

August 11, 2014

Natural Gas Trends

Highlights

FERC review of Texas LNG project lacking: EPA

The Environmental Protection Agency's region 6 office in Dallas told the Federal Energy Regulatory Commission on Monday that the commission's draft environmental impact statement for the export terminal Cheniere wants to build in Corpus Christi, Texas, lacks sufficient information to fully address certain environmental concerns posed by the project.

FERC staff released the draft EIS for the proposed liquefied natural gas export terminal on June 13, with public comments due Monday. The document recommended 108 mitigation measures intended to lessen environmental impacts associated with construction and operation of the project. The draft EIS said that the measures "would ensure that impacts in the project area would be avoided or minimized and would not be significant." EPA, however, said in an August 4 letter to the commission that it has rated the draft as "Environmental Concerns – Insufficient Information," and made recommendations for issues that should be addressed in the final EIS. According to EPA's website, this rating signifies that the "draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment."

Cheniere's Corpus Christi liquefaction project is designed for up to three trains with an aggregate capacity of 13.5 million mt/year of LNG. The project would also include building a 23-mile, 48-inch-diameter pipeline.

"EPA's review identified a number of potential adverse impacts to aquatic resources, air quality, environmental justice populations and wetlands," the agency said in the letter to FERC. "In addition, the draft does not contain enough information to fully consider environmental justice, wetlands, indirect effects and greenhouse gas emissions." EPA pointed out that the aquatics resources mitigation plan that aided in FERC's determination that the project would not have a significant impact on wetlands had not been updated since 2005. The agency also said that FERC looked at the impacts to seagrasses and submerged aquatic vegetation from dredging during construction of the project, but did not consider indirect impacts to vegetation caused by the potential for ongoing increased turbidity after construction for boat traffic, ballast water discharge and other operation and maintenance activities that would take place at the terminal.

Regarding socioeconomic impacts, EPA said that the draft EIS did not provide a map showing census information in the proposed project area, so the agency could not "determine whether any of the project components ... pas through or within 0.5 miles of" minority communities. The agency recommended that FERC "assess whether there are any potentially disproportionate impacts on these communities from construction, accidental releases and operation of the proposed project and alternatives," and address mitigation measures and emergency response for these communities.

The environmental footprint of increased gas production brought on by exports of LNG and the associated lifecycle greenhouse gas impacts should "be considered as part of the decision making process for the project and incorporated by reference in the FEIS," EPA said. EPA said government agencies have recognized that a rise in gas exports would spur more domestic production. FERC, however, has concluded that evaluating localized environmental impacts from boosts in gas development would not be feasible as it would be difficult to predict where additional gas development activity would occur.

EPA said FERC should look to two reports released May 29 by the Department of Energy that tackle some of the environmental questions left open by the commission. The first report dealt with concerns about increased domestic gas production, particularly from hydraulic fracturing of shale formations. DOE laid out environmental issues associated with unconventional gas production based on existing studies and analyses to give the public a better understanding of potential impacts from expanded production. The second report assessed the implications of greenhouse gas emissions from gas production, transmission and combustion associated with LNG export terminals. It also provided a comparative analysis of greenhouse gas emissions from other fuel sources available to countries eyeing LNG exports from the U.S.

Cheniere said exports from the Corpus Christi project could start as early as 2018. Its request to export 2.1 Bcf/d of LNG to countries that do not have free trade agreements with the US (12-97-LNG) is under DOE review. Cheniere also operates the Sabine pass export terminal in Louisiana, which is the only project so far to secure final approval from both DOE and FERC.

Data

- September 2014 Natural Gas Futures Contract (as of August 8), NYMEX at Henry Hub closed at \$3.962 per million British thermal units (MMBtu)
- September 2014 Light, Sweet Crude Oil Futures Contract WTI (as of August 8), closed at \$97.65 per U.S. oil barrel (Bbl.) or approximately \$16.84 per MMBtu

Last week: Texas warmer than normal

For the week beginning 8/3/14 and ending 8/9/14, cooling degree days (CDD) were higher than normal (warmer) for the week and for the year to date for most Texas cities shown.

Source: www.cpc.ncep.noaa.gov

COOLING DEGREE DAYS (CDD)				
City or Region	Total CDD for week ending 8/09/14	*Week CDD + / - from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	102	16	1000	10%
Austin	141	0	1693	-8%
DFW	164	20	1782	9%
El Paso	110	-7	1868	21%
Houston	137	4	1826	1%
SAT	156	16	2074	10%
Texas**	132	2	1642	-2%
U.S.**	66	-6	806	2%

* A minus (-) value is cooler than normal; a plus (+) value is warmer than normal. NOAA uses 65° Fahrenheit as the 'normal' basis from which CDDs are calculated. ** State and U.S. degree days are population-weighted by NOAA.

-999 = Normal Less Than 100 or Ratio Incalculable

Last week: U.S. natural gas storage at 2,467 Bcf

For the week ending 8/8/2014 working gas in storage increased from 2,389 Bcf to 2,467 Bcf. This represents an increase of 78 Bcf from the previous week. Stocks were 530 Bcf lower than last year at this time and 575 Bcf below the 5 year average of 3,042 Bcf.

Source: <http://ir.eia.gov/ngs/ngs.html>

U.S. WORKING GAS IN STORAGE				
Region	Week ending 8/8/14	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,277	1,219	58	-17.5%
West	398	387	11	-14.2%
Producing	792	783	9	-23.2%
Lower 48 Total	2,467	2,389	78	-18.9%

Lower 48 states, underground storage, units in billion cubic feet (Bcf)

Last week: U.S. gas rig count up for the week

The gas rig count for the U.S. was up three for the week but was down 70 when compared to twelve months ago. The total rig count for the U.S. was up 19 from last week and up 130 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

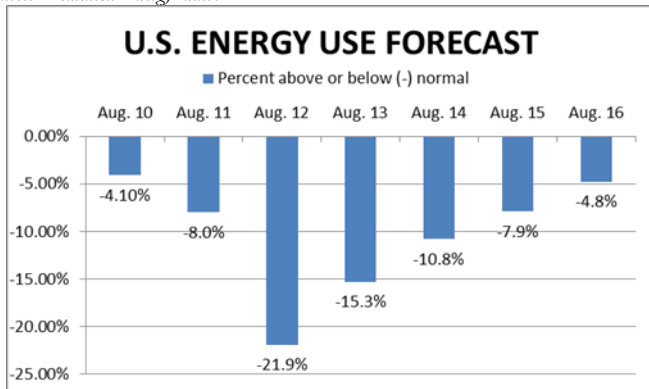
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 8/8/2014	+/- prior week	Year ago	+/- year ago
Texas	908	4	849	59
U.S. gas	316	3	386	-70
U.S. oil	1588	15	1385	203
U.S. total	1908	19	1778	130
Canada	387	-5	358	29

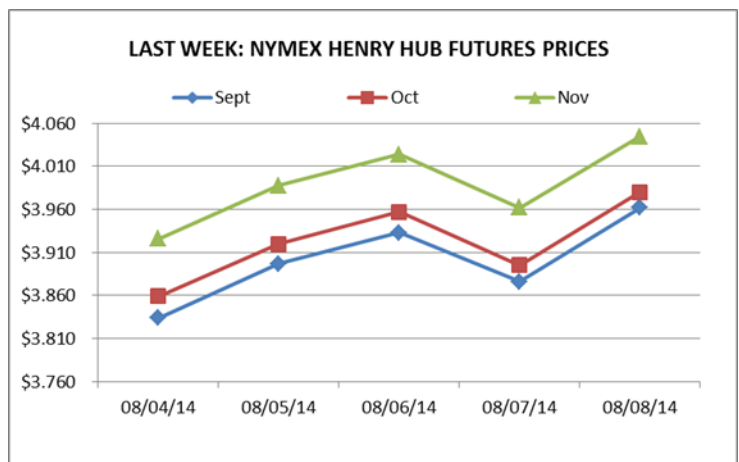
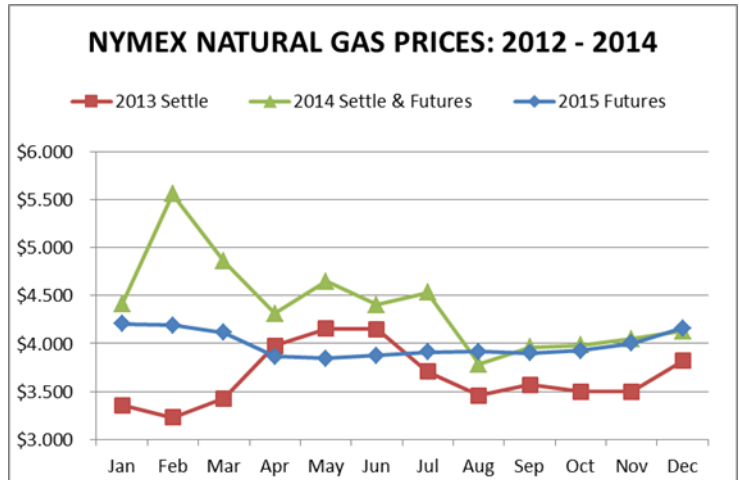
This week: U.S. energy below normal

U.S. energy use is predicted to be below normal this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2014 prices. Natural gas prices for 2014, shown below in green, are the NYMEX settlement prices for Jan.-July and futures prices for the remainder of the year.



NATURAL GAS PRICE SUMMARY AS OF 8/8/2014

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US Sept. futures				
NYMEX	\$3.962	\$0.164	\$0.395	\$3.991