North American Natural Gas Markets: Not Quite Out of the Woods

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North American Natural Gas

Marginally Supportive in 2013... But Not Out of the Woods
Not Out Of The Woods Yet...

• The US gas balance looks more price supportive in 2013, but in the short-run (12-24 months) both gas supply and gas demand are still very price elastic. That means rangebound prices.

• In the medium- to long-run, gas production will continue to be price sensitive. It is when gas demand — specifically utility demand for gas — is no longer price elastic that the market will truly turn the corner. The 2015-16 period will be key.

• Last summer gave us a taste of what coal-to-gas substitution can do to the market. This year will pale in comparison, but eventual coal retirement will make that shift to gas permanent. One implication is that gas prices will reflect a steeper summer pricing.

• Production of gas liquids has been phenomenal, and prices have come off sharply. What will it take to see a shift back to dry gas production?

• LNG will matter at the margin, but won’t be the game changer for the US supply/demand balance. Alberta is a different story...
Evolution of EIA Dry Gas Production Forecasts

Bcf/d

2010  2011  2012  2013  2014

+3.9 (2011)
+2.7 (2012)
+0.7 (2013)?
+0.3 (2014)?
The Gas Market *Had Been Very, Very Long...*

Long:Short Ratio

- **3.0**
- **2.5**
- **2.0**
- **1.5**
- **1.0**
- **0.5**

May-11 | May-12 | May-13

*CIBC Commodities Strategy, CFTC*
Natural Gas Production: One Lifeline After Another...
US Now a Net Exporter Of NGLs

- Net LPG Imports (Left)
- Gas Plant NGL Production (Right)

CIBC Commodities Strategy, EIA
Is the Liquids Subsidy At Risk...

- Net Capacity Chg In Power Gen By Fuel Source


CIBC Commodities Strategy
Hedging Had Been ‘Just In Time’ Until Q1 Rally...

% Hedged As of Q3 of Indicated Year

- Current Production Year
- Current Production Year +1
- Current Production Year +2

CIBC Commodities Strategy
Natural Gas Demand: Price Elastic Now But Not Forever
Natural Gas Competes With CAPP Coal

Competing Fuels - Past 12 Months
$/MMBtu

Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

CCGT: CAPP Coal Efficiency Band

NYMEX Henry Hub

CCGT: PRB Coal Efficiency Band

CIBC Commodity Strategy
Utility Demand Lags Last Year’s Levels...

Bcf/d

2012
2013
5 Year Avg

CIBC Commodities Strategy, EIA, Bentek
Utilities Trend Towards Natural Gas...

YoY Chg
'000 MWh

Coal  Gas

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 YTD

CIBC Commodities Strategy, EIA
Evolution of Coal Generation Retirement Schedule

As of Jan’13
As of Jan’12
As of Jan’11
Effective Retirement at Today’s Utilization

CIBC Commodities Strategy, EIA
US Coal-Fired Generation Capacity By Age

MW

< 40 Yrs (194,033 MW Total)

> 40 Yrs (146,744 MW Total)

CIBC Commodities Strategy, EIA
A Conservative View Of Future Power Generation

Net Capacity Chg In Power Gen By Fuel Source
Cumulative Gigawatts

- Natural Gas
- Coal
- Solar
- Wind
- Other

US Power Gen Slate In 2011 Vs. 2016
Gigawatts

CIBC Commodities Strategy, EIA
Summer Gas Price Peaks Get More Pronounced...

Annual Avg. Price = 1

1.20
1.15
1.10
1.05
1.00
0.95
0.90
J F M A M J J A S O N D

10 Yr Avg  Avg. 2008-12  Avg. 2003-07

CIBC Commodities Strategy
...But That Is Not Reflected In The Forward Curve Yet
LNG Now Seems Like a Reality

• It is not clear to us that LNG will make or break the US gas balance... The market will ultimately cap export volumes, not policy.

• But there will be interesting seasonal implications. The US will be the one place in the world that can both import and export LNG. The US also has significantly more gas storage capacity than Europe does.

• LNG will matter more for AECO, but not for a while.
Alberta Gas Balance Looks Heavy...Until 2020

- Potential Decline In US/Canadian Demand For AB Gas
- Potential Growth in LNG Exports West From AB
- Net

CIBC Commodities Strategy, EIA
Net ‘East of Mississippi’ US Imports Of CAD Gas

Bcf/d

Michigan / Minnesota

New England / New York

Volumes on TRP Mainline

Total Net

CIBC Commodities Strategy, EIA
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