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Your Eyes and Ears on the Organized Electric Markets
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Wisc. PSC Approves Cardinal-Hickory Creek Tx

By Amanda Durish Cook

The Wisconsin Public Service Commission last week authorized the contentious Cardinal-Hickory Creek transmission line, sanctioning MISO's last remaining multi-value project eight years after the RTO's approval.

The unanimous, verbal approval from commissioners for a certificate of public convenience and necessity at its open meeting Aug. 20 was considered preliminary (*5-CE-146*). A PSC staffer told *RTO Insider* that a written order will now be drafted and put before the commission for final approval in September.

The PSC concluded that the line will reduce congestion charges, improve reliability and boost transfer capability between Wisconsin and wind-rich Iowa to its west. The commission said the line could facilitate up to 8.4 GW of new generation.

"Transmission is the backbone of clean energy alternatives to fossil fuel," Commission Chair Rebecca Cameron Valcq said in a press release following the meeting. "Getting low-cost, clean energy from where it is plentiful in the west to where it is needed, and at the scale that it is needed, cannot be done without building transmission infrastructure. I support this project because I firmly believe that it will provide tangible economic and reliability benefits to Wisconsin customers and will serve as the cornerstone to achieving a zero-carbon future."

The nearly $500 million project has pitted environmental and renewable energy organizations against one another, with some arguing the line is needed to transport growing wind power and others contending that it is unnecessary and would destroy portions of the state's Driftless Area. (See *Environmental Groups*

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CAISO Stakeholders Split on Market Power Efforts

Not Everyone Agrees There's a Problem or Likes the Process

By Hudson Sangree

FOLSOM, Calif. — Members of CAISO's Market Surveillance Committee and stakeholders wrangled over systemwide market power and ways to limit it during an occasionally testy two-hour exchange last week.

In March, CAISO staff issued an analysis of market power in response to a similar report by the Department of Market Monitoring, an independent body within the ISO. The staff analysis found CAISO's balancing area was uncompetitive during a limited number of hours in 2018 — primarily during times of peak demand when natural gas generators came on-line. Hot summer days, especially, allow some suppliers to game the system, staff said.

"If we were to design a systemwide market power mitigation process, how would it look?" Perry Servedio, lead market policy design developer at CAISO, said in summing up the process.

CAISO's Market Surveillance Committee has been looking into system wide market power and how to mitigate it. | © *RTO Insider*

The DMM's *report* had used somewhat different criteria but arrived at similar results. It recommended the ISO take action to reduce the conditions in which market power might exist.

To address the findings, CAISO and the MSC have convened a series of monthly stakeholder meetings with the goal of generating an opinion by October. They're expected to

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Also in this issue:

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Correction

An article in the July 2 ***RTO Insider*** incorrectly quoted ISO-NE External Market Monitor David Patton as saying the RTO had 10% less congestion than other RTO markets because of substantial transmission investments. ISO-NE actually had about one-tenth the congestion of other RTOs, Patton said. (See "EMM Report," *NEPOOL Participants Comm. Briefs: June 25-27, 2019*.)

CAISO/West News

PG&E Seeks $20B Wildfire Bonds Issuance

Measure Would Require Swift Passage Through the Legislature

By Hudson Sangree

SACRAMENTO, Calif. — PG&E Corp. is hoping the State Legislature will quickly approve a bill providing up to $20 billion in bonds to help the company pay its massive debts to wildfire victims and emerge from bankruptcy.

New CEO Bill Johnson last week lobbied state lawmakers on the bond measure, which is being proposed as *amendments* to AB 235, a bill that stalled in committee. The new version of the bill is circulating in draft form but hasn't been formally introduced yet.

"These bonds would hold PG&E accountable to wildfire victims and will be repaid using PG&E profits, not customer dollars," the company said in a statement Wednesday.

Opponents call the bond measure a bailout that could ultimately hurt consumers.

"Should PG&E shareholders default on their payments due to continued wildfire safety negligence or poor management decisions, the bondholders are not at risk of getting stiffed because ratepayers serve to guarantee payment," The Utility Reform Network said in a statement.

PG&E's unsecured bondholders, who want to be paid in bankruptcy and gain greater control of the company, also oppose the issuance of new bonds. The ad hoc committee of senior unsecured noteholders recently launched a *website* opposing the proposed amendments to AB 235. The group has offered its own $30 billion bailout plan for PG&E. (See *Only PG&E Can File Bankruptcy Plan, Judge Says*.)

Fast Action Required

The original version of AB 235 — which sought to have the Public Utilities Commission consider a utility's financial health when deciding whether to award recovery of wildfire costs — stalled in late June, missing the deadline for bills to be reported out of committee. Legislative rule waivers would be required to amend the bill and bring it to a floor vote now.

Lawmakers have until Sept. 13 to pass bills and send them to Gov. Gavin Newsom.

Three weeks is a short time frame, but other wildfire measures have been hastily passed this year and last, including SB 901, a major bill that cleared the legislature in a matter of days in 2018 after it was heavily amended. (See *California Wildfire Bill Goes to Governor*.)

In July, lawmakers passed AB 1054 in less than a week after it was amended to include Newsom's wildfire plan. It created a $21 billion fund to pay for wildfire damages. The state's three big investor-owned utilities and ratepayers will bankroll the insurance-like fund equally. (See *Calif. Wildfire Relief Bill Signed After Quick Passage*.)

PG&E tried to have the wildfire bonds included in AB 1054 but was unsuccessful.

Bankruptcy Continues

To take advantage of the new law's wildfire fund, PG&E and its utility subsidiary Pacific Gas and Electric must emerge from Chapter 11 reorganization by June 2020. They filed for bankruptcy in January after November's Camp Fire killed 85 people and destroyed most of the town of Paradise. PG&E has acknowledged its 100-year-old Caribou-Palermo transmission line likely sparked the blaze.

A bankruptcy hearing is scheduled Tuesday to weigh PG&E's estimated liability for the Camp Fire and a series of wildfires that tore through Northern California wine country in October 2017. The fire damages will likely total tens of billions of dollars, the company has said.

The U.S. Bankruptcy Court judge overseeing the case recently allowed fire victims and insurers to proceed with lawsuits against PG&E for the Tubbs Fire, which killed 22 people and destroyed part of the city of Santa Rosa. State investigators determined a private landowner's faulty wiring sparked the fire, but plaintiffs' lawyers hope to prove PG&E is blameworthy.

The judge's decision sent PG&E's stock price tumbling from $18.12/share on Aug. 9, the day of decision, to $10.67/share on Aug. 19. Critics of the AB 235 amendments also have contended the bond proposal is meant to bolster the company's beleaguered stock price. ■

CAISO Stakeholders Split on Market Power Efforts

Not Everyone Agrees There's a Problem or Likes the Process

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present their findings on the potential costs and benefits of market-power mitigation to the ISO's Board of Governors in November.

Among the topics being discussed are how to screen for market power and, if found, how and when to take steps to mitigate it. For instance, should the ISO screen only in the real-time market or also in the day-ahead market? And is it appropriate to mitigate voluntary supply?

Not everyone agrees with the ISO's market-power assessment.

In a *presentation* at the Aug. 19 meeting, MSC member Scott Harvey said the ISO's test for market power is "very conservative." Failing to pass it doesn't show the market is structurally noncompetitive, he said.

"The test is designed to err toward over-identifying the potential for the exercise of material market power because it is not possible to apply a more sophisticated test in the time frame of the day-ahead market or real-time," said Harvey, of FTI Consulting.

Others said the process now underway is moving too quickly toward issuing a November opinion. Instead of the usual straw proposal that's part of a lengthy stakeholder process, ISO staff are planning to go to the board with a committee opinion, which they jokingly call a "straw dog proposal."

Michele Kito, a regulatory analyst with the California Public Utilities Commission, told the committee the process seemed rushed.

"My concern is we're going to go to the board with a [plan] that's prematurely designed, and they're going to say, 'don't do any further action,' and I think that is a mistake," Kito said. She noted many stakeholder initiatives take years to develop and said a measure dealing with market power deserves more consideration.

"I think to prematurely sort of cut the legs out of this, which I kind of anticipate … is a shame," she said. ■

ERCOT News

Overheard at Border Energy Forum XXIV

Participants in the Border Energy Forum XXIV | © *RTO Insider*

López Obrador Changing US-Mexico's Energy Relationship

SAN ANTONIO — The Border Energy Forum XXIV drew attendees and speakers from both sides of the U.S.-Mexico border to the banks of the River Walk on Aug. 20-21. The North American Development Bank (NADB), created by the two countries to develop infrastructure and protect the environment along their border, hosted the *event*, which was begun in 1994 by the Texas General Land Office to exchange information about energy, economic development and environmental issues.

Duncan Wood, Mexico Institute | © *RTO Insider*

Of course, there have been many political, regulatory and market changes along the border during that quarter century. Duncan Wood, director of the D.C.-based Woodrow Wilson Center's Mexico Institute, remembered a time "when you couldn't talk as a foreigner about Mexican oil and gas."

But when Mexico began opening its electricity market in 2013, it relied on ERCOT and other RTOs for best practices in operating competitive markets. Private investment in renewable projects and transmission was welcomed.

That all changed when Mexico elected Andrés Manuel López Obrador, commonly referred to as "AMLO," to a six-year term as president. He put the brakes on the market reforms, moved to centralize authority and focused his attention on the country's natural resources.

"Because of the change in government, we're seeing a realignment of the priorities in the relationship," said Wood, who has been tracking the U.S.-Mexico energy relationship since 2005. "We've moved from a paradigm focused on energy security to a focus on energy independence. The U.S. wanted a friendly, reliable partner for crude oil, but by 2013, the conversation was no longer about, 'We need the oil.' That's good for Mexico. That will help them transform their economy, and it's an opportunity for the U.S. to invest in Mexico."

Wood said while investments have continued on both sides of the border, he is not as optimistic as others that the two countries will continue to share their expertise and trade. He said centralizing the decision-making within the state-run legacy petroleum and electric organizations and the "erosion" within the institutions from political pressure "make it really tough to stay optimistic."

"Those two factors are really forcing a lot of people who haven't invested in Mexico to think … 'Now is not the time to go in,'" Wood said. "I feel we're in very much of a pause, a prolonged pause. I don't think we're going to get very far. There's much less progress than around [former presidents] Enrique Peña Nieto or Felipe Calderon.

"Are we seeing a closing of Mexico?" he asked, rhetorically. "I think it's not unusual. This is more normal than the exception. Calderon and Peña Nieto were the exceptions. We hope there's a further opening or reopening of Mexico. We will be missing out on a greater integration of energy infrastructure and the complementariness of renewable resources."

Beth Urbanas, DOE | © *RTO Insider*

"The changes under the last administration were enormous," said Beth Urbanas, deputy assistant secretary for Asia and the Americas in the Department of Energy's Office of International Affairs. "We do understand the new administration has priorities and concerns, mainly related to the energy system's sustainability. We understand these are difficult processes to develop, and the Mexican system is now going through some of those pains.

"We want to be sympathetic and approachable, to carefully look at AMLO's priorities and see areas where we can work together going forward," she said. "We want to focus on areas where the door appears to be open. Our goal is about technology exchange and shared goals in the energy sector, like more energy efficiency, cleaner technologies [and] reliable resources. These are all things that are common across both administrations in the United States and Mexico."

Wood did see a reason for hope. He noted López Obrador is only pausing the reforms, not rolling them back, and he understands the "retail aspect" of the energy reforms. That takes the focus off an economy that contracted by 0.2% in the first quarter this year and where oil production — a key economic driver — fell by 10% in May to its lowest level in 40 years.

"AMLO seems to like infrastructure," Wood said. "Can he be convinced to spend because Mexico doesn't have the will to take foreign investment?"

First USMCA, then Infrastructure?

U.S. Rep. Roger Williams (R-Texas) | © *RTO Insider*

U.S. Rep. Roger Williams (R-Texas), seated alongside Mexican Sen. Cruz Pérez Cuéllar, was among several speakers who extolled the United States-Mexico-Canada Agreement (USMCA). The pact, an update of the 1994 North American Free Trade Agreement, has yet to be ratified by Congress or Canada. Mexico's government approved it in June.

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"I believe NAFTA has really been good for Texas, but it's a little long in the tooth," Williams said.

"It's the right thing to do: the right thing to get it on the floor, the right thing to get it passed. It's political. One side doesn't want to support it, because it's a win for the other side," he said, referring to political divisions in D.C.

Williams said he would like to see the approval of the agreement followed by infrastructure spending. His concern is the 28 points of entry between Texas and Mexico, where vehicles can wait six to seven hours to clear customs.

"We've got to have infrastructure if we want to move products and people across the border," Williams said. "If you're in the produce business and have to sit on the bridge for six hours, you may not have a product after that. I hope the passage of USMCA will force Congress to get an infrastructure bill to get things moving down here. Let's pass this thing and get things going.

"At the end of the day, Mexico is our best friend. You're our trading partner," he told Pérez Cuéllar. "If it's going to be good for you, then it's good for us."

The George W. Bush Institute's Matthew Rooney offered a counterpoint to Williams, though he agreed the USMCA "represents a better effort to seize [on North American integration] than NAFTA did."

"But missing from both USMCA and NAFTA are real commitments to cross-border infrastructure," Rooney said. "There are no commitments to how we'll move forward. That's true in the energy space, and that's true in transportation."

Roberto Coronado, senior vice president at

Roberto Coronado, Federal Reserve Bank of Dallas | © *RTO Insider*

the Federal Reserve Bank of Dallas, said NAFTA's integration of supply chains among the three North American countries has allowed Texas and other U.S. states to become more competitive in international markets, particularly in the manufacturing sector.

"We would expect the Texas economy and the U.S. economy should become even more competitive globally," he said.

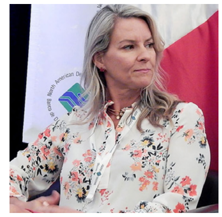
Agreeing with Wood that there's a pause in investment in Mexico, Coronado said, "In due time, we can come back to the table and continue [investing in Mexico], because it presents even greater opportunities."

Wood Urges Regional Approach to Border Energy

Wood used an example from the Great White North to suggest a regional approach, unhampered by national borders, to improved energy production. He cited a MISO initiative that he said stores renewable-sourced energy in pumped hydro facilities in the Canadian province of Manitoba.

"That seems commons sense. Why wouldn't you use storage that's just across the border?" he said. "The border is a literal line in the sand. It's meaningless, but it affects us in so many ways. When you think in North American contexts, we would go a long way."

"I love the idea of regional cooperation," said Michelle De Blasi, senior energy and environmental attorney at Fennemore Craig and



Michelle De Blasi, Arizona Energy Consortium | © *RTO Insider*

executive director of the nonprofit Arizona Energy Consortium. "Yes, countries have borders, but when you're talking about energy and regional cooperation, it makes all the sense in the world. We miss opportunities because of border issues. You've got to get rid of the arcane laws that don't make any sense to us."

De Blasi's organization helps the energy industry to support and retain companies in the state. She suggested a need to partner with Texas and New Mexico to share in the "plethora" of solar power. "In certain instances, California is paying us to take their solar power," De Blasi said.

"Money follows certainty. If you don't have the goal posts set for investors, they're not going to invest," she said. "The Mexican market is competing for dollars from investors who have other opportunities.

"Regulatory issues, mostly on the Mexican side, have changed [Mexico's market]. You used to be able to bring outsiders into the market, but where there's regulatory uncertainty … I don't think we'll get there," De Blasi said.

Turning Attention to Central America

According to the *Harvard Review of Latin America*, the U.S. has intervened, directly or indirectly, in Central America 19 times since 1903. Several Border Forum speakers called for a joint intervention of a different sort to help stem the flood of Central American refugees at the U.S.-Mexico border.

"Mexico, because of the [energy] pause, is

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missing out on the chance to export energy to Central America," Wood said. "AMLO wants development to solve the immigration problem. The U.S. and Mexico ought to be working much closer for providing gas and electricity to Central America."

"We here in America would do wise in helping Mexico and countries south of Mexico to create an economy, build plants and facilities, give them a good wage," said Williams, a co-sponsor of *legislation* in the House of Representatives that would increase U.S. funding of NADB. "When [Central America] has a strong economy, that's one of the best things we can do as a country."

Rooney said the energy price differentials between the U.S., Canada and Mexico reveal opportunity costs that reduce the continent's global competitiveness.

"There's an opportunity that the U.S., with its trading partners in the energy space, to open up economies for our friends in Central America," he said. "By integrating the Central America energy market with the Mexico energy market, you will see the price differential decline between Mexico and Guatemala. That's a huge impediment to the industrial development of Central America. We have an opportunity as a group to reach out and overcome that impediment and help Central America, which North America has been ignoring for decades."

Energy Storage, Batteries Ahead of Regulations

A panel focused on new technology trends offered an optimistic view of the future.

Chris Melley, the director of business development for solar firm Origis Energy, said battery technologies are ahead of regulatory tariffs as their capacity improves and their costs decrease.

"We're seeing a big change in battery energy storage," he said. "Instead of more residential uses, we see an increased interest [in] utility-scale systems for commercial and industrial applications."

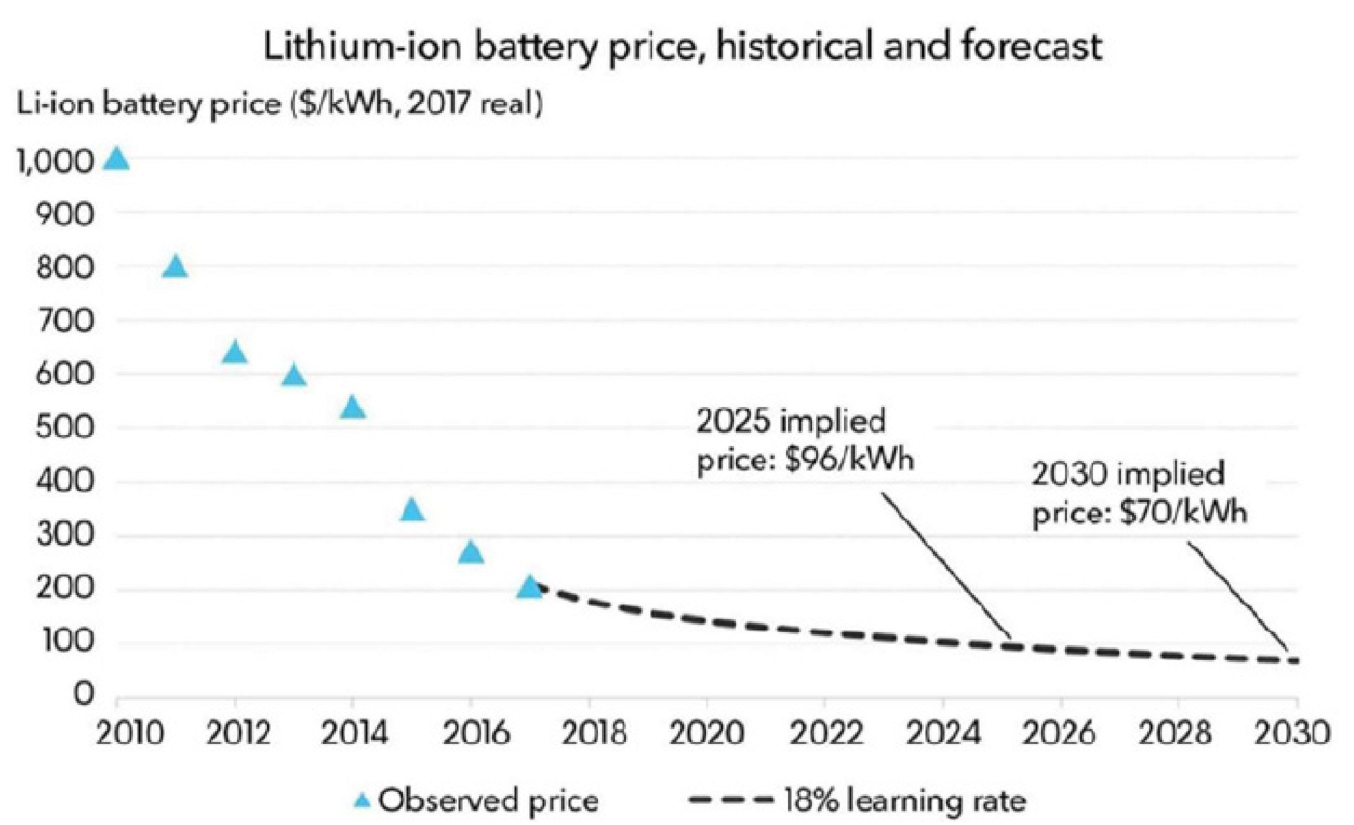
"We're living in the middle of a power sector transition," said Riccardo Bracho, with the National Renewable Energy Laboratory. "Everywhere across the world, energy systems are looking for reliability, reducing carbon emissions [and] putting new cost-effect technologies to use, but they're also looking at the challenges of electrification and also serving customers."

Bracho said funding remains a concern in bringing these new technologies to market. "Funding gaps are very difficult to [overcome]. That's where governments and universities have to take on [the responsibility] before private sectors can do something about it," he said.

But Melley said many companies are not going to wait on governments or private investment to bring about the changes. He has first-hand experience, having been in Puerto Rico since Hurricane Maria devastated the electric grid in 2017.

"Multinational companies are doing this on their own [with batteries and microgrids]," he said. "They don't want any electrons flowing past their meter, so that they get regulated. They're not waiting for the regulators when the economics make sense, and they have the money to do so." ■

— Tom Kleckner



Battery costs continue to decline. | *Bloomberg NEF*

August ERCOT TAC Canceled; RTC Session Set

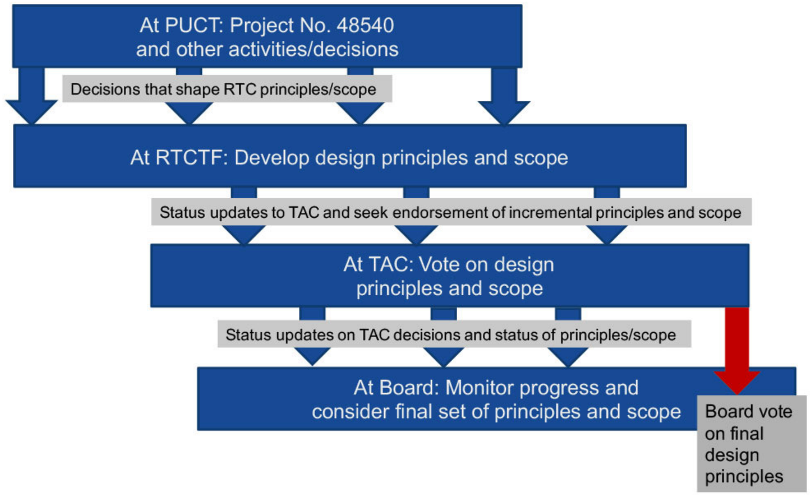
Technical Advisory Committee Chair Bob Helton last week canceled the committee's in-person meeting scheduled for this Wednesday because of a "limited number of items" for consideration.

Instead, the TAC will hold an online *information session* on the Real-Time Co-Optimization Task Force's (RTCTF) latest work to develop real-time co-optimization (RTC) principles. RTC is a market tool that will procure energy and ancillary services every five minutes to find the most cost-effective solution for both requirements.

The task force plans to present three key principles (KPs):

- KP1.4: telemetry changes associated with any change to the resource-limit calculator logic;
- KP1.5: process for deploying ancillary services; and
- KP3: reliability unit commitment settlement.

The committee will conduct an email vote on the principles after the meeting.



Review process for the real-time co-optimization project ordered by the Texas PUC, including the Real-Time Co-Optimization Task Force and the Technical Advisory Committee. | *ERCOT*

The task force has until February to draft the principles that will guide RTC's design in adding ancillary services to the real-time security-constrained economic dispatch engine. The TAC in July approved the task force's first five RTC key principles. (See "TAC Approves First Real-time Co-optimization Principles," *ERCOT Technical Advisory Committee Briefs: July 24, 2019*.) ■

— Tom Kleckner

ISO-NE News

NEPOOL Reliability Committee Briefs

Thumbs Down on Mystic Fuel Security Review

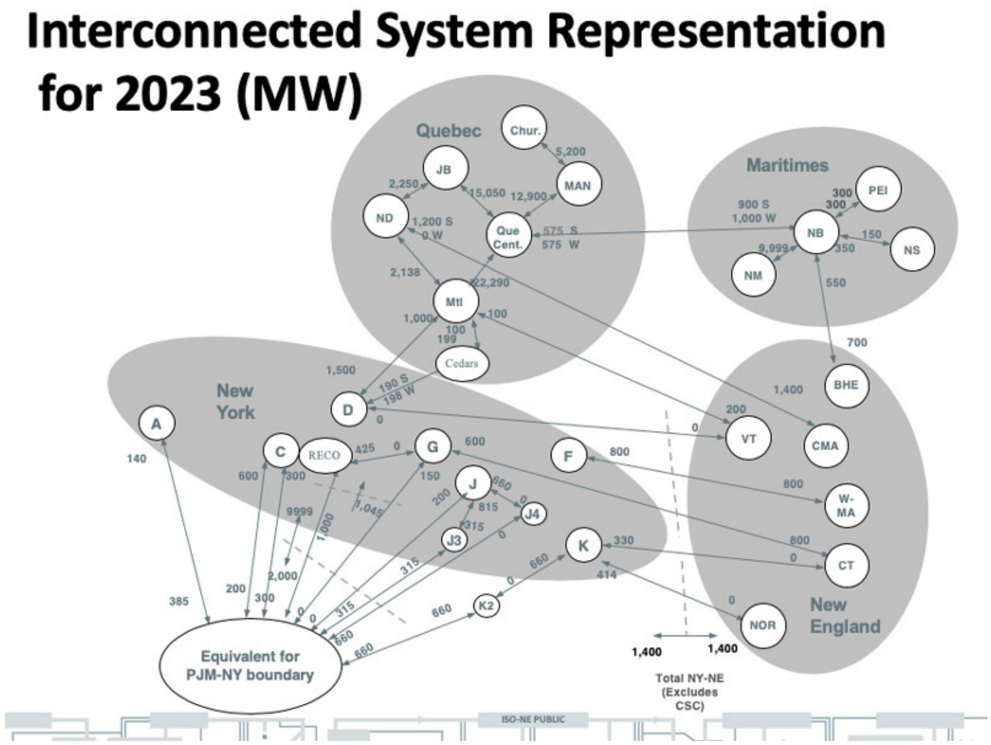
The New England Power Pool Reliability Committee last week indicated its displeasure with the *re-evaluation* of the fuel-security reliability review for Mystic Units 8 and 9, rejecting a motion that the review had been performed in accordance with ISO-NE's market rules and planning procedures.

The motion, which required a two-thirds vote to pass, *failed* with only 26.65% in favor, with overwhelming opposition from the Generation, Transmission and Alternative Resources sectors. The Supplier and Publicly Owned Entity sectors were split, and the End User sector lacked a quorum.

ISO-NE sought to retain Mystic 8 and 9 for Forward Capacity Auction 13 after Exelon said in March that it would retire the entire 2,274-MW facility, including Mystic 7 and Mystic Jet, when its capacity supply obligations expire on May 31, 2022. FERC last December ordered hearing and settlement procedures on ISO-NE's cost-of-service agreement with Exelon (*ER18-1509*). (See *FERC Approves Mystic Cost-of-Service Agreement*.)

For the re-evaluation for FCA 14, the RTO's analysis looked at 18 scenarios and included increases in the amount of natural gas and fuel oil modeled and increases in the capacity values of some renewable resources.

The new analysis concluded that Mystic should continue to be retained because its retirement would violate two triggers: the use of load shedding in any hour under Operating Procedure 7 and the depletion of 10-minute reserves below 700 MW in an hour in the absence of a contingency in more than one LNG supply scenario.



Interconnected system representation for 2023 (MW) used for a discussion of proposed tie benefits and ICRs with and without Mystic Units 8 and 9. | *ISO-NE*

[Editor's Note: Speakers who raised objections to the analysis declined to be quoted on the nature of their concerns.]

The RTO's assistant general counsel for markets, Christopher Hamlen, said the analysis was well vetted by the RC over the last year, so the methodology employed for the re-evaluation should have come as no surprise.

Norm Sproehnle, the RTO's manager for outage coordination, said four generators that submitted retirement delist bid requests for FCA 14 — Yarmouth 1 (summer capacity of 50 MW), Yarmouth 2 (48 MW), Ipswich Diesels (9.3 MW) and Pinetree Power (16.9 MW) — did not need to be retained for fuel security.

Transmission operability *analyses* also found the resources could retire because none resulted in voltage or thermal criteria violations, said Abimael Santana, senior engineer in system planning.

The RC voted unanimously that the analyses for the four resources were in accordance with the market rules and planning procedures.

	2023-2024 (FCA 14) Including Mystic Units 8 & 9 (MW)	2023-2024 (FCA 14) Excluding Mystic Units 8 & 9 (MW)	2022-2023 (FCA 13)
Total Tie Benefits	1,940	1,910	2,000
Maritimes	501	493	516
HQ Phase II	941	943	969
Highgate	136	134	149
New York AC ties	362	340	366
CSC	0	0	0

Comparison of tie benefits results for FCAs 13 and 14 | *ISO-NE*

ICAP Requirements and Tie Benefits

The RTO's manager of resource studies and assessments, Peter Wong, presented a *review* of the installed capacity requirements (ICR) and tie benefits for capacity commitment period 2023/24 (FCA 14), with and without Mystic 8 and 9.

For FCA 14, including or excluding the units in the New England resource mix will change the total tie benefits to New England by 30 MW, he said.

FCA 14 tie benefits assumptions for the calculation of the ICR-Related Values will be 1,940

ISO-NE News

MW for the scenario including the units, and 1,910 MW for the scenario excluding them.

Hydro-Québec interconnection capability credits for FCA 14 for the "including Mystic" scenario will be 941 MW, while for the "excluding" scenario will be 943 MW, he said.

Assuming RC approval Sept. 25 and Participants Committee approval Oct. 4, the RTO plans to file with FERC by Nov. 5 ICR-related values for FCA 14, both including and excluding Mystic 8 and 9, Wong said.

The RTO will be sharing additional results with the NEPOOL Power Supply Planning Committee on Thursday.

FCM Planning Procedures

ISO-NE Director of Transmission Strategy and Services Al McBride revisited the topic of moving recently developed changes to Planning Procedure 10 (*PP10*) to the Tariff to support the Forward Capacity Market, as discussed at the combined RC and Transmission Committee meeting in July. (See "Modifying Interconnection Procedures," *NEPOOL RC/TC Briefs: July 16-17, 2019*.)

McBride said the RTO is proposing to create a new section in the Open Access Transmission Tariff for the PP10 provisions. Changes include methodologies to update the levels of interconnection service for generators after the clearing of a retirement delist bid, permanent delist bid or substitution auction demand bid in the FCM.

If approved by NEPOOL committees in September and October, and by the PC on Nov. 1, the changes would take effect in January 2020, he said.

The PP10 revisions will become effective after the proposed Tariff revisions are accepted by FERC and become effective, McBride said.

Revising Operating Procedure 14E

The RC voted to recommend that the PC support revisions to *OP-14E* to incorporate energy storage as a type of asset-related demand that can be selected on ISO-NE's form NX-12E, which provides the RTO with details that are not included in bid information.

Jerry Elliott, a principal analyst in system operations at ISO-NE, presented the proposed *revisions*, which the PC will vote on at its Sept. 13 meeting.

Elliott also presented proposed revisions to *OP-19*, for a future vote. They would add the use of phase shifting transformers and adjustments of reactive flow to normal system actions performed by the RTO and each local control center to ensure transmission reliability.

In addition, he notified the RC of changes to OP-19 *Appendix K* to reconcile National Grid and NSTAR operating voltage limits with Master/Local Control Center Procedure 15 Attachment H – Voltage System Operating Limit Identification Procedure.

ISO-NE Lead Operations Analyst Kory Haag presented proposed revisions to OP-23 *Appendix H*, for a vote in September. They would clarify the data that are required for reactive capability test requests. The proposed effective date is in October 2019.

An LNG pipeline at Entergy's Distrigas LNG Terminal in Everett, Mass. | *Distrigas LNG*

Maine Dominates PPAs

The RC approved several proposed plan application (PPA) notifications for solar and wind generation, as well as related transmission upgrades, most of them in Maine.

The committee voted to recommend to ISO-NE that the following projects will not have a significant adverse effect on the stability, reliability or operating characteristics of the transmission facilities of the applicant, the transmission facilities of another transmission owner or the system of a market participant:

- Central Maine Power to install the 7.2-MW BD Solar Augusta solar array in Augusta, Maine, and interconnect it to the Blair Road Substation, with a proposed in-service date of Sept. 1, 2020.
- CMP to install the 9.2-MW BD Solar Oxford solar array in Norway, Maine, and interconnect it to the Oxford Substation, with a proposed in-service date of Sept. 1, 2020.
- NextEra Energy Resources to install the 75-MW Dawn Land Solar project in Washington County, Maine, as well as a transmission application to install a station transformer at the Deblois Substation to interconnect the solar array. Proposed in-service date is May 31, 2022.
- Emera Maine to construct a new 115-kV substation and expand the Deblois Substa-

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tion, adding one 115-kV breaker at the new substation and four 115-kV breakers at Deblois; adding 13.4 miles of 115-kV transmission line from the new substation to the Deblois substation; a new transformer and three new breakers at the new substation; and other associated transmission work. The proposed in-service date is May 31, 2022.

- Con Edison Energy to replace the existing automatic voltage regulation on the Schiller CT 1 with a Basler DECS-250 digital pilot exciter. Proposed in-service date is in September 2019.
- NextEra to install the 20-MW Randolph Center solar array in Randolph, Vt., and interconnect it to the Randolph Center 46-kV substation, with a proposed in-service date of Nov. 1, 2021.
- SWEB Development to install the 20-MW Silver Maple wind farm in Penobscot County, Maine, and interconnect it to the Randolph Center 46-kV substation and to the Silver Maple four-breaker ring bus substation, with a proposed in-service date of Dec. 16, 2020.
- Emera Maine to install a four-breaker ring bus substation in Penobscot County for the Silver Maple project, with a proposed in-service date of Oct. 1, 2020.
- NextEra to install the 50-MW Chariot Solar facility in Hinsdale, N.H., and interconnect it to the 115-kV line between the Vernon Road Tap and Vernon Road Substation. The proposed in-service date is Nov. 1, 2023.
- NextEra to build a new 115-kV three-breaker ring bus substation in Hinsdale to interconnect the solar project (proposed in-service date Oct. 1, 2021), as well as to install a station transformer that interconnects to the new substation, with a proposed in-service date of Sept. 27, 2023.

Competitive Tx RFP

ISO-NE Transmission Planning Director Brent Oberlin led the fourth discussion at the RC of competitive transmission solicitation enhancements. The package of changes being presented at the RC and TC includes proposed clarifications to Attachment K of section II of the Tariff, the draft Selected Qualified Transmission Project Sponsor (SQTPS) agreement, and to sections I.2.2 and I.3.9 of the Tariff associated with preparing for competitive transmission solicitations under FERC Order 1000.

The focus of the discussion with the RC was on the changes to the Tariff in section III.12.6 and the definitions in section I.2.2. Oberlin said that no comments had been received since the RC meeting in July, so the language remains unchanged from what had been presented previously.

Oberlin also said ISO-NE is still looking to act on the issue at the RC meeting in September.

Based on the results of the 2028 Boston Needs Assessment, the RTO plans to issue its first solicitation for a competitively developed transmission solution in December 2019.

Tx Cost Allocation

The RC voted unanimously to recommend that ISO-NE approve pool-supported costs estimated at $28.1 million for New England Power to replace 345-kV structures on the 303 and 3520 lines in Massachusetts.

NEP will replace 126 of 142 structures on the 303 line from Berry Street Substation to the ANP Bellingham Station and on the 3520 line from ANP Bellingham Station to the West Medway Substation because of asset conditions and installation of optical ground wire (OPGW) on both lines.

The committee accepted that none of the costs associated with the upgrade are considered localized costs.

Capacity Cost Compensation

The RC voted unanimously to recommend that ISO-NE approve two dynamic reactive resources as meeting the capacity cost compensation program (CCCP) eligibility requirements defined in the Tariff.

The resources, Canal 3 (Asset ID No. 38310) and Lisbon Resource Recovery (Asset ID No. 462), were recommended to have their qualified resource recovery designation to be effective Sept. 1.

Consent Agenda

The RC did not vote on its *consent agenda* that included one level 1 and 50 level 0 PPA notifications for solar generation, with 25% of the projects paired with battery storage.

One stakeholder noted the large number of hybrid solar/storage projects and wondered if ISO-NE was keeping tabs on the amount of energy storage being paired with solar each month.

McBride said the RTO has not been keeping that statistic separately but would consider the request. RC Chair Mariah Winkler said it appeared to be an issue of categorization.

Winkler said that the RTO would bring a revised consent agenda to the RC next month. ■

— Michael Kuser

ISO-NE News

NEPOOL Transmission Committee Briefs

No End in Sight on Formula Rate Case

New England Power Pool Counsel Eric Runge provided the Transmission Committee with an update on the hearing procedures in the proceeding under Federal Power Act Section 206 on network service formula rates (EL16-19-002).

FERC ordered hearing proceedings in May after rejecting a contested offer of settlement on network service rates for a group of New England transmission owners (NETOs). The commission said the record was insufficient to determine whether the settlement's benefits outweigh the objections to it, citing municipals' evidence in opposition. (See *FERC Rejects New England Tx Rate Settlement*.)

The settlement proposed new rates and a new rate design for regional network service (RNS), local network integration transmission service (LNS) and point-to-point (PTP) transmission service for all the TOs in the region. It would have replaced the existing RNS and LNS rates with new formula rate templates and associated protocols.

FERC trial staff argued that the settlement was unfair because it would have set unreasonable rates and "contains fundamental defects." Staff cited the TOs' ability to conduct "extra-formulaic, ad hoc" ratemaking for all externally sourced inputs every year and over-recover certain plant costs.

The commission instituted the proceeding in December 2015, saying ISO-NE's Tariff "lacks adequate transparency and challenge procedures" on the NETOs' formula rates and that the network rates "lack sufficient detail" to determine how costs are derived and recovered.

Under a scheduling *order* approved Aug. 13, direct testimony from witnesses seeking changes to the existing rates is due Oct. 10, with answering testimony to defend the existing rate due Jan. 10, 2020. Rebuttal testimony responding to answering testimony is due March 2, and discovery requests must be submitted by March 12. A hearing is scheduled for April 27 through May 12. Oral arguments, if necessary, will be held Aug. 10 with an initial decision targeted for Sept. 21.

Runge said the commission could issue an order by the end of next year. The order, he noted, could be followed by rehearing requests.

Changing Interconnection Capability Following Partial Market Exits

Director of Transmission Strategy and Services Alan McBride led a *discussion* of ISO-NE's proposed procedural changes to clarify how the RTO adjusts interconnection capability after partial market exits.

The RTO is drafting Tariff changes to collect in one place the rules now in three schedules and Planning Procedure No. 10 that detail how it updates interconnection service limits for generators. The rules would apply after the clearing of a retirement delist bid, permanent delist bid or substitution auction demand bid in the Forward Capacity Market. The changes, to be collected in a new section II.48 of the Tariff, also would apply to external elective transmission upgrades.

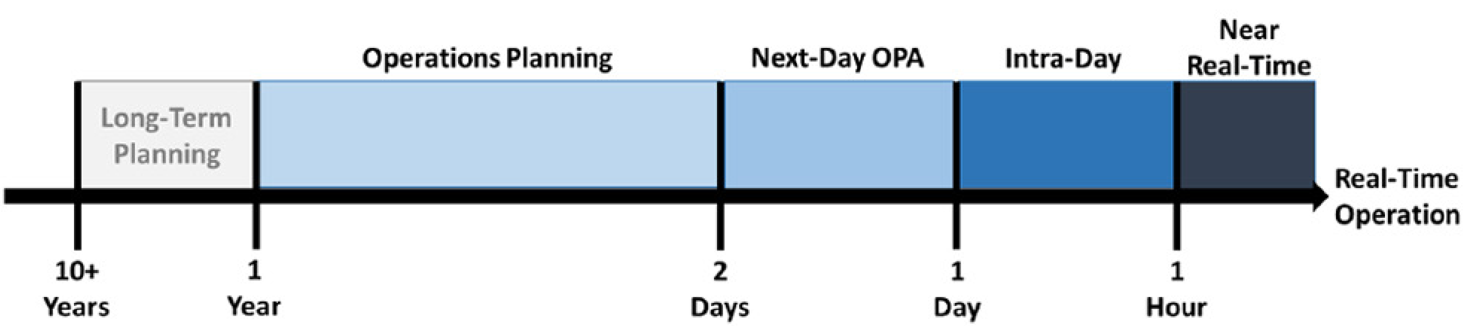
The changes include an exception process for reducing summer capacity without changing winter limits. The exception would allow generators to provide engineering information to the RTO to prove that the formula-based, proportional winter capability adjustments for a partial retirement do not accurately calculate their winter interconnection capability.

The RTO hopes to make the changes effective in January following approvals by the Reliability Committee in September, the TC in October and the Participants Committee in November.

Competitive Transmission Solicitation Enhancements

ISO-NE Director of Transmission Planning Brent Oberlin *outlined* proposed Tariff revisions to accommodate Order 1000 competitive transmission solicitations.

The RTO said the changes are needed because the selected qualified transmission project sponsor agreement (SQTPSA) did not specify that project modifications may be required under section I.3.9 of the Tariff and that failure to reach agreement on modifications may be grounds for termination. It also said changes were needed to Attachment K of the Tariff to consider system performance as an evaluation factor and specify that participating TOs must stop work on projects related to the upgrade of existing facilities once a developer has been selected as the "stage two" solution. It is also refining the definition of "localized costs" to make it consistent with the intent of the com-



Range of study time frames for establishing interconnection reliability operating limits | *NERC*

ISO-NE News

petitive process and differentiate it from asset condition projects.

Oberlin outlined several changes to the SQTSPA and Attachment K since the July TC meeting.

The TC will vote on the revisions Sept. 17 with a PC vote expected Oct. 4.

Cost Recovery for CIP Standard Compliance

ISO-NE's Jonathan Lowell *presented* the RTO's proposal for a cost recovery procedure for generators' compliance with NERC's critical infrastructure protection (CIP) standards. Generators designated by the RTO as "critical" to the determination of interconnection reliability operating limits face higher CIP standards than "non-critical" generators, and the costs cannot be competitively offered and recovered through the energy and capacity markets.

Lowell said the RTO's goal is to reduce the time and expense involved in the cost filings and provide guidance on cost identification and categorization while avoiding the need for reconciliation and true-up procedures. It will "emulate a 'formula rate' construct as much as possible," Lowell said.

A new Schedule 17 will set out a procedure for generators to make FPA Section 205 filings to gain FERC approval of the costs. The proposed costs would be posted for at least a 60-day review period before the FERC filing, and there will be Webex or in-person briefings for interested stakeholders. The prefiling review is intended to result in uncontested FERC filings and definitive orders that the RTO can rely on for billing.

The RTO will support "direct cost" categories identified in the Schedule 17 template. Generators would have to support other costs not covered by the template.

Once approved by FERC, ISO-NE will bill the costs over 12 equal payments over a year.

Lowell said the RTO has eliminated previous proposals for 24-month and 36-month amortization periods and differentiations for "recurring" and "nonrecurring" costs.

ISO-NE proposes costs be allocated to transmission customers based on monthly regional network load and monthly average through or out service. "Incremental CIP compliance costs are not a transmission cost, but it is correct and efficient to allocate these costs to transmission customers as beneficiaries," the RTO said.

Charges will be separately identified on RTO customers' monthly non-hourly charges statements.

In his own *presentation*, Eversource Energy's Paul Krawczyk reiterated the company's contention that "recovering these costs through transmission charges is inappropriate." (See *Eversource Balks at ISO-NE Plan on CIP Costs*.)

Eversource, which had previously suggested several alternatives, is now proposing the costs be allocated to real-time load obligations.

The TC is expected to vote on the proposal at its Oct. 10 meeting with a PC vote Nov. 1. ■

— Rich Heidorn Jr.

MISO Recommending 1st Storage-as-Tx Project

By Amanda Durish Cook

MISO is poised to recommend its first-ever storage-as-transmission project to ease reliability issues in central Wisconsin, though the RTO doesn't yet have rules to govern the project's operation.

The RTO last week said it reviewed American Transmission Co.'s Waupaca area energy storage *project* against an alternative wires solution also submitted by the company. MISO concluded that while both projects improved reliability, a comparison of life cycle costs proved the storage project more cost-effective. Consequently, the project is set to be included in MISO's 2019 Transmission Expansion Plan (MTEP 19) for approval in early December.

The 2.5-MW/5-MWh battery project is expected to cost $8.1 million and be in service at the end of 2021. ATC's alternative 115-kV double circuit rebuild would have cost $11.3 million.

MISO said its preliminary recommendation is dependent on FERC approval of its first set of storage-as-transmission-asset rules. The RTO plans to file with the commmission in October. (See *MISO Firming Up 1st SATA Ruleset*.)

"There's a big asterisk on" the project, MISO expansion planner James Slegers told stakeholders during a conference call Friday.

ATC plans to automate the storage facility, which will be triggered only on a post-contingency basis. ATC's Jim Hodgson said costs of battery degradation are all included in the company's estimated operations and maintenance costs and based on "the best available information." The storage project also includes two new capacitors.

The company doesn't expect the battery to be used often but notes it would have to cycle daily to keep in good condition. ATC is working off the assumption that the battery will last 20 years. The company also expects no public impact on rights of way. (See *MTEP 19 Could Yield First MISO SATA Project*.)

"First and foremost, it's a reliability asset," ATC's Bob McKee told MISO and stakeholders.

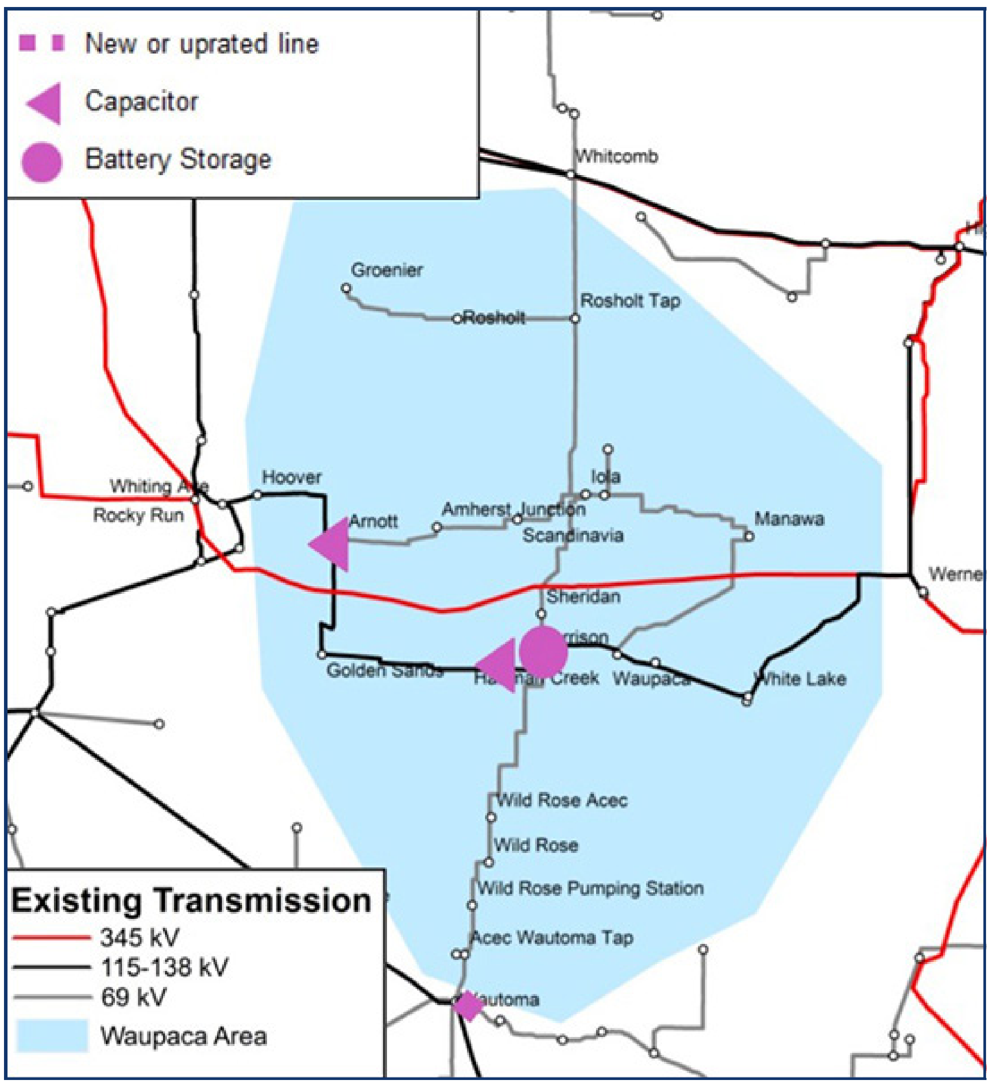
ATC's Waupaca area contains a local 69-kV system supported by a nearby multi segment 115/138-kV transmission line. The area is at risk of voltage collapse if it experiences a double contingency or outage in conjunction with prior maintenance. When both ends of the 115/138-kV supply line are out of service, the system cannot sustain local loads at certain levels, Slegers said.

ATC currently uses an operating guide to open line segments to serve load radially on the 69-kV system after load levels reach a certain point and after a first outage. While the operating guide allows loads to be served after a second contingency, it places up to 114 MW of load at risk of disconnection, according to MISO. The battery is designed to operate after a second contingency.

MISO Manager of Expansion Planning Lynn Hecker said the RTO has worked closely with ATC to understand the operation of the battery and the maintenance costs.

RTO staff said the battery wouldn't negatively impact the dispatch of the four nearby generation projects finishing the final phase of the generator interconnection queue. However, MISO hasn't yet determined the network upgrades the projects might require because the projects entered the definitive planning phase in spring 2018.

MISO will post a draft MTEP 19 report on Sept. 16. So far, the RTO is positioned to *recommend* 529 new projects at $4.4 billion. The newest estimate is higher than those released in spring. (See *MTEP 19 Revealing High Price Tag*.) If approved, this year's buildout package will be MISO's most expensive. Last year, the RTO cleared a $3.3 billion, 442-project MTEP 18. ■



ATC SATA project map | *MISO*

MISO News

Wisc. PSC Approves Cardinal-Hickory Creek Tx

Continued from page 1

Divided on Cardinal-Hickory Creek Line.)

Last month, attorneys general for Illinois and Michigan *filed* a brief with the Wisconsin PSC objecting to the cost of the 345-kV line, which will be shared on a load-ratio basis in MISO. Wisconsin commissioners said they would take the states' stance under advisement. Democratic and Republican politicians stationed along the line's route sent opposition letters to the commission as well.

The approximately 100-mile line would connect northeast Iowa with southwestern Wisconsin. It still needs approval from the Iowa Utilities Board, which will hear the case in December. The U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers also have yet to grant permission for the line to cross the Mississippi River.

Developers American Transmission Co., ITC Midwest and Dairyland Power Cooperative said they will begin to contact Wisconsin property owners along the route this fall. Construction is expected to begin in October 2020, with the line in service by December 2023.

"We are pleased that in addition to the reliability and economic benefits, the PSC has also recognized the importance of this project as a way to support the changing energy mix in Wisconsin and across the Upper Midwest," ATC Director of Environmental and Local Relations Greg Levesque said in a statement.

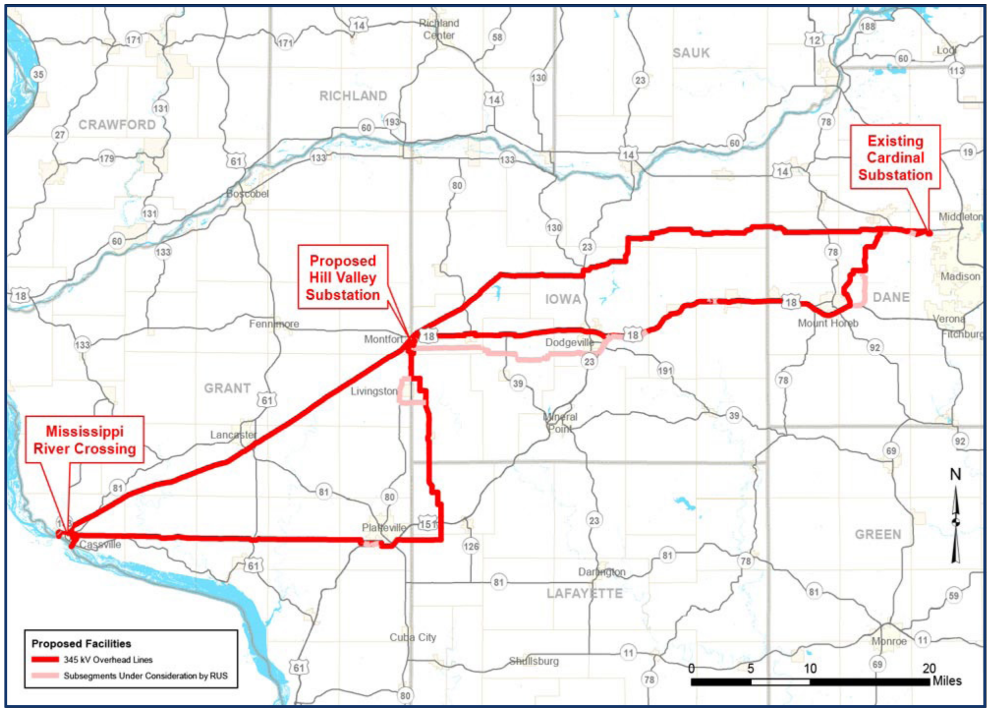
Dairyland Vice President of Power Delivery Ben Porath said the line will deliver "substantial benefits to Wisconsin in excess of the costs of the line."

The line is the last of MISO's 17-project multi-value *portfolio* to scale the state approval process.

Lingering Opposition

Public opinion remains divided, however. Driftless Area Land Conservancy Executive Director David Clutter said his organization hoped the Wisconsin commissioners would reconsider their decision before rendering a final order and promised an appeal if the preliminary order stands.

"The commission's own staff testified that this transmission line is not the most economical option in most modeling scenarios. It's not needed for energy demand nor reliability to keep the lights on. We expect that this decision will be challenged before federal and other state agencies, and in the courts if necessary," Clutter said in a statement.



Cardinal-Hickory Creek map | *Wisconsin PSC*

In its analysis, the Wisconsin PSC found Cardinal-Hickory Creek could result in negative economic benefits in several of the hypothetical cases it studied. Projects in MISO's multi-value portfolio were studied as a package; individual projects weren't studied in isolation.

Clutter also noted the thousands of Wisconsin residents that submitted comments and testified at public hearings against the project, saying the PSC's decision was "not supported by expert witness testimony, the PSC's own staff testimony or thousands of members of the public."

The conservancy was one of the voices clamoring for a combination of lower-voltage lines, battery storage, solar generation, energy efficiency and other distributed resources as an alternative to the line.

"Wisconsin needs to transition to renewable energy, and we can do so without damaging the natural areas and special places of our Driftless Area. There are better clean energy solutions and alternatives for Wisconsin. The PSC's decision will result in higher utility rates in Wisconsin and across the Midwest and will allow ATC and ITC to condemn private land through eminent domain," Clutter said.

The three developers contend that 95% of the selected 100-mile route uses existing utility and interstate or U.S. highway corridors.

Wisconsin Wildlife Federation Executive Director George Meyer said his group "will continue to challenge this destructive transmission line before federal and other state agencies, and in the courts if necessary."

"The construction and maintenance of the proposed line and very high towers will have significant and undue adverse impacts on environmental values, including land and water resources," Meyer said.

But the PSC's preliminary decision was cause for celebration for renewable energy advocacy group Clean Grid Alliance.

Executive Director Beth Soholt said the group was grateful to the commission "for recognizing that more transmission is necessary in order to deliver the clean energy future everyone wants."

"The demand for more renewable energy is palpable, and the Cardinal-Hickory Creek transmission line will provide the ability to access and deliver renewables. We are seeing an ever-increasing stream of state governments, utilities and corporations announcing plans for more renewable energy because of its low cost and environmental benefits," Soholt said. ■

MISO News

Public Citizen Contests FERC Ruling on MISO Auction

By Amanda Durish Cook

Public Citizen asked FERC last week to rehear its ruling dismissing complaints over MISO's 2015/16 capacity auction, saying the commission failed to justify its finding that there was no market manipulation.

The public interest group said FERC's conclusion that Dynegy did not manipulate the market and that the ensuing $150/MW-day clearing price in Southern Illinois' Zone 4 was reasonable was wrong on both counts (*EL15-70*).

The Zone 4 clearing price was a nine-fold price increase compared with just $16.75/MW-day a year earlier. MISO's other nine local resource zones cleared below $3.50/MW-day that year. Public Citizen, the Illinois attorney general and Southwestern Electric Cooperative had questioned Dynegy's market behavior because the company controlled a significant portion of the capacity available in Zone 4.

In mid-July, FERC wrapped up a three-year-old investigation into MISO's 2015/16 Planning Resource Auction by finding no market manipulation on Dynegy's part. The commission also found Zone 4's $150/MW-day clearing price just and reasonable, declining to set up an evidentiary hearing to possibly recalibrate the auction results. (See *FERC Clears MISO 2015/16 Auction Results*.) FERC said a clearing price isn't unjust simply because it's higher than expected.

Public Citizen charged that FERC is in "brazen violation" of the *Administrative Procedure Act*.

"The commission did not include the evidence from the nonpublic investigation in the record, did not allow the parties to address it and did not say in even the most general terms what, in its view, that evidence showed. Nor did the commission address the arguments advanced by the parties as to whether manipulation had occurred," Public Citizen said. "The commission offered no account of what, in its view, Dynegy had in fact done or of why that conduct did not amount to manipulation."

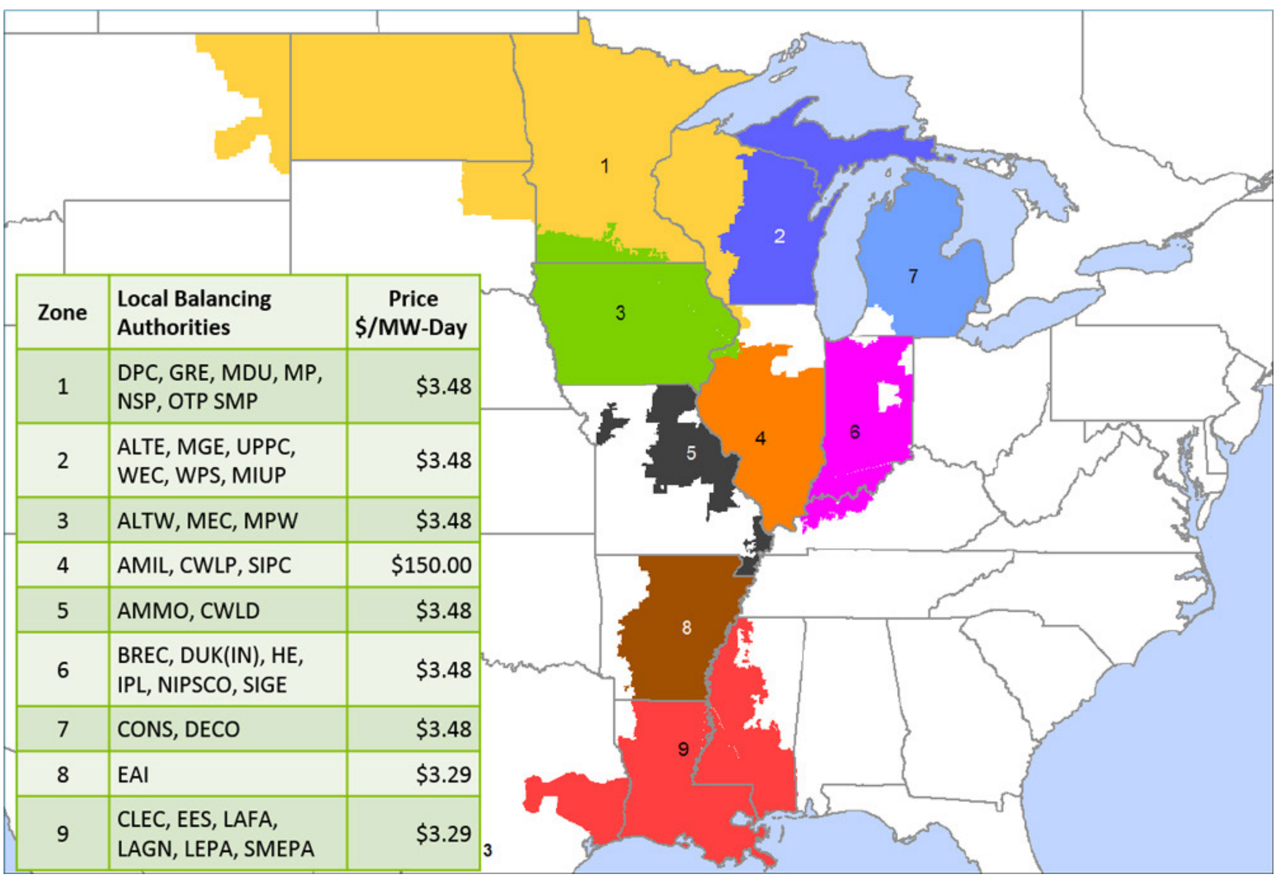
FERC ruled that although Dynegy had pivotal-supplier status and that substantial price separation occurred between Zone 4 and the rest of MISO, the RTO had conducted the auction in accordance with its Tariff and market power mitigation rules.

Public Citizen said it didn't appear that FERC examined whether MISO's circa-2015 market power provisions were effective. The omission was "striking," Public Citizen said, because just eight months after the auction, FERC ruled that MISO's rules for the 2016/17 auction were not just and reasonable. FERC said MISO didn't accurately gauge power exports and that its $155.79/MW-day maximum bid should be set closer to $25. (See *FERC Orders MISO to Change Auction Rules*.)

Commissioners Cheryl LaFleur and Richard Glick expressed displeasure last month that they were not consulted before Chairman Neil Chatterjee closed the investigation. In a dissent, Glick called July's order a "wholly unsatisfactory response to the allegations of market manipulation," saying FERC didn't provide "even the scantiest reasoning to support its finding that the nearly 1,000% year-over-year increase in the MISO Zone 4 capacity price had nothing to do with market manipulation."

Tyson Slocum, director of Public Citizen's Energy Program, acknowledged the group's chances of prevailing in the rehearing request were slim.

"We're in this for the long haul," he said in an interview. "The request for rehearing is not necessarily to change the commission's vote but to get this before a federal court." ■



Zone	Local Balancing Authorities	Price $/MW-Day
1	DPC, GRE, MDU, MP, NSP, OTP SMP	$3.48
2	ALTE, MGE, UPPC, WEC, WPS, MIUP	$3.48
3	ALTW, MEC, MPW	$3.48
4	AMIL, CWLP, SIPC	$150.00
5	AMMO, CWLD	$3.48
6	BREC, DUK(IN), HE, IPL, NIPSCO, SIGE	$3.48
7	CONS, DECO	$3.48
8	EAI	$3.29
9	CLEC, EES, LAFA, LAGN, LEPA, SMEPA	$3.29

2015/16 MISO PRA results | *MISO*

MISO News

MISO to Host Hybrid Projects Workshop

By Amanda Durish Cook

MISO will host an in-depth workshop this fall on how to incorporate generation projects that draw on more than one fuel source.

The workshop, tentatively planned for Oct. 8, will focus mostly on intermittent generation projects paired with electric storage. The workshop idea materialized during a Steering Committee call Thursday, when members of the former Energy Storage Task Force presented a list of hybrid resource topics to be assigned to stakeholder groups for developing possible Tariff changes and Business Practices Manuals.

The *list* of 22 topics regarding hybrid generators is the pièce de résistance of the ESTF, which sunset in June after identifying energy storage topics that MISO and stakeholders should focus on in order to integrate storage into the RTO's markets. The list of hybrid considerations was the final document the group produced. (See "Next up: Hybrid Resources," *MISO Undecided on Amending Storage Plan*.)

Currently, MISO models hybrid resources separately for each fuel source. The ESTF said addressing its list would help "facilitate non-discriminatory market participation."

Committee members were initially daunted by the length of the list until Chair Tia Elliott suggested the all-stakeholder workshop. The committee is responsible for routing new grid topics to the appropriate MISO stakeholder committee.

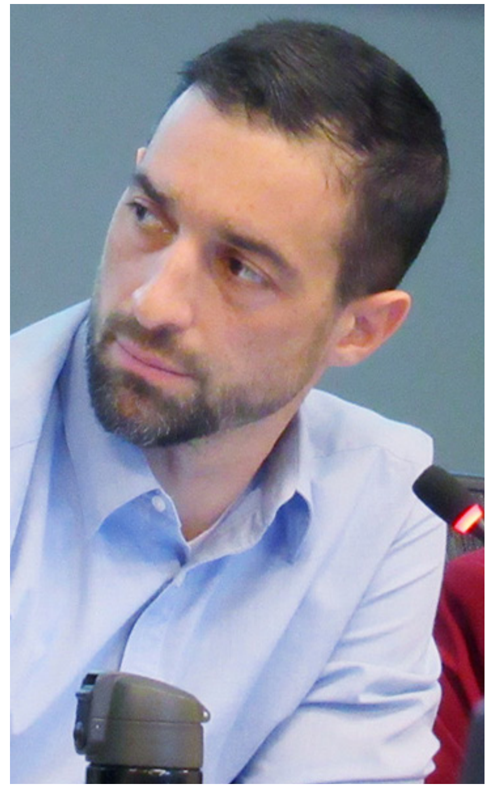
Among other ideas, the ESTF wants MISO to begin considering: capacity accreditation; ensuring hybrid output doesn't exceed interconnection service levels; addressing state of charge; whether to allow separate or dual metering; how the RTO's must-offer rule would apply; participation in ancillary services; and asset registration.

The Planning Subcommittee is already considering how a hybrid resource will be studied in the generator interconnection process, one of the ESTF's priorities. (See *MISO Queues up Interconnection Options*.)

"Hybrid storage resources are under active development and could be online in MISO in the near term. Prompt resolution to the … issues is necessary not only to ensure accurate assessment of the business case for market participants, but also to ensure these resources are appropriately participating in the market under the required rules and structures," the ESTF said.

The ESTF has requested the hybrid topics receive immediate attention from the Market Subcommittee, Resource Adequacy Subcommittee, Planning Advisory Committee and Reliability Subcommittee. Former ESTF Chair John Fernandes said many of the issues couldn't wait until MISO's 2020 Integrated Roadmap list of market improvements, explaining that hybrid projects are already in the works in the RTO's footprint. He pointed to Entergy's proposed 100-MW hybrid solar-and-storage *project*, currently before the Arkansas Public Service Commission. The project is expected to enter service by 2021.

"We do want to create a little bit of urgency around this," Fernandes told Steering Committee members.



Former ESTF Chair John Fernandes | © *RTO Insider*

Clean Grid Alliance's Rhonda Peters seconded Fernandes' call for urgency and urged the committee to track the topics on the list to make sure stakeholder groups are actively tackling them.

"This issue list is comprehensive, and it shows how much work the task team put into it," MISO Market Design Adviser Bill Peters said. ■

NYISO News

NYISO Behind Schedule on Market Design Projects

By Michael Kuser

RENSSELAER, N.Y. — NYISO said last week that several of its market design projects are behind schedule, leading some stakeholders to question whether the ISO has taken on more initiatives than its staff can handle.

A joint meeting of the Installed Capacity (ICAP) and Market Issues working groups Wednesday heard *updates* on the 2019 capacity and energy market design projects and efforts to integrate distributed energy resources.

New York Gov. Andrew Cuomo (right) flanked by former Vice President Al Gore, signs the Climate Leadership and Community Protection Act on July 18. The law requires the state to get 70% of its power from renewables by 2030 and eliminate carbon emissions from electricity production by 2040. | *New York Governor's Office*

Capacity Market Projects

Michael DeSocio, NYISO's senior manager for market design, said a study on fuel and energy security "is slightly behind schedule due to additional time taken in vetting assumptions, methodology and results." Analysis Group reviewed preliminary *results* of the study with stakeholders Aug. 2, and the ISO expects it to complete the final report before the end of the year.

NYISO expects to present a complete market design and associated Tariff revisions this quarter on a proposal to refine the eligibility and energy delivery requirements of external capacity suppliers.

The tailored availability metric project is taking longer than originally planned, but the ISO expects to present a market design concept this quarter. The proposal will be based on analysis done for availability-based resources using the equivalent forced outage rate demand (EFORd) to determine the seasonal derating factor (AEFORd).

The EFORd is the portion of time a unit is in demand but is unavailable because of forced outages and derates. NYISO believes that peak months should be weighted more heavily in the AEFORd calculation.

Analysis Group has been selected as the independent consultant for the 2019/20 demand curve reset project and *kicked off* the discussion at the ICAP/MIWG meeting Friday.

DeSocio said the competitive entry exemption for additional capacity resource interconnection service (CRIS) is slightly delayed but that a complete market design should be delivered this quarter, along with Business Issues Committee and Management Committee votes on it and related Tariff revisions.

An initiative aimed at revising market rules to repower aging generators, particularly in New York City, and ease barriers to entry to new generators also is slightly delayed, but the ISO still anticipates completion this year.

DER Market Design

NYISO's work on projects related to DERs is mostly behind schedule, including a pilot demonstration program and efforts to enable DER technology and develop a participation model.

"It seems like a lot of the projects are slightly behind schedule," said Couch White attorney Michael Mager, who represents Multiple Intervenors, a coalition of large industrial, commercial and institutional energy customers. "We'd certainly rather get to the right outcome than to the fastest outcome, but does the ISO have too many projects going?"

"I would appreciate a shorter project list," DeSocio said. "We're about at our limit of developing new proposals."

DeSocio said enabling technology for DER "started as an effort thinking about the quantity of resources we'd need to participate in the market and how to minimize some of the overhead involved in getting DERs into the market."

NYISO is exploring secure ways to use the Internet to ease DER integration, but the initiative is behind schedule because of delays with the DER model market design, although the ISO made a Tariff *filing* with FERC to establish a new aggregation participation model in

NYISO News

June, DeSocio said.

He said the ISO will share results from the first round of pilot projects this year and begin looking at additional projects early in the fourth quarter. It plans to evaluate the feasibility of a second round of pilot projects in early 2020.

Energy Market Projects

The most prominent of the energy market design projects is the effort to price carbon into the wholesale electricity markets. An Analysis Group study on carbon pricing, previously expected to be completed in August, was delayed because of additional analysis requested by the NYISO Board of Directors.

CEO Rich Dewey told the Management Committee at the end of July that the board wants to ensure that the study captures all the impacts of the Climate Leadership and Community Protection Act (*A8429*), which requires the state to get 70% of its power from renewables by 2030 and eliminate carbon emissions from the power sector by 2040. (See "Carbon Study Delay to Include New Energy Law," *NYISO Management Committee Briefs: July 31, 2019*.)

DeSocio said the ISO now expects Sue Tierney of Analysis Group to present results of the study in early October.

NYISO also is behind on constraint-specific transmission shortage pricing, which it had hoped would be completed by the second quarter this year. DeSocio said the ISO is considering whether it is prudent to request a stakeholder vote now given other project priorities and implementation timing.

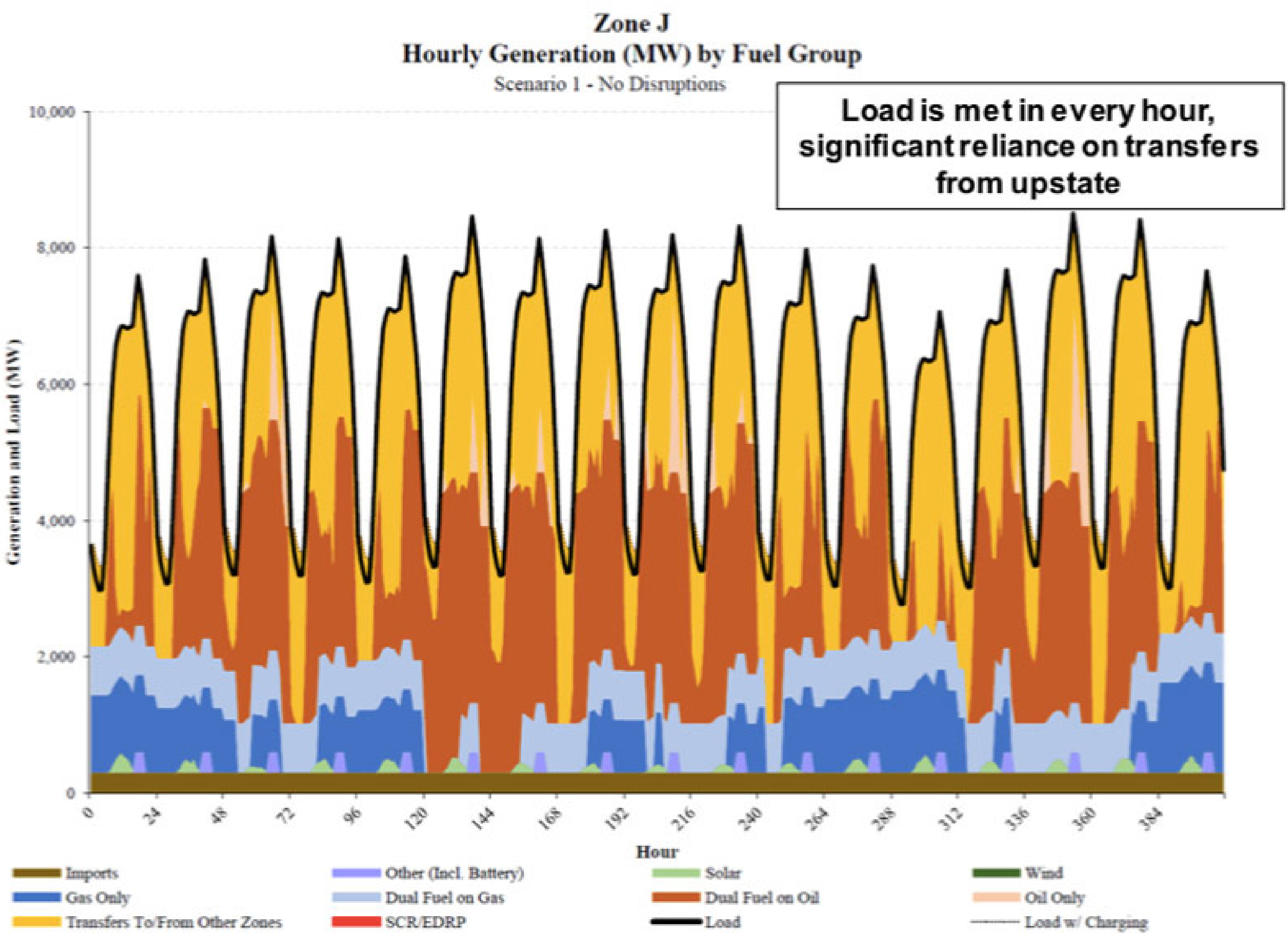
"Given other priorities, it has taken longer to get us to the point where we can have a discussion and vote on the Tariff. ... Considering the pressures to integrate energy storage and DER by 2021, we are considering when to re-engage with those discussions," he said.

"This effort should not keep getting delayed," responded Mark Younger of Hudson Energy Economics. "Maybe you need more people."

FERC ordered the ISO to submit a compliance filing on enhanced fast-start pricing by Dec. 31 and to deploy it by the end of 2020.

DeSocio said the ISO is working with market participants and the External Market Monitor on a methodology for amortizing commitment costs of fast start resources when determining locational-based marginal prices and should be bringing a proposal to stakeholders "any day."

NYISO also is continuing to research the need for load pocket operating reserves within New York City and hopes to complete a market



Battery costs continue to decline. | *Bloomberg NEF*

NYISO News

design that meets the objective in the third quarter, he said. Market participants in March approved the creation of a Zone J reserve region, which was implemented June 26.

The project to develop reserves for resource flexibility is on schedule, and the ISO will present a proposal for discussion by the end of the third quarter, DeSocio said.

Finally, a study on ancillary service shortage pricing is on schedule to be completed by year-end, he said.

Modifying CRIS Expiration Rules

The working groups also discussed NYISO's proposed tightening of CRIS expiration rules, which would prevent existing facilities from retaining CRIS if they do not enter the NYISO ICAP market for three years.

Associate Market Design Specialist Sarah Carkner *presented* NYISO's proposal to modify the CRIS expiration rules and said the ISO decided earlier this year to discuss the issue separately from the class year redesign project.

The ISO proposes three distinct changes to CRIS expiration rules:

- Start of the CRIS expiration "clock" would be when the facility begins operation.
- Load modifiers not participating in the NYISO-administered markets would be CRIS-inactive. Load modifiers are DERs that do not actively participate in the NYISO's markets but instead are used by load-serving entities to reduce the power they must procure from the ISO.
- A resource exporting capacity would not be inactive under CRIS even if it has not sold capacity in New York.

2019 Capacity Market Design Projects	Q1	Q2	Q3	Q4	2019 Deliverable
Enhancing Fuel and Energy Security	CD	S			Q2 Study
External Capacity Performance & Obligations	PR	MDCP	MDC		Q3 MDC
Tailored Availability Metric	PR	CD	MDCP		Q3 MDCP
Demand Curve Reset	PR		S	S	Q4 Study
Competitive Entry Exemption for Additional CRIS	PR	CD	MDC		Q3 MDC
Repowering	PR	CD	MDC		Q3 MDC

2019 DER Market Design Projects	Q1	Q2	Q3	Q4	2019 Deliverable
DER Participation Model	MDC	CD	CD	FR	Q4 FRS
NYISO Pilot Framework	S	S	S	S	Q4 Study
Enabling Technologies for DER	PR	S			Q2 Study

2019 Energy Market Design Projects	Q1	Q2	Q3	Q4	2019 Deliverable
Carbon Pricing	CD	MDC			Q2 MDC
Reserves for Resource Flexibility	PR	S	MDCP		Q3 MDCP
More Granular Operating Reserves	PR	MDCP	MDC	FR	Q3 MDC
Ancillary Services Shortage Pricing	PR	CD	S	S	Q4 Study
Constraint Specific Transmission Shortage Pricing	MDCP	MDC		FR	Q2 MDC
Enhanced Fast Start Pricing			FR		Q3 FRS

KEY

PR Project Review
S Study
MDCP Market Design Concept Proposed
MDC Market Design Complete
FR Functional Requirements
CD Continuing Discussions

Current status of NYISO 2019 market projects | *NYISO*

"The rule would be effective a few years after FERC acceptance to allow resources currently acting as load modifiers, and wishing to maintain their CRIS, an opportunity to enter the capacity market," Carkner said.

David Clarke, director of wholesale market policy for Long Island Power Authority's Power Supply Long Island, said his company favored the status quo. He asked if this was a modeling issue.

Zachary T. Smith, NYISO manager for capacity market design, said that "because the NYISO doesn't have visibility of load modifiers not participating in NYISO-administered markets, we're not sure if those resources are even generating anymore."

Regarding treatment of exporters, DeSocio said, "We're trying to create reciprocity with our neighbors ... to make sure we're being consistent in the region." ■

PJM News

PJM TOs Sign off on Supplemental Project Deal

By Christen Smith

VALLEY FORGE, Pa. — After months of wrangling, PJM and its stakeholders reached agreement Thursday on manual language detailing how the RTO will remove supplemental projects from its Regional Transmission Expansion Plan.

After American Municipal Power (AMP) and competitive transmission developer LS Power reached agreement with PJM on the manual language on Aug. 20, Exelon crafted a *friendly amendment* Thursday that won support of most of the RTO's incumbent transmission owners. (See *PJM, Stakeholders Strike Deal on Supplemental Projects*.)

Supplemental projects are those that address local TO reliability concerns and are not required for compliance with grid criteria governing system reliability, operational performance or economic efficiency. The RTO does not approve supplemental projects but does study them to ensure they won't harm reliability.

The Exelon amendment clarified that supplemental projects cannot be considered for inclusion in the RTEP base case during PJM's modeling verification process, which generally precedes a submission window for competitive projects under FERC Order 1000. Sharon Segner, vice president of LS Power, described the verification process as the RTO's version of "quality control," implemented in order to assure the modeling assumptions used to solicit competitive projects are correct.

Segner said Exelon's 23-word insertion in the last paragraph of section 1.3.4 in Manual 14B protects the integrity of the competitive process by preventing TOs from proposing supplemental projects designed to meet regional needs.

The paragraph states that "once PJM issues its preliminary RTEP models for verification *of topology and dispatch prior to initiation of any preliminary RTEP analysis and quality control check in preparation for opening a proposal window*, PJM will not consider for inclusion in the RTEP base case a subsequently submitted proposed supplemental project that would alleviate a violation identified in the proposal window." (Exelon's insertion is in italics.)

The agreements allowed members to finally vote on the revisions after four deferrals and eight months of discussion at special Planning Commission meetings. Six of the 12 members of the TO sector endorsed the changes in the Markets and Reliability Committee vote, with four opposed and two abstaining. End-Use Customers, Electric Distributors and Other Suppliers gave near unanimous support to the manual change, which cleared by a sector-v weighted *vote* of 4.55 to 0.45 (91%).

"These manual revisions are basically saying that when these Order 1000 windows open, PJM can consider projects that meet regional needs and regional drivers and can also consider supplementals that address these drivers to see if there's a better regional solution," Segner said. "The manual in and of itself is talking through what that looks like."

LS Power had sought the manual revisions since the January MRC meeting, when PJM declined to implement stakeholder-endorsed language about planning transparency. Staff said the revisions were inconsistent with FERC rulings and would require the RTO to overstep its authority in the regional planning process. (See *PJM Rebuffs Stakeholders on Supplemental Projects*.) Spending on supplemental projects has tripled over the last 13 years, accounting for 62% of the submitted RTEP project costs since January 2017, according to an analysis from AMP. In 2018, AMP found, TOs added $5.7 billion in supplementals and just $1.5 million in baseline projects into the RTEP.

AMP said earlier this month that TOs have proposed an additional $3.4 billion in supplementals so far in 2019, exceeding the baseline total.

"We think we are at a better place than we were six months ago," Segner told the MRC. "I'm talking about how to protect the integrity of the Order 1000 windows. So, we would say we are in a better place and there would be better protections in place than there are now."

The revisions detail how PJM would alter the RTEP after siting authorities deny a permit for a supplemental project. The RTO has argued that it lacks the authority to remove such projects from the planning model and noted that a project can languish for years of litigation before a TO wins approval or abandons it.

The revisions state that if the denied application represents a final regulatory order, the developer must notify PJM. Staff would then review the "impacts associated with removing the project from the RTEP or continuing to include such project in light of such final regulatory order" and present its findings to the Transmission Expansion Advisory Committee.

After four deferrals, PJM stakeholders finally voted on Manual 14B revisions at the Aug. 22 Markets and Reliability Committee meeting. | © *RTO Insider*

"A project denied siting authority in a final regulatory order by the relevant regulatory siting authority will generally be removed from the RTEP base case as determined by PJM after discussion with the relevant transmission owner(s) or designated entity and vetting with stakeholders at the TEAC," according to the new language.

The language also includes a path for TOs to dispute assumptions that a regional baseline upgrade will meet the needs of a proposed supplemental project.

Segner said that siting authorities will be notified when TOs stick with a supplemental project for which PJM has identified an appropriate regional solution — leaving it up to the states to decide what to do next.

She described PJM's willingness to implement the changes as "the most important" outcome from the special PC sessions. When the vote results were revealed, many in the room — including most of PJM's staff in attendance —broke into applause.

"That's a victory for the stakeholder process, and we are at a better place," Segner said.

Frustrated with the Process

Still, the process by which the issue was resolved left many stakeholders frustrated.

"This process has been very choppy and consumed an inordinate amount of time," said Steve Lieberman, director of regulatory affairs for AMP, before agreeing that crafting language PJM would implement was the most important outcome of the special PC meetings. "That is a lesson that this membership learned, I think, in a hard way back in January. … I don't know that we need to necessarily work that way all the time, but going into and having confirmation for a vote and both sides of the room agreeing with each other is a good thing." ■

PJM News

Labor Dispute Stalls FirstEnergy Reorganization

By Christen Smith

A U.S. bankruptcy judge stalled FirstEnergy Solutions' reorganization plan last week over unresolved contract disputes with workers at its Perry and Beaver Valley nuclear plants.

Judge Alan M. Koschik told lawyers for the utility that he cannot approve its reorganization plan — which includes shedding $3.6 billion in debt, cutting ties with FirstEnergy Corp. and possibly changing its name — until the issue is resolved. He set a status hearing for Sept. 10.

FES wants to renegotiate the terms of the collective bargaining agreements with the Utility Workers Union of America and the International Brotherhood of Electrical Workers that were originally approved by FirstEnergy because the company claims it cannot afford the pension benefits post-bankruptcy. (*See FES Seeks Bankruptcy, DOE Emergency Order*.)

"We are pleased with the progress made in the hearings, which resolved substantially all non-labor-related issues pertaining to confirmation of our plan," FES spokesman Tom Becker said in a statement Friday. "We remain focused on confirming the plan to exit bankruptcy by the end of 2019."

A U.S. bankruptcy judge stalled FirstEnergy Solutions' reorganization plan over unresolved bargaining contract disputes with workers at its Perry and Beaver Valley nuclear plants.

In court documents filed earlier this month, Joyce Goldstein, attorney for both unions, argued that they had struck contracts that contain a "strong successorship" clause requiring FES to assume the terms of the agreements. Goldstein also noted that because Ohio lawmakers passed a bill to subsidize the state's nuclear plants, FES will "have even more cash" on hand to pay benefits. (See *Ohio Approves Nuke Subsidy*.)

"There is no impediment to assuming the CBAs and providing benefits that mirror those currently provided, as has occurred eight times before," Goldstein said, referencing FirstEnergy's decision to assume bargaining unit contracts when it acquired other utility companies pre-split. FES "would simply prefer not to."

Frank Meznarich, president of *UWUA Local 270*, applauded Koschik's decision in a statement Friday, calling it a "significant victory for our members." UWUA represents workers at the Perry nuclear plant, located 40 miles northeast of Cleveland along Lake Erie. IBEW Local 29 represents workers at the Beaver Valley plant near Pittsburgh.

"FES cannot escape bankruptcy without fulfilling its obligations to the individuals who maintain and operate these facilities," Meznarich said. "Our members have been unwavering in their efforts to deliver power to ratepayers who rely on it and we expect FES to honor its legal obligations to our members."

FES CEO John Judge wrote in an Aug. 18 *column* for *The Columbus Dispatch* that his company's good faith negotiations have resulted in signed framework agreements at three of its five nuclear plants since March. He said the latest proposal submitted to the bargaining units at Perry and Beaver Valley include terms that preserve the wages, raises, work rules, medical, dental and paid time off benefits found in the existing contracts.

"The only open issue we have is retirement benefits after emergence, since we can no longer participate in the FirstEnergy Corp. pension plan at that time," he said. "No retirement benefits earned prior to emergence will be taken away."

Post-bankruptcy, FES plans to offer an "enhanced defined contribution plan" that matches 50 cents of each $1 contribution made by employees up to 6%. Employees with long tenures will receive additional contributions up to 9%, and those closest to retirement will be offered bridge payments to soften the blow of plan changes.

Judge said the program exceeds industry standards and serves as a "fair offer … since we kept other elements of the existing wages and benefits intact and all benefits earned to date will be paid."

"Our power plants must compete with other unregulated power generators in what is a tough economic environment," Judge said. "None of our competitors has started a new traditional pension plan or offer such a plan to new employees. Our proposal allows our plants to remain competitive, stay open and continue to employ the workers we rely on to operate those plants." ■

FERC Denies Shell, ODEC GreenHat Settlement Role

By Christen Smith

Shell Energy and Old Dominion Electric Cooperative failed to make their case that they belong at the GreenHat Energy settlement table, FERC said in denying the companies' rehearing requests Thursday.

FERC said the companies' argument that they are "uniquely situated" in the proceeding and that their late intervention would not "unduly burden or prejudice any party" was "unpersuasive" (ER18-2068).

"We do not find that failing to grant late intervenors party status will necessarily result in a settlement that is not 'fair and reasonable and in the public interest,'" FERC said. "Should the parties reach settlement in this proceeding, the commission will review the terms of that settlement and determine whether such settlement meets the relevant standard."

Shell's *request for rehearing* argued that FERC erred when it dismissed more than a score of late-filed motions from intervenors seeking to participate in the unwinding of GreenHat's financial transmission rights portfolio. GreenHat was declared in default in June 2018 after it failed to make good on its mounting losses. (See *Shell Demands Seat at GreenHat Settlement Table*.)

On June 5, the commission gave PJM members 90 days to settle disputes about how to move forward before kicking off a paper hearing on the RTO's request to clarify a ruling rejecting its request to waive its FTR liquidation rules. (See *FERC: PJM Settle Disputes Before GreenHat Hearing*.)

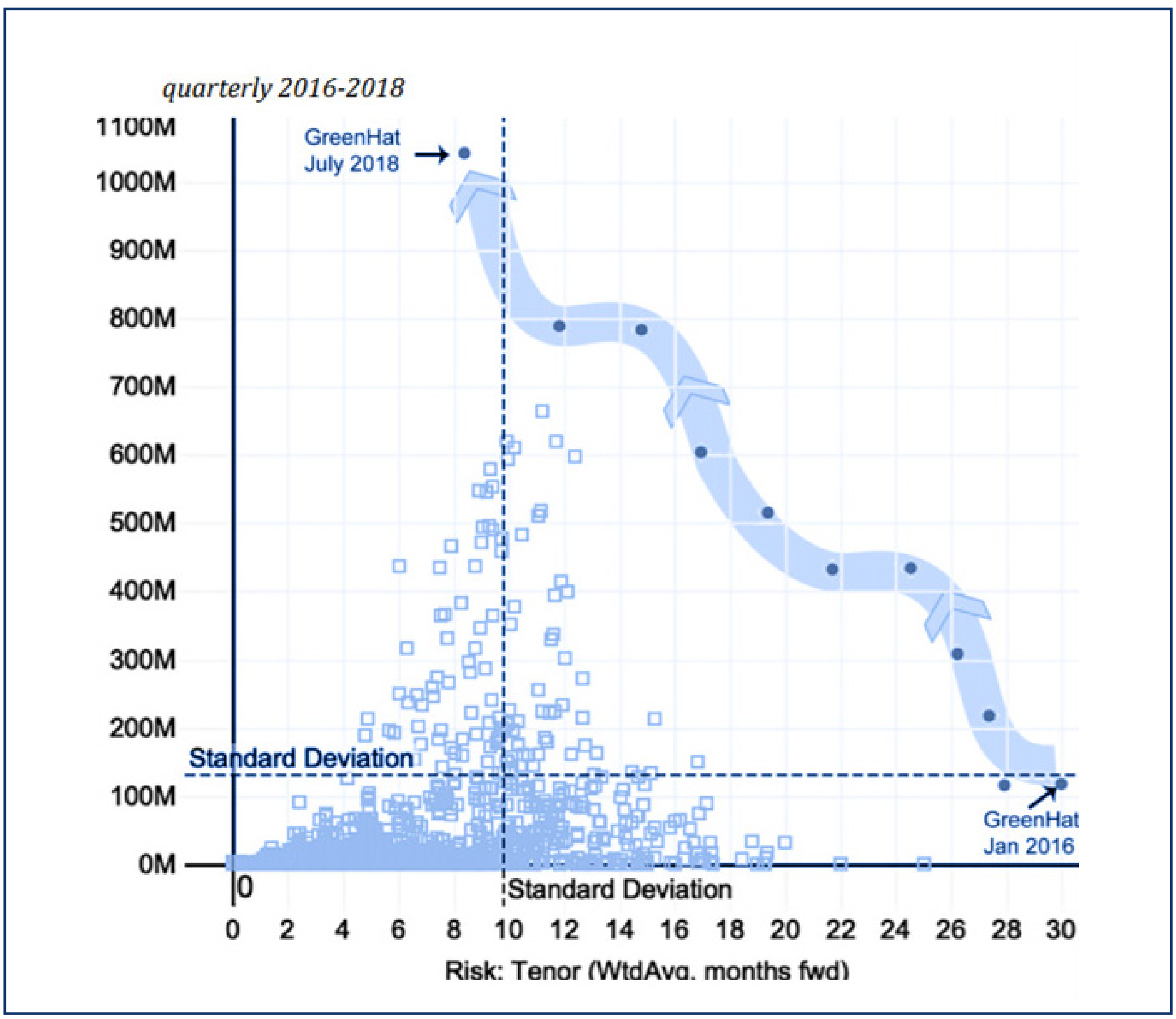
Shell was among more than 20 petitioners that filed after the comment period for PJM's request passed. FERC rejected the late filings, saying none demonstrated "requisite good cause for late intervention."

Shell said a PJM Tariff provision caused its tardiness, a circumstance that it says none of the other petitioners faces. It had explained that it entered into three bilateral contracts with GreenHat that involved transferring FTRs back and forth between the two companies. Liquidating the GreenHat portfolio "could substantially affect the amount sought by PJM from Shell for the guarantee and indemnification claim" the RTO placed on the portion that was transferred. (See *Shell Energy Seeks to Avoid Liability in GreenHat Trades*.)

"Shell Energy knew at the time PJM filed its waiver request that it had transactions with GreenHat that a commission ruling might affect," FERC said. "Regardless of whether Shell Energy agreed with PJM's request for waiver, it could have intervened timely to protect its interests."

ODEC had said its late filing was nothing more than an "oversight" — an explanation the commission found lacking. It said ODEC's interests in the case, which could set a precedent for financial defaults in RTOs, could be "sufficiently" represented by other timely intervenors.

"Old Dominion does not explain in seeking late intervention how other participants will not sufficiently represent this generalized interest, and there are, in fact, others who timely intervened on the basis they too would be impacted by the outcome of the proceeding," FERC said. "Moreover, concern that adverse precedent may be created is not a persuasive basis for late intervention." ■



An independent consultants' report said GreenHat's trading "was conspicuous in that its positions were far larger and of longer tenor than those of other financial participants in the FTR market." | *PJM*

PJM News

Stakeholders: PJM Gas Contingency Filing too 'Vague'

By Christen Smith

VALLEY FORGE, Pa. — Stakeholders remain displeased with what they call the vagueness of PJM's revised gas contingency filing, saying it will punish resources that deliver additional flexibility when the grid needs it most.


Thomas DeVita, PJM | © RTO Insider

Thomas DeVita, PJM senior counsel, told the Markets and Reliability Committee that staff will file the revised version at FERC in October with implementation scheduled for December. In February, the commission rejected PJM's stakeholder-endorsed gas contingency cost recovery formula, which generators would use to recover losses when forced to switch pipelines at PJM's emergency instruction. The proposal included nine categories of defined switching costs, such as park-and-loan service charges and overrun charges, that FERC staff later told PJM should be dropped in favor of broader language. (See "Winter is Coming' … Along with Gas Contingency Plan (Hopefully)," *PJM MIC Briefs: Aug. 7, 2019*.)

The commission also argued that the conditions for switching belong in the Tariff — not just manuals — and gave PJM a chance to revise the proposal over the spring and summer.

DeVita said Thursday the new filing replaces the defined costs with a direct "but for" test to "encompass all costs that would not have been incurred 'but for' the generator's compliance with the switching instruction."


Vector Pipeline | *DTE Energy*

"The 'but for' test is immensely broad. … There are a wide range of potential costs that are not recoverable but could be under that extremely broad language," said Joe Bowring, PJM's Independent Market Monitor.

Bob O'Connell, director of regulatory affairs and compliance for Panda Power Funds, argued that despite PJM's assertion that it has the authority to direct pipeline switches, there's no sufficient way to reward those that respond. He said the proposed Tariff language provides a "limited opportunity" to recover costs and may discourage resources from providing that extra flexibility in order to minimize their financial risk.

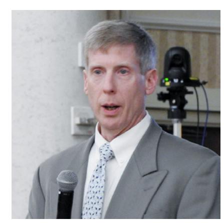
"The cost recovery PJM has proposed is fraught with holes that will result in resources being unable to recover the legitimate costs they incur in complying with PJM's mandate," he said. "But even if full cost recovery is attainable, the resource is left without any incentive for providing the flexibility."

Stakeholders also questioned where PJM's authority will end and worried that approving such broad cost recoveries could lead the RTO down a "slippery slope."

"My concern is, tomorrow PJM might be directing a generator to give its spare parts to a neighbor," O'Connell said. "There must be a bright line [in the sand] … and we must never cross that line."

PJM argued that both FERC's invitation to rewrite the proposal and existing manual language confirms that it has the authority to order pipeline switches.

"I think we are more than happy to go back and review the discussions on authority that were had when those provisions were put in place," said Stu Bresler, senior vice president of markets and planning. "There was discussion on this when the manual language was developed. The fact of the matter is it could occur; our thought was, to get some certainty around what would happen regarding compensation is a good thing." ■


Stu Bresler, PJM | © RTO Insider

PJM News

PJM MRC Briefs

FTR Overhaul Continues

Susan J. Riley, PJM | © RTO Insider

VALLEY FORGE, Pa. — Interim PJM CEO Susan J. Riley told the Markets and Reliability Committee on Thursday that work continues in the Financial Risk Mitigation Senior Task Force to overhaul credit policies in the wake of the GreenHat Energy default.

"We want to be sure that we are not making one-off changes that have unintended consequences," she said. "I'm sure you can appreciate [the need for] ... establishing collateral rules that protect our members."

Nigeria Poole Bloczynski, PJM's newly hired chief risk officer, addressed the task force during its Aug. 15 meeting and said that while the GreenHat default — which could cost members more than $430 million — prompted the review, the forthcoming changes will benefit "all of PJM's markets." (See *FERC Orders PJM to Unwind GreenHat Settlements* and *PJM: FERC Order Could Boost GreenHat Default by $300M*.)

"While there's some low-hanging fruit, what I want to do is take a very thoughtful approach as it comes to pulling together the credit-risk policy, because I think we can tackle some issues that not only relate to FTRs, but to the broader market that we participate in," she said in a *press release*. She also said the RTO must monitor and "take active measures to mitigate risk exposures that are generated by each participant."

Riley also told the task force that feedback from members remains paramount in structuring effective reforms.

"We'll propose certain things that we feel are important, but we really want your input and your thoughts on their viability, on how these things affect your companies [and] your businesses," she said. "We think we're doing the right thing and feel pretty strongly — but again, we welcome your input."

Non-retail BTM Generation Vote Delayed

Stakeholders deferred a vote on manual revisions that clarify updates to PJM's non-retail behind-the-meter generation (NRBTMG) rules, opting for more time to discuss elements of the proposal regarding community solar and net energy metering.

Exelon led the effort for delay after requesting to remove the voting item from the consent agenda. Sharon Midgley, director of wholesale development for Exelon, said her company could "benefit from another month of discussion." Public Service Enterprise Group, the PJM Public Power Coalition and Duquesne Light Co. agreed.

The *revisions* to Manuals 13 and 14D, which address the reporting, netting and operational requirements of NRBTMG, are intended to ensure member and PJM responsibilities, processes and procedures are clear and adequately captured, said Terri Esterly, PJM's senior lead engineer for capacity market operations. (See "BTM Generation Clarifications," *PJM OC Briefs: Aug. 6, 2019*.)

NRBTMG refers to resources used by municipal electric systems, electric cooperatives or electric distribution companies to serve load. They do not participate as supply resources in PJM markets but can be netted against their wholesale load to reduce transmission, capacity, ancillary services and administrative fee charges.

Midgley said Exelon approves of the concepts and reporting requirements outlined in the manual change but is still reviewing differences in the application of the rules — specifically whether community solar programs and aggregate net energy metering are within scope.

"Exelon doesn't think they fall into a 'non-retail behind the meter generation' category, and PJM is interpreting these types of programs as being in scope," she said. "If in scope, these programs would need to respond to certain emergency procedures, and we are questioning if this is appropriate."

PJM's Markets and Reliability Committee met Aug. 22 at the Valley Forge Conference and Training Center. | © RTO Insider

Fuel Security Charter Revisions Endorsed

The MRC unanimously endorsed a *revised charter* for the Fuel Security Senior Task Force, which will allow members to progress to phase 2 and bring its recommendations to the Dec. 19 MRC meeting — three months after its original deadline of September.

Tim Horger, director of energy market operations for PJM, said the modified timeline streamlines the process and keeps stakeholders out of a "messy" situation should recommendations scheduled for next month not win endorsement.

The task force is expected to deliver recommendations to the MRC on whether market, operational or planning changes are needed to ensure "fuel/energy/resource" security. (See *PJM Stakeholders Reluctantly OK Fuel Security Initiative*.)

Manuals Endorsed

Stakeholders endorsed the following manuals:

- *Manual 10*: Pre-Scheduling Operations, regarding generator outage reporting. The changes include clarifications for outage ticket end dates for deactivations and outage ticket requirements for black start service.
- *Manual 11*: Energy & Ancillary Services Market Operations and *Manual 18*: PJM Capacity Market, to bring the RTO into compliance with FERC Order 841. The revisions will clarify that storage resources can participate in the RTO's markets and can dispatch and set price as seller and buyer. They also note that stored megawatt-hours are billed at LMPs as wholesale transactions. The committee also approved changes to *Manual 15*: Cost Development Guidelines, detailing business rules for developing cost offers for hydroelectric resources, batteries and flywheels. Staff also added definitions for efficiency factor, fuel cost, variable operations and maintenance, and ancillary service costs. (See "Order 841 Manual Revisions Endorsed," *PJM MIC Briefs: July 10, 2019*.)
- *Manual 18B*: Energy Efficiency Measurement & Verification, resulting from a periodic review. ■

— Christen Smith

PJM News

PJM TO Tariff Filing Stirs up Transparency Concerns

By Christen Smith

VALLEY FORGE, Pa. — PJM stakeholders last week expressed concern that a proposed Tariff *filing* by transmission owners could undermine FERC-ordered transparency rules for certain supplemental projects.

Consumer Advocates of the PJM States (CAPS) asked the Markets and Reliability Committee last week to open up discussion on the agenda item that was originally listed as informational — meaning stakeholders don't discuss it during the meeting — after some wondered why a Tariff attachment that dealt with "critical" transmission assets wasn't vetted with involvement from all sectors.

"If the TO's aren't taking an item like this into the Planning Committee, then what is the point of the PC?" CAPS Executive Director Greg Poulos asked, referring to the path stakeholders usually take to endorse Tariff filings. "It's certainly something we need to discuss."

The attachment in question, developed by multiple TOs, outlines a process to vet transmission system enhancements designed solely to remove critical assets — typically substations — from the CIP-014-2 list, which contains fewer than 20 assets within the PJM footprint. NERC reliability standards deem these assets "highly critical … that, if rendered inoperable or damaged due to physical attack, could result in significant grid concerns: widespread instability, uncontrolled separation or cascading."

According to PJM rules, replacing these CIP-014-2 assets — which count as a subset of supplemental projects — with new facilities must involve an open and transparent discussion with stakeholders. But doing so, the TOs contend, poses the dilemma that the highly secretive location of these facilities could be revealed.

TOs suggest a comprehensive vetting process that involves analysis and confirmation from PJM that projects capable of removing the assets from the CIP-014-2 list do not overlap with an existing baseline upgrade in the Regional Transmission Expansion Plan nor do they harm system reliability. TOs will also consult state commissions, but public review of the project won't begin until after its put into service. The TO zone where the project was built will assume 100% of the cost, according to the draft, keeping in line with other supplemental project rules. The filing will sunset after five years.

A TO-proposed Tariff filing that skirts FERC-ordered transparency rules for replacing certain critical substations left other stakeholder sectors uneasy last week. | *Pexels*

Ken Seiler, PJM | *© RTO Insider*

"There is a finite number of these facilities," said Ken Seiler, PJM's vice president of planning. "Our goal is to get those facilities off the list so they are no longer critical. Our goal is to get it to zero and have no further facilities like this in our future going forward."

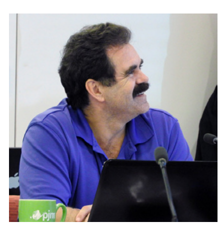
Pulin Shah, director of transmission strategy and contracts for Exelon, told the MRC it was accepting stakeholder comments on the Tariff filing via email through Sept. 16.

"We do not have a particular time frame [for filing] because this is essentially a TO initiative," he said. "The feedback process can impact next steps. If we receive no comment, we move to the next step in preparing a filing. If comments require an extensive level of responses, obviously that's going to affect next steps."

Many in the room, however, objected to the process through which the language was drafted and wondered how the sector would provide transparency into the concerns raised through the emailed comments.

"It could be viewed as a stepping stone to putting more supplemental projects behind a veil where there is no transparency to customers," said Susan Bruce, an attorney representing the PJM Industrial Customers Coalition. "I think you can presume that you will get questions. My hope is that there is a process around [those questions] that is transparent to those of us who asked them."

Susan Bruce, PJM Industrial Customers Coalition | *© RTO Insider*



David "Scarp" Scarpignato, Calpine | *© RTO Insider*

David "Scarp" Scarpignato of Calpine questioned the cost of replacing the facilities.

"How many dollars are you talking about here? That's a pretty serious consideration," he said. "If you are talking about super critical things … I'm thinking it's in the lots of billions. Why is this not open to competition?"

Steve Herling, PJM's executive consultant, said cost assumptions can't be made at this stage, given that the proposed process is not yet in use and no solutions have been offered. ■

SPP News

SPP Sets System Demand Record Amid Plains Heat

SPP set a new record for system demand Aug. 19 as a heat wave swamped the southern Midwest and Great Plains.

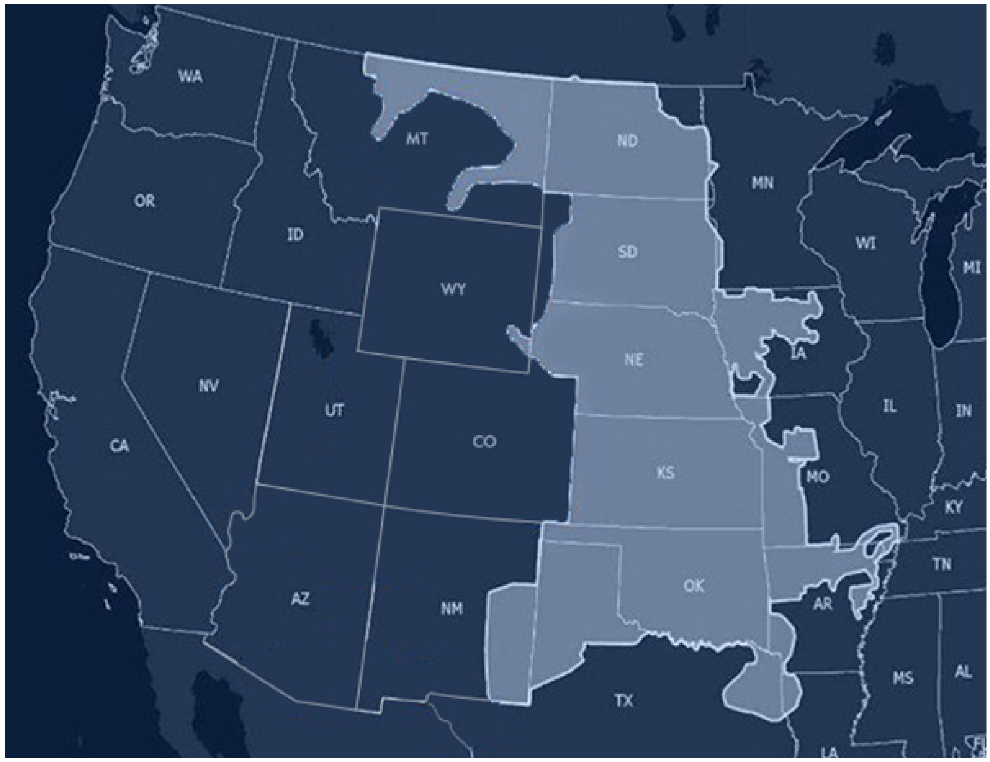
The system's demand peaked at 50.66 GW at 4:39 p.m. as temperatures hit 101 degrees Fahrenheit in Oklahoma City. That broke SPP's historical peak load of 50.62 GW, set in July 2016.

Average prices in the SPP footprint dropped from $36.08/MWh at 4:30 to $28.81/MWh at 4:45. The south and north trading hubs did not get above $31.14/MWh during that time.

The low prices likely resulted from strong wind production, which exceeded SPP's forecast. SPP's Market Monitoring Unit said in its most recent annual market report that unexpected high wind generation can lead to lower real-time prices. The market's wholesale prices averaged around $28/MWh in 2018.

The average day-ahead price Aug. 19 was $66.99/MWh, when the National Weather Service placed eastern Oklahoma under an excessive heat warning. The NWS projected heat indexes approaching 115 F in the state and parts of neighboring Arkansas. ■

— Tom Kleckner



SPP Region | *SPP*

Company Briefs

Vistra to Purchase Another Texas Retailer

Vistra Energy said it has reached a deal to buy the Dallas electricity retailer Ambit Energy for $475 million. The all-cash sale is the latest retail electricity acquisition in Texas.

The purchase is subject to regulatory approval, including by FERC. It is expected to close by the end of the year.

Vistra's deal means it will add 1.1 million customers in 17 states and will control about 32% of the Texas retail electricity market, up from 25%. The deal comes six months after Vistra bought Connecticut company Crius. Vistra initially offered $328 million but upped its offer to $378 million when an unidentified suitor made another offer.

More: *Houston Chronicle*

Walmart, Tesla in Legal Fight over Fiery Solar Panels

Walmart is working on a resolution with Tesla after it sued the electric car company's energy division last week for installing rooftop solar panels that caught fire between 2012 to 2018.

In a lawsuit filed Aug. 20, Walmart said Tesla installed solar panels that went up in flames on seven of its store rooftops, causing millions of dollars in damage. According to the complaint, inspections found that several of the solar panels were broken and wires were hanging out. Walmart accused Tesla of engaging in "widespread, systemic negligence" and said it "failing to abide by prudent industry practices in installing, operating and maintaining its solar systems."

In a joint statement Friday, the companies said they look forward to reactivating the panels once both sides are certain all concerns have been addressed. Walmart spokesman Randy Hargrove said the lawsuit has not been dropped, but that the companies are "actively working" to resolve it.

More: *The Associated Press*

Investors Start to Cool on Utilities

Utility stocks haven't been climbing in August as much as some analysts and investors might expect given the sharp drop in bond yields recently.

NextEra Energy, Southern Co. and American Electric Power have outpaced the S&P 500 this month, climbing at least 3.1%. That gain is seen as relatively modest given that investors have flooded into government bonds in recent weeks, pushing the yield on the 10-year Treasury note to multiyear lows. Utilities are typically viewed as bond proxies because they pay relatively high dividends and tend to have steady earnings during times of economic uncertainty.

One reason, analysts say, is because S&P 500 sectors perceived as safer — such as utilities, consumer staples and real estate — have been outperforming the broader market over the past three months, a reversal from earlier this year when cyclical sectors tied to the health of the U.S. economy sent major stock indexes to records. Analysts said utility stocks didn't have as much room to rise after that rally.

More: *The Wall Street Journal*

Federal Briefs

New York Sues EPA over GE's Hudson River PCB Cleanup

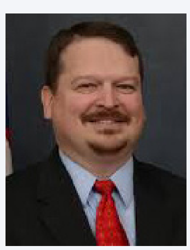
New York last week sued EPA, accusing the agency of prematurely allowing General Electric to stop clearing the Hudson River of polychlorinated biphenyl (PCB) contamination before the cleanup was complete.

State officials are seeking to void GE's "certificate of completion" from EPA on April 11, which excused the company from further dredging unless further studies showed more was needed. GE spent roughly $1.7 billion to clean up the river over eight years, including six years of dredging.

Two since-closed GE capacitor manufacturing plants north of Albany dumped roughly 650 tons of PCBs into the river between 1947 and 1977. About 200 miles of the river were polluted, stretching as far south as Battery Park in Manhattan. State officials said about 54 tons of PCBs remain in the upper Hudson and that contamination levels in fish remain three times higher than the agency's goal.

More: *Reuters*

Balash Resigns from Interior Department



Joe Balash, assistant secretary for land and minerals management at the Interior Department, informed President Trump last week he would resign on Friday.

Balash, who has served in the position since December 2017, did not give the president nor reporters details about the reason for his departure. But he told the Anchorage Daily News that an "opportunity" had come along that he couldn't ignore. "I'll have more to say about my next adventure once I have fully separated from the department," he said. "I'm leaving on good terms — it's all positive."

His resignation aggravates a broader problem with leadership vacancies and could complicate some specific Trump administration priorities on which the Alaska native had taken the lead. The department of some 70,000 employees has already been without a deputy secretary since late April, when David Bernhardt was elevated to Interior secretary. The Senate-confirmed directorships of the Bureau of Land Management, National Park Service, and Fish and Wildlife Service also remain vacant.

More: *Anchorage Daily News*; *E&E News*

TVA Board Approves 10-year Rate Freeze, 20-year IRP

The Tennessee Valley Authority board of directors approved the utility's 10-year financial plan Thursday, canceling four electricity rate hikes planned for the next four years.

The board ratified a $10.59 billion budget for fiscal year 2020, which starts Oct. 1.

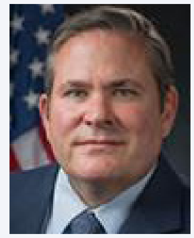
That's down $461 million from the current annual budget, according to board documents. TVA had raised its base rate 1.5% a year for six years, under a financial plan adopted in 2013, which paid for a series of system improvements and reduced its debt. The utility reached its goals earlier than expected, making further rate increases unnecessary, the board determined.

Demand for power is expected to remain flat for several years, with the only major additions being previously announced data centers for Google and Facebook, which will be served by large solar farms. As part of a 20-year integrated resource plan, also approved Thursday, the utility projects adding up to 14 GW of solar generation by 2038. The plan also recommends retiring up to another 2.2 GW in coal generating capacity over the next two decades, while adding up to 5.3 GW in energy storage capacity, and anywhere from 2 to 17 GW of natural gas generation, all by 2038.

More: *Knoxville News Sentinel*

Acting EPA Deputy Admin Taking Reduced Role, Leaving DC

Acting EPA Deputy Administrator **Henry Darwin** will step down and return to his home state of Arizona, where he will work out of the agency's Phoenix office as an assistant deputy, Administrator Andrew



Wheeler told staff last week.

Darwin joined EPA as chief of operations under former Administrator Scott Pruitt and was promoted to deputy administrator under Wheeler last July.

Doug Benevento, the former Region 8 chief who was brought to D.C. earlier this year as a counselor to Wheeler on regional and state affairs, "will take a leadership role at headquarters and become the associate deputy administrator," EPA spokeswoman Corry Schiermeyer told Politico.

More: *The Hill*; *Politico*

State Briefs

ARIZONA

APS CEO Brandt to Retire in November

Pinnacle West Capital said **Don Brandt** will retire as the president, CEO and chairman of the board of subsidiary Arizona Public Service, effective Nov. 15. The move follows 16 years with the company.

Brandt intends to honor his commitment to testify at the Corporation Commission on Sept. 4. Regulators have prepared a list of written questions they want him to answer and are coming up with more. APS has recently come under scrutiny following reports that several customers died after their power had been cut off. That led to commissioners seeking answers from Brandt about company policies.

It was under Brandt that Pinnacle West funneled $10.7 million through other organizations that spent heavily in the 2014 commission race to elect a panel of all Republicans. In 2016, the company openly spent $4.2 million to keep the commission an all-Republican affair. It did not participate in the 2018 campaign but still spent $32 million to deter an initiative that would have required regulated utilities like APS to get more of their energy from renewable sources.

More: *Arizona Capitol Times*

CONNECTICUT

State Looks to Purchase more Offshore Wind Power

The Department of Energy and Environmental Protection last week released a request for proposals for up to 2,000 MW of offshore wind power as required by a new state law. Bids are due by Sept. 30.

The state already plans to purchase about 300 MW of offshore wind power from the Revolution Wind project, which is planned for federal waters south of Martha's Vineyard, Mass.

Gov. Ned Lamont said the new request represents "the future of the state's environmental, energy and economic potential."

More: *The Associated Press*; *The Day*

DELAWARE

New Law Lifts Restrictions on Residential Solar Panels

Gov. John Carney (D) last week signed a bill that removes red tape barring some homeowners from adding solar panels to their property.

The new law voids any "unreasonable" land-use restrictions on roof and ground mounted solar systems at private residences. Energize Delaware, a nonprofit offering loans for solar panels at private residences, says it expects the law to free up some residences previously unable to take advantage of the program.

More: *Delaware Public Media*

ILLINOIS

Vistra to Close 4 Coal-fired Power Plants

Vistra Energy last week announced it will close coal-fired power plants in Canton, Havana, Hennepin and Coffeen in order to meet new revisions to the Multi-Pollutant Standard Rule introduced by the state's Pollution Control Board.

The company said it is closing the four plants to save the other four plants it operates in the state. The closures will drive down emissions from 57% to 61%, getting Vistra under the new cap.

"Even though today's retirement announcements were inevitable due to the changing regulatory environment and unfavorable economic conditions in the MISO market, they are nonetheless difficult to make," CEO Curt Morgan said. About 300 people will lose their jobs in the closures.

More: *Peoria Public Radio*

KANSAS

County Votes to Ban New Wind Farms, Restrict Commercial Solar

The Sedgwick Board of County Commissioners last week voted unanimously to ban large-scale development of wind power countywide and to establish strict rules for commercial solar power installations. The Wichita City Council must still approve the new amendments.

"After a thorough analysis of public input, airport locations and residential development patterns, commercial wind energy systems have been deemed incompatible with our area," Chairman **David Dennis** said. "Going forward, solar panels will still be welcome in our community. Kansans have a long history of being good stewards of our natural resources, and I'm pleased to continue that tradition in Sedgwick County."

Any large-scale solar installations will have to go through a complicated permit process, including providing detailed information on the technology to be used, a glare-hazard analysis, a 35-foot limitation on height and Federal Aviation Administration approval within a 1-mile radius of any airport or landing strip.

More: *Wichita Eagle*; *North American Windpower*

MICHIGAN

DTE Gas Customers to See Monthly Credit Beginning in September

The Public Service Commission last week approved monthly decreases for DTE Gas customers to reflect the impact lower corporate tax rates have on the company's long term-investments.

A total of $333 million will be returned to customers, or $12.7 million annually. That amounts to 58 cents/month for the average customer.

More: *Detroit Free Press*

NORTH CAROLINA

House Sends Multiyear Rate Bill Back to Senate

The state House of Representatives last week voted 63-51 to amend a bill that would allow for utilities to propose multiyear rates for up to five years, sending it back to the Senate for reconciliation.

The House version of the bill instead directs the Utilities Commission to assemble a study group to look at modernizing the state's regulatory structure.

More: *WRAL*