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RTO Insider

YOUR EYES AND EARS ON THE ORGANIZED ELECTRIC MARKETS

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2022 IPPNY Fall Conference

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COVER: Attendees at IPPNY's Fall Conference mingle during a coffee break. |

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FERC/Federal News

Strong Growth, Challenges Reported in Grid-scale Energy Storage

By John Cropley

Grid-scale energy storage totaling 1.17 GW was installed across the U.S. in the second quarter of 2022, a 212% increase from the same quarter of 2021, an industry report shows.

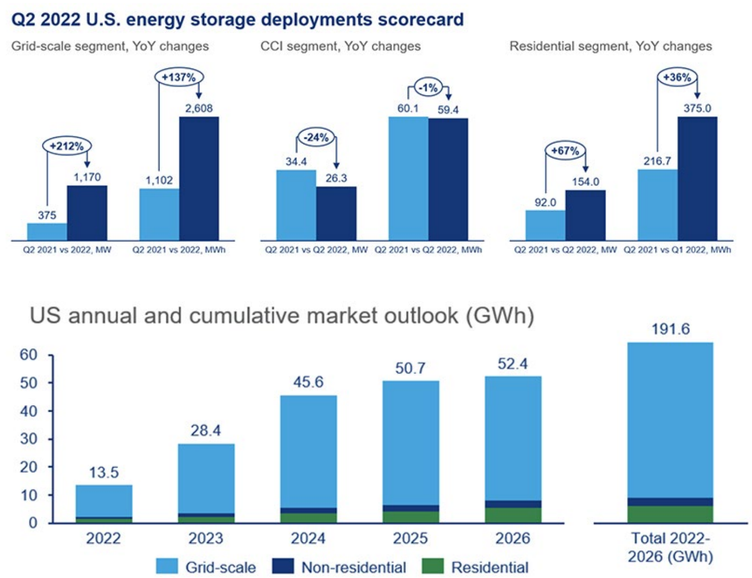
But an almost equal amount — 1.16 GW — of installations projected to come online in the second quarter were delayed or canceled because of problems in the supply chain, shipment delays or challenges in the interconnection queue.

The quarterly U.S. Energy Storage Monitor report by Wood Mackenzie Power & Renewables and the American Clean Power Association (ACP) was released Sept. 14.

It found a smaller increase in residential installations (154 MW in the second quarter of 2022, up 67%) and a decrease in community/commercial/industrial installation (26.3 MW, down 24%).

Wood Mackenzie forecasts rapid and steady growth in the next few years, with U.S. installed capacity expanding 192 GWh from 2022 through 2026. But analyst Vanessa Witte expects continued headwinds in the near term.

“Despite impressive growth, the U.S. grid-scale energy storage pipeline continues to face rolling delays into 2023 and beyond. More than 1.1 GW of projects originally scheduled to come online in Q2 were delayed or canceled, although 61% of this capacity, 709 MW, is still scheduled to come online in Q3 and Q4 of 2022,” she said in a news release announcing the report.



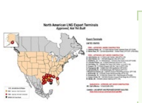
Recent and forecasted future installation of energy storage | *Wood Mackenzi*

Investment tax credits enacted for standalone storage and extended for solar power as part of the Inflation Reduction Act are expected to support all segments of the energy storage industry, the authors of the report said.

“The U.S. energy storage industry is reaching maturity,” said Jason Burwen, ACP’s vice president of energy storage. “Energy storage is now regularly being installed at over a gigawatt per quarter. In addition, Texas overtaking California this quarter should serve as a reminder that generators, customers and grid operators in all geographies are increasingly relying on energy storage.”

The capacity of the units installed in the second quarter of 2022 totaled 3.04 GWh, the bulk of it in grid-scale projects, which accounted for 2.61 GWh. ■

National/Federal news from our other channels



Energy-short Europe Importing More US Shale Gas — NetZero Insider

FHWA Approves 35 State NEVI Plans — NetZero Insider

Summit Attendees Hail IRA’s Hydrogen Tax Credit as ‘Game Changer’ — NetZero Insider

NERC RSTC Briefs: Sept. 13-14, 2022 — ERO Insider

NERC Outlines IBR Risk Mitigation Strategy — ERO Insider

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CAISO/West News

WECC Forum Elicits Hopes, Fears About Future of Electric Sector

By Robert Mullin

HENDERSON, Nev. — Gary Nolan, NERC compliance manager at Arizona Public Service, is more than a little uneasy about the future of the electric industry's workforce.

Speaking Sept. 13 at WECC's first in-person stakeholder meeting since the onset of the COVID-19 pandemic, Nolan raised what's become a running concern for the utility industry: the inability to attract younger employees who want to stay in a position for the long haul.

"I know when I was hiring dispatchers 15 years ago, I was having to hire new ones every six to nine months," Nolan said. "I kept thinking, 'I don't know how sustainable this could possibly be.' In the 15 years since then, I would say I'm sure — as WECC has noticed — that has only gotten worse, right?"

Nolan could only think of a couple operators in APS' control center who have more than two years on the job. He said it takes at least that long for an employee to become an effective operator of a high-voltage transmission network.

"And knowing this … next generation does not seem like they want to have one career for 30 years, unless something fundamentally changes here in the near future, I really think that we're going to have to rethink how these jobs are performed or how we're training for these jobs, because you cannot rely on an algorithm now to have those five to 10 years of [human] experience and know how to survive significant [grid] events," he said.

"So that's something that certainly scares the pants off me."

Nolan's comments came during an "interactive strategy forum," part of the series of meetings at WECC's annual member conference. WECC convened the forum to elicit members' visions for the electric sector over the next decade to help the organization shape its long-term strategy.

"It's important that WECC's work be informed and shaped by our stakeholders. … What should we be prepared for in 2032? [Because] that 10 years will go by very fast," said Kristine Raper, WECC vice president of external affairs.

New 'Patterns of Living'

Maury Galbraith, executive director of the Western Interstate Energy Board, pondered the workforce issue from a different angle — but one that could still affect the electricity sector in a big way.

"Is work going to look the same in 10 years than it does today? I mean, are we going to really be having five-day workweeks? Eight-hour workdays? I cannot imagine that is going to be the future in 10 years. I think people will be setting their own schedules, working at their own pace on their own time," Galbraith said.

He pondered how that could affect the "pattern of living" and the shape of electrical load over the course of a week.

"Are we really going to continue to have a problem with meeting load the length of 6:30 to 10 p.m. time frame? Or is all the load in that time frame going to go elsewhere? I just don't think the problems of today are necessarily the problems of 10 years from now," he said.

"I would imagine that there's going to be big, big changes in how people work? I'm hoping we get four-day workweeks. That'd be great," Galbraith said, eliciting applause from some in the room.

"I don't know about you, Maury, but I've already been out of the 9-to-5, five-day-a-week world for quite a long time now," said Fred Heutte, senior policy associate with the Northwest Energy Coalition. "Who could have imagined what a little organism called the coronavirus could do to our working patterns?

"I don't think that we're going to go back to the way things were. I agree that these patterns are significantly shifting, have already shifted [and] could shift more," Heutte said.

Making Life Easier

For Utah Public Service Commission Chair Thad LeVar, a need for new infrastructure is the most pressing issue facing the Western Interconnection. He said the industry must figure out how to build more transmission in a way that prevents electricity from becoming a "luxury."

"I don't have the answers to that, but I think that's what we have to deal with," LeVar said.

Galbraith expressed optimism that the electric sector is poised to improve lives on a scale similar to the drive for rural electrification in the U.S. a century ago.

"I'm not a believer in technology for technology's sake, but I am really excited about the electric industry," Galbraith said, recounting that his own father grew up in Southern Illinois in a house with a dirt floor and no running water.

Fred Heutte, Northwest Energy Coalition | © *RTO Insider LLC*

"He loved rural electrification," he said. "There was nothing you could tell that man for my entire life that was bad about the electric system. You could point to a dam and say it killed all these fish, and it cut off a great kayaking river, and he didn't care. It provided rural electrification; it made life easy for a whole generation of people. And there was no way you could diminish the electric industry in that man's eyes.

"What are we going to do that's similar to that in 10 years — and in 20 years?"

Galbraith thinks the answer lies in transportation electrification.

"I actually look forward to the day when I don't have to go to a filling station. Maybe some of you are already doing that today," he said, adding that he envisions a time when gas stations don't dot every corner in his Colorado town. "I think we've got to focus on how we are going to make people's lives a little bit easier.

"I see people getting excited about the electric industry in the next 10 years, and maybe a whole new generation of people saying, 'Wow, look at what the electric industry achieved,'" Galbraith said.

LeVar said the industry faces the challenge of turning transportation electrification from a "strain on the grid to an opportunity." He thinks policymakers lost an opportunity when they failed to make electric vehicle tax incentives contingent on manufacturers designing EVs to be available "two-way" to the grid.

"If something doesn't move in that direction, electrification of transportation will be a strain where it really has the opportunity to be one of the solutions," LeVar said.

Climate Insights

Heutte managed to find a bright spot in the most recent strain on the Western grid. As California was plunged into a series of energy emergencies stemming from an extreme and extended heat wave, Heutte noted, UCLA climate scientist Daniel Swain tweeted about a "striking" satellite image showing Hurricane Kay approaching California from the south along with an "enormous" pyrocumulonimbus cloud emanating from a wildfire in the northern part of the state.

"I'm struck by just how amazing it is that we can casually pull up this kind of real-time earth-orbiting satellite data on demand — it really is quite something," Heutte said. "And the way I'm thinking about this is how we can incorporate this really vast meteorological and climate data into not just operations … but also longer-term planning."

Riffing off Heutte's comments, Dana Cabbell, director of integrated system strategy at Southern California Edison, said the industry will need to determine how to adapt the grid to myriad climate risks.

"As we're seeing, there's great climate hazard science going on," Cabbell said. "We understand what we're seeing in the year 2030, 2050, 2070, and how that can impact the grid overall. I think that really needs to start playing into our planning of the grid."

Raper, a former Idaho utility regulator, asked Cabbell whether Western utilities should start incorporating those climate insights into the integrated resource plans they submit to utility commissions.

Cabbell said climate data should be included in transmission planning rather than in IRPs, but she acknowledged "it does make sense to look at it from a resource perspective too, because if we're having more droughts, you're not going to have the hydro[power]," leaving the question of what other resources will be available.

Raper rounded out the discussion with WECC's objectives from the interactive exercise.

"I think if anything is clear, it's [that] the future is pretty unclear," she said. "We want to recognize that what the future might look like is constantly changing, which means that WECC needs to be able to adapt to that as well. We want to be able to react to the changes in order to protect the reliability and security of the interconnection. Your feedback is critical to our ability to perform insightful and impactful work." ■

CAISO/West News

Western Governors Talk Climate Change

Interstate and International Cooperation Needed, They Say

By Hudson Sangree

A climate crisis on the West Coast requires interregional cooperation, the governors of California, Oregon and Washington and the premier of British Columbia said at last week's Cascadia Innovation Corridor Conference, where they shared a virtual dais.

"We know no borders when it comes to climate change and the consequences of a heating planet," Premier John Horgan said. "All of us here on the West coast have experienced unprecedented drought, fires [and] floods. The consequences are catastrophic, and British Columbia has had its infrastructure bent and broken significantly over the past number of years.

"The only way forward is to put aside the national boundaries, to put aside the subnational boundaries that separate us, and go to the values that unite us," he said.

This year's *conference* — in Blaine, Wash., on the U.S.-Canada border and sponsored by Microsoft and Amazon, among others — highlighted climate change and the region's "net-zero future."

It featured a *report* saying the "Cascadia mega-region, running from Portland through Seattle to Vancouver, British Columbia, has become synonymous with building a better future. Home to so many natural assets and incredible innovation and talent, one of our greatest strengths is partnership. Now is the time to partner to address one of the greatest challenges of our time: the threat of climate change to the region and the world."

Oregon Gov. Kate Brown agreed the "need for action could not be more urgent."

"Climate change is something we're no longer trying to avert. It is actually here," Brown said. "And so, I think our strategies are going to have to evolve toward mitigation and adaptation."

Last year's June heat dome over Oregon, which killed 96 residents as it drove temperatures to 116 in Portland, disproportionately harmed "communities of color [and] families with low incomes in our rural communities," Brown said.

"I think it's so critically important as we move forward, as we continue to take action to develop policy" that Oregon focuses on historically underserved communities, she said.

"One of the simplest [means] is the legislation that we passed [last year] to ensure that families with low and moderate incomes could access our [electric vehicle] rebates, both on new and used vehicles. And we were the first state in the entire country to do that. I was pleased to see that Congress followed our lead in making that available at the national level" in the Inflation Reduction Act of 2022, she said.

'Economic Power'

Moderator Rachel Smith, CEO of the Seattle Metropolitan Chamber of Commerce, asked California Gov. Gavin Newsom to discuss his state's most recent experience with extreme weather and a package of bills he sponsored in August.

"California is on the frontlines of the climate crisis with an unprecedented heatwave," Smith said. "Just this past week saw record temperatures across the state. You also made a very big push with legislative partners on climate last month."

Newsom started by thanking his colleagues for inviting him to the conference, which traditionally has involved mainly delegates from the Pacific Northwest, then segued to a talk on climate change globally and in the West.

Over a 10-day period this month, California and the Southwest broke 1,000 temperature records, and the heat stressed CAISO's grid to near-blackouts, Newsom said. (See *California Runs on Fumes but Avoids Blackouts*.)

The bills that the legislature passed at the end of August, and which Newsom signed Friday, included measures to move the state more aggressively to achieve carbon neutrality and supply all retail customers with 100% zero-carbon energy by 2045, as required by previous legislative actions and executive orders.

The California Air Resources Board adopted regulations last month requiring all new cars sold in the state to be zero-emission or plug-in hybrids by 2035, firming up his similar executive order from September 2020, Newsom noted. (See *Calif. Adopts Rule Banning Gas-power Car Sales in 2035*.)

The state has devoted $54 billion toward fighting climate change in the next five years, more than all but a handful of nations, he said. Approximately $10 billion of that amount is intended to promote adoption of electric vehicles, a top priority in California, he said.

More than 50% of greenhouse gas emissions in California come from transportation, including 41% from tailpipe emissions and the rest from fossil fuel extraction and production.

"If we're going to get serious about greenhouse gases, we have to get serious about decarbonizing the transportation sector," Newsom said.

Ford and General Motors have decided to focus on producing electric vehicles, "so we're moving markets internationally," he said. "This is not about electric power. This is about economic power."

Gov. Jay Inslee of Washington also emphasized the economic benefits of a clean energy agenda.

"The West Coast has demonstrated that if you want to have a robust, dynamic, productive economy, get on the clean energy bandwagon," Inslee said. "Because the No. 1 economy in the world today is the West Coast of the United States and British Columbia.

"And one of the reasons is we are growing jobs like crazy in the clean energy, high-tech, innovative economy. We demonstrated it. We have shown it. This is not a hypothetical. It's not a marketing bumper sticker. It's an economy that is zooming because we've embraced clean energy. And that's what people want. They want jobs, and we are delivering jobs in clean energy."

The federal government's decision to devote $360 billion to "finally" fight climate change in the Inflation Reduction Act lags the West Coast states efforts but will accelerate them, he said.

The denial of climate change by many Republicans has delayed efforts to fight it by decades, Inslee said.

Horgan, however, said a bipartisan consensus has prevailed in British Columbia and other parts of Canada regarding the need to address climate change, including through forest management to prevent wildfires. He said he hopes the majority of the U.S. will come to recognize the reality of climate change in the near future.

"We are fortunate in Canada that the [climate change] deniers are diminishing by the day because of the obvious evidence that is right in front of us, but I do not doubt for a minute — Jay and Kate and Gavin — the challenges you face because of the fracture in your country right now. All of us on this side of the border are hoping and praying that sanity will prevail in the months ahead." ■

CAISO/West News

Newsom Signs 40 Climate Bills

By Hudson Sangree

California Gov. Gavin Newsom signed six bills Friday that completed his enactment of a broad-ranging 40-bill collection of energy and environmental measures passed this legislative session, which he said established the state as a world leader in climate action.

The bills Newsom signed in an event with lawmakers included Assembly Bill 1279, codifying the state's goal of achieving carbon neutrality by 2045 and setting an 85% emissions reduction target. Another measure, Senate Bill 1020, established state goals of using 90% carbon-free electricity by 2035 and 95% by 2040 — steps on the way to supplying retail customers with 100% clean energy by 2045, as required by 2018's Senate Bill 100.

Two bills, SB 905 and SB 1314, aim to advance carbon capture and sequestration as viable means of reducing greenhouse gasses, while AB 1757 *tasks* the state's Natural Resources Agency with establishing ambitious carbon sequestration targets for "natural and working lands."

Newsom asked lawmakers to introduce the six bills — part of his *California Climate Commitment* — toward the end of the 2021/22 legislative session in August. Democratic lawmakers cooperated and quickly passed the measures, including a bill to keep the state's last nuclear plant operating at least five years beyond its planned retirement.

Newsom thanked lawmakers and touted such efforts as an engine of economic progress in a state that ranks as the world's fifth largest economy with a gross domestic product last year of roughly $3.4 trillion, not far behind Germany.

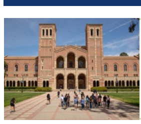
Lawmakers joined Newsom at a bill signing in Vallejo, Calif., on Friday. | *California Governor's Office*

"We often talk about electricity and electric power," he said. "It's not about electric power; it's about economic power. Electricity is the architecture to transform and decarbonize ... our economy. It allows us to leapfrog in low-carbon green growth. It allows us to dominate in the next big industry."

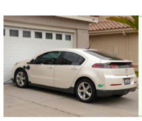
The 40 new laws Newsom has signed will produce 4 million jobs and $23 billion in taxpayer savings while reducing air pollution by 60% and fossil fuel use in transportation and buildings by 92%, the governor's office estimated. Overall, the state has directed nearly $54 billion toward fighting climate change and promoting a green energy economy in the coming decades.

The governor's office issued a news release with a *full list* of climate-related measures he signed this past legislative season, half of them recently. Information on all the measures can be found at the state's legislative *website*. ■

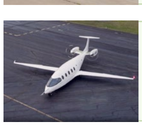
West news from our other channels



University of California System Pursues Hydrogen Blending — NetZero Insider



NV Energy Seeking $348M for Transportation Electrification — NetZero Insider



Electric Aircraft Company Eviation Lines Up Major Deal — NetZero Insider

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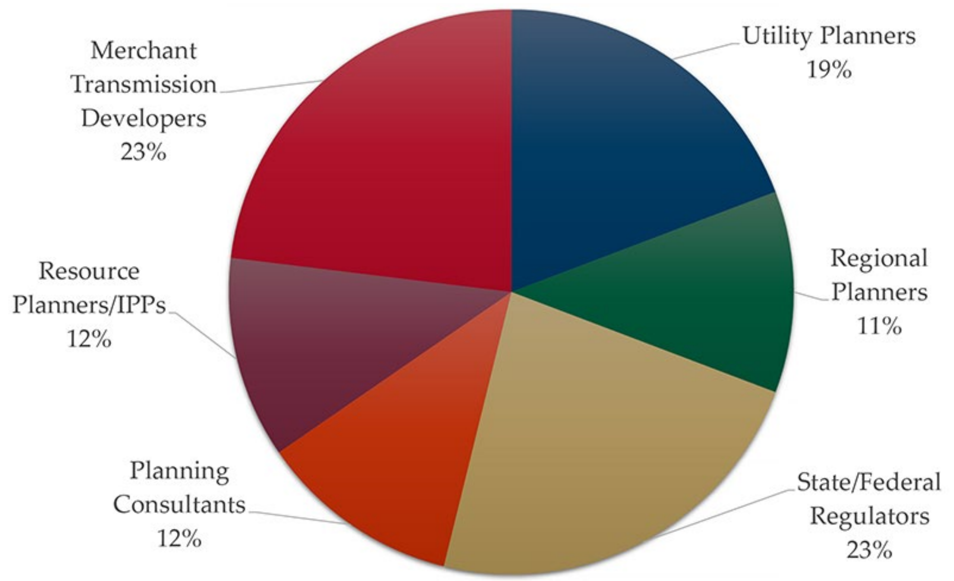
CAISO/West News

WECC Explores Greater Role in Transmission Planning

Stakeholder Interviews Reveal Top Challenges to Western Planning

By Robert Mullin



WECC interviewed 26 entities across the spectrum of stakeholders on the challenges to Western transmission planning. | *WECC*

HENDERSON, Nev. — Time and complexity are among the key obstacles to transmission planning in the Western Interconnection, WECC learned from a series of recent interviews conducted with industry stakeholders.

WECC struck "gold" from the details it gleaned from the interviews, Branden Sudduth, WECC vice president of reliability planning and performance analysis, told the organization's Board of Directors during its quarterly meeting Sept. 14. The process was designed to identify the biggest challenges to transmission planning in the West — and how WECC could help overcome them.

In June, the board asked WECC staff to perform a "gap analysis" on the challenges and report on how the organization could "add value" to transmission planning in its footprint, which covers 14 Western states, the Canadian provinces of Alberta and British Columbia and northern portion of Baja California in Mexico.

WECC interviewed 26 stakeholders for the project, including merchant transmission developers, state and federal regulators, utility planners, independent power producers, planning consultants and regional planners. Details about interviewees were kept confidential, Sudduth said.

Sudduth said interviewees noted that some regional projects have been in the works for about 15 years.

"Some of those projects, when they were first proposed, had a very specific purpose, and because it's been 15 years later and a lot of the goals of the state [and] goals of the utilities have changed, the purpose for those projects has also changed. But they've been flexible and adaptive and have been able to incorporate some of those changing objectives into those plans," Sudduth said.

Sudduth ticked off the other major challenges cited by stakeholders:

- The inability to identify "major" interregional transmission projects and frustration with the FERC Order 1000 process.
- Concerns about how to adapt to potential changes stemming from recent FERC Notices of Proposed Rulemaking on transmission planning (RM21-17) and generator interconnection processes (RM22-14).
- The division between transmission and resource planning. It's "quicker to get resources planned, sited and built than it is to get major transmission projects built," Sudduth said. "So that timeline alone creates some challenges in terms of ensuring that we have enough transmission to meet the aggressive clean energy targets that we're seeing in a lot of states in the West."
- The length of generator interconnection queues. Utilities expend a lot of effort processing queue requests, Sudduth said, and various entities have adopted different methodologies, such as the cluster or serial approach to processing. "These create some interesting and unique challenges when it comes to understanding what the transmission needs are based on those generator interconnection queues."
- Siting, permitting and cost allocation, which Sudduth acknowledged can't necessarily be lumped together given the different challenges associated with each. For instance, permitting in the West can be difficult because of the amount of federally owned land, while cost allocation can be problematic due to inconsistent treatment across jurisdictions.
- Workforce shortages, particularly among transmission planning engineers. Workforce issues were a running theme at WECC's two-day meeting Sept. 13-14. (See *WECC Forum Elicits Hopes, Fears About Future of Electric Sector*.)

Centralization, Optimization

WECC also probed the interviewees on potential solutions to the transmission challenges.

"The RTO concept came up a lot," Sudduth said. "I know there are a lot of different entities that are looking at multi state RTOs to help bridge some of the gaps that we currently see in transmission planning, and especially for those larger interstate transmission projects."

WECC also heard about other centralized planning options, "without a lot of specificity around what that means or who would be performing that," Sudduth said. He said many respondents felt that there was more planning coordination in the past, but that cooperation seemed to drop off over the last 20 years.

"Maybe it's the [lack of] ability to come together and dedicate the time to some of the pre-planning coordination that's necessary for some of these larger projects," Sudduth said.

Respondents pointed to other potential solutions, including:

- Integrated resource and transmission planning. "There's this tension between resource planning and transmission planning, and the thought is if we could get those more closely aligned and coordinated, both at a wide-area

CAISO/West News

level, but even within different entities within different companies … it might really help."

- Simplified and expedited approval processes over the long term.
- Optimization before cost allocation, which Sudduth described as the desire of some stakeholders to explore what it would take to "optimize" the performance of the regional transmission system before making decisions about specific projects.

Recs for WECC

Sudduth said a top recommendation was for WECC to expand its existing tools, models and data sets from a 10-year to 20-year time frame.

"So [there is] a lot of support in WECC developing 20-year models to help support this type of planning activity, and this was one that we've actually started having conversations with the regional planning groups around; it's already gaining a lot of momentum. I'm excited to see that there's some potential here already to expand what we currently do," Sudduth said.

Stakeholders' other recommendations for WECC included:

- Performing a "top-down" analysis of interconnection-wide transmission needs based on overall resource changes, as opposed to the more typical "bottom-up" approach that goes with transmission projects designed to address a local need.
- Coordination at key "touch points" along the transmission planning process. "One of WECC's strengths is the ability to bring together subject matter experts from around the interconnection to have conversations to coordinate on some of these plans," Sudduth said.
- Providing an "independent voice" on planning issues.

A recommendation that WECC play a role in "stronger centralized regulation" prompted WECC board member James Avery to ask: "What was the vision there? Because we're not the regulator."

"This could be anything from developing reliability standards to helping standardize some of these processes, to working with different state regulators trying to maybe identify possible opportunities for more common processes [and] common standards along the way," Sudduth said.

Board member Joe McArthur asked Sudduth how stakeholders thought an RTO could improve the transmission planning process.

"I'm not sure how to phrase my question: Does an RTO speed that up, or just provide more focus on the approval process?" McArthur asked.

"I think [for] different components of that [it does speed up the process]. So, if you have an RTO that has a centralized cost allocation process or something like that, it might help in that regard. In terms of maybe the land permitting, siting, that kind of thing, I'm not sure," Sudduth said.

WECC's next steps will be to document the insights from the interviews and offer stakeholders and board members a proposal on "the direction we'd like to go," Sudduth said. Staff must also evaluate WECC's legal limitations on acting on the recommendations. "We know there's things that we just cannot do," he said.

WECC plans to provide an update on the effort at the board's next meeting in December. ■

CAISO/West News

NV Energy Seeks Recovery of RTO-related Expenses

By Elaine Goodman

NV Energy is seeking approval from Nevada regulators to establish an account for tracking expenses related to its efforts to join an RTO by 2030 — a goal that's likely to be accomplished "incrementally," the company said.

After creating the regulatory asset account, NV Energy would seek recovery of its RTO exploration costs in future rate proceedings, according to a filing this month with the Public Utilities Commission of Nevada (PUCN). The request is part of a proposed amendment to the utility's integrated resource plan.

Senate Bill 448 from the Nevada legislature's 2021 session requires transmission providers in the state to join an RTO by Jan. 1, 2030, unless the PUCN grants a request for a waiver or delay.

NV Energy said it's already spending money to meet the mandate, including hiring two new employees who are assigned to the task.

In addition, the company is facing costs related to its participation in the Western Markets Exploratory Group (WMEG). The stakeholder group is having in-depth discussions on the design of two proposed day-ahead markets: CAISO's extended day-ahead market and SPP's Markets+.

The group plans to hire an "unbiased third party" to conduct a cost-benefit analysis comparing the two day-ahead market proposals, with scenarios for the markets' possible footprints. WMEG members would pay for the study on a load-share basis.

NV Energy described the day-ahead markets as a first step toward joining an RTO.

"In coordinating with the other Western stakeholders, it is apparent that formation of an RTO is most likely to be accomplished incrementally by first implementing additional organized market services to the real-time markets … as well as joining a day-ahead market," Kiley Moore, NV Energy's regional transmission and market development director, said in written testimony included in the filing.

Moore expects the cost-benefit study of the day-ahead markets to be finished in February. The studies will also analyze scenarios in which utilities that have joined a day-ahead market then establish and join an RTO.

Moore said that after NV Energy joins a day-ahead market, it will work with regional stakeholders on services such as regional transmission planning.

NV Energy has been participating in development of the Western Resource Adequacy Program (WRAP), which is Western Power Pool's regional reliability planning and compliance program. NV Energy is one of 26 utilities that have joined WRAP's non-binding phase.

"Introducing a common resource adequacy requirement across the West ensures no one entity leans on the others for continuous support so all can receive a diversity benefit for joining a market and future RTO," Moore wrote.

In addition, NV Energy is participating in Nevada's Regional Transmission Coordination Task Force, which held its first meeting in April. Creation of the task force was a requirement of SB 448. (See *Nev. Looks to Capitalize on Becoming Tx Crossroads*.)

The next meeting of the task force is scheduled for Oct. 12. The group will prepare a report to the legislature, which is due by Nov. 30. ■

Transmission line near Lake Mead in Nevada. | *© RTO Insider LLC*

ERCOT News

Judge Approves Brazos Chapter 11 Exit Plan

NRG to Return Gregory Plant from Seasonal Ops

By Tom Kleckner

Brazos Electric has been given the go-ahead to solicit votes for its bankruptcy-exit plan and settle its dispute with ERCOT. | *White Construction Co.*

A U.S. bankruptcy judge on Sept. 13 conditionally approved Brazos Electric Power Cooperative's *disclosure statement* about its deal with ERCOT and its proposed *exit plan* from Chapter 11 bankruptcy.

The decision of Chief Judge David Jones, of the U.S. Bankruptcy Court for Southern Texas, allows Brazos — which declared bankruptcy in the wake of the February2021 winter storm after being billed for $2.1 billion in wholesale prices — to begin soliciting votes from creditors and settle its dispute with ERCOT. The grid operator later revised the amount due to the market to $1.89 billion (*21-30725*).

Under the terms of the settlement, ERCOT will receive $1.4 billion. Brazos will pay $1.15 billion up front and then make annual payments to ERCOT of $13.8 million for 12 years. The cooperative will also contribute about $116 million from the sale of its generation assets to fund payments through ERCOT for market participants still short from market transactions during the week of the storm. (See *ERCOT, Brazos Reach Agreement in Bankruptcy Case*.)

Brazos agreed to sell its generation assets and transition to a transmission and distribution utility. It owns about 4 GW of natural gas-fired capacity.

Under the agreement, Cliff Karnei, Brazos' general manager since 1997, and three other members of the cooperative's senior management will leave their jobs by March 2023. In addition, Karnei and two others will be barred from working for any ERCOT market participant if they're acting as a financial counterparty to the grid operator.

The votes and any objections are due Oct. 28. Another hearing has been scheduled for November to consider final approval of the settlement and the exit plan.

Brazos filed for bankruptcy in March 2021 after receiving the $2.1 billion invoice from ERCOT. The cooperative responded with a *force majeure* event letter and by disputing the charges. (See *ERCOT's Brazos Electric Declares Bankruptcy*.)

The co-op then opened an adversary proceeding against ERCOT in August 2021, challenging the Texas Public Utility Commission's emergency orders directing the grid operator to set prices at their $9,000/MWh limit to reflect the scarcity in the market. It sought to reduce the short-pay claim by at least $1.1 billion, the amount it attributed to ERCOT's administrative adjustment.

The adversary proceeding trial began earlier this year but was suspended after several weeks to allow the parties to mediate the dispute. (See *ERCOT, Brazos Agree to Mediation in Dispute*.)

Gregory Power to Full-time Ops

Also on Sept. 13, NRG Energy notified ERCOT that it plans to return its Gregory Power Partners gas-fired facility to fulltime operations, effective Oct. 1.

The company submitted a notification of change of generation resource designation for the three units and their 365 MW of capacity. The plant, located outside Corpus Christi, had been on seasonal operations from May through December. It went online in 2002.

The plant was shut down in late 2016 when its cogeneration partner, Sherwin Alumina, filed for bankruptcy and ceased operations. NRG returned the facility to seasonal operations in 2019. (See *ERCOT Approves Seasonal Plan for NRG Cogen Units*.) ■

ERCOT News

ERCOT to Host Presentations on Brazos Settlement

ERCOT has scheduled a pair of live virtual presentations this week to discuss the terms of its proposed settlement with Brazos Electric Power Cooperative that is part of the utility's bankruptcy case.

The identical presentations will be held Tuesday at 2:30 p.m. (CT) and Wednesday at 10 a.m. ERCOT said because it expects a large number of attendees, it will not answer questions or facilitate a chat feature during the presentations. However, questions can be submitted in advance to *MPElectionNotice@ercot.com*.

The Texas grid operator said in a *market notice* Friday that it has not reached a final agreement on some provisions in the plan and that it expects further modifications as it continues to negotiate with Brazos and other key stakeholders. It said it has been coordinating with the Texas Public Utility Commission and Attorney General's Office on the proposed settlement and continued negotiations.

ERCOT attached a *letter* to the notice from PUC Chair Peter Lake, who said Brazos' reorganization addresses the economic recovery of the grid operator's bankruptcy claim and "material, noneconomic concerns important to the commission and ERCOT." That includes the cooperative's continued existence and management, Lake wrote. ■

— Tom Kleckner

ERCOT TAC Considers Membership Requirements, Process Changes

Committee Postpones Talk of Bylaw Amendments

By Tom Kleckner

ERCOT's Technical Advisory Committee last week followed direction from the Board of Directors as it discussed proposed revisions to its membership qualifications and ways to accelerate the revision request process during its annual procedural and organizational review.

Acting at the behest of the board's new Reliability and Markets (R&M) Committee, TAC's members expanded a requirement that they have a combined five years of industry experience in regulatory, markets, operations and/or finance to include plant operations and energy procurement.

They agreed with a requirement that employers or sponsors certify that TAC members are authorized to make segmental decisions. A certification form has yet to be developed.

"The R&M wants people sitting on TAC to be qualified," TAC Chair Clif Lange, with South Texas Electric Cooperative, said during the Sept. 12 virtual meeting.

Representatives from the Office of Public Utility Counsel and the residential consumer segment are exempt from the requirements.

Lange and Vice Chair Bob Helton, with ENGIE North America, also discussed a proposed "shot clock" for revision requests "languishing in the process" that would speed up their movement. The shot clock would be used for existing requests the Public Utility Commission has "explicitly stated" they would like moved forward. However, it can't be used when an RR is first introduced at TAC's Protocol Revision Subcommittee; urgent status is used in that instance.

The committee's leadership is suggesting its procedures be amended so that a decisive vote must be taken at TAC or one of its subcommittees if requested by the RR's sponsor or ERCOT. Failed votes would still be appealable through the normal appeals process.

Lange said the proposal was brought in August to the R&M, which approved of the direction.

"There are some details to work out," he said. "This creates potentially a very clean way to move things forward without developing an alternative process."

The Sierra Club's Cyrus Reed, who does not sit on TAC, raised a concern over whether the revised process would violate administrative procedures rule. Staff pointed out that any proposals would have to go through the stakeholder approval process, allowing for further discussion then.

Lange and Helton told members that TAC will continue to report to the board its activities and decisions. The committee's leadership will meet with the full R&M Committee to provide background on its decisions and counter positions. The board's committees meet the day before full board meetings.

TAC's membership will return with feedback on the proposals during its regular monthly meeting Sept. 28.

TAC Passes on Bylaw Changes

The committee also delayed discussion of *proposed amendments* to ERCOT's bylaws until its Sept. 28 meeting.

The proposed changes, drafted at the board's direction, would no longer require members' approval of bylaw amendments. It would require that members be provided notice and the chance to comment on any proposed amendments or other "fundamental actions."

Other changes would expand the directors' ability to participate and vote by teleconference or similar means when an in-person quorum is achieved for their meetings.

Members have until Sept. 30 to comment on the revisions. The board plans to discuss the amendments when it next meets on Oct. 17-18.

The changes are a result of *legislation* passed last year after the February 2021 winter storm that shifted authority from market participants to the independent board.

ERCOT distributed a *market notice* with the proposed changes just before the close of business on Sept. 9, a Friday. ■

TAC's proposed process for moving board- and PUC-directed priority revision requests | *ERCOT*

Texas PUC Briefs

Commission, Stakeholders Working to Streamline Battery Interconnection Process

Texas regulators last week said they are working with the electric industry to streamline interconnection processes for all resources at both the transmission and distribution levels.

Public Utility Commissioners Will McAdams and Jimmy Glotfelty told their fellow regulators during Thursday's open meeting that they will soon file "a framework that will serve as the building blocks of a strawman and set the parameters for discussion that all groups can agree on and move forward with."

Their focus is mostly on interconnecting distribution-level battery storage systems. ERCOT only has 350 MW of distribution-side batteries on its system providing transmission benefits, McAdams said. However, according to the latest U.S. Energy Storage Monitor report from Wood Mackenzie and the American Clean Power Association, Texas accounted for 60% of the second quarter's 2.98 GW of residential storage and grid-scale installations.

"This is trying to build a comprehensive grid where you have a firm grasp of the demand side and the supply side at both the transmission and — now — the distribution level … and trying to account for everything that we can bring to bear on the system for the purposes of reliability," McAdams said.

"We need resources. We need resources at the transmission and distribution levels, and we're going to get them whether we want them or not," Glotfelty said. "We're trying to give certainty to the distribution companies and their distribution customers, and we're trying to give certainty to those who are investing private capital into our system on what they're going to be paying today and in the future."

Battery developers have been petitioning the PUC for more clarity, transparency and standardization, the commissioners said. McAdams said developers and utilities have made "great headway" working behind the scenes to develop a framework for a potential rulemaking or project.

At issue are processes and timelines, cost allocation and the use of dedicated feeders that may require rule changes in batteries that bid into the ancillary services markets.

McAdams told the commissioners that distributed energy resources are incented to interconnect on distribution systems because of substations' spare capacity. DERs have found that is quicker than going through a separate transmission study process. Using substations as interconnection points also solves the issue of finding real estate in areas without transmission congestion and existing resources.

PUC Commissioner Will McAdams explains the issues facing battery-storage developers in bringing their resources to the grid. | *Admin Monitor*

"It's in the state's interest to make it as easy as possible for these resources to come in at the locations that they're applying for," McAdams said.

DERs do not need to pay construction costs to interconnect to distribution systems. A PUC rule also designates batteries as pass-through resources in that they're only charging and discharging and never actually producing power on the system.

"This is the industry coming together and coming up with the proposed rule," Glotfelty said. "Everybody has a right to look at that and give us their input and have those discussions."

Plant's Conversion to Gas Approved

The PUC approved Southwestern Public Service's (SPS) *request* to convert Harrington Generating Station's three coal-powered units to natural gas and to build, own and operate a new gas pipeline (*52485*).

The conversion comes after a *2020 agreement* between SPS and the Texas Commission on Environmental Quality to stop burning coal at the plant by 2025 after it violated the national ambient air quality standard for sulfur dioxide from 2017 to 2019. SPS determined that the best way to reach compliance was by converting the plant, which sits in the SPP footprint, to burn gas.

The West Texas plant's continued operation will also help SPS meet SPP's new 15% minimum reserve margin. The utility said full conversion also allows it to seamlessly maintain its existing interconnection rights at Harrington.

Harrington's three boilers were designed to burn both coal and natural gas. The three units have a combined net capacity of 1,050 MW.

The conversion will cost $65 million to $75 million, and the $57 million needed to construct the pipeline will account for the bulk of the price tag. Texas customers will be allocated up to $53 million of the costs.

"This case disturbs me a little bit, but I have to be OK with it," Glotfelty said. "I don't like upgrading and changing fuels on a very old plant. I would hope in the future this could be … a new type of gas plant rather than a conversion of an old coal plant that uses old technology. But that's not where we are today."

The commission also approved an *uncontested settlement*, effective Oct. 15, in El Paso Electric's rate request that will yield retail base-rate revenues of $35.69 million with a 9.35% return on equity. EPE had originally requested a $41 million rate increase (*52195*).

Interventions in Legal Dockets

The commissioners spent nearly two hours in executive session with their legal staff shortly after the meeting began. They then approved intervening in several ongoing dockets by:

- filing amicus briefs in ERCOT cases over its sovereign-immunity claims from lawsuits before the Texas Supreme Court involving CPS Energy (*22-0056*) and Panda Generation (*22-0196*);
- supporting a MISO and Edison Electric Institute motion at FERC to dismiss a complaint seeking to remove the grid operator's compliance with state and local right-of-first refusal laws (*EL22-78*);
- supporting ERCOT's position in any appeal of the adversary proceeding judgement in the Brazos Electric Power Cooperative bankruptcy case before the U.S. Bankruptcy Court for the Southern District of Texas (*21-30725*); and
- filing an amicus brief supporting ERCOT's sovereign-immunity claims in Just Energy's appeal of its bankruptcy case before the 5th Circuit Court of Appeals (*22-20424*). ■

— Tom Kleckner

ISO-NE News

Gordon van Welie Stares down Another Winter in Charge of ISO-NE

By Sam Mintz

BURLINGTON, Vt. — Gordon van Welie is facing another winter full of worry as the head of ISO-NE, tasked with keeping the lights on amid the possibility that extreme weather will threaten a grid that's straining to catch up to clean energy policy in the region.

In an interview with *RTO Insider* after a FERC meeting in Vermont earlier this month that brought all sides of the New England energy sector into a room to talk about the region's winter issues, van Welie shared his views on the clash between reliability and the clean energy transition. (See *FERC Comes to Vermont and Leaves with a New England-sized Headache*.)

"The problem is, we should absolutely build all the renewables as fast as we possibly can, hook them up to the system and then let the stuff go that we don't want. But we're doing it the other way around," van Welie said. "We're shutting stuff down before the new stuff's built."

The clean energy transition isn't being conducted with "completely rational behavior" right now, he said. His call has been for a "deliberate, measured" and incremental move to get away from fossil fuels.

"That's not the way things are playing out at the moment."

In his more than 20 years as head of the grid operator, van Welie said he's developed a keen understanding of the economic theories underpinning the region's markets; the regulatory paradigms; and the politics that shape his job. It's a far cry from his background as an engineer working on smart grid technology.

And the problems he's trying to solve now are bigger and thornier than ever.

"Sometimes I feel like we're trying to thread a rope through a needle in this region. It's very hard to find the solution that is going to satisfy everyone," van Welie said.

Last winter, van Welie and his staff launched a public awareness campaign, using media interviews to warn about the thin margins on New England's grid in the winter in the case of extended cold weather. ISO-NE is planning to do so again this year, despite accusations from some critics that the as-of-yet unfulfilled warnings of rolling outages are "fear-mongering." (See *ISO-NE: New England Could Face Load Shed in Cold Snaps*.)

"What would you do in our shoes?" van Welie asked. "You know there's a risk, and if it goes bad, it's going to impact 15 million people. Do you hide it and say, 'We'll deal with it when it comes?' Or do you talk about it and say, 'There's a problem here that we need society to be aware of?'"

The grid operator is planning a few changes to its strategy this year, including to emphasize that under most circumstances, it still won't have to dip into the most extreme operating procedures involving load shed. ISO-NE is also doing a tabletop exercise with utilities to run through the scenario of an energy shortfall.

"It's not just about CYA [covering your ass]. It's so that people know and can take precautions," van Welie said. "Part of what we're saying is that we think we're short. And so that's a problem for society. And I'd rather have society know that in advance than for them to find out after the fact, and say, 'Why didn't you tell us? We could have done something.'"

Gordon van Welie in the ISO-NE control room | *ISO-NE*

No Plans to Step down

The tenuous state of the region's grid means that van Welie, who joined the organization in 2000 and was named its president and CEO in 2001, isn't ready to start thinking about retiring.

"The thing I would like to do is to try and leave behind something that's in decent shape; set it up on a solid foundation," he said. "I don't feel like we're on a solid foundation now."

Last year, van Welie laid out a four "pillar" plan to support the clean energy transition: substantial amounts of clean energy, balancing resources, energy adequacy and robust transmission.

Using a traffic light indicator to gauge progress, he said transmission is green for now, renewables and balancing resources are yellow, and energy adequacy is red.

"I'd like to get things back to yellows and greens, as opposed to reds," van Welie said. "It's going to take time. We might, 10 years from now, be still having the same conversation." ■

ISO-NE News

Narrow Set of Options for Retaining Everett LNG Terminal

By Sam Mintz

The fate of the LNG import terminal in Everett, Mass., has come into increasingly sharp focus in the last few months as ISO-NE has continued to sound the alarm about winter grid reliability in the region.

But as of right now, there's no consensus about how to keep the facility operating past 2024, when the contract sustaining its "anchor tenant," the Mystic gas generating plant, expires.

ISO-NE laid out the problem in a *statement* it published ahead of a FERC forum in Vermont earlier this month: "The region must ensure the continued operation of the Everett LNG facility to maintain reliable electric and natural gas service for New England consumers."

In a recent interview with *RTO Insider*, however, ISO-NE CEO Gordon van Welie made clear that the grid operator is not interested in using its own authority to do so. (See related story, *Gordon van Welie Stares down Another Winter in Charge of ISO-NE*.)

"We're a balancing authority. We balance supply and demand. It's not our job to make sure that there's fuel supply," van Welie said.

The one route by which ISO-NE might help keep Everett alive is through an extension of the reliability-must-run (RMR) contract keeping the next-door Mystic plant operating through 2024.

But van Welie indicated that ISO-NE is loathe to expand the contentious Mystic agreement, which has been the subject of bottomless litigation.

"It could be done by retaining Mystic, but nobody wants us to retain Mystic, and we don't want to retain Mystic," he said. "If we extend the Mystic agreement, then we're socializing the cost of Everett across all electricity ratepayers ... and it basically makes it cheaper for the gas" distribution companies.

Constellation Asks for Help

Constellation Energy, which has operated the facility since 2018, also acknowledges it will need action from elsewhere to keep the terminal running.

At the FERC forum in Vermont earlier this month, the company's senior vice president and deputy general counsel, Carrie Allen, made the case that the region should step up and

New England officials are wrestling with how to keep the Everett LNG facility operating. | *Constellation Energy*

find a way to ensure that Everett can continue to operate. The facility provides pressure support for pipelines it's connected to and regularly sends out gas to other generators and systems besides Mystic, Allen argued.

And, she said, its gas is cleaner than the oil that would likely replace it if the facility were to go out of service in two years: Constellation has estimated without Everett, carbon dioxide emissions in the region would double and NO_x emissions would go up by 74%.

"I do think Everett can critically contribute to reliability in New England," Allen said. "It's already permitted; it's existing. It's been operating reliably for 50 years. It's not a question of will it be here. It's here. The question is, do we want to keep it here?"

Like ISO-NE, Constellation isn't keen on continuing the contentious Mystic RMR agreement, Allen said, but it's worried about what comes next without the gas plant serving as an anchor tenant.

"Our experience is that there's been quite a bit of interest in contracts for supply from our facility post-RMR. But there seems to be a bit of a regulatory problem, and we're trying to work it through, in terms of the state approval process," she said.

The potential buyers believe that they need to use fixed commodity pricing to get approval by state regulators.

Allen said she doesn't believe that's the case, and that it's also not something that her company can provide during a potential nine-month wait for state approval.

"I think we need to talk about whether people want Everett to be a bridge to the long-term future. Does New England want to retain it? If so, we don't have that much time. We have no commitments post cost-of-service that would require us to keep operating," she said. "We're faced with a choice, and it's coming on us very soon for what to do."

Another Way?

In a recent press briefing with local and national environmental groups, advocates said they were still looking at the details of ISO-NE's warnings about the need to keep Everett afloat.

But more broadly, they say, the region should be doing more to move off of gas and into clean energy.

In a recent *white paper*, eight environmental groups challenged ISO-NE's prediction that gas facilities will need to be in place for the foreseeable future to meet reliability needs.

"In fact, energy storage can serve similar balancing functions as gas, while providing relief to the electric system during winter cold spells and reducing transmission needs," they wrote.

The groups said that ISO-NE and state leaders should "re-target or supplement" programs like Massachusetts' Connected Solutions battery program or ISO-NE's Inventoried Energy Program to incentivize energy storage development.

"I would like to see the day that ISO-NE identifies a clean energy project that they're really enthusiastic about bringing online in an expedited manner," said Jeremy McDiarmid, vice president at the Northeast Clean Energy Council, commenting on the grid operator's urgency related to the Everett facility. ■

MISO News

Monitor Critiques MISO's Commitment Usage During Summer

By Amanda Durish Cook


MISO leadership addresses its board on Sept. 13 in Minneapolis. | © *RTO Insider LLC*

MINNEAPOLIS — MISO presided over reliable operations at higher prices this summer, although its Independent Market Monitor said it is concerned about the RTO's reliance on out-of-market commitments to maintain reliability.

The difference of opinion arose in a session of the MISO Board of Directors' Markets Committee on Sept. 13, during the RTO's quarterly Board Week.

The RTO only called a couple of maximum generation alerts this summer during June's early heat. That same month, MISO registered the summer's high systemwide peak at 121 GW on June 21, topping a projected 116-GW monthly peak. The system peaked at 119 GW in July and at 112 GW in August, below expectations of 124 and 122 GW, respectively.

The operations performance came with dramatically higher costs because of soaring natural gas prices, supply chain issues for coal and slightly higher load as the COVID-19 pandemic precautions ease.

The Monitor's David Patton said all-in summer energy prices doubled year-over-year to about $75/MWh. He said that day-ahead and real-time congestion costs doubled over last summer to more than $750 million, primarily in the footprint's northern region where abundant wind generation struggles to flow out of the region.

Are Units Being Overcommitted?

Patton also said MISO operators continued to overcommit generation during the summer.

The grid operator said it has had a commitment success rate of about 96% during the season, an indication that it regards most of its commitments as optimal or necessary.

"MISO grades itself as an A+, but at this point we think it's more a C+. … There's a disconnect," Patton said.

Patton estimated that the RTO spent about $80 million in revenue sufficiency guarantee (RSG) payments to resources during the summer. He said only about 10% of the RSG payments are necessary to dilute risk.

MISO uses overly conservative criteria to justify making additional commitments, Patton said. He asked staff to support their commitments with a sharper risk analysis that could avoid excessive commitments. He said the RTO's operators are "squelching" the markets' ability to incent nimble generation.

"Ultimately, we want the markets to work," he said. "We want prices to rise under tight conditions so that fast-start resources are rewarded for the reliability they provide."

"It is our goal to never make an out-of-market commitment. The reality is we have to make out-of-market commitments," MISO President Clair Moeller said, adding that exact load amounts materialize in real time, not in the day ahead.

Renuka Chatterjee, the grid operator's vice president of operations, called Patton's criticism a "healthy tension" between MISO and its Monitor. Patton added that to its credit, the RTO's leadership is open to discussing the problem further and collaborating on a solution.

MISO, which has begun to track its solar output peaks, said it recorded an all-time high of 2.2 GW on Aug. 31, accounting for 3% of load. Its all-time wind peak remains the 23.6 GW generated on Jan. 18. ■

MISO News

MISO Executives Spotlight Fleet Evolution Planning, Risks

By Amanda Durish Cook

MISO board members meet at the Renaissance Minneapolis Hotel, The Depot, on Sept. 13 | © *RTO Insider LLC*

MINNEAPOLIS — MISO's mid-September Board Week centered on the tectonic industry shift underway as the RTO plans to string more transmission lines across the footprint to bring record amounts of new capacity online and avert reliability crises.

Since the MISO Board of Directors' last public meeting in June, the grid operator has opened its wholesale markets to full energy storage participation, approved more than $10 billion in long-range transmission lines, obtained FERC permission to conduct a seasonal capacity auction, and is preparing to study enough proposed capacity entering its generator interconnection queue to cover its current summer peak.

Transition a 'Double Whammy' Risk

MISO's vice president of operations, Renuka Chatterjee, told directors during a session Sept. 13 that the footprint's fleet evolution is having a "double whammy impact" on the RTO's risk profile. She said increased renewable energy makes the grid more dependent on forecasting while baseload generation retirements hinder its ability to absorb their intermittency.

Chatterjee said staff are working toward creating automated daily risk assessments that combine the interplay between solar and wind forecasts, load expectations, fossil fuel availability, net scheduled interchanges and transmission congestion. She said MISO will eventually introduce tailored daily reserve margin requirements.

The grid operator has committed to reviewing operating days that fall outside of historical norms to see if it needs to change its reliability preparations or new market products, Chatterjee said.

Jessica Lucas, executive director of system operations, said about 70% of MISO's daily energy supply remains sourced from thermal generation, a concern before the national rail strike was apparently averted.

During the Thursday board meeting, CEO John Bear said the organization paid attention to CAISO operations during its early September heat wave. He said MISO trails California in the energy transition and noted that CAISO struggled with a lack of "controllable, long-duration resources" to weather the heat.

"We've got a good sense of where we need to go and how we need to get there," Bear said.

More Tx to Yield Interconnections

Vice President of System Planning Aubrey Johnson said MISO expected more than 1,000 new generator interconnection requests, representing about 120 GW, for the 2022 cycle when the application window closed Thursday. He said it will be the third straight year staff have processed a record number of applications, each bigger than the previous.

Since 2014, MISO has received 329 GW of interconnection requests; 52 GW have progressed through to the generation interconnection agreement (GIA) stage that allows grid access. The grid operator currently has about 124 GW in the queue but has seen interconnection customers withdraw 153 GW over the past eight years. It hopes its recent transmission planning activity will drive up interconnection numbers and limit withdrawals.

"The last few years were relatively flat in terms generation additions and subtractions," Johnson told board members during a System Planning Committee meeting Sept. 13. "What we're seeing is an accelerated change in the resource mix, and it's calling on us to do things differently."

MISO projects it will have 346 GW of nameplate capacity by 2042, but just under 200 GW in accredited capacity. The RTO currently has 201 GW in nameplate capacity and 173 GW in accredited capacity.

The grid operator is keenly aware that soaring network upgrade costs in parts of its footprint are hindering more generation additions. Interconnection projects tend to complete the queue when their associated transmission investments for interconnections are at or below $125/kW, Johnson said. However, upgrade costs have neared $1,000/kW or beyond in MISO's West and South planning regions, eight times what investors are comfortable putting forward, he said.

"If you're looking to interconnect in the Central region, come on in. The water's warm," Johnson said. "But if you're looking to interconnect in the West or even the South, that's a different matter."

Johnson said transmission projects stemming from MISO's Joint Targeted Interconnection Queue study with SPP should help yield more GIAs.

He said MISO is also immersed in identifying a second set of Midwestern transmission projects under its four-part long-range transmission plan (LRTP). The RTO obtained board approval in late July on the first, $10.4 billion *set of LRTP projects* in MISO Midwest.

MISO News

"July 25 was a great day, but we're going to continue to press on and define and develop what the next stage of projects is going to be … Much like football, we thought about the win for 24 hours, and then we moved on," Johnson said.

The grid operator released the first competitive request for proposals stemming from the LRTP, a 345-kV line from an Indiana substation to the Michigan border. Proposals are due Jan. 11. The grid operator plans to release a new RFP for a different LRTP project about every three months and administer simultaneous bid evaluations.

Executives also said MISO allowed energy storage into its markets on Sept. 1 to comply with FERC Order 841. (See *MISO Officially Opens Markets to Storage Resources*.)

The grid operator characterized wholesale storage activity as nominal so far. But its *interconnection queue* currently has more than 13 GW of standalone battery storage as part of more than 150 projects in varying stages of development. That doesn't include the queue's hybrid generation projects, which usually pair renewable energy with a storage resource.

Unease over MISO Support for Gas Plant

Clean Grid Alliance's Beth Soholt told board members that MISO has recently and unacceptably favored natural gas generation's development over other resource types in bring new generation online. She said staff presentations following capacity shortages during the 2022-23 planning year advocated new gas-fired capacity, despite its fuel-neutral posture.

Soholt pointed to the RTO's July letter to the Rural Utilities Service (RUS) in support of a loan for the proposed, $700 million gas-fired Nemadji Trail Energy Center in Superior, Wisc., which would be jointly owned by Dairyland Power Cooperative and two Minnesota utilities.

In the letter, MISO said it was concerned about looming generation shortfalls and asked RUS to "consider grid reliability" and Nemadji Trail Energy Center's role in the footprint's resource adequacy.

"While MISO is both fuel- and technology-neutral, MISO needs to help ensure the best options to provide needed resource capabilities and attributes are available to bridge the gap between electrical baseload retirements and replacement capabilities and attributes," Deputy General Counsel Kristina Tridico wrote.

Tridico said "the retirement of generation plants is occurring far faster than new energy sources with equivalent attributes, whatever the fuel source, can be developed, constructed and brought online."

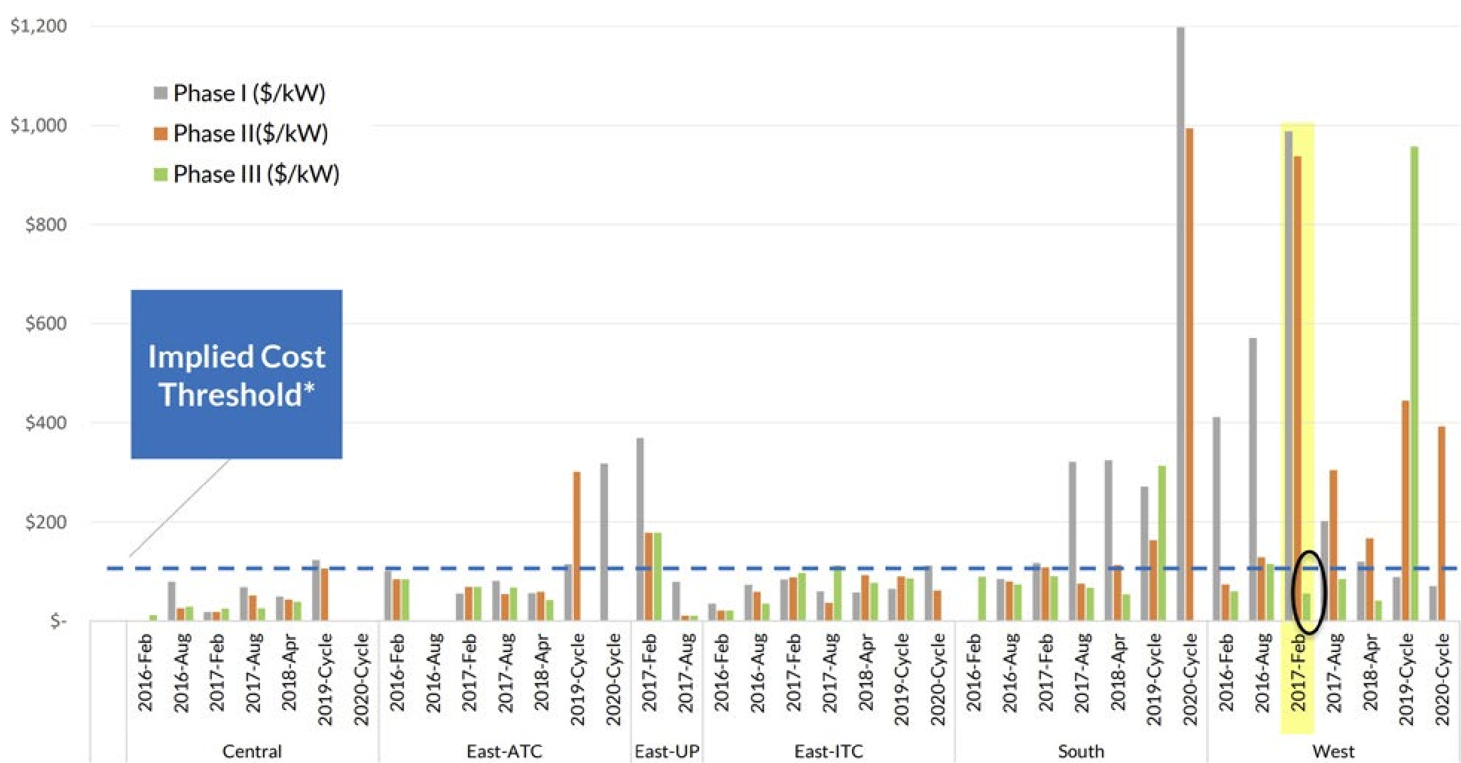
"While the letter was very careful to color within the lines of grid reliability, I've never seen MISO send a letter in a specific docket advocating for a specific new resource. This is not appropriate," Soholt said during a public comment period Sept. 13. "MISO has always said it is fuel and technology neutral, but a different message is coming through in the last several months of MISO messaging and presentations."

Soholt said, "at the end of the day, there are many solutions to MISO's resource adequacy challenges, and the work is not done yet."

She urged MISO to not encourage members to rush headlong into natural gas solutions before it assesses battery storage's flexible attributes in its market portfolio.

MISO executives didn't respond to Soholt's criticisms in real time during Board Week. In a later statement to *RTO Insider*, the grid operator said it believes the letter speaks for itself.

Staff and stakeholders will discuss the essential resource attributes it needs on the system during a *System Attributes Introduction Workshop* on Wednesday. ■



Transmission upgrade costs and dropouts for interconnections by region for the 2016-2020 queue cycles | *MISO*

MISO Board Week Briefs

High Employee Turnover Worries Leadership

MINNEAPOLIS — Employee churn has MISO tracking its highest-ever rate, with 130 staff exits expected by the end of the year.

"At the current pace, MISO's year-end turnover will be between 12 [and] 13%, reflecting the highest level of regrettable turnover in MISO's history," the RTO *said* in a presentation last week.

The grid operator said every departing employee "creates a compounding challenge based on the current labor market," where it increases the offered salary to attract applicants and grants equity raises to existing staff to avoid triggering more exits.

MISO Vice President of Human Resources Allegra Nottage | *© RTO Insider LLC*

Allegra Nottage, vice president of human resources, said Thursday she doesn't expect turnover to slow in the energy industry anytime soon and said MISO's current level of resignations is "unsustainable."

"The unfortunate side of having a talented work force is that it becomes a recruiting pool" for other companies, Nottage said.

She said it's difficult for MISO to compete with 30% pay increases offered by other employers and said market rates for jobs are changing on a "day-to-day basis."

The RTO is about $6 million over budget this year due almost exclusively to higher salaries and benefits. It has spent nearly $170 million, higher than its budgeted $164 million in base expenses.

MISO Director Barbara Krumsiek | *© RTO Insider LLC*

MISO director Barbara Krumsiek called the presentation unusual for an open meeting but "so necessary."

"In many ways, we're chasing a moving target," she said.

2023 Budget Contains Salary Hikes

CFO Melissa Brown said MISO expects to spend $373 million in its 2023 budget, split among base operating expenses ($310 million), project investments ($37 million) and other operating expenses ($26 million).

Base operating expenses are up about 10% over 2022 because of retaining and recruiting staff and inflationary pressures on salaries, Brown said.

"MISO is a people-heavy group. That's what drives us. … Approximately 70% of our budgets is salaries," Brown told the Advisory Committee on Wednesday. She said the RTO doesn't maintain an extraordinary amount of infrastructure but values staff's brain power and creativity.

The grid operator plans to increase staff in 2023 to address its long-range transmission planning, processing its record generation interconnection queue, and preparing operations for a transformed generation fleet.

MISO is keeping its membership rate unchanged in 2023, maintaining the 45 cents/MWh tariff revenue rate it has had in place since 2021.

"There have been some ups and downs in our budget this year, but we're ultimately proposing a flat rate," Brown said.

Board Will Remain Same in 2023

The board will likely look the same into 2023, with MISO advancing current board members Todd Raba, Barbara Krumsiek and H.B. "Trip" Doggett for reelection to three-year terms.

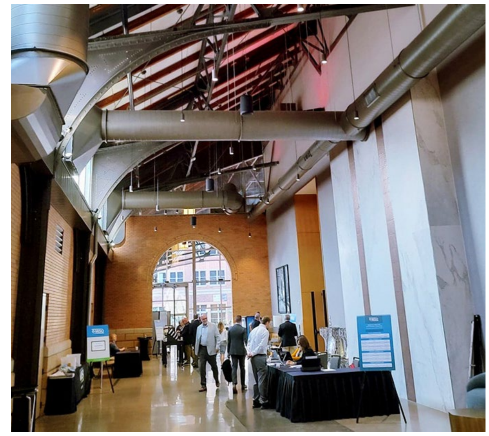
Staff counsel Andre Porter said electronic voting will soon be opened to its membership.

The monthlong board elections require a minimum 25% participation rate among the nearly 140 voting-eligible members to achieve quorum. Members can vote for, against or abstain from selecting any of the candidates. Candidates must earn a majority of supportive quorum votes to be installed.

The board also unanimously approved the membership applications of Dallas-based Leeward Renewable Energy; Steelhead Americas, a subsidiary of Danish wind turbine manufacturer Vestas; Crayhill Renewables, a Nashville-based renewables affiliate of Crayhill Capital Management; and Chicago-based solar developer Nexamp.

New Market Platform Has 2024 Finish

MISO's market platform replacement is poised for a late 2024 finish and has not been meaningfully affected by some delays that have cropped up.



MISO Board Week was held at the Renaissance Minneapolis Hotel, The Depot, inside a historic train station. | *© RTO Insider LLC*

Chief Digital Officer Todd Ramey said during a meeting of the board's Technology Committee on Sept. 13 that MISO and its General Electric vendor hope to complete factory acceptance testing and delivery of the new day-ahead clearing engine by the end of the year. Staff then aim to get the clearing engine into production next year and discontinue its current mechanism by the third quarter of 2023.

The real-time market-clearing engine will not be replaced until 2025.

The grid operator began the process of swapping out its legacy market platform for the new, modular platform in 2017. The project has been affected this year by staff turnover and supply chain impediments, Ramey said.

That has forced MISO to extend parallel operations of the legacy and new modeling tools. Ramey said that undertaking will be completed by the end of this year instead of the third quarter as originally planned.

However, staff will roll out a new energy management system (EMS) for parallel operations sometime before the end of the year, as scheduled. MISO operators use the EMS to monitor and analyze the bulk electric system and fulfill the RTO's responsibilities to NERC as reliability coordinator and balancing authority.

MISO has allocated a little more than $20 million this year for the platform replacement. Next year, it anticipates spending roughly $15 million. The full market platform replacement is expected to cost about $141 million. ■

— Amanda Durish Cook

MISO News

MISO, Members Debate Deploying Ambient Ratings

By Amanda Durish Cook

MINNEAPOLIS — MISO, its market monitor and members debated the best course to implement ambient-adjusted line ratings during an Advisory Committee meeting Thursday.

The Independent Market Monitor and some members endorsed widespread adoption before FERC's Order 881 takes effect in 2025, while transmission owners advocated a more restrained introduction.

MISO VP Renuka Chatterjee | © *RTO Insider LLC*

Renuka Chatterjee, vice president of operations, said the key terms in formulating ratings are "push" and "safe."

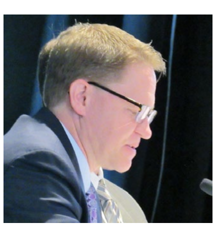
"We want to push our system to its limits, but we want to keep it safe," she said.

Chatterjee reminded the membership that the Northeast's massive blackout of 2003 initially began with power lines in northern Ohio drooping into trees and tripping circuit breakers.

MISO says that universal use of ambient-adjusted ratings (AARs) in conjunction with strategic transmission reconfigurations "will only locally and marginally decrease congestion." It said the billions worth of transmission projects identified under MISO's long-range transmission plan (LRTP) and its Joint Targeted Interconnection Queue study with SPP are better positioned to "substantially" reduce congestion.

Only 12% of MISO's transmission facilities use the AAR mechanism.

"Now, you can conclude that 88% of lines need work, but not all of these are congested lines," Chatterjee said.



MISO IMM David Patton | © *RTO Insider LLC*

But the IMM's David Patton said MISO should have "full utilization of the system first" before it builds out transmission facilities.

Patton said that since the fall of 2021, MISO has achieved $34 million in savings by using AARs on 65 constraints. But he said the RTO and its transmission owners have left $282 million in possible savings on the table by not deploying AARs on all constraints. He said had MISO used two- to-four-hour emergency line ratings in the footprint, it could have saved $179 million since last fall.

Patton said binding transmission constraints with overly conservative ratings can strand generation and keep MISO from accessing the full range of its reserves.

Some members asked TOs to install AAR programs before Order 881's compliance deadline.

Clean Grid Alliance's Natalie McIntire pointed out that the first batch of LRTP lines aren't expected to be in service until 2028 and 2030. She said in the meantime, MISO can use AARs and dynamic line ratings (DLRs) to get the most out of its transmission system. She said more precisely calibrated ratings will ease the system congestion caused by wind production in the footprint's northern region and might allow for more wind generation interconnections.

Michigan Public Service Commission Chairman Dan Scripps said DLRs and AARs can help avert load shed during extreme weather events and when generation is scarce.

"We're not going to eliminate congestion. We can reduce it through AARs … but it's not the end-all and be-all," ITC's Cynthia Crane said.

Crane said the MISO footprint will likely benefit from AARs in the spring and fall shoulder seasons and in the mornings and at night, when temperatures are cooler.

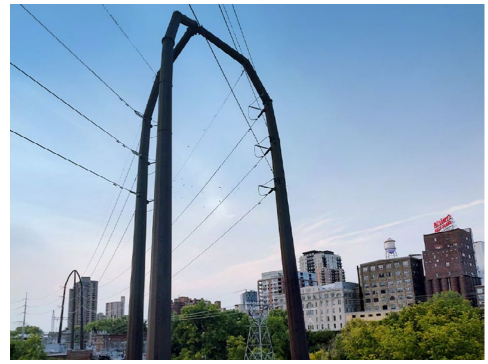
"Unfortunately, we're not going to see much benefit from AARs during the summer or during heat waves," she said.

Otter Tail Power's Stacie Hebert, a MISO transmission owners representative, likened standing up AAR programs to complex undertakings such as the grid operator's market platform replacement or its long-term transmission planning.

"Some things just take as long as they do to get them done," Hebert said.

Crane said AAR programs mean that TOs will have to overhaul software to maintain databases with millions of entries that change hourly.

"From our standpoint, three years feels like tomorrow," she said of Order 881's compliance deadline.



Transmission lines in downtown Minneapolis | © *RTO Insider LLC*

Hebert said the most congested transmission elements are usually transformers, which FERC has ordered TOs to review. She said TOs are carefully maintaining transformers because hobbled supply chains are making them increasingly difficult to replace.

"We're not looking to put additional risk to our transformers at this time in this current environment," she said, noting TOs don't have their normal stockpiles of spare transformers.

Hebert said that although TOs agree there are savings to be had, she disagrees with Patton's figures.

"In order to make that estimate for the footprint, he had to make some assumptions, and he doesn't have access to that information," she said.

Hebert said she didn't see how Patton could factor in the next limiting transmission element in his ratings saving calculation. She said line ratings have been underscored lately because of big-ticket and possibly overblown savings being estimated.

Multiple MISO TO representatives said estimating AAR savings is moot because they will have to implement AARs anyway.

Some Advisory Committee members said MISO and TOs conducting closed-door meetings of its Reconfiguration for Congestion Cost Task Team (RCCTT) doesn't inspire trust that TOs are making decisions with everyone's best interest in mind. MISO and TOs say the confidential sessions are necessary because the group discusses critical infrastructure.

The nonpublic RCCTT has met since last year and focuses on rerouting transmission flows during times of heavy congestion costs. It maintains a monthly list of the top congested constraints within the footprint. ■

Decarbonization Goals are Clear, Path to them is not, IPPNY Conference Hears

If not Gas, What?

By John Cropley and Rich Heidorn Jr.

Attendees at IPPNY's Fall Conference mingle during a coffee break. | *© RTO Insider LLC*

SARATOGA SPRINGS, N.Y. — Three years after New York passed some of the strongest climate protection legislation in the nation, the technology to reach its goals and the plan to roll it out are still works in progress. And that has the head of the Independent Power Producers of New York (IPPNY) more than a little concerned.

IPPNY CEO Gavin Donohue | *© RTO Insider LLC*

The draft scoping plan of New York's Climate Leadership and Community Protection Act (CLCPA) contains many unanswered questions on affordability, reliability and zero-emission technologies, IPPNY CEO Gavin Donohue said at the group's Fall Conference on Wednesday.

"If we're not going to use natural gas to keep the lights on, what is it going to be? There is no consensus on what qualifies as zero-emissions resources," Donohue said in his opening remarks to the conference. "I am concerned about reliability. I don't think the plan takes in reliability enough."

The future of natural gas-fired generation — and what new technologies could replace its role in balancing intermittent renewable sources — dominated the discussions at the conference, which attracted more than 125 industry stakeholders to the Saratoga Springs City Center.

Seeking State's Guidance

"It's scary," Donohue said, citing California's pleading with residents to curtail power usage during its August heat wave; the deadly 2021 winter storm in Texas; Europe's energy squeeze as a result of its reduced nuclear capacity; and the Russian invasion of Ukraine. "We really have to learn from those examples."

Donohue called on state officials to provide guidance on how to reach the CLCPA's requirements: reducing the state's greenhouse gas emissions by 40% below 1990 levels by 2030; increasing renewables' share of the state's generation mix to 70% by 2030; and reaching net-zero emissions from electric supply by 2040. Those goals must be reconciled with the reality that gas and oil made up 70% of NYISO's capacity as recently as July, he said. "How do we just ignore the fact that we needed oil and gas to keep the lights on at that rate?" he asked.

Last month, the New York State Building & Construction Trades Council and state AFL-CIO, which represent energy infrastructure workers, joined IPPNY in issuing *Seven Principles* for reaching the state's climate goals, saying current plans lack a full cost analysis and a plan for grid reliability.

It followed the groups' August 2021 *petition* asking the Public Service Commission to create a competitive program to encourage private sector investment in at least 1 GW of zero-emissions energy systems that would be in commercial operation by 2030.

NYISO's *System & Resource Outlook* concluded the state will need to add as much as 45 GW of dispatchable emission-free resources (DEFR) by 2040 to supply the reliability services now provided by fossil-fueled generation. (See *NYISO 20-Year Forecast Highlights Generation, Tx Hurdles to Climate Goals*.)

"Under the law, the Public Service Commission has to determine what" qualifies as zero-emission resources, Donohue said to the audience, which included Commissioners Diane Burman and David Valesky.

Although the commission has outlined policies to achieve the 70-by-30 target, it has not said how the state should achieve the 2040 zero-emission target or when it would consider establishing such policies. "The commission's silence on these matters creates uncertainty in the electricity market and investment community."

The petition cites as possible technologies hydrogen; nuclear; combined cycle and combustion turbines fueled by zero-emission biogas; and natural gas with carbon capture and sequestration.

The petition asked the commission to decide by July 1 the zero-emission energy systems likely to be technically capable by 2030. "Having these new technologies enter into service by 2030 will allow operational experience to accumulate and provide an opportunity for any needed technology refinements to assure that all necessary resource additions are operating in time to achieve the 2040 zero-emission target," it said.

The commission has taken no action on the petition.

2022 IPPNY Fall Conference

Reasons for Optimism

Department of Environmental Conservation Commissioner Basil Seggos, who spoke after Donohue, said the DEC is meeting monthly with the Department of Public Service and NYISO to address reliability concerns as the state prepares to finalize the CLCPA scoping plan. The plan, which Seggos said generated 35,000 public comments, is due to be finalized and submitted to the governor and legislative leaders in January. (See *NY Officials Approve Draft Climate Action Plan*.)

"We have to keep the lights on as we make this incredible transition, this really difficult transition, to the future," Seggos said.

Seggos did not downplay the difficulty of the task at hand: "This will be the hardest thing that New York state ever does, and frankly, that the U.S. ever does: addressing the climate crisis and doing it in a way that benefits everybody."

But he said he was optimistic, citing the nation's response to World War II and the COVID-19 pandemic and the climate spending authorized by Congress under the Inflation Reduction Act. "What is $369 billion [multiplied to by] leveraging private dollars? It's trillions, probably.

"We've got the technologies," he said, qualifying that "we may not have all of them; they may not be at scale yet; but we have the makings of these technologies."

N.Y. Department of Environmental Conservation Commissioner Basil Seggos | *© RTO Insider LLC*

Implementation Questions

IPPNY's outside counsel, David Johnson of Read and Laniado, asked Seggos about the DEC Division of Air Resources' *DAR-21* policy implementing Section 7(2) of the CLCPA. The provision requires the state to determine if applications for Title V air pollution control permits are "inconsistent with or will interfere with" statewide GHG emission limits under the CLCPA's targets. DAR must finalize its regulations by Jan. 1, 2024.

Johnson said the DEC has denied Title V permits for the *Danskammer* and *Astoria* repowering projects and renewal of the existing *Greenidge* generating station.

Seggos responded that the division expects to release information later in September on the status of the DAR-21 process but needs to solicit more input before finalizing it. He said the department is making determinations on a case-by-case basis until "until the entire realm of the CLCPA is constructed."

Developers seeking a new or renewal permit should provide an analysis determining if their project will cause an increase in emissions, he said. "Please engage with us and bring us that analysis early if you can, even if it's in draft form."

Ken Pokalsky, vice president of the Business Council of New York State, asked about the parallel goals of the CLCPA: its focus on environmental justice, and on ensuring that the disadvantaged communities that have suffered the greatest impacts from climate change reap investments from the transition. There is no guidance yet on what constitutes disproportionate and inequitable impacts, Pokalsky pointed out.

The process is still underway, Seggos replied, adding that he hopes the mapping of disadvantaged communities is completed soon, because they will guide the decision-making and the investment and benefits analyses mandated by the CLCPA.

Marji Philips of LS Power asked what the state's "Plan B" is for replacing natural gas. Battery storage and hydrogen aren't yet viable backup options for intermittent zero-emission power sources, she said.

NYISO Executive Vice President Emilie Nelson | *© RTO Insider LLC*

"I don't think we have a Plan B," Seggos replied. "I think that we are on the edge right now when it comes to global climate change. We have one shot to get this right. That's what makes this so challenging."

Rate of Change

NYISO Executive Vice President Emilie Nelson also acknowledged the challenge of retiring fossil fuel generation while rapidly increasing generation through new technology and expanding the grid to accommodate it. "One thing that is certainly on the ISO's mind is the rate of change that is needed," she said. The grid must be even more reliable after the transition than it is now, because so much of the economy will rely on electricity, she said.

She referenced the scenario in the ISO's System & Resource Outlook calling for New York to have 45 GW DEFR online by 2040; that is more than all resources currently available to the state. The fact that the state is relying on technologies that have not been commercialized is a big part of the challenge, she said.

"The unknowns certainly can be daunting; they can be scary," she said. "What we need to do is have honest dialogue about what those challenges are, so that we make sure we're clear-eyed about what we need to manage.

"This isn't going to be a linear change," Nelson added. "It's going to require adjustment. It's probably going to be messy at times." ■

Northeast news from our other channels

Climate Action Council Reviews Progress on CLCPA Scoping Plan

NetZero Insider

RTO Insider subscribers have access to two stories each monthly from *NetZero* and *ERO Insider*.

EU Retreat from Competition, Ukraine Conflict Seen Impacting US Energy Markets

By John Norris and Rich Heidorn Jr.

SARATOGA SPRINGS, N.Y. — Europe appears to be retreating from electric competition and single-price clearing auctions, trends that could spread to the U.S., MIT professor Michael Mehling told the Independent Power Producers of New York's (*IPPNY*) Fall Conference on Wednesday.

Mehling, deputy director of the MIT Center for Energy and Environmental Policy Research, spoke after the annual European State of the Union, where European Commission President Ursula von der Leyen proposed capping prices for renewable and nuclear generators at $180/MWh and imposing windfall profit taxes on oil, gas and coal companies. Von der Leyen also called for "a deep and comprehensive reform" of the merit-order electricity market, saying the EU needs to "decouple the dominant influence of gas" on prices.

Von der Leyen's proposals came in response to rapidly rising prices resulting from drought, reduced offshore wind production, the phaseout of nuclear units and, most recently, Russian gas supply cuts.

Keynote speaker Dr. Michael Mehling presents at IPPNY's 37th Annual Fall Conference in Saratoga Springs. | © RTO Insider LLC

Energy Security

The EU's energy security has also been impacted by its aggressive climate targets, which prompted a shift from dispatchable coal and gas resources to renewables, Mehling said.

The European Parliament recently backed a target to get 45% of its energy from renewable sources by 2030, compared with 22% in 2020. Additionally, the EU adopted *laws* requiring at least 55% GHG emission reductions by 2030 compared to 1990 levels and net-zero emissions by 2050. It also created energy efficiency *directives* that require the continent to achieve a 20% reduction in energy consumption by 2020.

"Energy security is definitely — there's no argument about it — compromised in the EU now," Mehling said.

European leaders have increasingly considered market interventions. As of October 2021, 25 member states had adopted price regulations or transfer mechanisms such as income supports and tax reductions to address rising prices. The French government recently bought the remaining shares of the nation's main utility, Electricite de France. Germany's government has started talking about reopening many of its retired nuclear plants, Mehling said, while Poland "has gone back to coal."

Lessons for the US

Mehling said one lesson from Europe's experience is "how quickly you can go from believing firmly in … deregulated markets to seeing a tremendous appetite to intervene at every level, both in the name of climate policy, but also in the name of reducing energy costs."

"Is that something that could also happen here?" he asked. "Some would say it's already beginning with, you know, all kinds of different policy complements to the traditional … liberalized parts of U.S. electricity markets."

In 2021, before its invasion of Ukraine, Russia supplied almost half of Europe's gas and coal imports and a quarter of its oil. Russia is now responsible for less than 10% of Europe's gas imports. As the EU weans itself from Russian gas and builds more LNG terminals, demand for U.S. gas will increase significantly, creating a "convergence of prices around the globe," Mehling said.

Mehling said EU leaders risk making mistakes in attempting to respond to the crisis with quick, decisive actions, such as the proposal to decouple natural gas from setting market prices.

But he said economists and policymakers must determine whether single-price clearing markets still make sense as the fuel mix shifts to one dominated by low variable cost renewables that often produce negative prices.

"For 20 or 30 years, we thought we knew what the optimal [market] design would be," he said. "But with changing circumstances … I think we also have to be sober enough to realize that at some point, this dearly held principle of what the optimal approach would be may have to be revisited." ■

2022 IPPNY Fall Conference

Legislative Action Sought for New England's Winter Reliability Challenges

Will High Gas Prices Weaken Opposition to New Infrastructure?

By John Cropley and Rich Heidorn Jr.

SARATOGA SPRINGS, N.Y. — Limited supplies will likely result in higher natural gas prices in New England this winter and could prompt more supportive state policies for the industry, stakeholders told the Independent Power Producers of New York Fall Conference on Sept. 14.

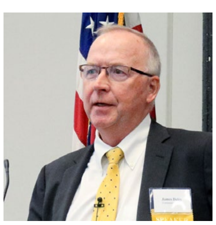
Tight gas supplies could result in rolling blackouts and prices significantly higher than the current national average of more than $8/MMBtu, Northeast Gas Association CEO Charles Crews said during a panel discussion at the conference.

Northeast Gas Association CEO Charles Crews | *© RTO Insider LLC*

James Daly, vice president of energy supply for Eversource Energy, predicted 60 to 100% increases in the price of electricity — excluding transmission and distribution costs — partially because of Russia's cuts in gas supplies to Europe, which have raised LNG prices internationally.

The Russian invasion of Ukraine has compounded New England's challenges: environmental activism that has blocked new gas pipelines and the century-old Jones Act, which prevents tankers from bringing U.S. LNG to the region.

Natural gas had wide support as a "bridge" fuel to a low-carbon future until the anti-fossil fuel movement began "vociferously" opposing pipeline expansions, Daly said.



James Daly, Eversource Energy | *© RTO Insider LLC*

"Renewables are being supported heavily by new legislation, but there's no support at all for natural gas. And there's opposition to the natural gas, even though the two things could be … complimentary in terms of" decarbonization, he added.

"The war in Ukraine … could be certainly a multiyear [struggle]," he said. "So once customers start to voice their objections to those very high bills, [policies] could change."

New England Power Generators Association President Dan Dolan | *© RTO Insider LLC*

Last winter brought higher gas prices and increased volatility largely because of the impacts of the COVID-19 pandemic and the quick economic rebound, said Dan Dolan, president of the New England Power Generators Association. "The story at the time was, 'It's going to be okay; this is a one-season issue.' Then Russia invaded Ukraine, and the world fundamentally changed. And now we are looking at a persistent multiyear situation in which the commodity is constrained, volatility has increased. And in the midst of all that, New England is going through a very similar transformation [to] here in New York, in meeting our climate obligations."

Coal and oil provided less than 1% of New England's January megawatt-hours in 2019-2021 but generated 20 to 30% in 2022, Dolan said, and he expects the same in 2023 and beyond. This insulates electric costs from the volatility of gas prices but boosts emissions, he said.

No New Pipelines?

New England is served by five gas pipelines, with most of its supplies coming from the west, through New York. Efforts to expand the infrastructure have been blocked both in New York and New England.

The Massachusetts Supreme Court blocked a proposed gas pipeline that would have been contracted by Eversource and other electric distribution companies because it was inconsistent with the state's retail restructuring law. "So a change in law would be needed," Daly said.

Dolan is not optimistic that will happen.

"I do not believe we will ever see another major new natural gas pipeline coming into New England," he said. "The story now becomes how do we maximize the infrastructure we have? How do we better value those reliability products?"

Dolan said FERC's gas-electric conference earlier this month left him with some optimism. "It was the first time I've heard in years a refocusing around this question of reliability, a recognition that the valuation of that reliability has not received as much attention as it as it needs," he said. "There was discussion of creating further reserves in the region. There are many different ways in which we can structure that." (See *FERC Comes to Vermont and Leaves with a New England-sized Headache*.)

Dispatchability

Gas will likely return to its role as a peaking resource in New England as tougher emissions targets take hold, Dolan said. And it will likely be needed as a dispatchable resource for decades, he added.

"Whether it's in Massachusetts or Connecticut, or it seems like in New York, there is a recognition we need that level of dispatchability, and reliability overall onto the system. It feels like right now that's code word for gas, but nobody wants to say it out loud," he said. (See *Clean Energy Groups Don't Buy ISO-NE's Gas Reliance*.)

He questioned whether hydrogen could provide a solution because New England's geology is not suited for storage. "I'm hard pressed to see how the vast majority of natural gas fleet that exists in New England doesn't persist." he said.

Other Solutions?

Yet New England "does not have a plan beyond two years [for] reliability," Daly said, a reference to the planned 2024 retirement of Constellation Energy's Mystic Generating Station and attached LNG import facility in Everett, Mass. (See *ISO-NE: Reliability Still Depends on Mass. LNG Import Terminal*.)

Daly said Eversource has identified opportunities for "relatively inexpensive" electric transmission upgrades using existing corridors, but their impact will be limited, he said.

Adding more storage for LNG would be very expensive, requiring legislative support for funding, he said.

Dolan questioned whether the elimination of the Jones Act would make a difference for New England because of a trend toward global LNG pricing. "If global markets do settle out, being able to leverage domestic production would be nice," he said. ■

NYISO News

NYISO Proposes 10-kW Min. Capability Req for DERs in Aggregations

NYISO on Sept. 12 shared a *proposal* to set a 10-kW minimum capability requirement for individual distributed energy resources participating in aggregations, which it said would help support their integration in its markets.

The ISO is developing new software and internal procedures to comply with FERC *Order 2222*, which did not set any minimum requirements for DER deployment. But NYISO said the work generated more overhead costs to interconnect DERs.

NYISO said that its proposal, presented to the Installed Capacity Working Group, would help staff save time reviewing aggregations for interconnection: reviewing 100 1-kW DERs in an aggregation would take significantly more time than reviewing an aggregation of 10 10-kW DERs, though both would have the exact same capacity.

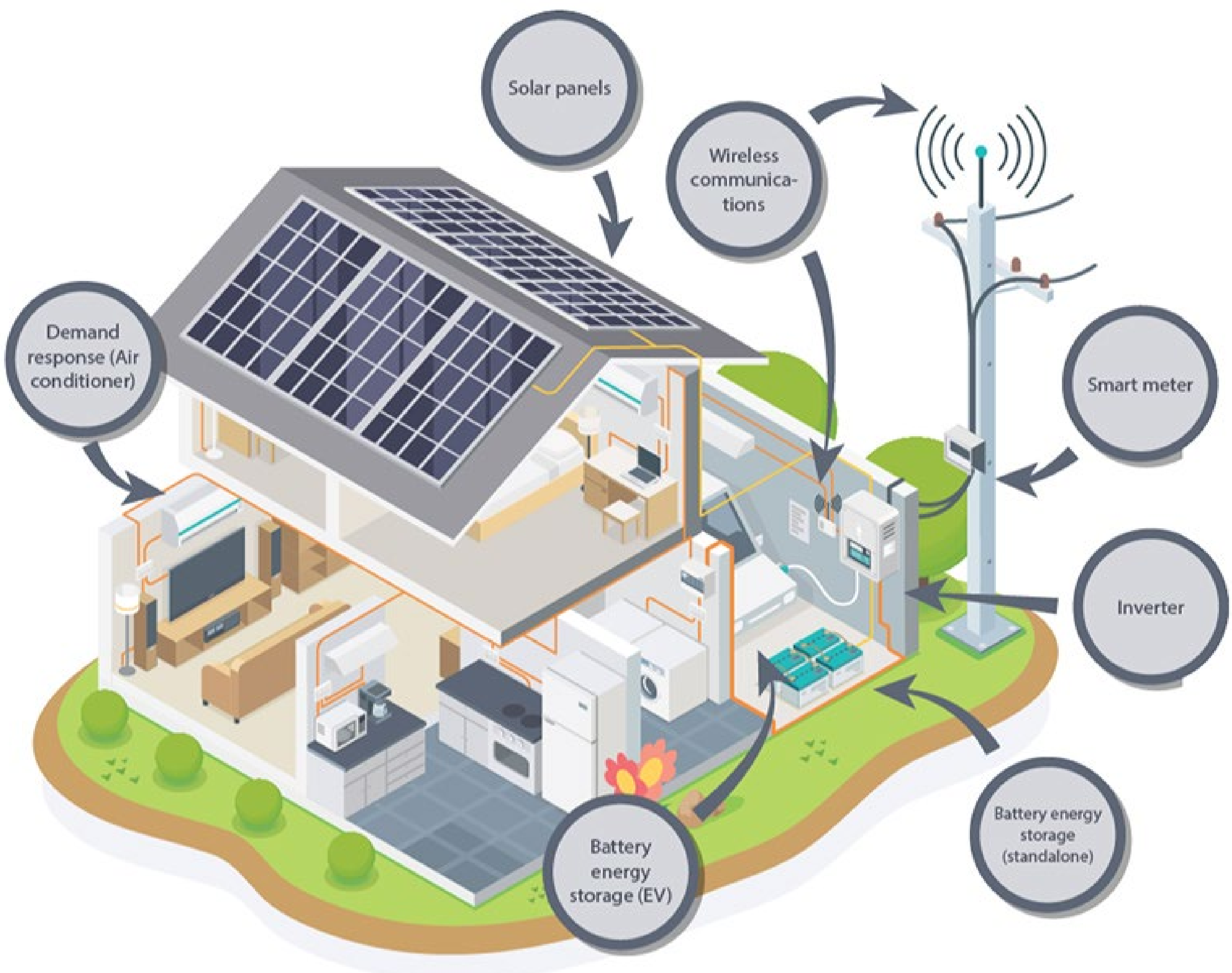
The ISO said the minimum requirement would enable aggregations to remain flexible and still deliver their services in a reliable and timely manner, but also allow staff to catch up on the compliance work.

It also said it would consider lowering the minimum after market deployment has been underway for some time and it has gained experience managing DER aggregations.

Stakeholders attending the meeting expressed concern about the proposal, saying it could disenfranchise entire residential market classes from being included in aggregations, and that it would not supply the experience NYISO is looking for because most initial aggregation participants will be on a larger scale (20 to 40 kW).

NYISO intends to file the proposal with FERC toward the end of 2022. Comments or questions should be sent to *DER_Feedback@nyiso.com*. ■

— John Norris



Distributed energy resources around the home | *Cummins Inc.*

NYISO News

New York PSC Raises Champlain Hudson Debt Ceiling to $6B

By John Cropley

The New York Public Service Commission on Thursday authorized developers of the Champlain Hudson Power Express to take on up to $6 billion in debt to build the transmission line from Quebec to New York City.

The PSC had authorized up to $4.5 billion in debt for the project in February, but the developers asked for an increase just four months later, citing nationwide economic conditions that had changed substantially since they initially submitted their request in November 2020.

The commission also authorized the developers to exercise the rights they have negotiated with the municipalities that the line will cross in the overland portion of its 340-mile route.

CHPE is considered important to New York state's climate goals, as it will bring as much as 1.25 GW of power generated by zero-emission Canadian hydroelectric plants to New York City, which now relies almost entirely on fossil-generated electricity.

The underground HVDC line was proposed in February 2010 and authorized by the PSC in April 2013.

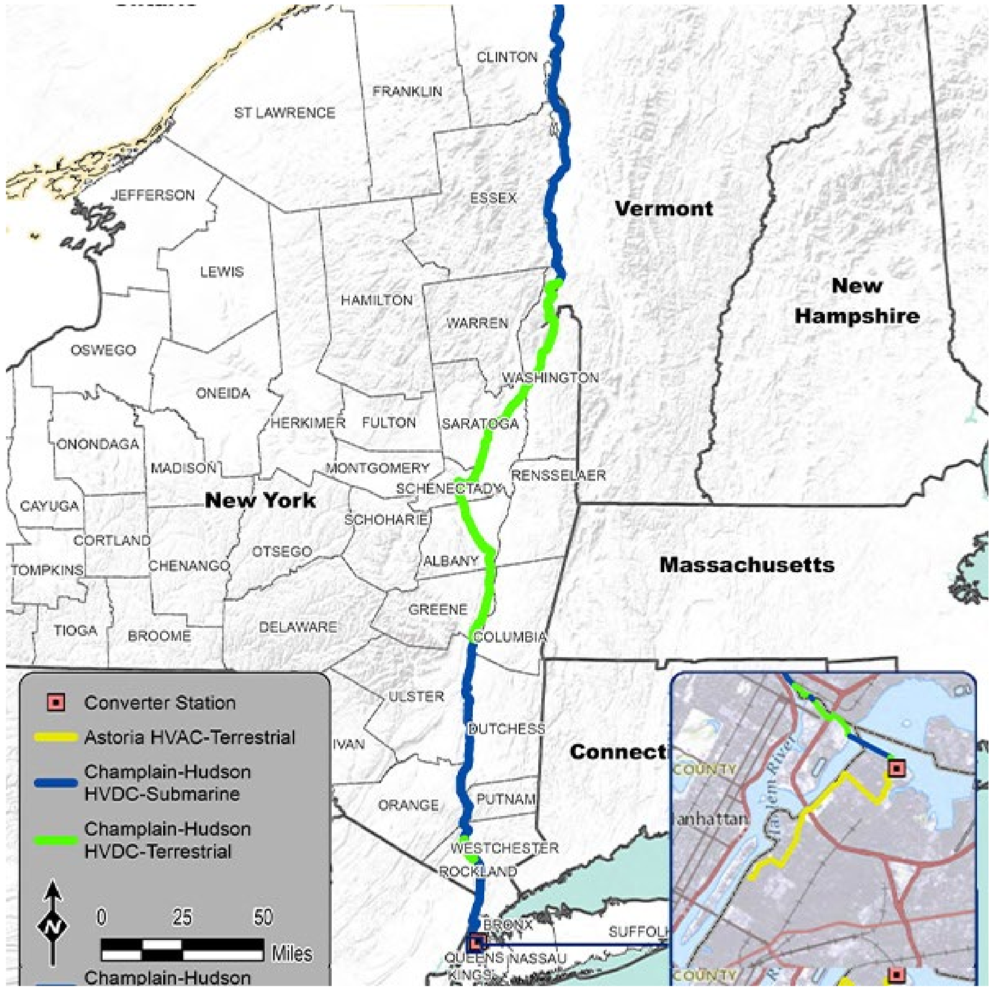
The company behind the project — a partnership between Hydro-Quebec and Transmission Developers Inc. — says the regulatory review since then has taken longer than it expected. On Aug. 31, it announced it was pushing back the anticipated in-service date from fall 2025 to spring 2026 because of the length of the process, as well as supply-chain constraints for key components.

The developers said Thursday that construction will begin later this year.

The PSC vote was not unanimous. Commissioners Diane Burman and John Howard both voted against the financing petition. Commissioners David Valesky and John Maggiore voted in favor of the measure, but their support was not unqualified.

Burman was concerned about giving the developers the ability to change lenders and modify the amount and terms of the financing without prior approval by the PSC.

Howard said he is opposed not to the project but to the way it is being paid for. "There's nothing inherently objectionable, and I find many things actually very positive about the concept of … construction of the CHPE line. What I have a problem with, again, consistently, is how we pay for it, making all ratepayers pay, and sort of abandoning the broad and long-held concept of beneficiaries pay."



The Champlain Hudson Power Express underground HVDC line will carry up to 1.25 GW of power from Quebec to New York City on this route. | *Transmission Developers Inc.*

Valesky said he shared Burman's and Howard's concerns. "However, I did come to a different conclusion," he said. "I did support that item in February, and I will be supporting this item today."

Maggiore said his concern that the higher debt limit might impact ratepayers was satisfied and his other concerns with CHPE are ancillary to financing, so it was not appropriate for him to raise them at Thursday's meeting.

The project has long been contentious. Some opponents worry about the potential for environmental damage caused by construction of the line, 60% of which will run beneath Lake Champlain and the Hudson River.

Others say the net environmental benefit of hydropower is overstated and, in the case of Hydro-Quebec's vast hydropower infrastructure, harmful to indigenous people.

But project developers have also marshaled support from environmentalists and indigenous communities.

In a news release announcing the PSC's decision Thursday, Chair Rory Christian said: "In addition to ensuring the safety and reliability of the transmission system, the Champlain Hudson project, and others being developed, will play a key role in our comprehensive plan to modernize our state's transmission system so that it delivers clean energy to all New Yorkers, while advancing our climate goals and creating clean-energy jobs." ■

NYISO News

NYISO Proposes $191M 2023 Budget, 13% Increase

Pay Raises, Increased Hiring Drive Boost

By John Norris

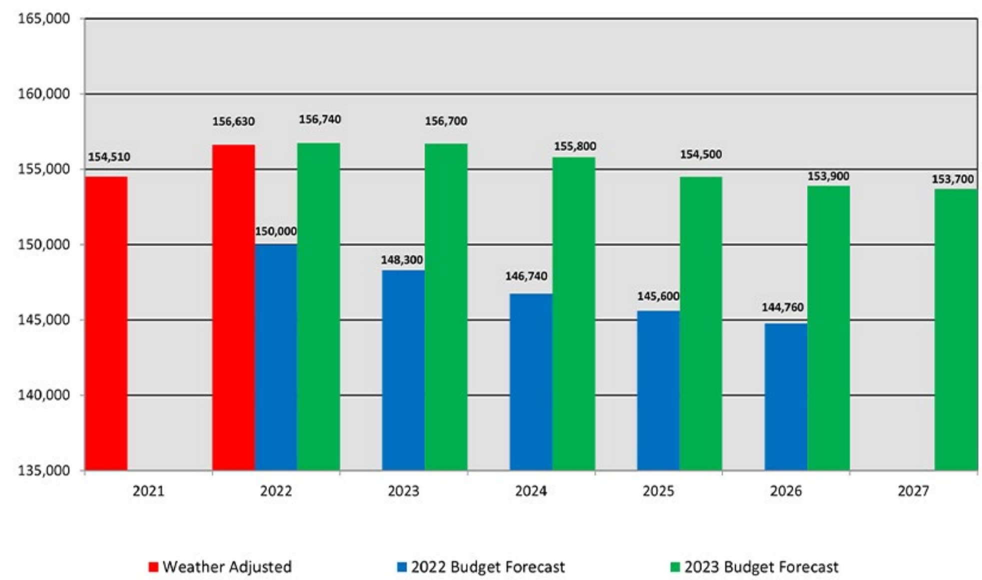
NYISO is proposing a $191 million budget for 2023, a 13% increase over the current spending plan, with funding for salary increases, 20 new staffers and 54 projects.

The spending plan will be allocated across a forecast 156.7 million MWh for an RS-1 surcharge of $1.219/MWh, an 8% boost from the 2022 surcharge, Chief Financial Officer Cheryl Hussey *told* the Budget & Priorities Working Group Sept. 15. The ISO's projected 2023 throughput represents a 4.5% increase over the 2022 budgeted MWh.

Among the key drivers behind proposed spending increases are "recruitment and retention challenges," which led the ISO to implement a 3% salary increase for all non-executive employees retroactive to Jan. 1 and targeted hikes for engineers and other positions that a benchmarking study found were underpaid relative to their peers. (See *NYISO Details 2023 Budget & Compensation Updates*.)

The budget also includes funding for compensation adjustments of 6%. Hussey pointed out that "RTO and ISO peers" have planned similar salary increases with some "ranging from 5.5-7%."

The budget will raise the authorized headcount from 608 to 628, with new positions primarily in System and Resource Planning, Stakeholder Services, Operations and Market Operations. These positions are in response to "new, increasing, and expanding workload," Hussey said.



5-Year (2023-2027) Total Energy Usage Budget Predictions from NYISO | *NYISO*

Although the ISO will use $5.7 million of its 2021 budget surplus to make early debt repayments, increased borrowing in 2022 will increase principal repayments by $700,000 in 2023 over this year.

The ISO said inflation was responsible for $9 million of the $21.8 million increase from 2022.

BPWG Chair Alan Ackerman will present the 2023 draft budget to the Management Committee on Sept. 28, with an MC vote set for Oct. 26.

	2023 Draft Budget		
($ in millions, except RS#1/MWh)	Enterprise	Projects	Total
Capital	$1.9	$9.2	$11.1
Salaries & Benefits	106.2	13.7	119.9
Professional Fees (including Legal)	19.4	8.5	27.9
Building Services	6.4	0.0	6.4
Computer Services	23.0	0.6	23.6
Insurance	3.7	0.0	3.7
Telecommunications	2.9	0.0	2.9
Other Expenses (BOD, Travel/Training, NPCC Fees)	3.8	0.0	3.8
Subtotal: Current Year Needs	**$167.3**	**$32.0**	**$199.3**
Debt Service	30.5	0.0	30.5
Subtotal: Cash Budget	**$197.8**	**$32.0**	**$229.8**
Less: Miscellaneous Revenues	(12.1)	0.0	(12.1)
Less: Proceeds from Current Year Budget Debt	(1.9)	(25.1)	(27.0)
Add: Interest on Current Year Budget Debt	0.0	0.3	0.3
Total: Rate Schedule #1 Revenue Requirement in $$	**$183.8**	**$7.2**	**$191.0**
Budgeted MWh (in millions)			**156.7**
Rate Schedule #1 Revenue Requirement in $/MWh (budget)			**$1.219**

NYISO 2023 draft budget breakdown highlights (2023 vs. 2022) | *NYISO*

Pandemic Recovery

NYISO's Max Schuler presented the working group an *updated* RS-1 budget forecast for 2023, projecting net energy of 150,580 GWh, 3,900 GWh of exports and 2,200 GWh of wheels, for the RS-1 total of 156,700 GWh. The 2022 budget forecast, originally 150,000 GWh, has been updated to 156,740 GWh.

The New York Control Area's energy consumption has largely recovered from the COVID pandemic, which saw throughput drop by almost 4% in 2020 from the year prior. Schuler said the state is experiencing "close to across-the-board recovery from the pandemic" relative to the pre-COVID forecast, with the "exception of New York City, which has also gone positive at times in 2022."

However, the 2023-2027 forecast predicts both net energy and RS-1 totals will decline in outer years due to energy efficiency improvements and behind-the-meter solar growth. Net energy is projected to drop to 147,580 GWh in 2027, a drop of 2% from 2023.

Long Island has already entered in negative growth while the Upstate and Hudson Valley regions are near net 0% energy growth in recent months, signaling the completion of their pandemic recovery and a return to long-term negative load growth trends. ■

FirstEnergy CEO Abruptly Retires, Without Severance

Announcement Late Thursday Follows Board Management Review

By John Funk

FirstEnergy announced late Thursday night that President and CEO Steven Strah would be replaced the next day by John W. Somerhalder II, chairman of the board of the directors.

The company announced the move in a *filing* with the Securities and Exchange Commission and a news *release* issued about an hour after markets closed Thursday. Strah is retiring without a severance package, though he will be accorded pension benefits. Somerhalder will serve as interim president and CEO while the board conducts a search for a permanent replacement.

The press release also noted that the company had completed its review of its top management team, as required in a proposed *settlement* of shareholder lawsuits.

Neither the release nor the 8-K filing contained an explanation for Strah's "decision to retire" just 18 months since his permanent *appointment* in March 2021. Strah had been named acting CEO in October 2020, replacing fired CEO Charles Jones.

Federal prosecutors had identified Jones as having been involved in a company-financed bribery of former Ohio House Speaker Larry Householder, who was *indicted* in a federal racketeering conspiracy in connection with the passage in 2019 of H.B. 6, legislation creating a $1.3 billion bailout of two nuclear power plants in the state then owned by FirstEnergy. Lawmakers later rescinded the subsidy in the wake of the federal charges.

Jones has not been charged in the ongoing federal probe, but FirstEnergy entered a deferred prosecution plea admitting its involvement and agreeing to pay a $230 million fine. Householder's trial is scheduled for January.

During his brief tenure as CEO, Strah has served as the face of a corporate turnaround, leaving the bribery scandal behind, making his unexpected retirement more surprising. Some local media, and a national watchdog group immediately speculated that his departure is linked to emails that recently came to light between Strah and company lobbyists during the H.B. 6 campaign.

The board's leading independent director, Lisa Winston Hicks, praised Strah in the company's announcement: "I would like to thank Steve for his many contributions and years of service to FirstEnergy and wish him well in his next chapter."

The release also contained an upbeat statement from Strah.

"It has been a great honor to be part of the FirstEnergy family for more than 38 years," he said. "I want to express my gratitude to the extremely dedicated employees, as well as our incredibly talented management team. I believe the future holds great opportunity for this organization."

Somerhalder has been chair of the board since May and joined the company as vice chair and executive director in May 2021. Prior to that he served as interim president and CEO of CenterPoint Energy from February to July 2020. ■

Steven Strah, outgoing CEO of FirstEnergy (right), and John W. Somerhalder II, chair of the FE board and now acting CEO | *FirstEnergy*

Stakeholders Endorse PJM's Black Start Fuel Reqs Proposal

By Devin Leith-Yessian

In a unique joint vote, the PJM Operating and Market Implementation committees overwhelmingly endorsed an RTO package of revisions of its fuel requirements for black start resources.

The changes center around the creation of a new "fuel assured" classification of black start service providers that can demonstrate a higher level of reliability by reducing fuel availability concerns.

The PJM package, which was drafted with Brookfield Renewable and the D.C. Office of the People's Counsel, received 76% of the 206 votes cast, while a proposal from the Independent Market Monitor received 9% support over the status quo, the RTO revealed during a special joint meeting of the committees Friday. The revisions will now go before the Markets and Reliability Committee during its meeting this Wednesday.

In addition to meeting existing black start requirements, the PJM proposal would require that a fuel-assured unit must either have adequate fuel storage for 16 hours of full run time, the ability to operate independently on two or more interstate pipelines, be directly connected to a natural gas gathering system, or be capable of providing 16 hours of full load operation with 90% confidence, as determined by the RTO.

The new fuel assured category would also come with a higher black start incentive, but it would come with a penalty of lost monthly revenue for generators that fail to meet the requirements. The increased incentives would cost an estimated $436,000 across all sites, PJM *said* during the Friday meeting.

The penalty remained a source of concern for some stakeholders who believe the risk isn't matched with the payoff for becoming a fuel-assured unit.

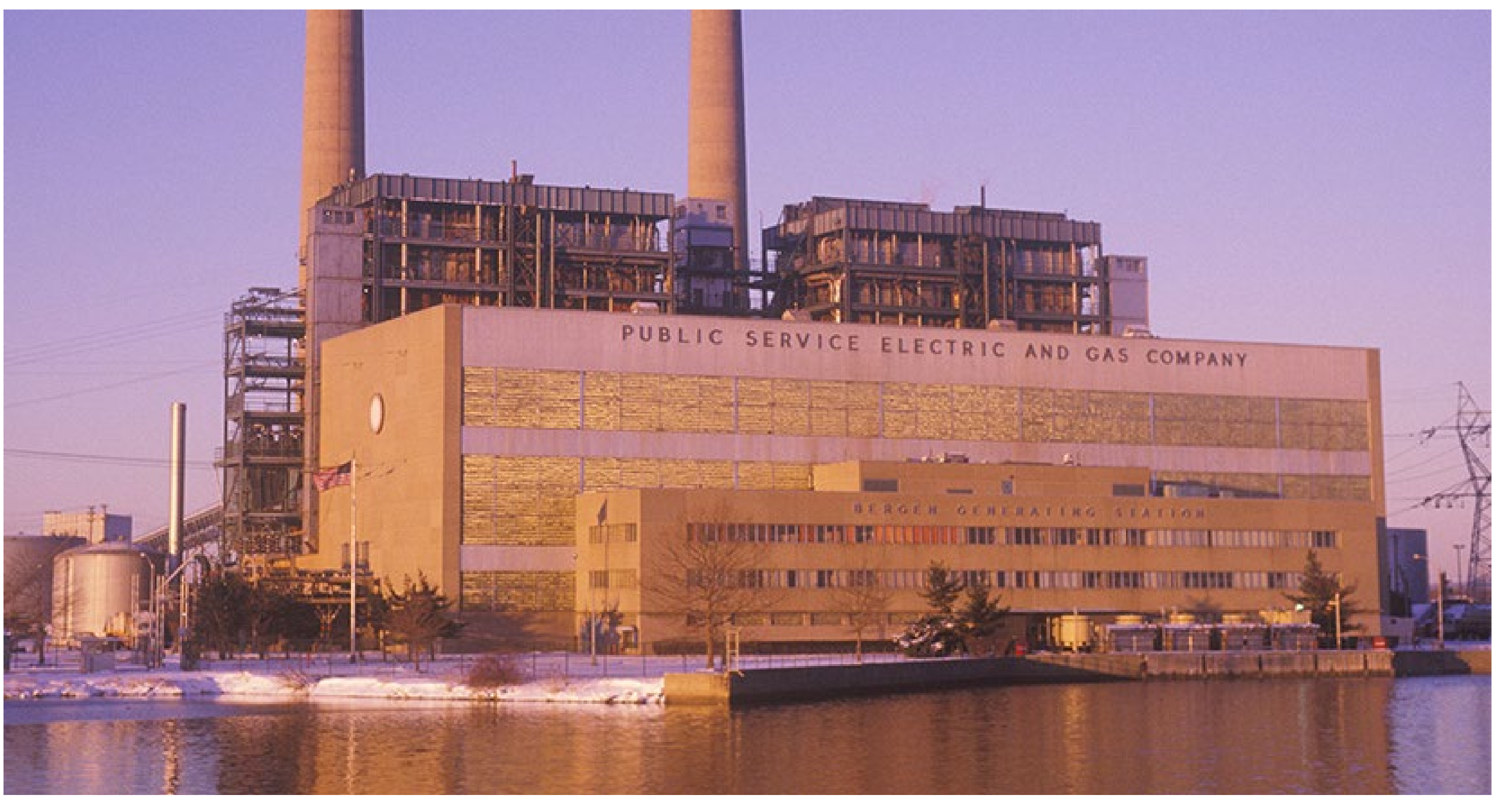
The mitigation of eight high-impact black start sites in five transmission zones is also estimated to increase PJM's annual revenue requirement for the service by $28 million per year, according to the RTO.

PJM staff said they will continue to tweak the revisions in the days leading up to the MRC vote to provide further clarifications and to add that gas generators submitting a fuel-assured application can demonstrate their ability to use two pipelines with actual usage in the past year, rather than needing to test each pipeline independently.

Voting on the IMM and PJM proposals opened after the OC meeting closed on Sept. 8 and closed Sept. 13. Stakeholders of both the OC and MIC could vote on the packages, though individual entities were limited to one vote overall and any duplicates were removed.

The Monitor's package largely differed around the treatment of intermittent resources; while the PJM proposal would allow for their inclusion as fuel-assured units if they were determined to be able to meet the requirements with 90% confidence, the IMM language excluded them outright because the technology is not currently ready for them to provide power at the reliability needed for black start. (See *PJM, Monitor Debate Black Start Fuel Requirements Proposals*.)

The IMM also expressed concerns that the PJM package could result in overpayment for units that meet the fuel-assured requirements but don't enter into the black start procurement process as such, allowing them to receive the benefits of being fuel assured without the risk associated with the penalties. ■



Bergen Generating Station in Ridgefield, N.J. | *Shutterstock*

PJM News

PJM Names New Chief Risk Officer

By Devin Leith-Yessian

PJM named Carl F. Coscia Monday as its new vice president and chief risk officer, replacing Nigeria Bloczynski, who resigned unexpectedly in April after a dispute with stakeholders over collateral provisions.

Coscia is the former global head of risk management for the German-based energy company EnBW. Coscia managed the company's market risk, enterprise risk, credit risk, compliance and approval for all master trading agreements, according to the announcement. He also served as the vice president of federal energy policy for Constellation Energy, a branch chief for FERC's Office of Enforcement, and chief business officer and chief risk officer for Hartree Partners, LP.

"I look forward to managing risk for an organization that is so vital to the lives of the 65 million people it serves," Coscia was quoted in a PJM announcement of his appointment. "Risk management becomes more important each day in this evolving, dynamic industry that produces and delivers power and administers the markets for wholesale electricity."

His responsibilities will include coordinating risk management operations with PJM executives, including credit and enterprise risk management, market surveillance and insurance. He will also have oversight of the Risk and Audit Committee of the PJM Board of Managers and will report to CEO Manu Asthana. His new role begins on Sept. 28.

"Risk management is a critical function for PJM as an organization and for the protection of our members," Asthana said in the announcement. "Carl brings a wealth of risk management, market and regulatory experience to PJM that will serve us and our stakeholders well."

Coscia is a graduate of the University of Minnesota, where he received a Ph.D. in economics, and the University of Kansas, where he received a bachelor's degrees in mathematics and economics.

New PJM Chief Risk Officer Carl F. Coscia | *Carl Coscia via LinkedIn*

Unexpected Departure

Coscia's appointment comes five months after the resignation of Bloczynski, who departed with no warning after contentious stakeholder discussions over collateral requirements for financial transmission rights (FTR) traders. (See *Bloczynski Resigns as PJM Chief Risk Officer*.)

Her resignation was announced less than two weeks after stakeholders voted to urge FERC to reconsider a proposal the commission rejected in February to use a 97% confidence interval for setting the initial margin calculation for FTR trades. The commission said PJM failed to support its proposal because its independent auditors validated the model at a 99% confidence interval rather than the 97% proposed. FERC ordered a paper hearing in the case (ER22-2029, EL22-32) in August. (See *FERC Orders 'Paper' Hearing on PJM FTR Collateral Dispute*.)

CFO Lisa Drauschak assumed Bloczynski's responsibilities after her departure.

The chief risk officer position was created in the wake of the GreenHat Energy default and a *report* drafted by an independent consultant hired to investigate the impact to PJM stakeholders. (See *Report: 'Naive' PJM Underestimated GreenHat Risks*.)

The efforts to rewrite PJM's rules and regulations to limit the fallout from future market participant defaults continues Wednesday, when the Markets and Reliability Committee will consider a proposal to provide greater protections against bankruptcies by market participants. (See "Revised Bankruptcy Rules," *PJM Markets and Reliability Committee Briefs: Aug. 24, 2022*.) ■

| *© RTO Insider LLC*

PJM MRC/MC Preview

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

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

Markets and Reliability Committee

Consent Agenda (9:05-9:10)

The MRC will be asked to endorse revisions to the following manuals as part of its consent agenda:

- Manual 10: Pre-Scheduling Operations, Manual 12: Balancing Operations and Manual 13: Emergency Operations, to address the reserve price formation implementation;
- Manual 14D: Generator Operational Requirements and Manual 13: Emergency Operation, to conform with NERC standards EOP-011, IRO-010 and TOP-003;
- Manual 15: Cost Development Guidelines, to address reserve price formation implementation and changes resulting from the manual's periodic review process. Same-day endorsement may be sought at the MRC and MC meetings; (See "Manual Revisions OK'd on Reserve Price Formation," *PJM Market Implementation Committee Briefs: Aug. 10, 2022*.)
- Manual 10: Pre-Scheduling Operations, Manual 14D: Generator Operational Requirements and Manual 18: PJM Capacity Market, conform with FERC's July 12 order accepting PJM's clarifications on its rules for hybrid resources;
- Manual 18: PJM Capacity Market and Manual 18B: Energy Efficiency Measurement & Verification, resulting from the periodic review process; and
- Manual 27: Open Access Transmission Tariff Accounting, Manual 28: Operating Agreement Accounting and Manual 29: Billing, to address reserve price formation implementation.

Endorsements (9:10-10:15)

1. Reserve Price Formation Manual Revisions (9:10-9:30)

PJM staff will review proposed revisions to Manual 11: Energy & Ancillary Services Market Operations to address reserve price formation implementation. The Independent Market Monitor will provide its perspective on the proposed revisions. (See "IMM, PJM to Collaborate on Manual Revisions Prior to MRC," *PJM Market Implementation Committee Briefs: Sept. 7, 2022*.)

Issue Tracking: *Energy Price Formation*

2. Bankruptcy Protections (9:30-9:45)

PJM Assistant General Counsel Eric Scherling will review a proposed package of rule changes addressing bankruptcy protections. The revisions aim to provide greater protections against bankruptcies by market participants. The language was endorsed by the Risk Management Committee in July, and Scherling presented a first read to the MRC in August. (See "Revised Bankruptcy Rules," *PJM Markets and Reliability Committee Briefs: Aug. 24, 2022*.)

Issue Tracking: *Bankruptcy Protections*

3. Market Seller Offer Cap (9:45-10:15)

Stakeholders will be asked to endorse one of two proposed packages of solutions — from PJM and LS Power — and tariff revisions related to changing the market seller offer cap. The PJM language seeks to ensure that market sellers can account for their Capacity Performance risk when offering into the Base Residual Auction. LS Power's is similar to PJM's, with differences reflecting sellers' view of the risk of taking a capacity obligation. (See "Discussions Continue on Market Seller Offer Cap," *PJM Markets and Reliability Committee Briefs: Aug. 24, 2022*.)

Issue Tracking: *Capacity Reform Market*

Members Committee

Consent Agenda (1:15-1:20)

C. Stakeholders will be asked to endorse or approve revisions to Manual 15: Cost Development Guidelines and Operating Agreement Schedule 2 to provide detailed guidance and updates to rules related to variable environmental charges and/or credits and their inclusion in cost-based energy offers. (See "Variable Environmental Costs and Credits," *PJM MIC Briefs: May 11, 2022*.)

Issue Tracking: *Variable Environmental Costs and Credits*

D. The MC will be asked to endorse proposed revisions to Manual 15: Cost Development Guidelines. (See MRC consent agenda item above.) ■

— Devin Leith-Yessian

Arkansas PSC's Thomas Makes Way for His Successor

Resigning Chairman Says he Didn't Want Term 'to Last Forever'

By Tom Kleckner

Arkansas Public Service Commission Chair Ted Thomas, a towering presence among MISO and SPP stakeholders, said his decision to step down from the state's regulatory body and enter the private sector is simply a matter of making room for his successor.

Appointed by Gov. Asa Hutchinson in 2015, and with four years left on his term, he said that with a new governor taking office next year, it is time to move on.

"I didn't want it to last forever," Thomas told *RTO Insider* on Sept. 12. "I had a great working relationship with Hutchinson. I thought it best to let the other person make their own choice."

Sarah Huckabee Sanders — former White House press secretary under President Donald Trump and the daughter of former Arkansas Gov. Mike Huckabee — is a heavy favorite to win the state's gubernatorial election in November. Hutchinson is term limited.

Thomas made his decision to resign public after submitting a resignation letter to Hutchinson on Sept. 9. The resignation is effective Oct. 1.

Almost always the tallest person in the room, Thomas has been heavily involved in regulatory matters over the last couple of years. In addition to serving on SPP's Regional State Committee (RSC), several other stakeholder and regulatory groups, and the National Association of Regulatory Utility Commissioners' Electricity Committee, he was appointed last year to FERC's Joint Federal-State Task Force on Electric Transmission that was charged with unleashing transmission expansion to improve resilience and connect new renewable generation (*AD21-15*). (See *FERC-State Task Force Considers Clustering, 'Fast Track' to Clear Queues*.)

That work continues. Thomas expressed regret about stepping away from the task force before it completes its task.

"I'm sure there's more to do, but we've talked about a lot of the issues on the front end," he said.

"This is sad for all of us who follow utility regulation," *tweeted* Matt Christiansen, general counsel at FERC. "I am not sure there's anyone whose perspective I have been more eager to hear over the last several years than Chair Thomas.'"

Ted Thomas shares a laugh with fellow commissioner Sarah Freeman (Indiana) during a 2019 panel discussion. | *© RTO Insider LLC*

"Big shoes!" added energy consultant Karl Rabago, a former Texas commissioner.

Thomas said he has enjoyed working with the grid operators and their staffs, saying it was a big part of his tenure. He named-checked staff from SPP's Cost Allocation Working Group and the Organization of MISO States (OMS) and said he was "very lucky to get to know some of those people."

"You're creating value for the ratepayers" when working with RTOs," Thomas said. "There are a lot of benefits, but it's not easy to earn them. You have to work through the stakeholder process."

If there's a regret for Thomas, it might be not seeing through the SPP Improved Resource Availability Task Force that he chairs. The group is responsible for addressing recommendations following the RTO's review of its response to the February 2021 winter storm.

"That's very important work," he said, noting the task force is still in the middle of its assignment.

Thomas hinted he may still be visible in future grid operator circles, but right now, he has work to do.

"I'll run through the tape," he said.

Arkansas PSC Commissioner Justin Tate will take Thomas' place on the RSC, beginning with October's meeting. Fellow Commissioner Kimberly O'Guinn will remain on the OMS, Thomas said.

The resignation came two days after Thomas *colorfully recused himself* from a solar energy case involving Petit Jean Electric Cooperative and other utilities over alleged unauthorized net-metering practices. He accused Petit Jean of making false criminal accusations against him and said it was "soullessly" wielding "the billy club of the monopolist" and called the utility a "litigation machine paid for by the same 'members' that they club."

The utilities requested Thomas' recusal after he made comments during a legislative committee hearing earlier this year. They said his comments on interconnection requirements reflected a "predisposition or prejudgment of key issues."

Thomas *told* an Arkansas newspaper that his resignation had "nothing to do" with the case, but that "no one will believe that."

In his recusal Thomas wrote that the utility had four times defied PSC orders to file a tariff that included statutory language to interconnect residential solar customers to the grid.

"Then, like a Saul Goodman stunt, Petit Jean's counsel falsely accused me of criminal conduct and sought my recusal. Better call Saul!" he said, referring to the lawyer character from the TV shows "Breaking Bad" and "Better Call Saul," in making his point.

"Solar panels have been sitting in the sun not interconnected for months and months, and a formal PSC process would be litigated and appealed for additional months, if not years," Thomas said. "This result seems to be the monopolist's intended purpose. I do not wish to be used as a weapon by the monopolist in the endless expensive efforts to keep people … from interconnection to the grid.

"I'm all good, man. I recuse."

"I'm very contentious. It's in my DNA," Thomas said last week. "If someone wants to throw down, let's throw down. Perhaps I could be a better person, but if we have to rumble, let's rumble."

Thomas has previously served as chief deputy prosecuting attorney for Arkansas' 20th Judicial District, an administrative law judge for the PSC, Gov. Huckabee's budget director and a member of the Arkansas House of Representatives, where he was chairman of the State Agencies and Governmental Affairs Committee during his final term.

The Arkansas Advanced Energy Association last year honored Thomas with its Ron Bell Advanced Energy Leadership Award for outstanding contributions to the renewable power, efficiency and energy contracting industry. ■

SPP News

SPP Continues its Counterflow Optimization Work

SPP, MISO to Refund Overlapping Charges

By Tom Kleckner

SPP staff are taking yet another crack at adding counterflow optimization (CFO) to the congestion-hedging process following a late-August workshop with the Board of Directors, Members Committee and other stakeholders.

Staff offered more than a dozen *alternative congestion-hedging solutions*, culled from surveys and meetings with stakeholders. Stakeholder groups will get another opportunity to discuss the final recommendations before they are brought to the governance committees and the board during their October meetings.

"My hope is the things that staff has developed, and the feedback we've heard today, provides us with a pathway to do some work with stakeholder groups to help shape whatever comes back to the board in October," board Chair Larry Altenbaumer said. "I don't want to presuppose staff's recommendation or what it should be, but I want to make sure we're being as thorough as possible in providing constructive guidance on whatever that solution might be."

It hasn't been easy for CFO to get this far. The Holistic Integrated Tariff Team recommended in 2019 that CFO, limited to excess auction revenue, be added to SPP's market mechanism that hedges load against congestion charges. The process, which keeps system transmission flows between two points in balance, was meant to address concerns about how congestion rights instruments are awarded and the current process's efficiency.

The Market Working Group spent months trying to reach agreement on how best to add CFO, only to eventually turn it over to the Strategic Planning Committee. (See *SPP SPC Takes on Congestion Hedging Issues*.)

In April, the Markets and Operation Policy Committee rejected a recommendation to stick with the status quo, three months after agreeing with staff to leave the market construct untouched. (See *SPP Markets and Operations Policy Committee Briefs: April 11-12, 2022*.)

That was when Altenbaumer stepped forward and suggested staff and stakeholders work together and reach consensus on how best to add CFO to the market. (See "Counterflow Optimization not Dead Yet," *SPP Board of Directors/Markets Committee Briefs: April 26, 2022*.)

"There's been no shortage of analysis. It's simply a lack of consensus," Altenbaumer said. "Lack of consensus doesn't mean we have a lack of an issue. It's reached a point where it doesn't mean we should delay our concerns."

Altenbaumer, who facilitated the Aug. 30 workshop's panel discussions, alluded to the difficulties that still lie ahead for SPP's staff and stakeholders.

"Facilitating this reminds me of a game show host," he said. "I'm not sure whether it's 'Jeopardy,' 'Let's Make a Deal,' 'The Price is Right' or, God forbid, 'Family Feud.' We'll see what happens when we get into this."

That the positions in the opposing camps have only solidified quickly became evident. Some stakeholders say SPP's congestion-hedging process is unfair and continue to ask for changes. Others says the status quo works for them.

John Stephens, who manages City Utilities of Springfield's (Mo.) generation fleet and transmission system, said most market participants who nominate financial positions before transmission congestion rights (TCRs) are awarded are "absolutely happy" because they're getting all of their nominated congestion hedges.

"This is not a complicated problem. There are a lot of details and we could spend hours and hours digging into those details, but essentially, we have 25 people in line, but we have 20 widgets to give away," he said. "How we allocate those limited numbers of widgets is the problem in my mind. The first 20 guys in line are getting widgets, and the last five are not. We would like to see a more equitable process, where people get a similar percentage of the widget."

"The main factors that have prevented stakeholders from moving forward is comfort with the status quo on a complex issue," Southern Power's Chase Smith said. "There's the risk and uncertainty that is probably viewed by implementing something new and not completely understanding how it will impact each of the market participants. Some market participants are impacted by ARR [auction revenue rights] allocations more than others. There's concern some moderate counterflows may impact the current congestion-hedging mechanism."

"Unfortunately, the problem is that some people and their actions are not harmed directly by the actions of others, but the actions that they are taking or not taking is affecting someone else. And that's hard to sort of grasp," said Keith Collins, SPP vice president of market monitoring.

SPP Board Chair Larry Altenbaumer | *SPP*

A consultant's review last year determined market participants have too much latitude over the congestion-hedging process, staff said. It determined ARRs are set equal to transmission service rights requests, with 75 GW of candidate ARRs and a 50-GW nomination cap. The consulting firm found nomination patterns generally pursue highly valued paths, resulting in increased curtailments and asset owners leaving too much unclaimed monetary value.

Staff's proposed solutions include aligning commercial and transmission models and using a planning feedback loop to provide a list of congested elements for considering in the planning processes. They said this will provide incentives for transmission expansion projects.

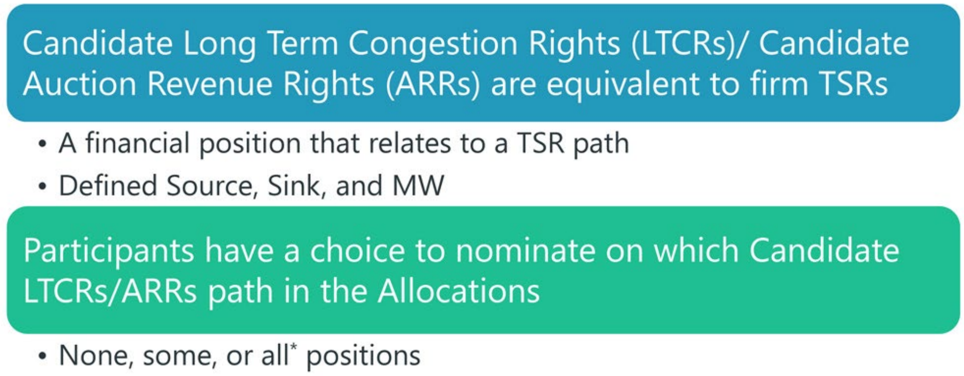
Under this proposal, SPP would also model load to ensure settlement locations, match network integrated transmission service agreements and model generators to better match candidate ARRs with generation in the day-ahead market.

Other proposals included:

- adding an additional round to the long-term congestion rights process and allowing participants to keep their positions for a year;

SPP News

- baseload a percentage of the nomination cap for each participant based upon a ratio of every transmission service request's path;
- use CFO after the first round of the ARR allocation process, uplifting its cost to the market participants that opt in;
- changing the nomination caps in the annual ARR process; and
- limiting system capacity to 50% for each of the annual ARR and TCR process.



Overview of SPP's allocation process for auction revenue rights | *SPP*

Stakeholders expressed their interest in further developing the alternative proposals, although there was pushback from those who have been heavily involved in the CFO effort.

"I certainly want to make sure what we're doing is consistent with where we think we need to be in five, six or seven years downstream, and that we don't put a Band-Aid on something that will certainly change," Altenbaumer said. "We need to have a good understanding of the interdependencies. We don't want to solve this problem in the marketplace if there are some options to develop strategic transmission that provides overall benefits to the system."

"To the extent we need to run some of these ideas to ground, I think we can do that," American Electric Power's Richard Ross — chair of the Market Working Group that has been responsible for much of the development — told Altenbaumer. "I may perhaps be a little pessimistic, but I'm not sure that I've heard one [idea] that I feel like is going to minimize the impact on others quite as much as the option that we've been talking about for so long."

SPP's Micha Bailey, who conducted the workshop, said his concern remains future uncertainty.

"Look at the [generator interconnection] queue and look at all the solar and the batteries that are right behind [wind requests]," he said. "Once again, I wish I had a crystal ball. I wish I could say, 'Look all y'all, we're great. All y'all are protected.' If we don't work towards a solution together, it's very bleak for me to say, 'Hey, we're in a good spot.'"

Refunds on Overlapping Congestion Charges

Staff also told stakeholders Wednesday during a Seams Advisory Group meeting that SPP and MISO will issue refunds in October to AEP and the city of Prescott, Ark., for overlapping congestion charges on pseudo-tied loads and resources between the two markets.

FERC approved a settlement agreement on Sept. 7. Under its terms, the RTOs will refund $142,768 to AEP and $53,017 to Prescott, split evenly between the grid operators (*ER22-2221*).

The commission opened an investigation in 2019 into the overlapping charges following complaints from AEP subsidiary Southwestern Electric Power Co. and Prescott that both the host and attaining markets were charging for congestion across the same transmission path. It accepted the RTOs' proposed" predictive flow factor process" solution in December and directed them to refund the complainants. (See *FERC Accepts MISO-SPP Congestion Charge Solution*.)

SPP will recover its portion of the settlement payments through a revenue neutrality uplift from market participants that either provide generation, consume generation, have scheduled interchange transactions, or have virtual bids or offers.

The predictive flow factor process improves the exchange of market flow data and better predicts impacting market flows when determining relief obligations during market-to-market. The two RTOs have more than 2.7 GW in combined pseudo-tied generation or load. ■

Company Briefs

Talen to Buy Out Co-owner, Install Wind

Talen Energy Supply last week said it will acquire Puget Sound Energy's 25% share of Colstrip's two remaining coal-fired units while also building a wind farm.

Talen, which owns a 30% share, would still run the 1,480-MW units along with a 600-MW wind farm that is expected to come online in 2026. Two older generating units — co-owned by Talen Energy and PSE — shut down in 2020. The transfer of PSE's share in the remaining units is effective Dec. 31, 2025.

The deal is subject to a 90-day review by the plant's other co-owners and approval from Talen's bankruptcy judge.

More: *The Associated Press*

Patagonia Founder Gives Away Company

Yvon Chouinard, the founder of outdoor apparel maker Patagonia, last week announced his family had transferred the ownership of the $3 billion company to a specially designed trust called the Patagonia Purpose Trust and nonprofit organization Holdfast Collective.

The two were created to preserve the company's independence and ensure that its profits — some $100 million a year — are used to combat climate change and protect undeveloped land around the world. Patagonia already has donated $50 million to the Holdfast Collective and expects to contribute another $100 million this year.

"Hopefully this will influence a new form of capitalism that doesn't end up with a few rich people and a bunch of poor people," Chouinard said. "We are going to give away the maximum amount of money to people who are actively working on saving this planet."

More: *The New York Times*

BP to Pay $2.75M in Air Pollution Case

BP last week agreed to pay $2.75 million to settle accusations that its Northwest Indiana refinery repeatedly broke the law by polluting the air.

Environmental groups sued BP in federal court in Indiana alleging that it spewed dangerous levels of particulate pollution into the air between 2015 and 2018. Under the settlement, BP will pay $1.75 million in civil penalties into a U.S. Treasury fund that will be used for Clean Air Act enforcement and oversight.

The settlement is the company's second in the past nine months, as BP settled for $500,000 on a similar issue with another part of the 1,400-acre plant.

More: *Chicago Sun-Times*

EDF Renewables, McDonald's Sign PPA

EDF Renewables and McDonald's last week announced a 15-year power purchase agreement.

The 255-MW Apollo Solar project will help McDonald's to meet its sustainability goals and advance its commitment to climate change.

The project, located in Texas, is expected to be operational in June 2024.

More: *EDF Renewables*

Federal Briefs

Tentative Railway Labor Deal Reached, Averting Strike

President Joe Biden last week said a tentative railway labor agreement has been reached, averting a strike that could have shut down rail lines across the country.

The tentative agreement will go to union members for a vote after a cooling off period of several weeks. The five-year deal, retroactive to 2020, includes the 24% raises and $5,000 bonuses that a Presidential Emergency Board recommended this summer. Companies also agreed to ease strict attendance policies to address some of the unions' concerns about working conditions.

More: *The Associated Press*

WAPA Names Ko Executive VP, COO

The Western Area Power Administration last week named Tina Ko as its new executive vice president and chief operating officer.

Ko has been acting in the position since March and will assume the permanent role in November upon approval by the Department of Energy Office of Corporate Executive Management.

More: *WAPA*

EPA Sued for Failing to Regulate Coal Ash Dumps

Nonprofit group Earthjustice in a federal lawsuit filed on Aug. 25 sued the EPA for exempting hundreds of coal ash dumps nationwide from the Resource Conservation and Recovery Act (RCRA).

Earthjustice studied databases it found in EPA archives and discovered the agency exempted 292 coal ash landfills at 161 plants in 38 states, including 12 in the South, from a coal ash rule. The RCRA governs the disposal of hazardous waste and commands the EPA to review each regulation every three years. The EPA has not yet carried out that process for the coal ash rule.

The EPA excluded the dumps because they stopped receiving new waste before the regulation when into effect, as well as dumps at power plants that had stopped producing electricity.

More: *Facing South*

TVA Agrees to Improve Safety, Operations at Bull Run Coal Plant

The Tennessee Valley Authority Office of the Inspector General last week recommended the TVA address safety and operations concerns at its Bull Run Fossil plant if it plans to continue using the plant until its 2023 retirement.

The office, which provides independent oversight of the agency's operations, produced the report to identify factors that could affect the plant's operations and apply lessons about its shutdown to future coal plant closures.

The report identified concerns including excessive coal dust and flue gas, rotting fly ash and economizer hoppers, falling lagging insulation, and rusted ammonia piping.

More: *Knoxville News Sentinel*

Podesta to Oversee Spending of Inflation Reduction Act

White House Senior Adviser **John Podesta** will oversee the spending of $369 billion in climate incentives included in the Inflation Reduction Act.

President Joe Biden will give Podesta a team within the Executive Office of the President under the newly created White House Office on Clean Energy Innovation and Implementation. The order tasked the office to help speed clean energy deployment, reduce the cost of energy efficient appliances, boost domestic manufacturing to create more jobs, get out more electric vehicles, and lower energy costs.

The order also makes Podesta the chair of the National Climate Task Force.

More: *POLITICO*

NRC Orders Additional Inspections at Waterford

The Nuclear Regulatory Commission last week ordered extra inspections at the Waterford 3 plant in Louisiana after finding that an offsite radiation monitor was miscalibrated for more than a decade.

The NRC said the error at the plant, which was said to have "low to moderate safety implications," could have led to unnecessary evacuations.

The calibration error began Jan. 1, 2011, when the monitor was installed. Entergy said it corrected the problem this Feb. 4.

More: *The Associated Press*

Comptroller of Currency Names Chief Climate Risk Officer

The Office of the Comptroller of the Currency (OCC) last week announced that Yue Chen would serve as its chief climate risk officer. Chen will focus on developing a new system to assess climate-driven risks to banks and ways to monitor and manage them.

Last year, the OCC designated one of its bank supervisors to serve as a climate risk officer to urge banks to consider climate risks in their daily operations. Chen will expand on that and oversee the regulator's office of climate risk.

More: *The New York Times*

Nuclear Fuel Plant Gets 40-year License Renewal

The NRC last week approved the Westinghouse nuclear fuel plant in South Carolina to keep making atomic fuel rods through 2062.

The commission said the plant, which is one of just three in the U.S. that makes nuclear fuel, poses only small to moderate environmental impacts, according to a report.

More: *The Associated Press*

State Briefs

ARIZONA

SRP Approves Rate Hike, New Gas Construction

The Salt River Project's executive board last week approved a 4.7% rate hike that will begin in November.

A second increase of the same amount was also approved and will begin in November 2023. The board agreed to forgo $124 million in fuel costs that customers owe for years prior. SRP said the hikes are a result of rising natural gas costs that it is allowed to recover through its Fuel and Purchased Power Adjustment Mechanism.

The board also approved the construction of two new natural gas turbines to be installed at its Copper Crossing solar plant.

More: *KNXV*

CALIFORNIA

PUC Removes Incentive to Use Natural Gas in New Buildings

The Public Utilities Commission last week removed an incentive that allowed utilities to bill customers for part of the cost of extending a natural gas line to a new residential or commercial building. The change will take effect next July.

The regulation is designed to discourage the use of gas in buildings, which accounts for 10% of the state's overall greenhouse emissions.

California is the first state to end these payments, which were passed on to builders as subsidies. The decision is estimated to save ratepayers about $164 million a year, the commission said.

More: *Bloomberg*

IOWA

Landowners say Forced Pipeline Surveys are Unconstitutional

Landowners are arguing that a law that allows liquid pipeline companies to access private property for land surveys violates the state's constitution.

Their argument is a response to lawsuits filed by Navigator CO_2 Ventures last month that claim the landowners have barred company agents from conducting the surveys and, in two instances, threatened them with physical harm.

The company is seeking a judge's order to compel the landowners to comply with the law, which says, in part: "a pipeline company may enter upon private land for the purpose of surveying and examining the land" without fear of being charged with trespassing.

More: *Iowa Capital Dispatch*

KANSAS

Evergy Ordered to Explain Capital Expenses to Public

The Corporation Commission last week issued an order requiring the company to explain its capital spending plan publicly.

Commission staff raised concerns in July about Evergy's tendency to exceed its allowed capital expenditure budget and pass the costs to consumers in the form of higher rates.

Evergy responded by saying its projections are reasonable and that the commission's staff "fail to recognize Evergy's focus on improving its regional rate competitiveness while making capital investments that improve reliability for customers and help transition to cleaner energy."

More: *The Sentinel*

MARYLAND

Chesapeake Utilities Pipeline Licensed to Run Under Pocomoke River

The Board of Public Works last week approved a license for Chesapeake Utilities to drill under the Pocomoke River.

The license was granted for a project involving the installation of a natural gas pipeline by horizontally drilling under the river with an annual compensation assessment of $630 to be deposited into the Department of Environment Wetlands and Waterways Program Fund.

Special conditions attached to the license include a restriction on the time of year when construction can begin, U.S. Coast Guard approval, geotechnical data submitted prior to the start of any work, independent environmental monitoring, a locally approved soil erosion and sediment control plan, and plans to restore disturbed tidal wetlands.

More: *Salisbury Daily Times*

MINNESOTA

PUC Approves Xcel Solar Project

The Public Utilities Commission last week approved Xcel Energy's proposed 460-MW Sherco Solar Project, which is expected to be the largest in the state.

The project will be located on two separate parcels in Becker and Clear Lake townships, near the company's Sherburne County Generating Facility in Becker. Xcel plans to retire its state coal-powered plants by 2030, including the Sherburne facility. The solar project, which is expected to be operational by 2025, will offset some of the capacity lost through these closures.

More: *Pioneer Press*

NEBRASKA

NPPD Plans New Tx Line, Seeks Public Input

Nebraska Public Power District officials last week released plans to build a new 115-kV transmission line in Kearney County.

NPPD is considering multiple routes. Officials will hold a series of open house events starting Sept. 29 to get input from landowners. The utility plans to start construction in late 2024 and finish in the spring or summer of 2025.

More: *News Channel Nebraska*

OHIO

Special Counsel Hired to Help PUC with Doc Requests Has Ties to HB 6

Dinsmore & Shohl, a law firm working with the Public Utilities Commission on responses to federal subpoenas and public records requests, has multiple ties to HB6 — the bill at the heart of the state's ongoing corruption scandal.

House Majority Floor Leader Bill Seitz (R) has been of counsel with the firm since 2014. He is a senior lawyer but does not share in firm profits and would not have a financial stake in the firm's work for the PUC. Seitz was a co-sponsor of HB6.

DSD Advisors, the firm's lobbying affiliate, was also connected to HB6 through lobbyist Matthew Davis' work for FirstEnergy Solutions. Dinsmore lawyers also acted as local bankruptcy counsel for Murray Energy, which was later identified as "Company B" in the government's July 2020 complaint against former House Speaker Larry Householder.

Attorney Eric Lycan was a partner at the Dinsmore firm's Kentucky office from 2015 until April 2019, around when HB6 was introduced by Reps. Shane Wilkin (R) and Jamie Callender (R). Lycan filed papers with the secretary of state in 2017, which let Generation Now do business as a nonprofit organization set up under Section 501(c)(4) of the Internal Revenue Code. Lycan also served as treasurer of the organization, which allegedly served as the primary dark money conduit for funds in the scandal.

More: *Energy News Network*

VIRGINIA

Hydrogen Plant Could Come to Former Coal Plant

Clark Lemming, a land attorney representing Green Energy Ventures, last week said the company plans to submit a rezoning application to King George County this month for four parcels surrounding the Birchwood coal plant, which would be converted to a hydrogen plant.

The 230 acres of parcels, which are currently zoned agricultural, are sought to be rezoned for industrial use. Lemming said the hydrogen plant would support a data center campus on the properties while also producing additional power.

More: *Virginia Mercury*

SCC Extends Response Deadline on Dominion OSW Project

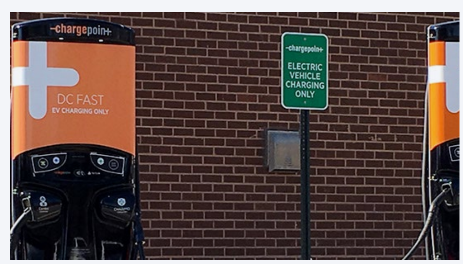
The State Corporation Commission last week extended by one week the response period for its reconsideration of a performance guarantee associated with Dominion Energy's proposed offshore wind project.

In August, the SCC granted the utility the ability to recover revenue for its $9.8 billion offshore wind farm through higher rates in a new clause attached to monthly bills. The SCC also included a performance guarantee, should the turbines not perform as expected, to keep customers from absorbing additional costs. Dominion claimed the performance guarantee could hold the company liable for things beyond its control and petitioned for reconsideration.

More: *Richmond Times-Dispatch*

WISCONSIN

PSC Approves MGE Programs to Manage EV Charging



The Public Service Commission last week voted unanimously to approve three new Madison Gas and Electric charging programs the utility has been testing for the last six years.

MGE said the programs, which will allow the utility to remotely manage vehicle charging, are needed as vehicle manufacturers plan to roll out hundreds of new models in the next three years. If it can manage how and when those vehicles are charged, MGE says it can avoid expensive system upgrades and lower costs for customers.

Participation in the programs is voluntary.

More: *Wisconsin State Journal*