity for FCA 12, although it said it has been able to reduce the loss to $1.5 million through composite offers covering its entire qualified summer capacity.

The commission said Efficiency Maine projects performed above their qualified capacity because measures installed after the initial clearing of the resources.

"We agree with ISO-NE that Efficiency Maine should have sought to qualify any additional capacity prior to such additional measures being in service. Accordingly, to the extent that the Efficiency Maine projects' overperformance is the result of Efficiency Maine's failure to seek to clear new incremental capacity in the FCA, we find it inappropriate to now mitigate the consequences of that action (or inaction) through changes to the demand resource methodology."

The commission also agreed with the RTO "that it would be inappropriate for the commission to require ISO-NE to use Efficiency Maine's proposed methodology for the Efficiency Maine projects while still using the current demand response methodology for all other energy efficiency resources with expiring measures."

Renewable Technology Resource Exemption

The commission also rejected a joint protest by CPower and Tesla, which combined to enter Tesla's SolarCity rooftop generation into the auction.

The companies asked the commission to require ISO-NE to re-evaluate the renewable technology resource (RTR) designation for five solar projects and one combined solar and fuel cell project.

The projects passed the RTO's qualification process and were assigned the default offer review trigger price (ORTP) — a price floor based on the cost of new entry — of $12.864/kW-month. CPower said it did not challenge the ORTP because it sought to use the RTR exemption to receive an offer floor price of $0/kW-month.

RTO rules permit up to 200 MW of RTR exemptions annually to renewable resources receiving out-of-market revenue through state renewable portfolio programs.

In October, however, ISO-NE rejected CPower's application as incomplete. CPower contended the additional information the RTO requested meant that new resources must already be accepted into a state RPS program and receiving revenue to qualify for RTR designation, contrary to the RTO's Tariff.

ISO-NE responded that although CPower's qualification package was sufficient to determine an appropriate capacity amount to qualify each resource, it lacked details necessary to determine whether each resource met the requirements for an RTR designation.

The commission sided with the RTO.

"Although CPower's qualification package contains some location-specific information and that CPower's RTR submittal contains general information on possibly applicable RPS statues and regulations, we agree with ISO-NE that neither sufficiently enable ISO-NE to determine the specific provisions and manner (e.g., on an individual or aggregate basis) in which the renewable projects seek RPS qualification," the commission said.

"We agree that such specificity is necessary for ISO-NE to have sufficient certainty that the renewable projects will still qualify as RTR resources by the time of the relevant capacity commitment period. Thus, we find that CPower failed to comply with the Tariff's requirements to obtain RTR designation."

Zones and Resources

As in FCA 11, ISO-NE will model three capacity zones in FCA 12: Southeastern New England (Southeastern Massachusetts, Rhode Island and Northeastern Massachusetts/Boston), which will be modeled as import constrained; Northern New England (Maine, New Hampshire and Vermont), which will be modeled as export constrained; and Rest of Pool (Connecticut and Western/Central Massachusetts).

The installed capacity requirement (ICR) is 34,683 MW. After accounting for 958 MW per month of Hydro-Québec interconnection capability credits, FCA 12 will procure a net ICR of 33,725 MW.

ISO-NE qualified 5,605 MW of new resources and 35,007 MW of existing resources: 30,702 MW from intermittent and non-intermittent generation; 82 MW from imports; and 3,224 MW from demand resources.

The RTO said 2,309 MW of static de-list bids — one-year exemptions from the auction — were submitted for FCA 12.

MISO NEWS

MISO Seeks Stakeholder Input on Foxconn Decision

By Amanda Durish Cook

MISO last week said it will hold off on a decision to expedite its review of a proposal to interconnect Foxconn's massive electronics plant planned for southeastern Wisconsin until it gets more feedback from stakeholders.

Mount Pleasant Tech Interconnection Project | *MISO*

The RTO's studies of American Transmission Co.'s plan to interconnect the Foxconn plant concluded the project is suitable for recommendation to the Board of Directors under the normal approval timeline for the 2018 Transmission Expansion Plan. But MISO is stopping short of granting expedited status until it hears stakeholder opinions at a Feb. 14 Planning Advisory Committee meeting.

ATC submitted the request for accelerated approval, contending that the proposed $140 million Mount Pleasant Tech Interconnection Project to hook up the $10 billion electronic manufacturing plant with We Energies' network cannot wait until the usual approvals at the end of the year as part of MTEP 18. ATC has proposed constructing a 14-mile 345-kV transmission line, a new 345/138-kV substation and new underground 138-kV lines to connect the substation to a smaller Foxconn-owned substation near the plant. The transmission developer said it received We Energies' request to construct the infrastructure in mid-October and notified MISO of the need for expedited approval in late November.

MISO's studies have found the project will have no adverse impact on system reliability, with the project meeting NERC and ATC local planning reliability criteria.

Minimal Economic Benefits

But MISO also determined that potential systemwide economic gains from the Foxconn project fall far short of the threshold for qualifying as a market efficiency project eligible for competitive bidding or broader cost allocation.

During a Jan. 25 conference call, MISO economic analyst Nicholas Przybilla said the RTO found the benefit-cost ratio of the project would likely be 0.009:1, well below the 1.25:1 requirement for market efficiency projects. He said the economic assessment was provided for informational purposes only, as the lead time and projected December 2019 in-service date are too short for consideration anyway.

Michigan Public Service Commission staffer Bonnie Janssen asked why the economic benefits were so low.

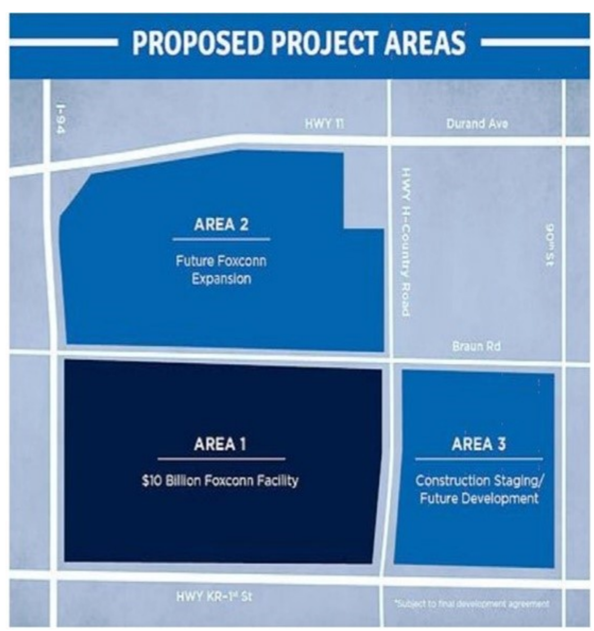
"There is a decent amount of interconnect in the area already," Przybilla said.

Earlier this month, three Milwaukee aldermen questioned We Energies and ATC's plan to pass the costs of the interconnection to ratepayers, given that the project stands to benefit just one large industrial customer. (See *Milwaukee Signals Fight Against Foxconn Interconnection Plan*.)

In response to a question from Kavita Maini, an economist for Midwest Industrial Customers, MISO said its study relied solely on ATC's 230-MW load projection for the plant, rather than considering any other forecasts. ATC staff at the meeting said they determined that figure was credible after examining similar manufacturing plants in Asia.

Joseph Dunn, MISO West Region expansion planning engineer, said ATC provided an $130 million alternative proposal that would loop existing 345-kV lines into the new substation, but the RTO found the project would result in inferior reliability and more right-of-way approvals when compared to the original project.

If approved, ATC's interconnection project will eliminate the need for the $12 million reconstruction of a 345-kV bus in Racine, Wisc., that was originally approved in the MTEP 16 cycle. That smaller project also has a December 2019 in-service date, but MISO staff said it will be withdrawn should ATC's project win approval.



| *MISO*

MISO News

EDF Renewable Wins Platform for Queue Concerns

By Amanda Durish Cook

EDF Renewable Energy will get a shot at taking its gripes about MISO's interconnection process to a wider group of the RTO's stakeholders.

In a unanimous vote Wednesday, MISO's Steering Committee agreed to forward the company's grievance about the length of the interconnection queue for further discussion in the RTO's Planning Advisory Committee.

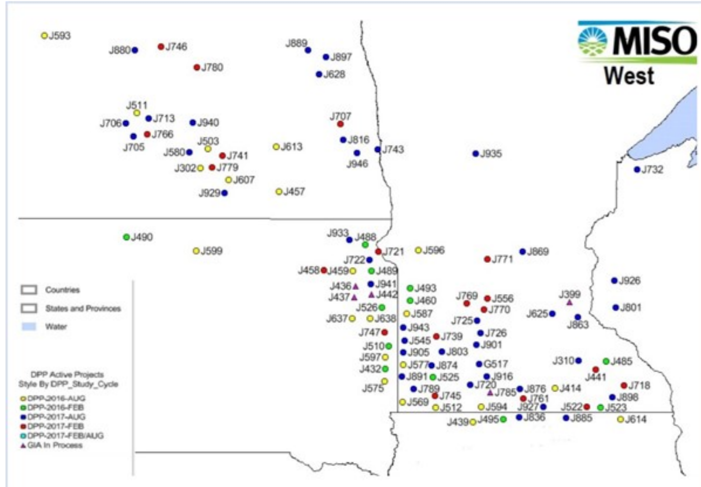
Still, some committee members expressed concern over similarities between EDF's request to examine interconnection timelines and its recent FERC complaint about the structure of the queue. (See *Renewables Developer Escalates MISO Queue Design Dispute*.)

EDF, which asked the Steering Committee for an issue assignment in November, is still advocating for a two-stage interconnection queue process, rather than the current three stages. The company on Wednesday again asked committee members to consider how MISO could increase the pace of interconnections after RTO planners won approval for a new, streamlined design last year.

MISO Director of Stakeholder Affairs Shawna Lake said the RTO still believes it's "premature" to make changes to the recently FERC-approved design before completion of a full cycle of queue studies.

"There are very, very long delays happening now, and we're thinking there's a way to tighten this up," Bruce Grabow, an attorney representing the company, said during the committee's Jan. 24 conference call. For starters, MISO could require secured site control for new generation, instead of a deposit, he said. The queue currently contains 355 projects representing 60 GW, the largest number of prospective projects in a decade.

EDF provided similar background earlier this month in its FERC complaint, which asked the commission to order a "workable" interconnection timeline to ensure that wind developers can secure federal production tax credits (PTCs) before they expire at the end of 2020.



Queued projects in MISO West | *MISO*

But during Wednesday's call, Grabow said EDF's FERC complaint is entirely different from its committee request because the complaint focuses narrowly on speeding up studies only for wind developers and others impacted by PTC deadlines. Grabow predicted that even if FERC found fault with the queue process, queue entrants not relying on PTCs would continue within the current three-stage queue.

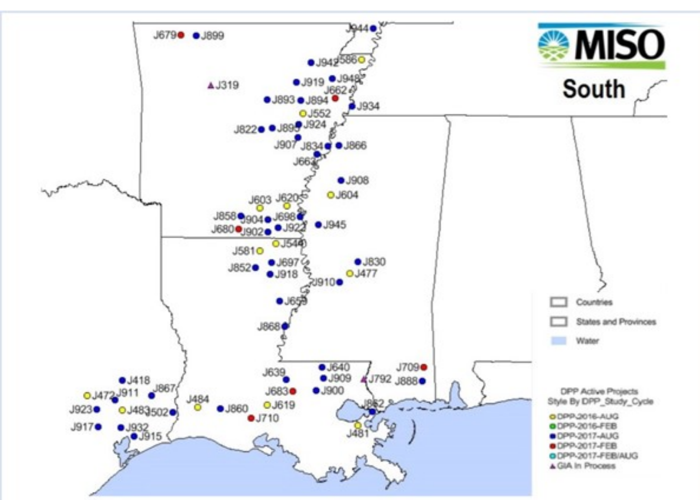
"There's no way FERC would issue something that would impact the three-stage queue," said Grabow, eliciting some skepticism from the committee.

Steering Committee Chair Tia Elliott suggested that EDF craft a fuller explanation of how the two arguments differ and where overlap might occur.

Two weeks after EDF lodged its complaint, RTO staff introduced a new feedback form designed specifically to capture stakeholder opinions on issues discussed during Interconnection Process Task Force meetings, in addition to other advice related to the queue. (See *MISO Seeks Stakeholder Input as Queue Timeline Lengthens*.)

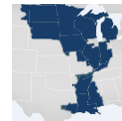
MISO's most recent predictions for the August 2017 cycle of projects in the queue indicate that most are expected to wrap up in February or March 2019, except in the Upper Peninsula area of MISO East, where projects are slated to finish this December. But in the wind-heavy MISO West region, projects are expected to clear the definitive planning phase (DPP) of the queue as late as July 3, 2019.

The RTO's queue reform was intended to reduce the number of days that interconnection customers spend in the DPP from an average of 589 days to 460. Customers that entered the August 2017 cycle are currently predicted to spend an average of 579 days in the DPP before signing an interconnection agreement.



Queued projects in MISO South | *MISO*

MISO NEWS



MISO Staff, Stakeholders Envision Expanded Storage Participation

By Amanda Durish Cook

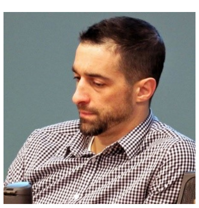
CARMEL, Ind. — MISO officials last week suggested more ways for energy storage devices to participate in the footprint in the future but didn't commit to any final courses of action.

The measures could involve generator-and-storage interconnection combinations and competitive bidding on storage projects that solve transmission issues, stakeholders learned at a Jan. 23 Energy Storage Task Force meeting. Created last year, the task force's mission is to identify storage-related grid and market obstacles and forward them to the Steering Committee for assignment to other stakeholder committees. (See *MISO Storage Task Force Defines Role, Seeks Plan* and *MISO in 2018: Storage, Software, Settlements and Studies*.)

Jeff Webb | *© RTO Insider*

MISO Director of Planning Jeff Webb told the storage task force that the Interconnection Process Task Force later this year will discuss how "hybrid interconnections" — where, for example, wind generation and energy storage join the grid at the same point of interconnection — would proceed through the interconnection queue.

"The hybrid systems are a really big deal, so I'm happy to see co-located systems on the screen," task force Chair John Fernandes said, gesturing to the presentation.



John Fernandes | *© RTO Insider*

No Traction

Wind on the Wires' Rhonda Peters said the hybrid interconnection discussion failed to gain much traction in the task force last year, in part because MISO staff said they had to run proposals past the RTO's legal department.

MISO also hasn't added a storage option to the requirement that its planners consider alternatives to transmission construction, according to Webb. It finalized its non-transmission alternatives Business Practices Manual in August without including storage devices.

Webb said MISO will have to make several decisions before storage solutions can be pursued instead of new wires, including how many peak hours per day a storage device will be available to solve congestion.

Storage projects could be cost-shared and competitively bid if they solve issues typically handled by market efficiency projects, Webb said; MISO's 345-kV minimum requirement will have to be reassessed, he added.

MISO also must address its practice of only allowing transmission developers to propose projects to address transmission reliability issues, he said. Webb also said MISO has yet to explore how it can gauge the adjusted production costs of storage projects or how storage-as-wires dispatch will be handled — that is, whether the RTO or the storage owner will take functional control.

Indiana Utility Regulatory Commission staffer Dave Johnston said that if storage owners elect to have their devices function as transmission service, MISO should assume dispatch control.

"I'm not certainly going to sit here and say it's this task force's duty to try and change that," Fernandes replied.

Webb also said stakeholders must consider retirement provisions for storage-as-transmission, saying that a "suitable" lead time might be the current three-year lead notice required of traditional transmission assets. "You can't replace it with a transmission solution overnight. It takes years," he said.

"This all could very well be a 'be careful what you wish for' for storage owners," Fernandes said. "These are excellent points that need to be considered."

Kim Sperry | *© RTO Insider*

Storage could be eligible to provide black start service in MISO, if resource owners pledge a three-year commitment and MISO adjusts some restrictions it imposes beyond the NERC definition of black start resources, said Kim Sperry, the RTO's director of market engineering.

Customized Energy Solutions' David Sapper urged MISO and stakeholders to consider how storage could earn auction revenue rights and financial transmission rights.

Current Options for Storage

Sperry said the RTO currently has only one market definition unique to storage: Stored Energy Resource Type I, which can participate only as regulating reserves. Sperry said storage can also participate as either a demand response, emergency DR or load-modifying resource.

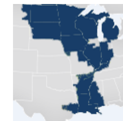
MISO asked FERC in April to allow creation of a Stored Energy Resource Type II Tariff definition following Indianapolis Power and Light's complaint against the RTO's restrictive storage participation rules (ER17-1376). (See *MISO Rules Must Bend for Storage, Stakeholders Say*.) A Type II resource must be able to continuously discharge for four consecutive operating hours across a coincident peak each day. In return, it will be able to function as DR in the day-ahead market and can participate in the annual capacity auction.

We Energies' Tony Jankowski asked if MISO would create provisions to prohibit a storage device from withdrawing at will from markets to operate as a behind-the-meter resource. Sperry said the idea was to create rules that incent storage devices enough to participate visibly in MISO markets, in front of the meter.

Future task force talks will involve FERC's pending Notice of Proposed Rulemaking, which would require RTOs to allow storage resources of 100 kW and above to participate in capacity, energy and ancillary services markets (RM16-23). (See *FERC Rule Would Boost Energy Storage, DER*.)

But Fernandes warned task force attendees "not to rely too heavily" on the rulemaking to guide the task force's work. Only one of the current commissioners — Cheryl LaFleur — took part in drafting the NOPR, Fernandes noted, and the newcomers could make changes in the final order.

MISO NEWS



Informational Forum Briefs

MISO Asks Stakeholders for Resilience Elements

CARMEL, Ind. — MISO is asking stakeholders to put pen to paper by spring to describe how the RTO should measure grid resilience.

Stakeholders will participate in a broad discussion of what constitutes resilience during MISO Board of Directors Week in late March. And the RTO has asked each stakeholder sector to prepare its own whitepaper on the topic.

During a Jan. 23 Informational Forum, MISO CEO John Bear celebrated FERC's recent decision to reject Energy Secretary Rick Perry's proposed rulemaking to financially support nuclear and coal-fired generators, instead requiring RTOs to answer questions about how they assess resilience. (See *DOE NOPR Rejected, 'Resilience' Debate Turns to RTOs, States*.) Bear said MISO is committed to promoting reliability and resilience throughout its footprint, emphasizing that no near-term reliability issues exist, attributable in part to the RTO's partnership with state regulators.

DOE's original rulemaking timeline didn't allow for "reasoned decision-making and thoughtful review," Bear added.

"A one-size fits-all wasn't feasible in MISO given our diverse footprint," he said, promising to work with stakeholders in drafting a response to the order. MISO Director of Planning Jeff Webb last week said the RTO is still holding internal meetings to formulate its response.

MISO Website Officially Migrates

MISO's officially launched its redesigned website on Jan. 16, and market reports and real-time data feeds are up and running, said Kacey George, the RTO's digital strategy adviser.

"We had 12 million hits on the first day," George said.

MISO expects to upload planning and training materials as well as leadership and governance pages by the end of the month, she said. Staff must also address a few bugs, namely involving some member pages related to the interconnection queue.

The old website will be preserved at old.misoenergy.org into spring as a contingency, should something go wrong with the new site. (See *Winter Launch for MISO Website, Market System Project*.)

December Ops

Lower natural gas prices and relatively light congestion translated into lower year-over-year prices for MISO in December despite slightly higher load.

Shawn McFarlane, MISO executive director of strategy, said average temperatures in the RTO's footprint last month ranged from 1 to 6 degrees Fahrenheit colder than the 30-year average, driving the increase in load. But prices averaged $27.26/MWh, 11% lower than the same period a year earlier.

"We were about $3/MWh lower than what we saw last year," McFarlane said.

He credited the lower prices to a 25-cents/MMBtu drop in gas prices and lower congestion compared with the previous December. Average load was up 0.8 GW to 77.7 GW, and load peaked at 98.8 GW on Dec. 27, a 5.8% increase over the average monthly high.

"Multiple rounds of arctic air swept through the footprint" during the month, McFarlane

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said, making load forecasting challenging and leading to two days with a poor unit commitment score in MISO's monthly self-assessment.

"Holiday loads ... are always kind of tricky to figure out," he said.

McFarlane also said MISO had to manage high market-to-market congestion with SPP in December because of high wind output and transmission outages in SPP.

MISO Shuffles Leadership

MISO has made several leadership changes in the new year, Bear said.

Todd Ramey will now exclusively head MISO's market platform replacement effort, leaving his role of vice president of system operations to become vice president of system enhancements, a new position. MISO is poised to spend $130 million by 2024 to replace its aging market platform with a more adaptable modular system.

Former Executive Vice President of Operations and Corporate Services Richard Doying will step away from the operational side of MISO to focus exclusively on designing a market for the future.

"Everything is on the table here," Bear said of Doying's new role. "Put some simulations in place and stress it. What concerns me is not so much the next five years, but the five years after that ... and the queue shows that. If we don't get ahead of the curve, we'll be chasing it."

Bear said the markets were designed in 2005 and not equipped for today's realities of more exact forecasting, high wind penetration and copious amounts of data.

"Quite frankly, it's hard to keep the system safe. It wasn't designed for the environment we live in today," Bear said.

Finally, MISO South Vice President Todd Hillman will transition to become head of external affairs.

Additionally, in December, MISO revealed a plan of executive succession that promoted Clair Moeller from vice president to president of MISO, and will have Moeller stepping into the role of CEO should something unforeseen happen to Bear. (See *MISO Board Promotes Moeller, OKs 2018 Budget*.)

Entergy New Orleans CEO Talks Big Easy Challenges

MISO welcomed Entergy New Orleans CEO Charles Rice during the meeting for a brief conversation of the challenges and considerations of powering the Big Easy.

"It's a pretty unique place in terms of the population density and the geography. We're surrounded by water on three sides. For us to import power into the City of New Orleans is very challenging and very difficult," Rice said.

The city has little right-of-way space for additional transmission lines, Rice added.

The CEO highlighted the need for the planned, $210 million, 128-MW natural gas-fired plant within city limits at the site of Entergy's retired Michoud plant. He has previously warned that the city has only 1 MW of generation within its borders and needs a more reliable, onsite generation source. The proposed plant currently awaits New Orleans City Council approval; city advisers rejected an earlier proposal from the utility for a larger, more expensive plant.

Hillman asked how Entergy New Orleans plans to prepare for the increased likelihood of another hurricane.

"We never stop preparing. We prepare year-round for hurricanes," Rice said. "And after ... we take a look at what went right, what went wrong."

Entergy is still in the process of replacing natural gas pipelines damaged by Hurricane Katrina in 2005. "Right now, we're probably focused on the largest gas infrastructure project in the country," Rice said.

Rice said New Orleans' demographics make providing utility service a delicate balance: "37% of my customers live at or below the poverty level, so I'm always thinking of that," Rice said. "When we make decisions, we have to make sure it's something our customers can afford."

He said New Orleans is making strides in its goal of having up to 100 MW of rooftop solar located within the city and will pursue other new technologies, such as building microgrids at hospitals in the coming years.

"There's going to come a time when customers are going to want to have 100% control of their energy," Rice said. "If customers want a microgrid, we have to give them a microgrid. If they want rooftop solar, we're going to have to figure out how to make that work."

MISO traditionally holds its springtime quarterly board meeting within the city's French Quarter; this year's meetings will be held March 27-29.

— Amanda Durish Cook

MISO's Todd Hillman (left) and Entergy New Orleans CEO Charles Rice | © *RTO Insider*

NYISO NEWS

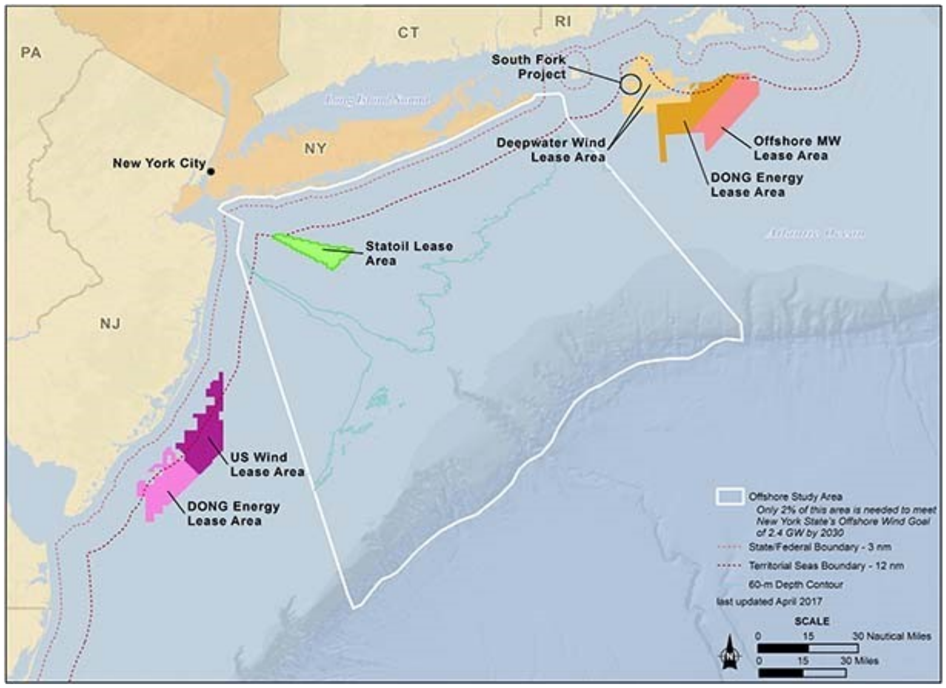
NY Offshore Wind Plan Faces Transmission Challenge

By Michael Kuser

A new plan released by the New York State Energy Research and Development Authority on Monday details how the state plans to develop 2,400 MW of offshore wind by 2030.

But a separate policy paper by the same agency outlines the challenges in meeting that goal — including the limited amount of transmission available to interconnect offshore wind during the program's initial solicitations for 800 MW of capacity over the next couple years.

The state's master plan projects that the full deployment of offshore turbines by 2030 would reduce greenhouse gas emissions by more than 5 million short tons, or approximately one-third the expected reductions from new renewable energy projects developed to meet the 50% renewable electricity target under the state's Clean Energy Standard. (See *New York Seeks to Lead US in Offshore Wind*.)



| NYSERDA

"While the federal government continues to turn its back on protecting natural resources and plots to open up our coastline to drilling, New York is doubling down on our commitment to renewable energy and the industries of tomorrow," Gov. Andrew Cuomo said.

Lisa Dix, New York senior representative for the Sierra Club, said the master plan "shows that a commitment to a steady stream of projects over the next decade" will create thousands of jobs while increasing the state's economic.

"But the state must act swiftly this year to issue a procurement and establish an enforceable long-term program, with a guarantee projects are built every year, the governor's targets are met and the climate, economic, manufacturing and jobs benefits are realized," she said.

In a Jan. 29 filing with the Public Service Commission, NYSERDA detailed how the wind energy areas available to compete for offshore wind procurements in 2018 and 2019 "are limited, dispersed and not readily expandable."

The agency said that an expandable "backbone" transmission system would offer the benefit of economies of scale and reduced barriers to entry, but it could also lead to overbuilding and stranded asset costs. A transmission system custom-built for a single offshore facility, the "direct radial" model, costs more and is limited in scope.

The real limit, however, is the industry's nascent stage of growth. The federal government has so far leased only one area off New York City, the April 2017 lease to Statoil, which is capable of hosting approximately 1,000 MW. However, the policy paper said that wind projects off Rhode Island, Massachusetts and New Jersey could conceivably interconnect directly to New York or interconnect within an adjacent control area with energy delivered to NYISO, which would make them eligible for procurement under the Clean Energy Standard.

"Offshore wind developers are ready to help New York meet the governor's goals, and are particularly interested in when and how they can compete for contracts and invest in New York," Anne Reynolds, director of the Alliance for Clean Energy New York, said in a statement. "The Offshore Wind Policy Options Paper lays out these procurement options. Nailing down these procurement details needs to be New York's next step."

Market Approaches

NYSERDA assumes that offshore wind deployments will be funded through a purchase obligation placed on load-serving entities and that procurement will be conducted through separate offshore wind solicitations, using a similar competitive process to that used for large-scale renewables under the state's Renewable Energy Standard Tier 1 procurements.

The agency offered several market-based approaches to procurement, including fixed renewable energy credits, bundled power purchase agreements, utility-owned generation and split PPAs. It also floated three varieties of offshore wind RECs (ORECs): market, index and forward.

For procurements during the first phase of the offshore wind program, NYSERDA expects ORECs to be more expensive than RECs sourced from other Tier 1 projects because of the higher capital costs for offshore. And while the fixed REC process is well-established, the price premium for offshore RECs could leave the agency financially exposed because it would act as the central procuring agency for the certificates.

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NYISO NEWS

New York Court to Consider ZEC Challenge

By Michael Kuser

The Albany County Supreme Court last week rejected New York's motions to dismiss outright a lawsuit challenging the state's Clean Energy Standard and provisions for zero-emission credit subsidies for nuclear plants.

The decision means that ZEC opponents will get their day in court, although the presiding judge did dismiss a handful of their complaints — as well as a number of the plaintiffs themselves.

Environmental group Hudson River Sloop Clearwater and 60 other litigants last year challenged the New York Public Service Commission's August 2016 order (15-E-0302) adopting the CES and creating the ZEC program.

The petitioners filed suit in response to a December 2016 PSC ruling that rejected nearly all requests to rehear the order. The PSC in that ruling noted that issues raised in other requests would be "further explored" in the future.

Chief among their complaints is that the commission rushed the CES without allowing sufficient time for public comment, violating provisions of New York's State Administrative Procedures Act and Public Service Law.

The suit challenges the provision of ratepayer subsidies in the form of ZECs to four nuclear plants in the state, including Entergy's Indian Point north of New York City and Exelon's three upstate plants: James A. Fitzpatrick, R.E. Ginna, and Nine Mile Point Units 1 and 2.

In his Jan. 22 ruling, Judge Roger D. McDonough declined to comment on the merits of the procedural claims made by the environmentalists and consumer advocates.

"In the absence of a proper motion for summary judgment or even a request for [procedural review], the court declines to entertain such discussions without the benefit of answers and the full administrative record," said the ruling, which provided the PSC 35 days to file its answers.

Procedural Review

McDonough did grant the PSC's motion to dismiss the petitioners' claims on Indian Point, finding them "unripe because they are wholly dependent upon Indian Point applying and being approved for ZEC payments."

The judge also dismissed 56 plaintiffs from the litigation for procedural reasons such as ripeness, standing and statute of limitations. He also dismissed a claim premised on the State Environmental Quality Review Act.

The plaintiffs, however, cheered the decision to reject the state's motion to dismiss the suit altogether. Manna Jo Greene, environmental director of Hudson River Sloop Clearwater, called it a "David versus Goliath" victory.

"We were opposed by the PSC, the nuclear energy plant owners ... but we prevailed and proved our issues are substantive and triable," Greene said in a statement.

The PSC declined to comment on the case.

The decision comes at the same time federal courts are hearing — or soon will hear — appeals on prior ZEC rulings in other states.

A three-judge panel of the 7th U.S. Circuit Court of Appeals on Jan. 3 heard oral arguments on Illinois' 2016 law. The Electric Power Supply Association and retail ratepayers are asking the court to overturn a district court ruling that dismissed their challenge last July. (See *Ill. ZECs Defenders Face Harsh Questioning on Appeal*.)

The 2nd Circuit Court is likely in March to hear an appeal on a similar district court ruling in New York.

NY Offshore Wind Plan Faces Transmission Challenge

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"To the extent that this premium would not be addressed through co-incentives, NYSERDA's blended REC price would increase — likely significantly — compared to its REC resale price without offshore wind," NYSERDA said. As a result, the agency might not be able to recover its costs through the sale of RECs and resort to the utility "backstop" funding obligation of the CES. The risk would be exacerbated by a fall in power prices.

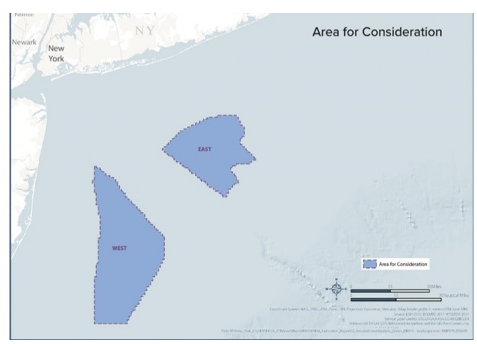
How LSEs Could Pay

NYSERDA also said the PSC could employ an allocation mechanism that set LSE compliance obligation levels according to actual production from offshore wind projects.

Like New York's zero-emission credits, these ORECs would be non-tradable and allocated to LSEs based on load.

The NYSERDA paper concluded that "under the allocation structure, the design of the dedicated offshore wind obligation could be set to achieve a much greater match between REC supply and target. Perfect alignment between REC supply and target could be achieved by setting the target for each period upon conclusion of the period to match exactly the available offshore wind REC volume."

While that approach would address NYSERDA's exposure to REC price differentials, it would foreclose the possibility of developing spot market price signals for ORECs, the agency acknowledged. Still, it did not consider that a big drawback given that offshore projects are not likely to respond to market signals for a long time because of their risk profiles.



| NYSERDA

NYSERDA will host two public webinars Feb. 13 to provide an overview of the Offshore Wind Master Plan and the next steps that New York will take to develop offshore wind.

PJM News

MRC/MC Briefs

Markets and Reliability Committee

No Consensus on Capacity Revisions

WILMINGTON, Del. — In a series of votes, stakeholders at last week's Markets and Reliability Committee meeting declined to endorse any proposals to revise PJM's capacity model, reiterating previously expressed support for the status quo.

The initial vote displayed in perhaps the most civil — and emphatic — way possible stakeholders' disapproval of PJM's decision to file its own changes for FERC approval instead of the plan endorsed by member committees.

At the behest of Bob O'Connell of Panda Power Funds, stakeholders postponed voting on the Tariff revisions previously endorsed by lower committees — an extension of the minimum offer price rule (MOPR-Ex) proposed by PJM's Independent Market Monitor — to allow for members to register an advisory vote on the RTO's proposed filing. That sector-weighted vote registered 3.93 out of 5 in opposition, definitively denouncing PJM's plan, which would add a second stage to capacity auctions to isolate subsidized offers and subsequently revise the clearing price if approved. (See *PJM Going it Alone on Capacity Repricing Plan*.)

The unexpected vote came after PJM's Stu Bresler defended the RTO's decision and highlighted additional revisions from previous versions of the proposal, including an exemption from repricing for any generators of 20 MW or less and returning to the "net CONE [cost of new entry] times B" formula for developing subsidized units' adjusted offers if their avoidable cost rate (ACR) couldn't be used.

Several stakeholders critiqued the proposal.

"We're concerned that what PJM has put on the table doesn't quite get us there," NRG Energy's Neal Fitch said. He noted that his company has generally supported the two-stage repricing concept but prefers a version it proposed that would lower capacity commitments for bids that cleared in the first stage to address "in-between" units, with commitments for all resources then proportionally reduced below their offer amounts.

Carl Johnson, who represents the PJM Public Power Coalition, said the proposal goes "beyond accommodating state policies" and creates "a race to the bottom to secure state subsidies."

"I just don't feel like we've gotten" to the best option, said Greg Poulos, executive director of the Consumer Advocates of the PJM States.

"Subsidies are contagious. We think PJM's proposal is not an adequate vaccine and MOPR-Ex is," Monitor Joe Bowring said.

When focus returned to the MOPR-Ex proposal, proponents were left deflated by a series of failed votes. To acquire additional votes, the Monitor had previously revised the details of its proposal from the version that was endorsed by lower committees. However, PJM's rules require a vote on the endorsed version, so stakeholders voted that down — with 3.83 opposed in a sector-weighted vote — so they could consider the revised version as an alternative proposal.

> **"Subsidies are contagious. We think PJM's proposal is not an adequate vaccine and MOPR-Ex is."**
>
> **Joe Bowring, Market Monitor**

Exelon reiterated criticism of Bowring's efforts to secure votes.

"They're a product of wheeling and dealing to get a Section 205 filing," Exelon's Sharon Midgley said.

The Old Dominion Electric Cooperative and Panda received approval for some friendly amendments, but that vote failed the two-thirds threshold, with only 3.02. A vote without the friendly amendments followed, but that also failed with 3.19 in favor.

Transmission Flashpoint

Customers flexed their muscles at last week's MRC meeting, rejecting proposed Manual 14F changes. The revisions, backed by transmission owners, would allow PJM to consider caps on construction costs when evaluating transmission proposals. A vote on the motion, which required two-thirds approval in a sector-weighted vote, instead received nearly two-thirds in opposition, gathering just 1.71 in favor out of 5.

The vote was prefaced by an alternative proposal brought by LS Power's Sharon Segner that would require PJM to consider construction cost caps but also revenue requirement caps. Segner's proposal garnered strong support from consumers, transmission customers and the Monitor, who urged support for any measures that increase competition.

The alternate proposal was the culmination of several months' debate on the issue at special sessions of the Planning Committee, where proponents of additional cost-containment consideration consistently clashed with TOs, who argued that construction cost caps represented the limit of their willingness to compromise. (See "Cost Cap Discussion Continues," *PJM PC/TEAC Briefs: Jan. 11, 2018*.)

Proponents of additional cost-containment provisions argue they're used in other RTOs/ISOs, but PJM staff warned that the differences in the RTO's proposed procedures make adding those considerations impossible. PJM's sponsorship model allows bidders to propose innovative solutions to RTO-identified problems, whereas other grid operators' processes define the parameters of the project and ask bidders to compete on price and innovative rate-recovery strategies.

"If we're going to pursue this approach … we're going to have to look at the entire competitive construct because we cannot fit that amount of evaluation into the planning cycle we have," PJM's Steve Herling said. "It would require, I think, a fairly fundamental structural reworking. We can certainly do that, but we cannot proceed by simply shoehorning this into our current cycle."

TOs criticized the lateness of the alternative proposal, pointing out that the primary proposal was developed through the stakeholder process while the alternative set a precedent that members can just bring their own proposals to the MRC when they don't get their way in the lower committees.

The primary proposal included "considerable compromise," FirstEnergy's Jim Benchek said, and "holding [the issue] hostage" with an alternative proposal "to restart the debate" is "both wrong and a disservice to the stakeholder process."

State consumer advocates defended the proposal, saying the focus should be on the quality of the proposal rather than when it

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PJM NEWS

NJ Senate Ushers in Revamped Nuclear Bailout Bill

By Peter Key

New Jersey Democrats last week introduced a reworked version of a nuclear bailout bill that didn't come to a vote in the state legislature's recent lame-duck session.

The bill, submitted Thursday by New Jersey Senate President Steve Sweeney and Sen. Bob Smith, is supported by Public Service Enterprise Group, the operator and majority owner of the Salem and Hope Creek nuclear generating stations.

The senators introduced the bill a day after the Associated Press reported that it had obtained records showing that PSEG lobbyists worked with the administration of former Gov. Chris Christie (R) to strengthen language in the earlier version of the bill meant to keep the company's financial information confidential. That version, which would have provided upward of $300 million annually to nuclear operators, failed when Speaker of the General Assembly Vincent Prieto declined to post it for a vote earlier this month. (See *NJ Lawmakers Pass on Nuke Bailout in Lame Duck Session*.)

PSEG said the language was standard and intended to protect proprietary information, but the revelation intensified criticism that the company's nuclear plants don't need subsidies to continue operating. PSEG has said the plants will become unprofitable within two years and that it will have to close them, putting thousands out of work and eliminating a zero-emission

New Jersey Sens. Bob Smith (left) and Steve Sweeney

source of energy that produces 40% of New Jersey's power.

Sweeney said the new legislation requires PSEG to show the need for the subsidy, which could cost each New Jersey electric ratepayer $41 per year. To address concerns by Gov. Phil Murphy that the previous version didn't boost the use of renewable energy, the bill also includes provisions for energy-efficiency standards and solar energy credits, and would give neighborhoods a new way to invest in solar projects. The bill would also create a financial assistance program for offshore wind projects.

A controversial provision of the bill would prevent New Jersey's Division of Rate Counsel from taking part in proceedings to determine whether the subsidy for the plants is necessary. Smith said the division is only allowed to participate in proceedings involving regulated companies, and the subsidiary of PSEG that operates the nuclear plants isn't regulated by the state. Stefanie Brand, who directs the division, said it would have to be involved in proceedings involving the plants, or they would be "a sham."

The earlier version of the bill was expected to be voted on in committee Thursday, but Sweeney moved back the vote to Feb. 5 to give interested parties more time to review the measure.

The Assembly has not taken any action on the bill.

Murphy Signs Order to Start Bringing State Back into RGGI

Murphy on Monday signed an executive order directing the heads of the Department of Environmental Protection and Board of Public Utilities to begin negotiations with states in the Regional Greenhouse Gas Initiative to determine the best way for New Jersey to rejoin it.

Christie had taken the state out of the regional cap-and-trade program, which caps the amount of carbon dioxide emissions for each state and requires power plants in each state to buy allowances, either through auctions or on the secondary market, for the carbon dioxide they emit.

Participating states use revenue from the auctions for energy efficiency and renewable projects. An analysis by Acadia Center found that New Jersey had foregone $232 million in RGGI auction revenue since Christie pulled it out of the initiative in 2011.

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was filed, and criticized the primary proposal for having no mechanism to hold contractors to the construction cost caps they set.

Segner's proposal was seconded by Erik Heinle of the D.C. Office of the People's Counsel.

"We believe this is really in the best interest not just of our consumers but everybody in this room," he said.

EDP Renewables' John Brodbeck asked whether either proposal moved the ball forward on the overall goal of getting transmission projects completed faster.

"The purpose here is really to evaluate what is the right project to expand the system, so we want to encourage innovative projects without impeding innovative rate structures," PJM's Sue Glatz said.

Proponents of the main motion beat a tactical retreat after its defeat, calling for a deferral on the alternative motion for more discussion at the PC. Several transmission customers agreed, and members approved a motion to defer the vote until no later than May's MRC meeting.

Resilience Definition

PJM's Chris O'Hara asked stakeholders for comments on the definitions of "resilience" proposed by FERC and the RTO. PJM's definition is more concise than FERC's, but it misses some of the mitigation nuance that the commission's includes.

The commission has ordered RTOs and states to weigh in on the meaning of resilience after it rejected the Department of Energy's Notice of Proposed Rulemaking that would have provided price supports to ailing coal and nuclear generators.

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PJM NEWS

FERC Grants PJM Waiver of MOPR Exemption Deadlines

By Robert Mullin

Some PJM generators will have additional time to submit unit-specific exemptions to the minimum offer price rule (MOPR) before the RTO's capacity auction next month under a Tariff waiver approved by FERC last week.

The decision (ER18-489) comes a month after the commission for a second time again rejected PJM's 2012 MOPR compromise, which would have permitted categorical exemptions to the price rule (ER13-535-004). FERC had ruled that it was unreasonable for PJM to remove unit-specific exemptions and also directed the RTO to eliminate the proposed categorical exemptions. (See *On Remand, FERC Rejects PJM MOPR Compromise*.)

The commission issued last month's order on remand after the D.C. Circuit Court of Appeals last July found FERC had overstepped its "passive and reactive role" in undoing the compromise and suggesting the inclusion of unit-specific exemptions to the MOPR, which PJM had adopted in a compliance filing. (See *PJM MOPR Order Reversed; FERC Overstepped, Court Says*.)

In response to the December ruling, PJM asked for a one-time waiver of a Tariff provision that requires sellers to apply for unit-specific MOPR exemptions 135 days in advance of the third 2018/19 Incremental Auction slated for Feb. 26. Unsure of the outcome of FERC's remand order, some sellers preparing for the auction opted last October to apply for the categorical exemptions — leaving them outside the deadline for seeking unit-specific exceptions once the commission had rejected PJM's proposed rules.

The timing of the remand order also meant that Tariff-based deadlines had slipped for PJM and its Independent Market Monitor to provide a seller their respective determinations on the unit-specific request — and for the seller to commit to an offer price.

"As a result of these already-passed or plainly impracticable deadlines, parties that reasonably relied on the categorical exemptions, but that could also qualify for a unit-specific exception, would be barred by the current Tariff deadlines from submitting justifiably competitive offers in the auction," PJM wrote in its Dec. 20 waiver request.

"Without waiver, resources that followed the then-effective Tariff language would be unfairly penalized for simply adhering to the Tariff," the commission wrote in granting the request. "PJM's waiver request remedies the timing conflict between the remand order and the effective Tariff rules, thus allowing these affected resources to submit unit-specific review requests."

FERC rejected LS Power's request to broaden the scope of the waiver to include generating resources that had not applied for categorical exemptions by the October 2017 deadline. The company contended that some of its affiliates had only recently acquired some new resources "or faced uncertainties regarding interconnection service for those resources," the commission noted.

"LS Power does not explain why expanding the scope to entities that were not affected by the timing of the remand order is justified. Accordingly, we grant PJM's waiver request and reject LS Power's request to expand it," the commission said.

The waiver sets these one-time deadlines to remedy the issue:

- Jan. 12: Deadline for markets sellers that had submitted categorical exemption requests to submit a unit-specific request;
- Feb. 2 (Monitor) and Feb. 16 (PJM): Deadlines for proposed determinations on the exemption request; and
- Feb. 22: Deadline for the seller to provide its commitment on a unit-specific offer price.

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O'Hara asked for comments to be submitted by Feb. 9 so they can be incorporated into a discussion of the issue at the Feb. 13 Liaison Committee meeting and a special session of the MRC on Feb. 23. PJM's responses to FERC are due March 9.

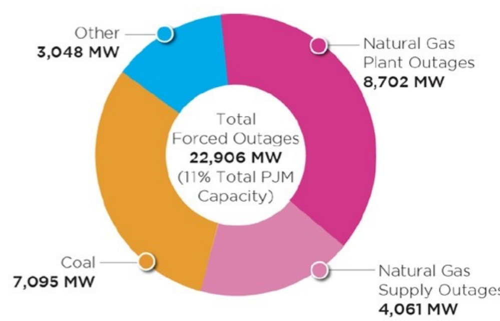
Generators Performed Better During Cold Snap than 2014

PJM staff said data show generators responded better during the cold snap than the infamous cold streak in January 2014 known as "the polar vortex," proving that PJM's subsequent Capacity Performance changes have had their intended impact.

The difference from 2015 to 2018 in the fuel mix of the dispatched fleet during peak winter conditions showed that nuclear rose slightly while gas and coal declined slightly. Hydro disappeared, and oil increased from 4% to 10% while wind was stable at 2%.

PJM didn't track the fuel mix during 2014, but the 2015 numbers "were about the same," PJM's Chris Pilong said. "We've done some checks."

Outages also decreased from their peak periods in 2014 to 2018. Outages that peaked at 40,200 MW on Jan. 7, 2014, were cut nearly in half during the peak period during the cold snap earlier this month. Outages on Jan. 6, 2018, totaled 22,906 MW. Coal outages decreased by roughly 6,600



Outages by fuel type, Jan. 6, 2018 (based on preliminary eDART data) | *PJM*

MW to 7,095 MW, while overall gas outages similarly dropped about 6,200 MW to nearly 12,800 MW.

PJM CEO Andy Ott briefed the Senate En-

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ergy and Natural Resources Committee on the data last week. (See related story, *FERC, RTOs: Grid Performed Better in Jan. Cold Snap vs. 2014*, p.1.)

PJM not Done on UTCs

PJM staff plan to push back on a recent FERC order that denied the RTO's plan for allocating uplift costs to up-to-congestion (UTC) virtual transactions. The move, part of which could include asking FERC to temporarily prohibit UTC trading, elicited disapproval from financial stakeholders.

"We essentially believe that FERC inserted its own judgement as to what was more just and reasonable than something else," PJM's Bresler said. "We believe they erred in doing so." (See *FERC: PJM Uplift Proposal for UTCs Falls Short*.)

PJM will be requesting rehearing on the order, arguing that FERC's logic is flawed in determining that it's unfair to allocate uplift to UTCs in the same way it is applied to incremental supply offers (INCs) and decrement demand bids (DECs). Once an UTC clears, Bresler said, "substantively, there is exactly zero difference."

Because UTCs are a voluntary product, Bresler said PJM is "very seriously considering" asking FERC to suspend them until there's an approved way to allocate uplift to them.

"We think the current situation is inequitable … and as such, we think we need to deal with that as soon as we possibly can," he said.

Several stakeholders, including Monitor Bowring, Susan Bruce of the PJM Industrial Customers Coalition and Joe DeLosa of the Delaware Public Service Commission, supported PJM's plan, but financial traders criticized its characterization of UTCs as voluntary.

"I think the biggest substance is PJM is thinking about terminating a product that provides benefit to the stakeholders," DC Energy's Bruce Bleiweis said.

"That, we believe, has not been proven at all," Bresler responded.

Vitol's Joe Wadsworth suggested using an uplift allocation philosophy that FERC has previously outlined.

"I think you would get a lot of support from stakeholders on something like that," he said.

Stakeholders Approve Variety of Actions

Stakeholders endorsed by acclamation several manual revisions and other operational changes:

- Manual 38: Operations Planning. Revisions developed from periodic review to include protection system/relay communication outages and PJM assessment of impact.
- Manual 40: Training and Certification Requirements. Revisions developed to accommodate new exams and other training changes.
- Tariff and Reliability Assurance Agreement revisions associated with the demand response subcommittee proposal for the relevant electric retail regulatory authority (RERRA) review of energy efficiency resource participation in the capacity market. (See "Rules Endorsed for Enforcing Regulator Requirements on EE," *PJM MIC Briefs: Jan. 10, 2018*.)
- A problem statement and issue charge at their first reading to address how gas-fired generators should be compensated if PJM orders them to switch to alternative fuel sources, such as oil or a different pipeline. (See "Emergency Pipeline Switching Instructions Sparks Rights Debate," *PJM MIC Briefs: Jan. 10, 2018*.)

Members Committee

Stakeholders Endorse Proposals

Stakeholders endorsed by acclamation the committee's consent agenda along with several other Operating Agreement and Tariff changes:

- Tariff revisions related to the procedures associated with the study of transmission service requests and upgrade requests in the new services queue process. (See "Interconnection Study Process to be Rearranged," *PJM Planning/TEAC Briefs Oct. 12, 2017*.)
- Tariff and Reliability Assurance Agreement revisions also endorsed by the MRC (see above).

FTR Revisions Approved over Financial Dismay

Members endorsed revisions resulting from special sessions on financial transmission rights issues, but not before financial stakeholders lodged one final critique. Two of the less controversial sets of revisions — to address changes to long-term FTR modeling for future transmission expansion and streamlining management of overlapping FTR auctions — were endorsed by acclamation, while the final set required a sector-weighted vote. The revisions allocating any surplus funds from day-ahead congestion and FTR auction revenue were endorsed with a vote of 3.94 in favor out of 5. (See "FTR Changes in the Works," *PJM MIC Briefs: Dec. 13, 2017*.)

"Those who bear the risk of FTR revenue shortfalls should also receive the benefit of FTR excesses," Bleiweis said. "We're getting away from that. … We're going to end up with another series of protests before the commission."

Wadsworth argued that PJM would be better served by allocating more auction revenue rights to transmission customers prior to the year so they can preserve their tradeable rights, rather than "just moving money around at the end of the planning year."

Though 'Not Perfect,' Incremental Auction Changes Endorsed

Members endorsed proposed revisions to the Incremental Auction process with a sector-weighted vote of 3.38 in favor out of 5. The revisions would reduce the number of IAs from three to two following each Base Residual Auction. PJM says the change will reduce the opportunities for BRA sellers to "shop" for the cheapest replacement capacity while allowing them to cure a physical inability to satisfy their commitments. (See "Incremental Auction Revisions Endorsed," *PJM Markets and Reliability Committee Briefs: Dec. 21, 2017*.)

"It's not the perfect, from anyone's perspective," Bruce said, but she urged members to endorse it as a "really quite good and, in fact, just and reasonable" alternative.

— Rory D. Sweeney

SPP NEWS

LaFleur Offers Views on SPP-Mountain West Integration

By Tom Kleckner

FERC Commissioner Cheryl LaFleur took time from a whirlwind listening tour of the Rocky Mountain region last week to visit the Colorado Public Utilities Commission and discuss the Mountain West Transmission Group's desire to join SPP.

Appearing Jan. 25 before the PUC's fourth information session devoted to Mountain West's pursuit of RTO membership, LaFleur recalled sitting in on what she said felt like the "100th meeting" of Mountain West stakeholders as they discussed the subject. SPP's and Mountain West's utilities are now deep into negotiations over membership, accelerating a process that began last January when the group announced its intention to join the RTO. (See SPP, Mountain West Resolving 'Contentious' Issues.)

"You don't go out on 200 dates if you're going to break up," LaFleur said. "There've been 100 since then, so it's starting to seem pretty real."

FERC's most senior commissioner addressed questions from Colorado regulators, industry representatives and consumer advocates about jurisdictional issues, consumer representation in SPP and the new opportunities presented to Mountain West by recent structural developments in the Western Interconnection.

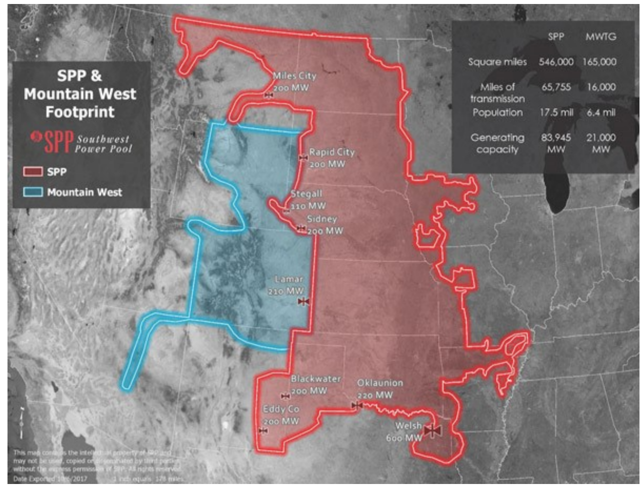
"These are exactly the kind of questions you should be asking," she said. "There's no time like now to ask questions of SPP, [of] the utilities that are coming to you for the authority to do this — of whomever is involved in this, because you have a critical role to play in making sure that what happens is right for the people in Colorado."

The PUC has jurisdictional authority over Xcel Energy's Public Service Company of Colorado and Black Hills Energy, both Mountain West members.

No Rubber Stamp

Colorado Commissioner Frances Koncilja, who has been organizing the information sessions, said she will invite CAISO, Peak Reliability and PJM to a fifth forum, in either February or March, to explain "what they think they can do for Colorado citizens."

"This is not a decision this commissioner is going to rubber stamp," Koncilja said. "I want to know what all the alternatives are."



While SPP is intent on becoming Mountain West's reliability coordinator (RC), Peak Reliability, the group's current RC, has recently proposed to offer market services in the Western Interconnection through a joint effort with PJM. Further complicating matters, CAISO has also given 18-months' notice that it intends to leave Peak and offer its own reliability services for half the RC's price. (See Peak, PJM Detail Western Market Proposal and CAISO to Depart Peak Reliability, Become RC.)

LaFleur said the prospect of multiple RCs in the West will require a concerted effort by regulators and others involved to maintain the "situational awareness" developed by years of having only one.

"It will take work with multiple RCs, but I suspect if we do the work right, it can be done in the same way as we have multiple RCs in the East," she said. "It will take some careful work to make sure the situational awareness between RCs is sustained and that everyone's treated fairly."

Consumer advocate Larry Miloshevich, with Energy Freedom Colorado, asked LaFleur how nonutility stakeholders could make their interests heard in the face of decisions that he said were being made behind closed doors "for reasons that are not all that clear." Come to FERC, she replied.

"I hate to sound like a civics book, but the citizens are not unprotected. [FERC's commissioners] are sworn to protect them. That's our whole job. We're not here for the utilities," LaFleur said.

"There are probably political reasons why [Mountain West] kind of sought to be its own thing rather than being with other parts of the West, but that's not for me to judge," she said. "Yes, file those arguments. We'll listen to them."

LaFleur referred to FERC doctrine, saying the move to join an RTO "is a voluntary decision by the members who go in." She said the commission learned this the hard way after considering a nationwide standard market design in the early 2000s.

"There was a revolution, almost coast to coast, with people saying, 'We'll decide who we want to sign up with, not FERC,'" LaFleur said. "FERC said, 'If this market thing is going to take off, we're going to let people come together and make their own decisions.'"

The commissioner extolled the benefits of RTO membership, pointing out that organized markets now cover two-thirds of the country and include regions with and without electric competition.

"It's worked across all different models. Why? Because you're deploying resources over a bigger footprint, so you can run your systems more efficiently with less reserves to bring your energy to customers and hopefully keep your lights on at lower costs," LaFleur said. "All this change, all this wind, all this solar … it's made people stand up and say, 'Wow, there might be something in this for our customers too.'"

It just had to grow organically in the West.

"If this came from Washington, it would be DOA. We've seen that through multiple attempts," LaFleur said. "The best thing FERC could do is say nice things when invited to go somewhere but not do anything. It appears the time is approaching when we might have to do something."

SPP NEWS

SPP Market Monitor: Negative Prices May Require Rule Changes

By Tom Kleckner

SPP's Marketing Monitoring Unit says it is concerned with a "marked increase" in the frequency of negative price intervals, and that market rules may need to be revised to address self-committing resources in the day-ahead market and the absence of some forecasted variable energy resources in the real-time market.

In releasing its most recent quarterly State of the Market report, the MMU said that with the prolific growth of wind generation, the frequency of intervals experiencing negative prices increased from 2.6% in 2015 to 7% through November 2017.

| *Oklahoma Municipal Power Authority*

"Negative prices may not be a problem in and of themselves, but they do indicate an increase in surplus energy on the system," the Monitor said in its report. The market's practice of self-committing resources in the day-ahead market may be "exacerbat[ing]" the situation, it said.

Negative prices can occur when there is excess power and renewable resources must be backed down so that traditional resources can meet their scheduled generation, the MMU said. It said unit commitment differences resulting from wind resources opting out of the day-ahead market but coming online in the real-time market can create differences in the frequency of negative price intervals.

In October, 17% of all real-time intervals had prices below zero, most occurring in the overnight low-load hours, with a "sizable" number of intervals having prices lower than -$25/MWh.

Negative prices in the day-ahead market are almost exclusively between -1 cent/MWh and -$25/MWh, the Monitor said.

The report also said:

- Prices averaged $20.22/MWh (day-ahead) and $20.53/MWh (real-time) during the fall. October's average price of about $18/MWh was the lowest monthly average since spring 2016.
- The average monthly gas price at the Panhandle Eastern hub continued to hover around $2.60/MMBtu, as it has for the previous 10 months.
- Fall's all-in cost was $22.40/MWh, a 12% decrease compared to the fall 2016 level of $25.53/MWh. The gas price at the Panhandle Eastern hub dropped by 1 percentage point for the same period.
- Coal-powered resources continued their downward trend, accounting for only 45% of energy produced in the fall, compared to 50% in fall 2016 and 52% in fall 2015. Wind generation continued its upward trend with 26% of energy produced last fall, compared to 20% in fall 2016 and 15% in fall 2015.
- More than 11% of all intervals in the real-time market had no congestion, compared to 2% in fall 2016 and nearly 4% in fall 2015.

The MMU will host a webinar on Feb. 8 to discuss the fall report.

FERC & Federal News

Montana PSC Racks up 2nd Lawsuit over PURPA Rates

By Amanda Durish Cook

| *Cypress Creek Renewables*

Montana regulators last week found themselves at the center of yet another court case regarding the rates offered to the small solar producers — this one stemming from a 2016 decision to suspend those rates at the request of the state's largest utility.

Cypress Creek Renewables filed suit in the U.S. District Court for Montana alleging that the Public Service Commission's action violated the Public Utility Regulatory Policies Act by denying solar developers the right to earn the PURPA rates in effect when they originally committed to sell their power to NorthWestern Energy.

Under PURPA, utilities like NorthWestern are obligated to purchase electricity from qualifying facilities at avoided-cost rates that reflect a utility's own cost to build new generation. The federal law leaves it to each state to determine both the rate and when a legally enforceable obligation (LEO) begins, barring any conflict with FERC regulations.

In November, the Montana PSC voted to reduce the standard PURPA contract length from 25 to 15 years and cut the energy rate available to renewable energy projects up to 3 MW from $66/MWh to $31/MWh.

But that move came after the PSC voted to allow NorthWestern to suspend its PURPA rates in June 2016 after the utility complained that the rates exceeded its avoided costs for new generation. The PSC grandfathered in facilities that had completed their agreements with NorthWestern prior to the June 16, 2016, date of the order but added the stipulation that QFs must have obtained interconnection agreements before that date to earn the previous rates.

In its lawsuit, Cypress Creek says that 13 of its solar projects that had not obtained interconnection agreements by that date are still entitled to receive the old purchase rate and contract length.

"PURPA further requires that state energy regulators like defendants recognize that, where a QF unequivocally commits to sell its output to a utility, it establishes a 'legally enforceable obligation' on the part of the QF to sell, and on the part of the utility to purchase, the QF's output at the utility's avoided-cost rate, calculated at the time the obligation is incurred," the company wrote.

Cypress Creek also argues that at a June 9, 2016, Montana PSC hearing, NorthWestern acknowledged it was obligated under federal law to enter into long-term contracts for the 13 projects under Montana's previous PURPA rate.

The company's argument relies on a 2016 FERC declaratory order that found the Montana PSC violated PURPA by requiring QFs to have power purchase agreements and interconnection agreements with utilities to create a LEO, finding that the arrangement give utilities too much control over when the obligation occurs. (See <u>FERC Declares Montana QF Requirements Illegal</u>.)

The Montana PSC maintains that its LEO standard is still state law and has called FERC's order nonbinding unless it is upheld by a district federal court.

"The petitioners are essentially trying to enforce FERC's declaratory order in which the [commission] took issue with the piece of the Montana PSC's legally enforceable obligation test, which required a qualifying facility to obtain a signed interconnection agreement," said Montana PSC Communications Director Chris Puyear. "Importantly, FERC said nothing of the commission's decision to suspend the rate and contract terms available to qualifying facilities up to 3 MW in size."

Puyear pointed out that the rate available to QFs is voluntary and can be suspended at any time.

Still, the PSC disagrees that Cypress Creek had a LEO to the old contract terms on the 13 projects, as the complaint argues.

"The commission's standard is less rigorous than many other states, some of which require a qualifying facility to be near the end of construction before a LEO can be established," Puyear said. "While the commission remains open to revisiting its LEO test in the future, absolutely no evidence has been presented which shows that the current LEO test disadvantages qualifying facilities."

Cypress Creek sees it differently. "Before this rate change, the [plaintiffs] had fully committed to sell their output to NorthWestern, creating their legally enforceable obligation to sell — and NorthWestern's statutory obligation to purchase. … NorthWestern repeatedly conceded that it had reached a final (if unsigned) contractual agreement with the QFs prior to June 16, 2016," the company said.

Cypress Creek said it received "continued" assurances from NorthWestern in May and June 2016 that the old rates and contract lengths would apply to the 13 projects.

The company is also a co-complainant in a state case alleging that the PSC last year "drastically and unreasonably" reduced the state's PURPA standard contract length and energy rate, dealing a fatal blow to future small solar development in Montana. (See <u>Montana PURPA Solar Saga Continues in State Court</u>.)

In January, Cypress Creek <u>reported</u> its strongest-ever construction growth rate, having built 1 GW of solar installations over the previous 18 months.

FERC & FEDERAL NEWS

FERC, RTOs: Grid Performed Better in Jan. Cold Snap vs. 2014

Continued from page 1

| © RTO Insider

FERC Chairman Kevin McIntyre told the Senate Energy and Natural Resources Committee. "There were no customer outages resulting from failures of the bulk power system, generators or transmission lines. ... With limited exceptions, the RTOs/ISOs had sufficient reserves to ensure reliable operations." (See related story, *McIntyre Wades into Capitol Hill Fuel Wars*, p.31.)

Temperatures between Dec. 28 and Jan. 7 were 20 to 35 degrees Fahrenheit below average in many regions, but peak load in eastern markets was slightly below that in 2014, FERC said.

PJM recorded three of its top 10 winter peak demand days of all time. SPP set a new winter demand peak of 42.71 GW on Jan. 16, besting a record set Jan. 2. ERCOT set a new winter peak of 65.73 GW on Jan. 17 — almost 3 GW higher than the previous record of 62.86 GW on Jan. 3. (See *ERCOT, SPP Extend Winter Peak Records*.)

The MISO South region set a new winter peak of 32.1 GW on Jan. 17, just short of the all-time (summer) peak of 32.6 GW.

Reserves

Only MISO (Jan. 1-5) and NYISO (Jan. 5-7) saw reserve shortages, McIntyre said. Reserve prices for resources that can respond within 10 minutes were more than $1/MWh during 41% of hours in PJM, 39% in NYISO and 72% in MISO.

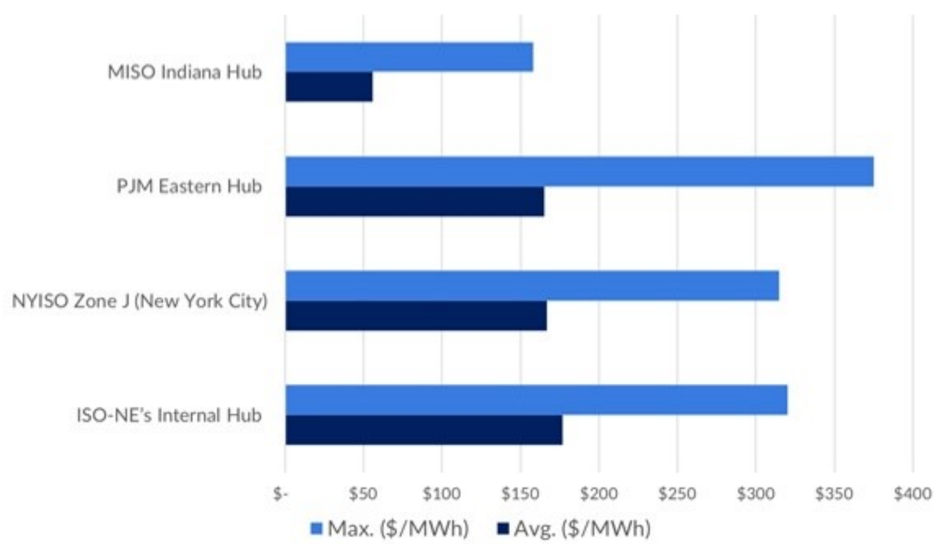
McIntyre said initial data suggest that generator performance was better than in 2014 but that "a definitive assessment cannot be made at this time."

PJM reported that forced outages during the peak demand hour of the recent cold blast were less than 23 GW (11%), half the 22% rate during the polar vortex.

Prices

Between Dec. 28 and Jan. 7, ISO-NE recorded the highest average day-ahead prices at $177/MWh, while PJM hit the highest maximum at $375/MWh. (See chart.) Prices last winter ranged from the low $30s to low $40s.

The energy market prices are consistent with the spike in natural gas prices during the period, McIntyre said, although FERC staff are conducting routine screening of market data for any signs of manipulative behavior.



Day-ahead prices, Dec. 28, 2017, to Jan. 7, 2018 | *PJM*

Natural gas spot prices hit $140/MMBtu in New York on Jan. 4, and seven other trading points in the Northeast and Mid-Atlantic had averages above $100. Gas demand on Jan. 1 hit 150.7 Bcf, exceeding the previous single-day record set in 2014, the Energy Information Administration reported.

Oil, LNG Save New England — This Time

Pipelines in the Northeast and parts of the Midwest had frequent delivery limitations during the period. Operational Flow Orders (OFOs) — requiring shippers to balance their supply with their customers' usage daily within a specified tolerance band — were declared on the Algonquin, Dominion, Iroquois, Tennessee and Texas Eastern pipelines in the Northeast. Most of the OFOs declared during the cold were lifted on or before Jan. 9, FERC said.

New England survived its gas pipeline capacity constraints thanks to LNG shipments and plants switching to oil.

ISO-NE CEO Gordon van Welie, who also testified to the committee Jan. 23, expressed frustration that New England has not taken steps to address threats to its reliability given the growth of gas-fired generation since he first told Congress of his concerns in 2013. Since 2000, oil- and coal-fired generation's share of ISO-NE's power production has fallen from 40% to less than 10%, while natural gas has risen from 15% to about 50%.

The region will have lost much of its nuclear power with the retirement of Pilgrim in 2019 (Vermont Yankee closed in 2014), leaving only the 2,100-MW Millstone station in Connecticut and the 1,200-MW Seabrook plant in New Hampshire. Dominion Energy has threatened to shutter Millstone if it does not begin earning higher revenues. (See *Conn. Regulators Signal Support for Millstone*.)

On Jan. 17, ISO-NE released its Operational Fuel-Security Analysis, which examined 23 fuel-mix scenarios using current pipeline infrastructure to determine whether enough fuel would be available to meet demand.

The report concluded that power shortages

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FERC & Federal News

FERC, RTOs: Grid Performed Better in Jan. Cold Snap vs. 2014

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attributed to inadequate fuel would occur in 19 of the scenarios by winter 2024/2025, requiring use of emergency actions such as voluntary energy conservation and involuntary load-shedding. (See *Report: Fuel Security Key Risk for New England Grid*.)

Gordon van Welie | *© RTO Insider*

"What our study [shows] is we're really close to the edge in New England, and we need to find a way of relieving this constraint one way or the other," van Welie told the committee. "Either through investment in pipeline infrastructure or continuing to invest in other sources of energy that will take the pressure off the gas pipelines or reducing demand on the system. Those are the three avenues available to the region."

Costly

"It will be costly to remedy these fuel-security challenges — whether the region chooses to invest in renewable energy (and related transmission), fuel infrastructure with long-term contracts, or further measures to reduce demand for wholesale electricity and natural gas," he continued.

"A key question to be addressed will be the level of fuel-security risk that New England is willing to accept."

Failing to invest, van Welie said, will result in "chronic price spikes during cold weather, higher emissions when it's more economic to burn oil than natural gas, and the possibility of further interventions by ISO-NE in the wholesale electricity market to try to delay critical resources from retiring."

With FERC approval, the RTO can sign reliability agreements to delay generator retirements that would cause transmission overloads. Van Welie said the RTO could change its Tariff for authority to delay retirements because of fuel-security risks, but "generation owners may choose to retire their assets regardless of the offer of a reliability agreement."

In addition to considering Tariff changes, the RTO will be looking at the impact of a pending rule change: The Pay-for-Performance program, which increases penalties for generator nonperformance, takes effect June 1.

ISO-NE also will be looking at the impact of its Competitive Auctions with Sponsored Policy Resources (CASPR) proposal, filed with FERC on Jan. 8. "While this is a positive step toward accommodating policy-driven resources in the wholesale markets, it may exacerbate the fuel-security challenge if certain non-natural gas-fired generation were to retire before the region has addressed the fuel infrastructure constraints highlighted in the Operational Fuel-Security Analysis," van Welie said. (See *ISO-NE Files CASPR Proposal*.)

PJM Pushes Price Formation Plan

PJM said it "had an abundance of reserves and capacity" during the cold spell.

Andy Ott | *© RTO Insider*

"In most respects, the recent cold snap was much milder than the polar vortex," PJM CEO Andy Ott said in his written testimony to the committee. "The temperatures were not as low, the wind chill was much less and the demand for electricity was lower, in part due to the cold snap occurring during a holiday week. On the flip side, the cold snap did last for much longer, which led to some degrading of generator performance over time."

Ott used some of his time before the committee to promote the RTO's proposal to allow inflexible generators, including coal and nuclear plants, to set LMPs. (See "PJM Wins Examination of Price Formation," *PJM Markets and Reliability Committee Briefs: Dec. 21, 2017*.)

He said the proposal would increase energy prices while reducing uplift and capacity prices.

"While out-of-market payments have improved since the polar vortex (approximately $16 million per day) we still saw significant payments during the recent event (approximately $4 million per day)," Ott said. "By contrast, on a typical day, out-of-market payments may be approximately $400,000 to $500,000."

The 'Next Level' for Gas-Electric Coordination

Ott also called for "bringing gas-electric coordination to the next level."

"To reach this next level, we believe it is important that FERC, [the Department of Energy] and, in some cases, this committee look into some key dichotomies in the regulation of these vital infrastructures."

While the electric industry is subject to mandatory physical and cybersecurity standards under FERC, the gas pipeline industry uses "high-level voluntary guidelines" from the Transportation Security Administration "augmented with yet a different level of regulation by the Pipeline and Hazardous Materials Safety Administration," Ott said.

"I say this not to impugn work that the pipelines have done in this area but to point out that the two industries face vastly different compliance obligations, particularly in the area of cybersecurity. By definition, these dichotomies will inevitably hinder an optimal integrated and coordinated approach to common threats from both physical and cyberattack."

Tightening CEII?

Ott also suggested changing the handling of critical electric infrastructure information (CEII) to balance transparency with security concerns.

"The CEII rules utilized at FERC and at the state level are designed around a 'right to know' approach, with some verification of the bona fides of the requestor. Yet, the federal government doesn't approach classified information this way," Ott said. "Rather, that system is based on the provision of access based on a demonstrated 'need to know.' It may be time to consider evolving our release of a limited set of highly sensitive infrastructure information from a 'right to know' to a 'need to know' basis."

FERC & FEDERAL NEWS

McIntyre Wades into Capitol Hill Fuel Wars

By Rich Heidorn Jr.

Panel (left to right): Kevin McIntyre, FERC; Bruce Walker, DOE; Charles Berardesco, NERC; Allison Clements, Goodgrid; Andy Ott, PJM; Gordon van Welie, ISO-NE. | © RTO Insider

WASHINGTON — In his first Capitol Hill appearance as FERC chairman, Kevin McIntyre said last week that he still sees a place for coal and pledged the commission would maintain its independence as it conducts its new resiliency inquiry.

FERC's resiliency docket (AD18-7) was mentioned frequently during a two-hour hearing at which the Senate Energy and Natural Resources Committee heard from McIntyre and the heads of PJM, ISO-NE and NERC. The commission launched the initiative Jan. 8 after rejecting the Department of Energy's Notice of Proposed Rulemaking for price supports.

Coming after a two-week cold spell that stressed grid operators in much of the country, the hearing gave coal-state senators disappointed over the commission's rejection of the NOPR a chance to score points for their favorite fuel.

Coal is Still Needed

Would the system have had enough power without the coal-fired generation that contributed during the cold spell, Sen. Joe Manchin (D-W.Va.) asked McIntyre.

"I think in this recent weather event, we wouldn't have seen any widespread outages absent coal," McIntyre responded. "That said, coal was a key contributor. It wasn't exempt from operational problems … but it was no question a key contributor. I share in your overall of view of [the] 'all-of-the-above'" strategy.

"Coal needs to have a place?" Manchin continued.

"Absolutely," McIntyre obliged.

PJM CEO Andy Ott said his system could not have met its load without coal, which represents about a third of its fuel mix — about even with nuclear and slightly above natural gas.

"We could not survive without natural gas. We could not survive without coal. We could not survive without nuclear," Ott said later, in response to a question from Sen. John Barrasso (R-Wyo.). "We need them all."

Charles A. Berardesco, who was making his first appearance before the committee since being named NERC's interim CEO, expressed a similar view.

"NERC recommends policymakers and regulators should consider measures promoting fuel diversity and supplemental fuel sources as they evaluate electric system plans, consistent with policy objectives," he said. "Additionally, regulators and policymakers should expedite licensing of new transmission and natural gas infrastructure to diversify and distribute risk."

No to 'All of the Above'

But ISO-NE CEO Gordon van Welie refused to take the "all of the above" pledge.

Van Welie acknowledged that coal — which Barrasso said provided 7% of New England's power at the height of the coal snap — had contributed to the system's performance.

But, he said, "the prospect of coal in New England is limited" because of the region's desire to decarbonize. Only three coal generators took capacity obligations in its 2017 auction, one of which — the 383-MW Bridgeport Harbor Station — has announced its retirement.

"By definition, we have to reduce the amount of fossil fuel burned in the region," van Welie said.

Van Welie also said the goal of fuel diversity is inconsistent with least-cost dispatch. "The term 'fuel diversity' is at odds with the idea of competitive wholesale markets, which is why you don't hear us using the term 'fuel diversity,'" he said. "We use the term 'fuel security.'"

Allison Clements, president of energy policy firm Goodgrid, cited the conclusion of a National Academies of Sciences, Engineering and Medicine's DOE-funded report, which she said "cautions about the difficulties of creating cost-effective and non-redundant rules for something as unpredictable and varied as resilience needs." Clements participated in the study. (See *DOE Panel Hears Results of Academies' Resilience Study*.)

"The idea that this new set of [renewable] resources coming on can't be reliable is a false place to start," she said.

"At this point nationally, only 7% of the resource mix is non-hydro renewables. … Every kind of resource has a set of benefits and issues … so narrowing the conversation to just gas vs. coal and LNG vs. new pipelines is an overly narrow view of the opportunity," she said.

Clements was one of several panelists and senators who gave shout-outs to renewables, energy efficiency, demand response and storage. But van Welie said none of those are likely to solve New England's long-term fuel supply problem. (See *Report: Fuel Security Key Risk for New England Grid*.)

He also said, "Grid-level storage, in terms of today's technologies, [is] not really useful in multiday, multiweek events."

Cantwell: Political Pressure Ex Parte 'Troubling'

Ranking member Sen. Maria Cantwell (D-Wash.) praised FERC for resisting what she called "undue political pressure" to provide coal and nuclear plants a "bailout" through

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FERC & FEDERAL NEWS

McIntyre Wades into Capitol Hill Fuel Wars

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the NOPR.

But she said she was disturbed by Commissioner Neil Chatterjee's disclosure of an *ex parte* communication by an attorney lobbying for FirstEnergy's request to transfer a struggling coal plant from its merchant unit to a regulated utility. (See McIntyre: Won't Commit to Probe Leak to 'Good Friend'.)

"The news was troubling to me because it said to me that there are those who are trying to influence FERC on a political aspect as opposed to the thorny economic issues," she told McIntyre. "What do you plan to continue to do to ensure FERC is an independent agency?"

"I intend to do my utmost to ensure that FERC lives up to [its statutory] independence," said McIntyre, who cited the commission's unanimous vote to dismiss the DOE NOPR and open the new docket. "I'm so pleased that we were able to see a common path forward in … pursuing this very important issue." (See FERC Rejects DOE Rule, Opens RTO 'Resilience' Inquiry.)

"So, you'll make sure the politics stays out of it?" Cantwell asked.

"Thus far, honestly, it hasn't been a problem," McIntyre responded. "I have not personally felt any undue influence from anyone to affect my decision-making and I would expect that to continue."

Chairwoman Lisa Murkowski (R-Alaska) pressed McIntyre on how quickly FERC will act in the new docket. She noted the commission still hasn't completed work in the price formation docket it opened following the polar vortex in 2014. She said she had been raising concerns over the reliability impact of plant retirements for at least eight years.

The commission gave RTOs and ISOs 60 days to answer more than two dozen questions on their efforts to ensure resilience and other parties 30 days to file comments in response.

"When you say FERC is going to take prompt action, does this mean that it's technical conferences or staff memos and white-papers? What action can be expected?" Murkowski asked. "I would hope that FERC recognized that we need to move beyond technical conferences and more white papers, that we actually need to see that action."

McIntyre said he shared Murkowski's frustration with FERC's pace before joining the commission.

"I cannot say now how much time" it will take FERC to act following the comments, he said. "But it's something where I have declared it — and our order declares it — to be a matter of priority for the commission. Those are not words we utter very often."

DOE Proposes National 'Model'

Bruce J. Walker, assistant secretary in DOE's Office of Electricity Delivery and Energy Reliability, told the panel DOE will be seeking funding to develop "a single North American energy infrastructure model of the ongoing resilience planning efforts at the local, state, and regional level, including interconnections that reach into Canada and Mexico."

Walker said the goal of the model will be to fill "gaps" and "harmonize" inconsistencies in local, state, and regional resilience efforts.

"I understand that we currently do not have funds appropriated for such a task," he said. "So, I am taking this opportunity to make my position clear: I believe building this resilience model should be the top priority for DOE's Office of Electricity Delivery and Energy Reliability over the coming years."

PSO Rate Case a Concern for AEP's Akins

By Tom Kleckner

American Electric Power beat Wall Street's expectations with a positive year-end earnings report last week, but CEO Nick Akins spent much of a conference call with analysts focused on its Public Service Company of Oklahoma (PSO) subsidiary and its rate case before state regulators.

Akins referred to "disappointing" outcomes in its previous and current rate cases, which have left PSO with a regulated operating return on equity of 6.2% — the second-lowest among AEP's operating companies and below an authorized ROE of 9.5%. He said AEP may invest its money elsewhere without improved returns, noting the company pulled "several hundred million dollars" of investment out of Oklahoma after PSO's previous rate case.

"We have plenty of places to put our capital, and so Oklahoma would wind up being sort of in the red area," Akins said during the Jan. 25 call. "That's something we take very seriously because we want to make investment in Oklahoma."

An administrative law judge has recommended a 5% ROE in PSO's current rate case before the Oklahoma Corporation Commission, a "negative trend" Akins is hopeful will be reversed. If the OCC approves the ALJ's recommendation, "That's just another really bad message about investment in Oklahoma."

Moody's Investors Service recently downgraded PSO's rating outlook from stable to negative, saying its "limited cushion … for deterioration in financial performance" would be "incrementally impacted" by the recent changes in federal tax law. "We now expect key credit metrics to be lower for longer," Moody's said.

"Now that PSO is on negative credit outlook by Moody's, a positive result is even more important," Akins said. "[PSO] doesn't deserve the ROE recommendation and it doesn't deserve the outcomes that we're getting in Oklahoma. We're going to let the commission speak on this. I really believe that the commission will be responsive, so let's just wait and see what that order looks like."

Also key to AEP's future success in the Sooner State is its $4.5 billion Wind Catcher project, a 2-GW wind farm in the Panhandle that will deliver energy to PSO and its sister company, Southwestern Electric Power Co. AEP is seeking regulatory approvals in Oklahoma, Arkansas, Louisiana and Texas, while PSO is gathering community input on proposed transmission siting.

"We are in a very critical time in the life of this project," Akins said. "In my mind, it would be an absolute travesty to let this unique hedge against the market pass, and I remain confident that it will get done."

The Columbus, Ohio-based company reported fourth-quarter operating earnings of 85 cents/share, beating Zacks Consensus Estimate of 81 cents/share. AEP recorded a profit of $1.9 billion in 2017, triple the $611 million the year before, although sales were $15.4 billion, down from $16.4 billion.

Year-end earnings were $3.68/share, down from $3.94 from the year-ago period. AEP's share price finished the week at $68.77, down almost 12% from its 52-week high of $78.07.

COMPANY BRIEFS

Xcel Completes $24 Million Transmission Project

Xcel Energy said it has completed a $24 million transmission project consisting of a nearly 24-mile loop that feeds its substations in Roswell, N.M.

The company said the project is part of a larger effort to expand and modernize its grid serving nearly 100 communities in eastern New Mexico and West Texas.

Since 2011, the company has invested in more than 800 miles of new transmission lines and nearly a dozen substations throughout its service territory in the two states.

More: *The Associated Press*

Siemens Gamesa Lays off 195 At Iowa Wind Turbine Plant

Siemens Gamesa on Jan. 24 said it had laid off roughly 195 employees at its wind turbine factory in Fort Madison, Iowa.

About 330 employees remain at the plant, the company said. Despite the layoffs, it said it is installing additional blade molds for new wind turbine models at the factory.

More: *The Hawk Eye*

Moody's Downgrades FirstEnergy Solutions for Default Risk

Moody's Investor Services downgraded its credit rating of FirstEnergy Solutions on Jan. 23, saying it's highly likely that the generation subsidiary will default on a $100 million bond payment due in early April.

Moody's cited FirstEnergy's announcement the day before that it had received nearly $2.5 billion from private equity investors and formed a restructuring working group to address FES' debt problems.

Moody's lowered FES' rating from Caa1, which it calls speculative, to Ca, which it calls highly speculative.

More: *Akron Beacon Journal*

GE Power Income Falls 88% in Q4

General Electric's Power subsidiary saw its profit decline by 88% and its revenue fall 15% in the fourth quarter of 2017 from the same quarter a year earlier, the company announced Jan. 24.

GE Power's earnings fell to $260 million from $2.2 billion and its revenue dropped to $9.4 billion from $11.1 billion. GE CEO John Flannery said the company expects "market challenges to continue" for the subsidiary.

More: *General Electric*

FEDERAL BRIEFS

FERC OKs PennEast Pipeline; Glick Dissents

FERC voted 4-1 to grant a certificate of public convenience and necessity to the proposed 120-mile PennEast Pipeline, which would transport Marcellus Shale gas from northeast Pennsylvania to central New Jersey (CP15-558), removing one hurdle to the $1.1 billion project.

Democratic Commissioner Richard Glick dissented from the Jan. 19 order, saying he was not convinced there is a need for the project and that its benefits outweigh its harms. Glick noted that PennEast's affiliates hold more than 75% of the pipeline's subscribed capacity, and that the precedent agreements were the sole evidence of need. "Contracts among affiliates may be less probative of that need because they are not necessarily the result of an arms-length negotiation," he said, saying additional evidence should be required, such as gas demand projections, projected cost savings to consumers and analyses of available capacity on other pipelines.

Environmentalists vowed to take their fight against the pipeline to New Jersey regulators. "It's up to New Jersey to protect our land and water from this dangerous and unnecessary pipeline and for our state to reject the Trump administration's dirty and reckless energy policies," said Jim Waltman, executive director of the Stony Brook-Millstone Watershed Association. "This is far from over."

More: *New Jersey Conservation Association; PennEast Pipeline*

EPA Ending 'Once in, Always in' Emissions Policy

EPA said Jan. 25 it is ending a policy that requires it to always treat anything it designates to be a "major source" of pollution as a major source, even if the facility makes changes that cut its emissions.

The agency said "once-in, always in," which

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NextEra Reports $5.38B Profit in 'Terrific Year'

NextEra Energy on Jan. 26 reported a 2017 profit of $5.38 billion, though that number was adjusted down to $3.17 billion after allowing for the effects of tax legislation and other unusual charges. Still, that was up from $2.88 billion in 2016.

The Florida-based company said its revenue increased to $17.2 billion, up from $16.2 billion in 2016.

"It was a terrific year," said CEO Jim Robo.

However, the company's adjusted fourth-quarter earnings came in at $1.25/share, falling short of the Zacks' estimate of $1.31/share. The company reported fourth-quarter GAAP net income of $2.16 billion.

NextEra said its Florida Power & Light utility will reduce customer bills by using federal tax savings to forgo recovery of $1.3 billion in Hurricane Irma restoration costs. It said NextEra Energy Resources added a record 2.7 GW to its contracted renewables backlog.

NextEra stock gained $2.83 on Friday to close at $157.69/share, up 1.8% on the day. Its share price has gained almost 30% over the last 12 months.

— Tom Kleckner

FEDERAL BRIEFS

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was established in 1995, has been a disincentive for power plants, factories and other major sources to install equipment or make other changes that would reduce their emissions.

EPA may now reclassify a "major source" as an "area" source when the facility gets its emissions below "major source" thresholds, the agency said.

More: Reuters

DOE Announces Contest to Boost US Solar Technology

The Department of Energy on Jan. 24 announced a competition called the "American Based Solar Prize" through which it will award $3 million to entrepreneurs working to "reassert American leadership in the solar marketplace."

Winners will be placed in a program that links them with the department's 17 national labs and energy incubators to ready their companies for private-sector investment.

The department announced the contest two days after President Trump announced tariffs on imported solar products to protect American manufacturers in the sector.

More: The Hill

EIA Expects Wind to Surpass Hydro As Largest Renewable Source

The Energy Information Administration on Jan. 24 said it expects wind to surpass hydro as the largest renewable power generation source in the U.S.

EIA said it expects wind to provide 6.4% and 6.9% of utility-scale electricity generation in 2018 and 2019, respectively, up from 6.3% in 2017.

The agency expects hydro to provide 6.5% of total utility-scale generation in 2018 and 6.6% in 2019.

More: Energy Information Administration

GTM: Tariffs to Reduce Solar Installations 11% over next 5 Years

GTM Research on Jan. 23 said that President Trump's decision to impose tariffs on crystalline-silicon solar cells and modules will reduce U.S. solar installations as measured by capacity by 11% over the next five years.

The amount of solar capacity installed from 2018 to 2022 would have been 68.9 GW, but now will be only 61.3 GW, GTM said. Utility-scale solar will account for 65% of the anticipated 7.6-GW decline.

More: Greentech Media

EDF: Renewable Jobs Outnumber Coal, Gas Jobs by 219,000

There were 777,000 renewable energy jobs in the U.S. at the start of 2017, as opposed to 558,000 coal and gas jobs, according to a report released Jan. 23 by the Environmental Defense Fund.

The bioenergy sector, which includes biofuels, biomass and biogas, had the most jobs with 48% of the total. Solar was second (33%), and wind was third (13%). Wind and solar jobs outnumbered coal and gas jobs in 30 states.

More: North American Windpower

Corporate Clean Power PPAs Grew 19% in US Last Year

Corporations signed 2.8 GW of power purchase agreements for clean power in the U.S. last year, a 19% increase from 2016, according to a report issued Jan. 22 by Bloomberg New Energy Finance.

Those included a 200-MW PPA that Apple signed with NV Energy, the largest ever between a corporation and utility in the U.S.

Globally, 43 corporations signed PPAs for a record 5.4 GW of clean energy in 10 countries last year.

More: Bloomberg New Energy Finance

STATE BRIEFS

COLORADO

Co-op Agrees to Buy 150 MW From Proposed Wind Farm

Platte River Power Authority on Jan. 23 said it has agreed to buy 150 MW of power from a wind farm that Enyo Renewable Energy plans to build on the border with Wyoming.

The deal means all the power from the wind farm will go to PRPA and the cities that own it and that PRPA and those cities will be getting 48% of their power from renewable sources.

Enyo still needs to receive regulatory approval for the wind farm, which it expects to start building next year.

More: Reporter-Herald Loveland News

DELAWARE

Bill Allowing PSC to Kill Artificial Island Tx Project Passes Senate

The Senate on Jan. 23 unanimously approved a bill that would require companies that want to build electric transmission facilities in the state to obtain certification from the Public Service Commission, thereby giving the commission the ability to kill the controversial Artificial Island transmission project.

The bill, which must be signed by Gov. John Carney, would require the commission to consider the facilities' impact on the state's economy and their benefit to ratepayers.

That could prevent the commission from giving certification to L.S. Power, which PJM selected to build a transmission line from Artificial Island to the state. The Public Advocate Office has estimated that the cost-share plan FERC approved for the project would boost residential customers' monthly electric bills by $13/month.

More: The News Journal

ILLINOIS

Commerce Commissioner Rosales Appointed to NARUC Board

Commerce Commissioner John Rosales has been appointed to the National Association of Regulatory Utility Commissioners board of directors.

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STATE BRIEFS

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Rosales was appointed to a four-year term on the commission in March 2015 by Gov. Bruce Rauner. He is vice chair of NARUC's Electricity Committee and was a member of its Task Force on Transportation. He also is president of the board of directors for the Organization of PJM States Inc. and vice chair of the Independent State Agencies Committee.

More: NARUC

ICC Orders Utilities to Lower Rates to Reflect New Tax Code

The Commerce Commission on Jan. 25 approved initiating orders directing the state's rate-of-return regulated utilities to either lower their rates to reflect the recent reduction in the federal corporate tax rate or demonstrate to the commission why they shouldn't have to.

"It is only appropriate that public utilities pass along savings attributable to the changes in the federal tax law to their customers," said ICC Chairman Brien J. Sheahan. Commonwealth Edison and Ameren "have already sought commission approval to accelerate the refund through formula rates. The orders we issued today prompt other utilities to immediately estimate and account for any overcollection resulting from decreased taxes."

The orders initiate proceedings for 22 companies, giving each 30 days to either file revised tariffs decreasing its rates to reflect its savings from the new tax code or demonstrate why it shouldn't be required to make such a filing.

More: Illinois Commerce Commission

MICHIGAN

DTE, Consumers Energy to Pass Tax Bill Savings to Customers

DTE Energy and Consumers Energy said Jan. 23 they will pass their savings from the federal Tax Cut and Jobs Act on to their customers.

DTE said its savings will amount to nearly $190 million, lowering its customers' gas and electric rates by about 3%.

Consumers said it has submitted a proposal to the Public Service Commission that would lower its customers' bills by about $200 million starting this year.

More: The Detroit News

MISSISSIPPI

Kemper Plant Settlement to Reduce Rates by at Least 2%

Public Service Commission Chairman Brandon Presley on Jan. 23 said that the settlement reached on Mississippi Power's Kemper County power plant among the company, the Public Utilities Staff, the attorney general and business intervenors would mean a rate reduction of at least 2% for the utility's residential customers.

The commission is scheduled to vote on the settlement Feb. 6.

More: Mississippi Business Journal

NEW JERSEY

PSEG, Christie Administration Exchanged Emails on Bailout Bill

Public Service Enterprise Group and former Gov. Chris Christie's administration exchanged more than a dozen emails concerning a bailout bill for the company's nuclear plants that was considered but not passed during the Legislature's lame-duck session last month, according to correspondence that the Associated Press obtained through a records request.

In the correspondence, which includes drafts of the bill, PSEG proposed adding more "stringent" financial confidentiality language to the legislation. That language drew some of the most heated criticism from the bill's opponents.

A Senate committee is scheduled to vote on the bill Thursday.

More: The Associated Press

NEW MEXICO

PNM: Residential Customers' Monthly Bills to Rise

Public Service Company of New Mexico's residential customers can expect their monthly bills to increase by an average of about 46 cents this year, according to a compliance filing the company made Jan. 23 with the Public Service Commission.

Bills will go up an additional 42 cents next year, according to the filing, which indicates that a controversial rate case that began last year is drawing to a close.

The increases allow PNM to recover costs associated with grid improvements and the partial closure of the coal-fired San Juan Generating Station.

More: The Associated Press

OHIO

FirstEnergy Still Imploring Legislature for Nuke Subsidies

FirstEnergy Nuclear Operating Co. Chief Nuclear Officer Sam Belcher told the Senate Public Utilities Committee on Jan. 25 that the company's Davis-Besse and Perry nuclear power plants are victims of "a federal competitive market design that only places value on short-term costs and ignores attributes such as environmental impact, fuel security and grid resiliency" and need subsidies from the state to keep operating.

"Any federal or regional market action would likely be too late to assist Ohio," he said. "We believe the highest chance of success for a near-term solution is through state legislation."

Senate Bill 128 would add fees to the bills of the state's electric customers to provide FirstEnergy with $180 million a year over 12 years to subsidize its nuclear plants. But Public Utilities Chairman Bill Beagle said he doesn't plan to hold any additional hearings on the bill or schedule it for a vote out of committee.

More: The Plain Dealer

Supreme Court Throws out PUCO Order on FirstEnergy Refund

The state Supreme Court has ruled that the Public Utilities Commission can't order FirstEnergy to refund $43 million to its customers, saying doing so would amount to unlawful, retroactive ratemaking.

The commission ordered the refund after its audit of renewable energy credit purchases made by FirstEnergy from 2009 to 2011 found that the company hadn't bought some of the credits in a prudent manner and so was overcharging its customers when it recovered the cost of the credits from them.

More: Columbus Business First

Tariffs to Pinch US Solar Growth; Factory Surge Unlikely

Continued from page 1

ufacturing" at its Gigafactory 2 in Buffalo, N.Y. And SolarWorld Americas of Oregon, one of two petitioners in the ITC case, resumed manufacturing in September after the commission ruled in its favor. The company says it will add 200 workers by the end of the year. (See *Trade Panel Rules PV Imports Hurting Domestic Manufacturers*.)

Skepticism

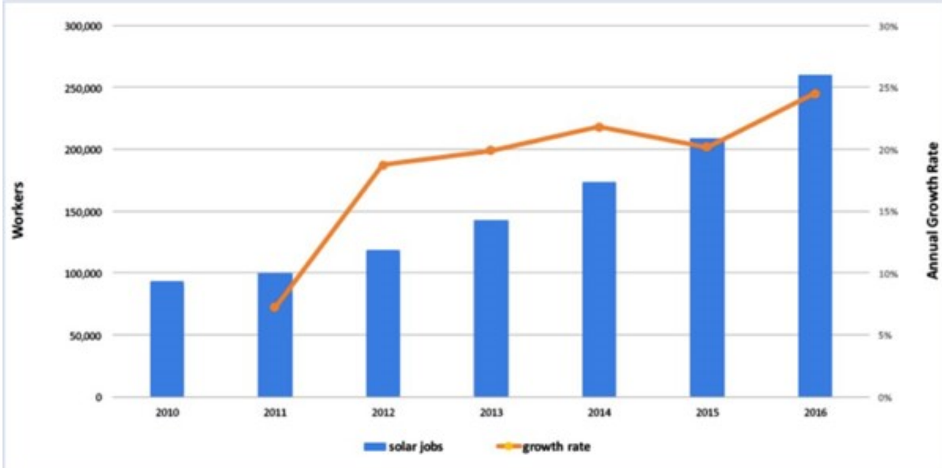
But some analysts said Trump's move — even if it survives a potential challenge before the World Trade Organization — is unlikely to seriously dent the dominance of Chinese manufacturers, whose share of global solar production grew from 7% in 2005 to 61% in 2012, according to U.S. government statistics.

"Anyone expecting a U.S. manufacturing renaissance as a result of these tariffs is set to be disappointed," said Hugh Bromley, a solar analyst for Bloomberg New Energy Finance. "A tariff lasting only four years and ratcheting down quickly is unlikely to attract any manufacturing investment that was not going to occur anyway."

The four-year limit "doesn't give somebody much incentive to build a factory" in the U.S., agreed Varun Sivaram, fellow for science and technology at the Council on Foreign Relations. Sivaram, author of an upcoming book on solar power, said the U.S. and other nations should be leapfrogging China by investing in new solar technologies.

ClearView also was skeptical of a manufacturing boost, citing data from the Clean Energy Manufacturing Analysis Center, which found that the U.S. has capacity to manufacture about 2.8 GW of solar modules per year — less than one-fifth of the 14.7 GW of solar capacity brought online last year. "Absent nations that are exempt from today's remedies, domestic manufacturers seem unlikely to increase capacity swiftly enough to meet future demand (or even last year's actuals)," ClearView said.

Section 201 of the Trade Act of 1974 authorizes the president to create tariffs or take other actions in response to an ITC determination that increased imports are a substantial cause of serious injury to domestic producers. The tariff was the first action by Trump to make good on his campaign promises to revise trade rules to rebuild U.S. manufacturing.



| *SEIA*

Opening the Floodgates?

Trump's decision drew fire from members of Congress in both parties and from conservative free-market groups, including the Heritage Foundation, the R Street Institute and the American Legislative Exchange Council. "There's a real chance that this opens the floodgates" to other industries petitioning the ITC, Chad Bown, a trade expert at the Peterson Institute, told *The Washington Post.* Clark Packard, trade policy counsel at R Street, said he feared the increase in prices will lead to calls for more domestic subsidies for solar.

Others worried it could spur a trade war as the Chinese retaliate. ClearView noted that previous trade remedies imposed by the U.S. under Section 201 were successfully challenged before the WTO, most recently forcing President George W. Bush to reverse duties on imported steel in 2001. South Korea and China said last week they are considering filing complaints with the WTO.

Sens. Martin Heinrich (D-N.M.) and Thom Tillis (R-N.C.), who joined with 14 Senate colleagues in a letter opposing tariffs, said last week they are considering legislative responses to Trump's decision. "There's no doubt that this is a significant speedbump for our solar industry," Heinrich said in a statement.

Job Losses

The Solar Energy Industries Association (SEIA) predicted the tariff will slash domestic solar output by 6.7 GW by 2021 and eliminate 23,000 U.S. manufacturing jobs this year. The group said that out of 38,000 solar manufacturing jobs in the U.S., all but about 2,000 make something other than cells and panels, producing products such as "metal racking systems, high-tech inverters, [and] machines that [improve] solar panel output by tracking the sun and other electrical products."

SEIA CEO Abigail Ross Hopper said during a media conference call last Tuesday that while the group was unhappy with Trump's decision, it was relieved he didn't impose tougher sanctions requested by SolarWorld and fellow petitioner Suniva. The ITC had recommended import duties as high as 35%. (See *Federal Trade Panel Recommends Solar PV Quotas*.)

"I think this administration really grappled with understanding that solar is creating more jobs in this economy than many other industries and many other energy sources," Hopper said.

Since 2008, grid-connected solar power has increased more than 38-fold to 42.4 GW, according to the Department of Energy, with more than 260,000 people currently employed. Solar's share of U.S. electrical generation has risen from 0.1% in 2010 to 1.4% today and is forecast to exceed 3% by 2020 and 5% by 2022, according to SEIA and the Solar Foundation.

The cost to install solar has dropped by more than 70% since 2010, the groups said. In 2016, solar was responsible for 39% of all new electric generating capacity, besting all other technologies for the first time.

"There's no doubt this decision will hurt U.S. manufacturing, not help it," Bill Vietas, pres-

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Tariffs to Pinch US Solar Growth; Factory Surge Unlikely

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ident of RBI Solar in Cincinnati, Ohio, said during the SEIA press conference. "The U.S. solar manufacturing sector has been growing as our industry has surged over the past five years. Government tariffs will increase the cost of solar and depress demand, which will reduce the orders we're getting and cost manufacturing workers their jobs."

Jessica Collingsworth, lead Midwest energy analyst at the Union of Concerned Scientists, said the tariff will hamper solar's growth in Illinois under the Future Energy Jobs Act. The tariff "threatens the development under Solar for All, which is a job training initiative and solar deployment program for low-income and economically disadvantaged communities throughout the state," she said. "More expensive solar panels will decelerate new solar installation, delaying Illinois's transition to a clean energy economy."

ITC Findings

The Trump administration contends that China has used its own incentives and subsidies to flood the U.S. with underpriced solar cells and modules, hurting domestic manufacturers.

The U.S. imposed anti-dumping and other duties in 2012 and 2013, but Chinese producers evaded those tariffs by moving production to other countries.

ITC initiated the latest investigation in May 2017, after Georgia-based Suniva filed a complaint citing domestic solar industry job losses and wage declines. The company, majority-owned by privately held Chinese firm Shunfeng International Clean Energy, declared bankruptcy last April.

The commission found that "artificially low" priced solar cells and modules from China have spurred solar growth in the U.S. and that China has used incentives, subsidies and tariffs of its own to dominate the global solar equipment supply chain.

"The ITC determined that increased solar cell and module imports are a substantial cause of serious injury to the domestic industry," the White House said. "Although the commissioners could not agree on a single remedy to recommend, most of them favored an increase in duties with a carve-out for a specified quantity of imported cells."

Prices for solar cells and modules fell by 60% between 2012 and 2016. "By 2017, the U.S. solar industry had almost disappeared, with 25 companies closing since 2012. Only two producers of both solar cells and modules, and eight firms that produced modules using imported cells, remained viable," Lighthizer said.

Community Solar Growth to Continue

Trump's "announcement does nothing to slow the momentum or dampen the excitement for community solar," said Jeff Cramer, executive director of the Coalition for Community Solar Access. "More and more states are turning to community solar due to its proximity to customers, innovation in product designs and strong customer demand. We expect these advantages, combined with strong state-level support for projects, will result in community solar being able to weather these tariffs and remain a bright spot in the U.S. solar market."