IHS Energy

COAL & ENERGY

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Market Commentary

By Steve Hooks

- **Paringa's initial target market is West Kentucky river-served plants.**
- **Poplar Grove will start initial production, deliveries a year from now.**
- **Paringa has a five-year, 5 million-ton contract with LG&E/KU.**
- **Some of Paringa's growth may come as a result of other ILB producers failing.**

"Yeah, yeah, just barge to the head of the line, Kid!"
Old-timer to some kid somewhere

There's a new kid on the block and he's not worried about any perception of an oversupplied Illinois Basin coal market. He's also bullish on natural gas reaching $4.00/MMBtu by 2019, when his new western Kentucky production starts rolling out in earnest onto Green River barges.

He's also bullish on the export market for Illinois Basin coal, though that does not immediately figure into his marketing plans. Those plans are on the theory that, as heavy ILB exporters Murray/Foresight and Alliance Coal move more of their coal down the Mississippi to the Gulf of Mexico, he can barge to the head of the line – literally – with his coal to serve utilities in western Kentucky and the broader Ohio River market.

In order for that to happen, of course, the export market will need to remain strong on opportunity. In

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DOE report: Have plant retirements compromised reliability?

By Steve Hooks, steve.hooks@ihsmarkit.com

Not every power plant retirement is cause for alarm concerning grid reliability, according to the newly released Department of Energy study on electricity markets and reliability.

The 187-page report, as detailed in Friday's Coal & Energy Price Report, was lauded by coal industry participants as underscoring the need to bolster the remaining coal-fired power fleet in the U.S., relieve utilities of regulations that might force early retirements, and perhaps make the case that Energy Secretary Rick Perry should immediately invoke, as Murray Energy has requested, "Section 202(c) of the Federal Power Act, in order to prevent the ongoing, and irreversible, closure of many coal-fired power plants in America, and the tremendous human and financial costs which will result.

But it's more complicated than that, according to the report's findings. The reported listed nine scenarios, depending on the perspective of the stakeholder, that could define "premature retirement."

"Power plant engineers may think a power plant retired prematurely if it has not yet run to the end of its nominal design life (for instance, approximately 40 years for post-1970 coal plants) or through the term of reasonable plant life extension modifications," the report states. Or, a "vertically integrated utility executive may think a power plant has been forced to retire prematurely if the utility has not yet fully recovered its rate-based capital investment in the plant and its return on that rate base."

Or, the report continued, "Electricity economists may think a power plant has prematurely retired if the plant was still able to sell electricity competitively against other energy sources but was required to close due to policy directives. On the other hand, economists may also think a power plant retired prematurely if the plant provided un-priced benefits to society that, if priced, would have made the plant profitable."

And, the report continued, "A long-term planner and risk manager may think a power plant has retired prematurely if it offered valuable diversity, reliability, resilience, and optionality benefits that are not yet fully recognized, valued, and/or compensated.

"Each of these viewpoints represents a valid perspective, particularly those of grid operators and other institutions responsible for reliability," the report continued. "While stakeholders may maintain that a power plant has been forced to retire prematurely based on one or more of the considerations above, the results of this study show that some observed power plant retirements were appropriate and consistent with markets as they are currently functioning. In other words, not every power plant retirement is cause for alarm."

The North American Electric Reliability Corp., in response to Perry's April memo commissioning the electric reliability study, took a more technical view: "As conventional resources prematurely retire, sufficient amounts of essential reliability services, such as frequency and voltage support, ramping capability, etc., must be replaced based on the configuration and needs of the system."

The DOE study concluded: "Given the difficulty in assigning a single definition to premature retirement, as well as the subjective nature of such a definition, this study does not attempt to determine

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fact, it is likely export opportunities will have to grow. Whether such is the case remains to be seen.

The new kid on the block, Australian-listed Paringa Resources Limited, is gearing up for limited production in 2018 and hopes to go full bore in 2019 at its Poplar Grove mine, part of the two-mine Buck Creek Complex, according to CEO Grant Quasha.

He sees Buck Creek's initial customer target as the "natural trucked and river market for West Kentucky,"

That would be a contract to supply up to 3 million tons/year of 11,200-12,000-Btu, 0.12% chlorine, 2.8-3% sulfur coal, delivered as a washed/raw coal blend to LG&E/Kentucky Utilities. Paringa has a five-year commitment in place with the utility company, nearly 5 million tons total.

The broader domestic marketing view would allow the Ohio River market to see the second permitted mine, Cypress, brought online, and the potential for 7 million tons/year of production, with possible southeastern customers traditionally supplied with Central Appalachian coal. In addition to CAPP survivors, ILB longwallers are likely to provide competition.

Quasha is not deterred by current sentiment that the ILB market is oversupplied, even in the absence of Foresight Energy's long-idled Deer Run longwall operation in Illinois, which is keeping a potential 5 million tons/year out of the market.

Foresight recently noted it, too, feels there is a market for Deer Run's production if and when the mine returns to life, and Foresight has been trying to make that happen.

"Obviously the Illinois Basin is not one homogenous market, but three submarkets," Quasha said Friday. But while 2016 was tough for ILB, "2017 is a rebound year ... stockpiles have come down ... by the end of 2017, we will be in a more rebalanced position ... I think you should see that accelerate into 2018."

One needs to keep an eye on the natural gas and power markets. Prices in those sectors will play a large role in determining whether 2018 is steady as she goes, boom, or bust.

Also, Quasha said, "the surprising strength of the API 2 market" and more ILB going out of the Gulf will move demand along. There is some threat to ILB Basin market share as overall European coal demand declines, but given sulfur discounts, ILB coal certainly is highly competitive. New or expanded markets also have developed in South America and elsewhere.

Outside demand dynamics, part of the opportunity that Quasha sees developing will come as financially weaker coal companies go by the wayside.

"I think, in the basin, there's a lot of opportunity, and unfortunately it comes on the back of somebody else," he said. "Our cost structure will be lower and our logistics will be better. We're further up the Green River than (Paringa's main competitors)."

The cost structure might not be lower than Alliance's giant River View complex, but "we don't have to be competitive" with River View with Buck Creek's other advantages. "LG&E and other utilities appreciate the benefit of having a diversity of supplier relationships."

As the map below shows, the Buck Creek complex is surrounded to the west by Alliance operations. Alliance has proven itself as a premier continuous miner operator and also has low-cost longwall coal. It also has been startlingly successful in overcoming industry disadvantages that have tripped up many competitors.

ILB prices

Paringa is not an obvious exporter, Quasha said, "but we can go down the river if we decide to do so ... We will look at the export market if it is attractive, but that will be dominated by Alliance and Murray/Foresight," which has the export logistics in place, he said.

Illinois longwalls are able to price export coal netting back to the mine in the mid- to upper-$30.00s FOB, and that is competitive with other international

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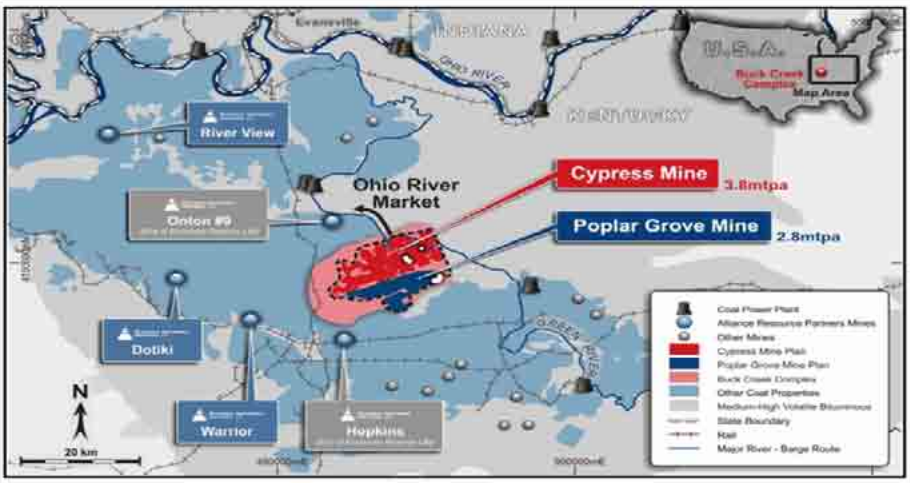
supply alternatives, Quasha said. "Most of the (other) producers are looking for numbers into the higher $30.00s (to ramp up export coal) and they're getting numbers in the mid-$30s," Quasha said.

Paringa's Buck Creek complex coal has gained better pricing than that from LG&E/KU, for FOB barge -- $40.50/ton for the first 750,000 tons and $1.00/ton incremental increases for each 1 million tons/year over the next five years, for a total contract value of $205 million, according to the company's website.

If the ILB market hits full-on demand in 2019, as Quasha expects, it will doubtless be helped along by $4.00/MMBtu natgas, which Quasha also expects: "The (natgas) market is rational in the long term ... you have a lot of these folks that are chasing production growth without profitability ... the market will rationalize, and there will not be unlimited capital" for further production growth.

"You need to drill more new holes to get the same amount of natural gas than you did two years ago, three years ago ... that marginal price will continue to increase over time."

Certainly Paringa competitors hope Quasha's view proves correct.



Source: Paringa Resources Limited

Poplar Grove started initial construction about three weeks ago, and Quasha expects the mine to produce its first coal next August, barging it to LG&E/KU in September. A prep plant is under construction and a slope is being developed. The mine will have three supersections with two continuous miners each, for six CMs total.

There has been no trouble finding labor, Quasha said: "There's a large (available) group of very competent miners ... We have far more interest than we can hire for at the moment; we'll hire in earnest next year ... I think there's a ton of great talent in the basin, and I think we're an exciting opportunity ..."

Paringa eyeing Wall Street

Right now, Paringa shares are traded in Australia only. Quasha hopes to change that.

"What we're basically trying to do is turn the Australian company into an American company," he said, adding that "all our investors are in Australia (but) all our assets are in the U.S." Paringa also has metallurgical coal reserves in Arkansas, but has no plans to develop them.

Paringa hopes to list in the U.S. by the end of this year or in early 2018, on NASDAQ or the New York Stock Exchange. "You can do it two ways: You can just list and raise money, or just list ... but we don't need to raise money" because of previous commitments from Australian investors.

Paringa has about $100 million in market capitalization -- so it's not really an IPO process to list in the U.S.

DOE ...

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whether any specific power plant retirements have been premature. Instead, this study assesses the various factors that contribute to power plant retirement trends."

The biggest contributor to coal and nuclear retirements, the study said, "has been the advantaged economics of natural gas-fired generation."

Further recommendations

One of the study's recommendations that could help coal-fired power plants is for the Federal Energy Regulatory Commission to probe deeply into wholesale power markets. For instance, PJM power auctions have been notorious for leaving coal-fired capacity in the cold as simply not competitive in the lower-priced power environment.

"FERC should expedite its efforts with states, RTO/ISOs, and other stakeholders to improve energy price formation in centrally-organized wholesale electricity markets," the report states. "After several years of fact finding and technical conferences, the record now supports energy price formation reform, such as the proposals laid out by PJM and others. Further, negative offers should be mitigated to the broadest extent possible."

FERC also should, within its statutory authority, work toward "creating fuel-neutral markets and/or regulatory mechanisms that compensate grid participants for services that are necessary to support reliable grid operations," the report continued. "Pricing mechanisms or regulations should be fuel and technology neutral and centered on the reliability services provided. DOE should provide technical and policy support that strengthen and accelerate these efforts."

DOE also "should support utility, grid operator, and consumer efforts to enhance system resilience," according to the report.

Natgas unmoved by Hurricane Harvey

The deluge that has hit the Houston area and large swaths of Texas' Gulf Coast has not moved natural gas prices.

Henry Hub prices aren't reacting to the cataclysm, that is Hurricane Harvey – now a tropical storm dumping feet of rain on South Texas – though the region is home to a heavy concentration of refineries.

Monday's price movements, in fact, were slightly downward. September-delivery HH priced at $2.87/MMBtu as of early day trading.

"Gulf production is now about 3 bcf/d as opposed to the 15 bcfd it was 15 years ago," said Sam Andrus, IHS senior director of North American Natural Gas. "Plus total production is now 74 bcfd rather than 50 bcfd of 15 yrs ago, so Gulf production outages are not a big deal. Plus, (South Texas) doesn't have much production."

He added that the "larger concern is gasoline refinery outages due to flooding" in Corpus Christi and Houston.

In fact, prices could actually drop due to hurricane-aggravated lower demand, Andrus said on Friday, just before the storm hit the shores.

"Harvey is likely to be a multi-billion-dollar disaster," according to AccuWeather hurricane expert Dan Kottlowski.

Harvey was a Category 4 hurricane when it made landfall between Port Aransas and Port O'Connor, Texas, on Friday night, AccuWeather said: "Harvey was the first Category 4 hurricane to make landfall in Texas since Carla arrived near Port O'Connor on Sept. 11, 1961. Wilma, in October 2005, was the last major hurricane to make landfall in the United States. Charley, in August of 2004 was the last Category 4 hurricane to hit the U.S. Both Wilma and Charley made landfall in Florida."

The U.S. Energy Information Administration, meanwhile, warned Friday that Harvey was "headed for an area with significant oil and natural gas infrastructure."

Global Coal News & Analysis

McCloskey Coal Report:
Comprehensive news and analysis of the global coal markets covering coal prices, seaborne trade and discussing supply and demand issues with immediate and longer term implications.

Fax:
Weekly digest of global prices and news in bite-sized form. All your weekly pricing data and market moving information in one place.

Newswire:
Real-time breaking coal market news and pricing wherever you are, delivered 24 hours a day.

North American Coal Market News & Analysis

Coal & Energy Price Report
Coal & Energy Price Report is the go-to daily publication for industry professionals. It features Commentary by Jim Thompson, critical news and insight about the U.S. domestic markets, and analysis of the U.S.' participation in international markets. The publication is included in IHS Energy's North American Coal suite.

U.S. Coal Review
Published weekly, U.S. Coal Review is focused on the U.S. utility market but has complete coverage of current coal developments including comprehensive price coverage and production trends. The publication also features weekly analysis and insight from IHS experts. The publication is included in IHS Energy's North American Coal suite.

Coal Price Data and Indexes

IHS coal price markers form a key component of the API indices, which serve as the settlement price in 90% of the world's coal derivative contracts. With its legacy of playing a key role in developing steam coal indexation, IHS McCloskey first published the NW European marker in 1991.

Available as an add on to our other products, the full set of steam, coking and petcoke prices – along with vital coal market data, news and analysis can be accessed through our online platform IHS Connect™.

Chinese Coal Market News & Analysis

The service, which comprises analytical reports and daily intelligence updates, brings together IHS' tradition of excellence in covering seaborne markets with Xinhua Infolink's knowledge and insight of the Chinese market. Recent coverage has been at the heart of the policy, regulation, implementation and effect of China's goal of reducing domestic production capacity. This intelligence is augmented with data sets of key indicators.

IHS Markit™

ENERGY

Coal Capability

Publication products and services

Global Steam Coal Service

The service is a one-stop shop for forward-looking analysis on the international steam coal market. At its core is a supply/demand and price forecast service. Outlooks are updated quarterly and backed up with in-depth commentary and a comprehensive data-base. The service also focuses on the inter-relationships between steam coal and other fuels, particularly natural gas as well as petcoke.

APAC and African Coal Market News and Analysis

Australian Coal Report
In-depth weekly coverage of Australian coal markets focusing on market moving events. Infrastructure is a key focus and includes port performance, vessel queues and freight. Australian coal statistics and published monthly in Excel covering exports and other data.

Indian Coal Report
Monthly update on developments in the Indian coal, power and steel markets, including coal production and prices. Key shipping routes to India (Cape, Mini Cape, Supermax) are assessed and priced. Data includes monthly coal imports.

Coalfax
Weekly summary of events impacting international coal markets focusing on Australia and wider Asia. Includes prices, tenders, stocks, shipping and the NEX Index, a key indicator of the spot price of thermal coal ex-Newcastle.

South African Coal Report
The interplay between domestic power demand and exports is a focus. Covers corporate news and wider African coal markets and includes an infrastructure focus on Richards Bay coal terminal, loading rates, rail, capacity, vessel queues, and freight.

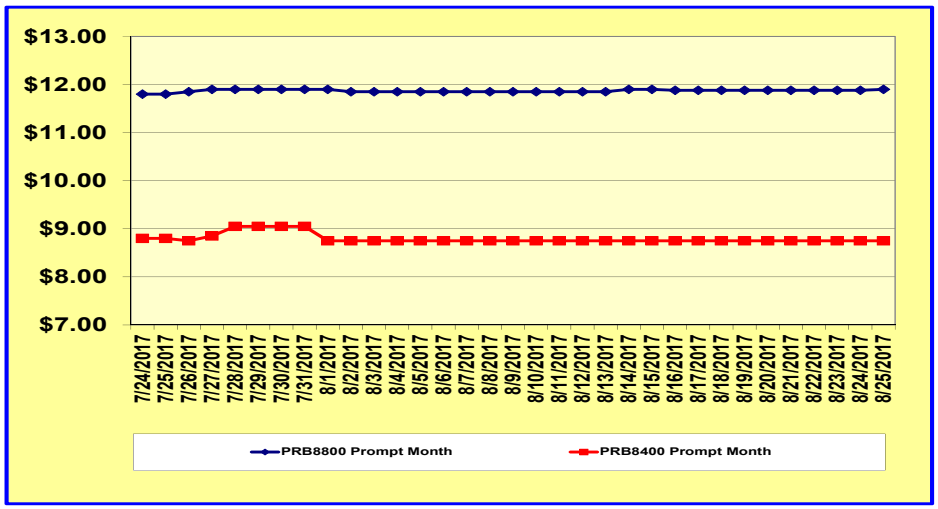
Metallurgical Coal Market Insight, News and Analysis

The Metallurgical Coal Quarterly
forecasts metallurgical coal fundamentals and price out ten years. It is the critical decision making tool for metallurgical coal market players, and those in its related commodities.

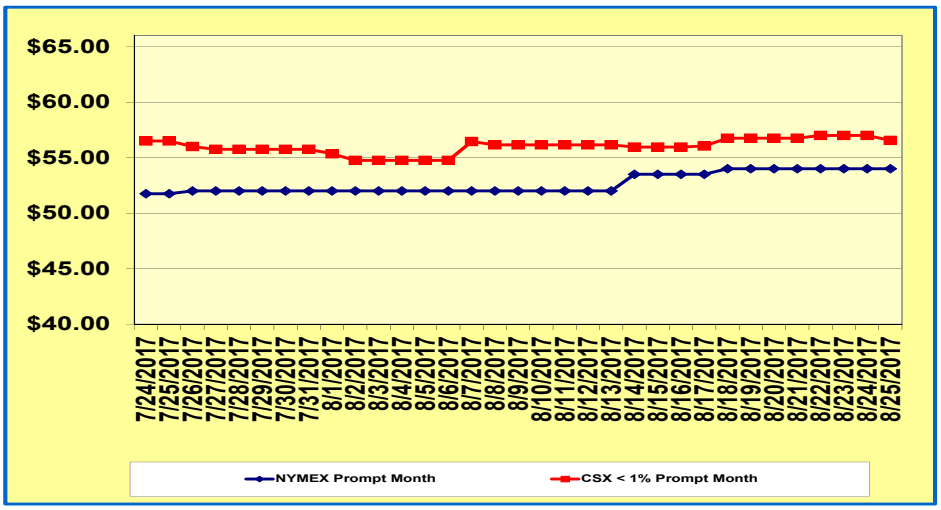
Inside Coal
Daily news and analysis of the biggest events in the international metallurgical coal market. Complete coverage of prices, deep insight from met coal specialists, and supply/demand analysis.

4109-TS-0217

Prompt Month for PRB 8800 and PRB 8400 Coals



Prompt Month for CSX < 1% & NYMEX Coals



Month Codes: Jan-F; Feb-G; Mar-H; Apr-J; May-K; Jun-M; Jul-N; Aug-Q; Sep-U; Oct-V; Nov-X; Dec-Z

OTC NYMEX Coal

(12,000 Btu/lb., 1% sulfur)

Term	Vol	Price	Bid	Offer
U17	5B	$0.00	$53.25	$54.25
V17	5B	$0.00	$53.25	$54.25
Q4'17	5B	$0.00	$53.25	$54.25
Q1'18	5B	$0.00	$54.90	$55.90
Q2'18	5B	$0.00	$54.90	$55.90
Q3'18	5B	$0.00	$54.90	$55.90
Q4'18	5B	$0.00	$54.95	$55.95
Q1'19	5B	$0.00	$56.05	$57.05
Q2'19	5B	$0.00	$56.40	$57.40
CY'18	5B	$0.00	$54.91	$55.91
CY'19	5B	$0.00	$56.55	$57.55

OTC PRB 8800

(at 0.8 lbs. SO2)

Term	Vol	Price	Bid	Offer
U17	1T	$0.00	$11.67	$12.07
V17	1T	$0.00	$11.50	$11.90
Q4'17	1T	$0.00	$11.50	$11.90
Q1'18	1T	$0.00	$11.45	$11.85
Q2'18	1T	$0.00	$11.45	$11.85
Q3'18	1T	$0.00	$11.50	$11.90
Q4'18	1T	$0.00	$11.60	$12.00
Q1'19	1T	$0.00	$11.80	$12.20
Q2'19	1T	$0.00	$11.95	$12.35
CY'18	1T	$0.00	$11.50	$11.90
CY'19	1T	$0.00	$12.00	$12.40

CSX-BSK < 1%

Term	Vol	Price	Bid	Offer
U17	1T	$0.00	$55.50	$56.50
V17	1T	$0.00	$56.40	$57.40
Q4'17	1T	$0.00	$56.40	$57.40
Q1'18	1T	$0.00	$56.20	$57.20
Q2'18	1T	$0.00	$56.20	$57.20
Q3'18	1T	$0.00	$56.20	$57.20
Q4'18	1T	$0.00	$56.25	$57.25
Q1'19	1T	$0.00	$56.70	$57.70
Q2'19	1T	$0.00	$57.05	$58.05
CY'18	1T	$0.00	$56.21	$57.21
CY'19	1T	$0.00	$57.20	$58.20

Hill Daily Index ©

Quality	Hill Price	Hill Index	Last Trades
NYMEX Current Quarter, Plus One	$42.75	178.50	07/31/15
NYMEX Current Quarter, Plus Two	$47.80	199.58	04/29/15
NYMEX Next Calendar Year	$42.50	177.45	09/10/15
PRB 8,800 Current Quarter, Plus One	$11.35	254.48	07/13/17
PRB 8,800 Current Quarter, Plus Two	$11.71	262.56	05/08/17
PRB 8,800 Next Calendar Year	$11.51	258.07	05/19/17
PRB 8,400 Current Quarter, Plus One	$10.50	303.47	06/10/14
PRB 8,400 Current Quarter, Plus Two	$0.00	0.00	07/15/13
PRB 8,400 Next Calendar Year	$0.00	0.00	07/15/13
CSX <1% sulfur Current Quarter, Plus One	$56.75	218.27	08/17/17
CSX <1% sulfur Current Quarter, Plus Two	$56.75	218.27	08/16/17
CSX <1% sulfur Next Calendar Year	$56.75	218.27	08/16/17
CSX compliance Current Quarter, Plus One	$0.00	0.00	03/09/11
CSX compliance Next Calendar Year	$0.00	0.00	10/15/07
NS <1% sulfur Current Quarter, Plus One	$54.75	210.58	05/29/17
NS <1% sulfur Next Calendar Year	$63.50	244.23	12/05/13
NS compliance Current Quarter, Plus One	$0.00	0.00	12/09/10
NS compliance Next Calendar Year	$0.00	0.00	12/19/11

All prices are based exclusively on latest actual trades, and are indexed against market as of 12/28/99, when NYMEX-spec coal had been traded most recently at $23.95/ton, 8,800 Btu/lb. Powder River Basin coal at $4.46/ton and 8,400 Btu/lb. PRB coal at $3.46/ ton. The eastern rail index is measured against an arbitrary price of $26.00/ton. "Hill Index" reflects weighted average of prices recorded on most recent trading day. On days when no trades occur, published index remains at previous level. "Mid-market" reflects mid-point of current bid/ask values.

OTC Broker Index

August 25, 2017

	NYMEX look-alike	CSX 12,500 -1% sulfur	PRB 8,400	PRB 8,800
Prompt Month	54.00 0.00	56.55 -0.45	8.75 0.00	11.90 0.02
Prompt Quarter	54.00 0.00	56.75 0.00	8.75 0.00	11.70 0.00

NYMEX Futures

Term	Last	Open High	Open Low	Most Recent Settle	Prev. Day Total Vol
Natural Gas (Henry Hub)					
U17	2.895	2.952	2.881	2.949	52950
V17	2.927	2.982	2.914	2.982	103125
Crude Oil					
V17	47.800	47.910	47.390	47.430	624632
X17	48.030	48.160	47.670	47.700	129524

Price Markers

NAPP 12,900 Btu/lb., 3.4 lbs SO2/MMBtu, $44.23/ton (RAIL)
ILB 11,500 Btu/lb., 4.0 lbs. SO2/MMBtu, $36.58/ton (RAIL)

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