RTO Insider

Your Eyes and Ears on the Organized Electric Markets

ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

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Battle Lines, Compliance Paths Form on EPA Carbon Plan

SPP, MISO States Seek Stay; PJM Concerned on Tx Buildout for Wind

State and RTO officials have had two weeks to digest the Environmental Protection Agency's final power plant carbon emission rule and the battle lines — and paths to compliance — are developing.

While states in the Northeast say they are well on the way to compliance, many in the South and Midwest have already joined in the first set of legal challenges — even as other officials in the Midwest consider carbon trading plans.

The 15 states who joined in the request for a stay included half of those in SPP, six of those in MISO and five of those in PJM. No Northeastern states were among them. More states may join once the clock on legal challenges begins with publication of the rule in the Federal Register.

PJM, meanwhile, remains concerned about the time required to build transmission to deliver wind power to eastern load centers.

RTO Insider's follow-up coverage of EPA's Clean Power Plan includes reports from throughout the Eastern Interconnection:

Losers

State	% Change From Draft
Kentucky	-27%
North Dakota	-27%
Montana	-26%
Wyoming	-24%
West Virginia	-19%
Indiana	-19%
Missouri	-18%
Kansas	-14%
Nebraska	-12%
Ohio	-11%

Winners

State	% Change From Draft
Texas	32%
Mississippi	37%
Minnesota	39%
Massachusetts	43%
Connecticut	46%
New Jersey	53%
South Dakota	57%
New York	67%
New Hampshire	77%
Maine	106%

Change in state CO_2 targets from draft rule to final. (Source: EPA)

PJM Prices Down 31% from Record-Breaking 2014

By Rich Heidorn Jr.

PJM energy market prices were down almost 40% in the first half of 2015 compared with 2014, while capacity and transmission service charges rose by double digits, the Independent Market Monitor reported last week.

The load-weighted average real-time LMP, which hit $69.92/MWh in the first six months of 2014 — largely due to the record-breaking polar vortex in January — dropped to $42.30/MWh in 2015, the Monitor reported in its second-quarter State of the Market report.

Uplift charges dropped by $590.1 million (71%) in the first six months of 2015, while congestion costs were down $523.6 million (36%).

Auction revenue rights and financial transmission rights revenues offset 88% of con-

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PJM Opens Capacity Auction Under New Rules

Higher Prices Expected Under Controversial Capacity Performance Plan

By Rich Heidorn Jr.

PJM's biggest news story of the year may well come Friday with the release of the results from last week's capacity market auction.

The 2018/19 Base Residual Auction – the results of which are due Friday afternoon — will be the first under the new Capacity Performance rules approved by FERC in June. The rules increase incentives for high-performing resources and penalties for poor performers, largely eliminating *force majeure* provisions under a "no excuses" policy.

The auction, which ran from Aug. 10-14, was postponed from May due to delays in winning FERC approval.

The changes will be phased in beginning with the 2018/19 and 2019/20 delivery years, when PJM hopes to make at least 80% of its procurement CP resources, with the remainder "Base Capacity" subject to lower performance expectations. The transition will be complete for 2020/21, when PJM expects 100% of capacity to be CP.

FERC Approval

The commission approved PJM's proposal by a 4-1 vote June 9, citing evidence of in-

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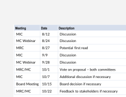
Also in this issue:



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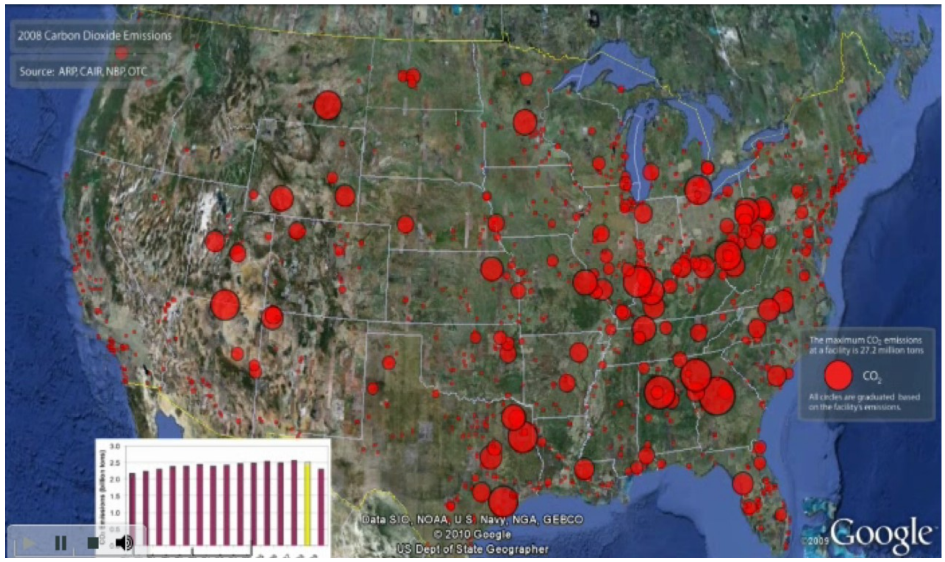
Clean Power Plan

Final Clean Power Plan More Suited to Carbon Trading, Experts Say

By Chris O'Malley



CO2 emissions sources, 2008 (Source: EPA)

Cap-and-trade, appealing to economists but anathema to most in Congress, is likely to be a core compliance plan for many states under the Environmental Protection Agency's final version of the Clean Power Plan.

"Trading itself got a lot more prominent than" in the draft plan, said Doug Scott, vice president of strategic initiatives at the Great Plains Institute and a former Illinois Commerce Commissioner.

Trading would set a price on carbon much like the cap-and-trade program that helped reduce compliance costs with acid rain regulations in the 1990s and the Waxman-Markey CO_2 plan that died in Congress in 2010.

While at least 40 states have been talking about some sort of trading collaboration toward meeting their carbon-reduction mandates, EPA's initial proposal in mid-2014 set rate-based goals measured in pounds of CO_2 per megawatt-hour.

Last fall, EPA provided technical advice explaining how to translate rate-based goals to mass-based equivalents that measure total carbon emissions in metric tons — a measurement more conducive to multistate trading.

The final rule goes a step further and "reduces confusion and ambiguity" for states contemplating trading, said Minnesota Public Utilities Commissioner Nancy Lange.

Essentially, the final rule "sets out elements you need to have for a trading-ready plan," Lange added.

"I think you'll find EPA is not only recognizing but embracing trading [plans]," Scott said.

Uncertainty Remains

But Scott and Lange said that how many and which states will make carbon allowance trading a big part of compliance is impossible to say this early into the game.

For one thing, the final rule turned many states' preliminary compliance planning upside down. EPA in its final rule loosened — or in many cases tightened — carbon-reduction targets in each state.

Kentucky is reeling from the final rule, which is 27% more stringent than the draft rule. Indiana and West Virginia, which also generate a big portion of power from coal, are facing carbon reductions that are 19% more stringent than before.

In addition to having to make big changes to their compliance modeling, some states face uncertain outcomes as their elected leaders vow to fight EPA in court.

The Indiana Department of Environmental Management, for instance, said it is still studying the final rule and doesn't want to discuss potential options. The agency deferred to Gov. Mike Pence's office as to how the state is likely to proceed.

Pence has already signaled his intentions. In June, he wrote a letter to President Obama stating that Indiana would not comply unless the rule was significantly changed.

(See related story, *SPP, MISO, PJM States Join Opposition to EPA Plan*, p.6.)

'Trading-ready' vs. Formal Trading Pacts

Even with such fighting words in many states, Scott predicts state regulators will continue to discuss carbon-allowance trading scenarios in the months ahead.

"There will be a lot of discussions between states individually," he said, though predicting it might be a year before anything coalesces.

Scott's Minneapolis-based Great Plains Institute and the Washington-based Bipartisan Policy Center have been providing staffing support on carbon compliance to the Midcontinent States Environmental and Energy Regulators (MSEER), which includes MISO and SPP states, and to the Midwestern Power Sector Collaborative.

A number of meetings have already been held, including a workshop in Detroit in June.

Trading credits or allowances has lots of potential, says Todd Ramey, MISO's vice president of system operations. "Trading has the benefits of allowing for a level of price transparency folks need to know. In order to monetize your carbon emissions, there needs to be a general understanding of what that value is in real time," Ramey told the Detroit workshop.

A number of panelists agreed that multistate trading plans that were "trading-ready" were likely more plausible than formal multistate trading agreements. "Nobody has committed to anything in terms of a multistate effort" so far, Lange said.

She said MSEER has a workshop planned for Sept. 16 in Minneapolis that should be a good forum to discuss trading and other compliance scenarios in light of the final rule.

In the meantime, it's not just Midwest states thinking more intently about trading plans. Scott said the Great Plains Institute also has been helping advise a number of states in the PJM footprint. His group plans to hold a seminar in October in Little Rock.

Clean Power Plan

PJM Concerned About Lead Time on Transmission Needed for Wind

By Rich Heidorn Jr.

PJM is concerned that the Environmental Protection Agency was too optimistic about how quickly it can add transmission and how much help its states will receive from wind resources in meeting the Clean Power Plan.

The RTO released a report on the impact of the proposed carbon rule on July 31 — days before EPA issued its final rule — that challenged the agency's assumptions on the pace of both generation additions and transmission expansion.

"Under some CPP scenarios — particularly in the early years of compliance — generators could retire at a faster rate than replacement generation, or the new transmission needed to solve reliability problems, could be built. These scenarios potentially could put a much greater strain on the existing transmission system," the report said.

The report, the second of two produced in response to a request from the Organization of PJM States Inc. (OPSI), builds on the economic analysis from PJM's first report for the group to determine the range of transmission that would be required under three scenarios for coal plant retirements: 6 GW, 16 GW and 32 GW.

"Generation needs could exceed available resources by 2024 in a 32-GW at-risk future scenario, in which units retire evenly across each year from 2020 to 2029. If retirements occurred earlier in the 2020-2029 compliance period, resource adequacy needs could exceed resources for a 32-GW scenario by 2022 and by 2028 under a 16-GW at-risk scenario," the report said.

Final Rule Lessens Reliability Concerns

PJM COO Mike Kormos said Monday that several changes in the final rule — relaxing the initial deadlines by two years, creating an easier path to interstate trading and the inclusion of a reliability safety valve — made the regulations less of a threat to reliability. He said the RTO will likely run additional sensitivity analyses based on its observations and requests from states.

But Kormos said it was too soon to tell how the changes in the final rule would affect the conclusions PJM made in the July 31 report.

"We'll look to do some refinements and some additional scenarios," he said in an interview. "I can't tell you definitively whether anything is going to dramatically change."

Kormos said that while some states face tighter or looser emission caps under the final rule than under the draft, "they were not drastically different in aggregate."

'Informal' Discussions on Trading

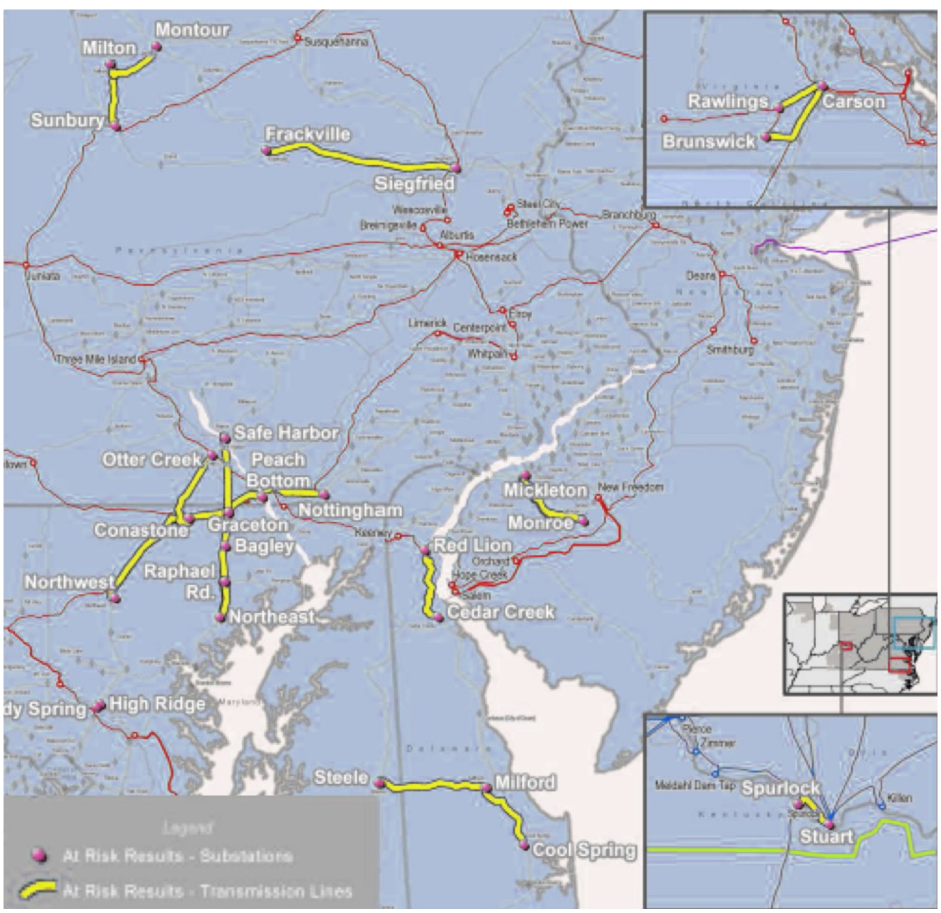
Kormos said PJM has thus far had only "informal" discussions with stakeholders about the prospect of interstate emissions trading as a compliance measure. "I'm unaware of any specific initiatives," he said. (See related story, *Final Clean Power Plan More Suited to Carbon Trading, Experts Say*, p.2.)

PJM already collects data on emissions and renewable energy credits for states and others under its Generation Attributes Tracking System and stands ready to perform a similar role under an interstate CO_2 trading program. "If there's a desire, I'm sure we would be open to having those discussions," Kormos said.

Timelines

Between the submission of state implementation plans and EPA's interim deadline, PJM said, generation owners would need to announce retirement decisions, replacement generation would have to be identified, reliability violations must be identified and transmission solutions developed, designed, sited and constructed.

"Once the PJM board approves transmission upgrades, historical experience shows that the pace at which transmission can be completed can range from five years (the Carson-Suffolk 500-kV line) to more than 16 years (the Wyoming-Jackson's Ferry 765-kV line)," the study said. "Moreover, if a number of large-scope transmission projects are required across the United States, the lack of equipment availability could increase lead time substantially."



Potential thermal violations from coal retirements under the Clean Power Plan. (Source: PJM)

Continued on page 4

Clean Power Plan

PJM Concerned About Lead Time on Transmission Needed for Wind

Continued from page 3

Moving Target

The location and size of both retiring generators and replacement resources will be uncertain for some time and will "remain a moving target" for transmission planners, the report said.

It notes that generation interconnection projects typically enter the queue three to five years before their desired in-service dates and that more than 80% of projects that enter the queue withdraw before reaching commercial operation.

"A successful replacement resource would have to anticipate the retirement of at-risk generators," the report said. "Otherwise, the grid will face the likelihood of significant delays between the retirement of at-risk generators and the completion of replacement resources. Reliability studies that look more than three years out must hypothesize build rates, locations and fuel sourcing."

The study identified reliability violations requiring new transmission in areas where deactivating coal-fired generators are less likely to be repowered with natural gas, such as those far from pipelines.

More Challenging than MATS?

PJM said its experience with EPA's Mercury and Air Toxics Standards (MATS) "suggests that build rates may not ensure that the necessary transmission will be in service before retirements occur."

Most transmission improvements resulting from MATS were upgrades to existing facilities. In contrast, the carbon plan will likely require more greenfield transmission to connect wind resources in western PJM to load centers in the eastern portion of the RTO.

Because they require new rights of way, greenfield projects require more time to reach commercial operation.

How much states will count on renewable resources to meet their compliance goals is a big source of uncertainty, PJM said.

"The EPA renewable portfolio standard reliance assumptions differ from PJM's historical queue experience," the report says. "It is likely that all the wind-powered facilities that the EPA anticipates to be available will not make it online as shown in the economic analysis. Moreover, historical transmission build-out rates are not likely aggressive enough to meet the EPA's wind penetration rate assumptions."

"Scenario studies suggest that overloads clustered along specific corridors would require additional review to assess the feasibility of certain types of upgrades. That, in turn, would impact both the cost of solving identified reliability criteria violations and the ability to complete construction of facilities in time to simultaneously comply with the CPP while avoiding those reliability violations."

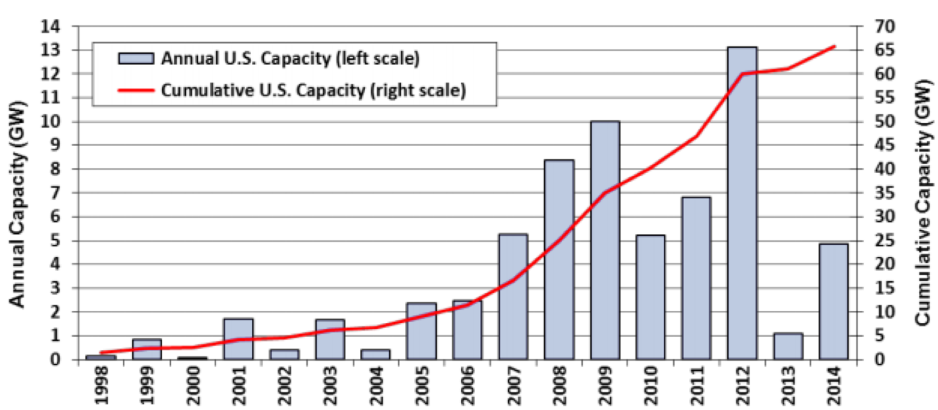
Wind Continues Growth Despite Policy Uncertainty

Capacity up 8% in 2014

By William Opalka

Clean energy technologies like wind turbines are seen as beneficiaries of the Clean Power Plan, and two reports released by the U.S. Department of Energy show its growth continued last year despite uncertainty over federal policies.

The 2014 Wind Technologies Market Report from the Lawrence Berkeley National Laboratory shows total installed wind power capacity in the United States grew 8% in 2014 to reach a nameplate capacity of nearly 66 GW, enough for almost 5% of electricity demand. Wind now generates more than 20% of electricity used in Iowa, South Dakota and Kansas. Meanwhile, prices for wind power purchase agreements have reached all-time lows. The national average levelized price of wind PPAs signed in 2014 was \$23.50/MWh, down from \$70/MWh in 2009.



(Source: U.S. DOE 2014 Wind Technologies Market Report, based on data from AWEA)

The report cautions that most of these PPAs are from lower-cost regions of the country. The prices also benefit from the production tax credit, a federal subsidy that has helped the industry boom but will expire unless Congress extends it. Projects under construction at the end of 2014 will qualify, but that pipeline is expected to end sometime in 2016.

Electric utilities continued to be the dominant off-takers of wind power in 2014, either owning (26%) or buying (40%) power from two-thirds of the new capacity installed last year, according to the report. Merchant projects accounted for the remaining one-third.

Distributed wind — 7,400 turbines serving on-site or local loads — reached an installed capacity of 906 MW according to the 2014 Distributed Wind Market Report, by the Pacific Northwest National Laboratory.

About 58% of the distributed capacity is connected to distribution lines, with the remaining 42% serving on-site loads, either as behind-the-meter, off-grid, microgrid or remote net meter resources.

Clean Power Plan

Northeast on Way to Compliance with Clean Power Plan

By William Opalka

When the Clean Power Plan was released last year, New York's grid operator was concerned with its impact despite the state's membership in a regional carbon trading regime.

Reliance on coal generation had threated reliability, in the view of NYISO, so changes needed to be made, even though New York had cut emissions by 39% from 2000 levels. (See *NYISO: EPA Clean Power Plan Threatens Reliability for New York City*.)

Changes made in the final plan based on input from grid operators — combined with a more pronounced shift toward gas generation and renewables in New York as new power plants move closer to completion and the state has committed another $1.5 billion for clean energy over the next decade — seem to have allayed those fears. "Based on our initial review, it appears EPA responded positively to major concerns regarding reliability in the draft rule, and that the final rule is generally favorable to New York," NYISO spokesman David Flanagan said.

EPA also added a reliability safety valve and a requirement that states seek grid operators' reliability assessments on their implementation plans.

"A reliability safety valve will allow a state to propose a modified emission standard for an affected generator for a temporary period of time to address an unforeseen emergency situation that threatens reliability," Flanagan said.

In June, the state committed to reducing all greenhouse gas emissions by 40% from 1990 levels, cutting energy consumption in buildings by 23% from 2012 levels and getting half of the state's energy from renewable sources.

While New York is ahead of most other states, it will have to make decisions on retirements of aging, fossil fuel plants and the future of the Indian Point nuclear facility.

New England

The New England states — members of the Regional Greenhouse Gas Initiative, along with New York — are generally well ahead of the targets set in the Clean Power Plan, in some cases by several years. EPA has recognized RGGI as a model compliance tool.

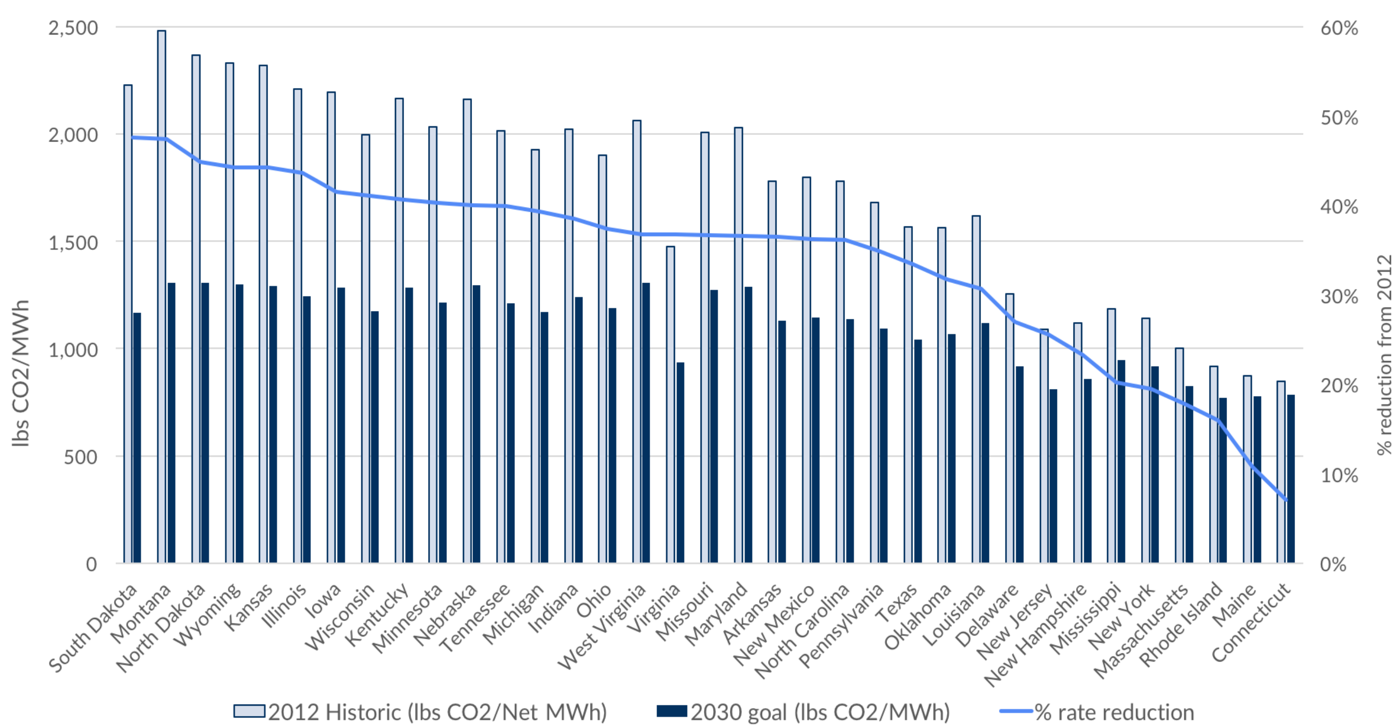
Connecticut, Massachusetts and New Hampshire have less stringent goals for the 2022 interim period, reflecting what EPA calls a "smoother glide path." However, those states have more stringent goals by 2030 compared to other states.

Connecticut's interim goal is 899 lbs/MWh and its 2030 goal is 786 lbs/MWh; Massachusetts is at 956 and 824, respectively; Rhode Island, 877 and 771; and New Hampshire comes in at 1,006 and 858.

Maine no longer has any of the coal-burning power plants considered the primary target of the emissions reductions. Under the goals, Maine would have to reduce its carbon dioxide emissions per megawatt-hour of electricity by 10.8% by the year 2030.

Vermont is one of three states, along with Alaska and Hawaii, exempted from the rules. Vermont's largest source of electricity is hydropower imported from Canada. The Green Mountain State has some in-state dams and two wood-burning power generators.

The Union of Concerned Scientists issued a report last week that said the Northeast states are among 20 states that have made commitments (including carbon caps, coal plant closures and mandatory renewable electricity and energy efficiency standards) that put them more than halfway toward meeting their 2030 targets. Sixteen states are likely to surpass the targets, the group said.



Final Clean Power Plan CO2 targets by state. (Source: EPA)

Clean Power Plan

SPP, MISO, PJM States Join Opposition to EPA Plan

By Tom Kleckner

LITTLE ROCK, Ark. — While SPP says it is continuing to analyze the 1,500 pages in the Environmental Protection Agency's Clean Power Plan, some stakeholders in the RTO's 14-state footprint wasted no time taking action.

In the first of several expected legal challenges, state attorneys general from half of SPP's states and six of MISO's were among 15 who last week asked a federal court in D.C. to block the rules. Arkansas, Kansas, Louisiana, Nebraska, Oklahoma, South Dakota and Wyoming joined West Virginia in filing a petition seeking a stay of the plan pending the outcome of expected legal challenges.

Also joining the petition were Wisconsin (MISO), Ohio (PJM) and Indiana and Kentucky (MISO and PJM). Alabama and Florida, outside of any organized markets, also joined.

But even as elected officials' rhetoric remains hot, there were signs that the behind-the-scenes work toward compliance has already begun.

Opposition from Okla., Ark.

Oklahoma Attorney General Scott Pruitt, who had filed an unsuccessful legal challenge even before the final rule was issued, continues to argue that the EPA rule is unlawful. EPA's rules "[force] Oklahoma into fundamentally restructuring the generation, transmission, and regulation of electricity in such a manner that would threaten the reliability and affordability of power in the state," he said.

Arkansas Gov. Asa Hutchinson also came out guns blazing. "It is clear that the Obama administration's Clean Power Plan could still result in significant electric rate increases for middle class ratepayers while having a minimal impact on global temperatures," he said. "My administration will do everything it can to protect ratepayers."

Hutchinson has directed the leadership of the state's Department of Environmental Quality (ADEQ) and Public Service Commission "to discuss the details of the rule and the stakeholder process."

In a press conference Monday, ADEQ Director Becky Keogh and Ted Thomas, chairman of the Public Service Commission, said they have been told to seek the lowest-cost option and will explore strategies that meet the Clean Power Plan while planning for the state's future and allowing for growth.

Arkansas Department of Environmental Quality Director Becky Keogh listens as Public Service Commission Chairman Ted Thomas speaks at press conference Monday. © RTO Insider

Arkansas would need to reduce its emissions by 36.5% from its 2012 levels to meet the rule. Keogh said the state would begin gathering stakeholder input in early October as it decides whether to submit a plan to EPA by the September 2016 deadline or ask for a two-year extension.

"We have a lot more time," Thomas said, "which is important when you're making decisions that affect the citizens of the state."

But Keogh said that while Arkansas has joined litigation against the Clean Power Plan, ADEQ and the PSC will still need to work quickly.

"We feel it's prudent for the state to begin a deliberative process to evaluate our options and the potential impacts of those options," she said. "Should the rule become final — and the deadline will be upon us very soon — it's too important to wait for a final rule and then determine a path forward."

SPP Analyses

SPP has taken a broader approach when analyzing the Clean Power Plan and its impact on the footprint's reliability and economics. In an emailed statement, Lanny Nickell, the RTO's vice president of engineering, noted SPP's highest priority is maintaining the Bulk Electric System's reliability in the central U.S.

"Compliance with the Clean Power Plan is best facilitated through SPP's regional transmission planning process and energy market administration," Nickell said. "Transmission planning requires analysis of many variables and takes considerable time."

SPP's planning process currently operates on near-term and 10- and 20-year cycles. Several stakeholder-driven initiatives are evaluating how to improve the planning process and best take into account Clean Power Plan impacts.

"I imagine there will be modeling based on the new rule," Thomas said. "We don't know yet what that's going to be, but SPP, MISO and other groups we work with have extensive access to modeling, where you can put in price impacts and see the result."

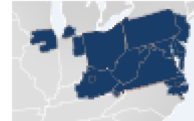
SPP has issued three reports on the Clean Power Plan since last October.

The first, a transmission-system impact evaluation, warned of rolling blackouts or cascading outages "unless the proposed CPP is modified significantly." SPP said the original 2020 date for interim goals was unworkable and did not allow enough time to build the needed generation and transmission to accommodate coal plant retirements and deliver wind energy to population centers. (See *MISO, SPP: EPA Clean Power Plan Threatens Reliability, Needs Longer Compliance Schedule*.)

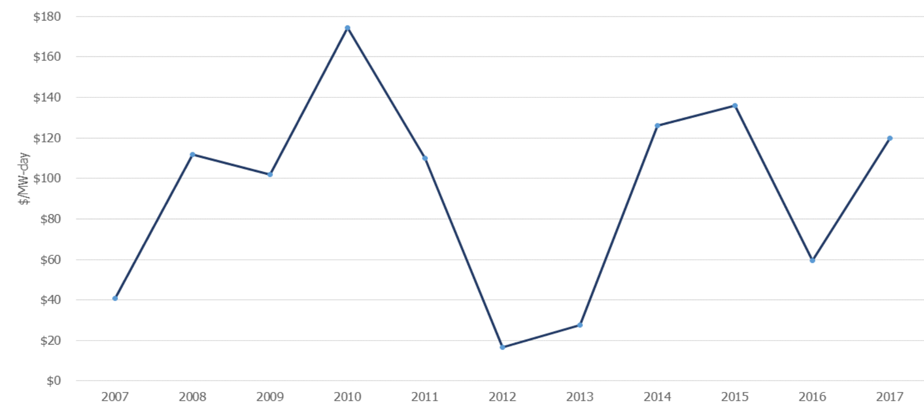
In April, SPP released a second analysis that indicated a regional-compliance approach with the 2030 deadline would cost an estimated $2.9 billion per year in capital investment and energy production costs. (See *SPP: $45/ton Adder, Wind, Gas Meets EPA Carbon Rule*.)

SPP issued a third study last month that concluded a state-by-state compliance approach would be a 40% increase over the regional plan. The latest assessment analyzed the EPA rule's impact on existing generation and resource-expansion plans, without including the cost of new transmission needed to maintain reliability, gas-infrastructure expansion, market-design changes or transmission congestion. (See *SPP: State-by-State Compliance Would Hike Carbon Reduction Costs by 40%*.)

PJM NEWS



PJM Opens Capacity Auction Under New Rules



BRA clearing prices (Source: PJM)

Continued from page 1

creased generator forced outage rates since 2007. (See FERC OKs PJM Capacity Performance: What You Need to Know.)

It accepted PJM's prediction that resource performance will continue to worsen without changes, as the RTO sees much of its coal fleet retire, replaced largely by natural gas-fired generation. The majority rejected the arguments of opponents who said the changes were not necessary because generator performance improved last winter following more modest changes, including testing of seldom-used units.

Chairman Norman Bay dissented, saying the proposal will continue to allow generators to profit from poor performance while potentially saddling ratepayers with billions in excessive capacity costs annually.

Friction with Stakeholders

The ruling was followed by a testy, six-hour stakeholder meeting over CP manual changes June 18 that left some stakeholders complaining that the RTO had not thought through all the details. Criticism continued in July, as some members warned PJM officials that the way the RTO plans to calculate CP could lead generators to ignore dispatch instructions to avoid penalties. (See PJM Members: Capacity Performance Penalties May Hurt Dispatch Discipline.)

FERC issued a procedural order July 28 saying it needed more time to consider rehearing requests of its June 9 order from state regulators, consumer advocates, generators and the Independent Market Monitor.

Higher Costs

According to a cost-benefit analysis released in October by PJM and the Monitor, CP could cost ratepayers as much as $6 billion over the next four years, with long-term costs of as much as $700 million annually.

PJM says the increased performance will result in increased monthly capacity costs of about $2 to $3 per household beginning in 2018, assuming average winter and summer weather. In a year of extreme weather, officials say, it would result in net savings because the increased capacity costs will be more than offset by reduced energy costs.

For More Information

PJM's Board of Managers filed the Capacity Performance proposal in December to increase the reliability expectations of capacity resources with a "no excuses" policy that would result in larger capacity payments and higher penalties for nonperformance. (See What You Need to Know about PJM's Capacity Performance Proposal.)

FERC's June 9 order required several significant changes from PJM's Capacity Performance proposal. (See What is Changing in PJM's Proposal?)

Md. Judge Denies Stay in Exelon-Pepco Deal

Oral Arguments in OPC Appeal to begin December

A Maryland circuit court judge Wednesday declined to stay Exelon's acquisition of Pepco Holdings Inc. while it considers an appeal from the state's Office of People's Counsel.

In June, OPC appealed the Maryland Public Service Commission's 3-2 decision to approve the $6.8 billion deal in Queen Anne's County Circuit Court. It was joined by Public Citizen, the Sierra Club and the Chesapeake Climate Action Network. In late July the parties jointly filed a motion to stay the deal while the appeal process continued.

"We are pleased the judge agreed with our view that the requests for a stay had no merit," Exelon spokesman Paul Adams said in a statement.

"It's a denial of the motion to stay, but our appeal obviously goes forward," People's Counsel Paula Carmody told the Baltimore Business Journal.

Carmody told the *Journal* that oral arguments in the appeal are scheduled in December and acknowledged this would mean that arguments could take place after the deal is closed.

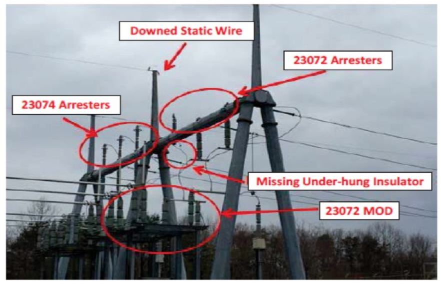
Along with the Maryland PSC, regulators in Delaware, New Jersey and Virginia have approved the acquisition, as has FERC. Only the D.C. Public Service Commission has yet to rule on the deal. Exelon has said it expects the deal to close by the end of the third quarter this year.

Queen Anne's County Circuit Court (Source: Queen Anne's County Sheriff)

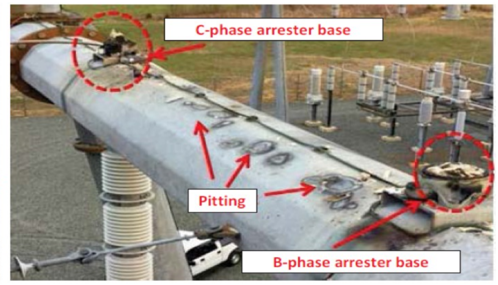
PJM NEWS

Failed Lightning Arrester Caused April Outage

By Rich Heidorn Jr.



Damaged A-Frame



Pitting Near Arrester Bases

(Source: NERC)

The power outage that darkened the White House and much of D.C. on April 7 began with the failure of a 230-kV lightning arrester in the Pepco portion of the Ryceville, Md., substation 40 miles south of the district, according to a briefing by the North American Electric Reliability Corp. last week.

The outage, which caused a "severe, prolonged voltage sag" in the D.C. area, began about 12:39 p.m. when Pepco's protection systems failed to isolate a fault on the 230-kV line.

Two separate and redundant protection systems failed, the first as a result of a loose connection to an auxiliary trip relay circuit, the second due to "intermittent discontinuity" in an auxiliary trip relay circuit, according to a presentation to NERC's Member Representatives Committee.

Pepco and Southern Maryland Electric Cooperative lost 532 MW of load for as long as two hours. Some customers automatically switched to back-up power sources, while customer protection systems separated others from the grid due to low voltage. The outage affected the Maryland peninsula bounded by the Potomac River on the west and the Chesapeake Bay on the east.

Panda Power's Brandywine 202-MW combined-cycle plant and the Calvert Cliffs nuclear units 1 and 2 (1,779 MW) tripped offline. Brandywine returned to service after about an hour; Calvert Cliffs returned two days later.

Investigators found damage to an A-frame structure at the Ryceville substation, including pitting near burned arresters and a downed static wire. An A-phase conductor was found detached outside the fence line.

There was no evidence of burning to the A-phase arrester, suggesting that mechanical failure resulted from the arc burning off the insulator and the weight of the line breaking the arrester free from the structure.

PJM Monitor Asks FERC to Resolve TransSource Dispute

By Michael Brooks

PJM's Independent Market Monitor has called on FERC to settle a dispute between PJM and a transmission developer, saying the RTO's unwillingness to release relevant files is unfair to the developer and impeding the Monitor's own attempts at resolution (EL15-79).

TransSource — not to be confused with Transource Energy, a partnership of American Electric Power and Great Plains Energy — asked FERC in June to order PJM to provide the company with data showing how the RTO calculated network upgrade costs in its system impact studies for several of its auction revenue rights requests. (See *Transmission Developer: PJM TOs Inflating Upgrade Costs for ARRs*.)

PJM responded by asking FERC to dismiss the complaint. The RTO insisted it had provided TransSource with all the relevant data, and that the specific files that the company is requesting were not used in the cost calculations. These files, called PLS.CADD, are held by transmission owners and are "highly confidential" according to PJM.

The Market Monitor told FERC in an Aug. 6 filing that it "is concerned that the primary defense raised by PJM is that the complainant does not have the facts sufficient to support its case, and that the claims amount to overly broad generalizations, when the complainant's case is primarily based on TransSource's claims that they have not been provided adequate facts to assess the determination to increase assigned costs to TransSource."

TransSource maintains that under the PJM Tariff and the Federal Power Act, it has a right to the PLS.CADD files. While the Monitor did not comment on specific Tariff or legal provisions, it agreed that TransSource should have access to the files.

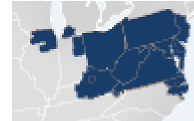
"The complaint does not request substantive relief, but only that what appear to be reasonable requests for additional information be answered before TransSource is required to make financial commitments that TransSource is not be able to make unless and until those question are answered," the Monitor said. It also said the fact that the files are held by the TOs, and not PJM, "is a major obstacle to a resolution."

The Monitor said it would prefer an administrative law judge to handle hearing or settlement proceedings. In a filing last week, TransSource said it supported this idea.

TransSource "persists in making overly broad and vague accusations such as PJM 'refused' to provide any data," PJM said. "Such accusations deny the commission a true and accurate picture as to exactly what data and assumptions TransSource was denied." PJM also said that it had informed the company that if PLS.CADD files had been used in the studies, then the RTO would have ordered their release.

PJM also argued that the company lacked evidence for its other accusations, including that transmission owners Public Service Electric and Gas, PPL, Jersey Central Power & Light and Delmarva Power & Light intentionally inflated the costs of the network upgrades to make it impossible for TransSource to secure funding for them.

PJM News



PJM Stakeholders Seek 'Miracle' to Break Offer Cap Standoff

By Rich Heidorn Jr.

VALLEY FORGE, Pa. — PJM stakeholders last week launched another bid to change the $1,000/MWh energy offer cap, but consumer advocates said they were not optimistic about reaching consensus in time for next winter.

Marji Philips of Direct Energy proposed raising the cap to $2,700/MWh for cost-based day-ahead offers and price-based real-time offers — 50% more than the highest offers reported by PJM last winter.

"Everybody likes a piece of it and nobody likes the whole thing," she said of those with whom she shared the proposal before the meeting. "So that means it must be pretty good."

PJM's Board of Managers asked stakeholders to make another attempt to reach consensus after efforts last year fell short. (See *Members Deadlock on Change to $1,000 Offer Cap*.) Philips and other PJM veterans said the $1,000 cap, which has been in effect for about 18 years, was set as a multiple of the highest prices seen at that time.

In January, PJM won FERC approval for a temporary waiver that allowed prices to rise as high as $1,800/MWh, but the RTO made it through last winter without having to invoke it. In the 75 days that the waiver was in effect, there were 54 cost-based offers between $1,000/MWh and $1,800/MWh, but none cleared.

PJM said the waiver was necessary to allow some gas-fired generators to cover marginal costs that hit $1,200/MWh in late January, as spot gas prices spiked as high as $140/mmBtu.

Higher Cap Better for LSEs

Philips said raising the cap is better for load-serving entities such as her company, because higher LMPs can be hedged while uplift cannot. She said it would also reduce capacity prices because increased energy market revenue would cause a drop in the net cost of new entry (CONE). "Here's an opportunity to control our destiny," she said. "We'd rather see [stakeholders] filing [a change] than PJM."

Philips said she had been reluctant to back a change to the cap on day-ahead offers but was convinced by PJM that it was needed to enable price convergence with the real-time market.

The proposal also would require changes to scarcity pricing rules to ensure that generation dispatched for reserves receives lost opportunity costs — which could be higher than the existing $1,000 cap — she said.

Philips said her goal was "incenting the market to do the right thing. We're trying to keep PJM as a market and not as a cost-based system."

Meeting	Date	Description
MIC	8/12	Discussion
MC Webinar	8/24	Discussion
MRC	8/27	Potential first read
MIC	9/9	Discussion
MC Webinar	9/28	Discussion
MRC/MC	10/1	Vote on proposal – both committees
MIC	10/7	Additional discussion if necessary
Board Meeting	10/15	Board decision if necessary
MRC/MC	10/22	Feedback to stakeholders if necessary

Deadlines: Effective 1/1/16, File 10/30/15

Potential schedule for offer cap change. (Source: PJM)

PJM Endorses Proposal

PJM officials — who proposed a $2,700 cap on price-based offers and removing the cap on cost-based offers in a FERC docket on price formation in March (AD14-14) — said they would accept the proposal. "It is something we would consider to be acceptable," said Stu Bresler, senior vice president of market services.

Jim Benchek of FirstEnergy thanked Philips for the proposal, calling it "a good starting point."

Consumer Reps Wary

But consumer representatives were not quick to embrace it.

Carl Johnson, representing the PJM Public Power Coalition, said he did not think consensus could be reached in time for an Oct. 1 FERC filing — the deadline PJM officials have said is necessary to ensure new rules are in place for winter 2015/16.

Johnson noted that stakeholders were unable to reach agreement last year despite months of debate. "Even though the pope will be in [Philadelphia], I don't think that's going to be enough time to give us the miracle we need to come up with consensus," he said.

"There's a lot here that we will need to digest," said Dan Griffiths, executive director of the Consumer Advocates of PJM States.

Griffiths said while consumer advocates are willing to consider lifting the offer cap for generators that can demonstrate costs above $1,000/MWh, they continue to have concerns about letting those offers set LMPs for the entire market.

Philips responded that while stakeholders can debate whether the cap should be lower than $2,700, not allowing high marginal prices to set LMPs is "antithetical to the entire market structure."

Griffiths said later that his members are willing to consider market clearing prices above $1,000/MWh but that PJM had not demonstrated a spirit of compromise in last year's efforts, saying the RTO's unwillingness to consider a cap below $1,800 was "insulting."

David Mabry, representing the PJM Industrial Customer Coalition, said any change in the cap should be accompanied by broader market power protections than current rules, which test only local market power. He cited the Independent Market Monitor's charge in the 2014 State of the Market report that some generators appeared to engage in economic withholding during high demand hours in January 2014. (See *Monitor: Winter Prices Boosted PJM Prices, Raise Withholding Concerns*.) Mabry said cost-based offers should be limited to short-run marginal costs.

Consultant Roy Shanker called market power concerns a "red herring," saying existing rules are sufficient. "If you misrepresent your costs, you're in big trouble," he said.

PJM NEWS

Operating Committee Briefs

Members Choose Status Quo on Winter Testing

VALLEY FORGE, Pa. — PJM will continue the generator testing begun last winter with only minor changes after members rejected proposals to expand the program.

More than 62% of more than 130 stakeholders who responded to a poll said they preferred continuing the program — begun last winter in response to the high number of generator outages during the 2014 polar vortex — with only minor changes, PJM's David Schweizer told the Operating Committee last week.

The proposal included only minor changes requiring generators to submit a primary and alternate date for the exercise; submit results of the exercise to PJM; and report completion of the cold weather preparation checklist through eDART. Manual 14D: Generator Operational Requirements also will be revised to clarify combined-cycle offers for generators exercising one combustion turbine on alternate fuel.

Members rejected three other options that would have made larger changes to the program, including option 2, which would not compensate Capacity Performance resources for participating after the winter 2015/2016. It received only 42% support.

Option 3, which received 34% support, would have expanded the exercise period -– currently the month of December -– to Nov. 1 through Jan. 15; increased the maximum temperature to 40 F from 35 F in the southern zones; and increased the maximum test allowed daily from 1,000 MW to 1,200 MW. It also would have included a reevaluation of the program after winter 2015/16 to determine whether it should be continued.

Option 4, a combination of options 2 and 3, also received 34% support.

The testing, which cost about $7 million last year, was credited with improving generator performance during the winter of 2014/15. (See *Why Did PJM Grid Fare Better This Winter?*)

PJM Seeks to Eliminate Disconnect On Metering Requirements

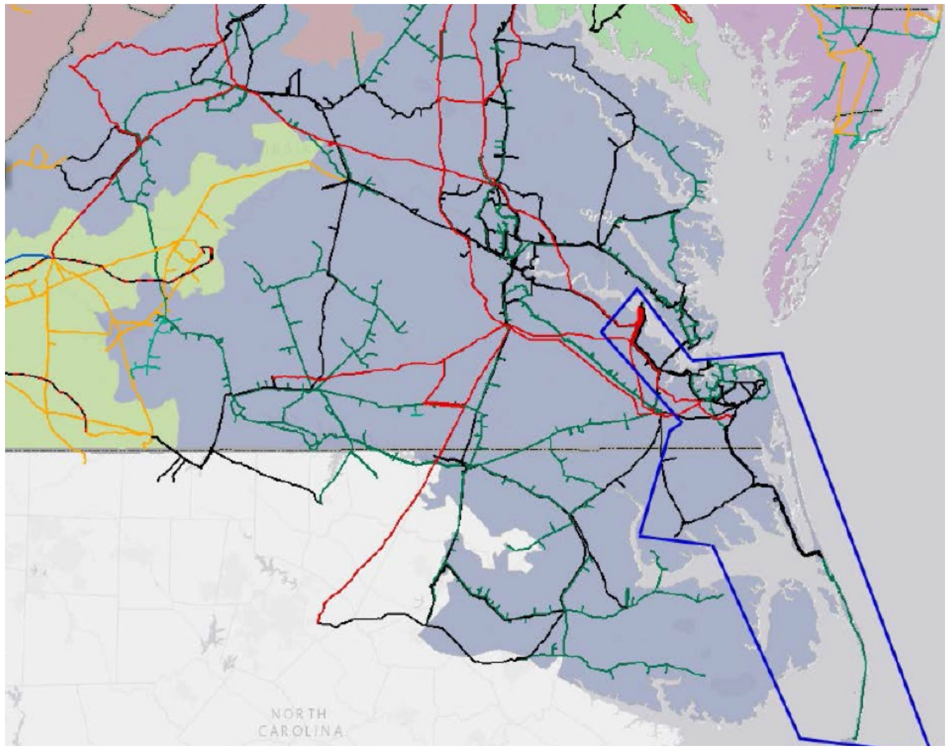
PJM plans to modify Manual 1: Control Center and Data Exchange Requirements to "close the gap" between PJM requirements and generator practices regarding metering requirements.

PJM's Ryan Nice presented the OC with a first read on a problem statement to create a task force to draft new manual language. "Some of these gaps are pretty extensive," Nice said.

Nice said the revised manual will clearly delineate requirements for monitoring and control metering used by PJM's state estimator and revenue metering used in settlements.

"This is the raw data" for settlements and operations, Nice said. "So it really behooves everyone to pay attention to this."

Generators should send the names of those interested in joining the task force to ryan.nice@pjm.com.



DOM-CHES interface (Source: PJM)

Closed-Loop Interface Set for Dominion Chesapeake

PJM last week declared a closed-loop interface near Norfolk, Va., in the Dominion zone to address voltage or thermal problems that could result from an N-1-1 contingency during transmission upgrades expected to be completed by the end of the year.

The interface, effective Aug. 14, will allow the RTO to set sub-zonal real-time prices for load management or generation during high load conditions or emergency transmission outages in the Dominion Chesapeake area, protecting the load pocket. The interface would be modeled for the day-ahead market but not for financial transmission rights.

PJM Moves to Tighten Training, Certification Requirements

The System Operations Subcommittee will consider ways to increase compliance with PJM training and certification requirements under an issue charge approved by the OC.

The SOS will only suggest changes to section 3.3 of Manual 40: Certification and Training Requirements, which deals with compliance, and not to the actual requirements, as detailed in section 3.2, said Glen

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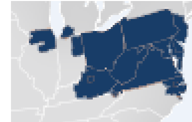

Operating Committee Briefs

Continued from page 10

Boyle, manager of system operator training. The subcommittee's work will also not deal with North American Electric Reliability Corp. requirements, Boyle said.

PJM has been tracking non-compliance among several generation dispatchers, demand response providers and energy storage device operators for months and the situation has not improved. The subcommittee will "look for options to get these companies back into compliance," Boyle said. (See "Generators' Non-Compliance Continues" in *PJM Operating Committee Briefs*, June 15, 2015.)

PJM also briefed members on other changes to Manual 40. The changes, intended to clarify PJM's processes, will be brought to a vote at the next OC meeting.

Bath County SPS Extended for Cloverdale-Lexington Outage

PJM will extend the Bath County special protection scheme (SPS) during an outage required for upgrades to the Cloverdale-Lexington 500-kV tie line between the Dominion and American Electric Power zones.

The line is expected to be out of service from January through June 2016 during a reconductoring project and again from mid-September 2016 through mid-October 2016 for replacement of the Cloverdale transformers. The SPS will address the loss of one of six generators in Bath County and potential congestion on a 138-kV line as a result of the outage.

The SPS was initiated in September 2014 for the Dooms-Lexington 500-kV project, which is expected to be complete by the end of 2015.

PJM and Dominion will consider extending the SPS beyond 2016 to address other pending upgrades in the western Virginia area, PJM's Liem Hoang told the OC.

Behind-the-Meter Initiative Yields 1,000 MW

PJM has identified about 1,000 MW of behind-the-meter generation as a result of an initiative following the September 2013 heat wave that caused two days of load shedding.

PJM was forced to cut power to 44,000 customers in southern Michigan, northern Ohio and northwest Pennsylvania as temperatures unexpectedly hit the mid-90s and the RTO found itself without enough generation during the fall maintenance period.

A third day of load sheds was avoided after the city of Sturgis, Mich., provided 8 MW of relief through conservation and its behind-the-meter generator. PJM had not been aware of the generator before the emergency. (See *Heat Wave To-Do List Grows Longer*.)

"If we had seen that [generation] early, we have indications that [Sturgis] would have been happy to come on to avoid having to shed load," PJM Vice President of Operations Mike Bryson told the OC.

As a result of the incident, PJM began seeking information on other behind-the-meter generation in February. The project identified the nearest Bulk Electric System substations, so that operators can conduct distribution factor studies to determine how effective they would be in addressing constraints.

PJM's Joe Mulhern said any relief from the generators would come on a voluntary basis because the RTO's current rules provide no way to compel or compensate them. Such generators are eligible for energy market and ancillary service revenues, however.

Bryson said PJM will have to discuss the issue with each of its 14 states individually because of varying jurisdictional rules.

"We would be open to any of these kinds of discussions with them," Bryson said.

PJM to Tighten Long-Term Transmission Outage Rules

PJM plans to revise its rules regarding long-term transmission outages in order to protect FTR revenues.

The current rules in Manual 3: Transmission Operations require transmission owners to submit any outages longer than 30 days by Feb. 1 so that they can be accounted for in the annual FTR auction.

But Simon Tam told the OC that some TOs have submitted two or more consecutive outages of less than 30 days at the same location and were not covered by the requirement. "Sometimes they're not able to project every single piece of work they need to do … and need to extend the outage," he said in a second briefing to the Market Implementation Committee.

Under the new rules, which will be added to the manual during a scheduled revision this fall, PJM will evaluate outages exceeding 30 days on the same line or transformer within an eight-month time span. If the outage causes a shortfall in FTR revenue, PJM will require the TO to reschedule it or pay for the congestion it causes, Tam said. The plan will be phased in over a year for TOs unable to meet the Feb. 1, 2016, implementation.

PPL's Frank "Chip" Richardson expressed concern with the change at the MIC briefing, saying it could delay upgrades needed for the reliability of the system. He added that TOs have no way to recover congestion costs they might be assessed.

"We're not going down the road of wanting TOs to pay for congestion," Tam responded. "The intent is for the TO to do a little more advanced planning."

If the upgrade in question is critical and should not be delayed, PJM can declare an emergency and the TO can complete the upgrade without a congestion charge, Tam said.

— Rich Heidorn Jr. and Michael Brooks

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PJM NEWS

Market Implementation Committee Briefs

Members OK Rule Change on External Capacity Transfer Rights

VALLEY FORGE, Pa. — The Market Implementation Committee last week approved rule changes that will help the Illinois Municipal Electric Agency to meet its capacity requirements with historic resources.

IMEA is among the load-serving entities that procured capacity resources outside of their locational deliverability areas to serve a portion of their load.

PJM's Reliability Pricing Model capacity construct, which launched after IMEA obtained its external capacity, does not provide a way to allocate and maintain the benefits of historical resource and transmission service agreements — an issue that can increase an LSE's costs if its LDA becomes modeled separately and binds in an auction.

The Independent Market Monitor had expressed concern that PJM's initial proposed solution was overly broad. But it agreed with the revised solution, which covered only LSEs subject to fixed resource requirements (FRR).

FRR entities such as IMEA are subject to a percentage internal resource requirement (PIRR) if their zone is modeled separately, voiding the use of their historic capacity resources.

The solution approved by members makes three rule changes:

- The PIRR is enforced only if the LDA has been separately modeled due to certain triggers;
- An FRR Entity would be permitted to terminate its FRR alternative election prior to meeting the minimum five-year commitment period requirement under certain conditions; and
- First-time elections of the FRR alternative would be due four months prior to a Base Residual Auction instead of the current two-month deadline.

PJM Asked to Consider Masking FTR Ownership

PJM would consider masking ownership of financial transmission rights under a problem statement presented by DC Energy's Bruce Bleiweis at the MIC last week. Currently, all RTOs publish the identities of FTR holders when posting auction results. By contrast, in all other market transactions, such as capacity auctions and daily energy auctions, PJM does not disclose the ownership, Bleiweis said.

"I think the inequity is transparent to everyone here," Bleiweis said. "We don't see any reason FTRs should be treated differently" than any other power product.

FERC initially allowed the current transparency to spur a secondary FTR market. Now that this market is established, this disclosure is no longer necessary, Bleiweis argued. He said that knowing another company's position could lead to unfair competitive advantages.

There was some confusion as to what exactly is disclosed in other products, however. Carl Johnson of the PJM Public Power Coalition said he thought PJM published capacity positions of companies once the delivery year began.

PJM's Tom Zadlo answered that only a list of cleared units is posted. Bleiweis said that if the problem statement is approved at next month's MIC meeting, he would work with PJM to generate a simple list showing exactly what is posted for each product.

Marji Philips of Direct Energy said she "remains very concerned" by the proposal. In the past, she said, market participants have identified "mischief" in the FTR markets that the Independent Market Monitor and PJM did not catch, based on the increased transparency.

Bleiweis said PJM's effort would be consistent with ISO-NE, which approved a move to aggregate FTR ownership at its November 2014 Markets Committee meeting.

— Michael Brooks and Rich Heidorn Jr.

Transmission Expansion Advisory Committee Briefs

11 Market Efficiency Projects Selected; 12 Still in Running for AP South/AEP-DOM

VALLEY FORGE, Pa. — PJM planners have selected 11 small market efficiency projects and narrowed the list of proposals for its biggest congestion problem to 12 candidates.

The 11 projects — all transmission owner upgrades — have a combined cost of $59.2 million, with a benefit-cost ratio of 15.6 and estimated 2019 congestion reductions totaling $50 million. The PJM Board of Managers is expected to consider planners' recommendations of the projects at their meeting in October.

"These are all locational type projects … they're cheap fixes basically," PJM's Tim Horger told the Transmission Expansion Advisory Committee on Thursday. Over 15 years, "you're going to see hundreds of millions" in savings.

Project ID	Area	Constraint	Cost ($millions)	B/C Ratio
201415_1-18G	APS	Taneytown to Carroll 138 kV	$ 5.2	90.1
201415_1-12A	DUQ	Dravosburg to West Mifflin 138 kV	$ 11.2	2.0
201415_1-2A	PPL - BGE	Safe Harbor to Graceton 230 kV	$ 1.1	14.4
201415_1-2B	ME - PPL	Brunner Island to Yorkana 230 kV	$ 3.1	22.2
201415_1-10J	COMED	Cordova to Nelson 345 kV	$ 24.6	1.9
201415_1-10B	COMED	Wayne to South Elgin 138 kV	$ 0.1	6.4
201415_1-11H	PECO	Peach Bottom 500 kV	$ 9.7	3.0
201415_1-13E	DPL	Worcester to Ocean Pines (I) 69 kV	$ 2.4	65.3
201415_1-18I	APS/ATSI	Krendale to Shanor Manor 138 kV	$ 0.6	123.4
201415_1-4I	AEP	Fieldale to Thornton 138 kV	$ 0.8	101.2
201415_1-4J	AEP	Jacksons Ferry to Cloverdale 765 KV	$ 0.5	62.0

Recommended market efficiency projects. (Source: PJM)

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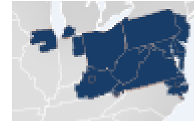

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The 12 proposed fixes for the AP South/AEP-DOM constraints will undergo further analysis, including an initial cost review and sensitivity analyses for changes in load forecasts, fuel prices and interface ratings.

About 20 of the larger proposals passed the 1.25 benefit-cost threshold. The 12 finalists are those that continued to meet the 1.25 threshold using a base case incorporating the 11 small projects and also reduce congestion for combined 2019 and 2022 simulations with minimum production costs and load payment savings of $20 million.

They range in cost from $15.7 million to $300.7 million.

Vice President of Planning Steve Herling said it was possible — though unlikely — that the AP South/AEP-DOM fixes could displace one or more of the 11 smaller local projects. “We’ll pull one of [the smaller projects] out of there if we have to,” he said.

Sharon Segner of LS Power questioned PJM’s method of winnowing the list, saying the RTO’s Tariff requires such projects be based only on the zone seeing reduced load payments.

“When you have multiple projects that all pass, the Tariff doesn’t tell us how to decide [among them],” Herling responded. “We’re having to use our judgment.”

Segner said PJM had told stakeholders that selections would be made based on the highest cost-benefit ratios. “That’s what motivates the market,” she said. “Otherwise it becomes pretty subjective and loosey-goosey.”

In total, PJM received 93 market efficiency proposals, including 35 transmission owner upgrades ranging from $100,000 to $68 million and 58 greenfield projects with costs of $9.2 million to $432.5 million.

Second Proposal Window Opens

PJM opened a second transmission proposal window Aug. 5, seeking solutions to 2020 transmission owner criteria violations and reliability problems identified from planners’ light load analysis. The RTO will accept proposals through Sept. 4.

No Projects Arise from ARR Review

The annual review of auction revenue rights feasibility resulted in no transmission upgrade projects, planners said. Already-approved upgrades were identified for violations on most of the 45 paths analyzed over the 10-year horizon. Three paths in the ATSI zone that saw violations in years nine and 10 will be monitored for potential upgrades in the future.

Planners Reevaluating Pratts Project

PJM is reconsidering its selection of the Gordonsville-Pratts-Remington transmission upgrade after learning that it will require 15 to 18 miles of new right of way, far

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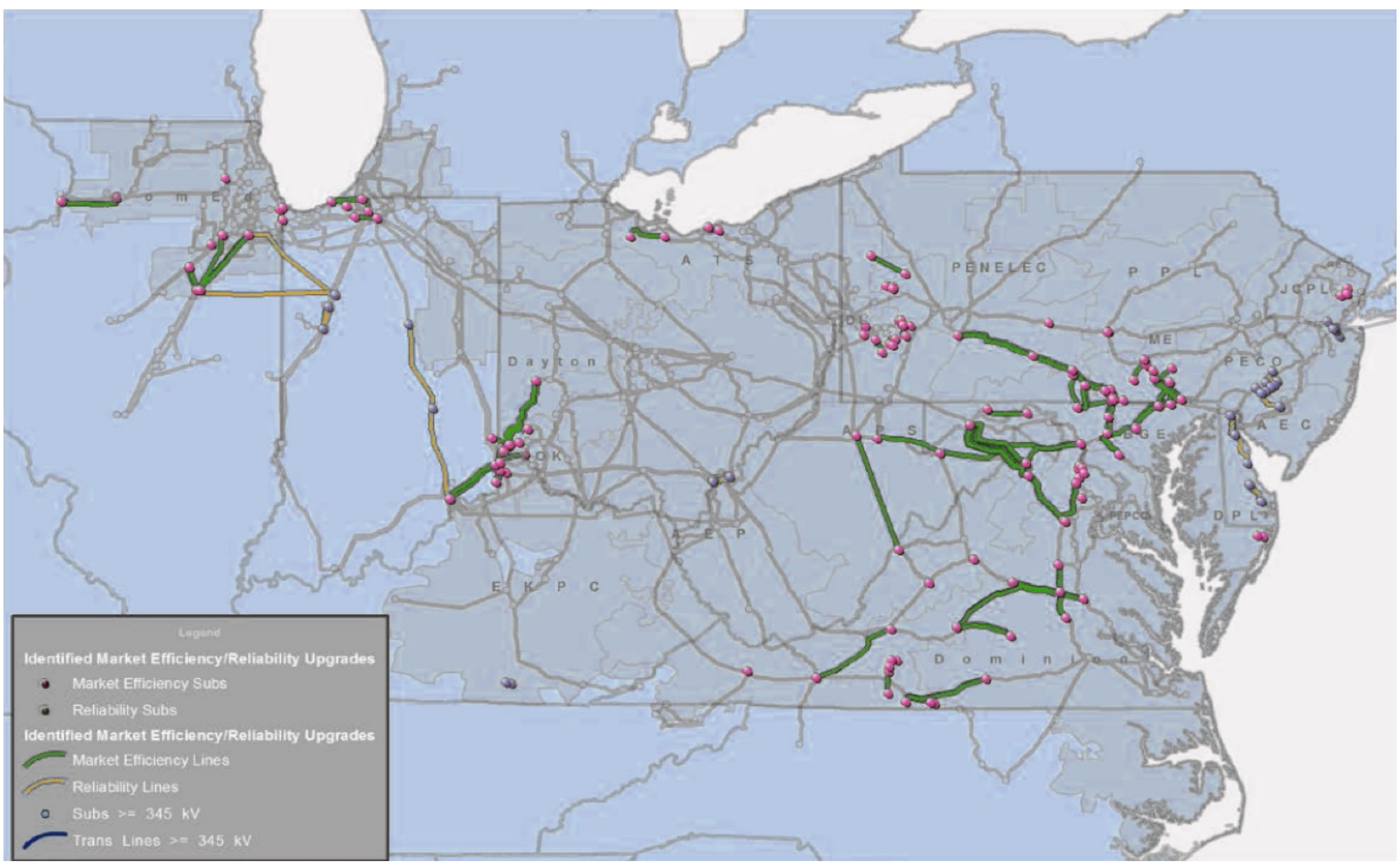

Recommended market efficiency projects (Source: PJM)

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more than initially believed.

In February, planners recommended the proposal from Dominion Resources and FirstEnergy at an estimated cost of $129 million to $164 million.

"We want to double check to make sure we're doing the right project," said General Manager of System Planning Paul McGlynn, who said planners will evaluate a Gordonsville-Remington route among the alternatives.

The Virginia State Corporation Commission, which would have to approve the project, says that existing rights of way should be given priority as the locations for transmission additions.

A representative for Madison County, Va., urged PJM to reject the original plan. He said the scale of the project is out of proportion to the rural county — population 13,000 — which is dependent solely on farming and tourism and has no public water or sewers. "That's the question — the need versus what's being proposed," he said.

McGlynn noted, however, that the project is not being driven solely by load in the Pratts area.

PJM solicited solutions in its second Order 1000 proposal window last year.

Four developers suggested 16 proposals, including two transmission owner upgrades and 14 greenfield projects. Only six of the proposals were judged to have solved the violations. Two losing bidders, ITC Holdings and LS Power's Northeast Transmission Development, have challenged the choice in letters to the PJM board. (See Tx Developers Challenge PJM Choice on Pratts Project.)

Planners will reevaluate the options in September and make a recommendation to the board in October.

	Duff-Coleman 345 kV	Rockport-Coleman 345kV (single circuit tower)	Rockport-Coleman 345kV (single circuit tower) -- excluding transformer cost
Project Cost (M$)	$67.20	$76.30	$46.90
20 Year NPV Savings (M$)	$1,283	$1,316	$1,316
Weighted B/C ratio	15.9	14.4	23.4
Reliability No Harm?	Yes	Test ongoing	Test ongoing

(Source: MISO)

PJM: Despite Lack of Cost Allocation Rules, MISO Project Too Good to Ignore

PJM doesn't know how it would allocate costs from its share of a potential transmission upgrade MISO is considering in southern Indiana, but the project's potential to fix longstanding stability problems at American Electric Power's Rockport substation is too compelling to ignore, planners said.

MISO officials said earlier this month that they are reevaluating the $67.2 million Duff-Coleman 345-kV project after learning of PJM's interest in an alternative — a $76.3 million 345-kV Rockport-Coleman line — that could also fix the Rockport substation. (See MISO Plan to Revisit Runner-Up Tx Project Rekindles Stakeholder Angst.)

"The challenge is this is a market efficiency project in MISO and a reliability project in PJM" — a combination for which there are no cost allocation rules in the PJM-MISO joint operating agreement, Herling said. "This is just such a good opportunity we don't want to let it go by."

The area has added thousands of megawatts of generation but no new transmission since 1989. As a result, the Rockport substation has operated under a special protection scheme involving relays, and tripping and ramping down of generators. About 4,400 MW of generation was tripped in a 2007 incident.

PJM will have to move quickly; MISO planners intend to recommend the winning project to the MISO Board of Directors in December.

Initial results of PJM's analysis are expected in time for MISO's Aug. 19 Planning Advisory Committee meeting.

"It could be a win-win," said PJM's Chuck Liebold.

— Rich Heidorn Jr.

Planning Committee Briefs

Developers Wary of 'Voltage Floor' on Competitive Projects

Competitive developers expressed reservations last week about a PJM proposal to exclude transmission projects below 200 kV from competition.

PJM said projects below 200 kV are almost always allocated to one zone and thus automatically assigned to the incumbent transmission owner.

PJM's Suzanne Glatz said the "voltage floor" would allow the RTO to eliminate the cost of evaluating competitive proposals in cases where the likely solution is a transmission owner upgrade. The voltage threshold would not apply to market efficiency projects.

Of 1,523 projects approved by the PJM Board of Managers under the Regional Transmission Expansion Plan, 104 (7%) were greenfield projects, of which only 13 (less than 1%) were allocated to more than one zone and thus open to competition, Glatz said.

In 2014, only two of 55 projects selected to correct violations below 200 kV resulted in

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solutions above 200 kV. Both projects were transmission owner upgrades.

"There's very few that are coming out as potential greenfield [competitive] projects," Glatz said.

"Is 15 years really a sufficient baseline for what the future may hold?" asked Sharon Segner of LS Power, citing technology changes affecting demand response and energy efficiency. Segner also questioned why PJM's analysis failed to include 2015 submissions, which included dozens of lower voltage submissions from the marketplace.

Brenda Prokop of ITC Holdings said her company doesn't favor a voltage floor but that PJM's criteria for excluding projects (see table) "gives us a little more comfort."

"We appreciate PJM's effort to balance interests" of developers and efficiency, she said.

Vice President of Planning Steve Herling said PJM would like to implement the changes in 2016.

Description	Include in Competitive Window?
Facility is identified with a history of congestion that may be solved by a market efficiency project.	Y
Violation is for a facility rated at 200kV or above.	Y
Violations are for multiple facilities rated below 200kV and are in similar proximity.	Y
Violations are for multiple facilities rated below 200kV and are impacted by a common contingent element.	Y
Violation is for a transformer that the low side is rated 200kV or above.	Y
Violation is for a transformer that the low side is rated below 200kV.	N
Violation is for a facility that is rated below 200kV and the limit is terminal equipment.	N
Violation is for a facility that is rated below 200kV and the contingent element is rated below 200kV.	N

Proposed guide for voltage floor. (Source: PJM)

Climate Change Impact? Higher Highs has PJM Adjusting Weather Forecasts

PJM is planning to change the way it forecasts weather in its planning studies due to a trend of higher peak temperatures.

The RTO has based its forecasts on temperature and humidity data from 26 weather stations dating back to 1973. But a new analysis revealed that peak readings for 1993-2013 were higher than those for 1973-1993.

Twenty of 26 weather stations had higher maximum temperature humidity index readings in the last 20 years than the earlier period, PJM's Andrew Gledhill said.

As a result, Gledhill said, the RTO plans to exclude the earlier data and rely on that from 1994/95. It will reevaluate the historical base on a regular schedule — perhaps every five years — going forward.

Gledhill said a survey of North American forecasters indicated that most use samples of 20 years or less. "The fact that PJM uses 40 years — we're kind of an outlier," he said.

The change would suggest higher load forecasts, countering factors such as lackluster economic growth and energy efficiency that are likely to mute projected load growth. Herling said PJM will offer stakeholders a look at the combined impact of all of the load forecast changes at the Planning Committee's September meeting.

Exelon's Rebecca Stadelmeyer and FirstEnergy's Jim Benchek asked for more discussion of the weather forecasting at the Load Analysis Subcommittee.

"This is a drastic change to what we're used to," Stadelmeyer said. "We want to be comfortable [with the change]. We're not now."

"We're very uncomfortable at this time," Benchek said.

— Rich Heidorn Jr.

John Citrolo, PSEG Stakeholder, Mourned at PJM

John C. Citrolo, markets director for PSEG Energy Resources and Trade and a regular attendee at PJM stakeholder meetings, died Aug. 2. PJM's Market Implementation Committee marked his passing with a moment of silence at its meeting last week.

Known to his friends as "Jay," the 49-year-old Citrolo lived in Southampton, N.J., with his wife Sandi and his dogs, Jada and Mya.

He was a graduate of Upsala College, where he played football, and earned a master's

degree in economics at Temple University. Prior to joining PSEG, his career in the power industry included jobs with the State of Delaware, Conectiv Energy, Calpine and Net2000. He was also the co-founder and co-owner of the Medford Gym in Medford, N.J.

Surviving, in addition to his wife, Sandra Grungo Citrolo, are his father, John Citrolo Sr.; his stepmother Sally; his sister, Mary E. "Betsy" Citrolo; mother- and father-in-law, Sandra and Burt Roff; as well as six nieces and nephews. His mother, Beverly Young, died in 2013.

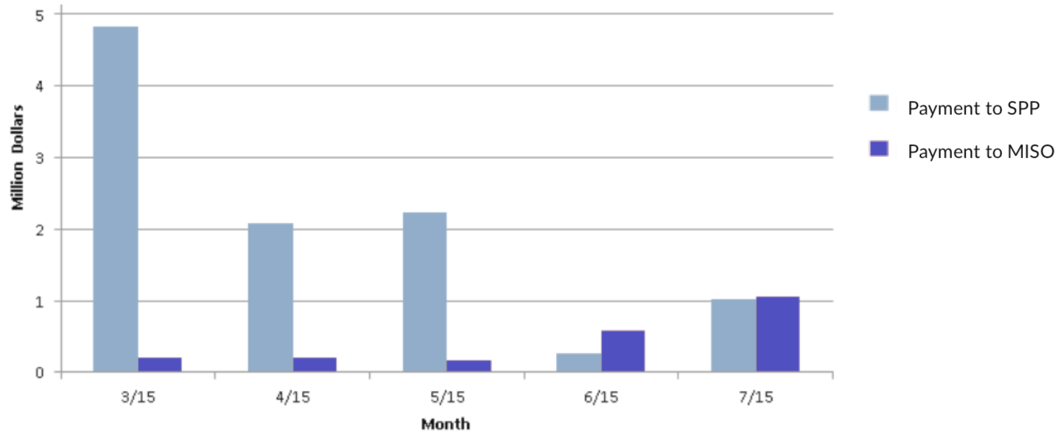
Memorial contributions in John's name can be made to Joe Joes Place, an animal rescue organization, at 7 Tidswell Ave., Medford, NJ 08055.

More: Legacy.com

SPP NEWS

SPP-MISO M2M Working Well, but Room for Improvement

By Tom Kleckner



Market-to-market settlements by month. (Source: MISO & SPP)

SPP and MISO met last week with their stakeholders to review the first five months of market-to-market (M2M) operations between the two RTOs, saying that while the process is off to a good start, there's much room for improvement.

"On the whole, market-to-market is working well. It's a more efficient solution when both markets have control of the congested flowgate," said David Kelley, SPP's director of interregional relations. "We're just talking about design flaws in the overall process … specific instances where we don't believe it's working as it should."

"The price convergence is not happening on some flowgates," said MISO's Ron Arness, senior manager of seams administration. "We need to improve that."

M2M is intended to improve price convergence on flowgates along the RTOs' seams: The RTOs compensate each other for redispatching generation to reduce congestion in a way that reduces overall costs.

'Philosophical Discussion' Needed

The two RTOS have identified nine issues that need a "philosophical discussion," Kelley said. They include developing criteria for M2M's usage when one or both RTOs do not have effective control of a flowgate, leading to oscillation — when one market has significantly more control over a flowgate than the other market, resulting in the constraint's unbinding and reloading too quickly during the exchange of shadow prices — and price separation. They also have called for criteria to recalculate firm-flow entitlements (FFE) due to modeling issues or outages.

SPP has a separate concern over the differences in the RTOs' settlement billing cycles, which ends up with SPP floating dollars for several days while trying to remain revenue neutral. Arness said those discussions will involve SPP's and MISO's upper management.

SPP maintains the oscillations have overloaded flowgates and led to higher shadow prices for transmission constraints — the marginal costs of reducing a constraint per megawatt of flow.

"SPP was able to manage constraints just fine before market-to-market, and we didn't have the oscillation problems," Kelley said. "We believe changes can be made, but the [joint operating agreement] is already flexible enough to where we can use [transmission loading relief] on flowgates where market-to-market is not effective, provided both entities agree to do that."

Through July 27, MISO has sent $10.4 million to SPP to compensate for congestion costs, with SPP sending MISO $2.2 million. The two RTOs have experienced 243 M2M events — when the RTOs exchange messages concerning a flowgate needing relief — totaling 1,024 hours.

SPP and MISO have 135 permanent flowgates and 45 temporary flowgates between the two. MISO's footprint accounts for the bulk of those flowgates, with 89 permanent and 13 temporary.

The two RTOs hold weekly review calls to approve M2M events. SPP and MISO review real-time operations of the events and the data-sharing processes to ensure they are able to correctly perform M2M settlements. The two parties must reach agreement before performing any settlements or adjustments.

Monitors' Perspective

SPP's and MISO's market monitors took turns presenting their views of M2M's performance so far.

SPP's Market Monitoring Unit noted effective M2M should lower shadow prices and the length of congestion events but that it has not yet looked at enough data for most constraints. It said data for the first months showed no major unexpected M2M effect on prices, but those impacts vary by constraint.

The MMU also said SPP and MISO calculate their shadow prices differently and that M2M on some flowgates can have a significant impact on prices for a large portion of the SPP market, especially in Nebraska and western Kansas.

MISO's Independent Market Monitor (IMM) said M2M coordination has been a "net benefit" in MISO by reducing congestion costs. The IMM did note, however, a number of startup issues that were "isolated and … not ongoing."

The IMM said the two RTOs have used work-arounds when normal coordination did not lead to efficient results. It said while some work-arounds have been expedient, they "have not been ideal" and called for improved coordination procedures and possible JOA revisions.

"In particular," the IMM said, "the current JOA may assign the monitoring responsibility for a flowgate to the RTO that has less or ineffective relief capability. In theory, this would not preclude efficient coordination. In practice, timing and coordination issues cause this to result in constraint oscillation, inefficiencies that are difficult to resolve and higher costs."

SPP News

SPP Taps Ex-FBI Agent as Security Chief

LITTLE ROCK, Ark. — SPP announced Monday it has appointed former FBI agent Mark Bowling as its director of compliance and security. Bowling will oversee SPP's compliance policies and procedures, including national and regional reliability standards and tariff provisions, and he will be responsible for corporate security monitoring and response.

Bowling, who served as an FBI special agent for 20 years, also worked for the U.S. Department of Education Office of Inspector General. He has investigative experience in computer intrusion, computer fraud, counterterrorism, national security and counterintelligence.

Prior to joining the FBI in 1995, Bowling was a naval nuclear engineering officer with the U.S. Navy for six years.


Bowling

Michael Desselle, SPP's vice president of process integrity and chief compliance and administrative officer, said Bowling's "expertise in identifying and mitigating cyber threats will be extremely beneficial in leading the effort to protect our critical infrastructure assets."

— Tom Kleckner

FERC OKs Expansion of SPP Board

FERC last week approved bylaw changes allowing SPP to add up to three seats to the RTO's Board of Directors.

The revisions also incorporate corresponding modifications to quorum and voting requirements, effective Aug. 15.

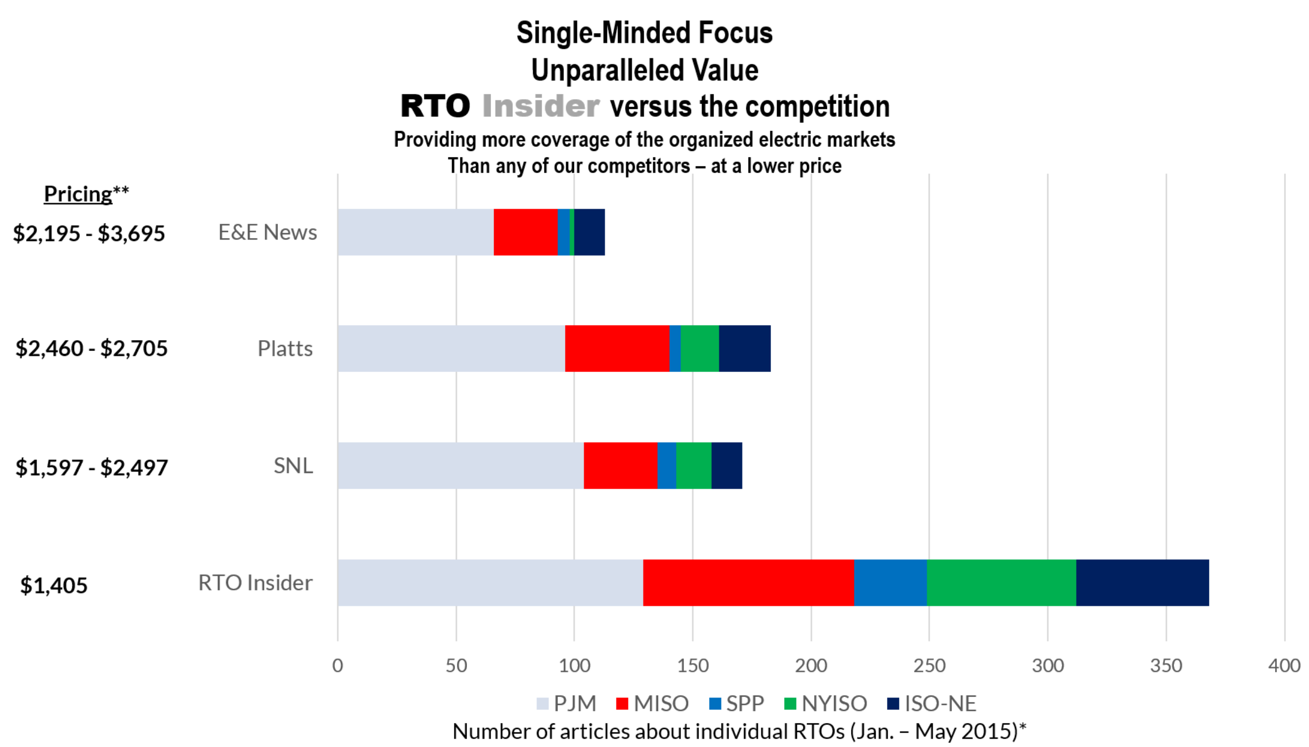
SPP's board is currently comprised of seven independent directors, including President Nick Brown. SPP says expanding its board to up to 10 persons would "foster a measure of flexibility" and further director succession planning, "with due consideration given to director tenure, knowledge sharing and risk management."


SPP President Nick Brown and Board Chair Jim Eckelberger (Source: SPP)

SPP's Corporate Governance Committee recommended the revisions in April, when they were approved by the Members Committee.

Brown said last month the governance committee will be evaluating the results of a solicitation for board candidates, the first such search SPP has conducted in seven years. The committee will discuss the issue further during its Aug. 27 meeting.

— Tom Kleckner



*Includes all titles produced by publisher. Requires multiple subscriptions for E&E News, Platts & SNL.
**Pricing represents range for annual subscription to individual titles, including archive access. Pricing for *RTO Insider* based on single annual subscription, including archive access.
Sources: Factiva database search, www.eenews.net, *RTO Insider*.

NYISO News

NYPSC Approves 5.2% Ginna Rate Surcharge

By William Opalka

The New York Public Service Commission on Thursday approved a temporary 5.2% rate surcharge on delivery charges for Rochester-area electric customers, while a final agreement to keep the R.E. Ginna nuclear plant operating is hammered out.

The commission approved the surcharge, effective Sept. 1, to prevent "rate shock" while the final price tag for a reliability support services agreement is negotiated between Rochester Gas & Electric and Constellation Energy Nuclear Group, the plant's owner (14-E-0270).

The Rochester utility had sought the surcharge to avoid rate compression once the RSSA is approved. (See *FERC Rejects Ginna Jurisdiction Challenge*.)

Industrial customers, environmentalists and consumer advocates had opposed the surcharge, arguing that the need for an increase was hypothetical until the RSSA is finalized.

The PSC, which had ordered the agreement to keep the plant operating until transmission alternatives are built, rejected requests to wait until the final costs were determined.

"If the commission does nothing, the costs associated with the RSSA, if later approved, could build to ... being more than a 20% increase," said Doris Stout, director of accounting at the PSC.

PSC staff estimated the rate increase would be about 10.4% if collection was delayed until January. RG&E estimates that its deferred collection will reach approximately $39.3 million from the effective date of the RSSA through the end of this month and will continue to grow, with interest.

RG&E has a balance of about $155 million in rate credits, which opponents of the rate surcharge want to use. Stout said using too many of these credits would adversely affect RG&E's credit. PSC staff recommended, and the commission approved, that customer credits would be used to make up the difference between the amount collected from the surcharge and the cost of the RSSA.

The 5.2% rate was chosen in part because it matches estimates of the first-year revenue requirement for the Ginna Retirement Transmission Alternative, a project that would eliminate transmission constraints preventing the delivery of more generation into the Rochester area. PSC staff estimate the project will cost almost $140 million, with an in-service date of May 2017.

R.E. Ginna nuclear plant (Source: Exelon)

"I think what the staff has proposed here today is an elegant solution to a difficult problem," Commission Chair Audrey Zibelman said at the meeting, citing the need to avoid rate compression while preserving the RG&E's financial stability.

"I thought it made a huge amount of sense to say let's set the level of the surcharge at the expected level of the transmission replacement because that's a cost we know will be a long-term cost for the company to incur," she added later.

Stout noted that requests for temporary rate increases are rare, saying the last she recalls was in 1996 for Niagara Mohawk.

"Although the scope and nature of RG&E's ultimate liability to Ginna is uncertain, given that the RSSA may not be approved in its current form or at all, the reasonable costs of the reliability service obligation that was imposed upon Ginna in November ultimately must be recovered in some fashion," the commission wrote. "An important element of just and reasonable rates is price stability and the avoidance of rate shock to consumers from sudden, significant increases."

The agreement, set to be retroactive to April 1 once approved, would cost about $175 million a year and be effective through late 2018. Constellation said it wants to retire Ginna, which it says it lost more than $150 million between 2011 and 2013.

Ginna Negotiators File Extension

Negotiators for Exelon and RG&E have asked for a second extension as they try to hammer out an agreement to keep the plant operating.

"We will be seeking another short-term extension to allow for continued negotiations. Exelon remains committed to working with RG&E and a number of stakeholders to reach an agreement that will allow Ginna to continue providing safe, reliable energy to the region," Exelon spokeswoman Maria Hudson said.

Under the terms of the RSSA, Exelon could have ended negotiations and closed the plant this month. The companies had asked on July 31 for an extension that expired Monday.

The companies reported ongoing good-faith negotiations for the RSSA to resolve rate issues before the PSC and FERC. (See *FERC Rejects Ginna Rates, Orders Settlement Proceeding*.)

Rehearing Sought on 'Price Suppression'

Meanwhile, a New York power plant owner asked FERC on Wednesday to rehear its complaint that the Ginna agreement is suppressing capacity market prices (ER15-1047).

TC Ravenswood said FERC erred in ruling that the effects on capacity prices were outside its review of the RSSA. (See *FERC Rejects Ginna Jurisdiction Challenge*.)

The company said Federal Power Act Section 205 gives FERC jurisdiction over the "price-suppressive" effects of the RSSA and that the commission misunderstood the company's reasoning.

"The commission should grant rehearing because its failure to consider whether the RSSA is just and reasonable in light of the effect it will have on the rates the NYISO pays to suppliers in NYISO's capacity market is in violation of the commission's statutory duty, in contradiction of prior commission orders and judicial precedent, and is arbitrary, capricious and not based on substantial evidence," the petition states.

NYISO News

NYPSC Accepts 7 REV Demos, Rejects 5

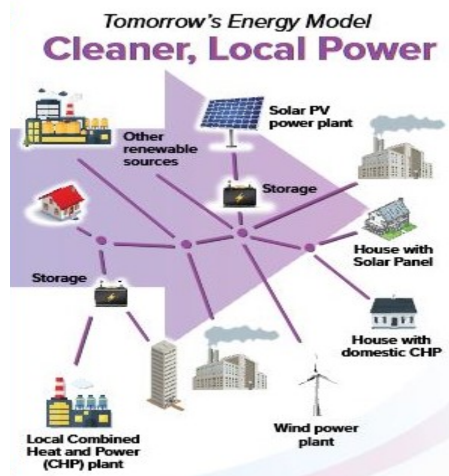
The New York Public Service Commission staff has accepted seven proposed demonstration projects for the Reforming the Energy Vision initiative while asking for more refinements on four others.

The projects, filed July 1, are a component of the state's REV program for utility-sponsored projects that offer collaboration with third parties. (See *REV Proposals Seek to Increase Conservation*.)

In letters to the state's utilities, PSC staff said seven demonstration projects met criteria set out in the REV order. Staff said it would meet with sponsors of the remaining projects to discuss additional information needed to complete its review:

- Three proposals by National Grid: a smart grid project in Clifton Park to give customers fixed-rate options based on energy consumption, its Buffalo Niagara Medical Campus engagement platform and its microgrid partnership with Clarkson University and the State University of New York at Potsdam;
- Consolidated Edison's CONnectED Home Platform that would connect homeowners with efficiency programs; and
- Iberdrola's proposed Energy Marketplace e-commerce website.

— William Opalka



(Source: New York Department of Public Service)

ISO-NE News

ISO-NE: Use New Demand Curve in Reconfiguration Auctions

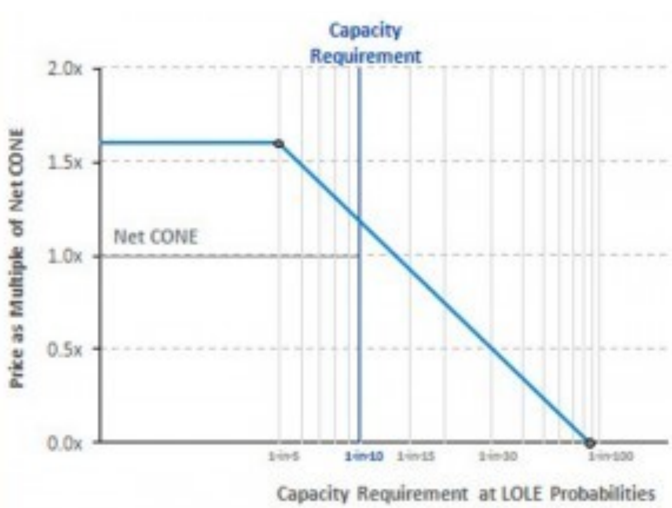
By William Opalka

ISO-NE and the New England Power Pool Participants Committee want to begin using the RTO's system-wide sloped demand curve in their Annual Reconfiguration Auctions.

The organizations submitted proposed Tariff changes to FERC that would apply the curve — first used in the ninth Forward Capacity Auction earlier this year — to the ARAs beginning in June 2016 (ER15-2404).

Under the current rules, demand in ARAs is represented by the fixed value of the installed capacity requirement.

The proposed changes "simply incorporate the system-wide demand curve used in an initial Forward Capacity Auction into the Annual Reconfiguration Auctions so that demand will be represented consistently in both FCAs and ARAs," the petition said.



"Such consistency in the demand model from auction to auction avoids predictable, structural price differences," Matthew C. Brewster, lead analyst in ISO-NE's market development department, wrote in accompanying testimony.

Demand in import- and export-constrained capacity zones will continue to be established by local sourcing requirements and maximum capacity limits, respectively, the RTO said.

The RTO will conduct three ARAs to allow for the exchange of capacity supply obligations prior to the 2018/19 capacity commitment period covered by FCA 9.

The changes would not affect how suppliers participate in reconfiguration auctions. But unlike current rules, in which clearing occurs only through matching of counterparty offers and bids, clearing would occur using the demand curve, even without a counterparty.

The changes received the unanimous support of the NEPOOL Participants Committee and near-unanimous support from the NEPOOL Markets Committee.

Power generators have opposed a system-wide sloped demand curve and advocate a zonal demand curve to reflect capacity constraints in parts of New England. (See *ISO-NE, NEPOOL Oppose Demand Curve Change*.)

So Far, So Good: Entergy Reaping Expected MISO Benefits

By Chris O'Malley

Nearly two years after joining MISO — and despite a seams spat between the RTO and SPP — Entergy said it is realizing expected cost savings from the integration.

Entergy and MISO's Independent Market Monitor told the Entergy Regional State Committee in Little Rock on Aug. 11 that the December 2013 integration has produced substantial benefits and that the transition was well-managed.

Entergy cautioned that its recent review amounts only to an initial snapshot. But, so far, at least, it has identified $236 million in annualized energy related savings since integration in 2013.

MISO had estimated at the time of integration that Entergy customers could see savings of $1.4 billion over a decade.

Six Entergy operating companies operate in four MISO states: Arkansas, Louisiana, Mississippi and Texas.

Entergy vice president Matt Brown said the company would have had to acquire 1,402 MW of additional capacity resources had Entergy not joined MISO.

That's slightly lower than 1,413 MW of avoided capacity estimated during a May 2011 study Entergy commissioned to look at potential cost savings of joining the RTO.

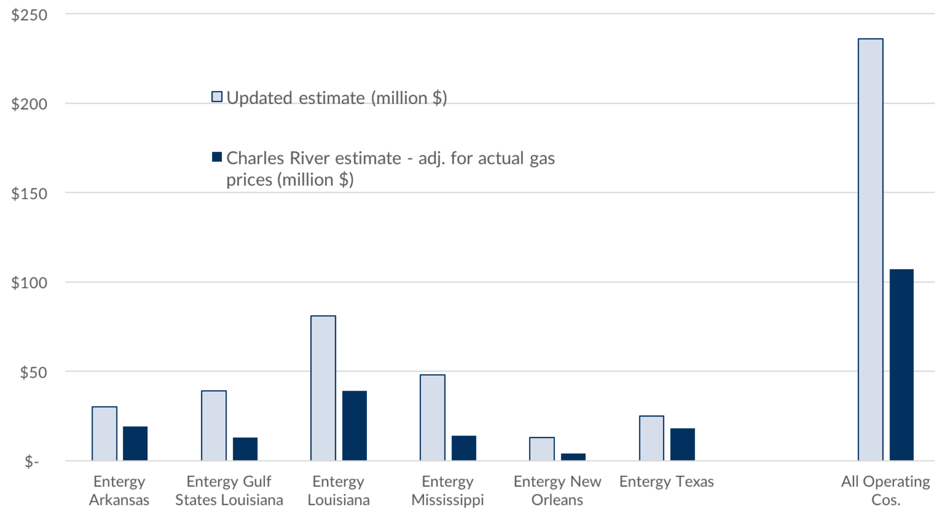
"The benefits that our customers are realizing from actual participation in the MISO RTO are meaningful and that they are at a level that is on par or better than what we projected in the change of control filings," Brown told stakeholders.

The study focused on non-baseload resources and did not take into account transmission related benefits.

Broadly, the study looked at changes in costs resulting from the move to Day 2 RTO commitment and dispatch. That includes benefits in generation costs, purchased power costs, net wheeling costs and additional Day 2 production cost savings such as deferred generation investment.

On the other side of the equation were additional costs such as RTO administration and cost allocations for its share of MISO's regional transmission projects.

"The takeaway here is that the capacity-related savings, the planning reserves, additional production cost [savings], if you will, associated with being in MISO have been in line with what we projected," Brown said.



Entergy savings from joining MISO. (Source: Entergy)

Among them was a 9% reduction in the portion of energy provided by Entergy's legacy generation. "The legacy generation that we are using is being used more efficiently," Brown said.

He cautioned that the approximately one-year post-integration period studied wasn't enough time to draw broader conclusions. "But the information that we're seeing is encouraging. Our customers are realizing meaningful benefits from being in MISO."

Constraints Mar Integration's Potential

The results also received some affirmation from MISO's Market Monitor, Potomac Economics.

"Overall, we found that the market performance in MISO South has been well-managed and has produced substantial benefits," said Robert Sinclair, a principal at Potomac. "The integration has been efficient."

But Sinclair said the Operations Reliability Coordination Agreement (ORCA) and the South Region Power Balance Constraint (SRPBC) remain obstacles to transfers between MISO Midwest and MISO South.

The latter was created in response to the need to make transmission payments to neighbors for transfers more than 1,000 MW. MISO began limiting flows last year after SPP complained that MISO breached their joint operating agreement by moving power over its transmission footprint in excess of a 1,000-MW contractual limit.

Currently there's a hurdle rate of nearly $10/MWh for transfers more than 1,000 MW, causing price separations between the regions. That raises efficiency concerns by limiting transfers more than 1,000 MW and price effects in both regions that don't reflect physical realities of the network, Sinclair noted.

The best mechanism would be one allowing MISO to eliminate the SRPBC, Sinclair said. Reducing the hurdle rate to zero would support efficient interregional transfers and improved pricing.

Sinclair also reiterated the Monitor's call to develop a reserve product that will reflect operating reserve needs in MISO South, in particular.

"We believe that if that constraint was released, we would have more instances where the power flows were above 1,000 MW and that would be more efficient because we would be experiencing more production cost savings," Sinclair added.

$844M in Tx Projects for MISO South

Meanwhile, stakeholders received an update from MISO about its 2015 Transmission Expansion Plan, which proposes 352 projects totaling $2.4 billion.

Of those, 79 projects totaling $844 million are proposed for MISO South:

- Arkansas: 15 projects totaling $159 million;
- Louisiana: 34 projects ($473 million);
- Mississippi: Seven projects ($30 million); and
- Texas: 23 projects ($182 million).

However, the list is expected to be whittled down prior to board consideration in December.

Entergy Offers to Close Ark. Coal Plant to Meet EPA Haze Rule

By Tom Kleckner

Entergy has proposed closing one of its two largest Arkansas coal plants by 2028 and making modifications to the other to comply with the Environmental Protection Agency's Regional Haze rule.

Entergy filed the proposal with EPA on Aug. 7, describing it as a "more reasonable, long-term, multi-unit approach" than the agency's recently published federal implementation plan (FIP) for controlling the utility's emissions. Entergy said its plan would achieve "virtually identical visibility benefits" as the EPA proposal but cost more than $2 billion less.

The company told EPA it would end coal-fired operations at its White Bluff plant by 2028, accept lower sulfur dioxide (SO_2) emission rates at its White Bluff and Independence plants and install nitrogen oxide (NO_x) control technology on its coal units within three years of the final FIP's effective date — likely in 2016.

The EPA's proposed FIP required installation of scrubbers and low-NO_x burners on the four units at White Bluff and Independence, and NO_x controls at Entergy's gas/oil-fired Lake Catherine plant. The Regional Haze rule seeks to improve visibility in parks and wildlife areas by reducing particulate matter emissions.

The New Orleans-based company said its modeling — which it said "EPA should have conducted but failed to undertake" — indicates it does not need to invest more than $2 billion in scrubber technology at the plants and asked the EPA to amend the FIP accordingly.

Entergy said it would not be able to install dry scrubbers at White Bluff — which it shares with several other entities — until at least 2021, leaving only a few years to recover the approximately $1 billion investment. It said the EPA's analysis incorrectly classified Independence as a best-available retrofit technology (BART)-eligible resource under the Clean Air Act and said the plant is well below EPA's haze standards.

White Bluff Power Plant (Source: Google)

"Scrubbers at Independence are simply not necessary to ensure that visibility … nor are they justifiable based on EPA's own analysis of the visibility benefits resulting from such a huge investment," Entergy said, citing costs of as much as $1.53 billion to install scrubbers.

The utility also disagreed with the EPA's analysis that proposed NO_x BART controls at Lake Catherine. Referring to its own study, Entergy said the NO_x controls would result in "inconsequential" visibility improvements.

Entergy said its approach "would ensure superior, long-term visibility benefits than would the proposed FIP" and a "dramatic decrease in [greenhouse gas] emissions, large reductions in SO_2 emissions … and large reductions in … NO_x emissions."

White Bluff and Independence are both two-unit baseload coal plants capable of generating more than 1,600 MW each. The two plants date back to 1980 and 1983, respectively, and are ranked among the top 45 dirtiest coal plants by Environment America.

Lake Catherine is a 45-year-old, single-unit, gas/oil-fired plant capable of 750 MW. It is used primarily for peaking purposes.

Glen Hooks, director of the Sierra Club's Arkansas chapter, praised Entergy for the decision to close White Bluffs but said the company should go further. "Although we're excited about the announcement, we hope that it also spurs the company to take a hard look at its dirty and outdated Independence coal plant," he said in a statement.

Talen Posts Profit in First Earnings Report

By Michael Brooks

Talen Energy released its first earnings report as an independent company last week, reporting net income of $26 million ($0.26/share) for the second quarter of 2015.

That's based mostly on "legacy" data from the company's plants, which were owned by PPL and Riverstone Holdings before Talen's formation on June 1. Collectively, these plants' profits doubled from $13 million ($0.13/share) in the second quarter of 2014. The company's operating revenue stayed consistent for both periods, at $1.07 billion.

"Strong operational performance from our nuclear and gas generation assets led to improved financial results in the quarter," CEO Paul Farr said in a statement.

During a conference call with investors, Farr said the Susquehanna nuclear plant performed well in spite of Unit 2's cracked turbine blades, which have now been repaired. Talen will replace the blades for both Units 1 and 2 during the plant's next scheduled fuel outage.

Farr also said that Talen will announce by the fourth quarter what assets it will be divesting to meet FERC's conditions for approval of the company's creation.

Despite the company's optimism, Talen's stock price remains low, closing at $15.95 last week. That's well below the $20/share when the company went public.

"We do not believe our current share price reflects the underlying value of our business, and capital discipline will remain our top priority," Farr told investors.

Upcoming Transactions

Talen reported adjusted EBITDA of $171 million for the quarter, a 35% increase over the same period last year.

Talen predicts EBITDA of $990 million for 2016 based on two deals expected to close by the end of the year.

One is the acquisition of three plants from MACH Gen that will see the company enter the NYISO market. (See *Talen Entering NYISO in $1.2B Deal*.)

The other is the sale of its renewable energy business to California-based Energy Power Partners. The deal was announced in June, and Talen filed for FERC approval earlier this month (EC15-182).

The $116 million sale ($1,785/kW) includes 25 wind, solar and biofuel facilities totaling 65 MW in PJM and ISO-NE.

Company Q2 Earnings Roundup

Con Ed Earnings Rise Slightly

Consolidated Edison reported second-quarter net income of $219 million ($0.75/share), compared with $212 million ($0.73/share) a year ago.

The company said results reflected changes in the rate plans of its utility subsidiaries, including growth in its gas delivery service related to oil-to-gas conversions, and lower operations and maintenance expenses, offset in part by higher interest expenses.

Adjusted earnings, excluding a gain on the sale of solar electric production projects, leasing transactions and the mark-to-market effects of the competitive energy businesses, were $228 million ($0.78/share) in 2015 compared with $189 million ($0.65/share) in 2014.

"Con Edison's operating and financial performance continues to be strong," CEO John McAvoy said. "We are embarking on a new era of energy delivery and customer choice. We are proposing new demonstration projects that will showcase energy efficiency tools, demand response and the usage information customers need to make choices, promoting solar power, energy storage and other distributed energy resources."

Operations and maintenance expenses for Con Ed of New York were lower, reflecting lower electric operating costs and lower costs for support and protection of underground facilities to accommodate municipal projects. (See related story, *NYPSC Accepts 7 REV Demos, Rejects 5*, p.19.)

— William Opalka

Duke Q2 Earnings Drop; 2015 Still on Track

Duke Energy reported lower-than-expected second-quarter earnings Aug. 6, but the company said it remains on track to meet its 2015 goals.

Although adjusted earnings dropped to 95 cents/share from $1.11 for last year's second quarter, Duke reaffirmed its 2015 adjusted diluted earnings guidance range of $4.55 to $4.75 per share.

The company reported $5.59 billion in revenue for the quarter, significantly below Wall Street estimates of $5.85 billion and the $5.71 billion it generated last year.

The Charlotte, N.C.-based company said results were affected by continued weakness in its international business — particularly Brazil — and the timing of operations and maintenance expenses at its regulated utilities.

Duke's international business income was $52 million for the quarter, down 64% from the second quarter of 2014. A $1.5 billion stock buyback in connection with its $2.8 billion sale of 11 power plants in April to Dynegy helped offset international results.

"We met our customers' energy needs … during extended periods of warmer-than-normal temperatures, particularly in the Southeast," Duke CEO Lynn Good said in a press release. "Equally important, we continued to follow through on the growth initiatives that will provide long-term benefits for our customers."

In a call with investors, Good said Duke has made "significant progress" in its coal ash removal efforts. The company announced in June it would shut down 12 coal ash basins in North Carolina in addition to 12 basins it already announced plans to close.

— Tom Kleckner

Dominion Meets Expectations

Dominion Resources met expectations with second-quarter earnings of 73 cents/share, near the top of its guidance of 65 to 75 cents.

Dominion posted earnings of $413 million, compared with earnings of $159 million for the same period in 2014. Revenue of $2.75 billion missed Zacks Investment Research's estimate of $2.93 billion, however.

The Richmond, Va.-based company said earnings were up because a planned refueling outage at Millstone Power Station did not occur and because of higher revenues from growth projects. "All of the major projects in our infrastructure growth plan continue to move forward on time and on budget," CEO Thomas Farrell said.

Dominion affirmed its 2015 operating earnings guidance of $3.50 to 3.85 a share.

— Tom Kleckner

Wholesale Business Drags Down Entergy Earnings

Entergy's second-quarter profit tumbled 21% on declines in its wholesale commodities unit.

Net income of $148.8 million ($0.83/share) fell below analyst expectations of $1.14/share and the $189.4 million ($1.15/share) in the second quarter of last year.

Revenue for the New Orleans-based power provider fell 9%, to $2.71 billion.

Most pronounced was a $121 million drop in revenue for the wholesale commodities business. Power sales declined due to lower wholesale energy and capacity prices.

Revenue from Entergy's utility segment of $1.5 billion was flat: it compares to $1.4 billion in the same quarter last year.

CEO Leo Denault told analysts that Entergy is ramping up for additional transmission projects that will meet rising industrial demand, including the $187 million Lake Charles project in Louisiana expected to be in service in 2018. (See *MISO Board to Review Entergy Lake Charles Project Following Stakeholder Pushback*.)

Despite the sour quarter, Denault said the company is on track to meet its earnings guidance for the year of $5.10 to $5.90 per share.

— Chris O'Malley

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COMPANY BRIEFS

Dominion, SunEdison Form Joint Venture for 420-MW Solar Project

SunEdison has sold Dominion Resources a 50% interest in its 420-MW Four Brothers solar project in Utah.

Under the terms of the joint venture, Dominion will invest about $500 million to get 50% of the project equity and 99% of the federal and state tax benefits. SunEdison has secured necessary funding to complete the rest of the estimated $650 million facility. It is scheduled to be operating by mid-2016.

The project's output is under contract with a 20-year power purchase agreement with Berkshire Hathaway Energy's subsidiary PacifiCorp.

More: SunEdison; SeeNews Renewables

Overbuilt, We Energies Seeks to Sell Excess Capacity Elsewhere in Wis.

We Energies wants Wisconsin regulators to force two other utilities in the state to buy its excess power rather than building new gas-fired generating plants for $1.2 billion.

One of the utilities in need of new generation, Alliant Energy's Wisconsin Power & Light, has applied for state approval to build a $750 million natural gas-fired plant in Beloit. Alliant said We Energies and its parent, WEC Energy Group, should have submitted its plan earlier and WEC now seeks to force a process in which it would be sole bidder to supply Alliant. The other utility seeking to build new generation is Wisconsin Public Service, which is owned by WEC.

We Energies said selling power to Alliant and WPS would allow the neighboring utilities to avoid the cost of construction and could provide We Energies customers some rate relief by selling excess power. The state Citizens Utility Board and the Wisconsin Industrial Energy Group issued a joint statement saying the proposal was worth considering.

More: Milwaukee Journal Sentinel

Ameren Withdraws Application For 2nd Callaway Nuclear Reactor

Ameren has withdrawn its application from the Nuclear Regulatory Commission for a second reactor at its Callaway Energy Center plant in Callaway County, Mo., after

years of delay.

Ameren said its decision to abandon the project was based on its assessment of long-term capacity needs, declining costs of alternative generating technologies and the regulatory framework in Missouri. CEO Warner Baxter told analysts during the company's second-quarter earnings call that it continues "to believe nuclear power must be an important clean energy source for our company and country." Callaway was recently granted a 20-year license extension.

Ameren first filed its application for a second unit in 2008. The company teamed with Westinghouse in 2012 for a small modular nuclear reactor that would be about a fourth of the size of a conventional plant. After being passed over twice for federal grants, Ameren said it was "stepping back" from the project at the end of 2013.

More: St. Louis Post-Dispatch

Minnesota Co-ops Combine To Acquire Alliant Territory

Nobles Cooperative Electric, Federated Rural Electric and 10 other electric distribution cooperatives completed their acquisition of Alliant Energy's electric service territory in southern Minnesota.

The acquisition transfers about 43,000 Minnesota Alliant Energy accounts to local electric cooperatives. According to Rick Burud, general manager of both Nobles Cooperative and Federated Rural, the transfer is a first of its kind. "It is a very unique situation for electric cooperatives to have the opportunity to purchase service territory from investor-owned utilities," he said.

In 2013, the 12 cooperatives formed Southern Minnesota Energy Cooperative as the single point of contact for the purchase of electric service territory from Alliant. The acquisition process was approved by the Minnesota Public Utilities Commission, Iowa Utilities Board and FERC.

More: Daily Globe

ERCOT Names Bill Magness As Next President, CEO

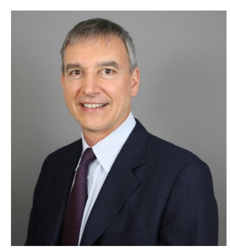
Magness

ERCOT's Board of Directors selected general counsel Bill Magness to become the RTO's next president and CEO. Magness, who is also currently senior vice president for governance, risk and compliance, will succeed Trip Doggett, who announced in June he plans to retire next year as president and chief executive. Doggett has been CEO since 2010.

"Bill's leadership skills, as well as his significant executive experience at ERCOT, have positioned him to successfully lead ERCOT through an era of evolving changes in the energy industry," ERCOT Board Chair Craven Crowell said. "He also understands the importance of — and is committed to — strong working relationships with stakeholders, the Public Utility Commission of Texas and the Texas Legislature."

More: Houston Chronicle

World-Renowned Auction Expert Joins ERCOT's Board of Directors



Cramton

ERCOT approved Peter Cramton as the new independent member of its Board of Directors. An economics professor at the University of Maryland at College Park and a widely recognized expert in energy auctions, Cramton succeeds Michehl Gent, whose third and final term concluded in May.

The ISO said Cramton has played a lead role in the design and implementation of electricity and gas auctions in North America, South America and Europe since 2001. Cramton also chairs Market Design Inc., an economics consultancy that focuses on the design of auction and matching markets. "Peter is a pioneer in his field, and we are delighted to welcome him to ERCOT's Board of Directors," ERCOT Board Chair Craven Crowell said in a press release.

The Public Utility Commission of Texas, which oversees ERCOT, approved

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COMPANY BRIEFS

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Cramton's appointment to the board. State law mandates the board include five unaffiliated members, from which the chair and vice-chair are chosen.

More: ERCOT

Four Corners Resumes Operation Following Bomb Scare

Operations returned to normal at New Mexico's Four Corners Power Plant last week following the discovery of three suspicious devices in one of the plant's three active units.

An FBI spokesman said the three devices, each a steel pipe with its ends capped, were hollow and did not contain explosive material. The devices' discovery Aug. 3 led to an evacuation of all plant personnel. Operations did not resume until the following day.

The FBI said there was no indication the devices were related to explosions at two Las Cruces churches Aug. 2.

More: The Daily Times

Tres Amigas Posts $8.2M For PNM Tx Upgrades

The Tres Amigas Superstation, which would connect the Eastern, Western and Texas Interconnections through HVDC lines, says that some activity is picking up on the western side even while SPP has terminated an interconnection on the eastern side of the project. (See Tres Amigas: Cancelled SPP Agreement 'Not Significant'.)

CFO Russ Stidolph told Curry County, N.M., commissioners Aug. 4 that Tres Amigas has posted $8.2 million in collateral to begin making necessary upgrades for the Public Service Company of New Mexico grid.

Stidolph said Tres Amigas is working with land owners to acquire rights of way. He said he expects "significant progress" to be made with land owners in the next months.

More: Clovis News Journal

Arkansas Co-op Subsidiary to Add Solar

Arkansas Electric Cooperatives Inc. announced Aug. 12 that its Today's Power subsidiary has reached an agreement to provide a 1-MW solar array for Tri-County Electric Cooperative of Hooker, Okla. The facility is projected to generate more than 50 million kWh over its 25-year useful life.

AECI, a utility service cooperative owned by 17 Arkansas electric cooperatives, launched Today's Power in February to provide renewable energy solutions, energy efficiency programs and emergency backup generators for large commercial, industrial or utility customers. Today's Power has an exclusive distribution agreement to promote and sell tenKsolar products in Arkansas, Tennessee, Mississippi, Louisiana, Oklahoma and Missouri.

More: Arkansas Business

Construction Begins on 300-MW SunEdison Texas Wind Farm

SunEdison announced Aug. 5 it has closed financing and begun construction on the 300-MW South Plains II wind farm in west Texas. The project is expected to be completed in 2016, when TerraForm Power will acquire it. (See SunEdison Making $2B Bet on Wind in Midwest, Canada.)

South Plains II is expected to generate 1,200 GWh of energy each year, enough to power more than 90,000 homes and avoid the emission of 2 billion pounds of carbon dioxide. Hewlett-Packard plans to purchase 112 MW of the project's capacity to power its Texas-based data centers. The remaining 188 MW of capacity will be sold to an affiliate of Citigroup, which is financing the project.

More: SunEdison

Hunt Family Buys EFH's Oncor for $19 Billion

Hunt Consolidated Energy agreed to pay $19 billion for the transmission business Oncor, the jewel of Energy Future Holdings. Energy Future is selling Oncor as part of its bankruptcy proceeding.

Energy Future, formerly TXU, selected Hunt Consolidated among many other offers. Hunt Consolidated has been in the energy business in Texas for more than 80 years.

As part of the bankruptcy restructuring, Energy Future will spin out its competitive businesses — TXU Energy and Luminant — and turn over Oncor to Hunt Consolidated, which will manage the company out of the current Dallas headquarters. The deal still needs several legal and regulatory approvals. Oncor has more than 3 million customers in North and West Texas.

More: Texas Lawyer; Dallas Business Journal

FirstEnergy Announces Corporate Promotions

Lash

FirstEnergy has expanded the roles of several corporate executives in an effort to "support the company's focus on customer service and cost management."

Among those promoted are James Lash, president of FirstEnergy Generation, who will also serve as executive vice president of FirstEnergy. CFO James F. Pearson will see a bump up from senior vice president to executive vice president. Charles Lasky, vice president of fossil fleet operations, will shift to the human resources department as a senior vice president.

FirstEnergy also filled several vacant positions. Trent Smith, vice president of sales and marketing for FirstEnergy Solutions, will serve as supply chain vice president for the parent company, filling a void left by Gary Benz, who was named senior vice president of strategy in June. Gary Grant will take over as vice president of customer service at FirstEnergy Utilities, replacing Ronald Green, who is retiring after 38 years with the company.

More: FirstEnergy

Talen to Spend $100M to Add Gas to Brunner Island

The coal-fired Brunner Island power plant in York County, Pa., will soon be burning natural gas to help power its three generators.

New owner Talen Energy says it will spend $100 million to convert the plant to dual fuel, which includes building a 3-mile pipeline to tap into an interstate line. A Talen

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Company Briefs

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spokesman said the plant would still burn coal, but he could not say how much power would be generated by either fuel.

While Brunner Island is often listed among the dirtiest plants in the U.S., Talen said the plan isn't being driven by the Environmental Protection Agency's Clean Power Plan or any other environmental regulations. "The real driver behind this project is the long-term sustainability of that plant and 200 jobs," spokesman Todd Martin said. The project is expected to be completed by spring 2017.

More: LancasterOnline

AEP Promotes Haynes to SVP of Strategic Initiatives

American Electric Power has promoted Stephan Haynes, vice president of strategic initiatives, to senior vice president of strategic initiatives. Haynes will continue his role as chief risk officer.

"Steve and his team have done an incredible job identifying, analyzing and developing mitigation strategies for risk events that could impact AEP," CFO Brian Tierney said "He also has helped the company evaluate strategic opportunities to grow our business and to move our transmission joint ventures forward."

Haynes has a bachelor's in business systems analysis from Harding University and an MBA from Ohio State.

More: AEP

Bechtel Breaks Ground on Natural Gas Plant in Va.

Construction company Bechtel is building a natural gas-fired plant in Leesburg, Va., which will generate enough power for 800,000 homes in Virginia and D.C.

The Stonewall Energy Center is expected to cost about $800 million and be completed by mid-2017. Bechtel has sold its interest in the project to Panda Power Funds, now the plant's sole owner. A Panda Power spokesman said no new pipelines or transmission lines will be needed and that the plant will use the latest emissions-controlling technology.

More: The Washington Post

Dispute's Resolution Sets Up Closure of New Mexico Plant's Units

Public Service Company of New Mexico and four other parties signed an agreement to end their dispute over the future of the coal-fired San Juan Generating Station in northwestern New Mexico. The settlement potentially paves the way for the state Public Regulation Commission to approve PNM's plan to shut down two of the power plant's four generating units to meet federal haze regulations.

Environmental, clean energy and consumer organizations had opposed PNM's proposals for San Juan, largely because the utility and its parent firm, PNM Resources, wanted to acquire 197 MW of excess coal generation that will be left behind in one of the two remaining generators. The new accord ends that opposition, allowing PNM to take ownership of the additional 197 MW to keep San Juan's two remaining units fully operational.

The agreement must still be reviewed in a public hearing, now scheduled for Sept. 30, before the PRC makes a final decision.

More: The Albuquerque Journal

El Paso Electric Seeks Rate Hikes in Texas, NM

El Paso Electric has filed a rate increase request with the Public Utility Commission of Texas on Aug. 10 that would add $8.41 to an average residential customer's monthly bill. The new rates would go into effect Sept. 14, although EPE said a months-long rate case might delay imposition of the increase until the second quarter of 2016.

EPE filed a separate rate case with the New Mexico Public Regulation Commission in May, asking for about $8.6 million that would result in a 9% increase to the average monthly residential bill for its customers in that state. Any approved increase in New Mexico would go into effect in 2016, officials said.

Utility officials said they are seeking to recover some of their infrastructure costs for the El Paso Montana Power Station and its transmission lines and a new operations center. The first two generating units at the Montana station cost about $206 million, with another $20 million for the transmission lines and $40 million for the operations center.

More: El Paso Times

Federal Briefs

NRC: Seabrook Station Could Operate Until 2050

The Nuclear Regulatory Commission has determined that NextEra Energy's Seabrook Station could operate for another 20 years beyond 2030 without negative impact on the environment. NRC published its final report on the environmental impacts of renewing Seabrook's operating license and gave the plant's owners the green light to move to the next step in the re-licensing process.

"The NRC's preliminary recommendation is that the adverse environmental impacts of license renewal for Seabrook are not great enough to deny the option of license renewal," according to NRC, which based its findings on an environmental report submitted by NextEra Energy, consultation with federal, state and local agencies and NRC staff's independent review and public comments.

A Safety Evaluation Report, the last step in the license renewal process, is scheduled for release in May. NextEra has been working through the renewal application since 2010.

More: New Hampshire Union Leader

Mass. Mayor to Ask FERC to Extend Meetings for Pipeline

The mayor of Peabody, Mass., wants FERC to add a special meeting near the city to allow the public to comment on Kinder Morgan's plan to build a lateral from its Tennessee Gas Pipeline.

Mayor Ted Bettencourt said he would seek the additional meeting after he met with the Northeast Municipal Pipeline Coalition, a group opposing the pipeline. Kinder Morgan

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FEDERAL BRIEFS

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has said it wants to build the pipeline to provide fuel for power plants. The Northeast has experienced a shortage in natural gas during times of peak demand, such as frigid winter days and nights.

Several meetings have already been held concerning the pipeline, which is to run from Dracut, through Peabody and connect to an existing line in Danvers.

More: The Salem News

Ninth Circuit Throws out Suit Against FERC Curtailment Order

A panel of judges from the Ninth Circuit Court of Appeals has ruled that a group of wholesale electricity customers has no standing to sue FERC for requiring it to pay for curtailing wind generation in times of unusually high hydro generation.

The customers had argued that the dispatch-curtailment mandate — originally put into place as a result of high expected hydro generation on the Columbia River — meant that increased generation prices would be passed on to them. FERC issued the curtailment policy to cover incidents of "last resort" when high water levels forced Bonneville Power Administration to generate electricity that exceeded demand. In order to preserve system integrity, FERC decided it could mandate curtailment by other generators.

The plaintiffs argued that the mandate exceeded FERC's area of responsibility, as it dealt with generation rather than transmission. The judges noted that the plaintiffs may suffer harm from the rule but that they had no statutory standing under FERC rules.

More: Courthouse News Service

Report: Wind Could Replace Coal, Gas as Dominant Resources

The National Renewable Energy Laboratory released a report that shows that wind power's capacity factor could reach 65%, exceeding both coal and natural gas.

The Department of Energy's lab data indicates that increasing to a 65% capacity factor could reduce wind's cost, improve transmission line efficiency and provide necessary power at times of peak demand. The report shows that if "near-term" technology and enough appropriate sites are used, the capacity factor of wind turbines could exceed both coal and natural gas. The report also indicated that new wind power technology on the horizon would mean that wind alone would be able to power the U.S. demand.

More: Greentech Media

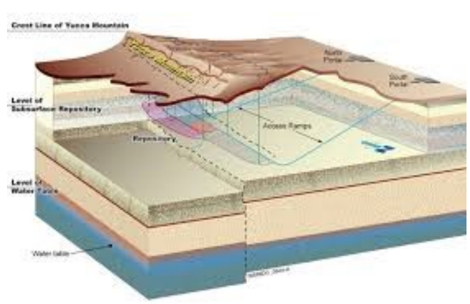
NRC: Beaver Valley Nuclear Station Has Enough Staff for Emergencies

The Nuclear Regulatory Commission has determined that the emergency plan of the Beaver Valley Nuclear Power Station in Pennsylvania is adequate to meet the needs for any large-scale emergencies. The commission reviewed the new safety guidelines put into place following the 2011 Fukushima nuclear disaster in Japan.

All of the nation's nuclear stations are undergoing a commission review of plans updated after the disaster.

More: Times Online

NRC Report Says Yucca Mountain Environmental Risk Low



A report issued by the Nuclear Regulatory Commission found that a nuclear waste repository at Yucca Mountain would pose "only a negligible increase" in health risk from radioactivity leaking into groundwater. The study is one of the final products of the funding for the Yucca Mountain project, which President Obama mothballed in 2010.

The report will be presented next month in Washington and Nevada.

More: Las Vegas Review-Journal

New Mexico Site Eyed for Storing Spent Nuclear Fuel

Holtec International has submitted documents showing its intent to file for a license to store spent nuclear fuel at a site in southeast New Mexico. The company said the facility would retain spent fuel from stations that are shutdown or in the process of decommissioning — Connecticut Yankee, Humboldt Bay, Kewaunee, La Crosse, Maine Yankee, Millstone Unit 1, Oyster Creek, Rancho Seco, Trojan, Yankee Rowe and Zion stations.

The letter of intent says that the site is 35 miles from any large population center. Holtec is asking the Nuclear Regulatory Commission for permission to store the fuel underground with the same system being used at Callaway and San Onofre stations.

Holtec said it is planning on filing its complete license application by June 2016.

More: FierceEnergy

NRC Dismisses Complaint Against San Onofre Station as Moot

The Nuclear Regulatory Commission has dismissed a complaint filed by an anti-nuclear organization against San Onofre nuclear generating station as moot because the station is being decommissioned. The Friends of the Earth filed the complaint against San Onofre owner Southern California Edison, alleging it failed to get approval for new steam generators before installing them.

The commission noted that fuel has been removed from the station and it is permanently closed, and so the complaint is unnecessary.

More: The Energy Collective

STATE BRIEFS

REGIONAL

CO2 Emissions Report Released

The nine states participating in the Regional Greenhouse Gas Initiative released the "CO_2 Emissions from Electricity Generation and Imports in the Regional Greenhouse Gas Initiative: 2013 Monitoring Report." This report is the fifth in a series of annual monitoring reports called for in the 2005 RGGI Memorandum of Understanding. The report summarizes data for electricity generation, electricity imports and related carbon dioxide emissions for the RGGI states.

More: RGGI

Mild Summer Cuts Wholesale Power Costs

New Englanders are using less on electricity because of the mild summer. An abundance of natural gas and more efficient power plants have also helped reduce the wholesale price of energy, a respite from soaring heating costs in the winter, ISO-NE said.

The average wholesale price in June was 1.96 cents/kWh, down nearly 50% since June 2014. The decline continued in July, dropping by more than 27% year over year, the RTO said. Costs are falling for some ratepayers, but it's uneven among New England states. The U.S. Energy Department said retail prices in New England were higher in June and July than in the same months last year.

The price for customers of Central Maine Power dropped by more than 13% in March 1. In Massachusetts, a reduction of more than 20% kicked in May 1.

More: Hartford Courant

Consumption Breaks Record In MISO South but Lights Stay On

The four states in MISO's southern region set an all-time record for power usage of 32,618 MW on July 29, but the RTO didn't have to declare emergency operations. MISO issued several hot weather notifications, which apparently worked. "Not only was this a big success for MISO and our members, but it was the first time our South Region Operations Center was truly tested," said Katherine Prewitt, senior director of MISO's South Region Operations, in Little Rock. The region consists of all or parts of Arkansas, Louisiana, Mississippi and Texas.

The previous peak for the region was 31,789 MW on Aug. 3, 2011.

More: MISO

ARKANSAS

Solar Prospects in State Shining Bright

Three solar projects could soon be online in the state, and additional installations could follow, induced by environmental regulations reducing carbon emissions and a 30% federal tax credit that will be reduced by 2017.

Arkansas Electric Cooperative Corp. announced plans for a 12-MW solar generation facility in February. Entergy in April announced an 81-MW facility. More recently, Ozarks Electric Cooperative said it would build a small facility in the northwest part of the state.

Any utility seeking to recoup costs from a state solar project through rate increases must obtain regulatory approval from the Public Service Commission. A decision is expected in Entergy's case by the end of September.

More: Arkansas Business

CONNECTICUT

Leaders Urge English Station Site Cleanup

State Senate President Martin M. Looney and New Haven officials are urging prospective merger partners UIL Holdings and Spanish energy giant Iberdrola to commit to paying the cost of cleaning up the mothballed English Station power plant.

The two merger partners are in negotiations with Attorney General George Jepsen and the Department of Energy and Environmental Protection to play a significant role in the cleanup of the 9-acre power plant site. A regulatory filing by the two companies said both would be involved in the cleanup, the cost of which has been estimated at $30 million. (See Iberdrola Refiles Acquisition Bid for UIL Holdings.)

Two out-of-state entities, Asnat Realty and Evergreen Power, bought the plant from UIL, but they failed to follow through on promises to clean it up.

More: New Haven Register

INDIANA

Judge Denies Watchdog's Request For Legislative Correspondence

Osborn

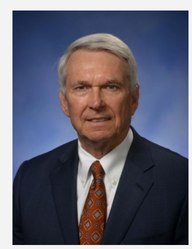
Marion County Superior Court Judge James Osborn turned down a request by Indianapolis-based Citizens Action Coalition to force a legislator to reveal his correspondence with utility executives, ruling that the separation of powers doctrine forbids the courts from getting involved in legislative affairs.

CAC filed suit after state House leaders denied its public records request for emails between House Energy Chairman Eric Koch (R-Bedford) and Duke Energy and Indianapolis Power & Light. The group sought correspondence that concerned a net metering bill that would have changed the way customers with solar panels are billed. That bill eventually was killed.

More: Network Indiana

MICHIGAN

PSC Appointment Heads to Senate



Saari

A Senate committee last week questioned former Consumers Energy executive Norm Saari whom Gov. Rick Snyder nominated to serve a six-year term on the Public Service Commission.

Saari appeared Aug. 13 before the Senate Energy and Technology Committee, where some members said that while they respect him, they were wary of his appointment by Snyder. Saari tried to assure them that while he worked nearly 30 years for Consumers Energy, he had no financial interest in Consumers or any other utility in the state.

Most recently Saari, a Republican, was chief of staff for the state House of Representatives. If affirmed, Saari would replace Commissioner Greg White, who is retiring.

More: Detroit Free Press

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State Briefs

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MINNESOTA

Couple's Complaint of Connection Fee Spurs Commission Review

A letter written by a Stewartville couple to the Public Utilities Commission complaining of a $5 monthly fee they had to pay for their small wind generator has spurred the commission to order a review of the state's electric utilities to see if they charge similar fees.

Alan and Kris Miller installed a small wind generator to power their hobby farm and were surprised when People's Energy Cooperative charged them the monthly fee. People's has since offered to refund Miller and about 30 other customers who faced similar monthly charges for wind or solar facilities.

After a five-month investigation, the commission last week declared the fee illegal and ordered a state-wide review of so-called net metering charges. Renewable advocates say such fees, which so far are unregulated, sap the incentive of those considering installing solar or wind generation for their homes or small businesses.

"They have no idea what the fee is going to be," said David Shaffer, general counsel for the Minnesota Solar Energy Industries Association. "Maybe it is going to be $5 and maybe it is going to be $85 — until they know, they can't make an informed purchasing decision so they choose not to buy."

More: Star Tribune

MISSOURI

Gov. Nixon Appoints Former Aide to Chair State's PSC

Gov. Jay Nixon has appointed former aide Daniel Hall to chair the Public Service Commission. Hall has served on the five-member PSC since 2010; he replaces Robert Kenney, whose six-year term expired Aug. 7.

Hall served under Gov. Bob Holden and House Speaker Steve Gaw before becoming a legislative aide to Nixon when he was attorney general. Kenney will join San Francisco-based Pacific Gas and Electric as its vice president for regulatory relations.

More: Columbia Daily Tribune

MONTANA

Witnesses Testify Against Federal Coal Royalty Payments

An overflow crowd packed a U.S. Interior Department meeting in Billings to discuss its policy of allowing private coal mining on government land. It was one of five sessions scheduled by Interior Secretary Sally Jewell, who has pledged a review of the government's coal leasing program.

Most of the comments concerned the 12.5% royalties that the government collects on coal. "It's time that you crack down on coal companies that have been getting sweetheart deals for too long," said Renette Kaline, a Northern Cheyenne tribe member.

But some who depend on the mining said they were afraid that additional regulatory burdens could put their livelihoods at risk. "I'm scared," said Ryan White, a miner. "I'm fearful of my future. I go to work every day wondering when the federal government will put my employer out of business."

More: Missoulian

Wind Farm Faces Regulatory Headwinds

The Greycliff Wind Energy project, a 12-turbine project in central Montana that was proposed five years ago, continues to battle regulatory headwinds.

The project's developers, Minnesota-based National Renewable Solutions, must persuade the Public Service Commission that the company has enough Montana owners to qualify as a Community Renewable Energy Project. The PSC rejected Greycliff Wind in June because it wasn't convinced that local owners had a 50% stake in the company's income, equity and voting rights.

National Renewable Solutions representatives spent last week in Sweet Grass County assuring the county commissioners "the project isn't going away," said the company's Pat Pelstring.

More: Billings Gazette

NEW HAMPSHIRE

Eversource Willing to Bury More of Line

Senior executives for Eversource Energy say the power company is willing to bury more of the transmission lines for the Northern Pass hydroelectric project, but not the entire 187-mile route from the Canadian border through northern New Hampshire to Deerfield.

"Full undergrounding is unnecessary and prohibitively expensive," Lee Olivier, Eversource executive vice president, said in a conference call with financial analysts on July 31. "But some project modifications could be done with some additional undergrounding."

The company is reviewing the environmental impact statement with an eye toward burying more of the line, he said. The most likely area for additional burial would be through 10 miles in the White Mountain National Forest, where the environmental report suggests overhead lines would not be allowed.

More: New Hampshire Union Leader

Renewable Energy Fund Restored

The state has reopened the Renewable Energy Fund, although with new restrictions and less money than was initially anticipated.

The freeze on REF applications, imposed on July 20, continues on applications for solar projects in the 100- to 500-kW range. Those projects have mostly been popular with businesses, according to Kate Epsen, executive director of the New Hampshire Sustainable Energy Association, a trade organization representing the renewable energy industry.

"It's a really good category and a real shame that it's being cut out, hopefully not forever, but even temporarily is a problem," she said. "This was hitting an important market gap for these mid-sized projects. A lot of companies have been putting together good proposals, and there has been some good groundwork and business interest. Now that's been taken away, or at least temporarily halted."

More: New Hampshire Union Leader

NEW JERSEY

Gov. Christie Signs Bill Boosting Net Metering Cap for Solar

Gov. Chris Christie has signed a bill that increases the cap under which utilities can

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STATE BRIEFS

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stop paying owners of distributed solar for electricity their systems generate. The previous cap allowed utilities to stop paying when net metering systems recorded 2.5% of the state's peak demand.

That level has already been reached. The new bill, sponsored by Sen. Bob Smith (D-Middlesex), boosted the cap to 2.9%. It is estimated that it will take another three years for that level to be reached. The new limit is designed to ensure economic incentive for the home solar industry in the state. The new level leaves room for another 700 MW of solar to be installed in the state.

"This is an important bill that moves solar forward in New Jersey," Jeff Tittel, director of the New Jersey Sierra Club, said. "This is a ray of sunshine for the solar industry and will create clean energy and more green jobs."

More: *NJSpotlight*

NEW YORK

Coalition Opposes Utility Ownership of Large Renewables

Power plant owners and energy groups have joined forces to oppose utilities directly owning large-scale renewable energy projects such as wind farms. The Independent Power Producers of New York, Alliance for a Clean Energy New York, the Electric Power Supply Association and the New York Affordable Reliable Electricity Alliance said the concept would raise wholesale electric rates.

"New York cannot afford to overlook the benefits and tremendous successes of competitive wholesale energy markets by allowing utilities to once again put ratepayers directly on the hook for costly electricity investments — especially when the private sector has been successfully developing and operating large-scale renewable electric generation facilities for more than a decade," Gavin Donohue, CEO of IPPNY, said in a statement.

The New York State Energy Research Development Authority countered that its ideas for utility ownership are just one of many options it listed in a June study to give the state new ideas on how to promote large-scale renewable energy projects.

More: *Times Union*

OHIO

Power Siting Board Moves Ahead On Clean Energy Future Plant

An administrative judge has ruled that a plan to build an 800-MW gas-fired power plant can go ahead to the Power Siting Board for the next step in the approval process. The judge noted that board staff have already determined the plant, proposed by Clean Energy Future, complies with applicable state law. CEF plans to spend $800 million on the plant, which would be built in an industrial park near Lordstown.

The next hearing of the board, which is overseen by the Public Utilities Commission, will be in September. If approved, the plant would begin operations in 2018.

More: *Vindy.com*

OKLAHOMA

OG&E Rate Case Could Lead To 15-19% Price Hike

Oklahoma Gas and Electric is pressing ahead with upgrades to its generating plants and preparing for a general rate case as it awaits a decision from state regulators in a $1.1 billion environmental compliance and replacement generation case. If approved, the OG&E request would increase customer bills by 15 to 19% by 2019, with the increases phased in each year as a separate line item on customer bills.

The Corporation Commission has not come to an agreement for a final order in the case. However, two commissioners indicated they would prefer to issue a final order within the next 30 days.

OG&E said it expects to spend about $700 million on an environmental plan to meet federal emissions regulations for regional haze and mercury and air toxics standards. It also estimates it will need about $410 million to modernize its aging Mustang natural gas plant in western Oklahoma City.

More: *The Oklahoman*

OCC's Murphy Named to EPRI Advisory Council

Corporation Commissioner Dana Murphy has been appointed to the Electric Power Research Institute's Advisory Council to the Board of Directors. Murphy chairs SPP's Regional State Committee.

The Advisory Council advises EPRI management and its board and assists in prioritizing relevant and balanced research to serve the public interest. The appointment was made by Lisa Edgar, president of the National Association of Regulatory Utility Commissioners, who said Murphy's active service on the EPRI Advisory Council is "important to the cause of strengthening effective public regulation."

More: *Oklahoma Corporation Commission*

PENNSYLVANIA

PennFuture Names New Operating, Communications Officers

The environmental advocacy organization PennFuture has named a new chief operating officer and a new director of communications. The statewide organization said Jacquelyn Bonomo, who has experience with other environmental organizations, will become chief operating officer and vice president. She comes to PennFuture from Chesapeake Bay Funders Network, where she was executive director. She also has held upper positions in the National Audubon Society, the Western Pennsylvania Conservancy and the national Wildlife Federation.

Lauren Fraley, a legislative communications professional and former president of the Greater Pittsburgh Chamber of Commerce, will become PennFuture's director of communications. She is taking the place of Elaine Lablame, who has moved to become the organization's strategic campaigns director.

More: *PennFuture*

RHODE ISLAND

900-MW Gas-fired Plant Proposed

Invenergy says its proposed $700 million natural gas-fired Clear River Energy Center in Burrillville would be the most efficient fossil fuel power plant in New England. The plan was announced by Gov. Gina Raimondo and Invenergy CEO Michael Polsky.

If the project is approved by the Energy Facility Siting Board, construction of the 900-MW combined-cycle generator in the northwest corner of the state would start next year and the facility would begin selling power to the New England electric grid in

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STATE BRIEFS

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2019.

Invenergy expects the low-cost plant to displace older, less-efficient power plants that burn oil, coal or gas.

More: *Providence Journal*

TEXAS

Study Shows Municipal Power Trumps Deregulation

According to a report by the Texas Coalition for Affordable Power, 85% of the state's customers served by the competitive electricity market pay more for power than those served by municipal utilities in Austin and San Antonio.

The report analyzed U.S. Energy Information Administration data on residential prices since 2002, the first year most residents were allowed to choose their electricity provider under deregulation. According to the study, residents in deregulated areas paid lower electric bills than most Americans for the first time in 2012 and 2013. However, the analysis found the average Texas household in deregulated areas paid about $4,800 more than residents of Austin, San Antonio and other cities served by just one municipal utility or by electric cooperatives from 2002 to 2013.

The state was the 18th cheapest state for homeowners over that 12-year period. Residents in nine states saw cheaper prices than Texans in regulated areas, while 26 states averaged cheaper prices in the competitive market.

More: *The Texas Tribune*

High Temps, Population Growth Push ERCOT to Demand Records

By Tom Kleckner

It had been four years since ERCOT last set a new demand record, but the Texas grid has been making up for lost time since August began. In the last two weeks, ERCOT has set three new hourly peaks, topping 69,000 MW in demand for the first time ever on Aug. 10.

ERCOT says while the summer temperatures are partly attributable to the increase, the state's explosive population growth is the real driver.

"A large part of the demand we're seeing is customer growth over the last few years," said ERCOT COO Brad Jones last week.

Jones made his comments a few hours after ERCOT issued a conservation alert and asked customers to limit electricity usage during the 3-7 p.m. peak-demand hours Aug. 13. Triple-digit temperatures and outages at several power plants brought the ERCOT system perilously close to its 2,500-MW reserve threshold.

The system set a new all-time peak hourly demand Aug. 10 when it eclipsed the 69,000-MW mark for three consecutive hours, hitting a record 69,783 MW between 4 and 5 p.m. Operating reserves remained above 3,000 MW during the day, Jones said.

ERCOT previously set demand records Aug. 6 (68,912 MW) and Aug. 5 (68,459 MW). Until then, the ISO's previous record was 68,305 MW, set Aug. 3, 2011.

At this pace, ERCOT will surpass August 2011's record production of 38.2 GW of energy.

Jones said ERCOT imported power through its two links with SPP but avoided calling for load curtailments or other emergency operations thanks to conservation by consumers. Market prices jumped to about $1,700/MWh during the day.

Population Growth

The U.S. Census Bureau says Texas' population has grown by 1.8 million people from 2010 to 2014, a 7.2% increase. The state's population — almost 27 million at the end of 2014 — is expected to double by 2050.

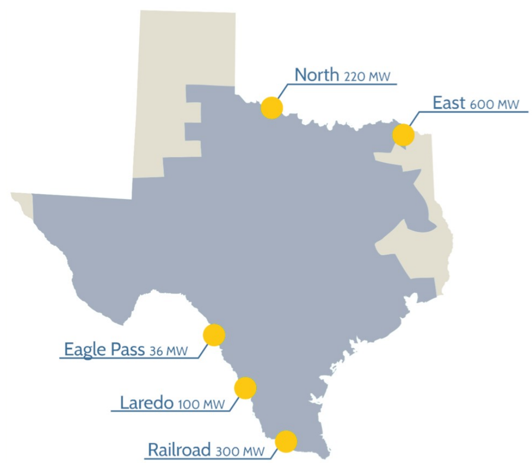
According to the state comptroller, more than 100,000 single-family building permits and 64,000 multi-family permits have been issued in the 12 months ending June 2015.

The comptroller also said Texas' real gross domestic product grew by 5.2% in 2014, compared with 2.39% for the U.S. The state's unemployment rate was 4.2% in June, down from 5.0% in June 2014; it has been at or below the national average for 102 consecutive months.

Jones noted ERCOT serves some of the fastest-growing cities in the country. Houston, San Antonio, Dallas, Austin and Fort Worth are among the 16 most populous cities in the U.S.

Some 4,800 MW of new generation will be coming online in the next three to four years, Jones said.

ERCOT said it will continue to monitor conditions as summer demand continues and call for conservation when needed. It has asked Texans to raise thermostats 2 to 3 degrees during peak hours, use fans, limit the use of large appliances to off-peak hours and close blinds and drapes during the afternoon.



ERCOT with DC ties (Source: ERCOT)

"Voluntary conservation can help us reduce the potential for additional measures, such as rotating outages, to ensure reliability throughout the ERCOT grid," said ERCOT's Director of System Operations, Dan Woodfin, in one of many press releases the ISO has issued this month.

SPP: Hot, but not Breaking Records

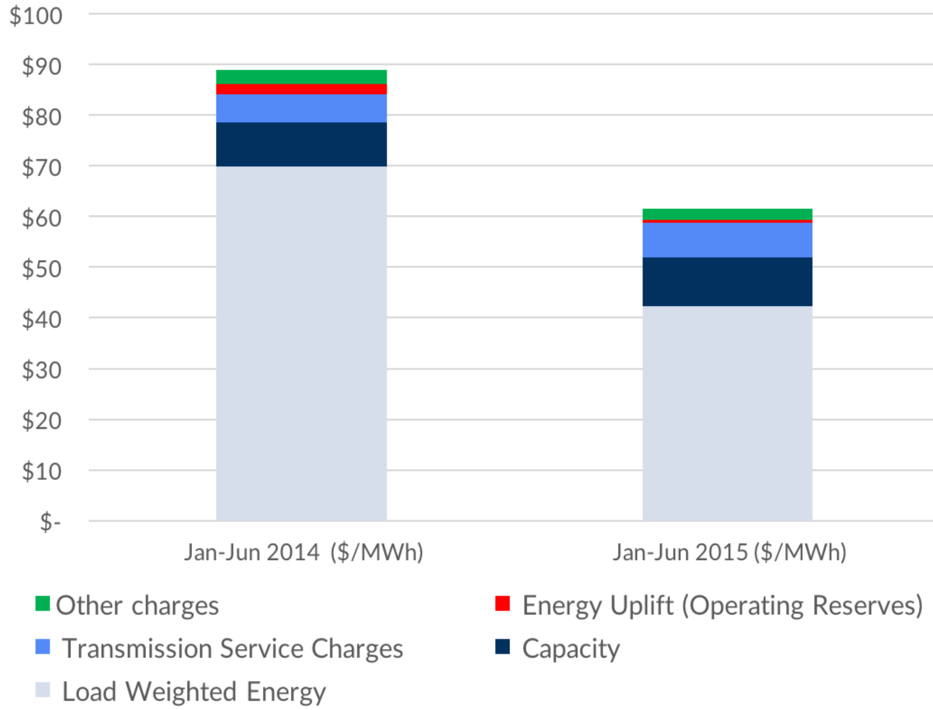
The SPP footprint has seen some of the same triple-digit figures as Texas, but the RTO has not topped its record demand peak of 54,949 MW, set Aug. 3, 2011. Its high for the year came in July, when the SPP Balancing Authority recorded a peak of 45,873 MW.

PJM Prices Down 31% from Record-Breaking 2014

Continued from page 1

gestion costs in the day-ahead energy market and the balancing energy market for the 2014/15 planning period.

Including capacity, transmission and other charges, prices were down almost 31%, from $88.90/MWh in 2014 to $61.61/MWh this year.



PJM prices, Q1&2 2015 vs. 2015 (Source: Q2 2015 State of the Market report)

Withholding Concerns

The Monitor said prices reflected short-run marginal costs except during high demand hours in February 2015, which "raises concerns about economic withholding," it said. The Monitor reported similar concerns for January 2014.

"Overall the market structure of the PJM aggregate energy market remains reasonably competitive for most hours, although the market structure during high demand hours remains a concern," the report said.

"The performance of the PJM markets under high load conditions raised a number of concerns related to capacity market incentives, participant offer behavior in the energy market under tight market conditions, natural gas availability and pricing, demand response and interchange transactions.

"In particular, there are issues related to the ability to increase markups substantially in tight market conditions, to the uncertainties about the pricing and availability of natural gas, and to the lack of adequate incentives for unit owners to take all necessary actions to acquire fuel and generate power rather than take an outage."

Net revenues were lower for all new entrant generation in the first six months of 2015 than in 2014. But net revenues for new entrant gas and coal units were generally higher in 2015 than in the first six months of every other year since 2009.

Coal Loses Generation Share; Solar up 30%

The RTO saw gas displacing coal, with coal-fired generation down 16% (to 39% of the total) and gas-fired generation up 29% (21% of the total). Solar net metering generation rose 30% to 262 GWh but remained only a flicker of the total (0.07%).

Recommendations

The report includes four new recommendations:

- Energy Market: PJM should remove non-specific fuel types such as "other" or "co-fire other" from the list of fuel types associated with their price and cost schedules. The Monitor recommends that PJM require market participants to make available at least one cost schedule with the same fuel type and parameters as that of their offered price schedule. (Priority: Medium)
- Demand Response: DR resources should be required to notify PJM of material changes affecting the capability of the resource to perform as registered. (Priority: Medium)
- Ancillary Services: PJM should report the reason for every hour in which PJM dispatch increases day-ahead synchronized reserve megawatts. (Priority: Medium)
- Planning: PJM should enhance the transparency and queue management process for merchant transmission investment to remove barriers to competition. (Priority: Medium). (See related story, *PJM Monitor Asks FERC to Resolve TransSource Dispute*, p.8)

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Correction:

In the Aug. 4 newsletter, RTO Insider incorrectly said that MISO's Planning Advisory Committee had met the previous Thursday. The meeting was actually on Wednesday, July 29.

Whether it's the big picture or the details, RTO Insider has you covered

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MRC/MC Preview

7. ENERGY MARKET UP-LIFT SENIOR TASK FORCE (EMUSTF) Charter (11:00-11:10)

Members will be asked to approve the charter for the Energy Market Uplift Senior Task Force (EMUSTF). The MRC approved the creation of the task force in May to take a broad review of its method of providing Operating Reserve payments.

PJM said the changes were needed to reduce growing uplift costs resulting from Operating Reserves, "make whole" payments that ensure generators dispatched out of merit for system reliability don't operate at a loss.

See *PJM Proposes Operating Reserve Changes to Cut Uplift*


pjm
Energy Market Uplift Senior Task Force Charter
Draft

Mission

The Markets and Reliability Committee (MRC) approved the creation of the Energy Market Uplift Senior Task Force (EMUSTF) on May 30, 2013 to evaluate causes for energy market up-lift charges, develop ways to minimize them while maintaining prices that are consistent with operational reliability needs, and explore new methodologies for the allocation of make-whole payments.


PJM Proposes Operating Reserve Changes to Cut Uplift

April 30, 2013

PJM called Thursday for a broad review of its method of providing Operating Reserve payments, saying changes were needed to reduce growing uplift costs.

Operating Reserves are "make whole" payments that ensure generators dispatched out of merit for system reliability don't operate at a loss. Because they are collected through uplift charges and not reflected in day-ahead or real-time locational marginal prices, they cannot be hedged.

In 2012, operating reserve payments totaled a near record $649 million, 2.2% of total billing. Day-ahead operating reserve charges increased by about 90% in 2012, spiking in September after PJM increased the number of "must run" units dispatched in the day-ahead market.

- **Federal and state regulatory news briefs**

OHIO

Industry Likes Efficiency Rule, Wants Spending Cap

The Ohio Manufacturers Association favors the state's energy efficiency standards but wants a cap on how much utilities can charge for efficiency riders. The group said is still studying provisions of a bill that has been introduced to make changes in the program.

Meanwhile, wind energy supporters argued against a provision in the bill that would eliminate requirements that utilities buy a certain amount of in-state renewable energy.

More: *Columbus Business First; The Columbus Dispatch*

- **Voting summaries**

Trading Limits

Reason for Change: PJM proposed the cap because high bid volumes can make it difficult for the RTO's day-ahead markets software to reach solutions.

Impact: PJM can limit market participants to no more than 3,000 UTC transactions each in the day-ahead market when necessary for market operations. (A similar cap also applies to increment offers and decrement bids.)

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October 1, 2013
PJM should be able to absorb the more than 7,000 MW of imports that cleared in May's capacity auction for 2016-17, officials said. -more-

PJM to Consider Storage as Capacity
October 1, 2013
Members agreed to consider new rules to allow batteries, flywheels and other advanced storage technologies to bid in the capacity market. -more-

PJM Likely to Limit Capacity Imports
September 17, 2013
PJM will seek to set a limit on capacity imports before next year's Base Reliability Auction under a problem statement approved Thursday by the Planning Committee. -more-

Installed Reserve Margin May Increase for 2014
September 17, 2013
PJM's recommended Installed Reserve Margin (IRM) will increase slightly because of the increasing alignment of the RTO's peak demand with demand outside of the region, according to a preliminary analysis presented to the Planning Committee Thursday. -more-

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