



## ENERGY RISK MANAGEMENT

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### NATURAL GAS & POWER MARKET REPORT FOR NOVEMBER 21, 2011

#### NATURAL GAS MARKET NEWS

##### North America

According to the Clean Energy Fuels Corp the NAT GAS Act of 2011 that was introduced last week in the US Senate would provide support for deploying more natural gas vehicles in the US. The bill would provide a five year extension of tax credits for the purchase of natural gas vehicles and would encourage producers to make natural gas vehicles.

The National Weather Service forecast that US heating demand this week is expected to be 27.5% below normal. Demand for heating oil this week is expected to average 23.9% below normal while heating demand for natural gas is expected to average 25.8% below normal.

##### International

Germany's energy and water industry association (BDEW) said the countries unconventional gas exploration must not clash with the need to safeguard drinking water and coal mine safety. BDEW wants fracking to be assessed for its impact on groundwater before the country agrees to issue permits. Six of Germany's fifteen states potentially have available reserves but the association will wait until the results of studies are finalized next year before making a decision.

Statoil has agreed to link gas prices to the National Balancing Point for its ten year gas deal with UK's Centrica. Most deals in the UK market are linked to the National Balancing Point.

##### Generation Outages

**SERC** - Entergy Corp's Arkansas Nuclear Unit 1 power reactor started to exit an outage on Monday. The unit had been shut since October 17<sup>th</sup>. The 846MW Unit 2 at Duke Energy Corp's Oconee nuclear plant ramped up to full power on Monday from 20% power on Friday while Unit 1 was reduced to 55% power from full power on Friday. Unit 2 was shut on October 24<sup>th</sup> for a planned refueling. Dominion's Unit 2 at the North Anna nuclear power plant has started to exit an outage and increased to 7% power early on Monday morning. The facilities Unit 1 was restored to full power on November 14<sup>th</sup> following an outage caused by a 5.8 magnitude earthquake in August.

**PJM** - PSE&G's Unit 1 at the Hope Creek-Salem nuclear power plant in New Jersey began to exit an outage and increased to 17% capacity early on Monday. The unit has been shut since October 24<sup>th</sup> for planned refueling.

**ERCOT** - American Electric Power Co has restarted its Pirkey coal-fired power unit on Monday after finishing repairs to the boiler. The plant's start up is expected to span from November 21-26.

**MRO** - The Fermi nuclear power plant's Unit 2 in Michigan increased to full power on Monday from 41% power on Friday. The unit reduced power to 20% capacity on Thursday to make repairs on the transmission switchyard.

The NRC reported this morning that some 84,098Mw of nuclear generation was online, up 1.06% from Friday and down 1.11% from the same day a year ago.

PGNiG of Poland revealed that it may have 900 bcm of shale gas reserves. The country has been trying to diversify away from Russia because the country currently imports two-thirds of the gas it uses for domestic consumption from Russia. The country has issued 15 licenses and hopes to start producing shale gas in 2014.

Gazprom's CEO said that the company may decrease gas prices for European consumers in the first quarter of 2012 but declined to say by how

#### Natural Gas Cash Market

ICE Next Day Cash Market

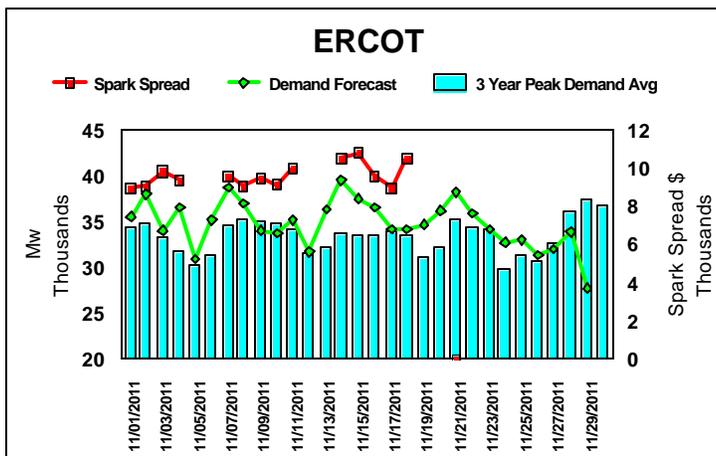
	Volume	Avg	Change	Basis	Change	Basis 5-Day
Location	Traded	Price		(As of 12:30 PM)		Moving Avg
Henry Hub	697,200	\$2.937	(\$0.077)	(\$0.466)	(\$0.150)	(\$0.138)
Chicago City Gate	916,900	\$3.288	(\$0.008)	(\$0.115)	(\$0.091)	(\$0.029)
Delaware TX/OK	657,000	\$2.936	(\$0.079)	(\$0.467)	(\$0.162)	(\$0.335)
Illinois	691,000	\$3.304	(\$0.066)	(\$0.099)	(\$0.149)	\$0.076
Indiana Citygate	767,600	\$3.716	(\$0.069)	\$0.313	(\$0.152)	\$0.452
Virginia-South	672,500	\$3.068	(\$0.084)	(\$0.336)	(\$0.167)	(\$0.173)
Trade Weighted	21,681,500	\$3.126	(\$0.067)	(\$0.277)	(\$0.15)	(\$0.138)

much.

Cyprus plans to continue exploring for offshore gas despite opposition from Turkey by offering a new licensing round soon. Noble Energy currently has a license to drill exploratory wells and is expected to share results in early to mid December. Pre-drill data shows that the prospect is estimated to contain between 3 and 9 tcf. Cyprus is trying to diminish its reliance on imports for power generation by finding a source to supply the country with its annual 1 bcm demand.

China's October LNG Imports	
Country of Origin	Tonnes
Australia	325,974
Indonesia	181,765
Qatar	153,859
Malaysia	129,333
Egypt	62,198

Qatargas 4 project which is 70% owned by Qatar Petroleum and 30% owned by Shell shipped its first cargo of LNG to PetroChina's Rudong terminal in the Jiangsu province. Qatargas 4 has a 25 year agreement with PetroChina to annually supply 3 million tons per year.



### Electric Market News

A UN report on greenhouse gasses said the amount of greenhouse gasses in the atmosphere reached a record level in 2010 and emissions grew at the fastest rate since 1969. The report also said that even if everyone in the world was able to stop all emission outputs today climate change would continue to happen for decades.

US power output for the week ending on November 17<sup>th</sup> fell by 0.52% from the previous week, however, output increased by 4.02% over the same week last year.

Projected water runoff at The Dalles Dam on the Columbia River increased to 101 percent of normal on Monday from Thursday's report of 95 percent of normal.

### Economic News

The National Association of Realtors said US existing homes sales unexpectedly increased in October as low interest rates and increasing rents led more homebuyers into the market. Sales increased 1.4% to an annual rate of 4.97 million units from September's revised rate of 4.9 million. The median sales price for existing homes was 4.7% lower in October than it was a year earlier.

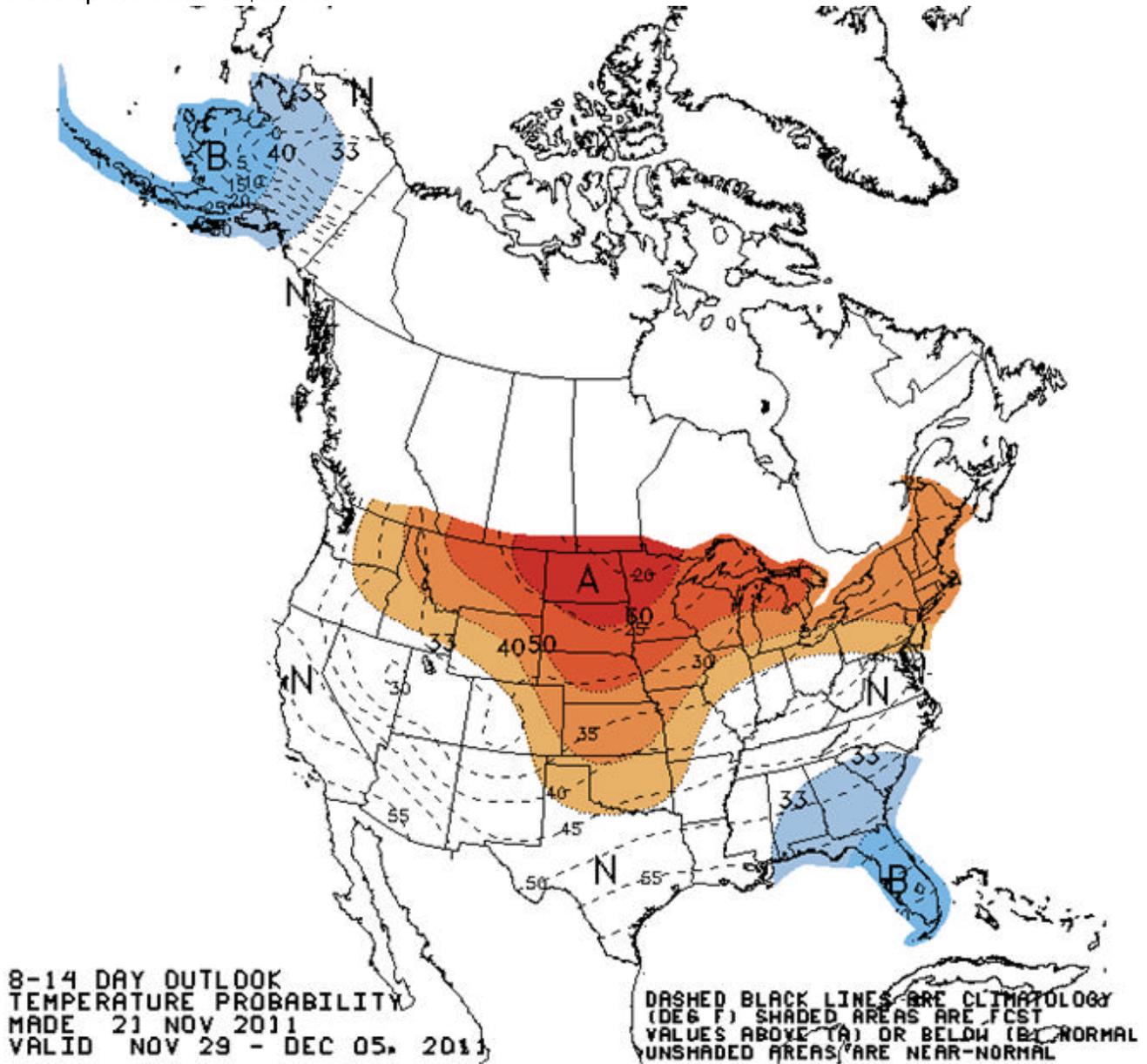
Barclays Capital said investment flows into commodities increased in October by \$2.1 billion following the largest ever monthly outflow of institutional funds from commodities last month. It said commodities assets under management increased to \$412 billion at the end of October, down \$39 billion from all time high set in April this year.

Atlanta's Federal Reserve President Dennis Lockhart said the performance of the US economy, while not terribly strong, has exceeded expectations and could see a growth rate of 3% in the last three months of the year.

### Market Commentary

The natural gas market retraced Friday's losses but remained range bound as it posted an inside trading day on Monday. The market posted a low of \$3.285 ahead of the open outcry session. However the market bounced off its low and rallied to a high of \$3.44 by midday on some weather forecasts calling for cooler temperatures in the coming weeks. The market held resistance at its

previous high and settled in a sideways trading pattern ahead of the close. The natural gas market settled up 8.3 cents at \$3.399.



Weather forecasts have started to reflect cooler temperatures on the horizon, with the eastern half of the US possibly facing a drop of three to six degrees beginning this weekend in the Midwest and reaching the East Coast next week. While, the weather forecast may provide some support to the market, the market's gains are still seen limited by the high inventory levels. In addition the confidence level in longer term forecast beyond 7 days remains extremely poor, as the NWS assigned only a confidence factor of 2 on a scale of 1 to 5 related to this evening's 8-14 day period. The market is seen finding resistance at its high of \$3.444, \$3.464, \$3.479, \$3.53 and \$3.619. More distant resistance is seen at \$3.659, \$3.708 and \$3.769. Support is seen at \$3.375, \$3.309, its low of \$3.285, \$3.22 and \$3.154.

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