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Wednesday, March 12, 2014

Weather may spark changes in Northeast markets

ANALYSIS Rather than a one time event, the record cold weather that gripped the Northeast in January has been a wake-up call for the power sector and could mark the beginning of a new business cycle for the industry.

The cold weather has already re-invigorated discussions on gas-electric coordination issues that could lead to significant changes in how wholesale power markets operate. In addition some analysts believe the cold weather may have reset natural gas prices at a higher level that will persist even after the cold weather subsides.

In contrast to the record low temperatures in some locations —- minus 37 degrees F in Babbitt, Minnesota – power and natural gas prices hit record highs in January.

The PJM Interconnection hit an all-time winter peak of 141,312

(continued on page 15)

NRG buying Dominion retail assets

RETAIL NRG Energy has agreed to acquire Dominion's retail electric business for an undisclosed price and expects to close the transaction by the end of March, NRG said Tuesday.

The deal was announced on the same day the US Bankruptcy Court for the Northern District of Illinois approved Edison Mission Energy's reorganization plan and sale of substantially all of its assets to NRG. The transaction is expected to close following approval by the Federal Energy Regulatory Commission, NRG said Tuesday.

Upon completion of the $2.635 billion deal adding EME's portfolio of renewable energy and conventional generation assets, NRG will be the largest competitive generator in the US with about 53,600 MW of capacity.

NRG has a strategy of matching its wholesale generation with

(continued on page 17)

APPA sees role for Congress in market changes

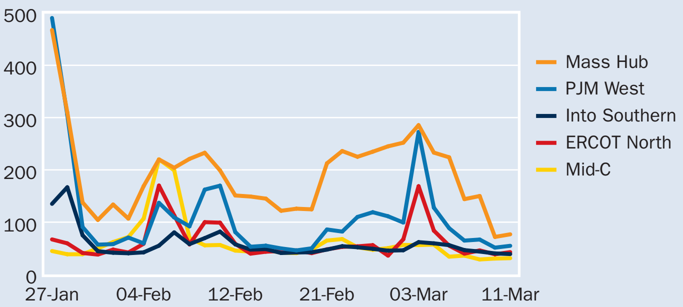
MARKETS Congress could encourage the Federal Energy Regulatory Commission to take up reforms to capacity constructs within regional electricity markets, public power officials said Tuesday, a move they said could help advance what they see as necessary changes to how capacity is procured within those regions.

Representatives of the public power sector are scheduled to meet this week with congressional staff on this issue, said Joe Nipper, senior vice president of government relations at the American Public Power Association. Speaking during a media briefing in Washington, APPA officials said they were working before Congress and at FERC in light of their long-standing concerns about how these constructs work.

"We'd welcome activity in both arenas. We're talking in both

(continued on page 17)

Price trends at key trading points ($/MWh)



Source: Platts

Low and high average day-ahead LMP for Mar 12 ($/MWh)

	On-peak low	On-peak high	Off-peak low	Off-peak high
ISONE	63.34	65.63	41.80	45.66
NYISO	67.57	81.62	47.33	57.05
PJM	45.31	60.75	30.45	39.82
MISO	37.78	56.30	22.91	35.24
ERCOT	39.51	41.94	20.43	21.53
SPP	41.62	48.32	21.68	30.66
CAISO	47.58	49.70	35.70	36.53

Note: Lows and highs for each ISO are for various hubs and zones. A full listing of average LMPs are availible for the hubs and zones inside this issue.

Day-ahead bilateral indexes and spark spreads for Mar 12

		Marginal	Spark spreads				
	Index	heat rate	@7k	@8k	@10k	@12k	@15k
Northeast							
Mass Hub	76.75	9250	18.67	10.37	-6.23	-22.82	-47.71
N.Y. Zone-A	69.75	12833	31.71	26.27	15.40	4.53	-11.78
PJM/MISO							
PJM West	54.75	11876	22.48	17.87	8.65	-0.57	-14.40
Indiana Hub	46.75	8939	10.14	4.91	-5.55	-16.01	-31.70
Southeast & Central							
Southern, Into	39.00	8311	6.15	1.46	-7.93	-17.31	-31.39
ERCOT, North	42.70	9333	10.68	6.10	-3.05	-12.20	-25.93
West							
Mid-C	31.10	6923	-0.35	-4.84	-13.83	-22.81	-36.29
SP15	50.50	10837	17.88	13.22	3.90	-5.42	-19.40

Note: All indexes are on-peak. Spark spreads are reported in ($) and Marginal heat rates in (Btu/kWh). A full listing of bilateral indexes and marginal heat rates are inside this issue.

Inside this Issue

outlook last month.

The outlook said full-year marketed production is expected to grow by an average rate of 2.5% in 2014 and 1.1% in 2015.

On the demand side, EIA predicts that total gas consumption will dip slightly to 71.26 Bcf/d in 2014, roughly the same as EIA had forecast last month and about 0.07 Bcf/d below total consumption in 2013.

"Rapid natural gas production growth in the Marcellus formation is causing natural gas forward prices in the Northeast to fall even with or below Henry Hub prices outside of peak-demand winter months," the report said. "Consequently, some drilling activity may move away from the Marcellus back to Gulf Coast plays such as the Haynesville and Barnett shales, where prices are closer to the Henry Hub spot price."

EIA Administrator Adam Sieminski in a statement said US gas storage inventories will end the heating season below 1 Tcf for the first time since 2003 "because of large withdrawals of natural gas this winter to meet high heating demand."

But that won't create a shortfall as "EIA expects growing natural gas production and moderate gas demand from the electric power sector will allow for a record build in natural gas stocks during the April through September injection season," Sieminski said.

— Brian Scheid

Weather may spark changes in Northeast

...from page 1

MW in January and recorded eight of the 10 highest winter demand levels ever recorded in the region during the month.

Hourly power prices hit a high of $1,972/MWh, prompting PJM to seek and receive approval from the Federal Energy Regulatory Commission to raise its $1,000/MWh price cap. (Demand response has a $1,800/MWh cap which, when combined with congestion charges and marginal losses, accounts for the price above the $1,000 cap.)

In the New York ISO, monthly average statewide prices hit $185.55/MWh in January, up from $66.39/MWh in November and from $82.34/MWh in January 2013. NYISO also sought and received approval from FERC to temporarily raise its $1,000/MWh price cap. And in ISO New England, average real time prices hit $162.88/MWh, a 93% increase from January 2013 and 65% increase from the prior month.

The high power prices were largely the result of highs hit by natural gas prices. Prices on Transco Zone 6-New York averaged $123.81/MMBtu on January 21, according to Platts. And Henry Hub spot prices averaged $5.26/MMBtu in January compared with an average of $3.62/MMBtu in July 2013.

"I see this as a wake-up call," Mauricio Gutierrez, COO of NRG Energy, said in an interview. Even though the weather did not set all-time records, he noted that all three Northeastern ISOs set winter load records.

While that could have negative implications for reliability, it also presents opportunities for generators that have historically relied on summer peaks to boost margins.

Because of fuel constraints, "the winter peak season is emerging as a very interesting period," Gutierrez said.

That is particularly true for generators with dual fuel capability. NRG has a lot of gas-fired capacity in the Northeast, but it also has significant amounts of coal- and oil-fired capacity in the region.

Of NRG's 20,456 MW of capacity in the East, 7,651 MW is gas-fired, 7,272 MW is coal-fired, and 5,533 MW is oil-fired. In addition, some of the company's gas-fired capacity can burn either gas or oil, such as its Astoria plant in New York City, its Bowline plant in Haverstraw, New York, its Canal station in Sandwich, Massachusetts, and its Portland plant in Mt. Bethel, Pennsylvania.

Calpine is another example of the benefits of dual fuel capability. The company's 4,500 MW of dual fuel capacity in PJM allowed it to burn fuel oil and bypass natural gas supply constraints. As a result, Calpine expects the increased dispatch it saw in the first six weeks of the year to improve its 2014 year-over-year cash flow by 30%.

In the view of UBS analyst Julien Dumoulin-Smith, the events of this winter are resulting in a fundamental shift. "The single most important thesis developing in the power sector relates to the gas price upside from winter-period 'spikes' in coming years" with the upside oriented toward power prices rather than capacity revenues, he wrote in a February report on gas scarcity in PJM.

That uplift will fade for generators as new gas pipelines come online, but until that happens the focus in power markets is going to be on the winter months, at least for the next two years in PJM and for as long as the next four or five years in New England, he said. That view is supported by the fact that winter forward power prices have risen above summer forwards.

In addition, generators could see higher capacity prices as well, if efforts now under way – or accelerated because of the cold weather constraints – are successful.

PJM has begun an initial stakeholder process with a gas-electric senior task force to study the issues. "It is an issue we saw coming with the increasing penetration of gas-fired generation in our footprint," Stu Bressler, PJM's vice president of market operations, said.

The relationship of gas and coal-fired generation in PJM inverted in the 2016-16 delivery year with the trendline of gas generation moving from 50 GW to above 60 GW and coal dropping from above 60 GW to below 50 GW, according to the cleared capacity of the region's forward looking capacity market.

But it took the recent frigid weather to highlight just how vulnerable the increase in gas-fired generation has made the region. On January 7, the day of the first cold snap associated with the polar vortex, there were 38,033 MW of forced outages, representing 20% of the region's installed capacity. Oil-fired capacity represented the highest percentage of forced outages at 38%, followed by 15,286 MW of gas outages, representing 30% of the region's total gas-fired capacity. About 40% of the gas outages, 6,368 MW, were the result of gas curtailments.

One of the issues under discussion in PJM, as well as in other ISOs, is changing the timing of the bid windows for power and for gas supply commitments. As it is, the window for day-ahead bids in PJM closes at noon with results posted by 4:00 p.m., but the active trading period for gas is between 8:00 a.m. and 10:00 a.m. That can mean that a generator has to commit to buy gas before knowing how much power he will be generating.

One possibility under discussion is to move the power bid window earlier into the morning, but there are technical challenges associated with shrinking the window, Bressler said.

Synchronizing bidding windows also is an idea that has gained some traction within the gas industry. The Natural Gas Council, in a January 21 white paper, floated a straw man proposal that is designed to serve as a "starting point for dialogue," according to Patricia Jagtiani, vice president, regulatory affairs, with the Natural Gas Supply Association. Among other things, the straw man calls for extending the nomination to 1:00 p.m. central time, from 11:30 a.m. currently.

Because of the relative lack of gas pipelines in New England, ISO-NE arguably has the most experience with gas-electric coordination issues. The ISO's proposed solution is to institute pay-for-performance measures to its capacity market that would reward generators able to operate even when gas supplies are tight. "That is a step in the right direction, but it won't get us there," Jagtiani said.

PJM has also begun discussions that would change some of the rules of its capacity market to reflect fuel constraints on a locational basis, which could result in price separation in those regions that would put upward pressure on capacity prices.

Dumoulin-Smith calls generators historical tendency not to commit in advance to gas volumes an "untenable" situation and sees changes in the market on several fronts. He noted that PJM is showing increased willingness to revisit its rules so that they might allow generators to include the variable cost of fuel into their bids. And, in an even larger structural shift, he expects generators to begin to look more seriously at contracting for firm gas supplies, particularly in constrained regions. He thinks gas generators could also begin exploring options for onsite storage for gas and oil supplies.

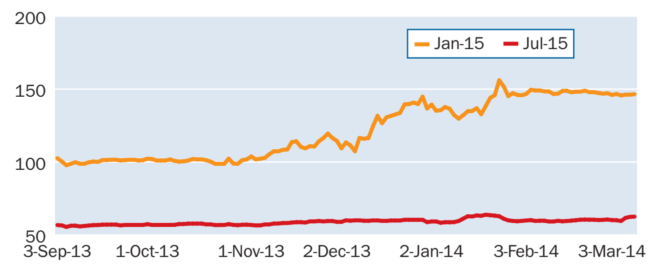
That would seem to be the more realistic approach, according to Teri Viswanath, an analyst with BNP Paribas. So far, with all the discussion about gas-electric coordination, there has been no coordination, just information sharing, she said. The fact of the matter is that there has been a huge increase in gas-fired generation without an increase in gas storage. Generators may have to get comfortable with the fact that they may have to pay up for firm fuel supplies. "We need to realize that there is a cost for reliability, and we need to rethink what reliability means now that we have increased our reliance on gas," she said.

The constraints highlighted by the recent cold weather are only one of the threats facing the reliability of the Northeast's grid. Over the next year and a half there are going to be a growing number of coal- and oil-fired plants retired because of stricter environmental rules, especially the Mercury and Air Toxics Standards rule that takes effect in 2015, NRG's Gutierrez said.

The timing of those rules does not allow the time to build enough gas pipelines to fill the gap those retirements will leave, he said. "Fuel diversity has a value to our electric system, and we are about to lose it."

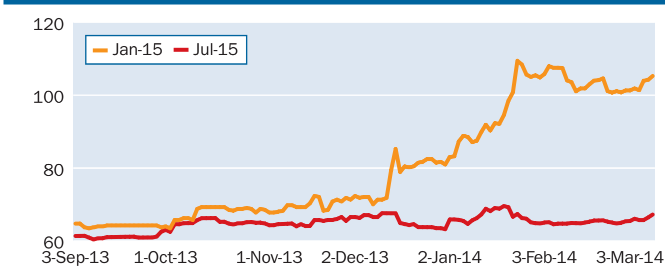
But Gutierrez does not see generators embracing firm transmission of gas supplies. Generators already have an economic incentive to secure adequate supplies; if they fall short, they have to supply high priced replacement power, he said. But there are other measures that could address the problem. For instance, plants capable of burning oil could be given more leeway on emissions restrictions until new gas pipelines are able to be built, Gutierrez said.

On-peak forward prices: Mass Hub ($/MWh)



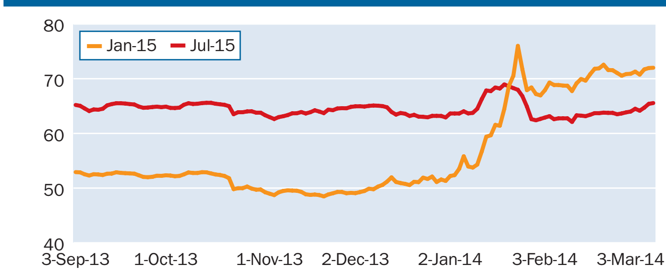
Source: Platts

On-peak forward prices: NY Zone G ($/MWh)



Source: Platts

On-peak forward prices: PJM ($/MWh)



Source: Platts

PJM plant performance by fuel on Jan. 7, 2014

Fuel	Capacity (MW)	Forced outages (MW)	%
gas	51,750	15,286	30
coal	70,733	13,595	19
oil	9,460	3,612	38
other	9,422	2,320	25
nuclear	33,316	1,605	5
wind	8,304	1,554	23
hydro	8,304	61	1
total	**189,658**	**38,033**	**20**

Source: PJM Interconnection

Additionally Gutierrez said that power market rules should be amended to reflect the reality that all fuels are not the same. Quick start capability and secure fuel supplies have a value that should be reflected in market prices. "It is not just the quantity of steel in the ground, it is the quality," he said.

Stepping back even further there could be even more momentous changes coming to the power sector in the wake of this winter's polar vortices. For the past five years there has been a surplus market in gas, and that has lulled generators into a false sense of security, Viswanath said.

The cold winter resulted in 152 Bcf of gas withdrawals from storage at the end of February, a level above both the 149 Bcf withdrawn last year and above the 105 Bcf five-year average and the highest level since 2003.

"It is going to take more than one injection season to get supply and demand back into balance," Viswanath said. "The last time this hapened, in 2003, it stayed with us for six years," she said.

Viswanath has raised her 2014 gas price forecast to $4.90/MMBtu from $4.60/MMBtu and her 2015 forecast to $4.55/MMBtu from $4.00/MMBtu.

Analysts at Citigroup also boosted their 2014 gas price outlook, to $4.80/MMBtu from $3.75/MMBtu.

Meanwhile coordination discussions between the gas and power sectors are likely to remain on the front burner, at least for the near term. Those discussions could also turn contentious, if a letter NYISO sent to FERC is any indication. In the February 20 letter, NYISO asked FERC's Office of Enforcement to conduct a review of natural gas markets performance during the cold weather.

But just as low gas prices went a long way toward reducing greenhouse gas emissions without regulatory intervention, higher gas prices could reduce the regulatory role needed to rebalance generators' dependence on natural gas.

— Peter Maloney

NRG buying Dominion retail assets ...from page 1

its retail marketing assets, and there may be more retail additions ahead for the company, David Crane, president and CEO, hinted during NRG's latest earnings call.

Dominion is one of the bigger retail suppliers to small customers in restructured states, with about 600,000 customers spread out in Connecticut, Massachusetts, New York, Texas, New Jersey, Maryland, Pennsylvania, Ohio and Illinois. Dominion's customer base is about 80% in what NRG considers the Northeast and 20% in Texas, said Pat Hammond, NRG spokeswoman.

"On the retail side, clearly we have a fantastic market leading position in Texas. It could always be better. We're interested in more retail in the Northeast, but in the Northeast it's sort of market-to-market, and some markets are good, some are less good. So we look at everything and we'll see what happens over the next six months," Crane said on February 28.

The Dominion acquisition includes the company's Texas retail subsidiary Cirro Energy, which Dominion purchased in 2008.

Dominion in January decided to exit the retail power market as margins for retailers had been shrinking for some time, and the move was not a surprise, Paul Patterson, an analyst with Glenrock Associates, said Tuesday in an interview. "It's not a business for the faint of heart," he said of the retail supply business.

"NRG is clearly comfortable with it," Patterson said.

The retail business is difficult to manage during extreme weather, such as this winter's polar vortex, and there can easily be a mismatch of customer demand and the amount of power retailers have hedged, which can wipe out margins, Patterson said.

Several retail marketers have defaulted in independent system operator markets where they had to pay high prices this winter, and other companies are expected to exit the business or sell their customer books, sources have said.

Crane mentioned the extraordinary weather and its impact on NRG's retail business during the earnings call. "We hedge our retail book against expected weather so when extraordinary weather comes there is a road bump, so I would say that the results in the Northeast retail year-to-date were not positive. But the scale of it relative to the positive side on the wholesale is sort of a rounding error," he said.

NRG's strategy of matching its wholesale generation business with its retail business has been one of the keys to its success, Hammond said.

— Mary Powers

APPA sees role for Congress ...from page 1

arenas on this," said APPA President and CEO Mark Crisson.

Congress has in recent months renewed questions over whether centralized capacity markets are the best approach to drive new capacity and keep rates low for consumers. House Republicans in recent correspondence with FERC Acting Chairman Cheryl LaFleur questioned whether the markets as currently structured were the best fit to garner new capacity in light of ongoing changes in the market, including Environmental Protection Agency rules for the power sector and cheap natural gas.

For instance, Representative Ed Whitfield of Kentucky, the top Republican on the House Energy and Commerce subcommittee on energy and power, asked LaFleur if there is "any evidence" that capacity markets are the best fit to meet resource needs and minimize negative impacts on the economy "in a period of rapid change in the industry."

APPA has long expressed concerns over how capacity markets are structured and on Tuesday renewed its calls for FERC to overhaul current structures with the Eastern regional transmission organizations. APPA members in a resolution approved in Washington urged FERC to require that annual capacity market auctions become voluntary and residual "after a transition period."

APPA in the resolution also urged FERC to restore capacity market rules guaranteeing that load-serving entities' self-supplied resources clear in capacity market auctions, while calling on the commission to preserve the ability of state and local officials "to set procurement rules to meet public policy goals established by