



ENERGY RISK MANAGEMENT

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NATURAL GAS & POWER MARKET REPORT FOR APRIL 12, 2011

NATURAL GAS MARKET NEWS

North America

A research paper released by an ecology professor at Cornell University today claimed that shale gas production releases more green house gases than the consumption of coal. The study contends that so much methane escapes from the extraction of shale gas over the life of the well that it allows more heat trapping greenhouse gas into the atmosphere than the comparable consumption of coal. While improved technology might solve the problem, the professor doubted whether that would be economical considered given the relatively low price of gas currently. The study estimates that 3.6% to 7.9% of the methane from shale gas production leaks into the atmosphere. Thus they concluded that compared to coal the carbon footprint of shale gas is at least 20% greater and perhaps more than twice as great on the 20 year horizon.

The hedge fund, the Blackstone Group announced today it was teaming up with Alta Resources to form Alta Energy Partners as they invest up to \$1 billion to acquire and develop unconventional oil and gas assets in North America.

The EIA today released their latest Short term Energy Outlook. The government raised its estimate for domestic natural gas production in 2011 by 1.7% from last month's estimate to 60.55 bcf/d of dry gas production. Net imports though were revised downward to 6.56 bcf/d off 1.8% from the prior estimate. This decline in imports is almost entirely the result of the expectation for smaller imports of LNG. Consumption of natural gas is seen at 66.75 bcf/d up 0.3% from March's estimate. Despite these supply/demand changes the agency's price forecast is nearly unchanged from last month. They raised their 2011 estimate for Henry Hub prices by a penny to \$4.23, but lowered their 2012 price outlook by 3 cents to \$4.69.

The U.S. Environmental Protection Agency said today that it is looking at how best to address wastewater discharges produced by natural gas "fracking" and it hopes that initial results from a peer-reviewed research study on fracking due in 2012 will help guide the discussion. The agency also noted that it may revise regulations on wastewater from coal bed methane extraction as well.

International

Royal Dutch Shell said it would start delivering its share of LNG from Qatargas production to PetroChina's first LNG receiving terminal by the end of June as planned.

China National Offshore Oil Corporation said today that it is planning to build a massive natural gas pipeline along China's southern coast to connect to its main LNG receiving terminals. The pipeline

Generation Outages

PJM – FirstEnergy's 846 Mw Beaver Valley #2 nuclear unit ramped up to 61% power this morning, up from 25% power on Monday.

The NRC reported this morning that some 74,076 Mw of nuclear generation capacity is online, up 0.9% from yesterday and down 3.5% from a year ago.

project would solidify the company's position as the top LNG terminal developer and as the main gas supplier to the southern coast. The company declined to disclose the length or capacity of the line, but noted environmental reviews were underway. China is seeking to boost natural gas share of total energy use from 4% currently to 10% by 2020.

Centrica Storage's Rough storage site is scheduled to be shut for maintenance between May 9-13 and again on September 17-October 1, 2011. During next month's maintenance outage the company will carry out work to enhance the site's availability during injection season.

Statoil said Tuesday that its Njord and Visund oil and gas fields were closed for inspection following the discovery of a gas leak on Saturday. The company expects production to resume within a month if no serious problems are discovered. The company also stood by its oil and gas production targets despite the recent stoppages.

Statoil said today that it is evaluating a sale of some of its shares in the Gassledf joint venture pipeline, so as to free up some capital for other activities. The company declined to confirm if it has been approached by a potential buyer of part of its share in the line. The line connects gas fields off Norway with Britain and continental Europe.

The Australian LNG firm LNG Ltd is suing Mitsubishi Corp for \$70.9 million in compensation in relation to the Indonesian Donggi-Senoro project. The company noted that a recent tribunal in Indonesia had ruled that some local firms and Mitsubishi had violated a local law against monopolistic and unfair business competition in relation to the project.

Korea Gas Corporation said today that it had sold 3.6 million tons of LNG in March up 8.7% from a year earlier. Fifty-six percent of the its sales went to household and business consumption with the remainder going to power generation.

The Al Shamal LNG tanker is scheduled to unload at the Zeebrugge terminal on May 1st.

The Spanish grid manager Enagas reported that Spanish natural gas demand in March rose by 0.4% versus the same month a year ago. The increase in demand came from stronger demand from homes and businesses, which showed gains of 4% after adjusting for weather. Deliveries to power plants were off 3.4% on the month.

Royal Dutch Shell has signed an agreement with the Nigerian government to build a \$101 million 26-mile pipeline to gather gas currently being flared and deliver it to the domestic Nigerian market.

Gazprom is in discussions with Shell about increasing LNG supplies to Japan from the Sakhalin-2 project. This increase would require a boost in the project's liquefaction capacity and the investment in a third production facility. Currently the Sakhalin-2 project is operating at full capacity with all of its output booked under long-term contracts.

ELECTRIC MARKET NEWS

The U.S. Northwest River Forecast Center raised their forecast for water run off at the Dalles Dam for the April-September period to 121% of normal, up 8% from the prior forecast and 37% above a year ago.

Barclays Capital raised its prices forecast for UN backed 2013 carbon credits by 10% to 24 euros or \$34.70 a ton. Under the UN's clean development mechanism, firms can invest in carbon cutting projects in developing nations and receive CERs in return, which can be used against their own emissions.

Reuters reported today that based on its calculation of Japanese power generation totals, power demand in Japan in the month since the March 11th earthquake has fallen 7.5% from the same period a year ago. Power demand in areas served by Tokyo Electric Power, which normally accounts for a third of total power sales in Japan, fell 15.9%.

The EIA in their Short term Energy Outlook today sees electric demand growing by only 0.2%, down from an expected growth of 0.5% forecasted last month. Demand is expected to grow faster in 2012, by expanding by 2.3%. Generation is expected to fall by 0.1% in 2011. Higher than normal precipitation in the Pacific Northwest is now expected to result in total U.S. hydro generation being up 7.3% in 2011. Increases in other renewable generation, especially wind power, which should grow this year by 19%, should result in declines in coal-fired generation by 1.8%.

ECONOMIC NEWS

The Labor Department said US import prices increased in March due to higher petroleum and food prices. The price of goods imported to the US increased by 2.7% in March following a 1.4% increase in February and a 1.5% increase in January. For the year ending in March, import prices increased by 9.7%. During the first quarter of 2011, import prices increased by 5.7%, the largest increase since the second quarter of 2008. The report showed that petroleum import prices increased by 10.5% in March from February, the largest gain since June 2009.

The Commerce Department said the US trade deficit narrowed in February as high prices cut demand for oil and imports from China fell sharply. The US deficit in international trade of goods and services fell by 2.6% to \$45.76 billion from a revised \$46.97 billion the month before. The January trade gap was originally reported as \$46.34 billion. The US trade deficit with China fell 19% to \$18.84 billion from \$23.27 billion in January. Imports fell by \$4.07 billion while exports increased by \$359 million. The US bill for crude oil imports in February fell to \$21.13 billion from \$24.51 billion the month before, despite a \$2.83 increase in the average price per barrel to \$87.17.

The Federal Deposit Insurance Corp, the Federal Reserve and other regulators proposed new margin requirement rules for the swaps market, saying they were confident the regulations would not hamper nonfinancial companies provided that they do not engage in overly speculative bets. Meanwhile, the CFTC voted to propose a rule that would require commercial end users to post margin on swaps deals. The CFTC proposed a rule that would require non-financial companies or end users to be exempted from new margin requirements on swaps deals. Deals with non-financial end users would not require margin, deals between swap dealers would require two way margin and deals between financial institutions and swap dealers would require margin from financial institutions but not the dealers.

The SEC and CFTC said they would receive modest funding increases for fiscal year 2011 under the spending deal that averted a government shutdown. The proposed spending bill agreed to by congressional negotiators increased funding for the SEC by \$74 million from 2010 level to \$1.19 billion. Funding for the CFTC would increase by \$34 million to \$202.7 million. The funding increase is for fiscal 2011, which ends on September 30th.

Separately, an agreement was reached between the CFTC, which regulates commodity exchanges and the Federal Trade Commission, which protects consumers from anti-competitive practices in commerce, to share more information on investigations into wrongdoing in the energy markets, including crude and gasoline. The agreement would help the FTC enforce its rules against manipulation in the petroleum markets and assist the CFTC in going after manipulation in the oil markets.

According to minutes of Fed meetings in February and March showed that directors of Federal Reserve Banks in Kansas City and Dallas unsuccessfully sought another 0.25% increase in the rate

charged to banks for emergency loans to 1%. The other 10 regional Fed banks wanted no change in the discount rate.

MARKET COMMENTARY

The natural gas market posted an inside trading session today as it settled just a penny lower despite the oil markets today recording a second consecutive dramatic sell off. While ordinarily the upward revision in estimates for domestic production by the EIA for 2011 might have weighed on this market, the gains were basically offset by the reduction in its estimates for net imports, especially LNG imports. Given the relatively high level of nuclear outages for seasonal maintenance this market appears to be finding some underlying support along with some technical support potentially emerging, as the daily stochastics appear to be on the verge of crossing back to the upside. As a result we continue recommend that profits on short positions be taken if prices move back down toward the \$4.05-\$4.00 level. We see support starting at \$4.058 tomorrow followed by \$4.005-\$3.99,\$3.855 and \$3.805. Resistance we see at \$4.16-\$4.166, \$4.207, \$4.275 and \$4.342.

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