RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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FERC's McIntyre Loses Cancer Battle

Trump to Fill GOP Seat

By Rich Heidorn Jr.

Former FERC Chairman Kevin J. McIntyre died Wednesday following an 18-month battle with a brain tumor that had sidelined him since last summer.

McIntyre, 58, relinquished the chairmanship Oct. 24 after revealing that he had suffered a "serious setback" in his cancer fight. (See *McIntyre Steps Down; Chatterjee Named FERC Chair*.)

The chairman's health had become the subject of increasing speculation since a fall that left him visibly uncomfortable at the commission's July open meeting.

Kevin McIntyre | © *RTO Insider*

Change in Appearance

McIntyre seemed healthy when he and fellow nominee Richard Glick testified at their Senate confirmation hearing in September 2017, but he had a shaved head when he was sworn in as chairman three months later.

Last March — as E&E News was about to publish a story detailing his cancer diagnosis — McIntyre explained his appearance, issuing a statement saying he had undergone "successful surgery" for a "relatively small" brain tumor discovered unexpectedly in summer 2017.

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PG&E's Troubles Mount After Camp Fire

Lawsuits, Breakup Talk, and the Possibility of Criminal Charges Hound Utility

By Hudson Sangree

A section of the 30-foot gas pipeline owned by PG&E that exploded in 2010, killing eight people in San Bruno, Calif.

The future of Pacific Gas and Electric is in doubt as the new year begins.

Two months after the Camp Fire — the deadliest wildfire in California history — flared Nov. 8, the utility is facing intense scrutiny from state lawmakers, regulators and a federal judge who is overseeing its probation for the 2010 San Bruno gas line explosion.

Lawsuits have proliferated, blaming PG&E for the Camp Fire, and the company is facing billions of dollars in damages for that blaze and the devastating wine country fires of October 2017.

PG&E's stock price has plummeted by half

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ROE Changes Spark Concerns for MISO, PJM Regulators

By Amanda Durish Cook

State utility regulators in MISO and PJM have voiced concerns that FERC's proposed changes to transmission rate-setting could drive up costs while hampering development of more efficient non-transmission alternatives.

In separate letters last month, the Organization of MISO States and the Organization of PJM States Inc. urged the commission to examine whether current return on equity incentives on top of a new base ROE will result in excessive customer costs.

FERC in October signaled it will allow changes to how transmission owners set ROE rates, no longer relying solely on the discounted cash flow (DCF) model it has used for about four decades. Instead, it will rely equally on results from the DCF and three other techniques: the capital asset pricing model, the expected earnings model and the risk premium model. (See *FERC Changing ROE Rules; Higher Rates Likely*.)

The changes come in response to a D.C. Circuit Court of Appeals 2017 ruling vacating Opinion 531, FERC's 2014 order on New England TOs' ROE rates. The new policy would evaluate and incorporate industry-wide risk into ROE estimates — and likely raise rates.

In its Dec. 19 *letter*, OMS urged the commission to "balance the authorization of sufficient rates of return to encourage the investment on needed transmission against concerns about excessive costs to customers."

ROE incentives on top of the base ROE should be "targeted and exceptional," OMS wrote in the letter, signed by board President Ted Thomas, chairman of the Arkansas Public Service Commission.

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In this week's issue

COUNTERFLOW
By Steve Huntoon

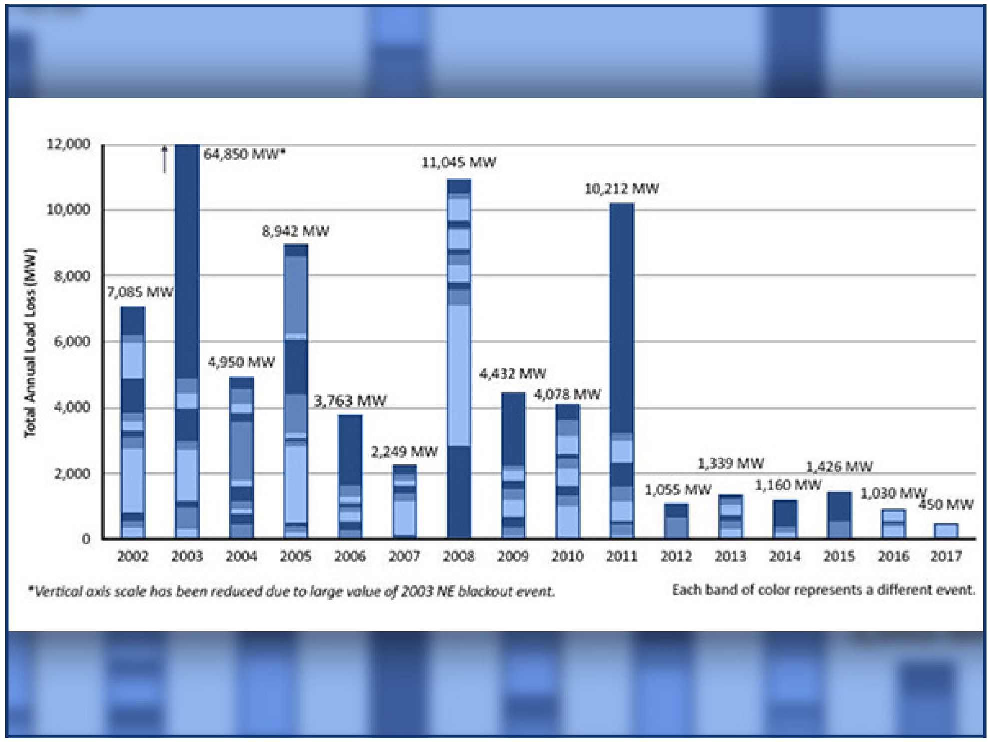
Reliability Costs, Fox-Henhouse Regulation

By Steve Huntoon

I want to begin with a note about FERC Commissioner Kevin McIntyre's passing. He and I (and my wife) worked together for years at the law firm Reid & Priest. He was a talented attorney and an all-around great guy. Kevin, thank you for your contributions to the energy bar, to the work of the commission, and to the lives of those who have known you. You will be missed.

Four years ago, I began writing on subjects in our industry that I hoped would be of interest. Mostly heresy about conventional wisdom.

I thought it might be worthwhile to take a look back at some of those scribblings, see what I got right, what I got wrong and what's happened since.



BPS transmission-related events resulting in load loss (excluding criteria 4) | *NERC*

Reliability Standards: Reality Check

My first article[1] challenged the conventional — and intuitive — wisdom that mandatory reliability standards had improved reliability. I argued:

- Mandatory reliability standards have had little apparent effect on reliability.
- Relatively few outages can be avoided/mitigated by reliability standards.
- Outage avoidance provides relatively little value to consumers.
- Mandatory reliability standards impose costs and potential adverse consequences.
- We should focus more on actual causes of outages and work backward on a true cost-benefit basis.

Since that article, NERC data suggest that transmission-related load losses have declined over the years. Its chart is above.

The apparent trend in transmission-related load loss is good. But it's also worth pointing out that Transmission Availability Data System (TADS) outage events haven't declined at all. There were 3,705 in 2009 and 3,790 in 2017.[2] The key reason for this, as I discussed in the article, is that the vast majority of outage events have causes beyond anyone's control: e.g., lightning, other weather, equipment failure, foreign interference.

My basic concerns seem to remain valid. A meaningful reduction in transmission-related outages is questionable. Transmission-related outages are a small percentage of overall outages and, despite the media attention they receive, actually amount to relatively few dollars in terms of the value of lost load (VOLL). There also are compliance costs, and there can be potential adverse consequences if resource allocations are largely driven by compliance considerations.

Capital Spending Without Cost-benefit Analysis

But I think my last point from the article four years ago is the most important today. We now spend more than $20 billion on transmission infrastructure every year.[3] Each $20 billion of capital spending adds about $3 billion to consumer bills every year for decades into the future. The consumer cost keeps adding up. *And virtually none of the cost is supported by cost-benefit analysis.*[4]

This is not rocket science. In a competitive industry, investment is justified by the return expected to result from customer demand based on what customers are willing to pay. The parallel in a regulated industry should be investment justified by customer demand based on what customers are willing to pay.

In the electric utility industry, the proxy for customer willingness to pay must be the VOLL. In other words, every dollar of regulated utility investment should be explicitly supported by the customer VOLL that is produced by that investment. Nothing else makes sense.

Yet, cost/VOLL-benefit analysis continues to be ignored by regulators who bless $20 billion of new transmission capital costs every year.

Again, without a clue whether the cost imposed on consumers is actually worth it to consumers.

The Double and Triple Whammies

There's a double whammy at work here. As I've pointed out before, regulators are allowing returns on equity vastly in excess of utilities' true cost of capital.[5] Not only do the excessive returns burden consumers directly, but they create an enormous incentive for utilities to overspend on capital projects. You can follow the money on quarterly utility conference calls with Wall Street analysts — slides and talk about future capital spending, which drives

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By Steve Huntoon

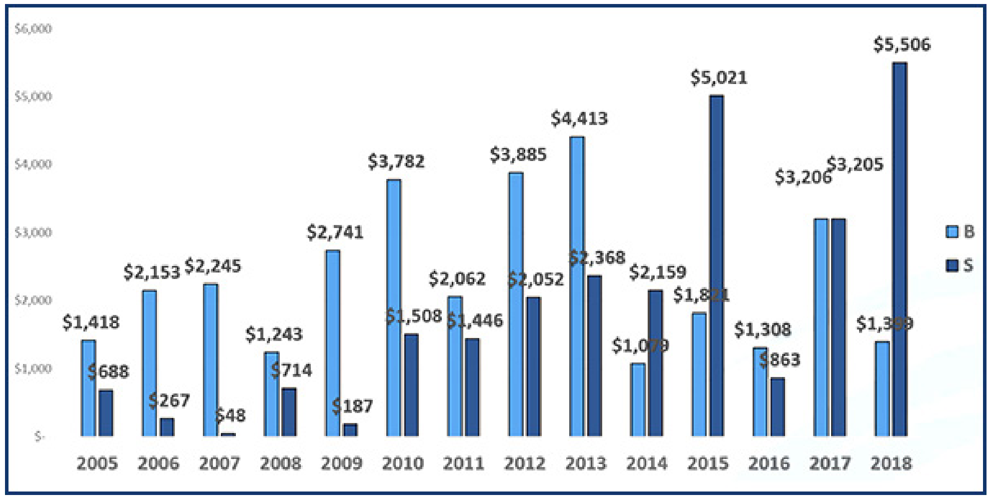
earnings growth, which drives higher stock valuation.

There's actually a triple whammy because the excessive returns also create an enormous incentive for utilities to fight competition in all forms, including competition in transmission. There is no doubt that competition in transmission is a staggering success (where it has been faithfully implemented), for reasons I've discussed before.[6] But because of excessive returns, utilities have added incentive to fight that competition by all possible means. And naturally they do.

Gotten Far Worse

This situation has, if you can believe it, gotten *far worse* in the past few years. It used to be that transmission capital costs would be justified for mitigation of reliability criteria violations. In other words, the transmission grid would be modeled for the future, and if the model forecasted overload of a given line, or other transmission element, then upgrade or other mitigation of the overload would be prescribed.

Nowadays, in PJM for example, most transmission capital costs are completely divorced from reliability criteria violations and instead are supported by violation of criteria unilaterally set by transmission owners. Here is a shocking chart showing this phenomenon:[7]



Cost of PJM TO's baseline vs supplement projects | *American Municipal Power*

The dark blue is what the TOs unilaterally decide; the light blue is what is needed for reliability.

Now, you might ask: Isn't allowing TOs to unilaterally decide the criteria for how much capital to spend, on which they get excessive allowed returns, putting the fox in charge of the henhouse? And you would be right to ask that question.

You just won't get a good answer.[8] ■

[1] http://www.energy-counsel.com/docs/Have-Mandatory-Reliability-Standards-Improved-Reliability-Fortnightly-January2015.pdf.

[2] https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/NERC_2018_SOR_06202018_Final.pdf, pdf pages 84-85.

[3] http://www.eei.org/issuesandpolicy/transmission/Pages/default.aspx. There is $130 billion in planning or under construction. https://www.tdworld.com/transmission/drivers-and-challenges-transmission-investment.

[4] FERC has developed "transmission metrics" but none of them involves cost-benefit analysis or the Value of Lost Load. https://www.ferc.gov/legal/staff-reports/2017/transmission-investment-metrics.pdf. At least one metric, "load-weighted transmission investment," seems to imply that more transmission spending is inherently good.

[5] http://www.energy-counsel.com/docs/Nice-Work-If-You-Can-Get-It-Fortnightly-August-2016.pdf.

[6] http://www.energy-counsel.com/docs/FERC-Order-1000-Need-More-of-Good-Thing.pdf.

[7] https://pjm.com/-/media/committees-groups/committees/mrc/20181220/20181220-item-08a-transmission-replacement-process-amp-odec-presentation.ashx, slide 7 ("Baseline" are upgrades driven by NERC reliability criteria violations; "Supplement" are upgrades attributed to unilaterally set transmission owner criteria.)

[8] Unfortunately, the most recent FERC orders on unilateral transmission owner spending will further embolden the fox. *California Public Utilities Commission v. Pacific Gas and Electric Co.*, 164 FERC ¶ 61,161 (2018); *Monongahela Power Co.*, 164 FERC ¶ 61,217 (2018). Somewhere along the line, the basics seem to have been lost: The utility fiduciary obligation is to shareholders to extract maximum monopoly rents from consumers. The commission's statutory obligation is to protect consumers from this utility fiduciary obligation to shareholders.

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"I was advised … that, with the surgery and subsequent treatment behind me, I should expect to be able to maintain my usual active lifestyle, including working full time, and that expectation has proven to be accurate," he said then.

He appeared healthy in May, when he was the keynote speaker at the Energy Bar Association's annual meeting. (See "McIntyre Recalls First Day at FERC," *Overheard at EBA Annual Meeting*.)

At the July open meeting, however, he wore a sling and appeared uncomfortable after disclosing he had injured his arm and suffered compression fractures in two of his vertebrae in a fall. It was the last meeting he would attend and one of his last public appearances.

In September, Commissioner Neil Chatterjee began FERC's open meeting by reading a statement in which McIntyre apologized for his absence, saying his "ongoing recovery" prevented him from attending.

At the October meeting, Chatterjee said simply: "Chairman McIntyre is not here. My prayers are with him and his family."

A week later, McIntyre issued a statement saying he would remain on the commission but would relinquish the chair's role "and its additional duties so that I can commit myself fully to my work as commissioner, while undergoing the treatment necessary to address my health issues." However, he did not participate in any orders following his statement.

In their opening remarks at FERC's last meeting Dec. 20, the commissioners wished McIntyre and his family well for the holidays. But unlike at earlier meetings, none of them offered hopes of him returning to work.

Accomplishments

Before relinquishing the chairmanship, McIntyre and the commission approved major orders on energy storage, generator interconnections and transmission rates, and opened an inquiry on gas pipeline licensing. Last January, he led a 5-0 vote rejecting the Department of Energy's proposed bailout of coal and nuclear generation, instituting a new resilience docket. (See *Ailing Chair, Resilience Inquiry Topped FERC News in 2018*.)

McIntyre joined FERC after two decades at

Kevin McIntyre seemed healthy when he testified at his Senate confirmation hearing in September 2017, but he had a shaved head when he was sworn in as chairman three months later, following surgery to remove a brain tumor. He was clearly uncomfortable at his last FERC open meeting in July, following a fall that left his arm in a sling. | © *RTO Insider*

Jones Day, where he represented energy clients in administrative and appellate litigation, compliance and enforcement matters, and corporate transactions. A graduate of San Diego State University and Georgetown University Law School, he was co-leader of Jones Day's global energy practice.

He is survived by his wife of 10 years, Jennifer Brosnahan McIntyre, chief counsel for Boeing Defense's Autonomous Systems unit, and three children, Lizzie, Tommy and Annie. McIntyre's mother, Alice L. McIntyre, was a retired pastoral counselor, and his father, John R. McIntyre Jr., was a retired Air Force colonel.

McIntyre's widow released a *statement* through FERC thanking "the entire FERC family for their hard work every day for the American people and for their faithful support of Kevin during his time at the commission, especially in the last few months."

"Kevin often said that being chairman of FERC was his 'dream job' — he truly loved and believed in the agency, its mission and its people," she said. "He was always energized by the challenge of leading the agency 'full steam ahead,' even when his health faltered. His commitment to his duty, and his faith in the FERC team, never wavered. We will always be grateful for the opportunity, however brief, that Kevin had to serve our country as FERC chairman."

Condolences

"Today is a deeply sad day for the Federal Energy Regulatory Commission and for all those who had the pleasure of knowing Kevin McIntyre both personally and professionally," Chatterjee, who replaced McIntyre as chairman, said in a statement. "During his tenure at the commission, Kevin exhibited strong leadership and an unmatched knowledge of energy policy and the rule of law. He exemplified what it means to be a true public servant each and every day, no matter the challenges that lie ahead of him.

"In the face of adversity, Kevin's dedicated faith, devotion to family and sharp wit never faltered. His unwavering strength was — and will continue to be — an inspiration to us all. I will miss the wise guidance of my colleague, the dear camaraderie of my good friend and the frequent banter with my fellow sports fanatic, Kevin."

Commissioner Cheryl LaFleur said the commission "was very fortunate to have Kevin McIntyre at the helm for as long as he was, and I was honored to serve with him. I particularly appreciated his keen legal judgment, unstinting commitment to the rule of law and deep concern for the organization even in the face of his personal struggles. On a personal level, I appreciated his warm collegiality and ready Irish wit, and was frequently charmed by his Catholic school vocabulary."

Glick said he got to know McIntyre during the confirmation process. "It did not take long to recognize that Kevin was a man of great intel-

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lect and principle. He brought both qualities to the Federal Energy Regulatory Commission where, as chair, he guided the commission to bipartisan consensus during a particularly tumultuous time," Glick said. "But there was much more to Kevin than being a FERC chairman. He was extremely kind and witty. I most enjoyed our conversations about our respective lives. Kevin often spoke glowingly about his wife, Jenny, and their three wonderful children … and never failed to inquire about my family."

Sen. Lisa Murkowski (R-Alaska), chair of the Energy and Natural Resources Committee, also expressed condolences for McIntyre. "As a lawyer, a commissioner and as FERC's chairman, he always had the utmost respect for the agency and its mission. He was as warm and engaging as he was knowledgeable about the issues that came before him."

Rep. Greg Walden (R-Ore.), ranking member of the House Energy and Commerce Committee, said McIntyre's "expansive knowledge and expertise of energy law was a tremendous asset to the commission's important responsibilities and helped shape U.S. energy policy for years to come."

John Moore, director of the Natural Resources Defense Council's Sustainable FERC Project, said McIntyre "led FERC with a steady hand and with an emphasis on preserving open electricity markets and maintaining the independence of the commission. We especially salute his high civic calling.

"As we look to the future, we urge Congress, the administration and the commission itself to preserve both the spirit and letter of fairness and evenhandedness that marked Chairman McIntyre's tenure," he added.

"He was smart and kind, and I was glad to have met him, even briefly," said Katherine Hamilton, former president of the GridWise Alliance.

Successor to be Named

McIntyre's term would have expired on June 30, 2023. His death leaves FERC with two Democratic and two Republican commissioners, including Bernard McNamee, who joined the commission Dec. 11 but has not yet begun voting on orders.

Once McNamee begins to vote, analysts at ClearView Energy Partners noted Thursday, FERC could face 2-2 deadlocks on votes on "LNG terminals and natural gas pipelines, and potentially on orders that impact the fuel mix of the electric generation sector."

"It is not clear yet whether Senate Minority Leader Chuck Schumer (D-N.Y.) will try to press [Majority Leader Mitch] McConnell (R-Ky.) and/or the White House to either renominate Cheryl LaFleur — whose term expires on June 30 — or nominate a different Democrat to FERC at the same time as a replacement for McIntyre," the analysts said. "While conventional wisdom would suggest that pairing a Republican and Democrat (given LaFleur's expiring term) could smooth the confirmation process, the reality that a simple majority suffices to confirm nominees likely makes this prior custom far less relevant." ■

CAISO/WECC News

PG&E's Troubles Mount After Camp Fire

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since the Camp Fire and by two-thirds since the wine country fires, fueling speculation about its solvency. (See *Destructive Fire Drives Down PG&E Stock*.)

And in recent weeks, state authorities, including the California Public Utilities Commission, have publicly questioned whether the company should be broken up or have its leadership replaced. (See *Camp Fire Prompts Talk of PG&E Bailout of Breakup*.)

State Sen. Bill Dodd, a Napa Valley Democrat and one of the authors of a 2018 law, SB 901, that allowed PG&E and other utilities to issue long-term bonds to pay for wildfire liability, said the company needs a major shake-up, starting at the top. Dodd said he was reacting to a Dec. 14 *CPUC report* that alleged PG&E had falsified safety records for underground gas lines.

"PG&E has demonstrated a pattern of poor management and illegal conduct that has shattered lives across California," Dodd said in a December *statement*. "This latest revelation underscores the need for systematic change, which must include change on the board of directors and in the executive suite."

The senator told *RTO Insider* Friday that he wouldn't rule out breaking up PG&E into separate gas and electric divisions. "Everything should be on the table," he said.

On Friday, *NPR reported* that even PG&E is considering selling off its gas business to cope with staggering wildfire costs. The report relied on unnamed sources. The utility told NPR it was "reviewing structural options" but did not specifically address the sale of any assets.

PG&E said in a news release Friday that it is engaged in a "board refreshment process" and seeking to recruit new board members with expertise in safety. The utility also said it has "formed a special Board committee that is engaging independent experts to advise on best practices in wildfire safety." The moves respond to criticism from lawmakers and regulators who have said PG&E needs new leaders to help it cure a flawed safety culture that precipitated two years of catastrophic wildfires.

November's Camp Fire killed 86 residents in Butte County, destroyed nearly 14,000 homes and leveled the town of Paradise, Calif., population 27,000, in a matter of hours. It followed the wine country fires of 2017, for which PG&E has been partially blamed by state fire investigators, as well as the massive gas explosion in San Bruno, Calif., that killed eight and led to PG&E's conviction on felony charges.

The Tubbs Fire in California's wine country wiped out the Coffey Park neighborhood of Santa Rosa. | *California National Guard*

PG&E's problems continued over the holidays, when Judge William Alsup, with the federal district court in San Francisco, asked the state attorney general's office to advise him on "the extent to which, if at all, the reckless operation or maintenance of PG&E power lines would constitute a crime under California law."

The AG *responded* three days after Christmas with a rundown of the charges PG&E could potentially face, ranging from misdemeanors to murder, should it be deemed to have acted recklessly.

Alsup also *required PG&E* to provide a thorough account of its role in the Camp Fire and the wine country fires of October 2017. PG&E answered with a detailed description of the problems it experienced with its transmission and distribution lines near the Camp Fire's point of origin on the morning the fire started and said multiple employees had seen the fire start. (See *PG&E Grapples with Line Safety After Camp Fire*.)

On Thursday, the judge ordered PG&E to submit more information concerning the Atlas Fire, one of 21 major fires that started Oct. 8, 2017, and burned through large swaths of Napa, Sonoma and neighboring counties. The wine country fires killed 44 people and leveled the northern portion of the city of Santa Rosa, Calif. (The case is No. 3:14-cr—00175-WHA in the U.S. District Court for the Northern District of California.)

"PG&E's most important responsibility is the safety of the customers and communities we serve," the utility told RTO Insider in an email Friday. "The cause of the Camp Fire is still under investigation. We are aware of lawsuits regarding the Camp Fire. Our focus continues to be on assessing infrastructure to further enhance safety and helping our customers recover and rebuild."

Here's a rundown of where PG&E stands at the start of 2019.

Criminal Charges

Pacific Gas and Electric is no stranger to criminal charges in cases involving its equipment.

In June 1997, jurors in Nevada County, Calif., found the company guilty of 739 counts of criminal negligence for failing to trim trees near its power lines and sparking the Trauner Fire, which destroyed 12 homes and burned a historic schoolhouse near the Sierra foothills town of Rough and Ready in 1994.

In the San Bruno case, jurors found the company guilty in August 2016 of five felony counts of knowingly violating federal safety regulations by failing to inspect and test its pipelines and one count of obstructing a National Transportation Safety Board proceeding.

In January 2017, U.S. District Court Judge Thelton Henderson slapped the company with the maximum $3 million fine and ordered it to serve five years of probation, saying PG&E's crimes posed "a great risk to the public safety." (That was on top of $1.6 billion in fines levied by the state.) The company was placed under a federal monitor.

The probation from the San Bruno sentence is the basis for Alsup's current inquiries, which began just after Thanksgiving. Under its terms, PG&E must not commit any federal, state or local crimes. Doing so could subject the company to further penalties, and its probation could be revoked, federal prosecutors told Alsup.

There is already some evidence that criminal charges are possible.

Investigators with the California Department of Forestry and Fire Protection (Cal Fire) have said PG&E equipment was to blame for at least 17 of the wine country fires. Cal Fire forwarded 12 of those cases to county prosecutors, who retain discretion about whether to charge PG&E. So far, no charges have been filed.

The AG's office said in its brief that it wasn't making any factual findings on whether PG&E committed crimes.

"Determining PG&E's potential criminal liability, if any, for recent wildfires would require an investigation into the cause or causes of those fires," the attorney general's brief said. "If PG&E caused any of the fires, the investigation would have to expand into PG&E's operations, maintenance and safety practices to determine whether criminal states were violated with the requisite mental intent."

That mental intent would be measured on a sliding scale from mere negligence to reckless behavior that could constitute manslaughter or implied-malice murder, it said.

Lawsuits

Multiple lawsuits — about a half-dozen, according to various news reports — have already been filed against PG&E by survivors and insurance companies for what could add up to $15 billion in damages for the Camp Fire, according to one *Citigroup estimate*. That comes on top of another $15 billion in damages for many of the wine country fires, Citigroup said.

Allstate, State Farm and USAA filed suits last month in state court in Sacramento over billions of dollars in claims they expect to pay from the Camp Fire, *The Sacramento Bee reported* Thursday.

President Trump and California Gov. Jerry Brown toured the scene of the Camp Fire on Saturday, Nov. 17. Trump called it "total devastation." | *California Governor's Office*

In *another suit*, filed by a prominent San Francisco plaintiffs' firm, Lieff Cabraser Heimann & Bernstein, two children of Ernie Foss, a disabled man killed while trying to escape the Camp Fire, claim the blaze was started by "unsafe electrical infrastructure owned, operated and (improperly) maintained by PG&E Corporation and Pacific Gas & Electric Company."

"The catastrophic damage and loss of life was preventable," the lawsuit alleges. "PG&E's failing infrastructure and its inadequate efforts to maintain its equipment and mitigate risk have caused tragedy before, and PG&E has been sanctioned a number of times for virtually identical misconduct."

The complaint cites other instances in which PG&E was fined or held criminally liable for deadly fires and explosions, including the Trauner Fire, the San Bruno explosion and a fatal gas explosion near Sacramento in 2008.

"PG&E's corporate policy of putting profits over public safety has resulted in catastrophic loss of life and injury to persons and property, including the tragic and unnecessary death of Ernie Foss," the suit contends.

The Lieff Cabraser suit is likely just the start; other law firms have been busy signing up clients in Butte County.

The wine country suits, also called the *North Bay California Fire Cases*, have been consolidated under a single judge in San Francisco Superior Court and are slowly working their way toward a trial or settlement. The same will likely happen with the Camp Fire claims.

Regulators and Lawmakers

In early December, CPUC President Michael Picker said state regulators would expand their investigation of PG&E's safety practices after the Camp Fire. (See *CPUC Expands Probe Into PG&E Practices After Deadly Fire*.) The investigation began in the wake of the San Bruno explosion.

On Dec. 21 the commission released a scoping memo and *ruling* regarding the investigation that asked whether the company's management should be replaced, whether members of its board of directors should resign, and whether the company should be broken up into separate gas and electric divisions.

"PG&E has had serious safety problems with both its gas and electric operations for many years," it said, citing a long list of disasters and problems for which PG&E had been penalized.

"The future of PG&E may also be impacted by other actors beyond the Commission," the CPUC noted. "The Legislature, the court appointed Federal Monitor, the various courts considering claims against PG&E, the Federal Energy Regulatory Commission, and the communities served by PG&E all have a role in determining PG&E's future."

With the state Legislature returning Monday (Jan. 7), lawmakers will have to determine if legislation is needed to help keep PG&E solvent — for instance, by extending the bond provisions of SB 901 to 2018 fires — or whether the company should be reconfigured after a series of catastrophes that has grown unacceptable, even to many centrist lawmakers. (See *California Wildfire Bill Goes to Governor*.)

Dodd, for one, said it will be hard for PG&E to make amends, regardless of its legal compliance and restitution to fire victims.

"It's too little, too late," the senator said. With so much frustration and anger built up against PG&E, it may be time for the utility to face more serious consequences.

"I'm not sure there's anything they can do," he said. ■

ERCOT NEWS

CPS Energy Shutters Deely Coal-fired Units

By Tom Kleckner

CPS Energy's J.T. Deely plant | *CPS Energy*

ERCOT enters 2019 with a major coal plant going into mothballs and two aging gas units set for decommissioning.

After burning the last load of coal at its J.T. Deely plant on New Year's Eve, San Antonio utility CPS Energy is now in the process of mothballing the two units, which date back to 1977 and 1978.

The municipal utility in 2011 said it would retire Deely by the end of 2018, 15 years ahead of schedule, thus avoiding millions in environmental retrofit costs. It notified ERCOT of its plans to mothball the plant in 2013, but it must submit a notification of change of generation resource designation (NCGRD) before officially retiring and decommissioning the units.

CPS spokesperson Trace Levos said the utility plans to begin razing the plant in 2025, but utility officials are also pondering converting Deely into a gas-fired plant.

ERCOT spokesperson Leslie Sopko said the grid operator will not have to conduct another reliability-must-run study whenever CPS is ready to retire the units, as the ISO already considers the units to be unavailable.

Deely's two coal units have a combined capacity of 871 MW. Along with Luminant's shuttering of three coals plants in late 2017, ERCOT will have seen slightly more than 5 GW of coal-fired capacity shut down over a year. (See *ERCOT OKs Luminant Coal Retirements*.)

The Texas grid operator survived record-breaking demand last summer without resorting to emergency measures. It is expected to enter this summer with a historically low reserve margin of 8.1%, almost three points lower than last year. (See *ERCOT Faces Tight Summer Margins, Market Changes*.)

Meanwhile, NRG Texas on Dec. 28 submitted an NCGRD to ERCOT, saying it intends to decommission and permanently retire two previously mothballed gas units at its SR Bertron plant near Houston, effective Jan. 23.

The Eisenhower-era units each have a capacity of 230 MW. They were shut down for economic reasons in 2011. ■

ERCOT News

Rice Study on Renewables' Potential Has its Believers

By Tom Kleckner

Mannti Cummins | © *RTO Insider*

A recent Rice University study that suggests Texas renewable power production could become more reliable by combining different resources and locations did not surprise independent developer Mannti Cummins.

He's been there and done that, having helped bring the ***Peñascal Wind Farm*** project in South Texas online in 2010. The 404-MW facility also happens to be one of the sites used in the Rice study.

"This kind of confirms the rustic logic of common-sense folks who don't have the ability to do the necessary calculations and analytics," Cummins said from Mexico, where he is working on another project in Baja California Sur. (See ***Energy Wildcatter Hopes to Make His Mark in Emerging Mexican Market***.)

"This kind of confirms, with an academic methodology, what we've all thought is going to be the future," he said.

In their study, ***Renewables: Wind, Water, and Solar***, Rice researchers Dan Cohan and Joanna Slusarewicz analyzed data from five wind and seven solar sites across West and South Texas. Because of the state's varying wind patterns and solar irradiance, they found that pairing solar power with either West Texas winds or South Texas winds will increase renewable power production.

West Texas winds peak during early night hours (6-10 p.m.), while South Texas winds tend to follow load patterns and peak in the late afternoon. The researchers said that pairing solar with western wind farms provides the highest levels of firm capacity with an 87.5% threshold, increasing reliable power production on an annual basis.

South Texas' late-afternoon wind peaks suggest that combining solar with wind "might increase reliable power production over the course of a summer day during hours of high demand," they wrote.

Cummins said the Peñascal development team in the early 2000s chose the barren scrub of South Texas because the wind peaks at the right time. "It's just perfect with the load profile," he said.

Peñascal II wind project | *Mortenson*

The Peñascal site is also situated between the Corpus Christi and Rio Grande Valley population centers, where it could take advantage of under-used transmission facilities without taking part in the state's Competitive Renewable Energy Zones process. (The wind farm did benefit from more than $220 million in federal stimulus funds.)

"But nobody ever thought about pairing [wind] with solar," Cummins said. "You can start talking about it because [solar is] economical."

He said that prices for installed solar are 50% below where they were three years ago, dropping from $2,000/kW to $900/kW. Solar is crushing natural gas, Cummins said, a situation he expects to continue as battery storage becomes more commonplace.

"As the price of battery storage drops like a rock, that's the future," he said.

Cummins is following that concept of wind-integrated solar energy with his Coromuel project at the tip of the Baja California peninsula. The 50-MW wind facility, named for the local weather phenomenon, will include 600-kV solar panels at the foot of each turbine.

"When the wind has its own name, it's probably consistent enough for wind generation," he said, comparing the afternoon peak to South Texas winds.

"The rise of clean energy appears to be everywhere across Texas," said developer John Billingsley in a statement following the Rice study's release. Billingsley is CEO of ***Global Energy*** and also launched ***Sunfinity Renewable Energy*** three years ago.

Billingsley agrees with Rice's Cohan, who ***said*** the research shows "nowhere else in the world [is] better positioned to operate without coal than Texas is."

As it is, coal only accounts for 15.5 GW of ERCOT's existing resources, with wind and solar combining to account for 22 GW. No coal projects are listed in the ISO's latest generator interconnection ***report***, while there are 14.3 GW of wind, 4.3 GW of solar and 2.7 GW of gas projects with signed interconnection agreements.

During a recent appearance in Houston, ERCOT CEO Bill Magness said, "It's all gas, wind and solar. There are no other resources coming along."

ERCOT expects to have as much as 5 GW of solar energy on the system by 2021, much of it in West Texas.

"We've only begun to scratch the surface in terms of truly harnessing our clean, renewable resources," Billingsley said. "The next several years will see amazing strides forward." ■

ISO-NE News

Mass. Inaugurates Clean Peak Standard

By Michael Kuser

Massachusetts electricity suppliers won't have any trouble this year meeting the state's new mandate for serving a certain portion of their sales with "clean peak" resources.

That's because the state's Department of Energy Resources (DOER) last week set the 2019 minimum to zero while it attempts to work out the details of the Clean Peak Minimum Standard.

"After reviewing available information, the statutory definition of clean peak resources, and a number of other factors, DOER determined that approximately 0 MWh were being served by existing clean peak resources during peak load hours as of December 31, 2018, and established the Minimum Standard percentage requirement for retail electricity suppliers in the 2019 compliance year at 0%," Director Michael Judge said in a Dec. 31 email to industry stakeholders.

Passed into law last September (H4857), the standard requires DOER to mandate that a baseline minimum percentage of retail electricity sales be met with clean generation resources or load reductions during seasonal peak periods.

Under the law, clean peak resources include qualified renewable portfolio standard and energy storage resources, with an in-service date on or after Jan. 1, 2019, but no such resources could have existed as of Dec. 31, 2018. Demand response resources can also qualify without any specified in-service date, but DOER has yet to establish the eligibility requirements for DR.

The rule is also designed to build on previous performance, with every electricity retailer in the state required to provide a minimum of an additional 0.25% of annual sales with clean peak certificates. But that baseline hasn't been established yet, nor have any clean peak certificates that would allow for compliance.

In his email, Judge told stakeholders his agency will take the similar tack to how it established the state's RPS program in 2002.

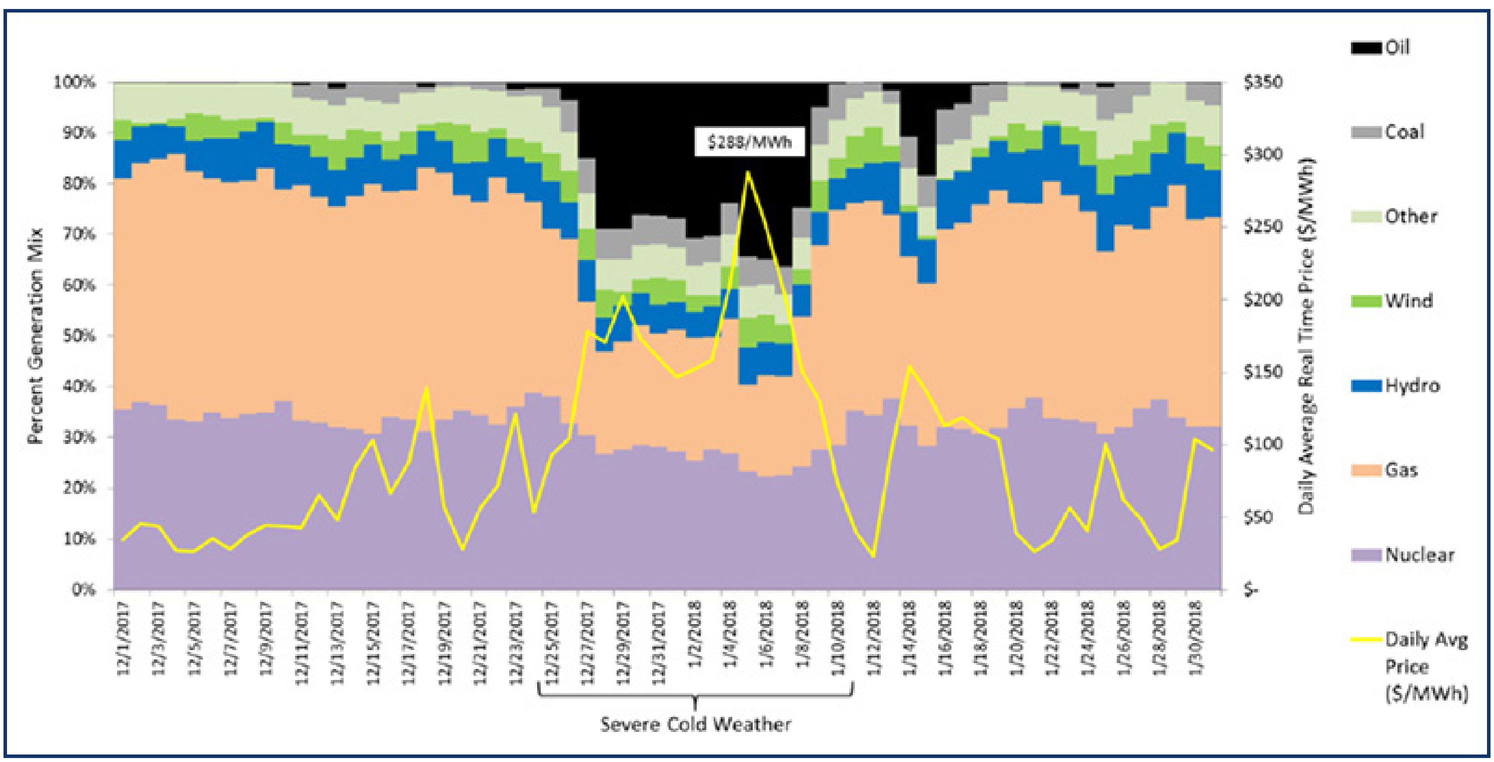
"At that time, DOER established an 'early compliance year' for calendar year 2002, in which the Minimum Standard percentage requirement was established as 0%, but allowed certificates to be generated, purchased, and settled at NEPOOL GIS by retail electricity suppliers for use towards requirements in subsequent calendar years," Judge wrote. "This allowed the market to commence, but delayed actual compliance filings from retail electricity suppliers by one year."

Defining Peak Hours

The idea behind the clean peak standard is to reduce high-cost peak hours and incentivize renewable energy generation to be available to meet winter and summer peaks without emissions. (See *New England Clean Energy Legislative Roundup*.)

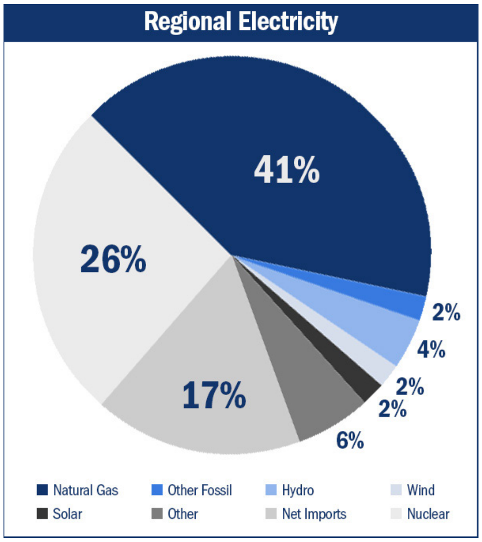
The DOER plans to begin designing the Clean Peak Energy Standard this month, starting with questions for stakeholders that will be posted on the Clean Peak Standard *webpage*. Following review, the agency will release a detailed straw proposal and solicit comments prior to filing a draft regulation.

The law defines a "clean peak certificate" as "a credit received for each megawatt hour of energy or energy reserves provided during a seasonal peak period that represents a compliance mechanism."



ISO-NE generation mix, winter 2017-2018 | *Massachusetts Department of Energy Resources*

ISO-NE News



ISO-NE generation mix (2016) | *Massachusetts Department of Energy Resources*

"Seasonal peak periods" are the daily time windows during any of the four seasons when the net demand of electricity is the highest. Those periods would be no less than one hour and no longer than four hours in any season, as determined by the DOER.

In addition, a qualified RPS resource may generate both a clean peak certificate and a renewable energy certificate under section 11F for electricity generated and delivered to the electric grid during a seasonal peak period.

The stakeholder process is intended to help state regulators establish seasonal peak periods and the methodology for setting clean peak certificate values. Electric service providers may eventually procure such certificates from clean peak resources and enter into long-term contracts, subject to approval by the state's Department of Public Utilities.

The DOER will also establish a minimum percentage of clean peak certificates to be derived from demand response resources, an alternative compliance mechanism for retailers and procedures for each electricity supplier to demonstrate compliance.

Comprehensive Energy Plan

The state Comprehensive Energy Plan (*CEP*) published last month says increased electrification in the transportation and thermal sectors may increase electric load — and peak load, depending on the timing of energy use, especially the charging of energy storage and electric vehicles.

The clean peak standard and technologies such as storage that shift peak flatten this load, "especially as load shifts due to increased EVs, heat pumps, and behind-the-meter solar," the plan said. "Flattened load enables generators to run at more efficient heat rates, reducing costs and emissions. Further, it reduces the need for future investments in transmission and distribution infrastructure, helping to lower costs of implementing future policies."

At a public forum last summer, Asa Hopkins of Synapse Energy Economics, a consultant on the CEP said, "Once those clean peak resources are there, it's not like they're only there on the peak day; they also run all the rest of the time around the year and are impacting what's going on with dispatch of different resources." (See *Massachusetts Seeks Input on Energy Plans*.)

Demand for natural gas on a peak winter day forces the electric sector to rely on LNG or other stored fuels such as oil for generation, which puts the region at risk for price spikes and emission increases during extended cold weather events, the CEP said. (See *ISO-NE Fuel Security Measures Approved*.) ■

ISO-NE NEWS

ISO-NE Installed Capacity Requirement Filing Approved

By Michael Kuser

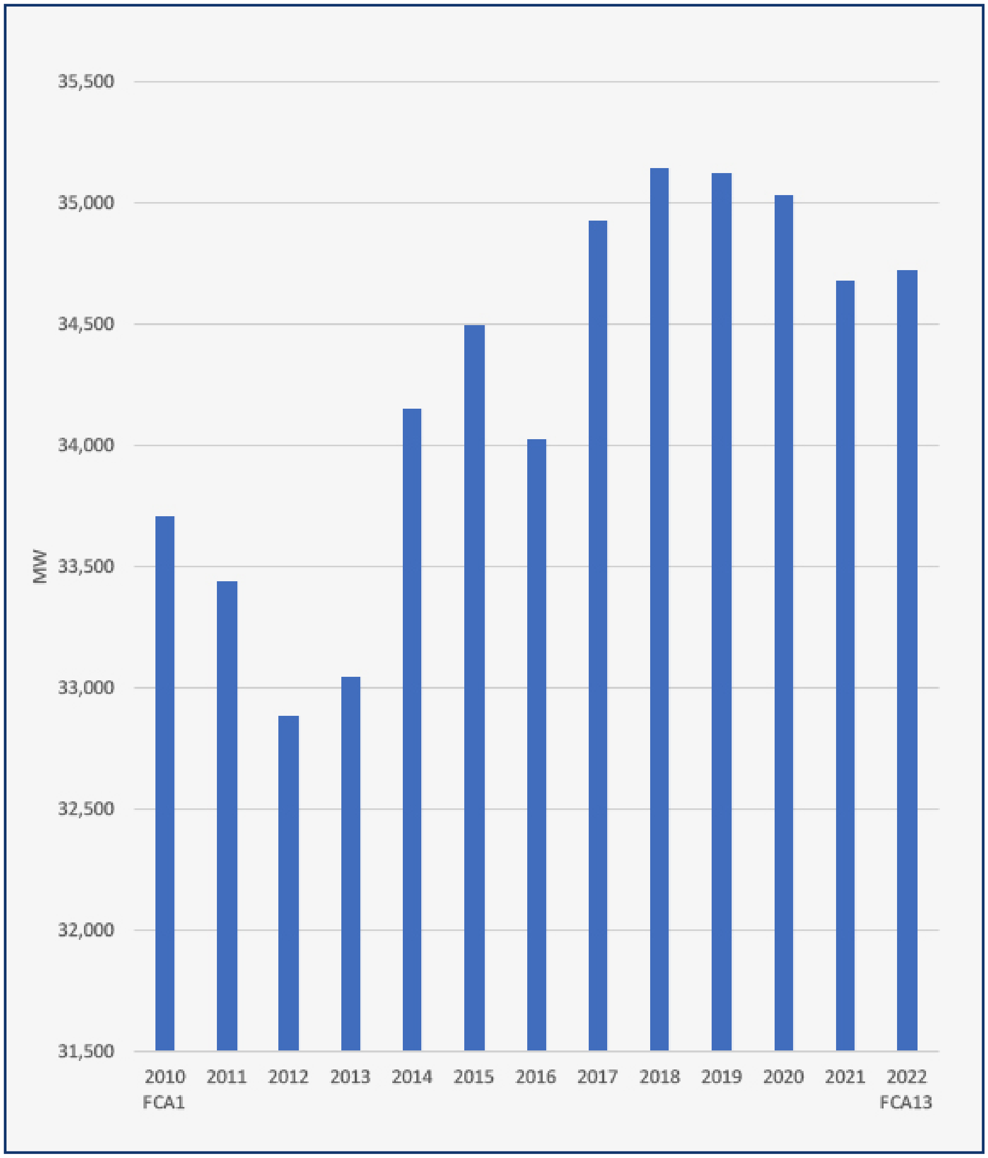
FERC last week approved ISO-NE's proposed values for the installed capacity requirement (ICR), Hydro-Québec interconnection capability credits and related values in time for the RTO's Forward Capacity Auction 13 on Feb. 4.

The RTO proposed an ICR of 34,719 MW for FCA 13's 2022/23 capacity commitment period.

The commission's Jan. 4 order found "that the underlying system reserves assumption used to calculate the ICR-Related Values is just and reasonable" and that the filing "sufficiently supported the use of different tie benefits and outages assumptions to calculate the ICR-related values than those used in the Fuel Security Study" (ER19-291).

ISO-NE and NEPOOL together filed two sets of ICR-related values, with one set assuming FERC would accept termination of the capacity supply obligation for Invenergy's delayed 485-MW Clear River Energy Center Unit 1 for the 2021/22 Capacity Commitment Period, which the commission did in November. (See *FERC Ends Clear River CSO, Denies Invenergy Waiver*.)

The commission in December approved ISO-NE's interim proposal to use an out-of-market mechanism to address concerns about fuel security and implement an interim fuel security study process for FCA 13, 14 and 15 to establish whether a resource submitting a retirement de-list bid is needed to maintain regional fuel security. It also accepted ISO-NE's proposal to treat resources retained for fuel security purposes as price-takers by requiring them to submit offers into the FCA at a zero price. (See *ISO-NE Fuel Security Measures Approved*.)



ISO-NE installed capacity requirements by year (MW) | *ISO-NE*

Contested Issues

Contested issues in the most recent proceeding pertained to assumptions that affect the ICR and system-wide demand curve.

The New England Power Generators Association (NEPGA), the New England States Committee on Electricity (NESCOE) and others protested various aspects of the RTO's calculations and methodology.

But the commission disagreed "with NESCOE's argument that the increased reserves assumption should be rejected because it exacerbates an alleged bias in ISO-NE's ICR calculations. ... As an initial matter, we are not persuaded that the cited reductions in ICRs weigh on the justness and reasonableness of the specific system reserves assumption change that ISO-NE proposes in this filing."

The commission also found "inconsistent" with the Tariff a request by FirstLight and NEPGA that it require the grid operator to recalculate the ICR using alternative assumptions used in the fuel security study.

"We also disagree with NEPGA and FirstLight's assertions that, because fuel security resources are entered into FCA 13 as price-takers, ISO-NE must use the same tie benefits and outages assumptions in its analyses," said the commission.

Lastly, the commission noted its finding in the fuel security compliance order (ER18-2364) "that the current design of the Forward Capacity Market does not account for fuel security attributes in solving for the resource adequacy problem, which creates the need for a separate Fuel Security Study process in the interim. However, the commission also reaffirmed in that order its support for market solutions as the most efficient means to provide reliable electric service to New England consumers at just and reasonable rates." ■

MISO News

Trade Group Lodges Complaint over MISO Capacity Rules

By Amanda Durish Cook

MISO control room | *MISO*

A group representing MISO power producers filed a complaint with FERC last week alleging that the RTO is improperly accounting for the deliverability of some capacity resources, driving down payments to those demonstrably positioned to deliver on their obligations.

The Coalition of Midwest Power Producers (COMPP) urged FERC to force MISO to properly account for deliverability of capacity resources before the annual capacity auction in April in order to safeguard reliability (*EL19-28*).

COMPP said MISO's loss-of-load expectation (LOLE) study process is flawed because it assumes that all capacity resources are fully deliverable on an installed capacity (ICAP) basis. However, the group argued, MISO's megawatt count from deliverable resources comes up short annually because the RTO allows certain resources to demonstrate deliverability only up to the unforced capacity (UCAP) level.

MISO's Tariff requires capacity resources to demonstrate either network resource interconnection service (NRIS) or energy resource interconnection service (ERIS) coupled with firm transmission service up to each resource's ICAP level. While the RTO already requires that all resources be deliverable to load to qualify as capacity resources, its deliverability requirements stipulate that ERIS resources must only secure firm transmission for their UCAP values, which tend to be about 5 to 10% below full ICAP levels.

The discrepancy amounts to a Tariff violation and risks MISO's adherence to its own planning reserve margin, COMPP said.

"By failing to ensure deliverability on an ICAP basis for all capacity resources, MISO is acting contrary to the assumptions of its LOLE study and failing to procure enough fully deliverable resources needed to meet its [planning reserve margin] as its Tariff requires," COMPP said.

"The seriousness of this issue is evident in the historically low reserve margins that MISO is experiencing," COMPP said. "Requiring compliance with the Tariff for the upcoming [Planning Resource Auction] is essential both to maintaining reliability and to ensuring rates are just and reasonable and not unduly discriminatory. Yet, despite the gravity of the situation, MISO is proceeding in a manner that will continue to improperly count approximately 1,400 MW of undeliverable generation toward satisfying its reliability requirement."

MISO's Independent Market Monitor last year also advised the RTO to require a planning resource's ICAP be deliverable over the network regardless of which interconnection service it uses. (See *MISO Concurs with Monitor Ideas, Pledges More Study*.) The Monitor found it problematic that MISO's LOLE study assumes all ICAP megawatts are deliverable when they're not.

It later pointed out that during past PRAs, as much as 1,400 MW in capacity may not have been capable of delivering to load. At the time, MISO said it would work on rule changes in time for the 2020/21 PRA.

For COMPP, those changes won't come soon enough. The group pointed out the problem is poised to recur in the upcoming 2019/20 PRA "despite the IMM having recommended that MISO fix it for the past two auctions." It also maintains that swings even smaller than 1,400 MW "can lead to material differences in the clearing price that fails to send accurate price signals for entry and exit."

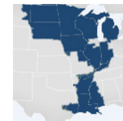
COMPP said that despite MISO's apparent agreement with the Monitor, it contended that the RTO has designated the issue a low priority by "only targeting to correct its failure" for the 2020/21 PRA.

"Leaving this problem unaddressed for another day fails to abide with [Federal Power Act Section] 206's requirements and should be deemed unacceptable by the commission. … The lack of urgency on this issue is particularly galling given MISO's focus on dealing with current reliability issues that have resulted in some 19 emergency actions since the start of the 2016/2017 planning year," COMPP said.

The organization also requested fast-track treatment from FERC.

MISO said it was in the process of reviewing the complaint. ■

MISO News



Stakeholders Press MISO for Flexibility in Outage Proposal

By Amanda Durish Cook

CARMEL, Ind. — With less than a month remaining until MISO files Tariff changes to implement stricter requirements for outage notification, stakeholders last week offered alternatives that would soften the RTO's proposal.

While talk at the Jan. 3 Reliability Subcommittee meeting was less contentious than in late 2018, several stakeholders still think MISO should file rules that are less punitive and allow for exemptions and more nuance in outage types. (See *MISO, Stakeholders at Odds over Resource Availability Filings*.)

The proposed outage rules represent the last piece of MISO's short-term resource availability and need proposal, which has been divided into three FERC filings. While the RTO already made two filings that will require load-modifying resources (LMRs) to produce seasonal availability documentation (*ER19-650)* and subject demand response to annual capability testing (*ER19-651*), it has yet to file changes that will improve generator outage coordination, which it plans for no later than Jan. 31. (See "Stopgap Filings," *MISO to Address Growing Supply Shortage in New Year*.) MISO hopes to implement the rules in time to cover at least part of the spring outage season.

The RTO has proposed that planned outages must be scheduled at least 120 days prior to the scheduled outage start date, avoiding "high risk" times. The plan would allow limited adjustments to an outage schedule — not to exceed seven days — 60 days prior to a start date. Planned outages scheduled or modified outside of those timeframes — and that occur during defined "high-risk" times where maximum generation conditions occur — would be categorized as forced outages, which count against a resource's capacity accreditation. Resources would be allowed only one planned outage per 120-day period.

MISO has pledged to provide market participants with forecasts showing high-risk times on a subregional basis.

MISO Director of Resource Adequacy Coordination Laura Rauch said the goal of the filing is to encourage more forward scheduling of outages so the RTO can better prepare for any reliability risks.

But some stakeholders say that MISO's forecasts are not accurate enough to define such periods of high risk to the system. They also contend that MISO should better define high-risk predictions, outage reporting requirements and penalties.

Laura Rauch | © *RTO Insider*

"I won't pretend that we have unanimous consensus on this," Rauch said.

Rauch said MISO will continue to work on how it can improve its Maintenance Margin, a non-public member webpage that keeps a forward account of how many megawatts can be taken out of service without affecting reliability.

Rauch said MISO is now focusing on whether it should provide incentives for generators that willingly move outages to improve reliability at the RTO's request. MISO is also examining how it can best collect information to gauge how flexible a certain generator's outage might be.

Exemptions and Outage Distinctions

DTE Energy submitted an alternate *proposal* that would allow a distinction between advance notice planned outages and short-term maintenance outages, which last two weeks or less and are more minor in nature and more flexible than periodic planned outages.

DTE also recommends that MISO under some circumstances exempt resources from a forced outage penalty for outages that occur during capacity emergency conditions. One exemption would permit resources to schedule planned outages even during high-risk periods if they provide four months' notice; the other would allow for short-term maintenance outages scheduled at least seven days in advance and "entirely above" a MISO-defined scheduling margin, which would rely on a version of the Maintenance Margin process.

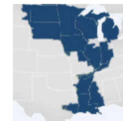
Xcel Energy's Kari Hassler said her company supports DTE's suggested tiered approach with exemptions and added that MISO should allow outages to be scheduled according to availability shown on the Maintenance Margin. She said a resource qualifying for an exemption should be allowed to revise outage stop and start times and durations "at any time as long as the shift maintains or improves the Maintenance Margin."

Hassler also contended that MISO should allow more than one planned outage per 120-day period if the outages are taken for different reasons, saying a small testing outage can portend a major planned outage. She also urged MISO to have more faith in the motivations of generation operators.

"I think for the most part, generator owners and operators want to do the right thing. They

Continued on page 16

MISO News



ROE Changes Spark Concerns for MISO, PJM Regulators

Continued from page 1

"Supporters have concerns that at least some incentive adders have become overly generous and do not change or incent the intended behavior on the part of the transmission owners, resulting in excessive costs to customers. Ineffective adders may also be an unintended disincentive to development of non-transmission alternative solutions for reliability and congestion concerns," OMS said.

Following OMS's letter, OPSI on Dec. 28 also cautioned the commission that ROE incentives may become too generous under the new ROE. The organization said FERC should be careful to craft ROE incentives that are "truly merited."

"OPSI has concerns that at least some incentive adders have become overly generous and do not change or incent the intended behavior on the part of the transmission owners, resulting in excessive costs to customers. Such adders may also be an unintended disincentive to development of non-transmission alternative solutions for reliability and congestion concerns," the organization said.

RTO Adder 'Questionable'

Both organizations singled out FERC's 50-basis point adder incentive for RTO participation. OMS said the adder is of "particular concern and warrants scrutiny by FERC," noting it's worried the adder "will last in perpetuity."

"[T]he landscape has changed drastically since 2006 when these adders were first initiated. After more than 15 years of experience with RTOs, the resulting benefits to utility members are now better understood. RTOs are no longer a new policy experiment. Moreover, transmission owners may no longer need an additional incentive adder to simply join an RTO," OMS said.

| MISO

OMS also pointed out that FERC over the years has provided other regulatory mechanisms such as formula rates, projected revenue requirements — trued up to reflect under-recovery — abandoned plant and construction work in progress, "all of which reduce transmission owners' risk." The group said the mechanisms "should be carefully examined in the context of this and other ROE incentives."

OPSI called the RTO adder "questionable" since the benefits of RTO participation are now well understood.

OPSI recommended FERC open a notice of inquiry on the ROE issues "for the purpose of examining not only policy around the application of new incentive requests, but also the ability of existing incentives to achieve desired outcomes."

OMS likewise requested a review of ROE incentive policy "to ensure that customers pay no more than is necessary to develop and to maintain a reliable and efficient transmission grid."

OMS has previously expressed concern about whether it would be able to contribute its views to the New England ROE docket.

"You have these pretty impactful policy discussions taking place ... and it's not a docket that we are party to," former OMS Executive Director Tanya Paslawski said during the organization's Oct. 29 annual meeting. ■

Continued from page 15

want to schedule outages during low-risk periods. Generator owners and operators are not gaming the system. They want to get this right just as much as MISO does," Hassler said.

Ameren's Jeff Moore said although his company supports MISO's push for better outage coordination and transparency, the proposal should contain some allowances for shorter-term maintenance outages.

"We do have to have this to properly maintain our assets," he said.

Moore noted there are "legitimate reasons" for having more than one outage in a four-month timeframe and that resources should not be penalized for adjusting the timing of major planned outages as long as there is adequate headroom in the Maintenance Margin.

Several stakeholders also offered the idea that MISO delay a Tariff filing altogether in favor of providing market participants with more upcoming outage data and high-risk period predictions. They said MISO might see a natural improvement in outage coordination as generation operators gain more access to forward-looking data.

"Let's see how this works for a year. If it works well, we may not need penalties. Nobody is suggesting that generation owners have been playing games up until now," said Bill Booth of the Mississippi Public Service Commission.

Rauch responded that MISO has been furnishing the Maintenance Margin tool for several years, but it remains underused. She also said the RTO still needs more information about generator owners' outage plans to manage increasing emergency conditions.

Rauch said MISO staff will scrutinize its proposed notification times and rescheduling requirements and modify the proposal over the next week. The RTO has planned a conference call to review final Tariff language with stakeholders on Jan. 14. ■

NYISO News

FERC Approves NYISO Order 844 Tariff Revisions

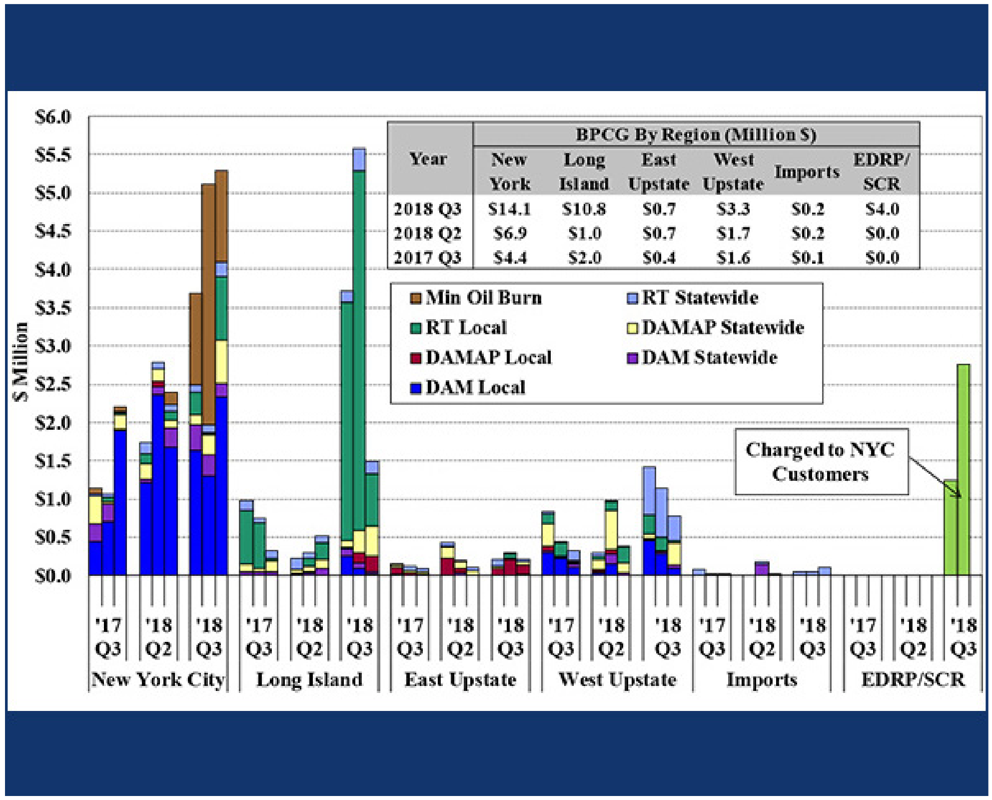
By Michael Kuser

FERC on Friday accepted NYISO's compliance filing for Order 844, which directs each RTO/ISO to establish procedures for reporting uplift payments, operator-initiated commitments and transmission constraint penalty factors.

The commission's Jan. 4 order found the ISO's filing "complies with Order No. 844's requirements regarding zonal uplift reporting," although approval is subject to the ISO specifying the effective date for its proposed Tariff revisions at least two weeks in advance of that date (ER18-2400).

FERC's ruling granted NYISO an extension permitting Tariff revisions related to the zonal uplift and resource-specific uplift reports to become effective March 15, while those related to operator-initiated commitment reporting will become effective "on a flexible effective date between June 1, 2019, and June 20, 2019, subject to a compliance filing."

The commission accepted the ISO's argument that it already complies with Order 844's requirement that its Tariff include transmission constraint penalty factor practices.



Uplift costs from guarantee payments by category and region, Q3 2018 | *Potomac Economics*

Order 844 stipulates that each RTO/ISO post a monthly report of all uplift payments categorized by transmission zone, day, and category. RTOs also must post a monthly resource-specific report containing resource names and total amounts of uplift paid in dollars, aggregated across the month.

The grid operators are further required to post a monthly report listing the commitment size, transmission zone, commitment reason and commitment start time of each operator-initiated commitment.

NYISO agreed to comply with all the requirements, modifying its compliance filing to incorporate reporting of uplift paid to suppliers that schedule import transactions at any of its external proxy generator buses as part of the zonal uplift report. The ISO said it does not pay uplift to entities that schedule export transactions and will post an updated zonal uplift report when it first posts its resource-specific uplift report to ensure the two reports are using consistent data sets. ■

PJM News

Cancel Transource Line, Md. Panel Says

By Rich Heidorn Jr.

Maryland officials have recommended the state's Public Service Commission reject Transource Energy's controversial *Independence Energy Connection*, saying the company and PJM failed to examine alternative solutions, as required by state law.

The Power Plant Research Program (PPRP) of the Maryland Department of Natural Resources *asked* the PSC on Dec. 20 to dismiss Transource's application for a certificate of public convenience and necessity (CPCN) or put the filing on hold until the company and PJM review proposals to add capacity to existing transmission lines in the eastern segment of the project in Harford County (*Case 9471*).

The $372 million project would add two 230-kV double-circuit lines totaling about 42 miles across the Maryland-Pennsylvania border: a western line between the Ringgold substation in Washington County, Md., and a new Rice substation in Franklin County, Pa.; and an eastern line between the Conastone substation in Harford County, Md., and a new Furnace Run substation in York County, Pa. It would be PJM's largest-ever market efficiency project.

The PPRP said Transource had failed to meet state law requiring the examination of alternatives if an existing transmission line "is convenient to the service area; or the use of the transmission line will best promote economic and efficient service to the public."

"After substantial discovery," the PPRP said, "it is clear that there was no examination to consider an existing transmission line as an alternative for the eastern segment of the project … prior to filing the CPCN for the project, even though the existing transmission lines appear likely to be both convenient to the service area and to best promote economic and efficient service to the public."

The agency said the need for the eastern segment of the project could be met by the existing Furnace Run-Conastone and Furnace Run-Graceton 230-kV double-circuit transmission tower lines, which each have only one 230-kV circuit and could carry a second.

"Transource's application did not identify, nor consider, these nearby existing tower lines as an alternative to the project," the PPRP said.

The PPRP said it provided a "conceptual alternative" using the spare tower capacity, but Transource rejected it after initial modeling by PJM identified two single-contingency thermal criteria violations. The PPRP said the violations don't eliminate the nearby lines as a viable alternative.

"It is not uncommon for PJM to identify thermal violations in its transmission planning process and then to seek out solutions. In fact, on the west segment of this project, transmission system enhancement projects were necessary to allow the IEC-West project to connect into Maryland," the agency said. "With regard to the IEC-East project, there are other transmission line configurations using these existing tower lines that very well may not produce reliability concerns while providing regional benefits in a manner that minimizes the environmental and socioeconomic impacts to the state."

The PPRP said PJM and Transource also rejected two other conceptual alternatives as "going beyond considering the use of existing transmission corridors [and representing] significant material changes to the electrical configuration of the project."

"Alternatives utilizing the existing tower lines have not yet been examined in a manner that will allow the commission to complete its review under [state law]. Transource and PJM's apparent unwillingness to investigate these existing tower lines leaves unresolved whether there is a viable and preferred alternative to the IEC-East project."

Transource Response

In a response Monday, Transource insisted its application is complete and that it has made a prima facie case that the project is needed and "will provide enormous economic benefits to Maryland customers."

"The application includes substantial evidence for the commission to carry out its obligation … including the consideration of existing transmission lines," Transource said. "A dispute over the consideration, or lack of consideration, of any one hypothetical alternative, with no evidence whatsoever regarding its feasibility, among an infinite universe of similar 'alternatives' is not the proper subject of a motion to dismiss."

The company said state law does not require applicants to conduct engineering analyses of every possible alternative. "Rather, disputes over whether the commission should consider an alternative are properly the subject of competing testimony at the evidentiary hearing."

Reliability Value?

The state officials also said the commission should reject Transource's attempt to justify the project — approved by PJM in 2016 to relieve transmission congestion — on reliability grounds.

PJM said in a November *white paper* re-evaluating the project that it would reduce load costs by $707.3 million annually over 15 years, producing a benefit-cost ratio of 1.4, exceeding the minimum 1.25 ratio required

Once referred to as the AP South Congestion Improvement Project, Transource's Independence Energy Connection project would consist of two lines. The western portion would run from the Ringgold substation in Maryland to the Rice substation in Pennsylvania. The eastern line would run from the Conastone station in Maryland to the Furnace Run station in Pennsylvania.| *Transource*

Continued on page 19

PJM News

FERC OKs PJM Seasonal DR Change Over Monitor's Protest

By Rich Heidorn Jr.

FERC has approved PJM's proposal to change how it measures seasonal demand response resources, rejecting a protest by the RTO's Independent Market Monitor.

PJM currently permits curtailment service providers (CSPs) to combine DR resources within the same transmission zone into a single DR registration, with the capacity value based on the lower of its total summer- or winter-period reduction capability.

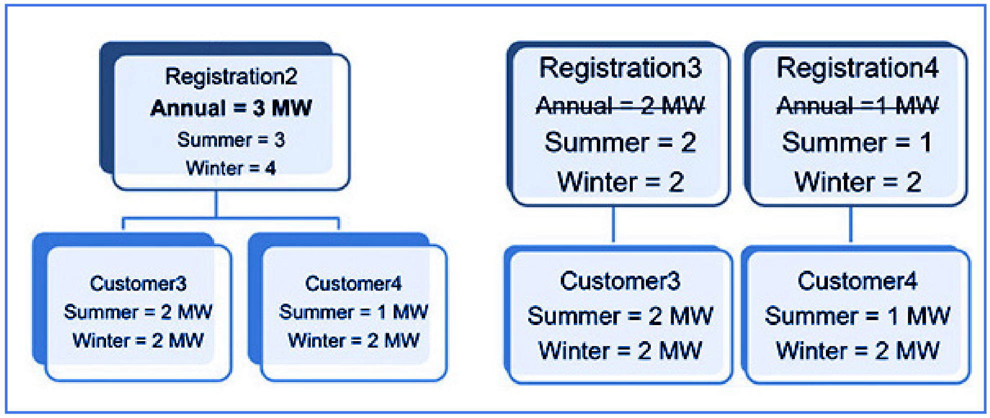
Under the changes approved by the commission Dec. 31, resources above 100 kW will be registered individually, with separate summer and winter capacity values (*ER19-244*).

PJM said the change will give it greater flexibility by allowing dispatch of individual DR resources. It will also aid CSPs, who will no longer have to determine which end-use customers should be aggregated on a DR registration to maximize the nominated value, PJM said.

The change will be effective with delivery year 2019/20, beginning June 1.

The IMM protested the proposed change, saying that it will overstate the capacity value of DR, displacing other resources, and that allowing more intra-zonal matching will erode locational price signals.

The commission disagreed, saying the changes should result in more accurate DR capacity values.



Under PJM's old process (left), customers 3 and 4 would be combined in a single demand response registration with an annual value of 3 MW, the lesser of the combined summer and winter values. Under the new process (right), the two customers would have separate registrations with a combined 3 MW in summer and 4 MW in winter. | *PJM*

It also noted that CSPs are already permitted to aggregate end-use customers in a single transmission zone within a registration and satisfy a DR capacity commitment with multiple registrations. "The proposed revisions do not modify either of these permissions, and we find no evidence in the record to suggest that the instant changes will erode locational price signals," the commission said.

The Monitor also objected to how PJM proposed to estimate load reductions for some resources, saying all should be required to have five-minute interval metering.

The commission said PJM's use of "flat profiling" for DR that lack five-minute metering can "reasonably reflect" DRs' performance during emergencies.

"In multiple orders, the commission has declined to require demand resources to upgrade to five-minute metering," the commission said, adding that such technology is not necessary because of RTOs' ability to create five-minute load and generation profiles using telemetry and hourly revenue-quality data. ■

Continued from page 18

for inclusion in the Regional Transmission Expansion Plan. (See *PJM Reiterates Support for Embattled Transource Project*.)

It also "resolves burgeoning reliability issues," PJM said. Although the project was not needed to address reliability violations when it was approved, the RTO said, it noted "that the project would inherently enhance system reliability by introducing additional transmission network paths."

"In parallel with the September 2018 benefit-cost ratio re-evaluation, PJM assessed the extent to which the Transource project provides identifiable reliability benefits. Power flow results have confirmed that the Transource project does indeed solve identified 2023 overloads on a 500-kV line, a 500/230-kV transformer and other transmission facilities," the RTO said.

The PPRP suggested PJM's shift was a bait and switch. "If PJM has now determined that there are reliability concerns and an associated need for transmission system enhancements, it would be more appropriate to first investigate reasonable alternatives within the relevant PJM processes rather than latching solutions on to this discretionary market efficiency project," it said.

Transource denied it was changing its position on the reason for the project. "The additional analysis provided by PJM was routine and anticipated, and the results of the analysis only add to need for the project, they do not substitute the purpose for the project."

A group of residents who live in or near the proposed path supported the PPRP's motion to dismiss. STOP Transource Power Lines MD said the line would disrupt existing farm and agricultural operations and damage land under permanent preservation easements.

"The failure on the part of the applicant and, to a lesser degree, PJM to consider alternative routes is particularly galling considering the substantial sums expended by the members of STOP Transource in the instant matter to date, which will increase significantly if this matter proceeds to a hearing," the group said. "If, in fact, the existing towers can accommodate the IEC-East project, thus avoiding its devastating impacts to the members of STOP Transource and other individual property owners, they must be seriously considered."

Pennsylvania Proceeding

Pennsylvania regulators will be receiving written testimony on Transource's siting request until Feb. 11, with evidentiary hearings set for Feb. 21-22 and Feb. 25 to March 1 (*A-2017-2640195*). ■

PJM News

Section 206 Filing on PJM Reserve Pricing Likely

By Michael Brooks

VALLEY FORGE, Pa. — PJM stakeholders appeared resigned to a unilateral FERC filing by the Board of Managers, despite an all-day meeting last week on the RTO's proposed price formation rules.

PJM staff and stakeholders Friday discussed the details of several changes to reserve pricing under development as part of a comprehensive package of revisions sought by the board by Jan. 31.

Stakeholders gave plenty of feedback on PJM's proposals during the almost seven-hour meeting of the Energy Price Formation Senior Task Force, as well as those from the *Independent Market Monitor*, James Wilson of *Wilson Energy Economics* and the *D.C. Office of the People's Counsel*. But there appeared to be a general acceptance among attendees that there would not be consensus on any of the proposals at the Jan. 24 meetings of the Markets and Reliability and Members committees.

The meeting room was silent when Dave Anders, PJM director of stakeholder affairs and chair of the task force, solicited opinions on polling the proposals at the task force's next

PJM's Vijay Shah (left) and Dave Anders | © *RTO Insider*

meeting Jan. 11.

"I'd be shocked" if the committees passed any proposal in a sector-weighted vote, said Susan Bruce, representing the PJM Industrial Customer Coalition.

Anders also revealed that, after several private discussions, stakeholders are in more disagreement than previously thought about certain components of the package, such as the consolidation of Tier 1 and Tier 2 synchronized reserve products. Voting on individual components was also swiftly ruled out by the task force, as approval of certain elements in one could be contingent on elements in others.

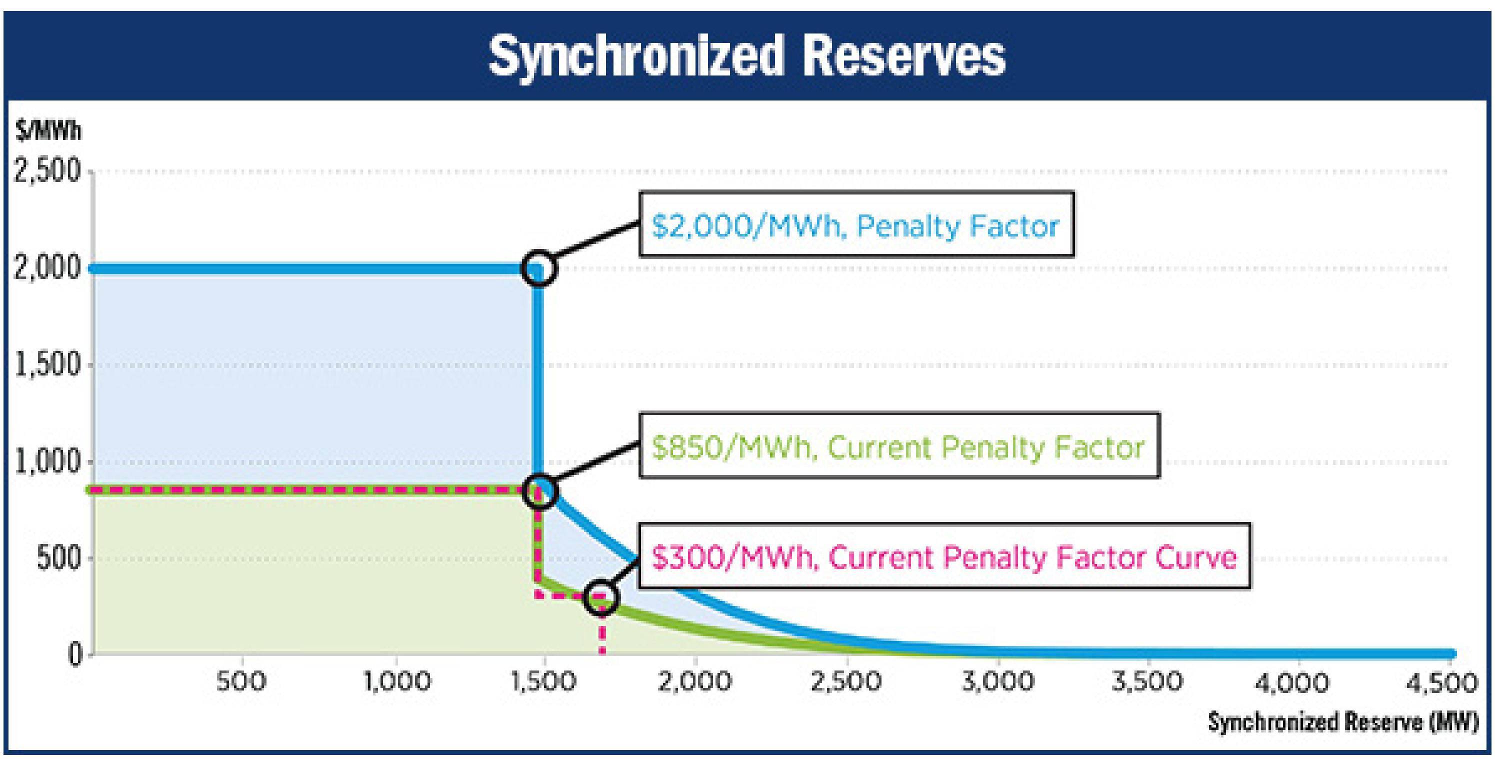
Without stakeholder approval, the board would file PJM's proposal with FERC under Section 206 of the Federal Power Act, which would require it to demonstrate that the RTO's current rules are unjust and unreasonable — a higher threshold than under Section 205, which merely requires showing the proposed rules would be just and reasonable. (See *PJM Board Demands Action on Energy Price Formation*.)

Including the Jan. 11 meeting, the task force *will meet* three more times before the next MRC/MC meetings, with Anders aiming for votes on the proposals Jan. 17 and reviewing the results of the votes Jan. 23.

"Something passing at the MRC is highly unlikely," said Adrien Ford, director of RTO and regulatory affairs for Old Dominion Electric Cooperative. "So, getting more granular info would be helpful."

"Granular info" was exactly what staff provided Friday, unlike the task force's previous meeting Dec. 14, in which staff presented a general outline of their initial work. (See *PJM Moving Quickly to Make Board's Price Formation Deadline*.)

PJM's *proposed* changes to its operating reserve demand curve (ORDC), which would be applied to all reserve products, not just synchronized reserves, engendered the most



PJM's proposal would increase the penalty factor, or maximum price, in the operating reserve demand curve from $850/MWh to $2,000. | *PJM*

PJM News

controversy at the meeting.

Under the proposal, the so-called "penalty factor" in the ORDC would increase from $850/MWh to $2,000. The penalty factor is the price paid to resources for meeting the RTO's minimum reserve requirement (MRR) during a shortage.

'Willingness to Pay'

Adam Keech | © *RTO Insider*

The changes are intended to reflect consumers' willingness to pay for some level of reserves, including reserves beyond the minimum requirement, said Adam Keech, PJM executive director of market operations.

Stakeholders took exception to this. "Those are fighting words" to industrial customers, Bruce said. She questioned the basis for PJM to opine that the ORDC appropriately reflects what a customer would be willing to pay to procure another megawatt of reserves, given the range of projected price increases.

"You've dropped all assertions of marginal reliability," said Wilson, consultant for consumer advocates in several states and D.C. "We have no evidence the customer is willing to pay that much for reserves. The customer cares about lost load, so the marginal value of reserves depends upon the likelihood that firm load would have to be shed if we have only that level of reserves."

"It's misleading to say, 'customers' willingness to pay,'" said Catherine Tyler of Monitoring Analytics, the IMM. "Operators may be willing to take more expensive actions than customers are willing to pay for."

Erik Heinle | © *RTO Insider*

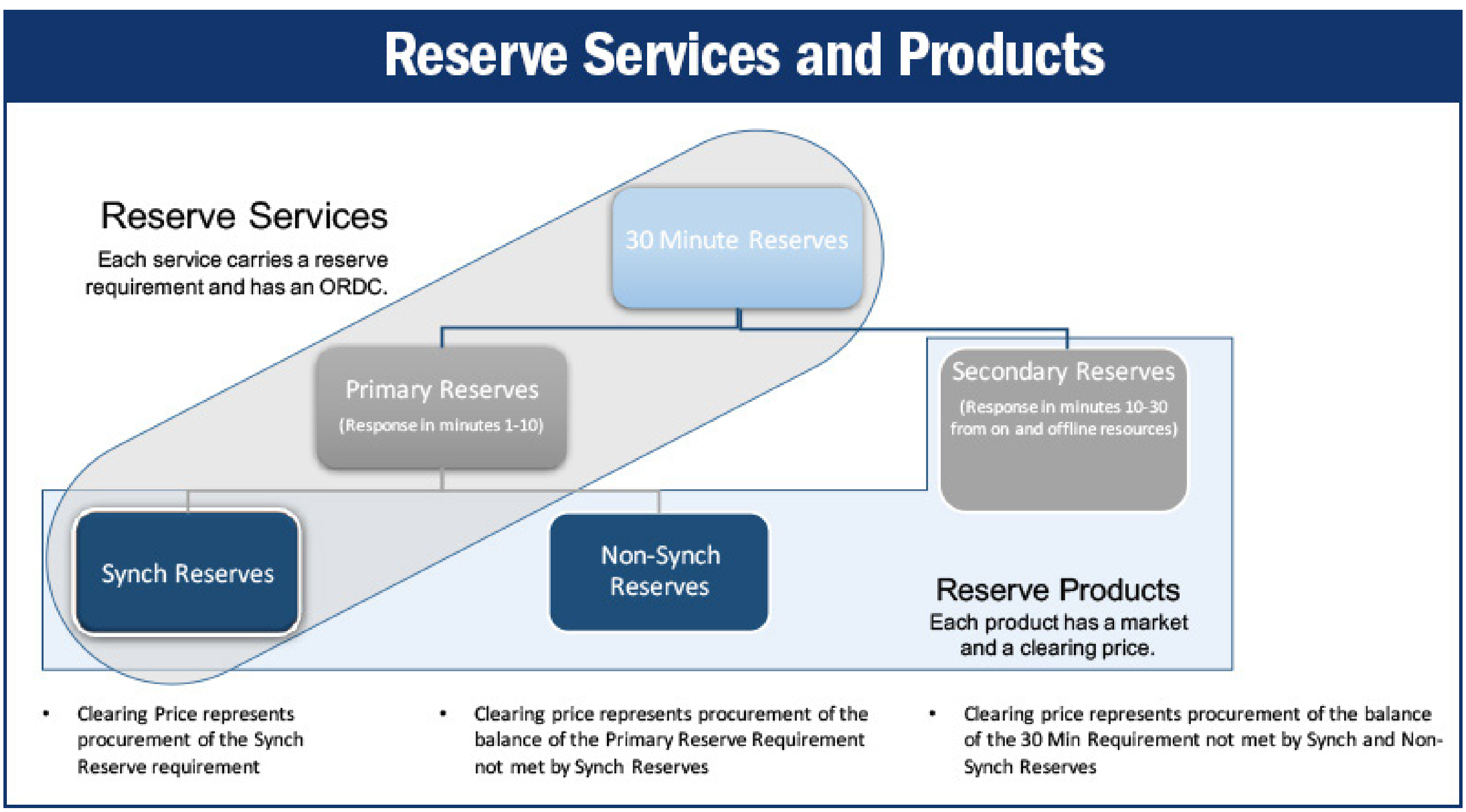
As a compromise, the D.C. OPC's Erik Heinle proposed a two-step penalty factor: maintaining the current $850 figure for reserves up to the MRR and increasing to $2,000 for the last 500 MW of reserves.

Wilson said the OPC's curve is better than PJM's, as it associated the penalty factor with a low reserve level.

Staff also *explained* how they would align the reserve products, which would introduce the ability to procure primary reserves (those able to respond within 10 minutes) in the day-ahead market and secondary reserves (10 to 30 minutes) in the real-time market.

There was some debate about whether to allow virtual trading of reserve products to arbitrage in the two markets. Wilson said he could imagine "phantom" shortage pricing in the day-ahead market when the situation in the real-time is better, and virtual trading would help alleviate that. Keech, however, responded that the ORDCs for each of the markets will not be different enough to necessitate virtuals, but that staff would consider it.

Staff are also considering whether there needs to be a synchronized requirement for secondary reserves, as there is with primary reserves. That will likely be among the topics discussed at the next meeting, along with other details of the market alignment. ■



How PJM classifies reserve products | *PJM*

Company Briefs

Gates' TerraPower Project in China in Jeopardy

A nuclear power plant under development in China by TerraPower is now unlikely to be built because of changing U.S. policy, according to company cofounder and Chairman Bill Gates.

The plant is a test project for a new "traveling-wave" reactor, which uses depleted uranium as its fuel. TerraPower signed a deal with a Chinese state-owned company in 2015, eventually agreeing to build it south of Beijing. But in October, the Energy Department issued new, stricter rules on nuclear deals with China, requiring companies to demonstrate that their projects would not be used for weapons development.

The new rules have left TerraPower scrambling to find another partner for the project. Gates sees nuclear power as key to countering climate change. "The world needs to be working on lots of solutions to stop climate change," he wrote in a year-end blog post. "Advanced nuclear is one, and I hope to persuade U.S. leaders to get into the game."

More: *The Wall Street Journal*

GM Sells 200k EVs, Triggering Tax Credit Phaseout

General Motors sold its 200,000th electric vehicle in the fourth quarter last year, triggering the beginning of a phaseout of the $7,500 federal tax credit for purchasing the company's EVs over the next 15 months.

The credit will fall to $3,750 in April, and then drop to $1,875 in October for six months before finally completely ending in April 2020.

GM and Tesla, which hit the 200,000 milestone in July, have been lobbying Congress to lift the cap or extend the credit's duration. Tesla recently cut its prices to offset the cut in its tax credit.

More: *Reuters*

El Paso Electric Selects Renewables, Storage to Make up Gen Shortfall

El Paso Electric last week selected 200 MW of utility-scale solar and 100 MW of electric storage resources in its competitive solicitation for the 2022 and 2023 summer peak periods.

The utility in 2017 determined it needed more resources in place for the peak periods and put out a request for proposals for at least 320 MW. It also selected 226 MW from a new gas-fired combustion turbine under construction at an existing power plant.

The company's selections need to be approved by both the New Mexico Public Regulation Commission and the Public Utility Commission of Texas.

More: *Energy Storage News*

Dominion Acquisition of SCANA Officially Complete

Dominion Energy last week announced its acquisition of SCANA is officially completed, expanding the company's customer base and its geographic footprint in Georgia.

The deal was approved by the South Carolina Public Service Commission in mid-December. Customers of SCANA subsidiary South Carolina Electric & Gas will still be on the hook for $2.3 billion in costs associated with the failed V.C. Summer nuclear plant expansion, without a $1,000 refund initially advertised by Dominion.

"Dominion Energy is pleased to add SCANA's fast-growing, high-performing Southeastern businesses to our 18-state footprint," Dominion CEO Thomas Farrell II said. "Together, we are committed to providing safe, dependable, affordable and clean energy to the communities served by SCANA and to maintaining its excellent record of reliability and customer service."

More: *WIS*

Federal Briefs

Climate Change to be Subject of House E&C's 1st Hearing in New Congress

Rep. Frank Pallone (D-N.J.), the new chairman of the House Energy and Commerce Committee, last week announced the committee's first hearing in the new session of Congress would focus on climate change.

"Part of the reason why we want to deal with climate change first is because of the necessity, because of what's happening, the acceleration of global warming," Pallone told reporters. "But it's also the fact that we haven't been able to have any hearings on that issue, because the Republicans wouldn't allow it."

The committee has not announced a date for the hearing, only saying it will be held "later this month." The climate change hearing will be followed by hearings on a recent federal judge's ruling that the Affordable Care Act is unconstitutional and the Trump administration's family separation policy at the Mexican border.

More: *The Hill*

House Re-forms Special Climate Change Committee

The House of Representatives last week revived a special committee on climate change, formalizing its rules and installing its chair.

Now called the Select Committee on the

Climate Crisis, the committee will be chaired by Rep. **Kathy Castor** (D-Fla.) and consist of nine Democrats and six Republicans. However, the panel will not have the power to subpoena or depose, nor will it have the authority to vote on legislation and send it directly to the House floor for a vote.

Castor said she's expecting the panel's roster to be filled out sometime in the next one to two weeks. But some progressive representatives have already expressed their dismay at the committee's weakness and declined to join.

More: *The Hill*; *E&E News*

Trump, Congress no Closer to Ending Shutdown

President Trump on Monday announced he would travel to the Mexican border this week — a sign that he and members of Congress are no closer to a deal that would end the partial shutdown of the federal government.

Trump is insisting that any bill to fully reopen the government include billions in dollars for constructing his proposed wall along the Mexican border. The Senate and new Democratic majority in the House have refused to acquiesce to the president's and House Republicans' demand. While FERC's and the Energy Department's budgets were approved by the previous Congress last year, the Interior Department and EPA are among several agencies that have been forced to shut down because of a lack of funding. EPA remained opened for about a week after the shutdown began but was forced to close at the end of last year when it ran out of funds.

The White House threatened to veto a bill reopening the government, which included $2 billion for EPA, passed by the House last week. "These and other excessive spending items makes the lack of adequate border funding in the combined package all the more unacceptable," it said.

More: *Politico*; *The Washington Times*

State Briefs

CALIFORNIA

1st Snowpack Survey Shows Below-average Levels

The Department of Water Resources' first snowpack survey of the year showed levels below the seasonal average.

The manual survey recorded 25.5 inches of snow depth and snow water equivalent of 9 inches at Phillips Station, which is 80% average for that location. The Sierra snowpack is 67% of the statewide average. A DWR engineer, however, said that while the levels are concerning, they are far above last year's.

Snowpack is a major source for water reservoirs in the warmer months. Reduced snowpack leads to reduce hydropower capacity during the spring and summer.

More: *KFSN*

DISTRICT OF COLUMBIA

PSC Launches Online Tool for Renewable Certification

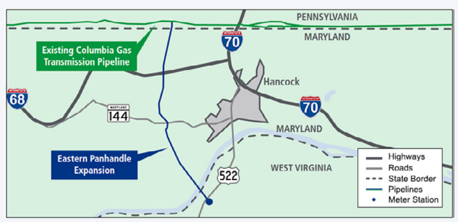
The Public Service Commission last week announced the launch of its online application process for individuals and businesses to become certified renewable energy generators in the district.

The commission said the new RPS Portal will increase the efficiency of the application process and allow it to easily track renewable resources in the district, a requirement of recently passed district legislation that set a 100%-by-2032 renewable portfolio standard.

More: *D.C. Public Service Commission*

MARYLAND

Board of Public Works Rejects Natural Gas Pipeline



The Board of Public Works last week unanimously rejected a proposed natural gas pipeline by TransCanada.

The board consists of Gov. Larry Hogan, Treasurer Nancy K. Kopp and Comptroller Peter Franchot, the last of whom cited testimony that the pipeline could bring environmental problems without economic benefits.

A TransCanada spokesman said the company is considering its options for the project, which extend about 3 miles from Pennsylvania to West Virginia. The pipeline would run under the Potomac River in the narrowest part of Maryland, which straddles the borders of the other states.

More: *The Associated Press*

MICHIGAN

PSC Fines DTE $840k for Billing, Service Mistakes

DTE Energy will pay a $840,000 fine under a settlement approved by the Public Service Commission.

The PSC began an investigation into DTE a year ago, months after the company began using a new billing system. The commission had received complaints from customers who said they did not receive shut-off notices for nonpayment.

More: *The Associated Press*

NEVADA

2 More Casinos Apply to Leave NV Energy

The Grand Sierra Resort in Reno and the SLS Hotel & Casino Las Vegas have asked the Public Utilities Commission to be able to purchase their electricity from an alternative power supplier instead of NV Energy.

The requests bring the total number of pending applications to leave NV Energy to 10. MGM Resorts International paid nearly $87 million to leave the utility in 2016.

More: *KNPR*

OKLAHOMA

OG&E Seeking Rate Increase for Environmental Upgrades

Oklahoma Gas & Electric last week announced it has asked the Corporation Commission for a rate increase to reimburse more than $600 million in upgrades it is making to comply with federal emissions requirements.

The utility expects its sulfur dioxide, nitrogen oxide and carbon dioxide emissions will be lower by nearly 90%, 75% and 40%, respectively, from the two projects: $75 million to convert two of three coal-fired powertrains at its Muskogee Plant to natural gas and $534 million to install emissions-reducing scrubbers on the two coal-fired trains at the Sooner Power Plant.

An OG&E spokesperson said the rate increase would boost the company's return on equity to the utility industry's national average and adjust its depreciation rates to more realistically reflect life spans of the utility's assets.

More: *The Oklahoman*

VIRGINIA

Northam Proposes Coal Ash Disposal, Coastal Protection Bills

Gov. **Ralph Northam** last week proposed a package of environmental legislation aimed at safely disposing of coal ash and helping coastal communities deal with flooding caused by climate change.

The package includes a bill that would allow the state to use an estimated $50 million in revenue from the sale of new carbon pollution credits for coastal resilience projects. Another bill would require coal ash to be removed from unlined pits and either recycled or moved to EPA-approved landfills.

More: *The Associated Press*