West Virginia’s Metallurgical Coal & Markets

West Virginia 2011 Energy Summit
December 6, 2011
Roanoke, West Virginia

We Manage the Process
From the Ground Up
Topics for Discussion

» Demand for Met Coal – Strong Growth
  • Economic Recovery
  • Significant Themes / Events

» U.S. Met Coal Participation – Strong Growth
  • Increased production of U.S. met coal
  • Supply chain challenges

» U.S. Exports to Asia – Sustainable
  • Structural shift in seaborne met trade
  • Wider acceptance / Customer diversification strategy
  • Creative supply chain improvements
Company Profile - Xcoal

Privately held company specializing in the export of U.S. origin hard coking, PCI, and anthracite coals to integrated steel mills throughout the world

FY 2011 Forecast:

» Revenues in excess of $3.0 billion

» Exports of 13-15 million tons of U.S. origin coking coal and anthracite

» Contracts for 15-17 million tons of rail and throughput capacity to ensure reliable and timely deliveries

» Supplier of low, mid, and high volatile coking coals

» Approximately 75% of sales to customers in the Asia Pacific region

» Long-term contracts of 3-5 year duration with major integrated steel mills in Asia
U.S. Coal Producing Regions

- Dakota Lignite
- Powder River Basin
- Rocky Mountains
- Illinois Basin
- Northern Appalachia
- Central Appalachia
- Southern Appalachia
- Texas Lignite
- Anthracite
- Coking Coal
Metallurgical Coal in West Virginia

- Southern West Virginia:
  - Boone County
  - Fayette County
  - Greenbrier County
  - Kanawha County
  - Logan County
  - McDowell County
  - Mingo County
  - Raleigh County
  - Wyoming County

- Northern West Virginia:
  - Barbour County
  - Grant County
  - Mineral County
  - Nicholas County
  - Preston County
  - Randolph County
  - Tucker County
  - Upshur County
  - Webster County
West Virginia Metallurgical Coal

» Estimated production in 2011 - approximately 55 million tons of metallurgical coal

» Sales of metallurgical coal contribute approximately US$8.25 billion of revenues to producers of metallurgical coal in West Virginia

» Additional economic and employment benefits associated with rail transport, truck transport, parts, supplies, and other ancillary industries which are required to support this level of metallurgical coal production
Economic Recovery – Two Speeds

» Emerging Economies:
  • Rapid and steady economic growth
  • Moderate and manageable debt levels
  • Inflation concerns
  • Overheating risk

» Advanced Economies:
  • Slow to moderate economic growth
  • High debt levels and credit risk
  • Low to moderate inflation
  • Stagnation risk
Significant Themes / Events

» 2011 looking like 2010 – around the same time last year, a global economic slowdown seemed likely but did not occur
  • Far too early to draw any negative conclusions

» Economic data indicates that we will not experience a double dip recession
  • The global economic expansion appears strong enough to withstand the major known uncertainties

» Signs of Recovery
  • Global met coal trade
  • Steel & iron production-expected to increase 5.4% in 2012

» Rains in Queensland had a significant impact in 2010 & 2011
  • Highlighted exposure to Australian supply (Japan, India, etc.)

» Higher levels of U.S. seaborne met tonnage needed to balance the market
  • US export levels returned to levels not achieved since the 1990’s
Significant Themes / Events (cont.)

» Long term structural weakness in the $USD should help drive exports and drive U.S. recovery & global rebalancing
  • Since 2008:
    › AUD appreciated 50% against $USD
    › CAD appreciated 25% against $USD

» Consolidation in U.S. met space continues – met reserves still affordable
  • Alpha / Massey
  • Arch / ICG
  • James River / L&K

» In this environment, commodity prices will trend higher – however with potential continued volatility
What are the Factors that attract U.S. Coal to the Seaborne Market?

When asked by a reporter - "Why do you rob banks?"

Willie Sutton replied- "Because that’s where the money is"

Willie Sutton 1901 – 1980
Bank Robber - USA
Crude Steel Production-China & USA
(1969 thru 2011)

Source: IISI
World Iron Production – Top 40 Countries
(January 2010 through October 2011)

Source: IISI
## Global Seaborne Coal
### 2011 (estimate)

<table>
<thead>
<tr>
<th></th>
<th>Metric Tons (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metallurgical Coal</td>
<td>262</td>
</tr>
<tr>
<td>Thermal Coal</td>
<td>741</td>
</tr>
<tr>
<td>Total Seaborne Trade</td>
<td>1,003</td>
</tr>
</tbody>
</table>

U.S. origin metallurgical coal represents ~22% of the global seaborne metallurgical coal trade
U.S. Coking Coal Update

» Despite regulatory, financial, and regulatory restrictions, the U.S. mining industry was able to expand coking coal production
  • U.S. mining industry is currently focused on coking coal investments / expansion

» Infrastructure tested
  • Met coal is no longer the only player in town
    › Steam exports YTD represents 35% seaborne exports
  • Port demand stretching capacity limits
  • RR capacity overloaded

» Creative supply chain improvements necessary to ensure stable supply
Northern Appalachia contribution expanding. 2011 is expected to contribute 20 million MT of which 16 million metric tons exported.
U.S. / North American Coking Coal Demand
(2008 through 2011)

MT (MM)

Year

2008 2009 2010 2011 e

Total N.A.

26 18 25 27

U.S.

20 14 19 21
50% increase in coking coal exports from the U.S. in CY2010 and another ~15% in CY2011 (Xcoal estimate)
U.S. Coking Coal – Export vs. Domestic
(1973 through 2011)
U.S. Primary Rail Transport and Bulk Terminal Operations for Export Coal
## Nominal vs. Actual Coal Terminal Capacity

(U.S. million short tons)

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Storage</th>
<th>Rated Capacity</th>
<th>Actual Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamberts Point*</td>
<td>0.5</td>
<td>40.0</td>
<td>38.0</td>
</tr>
<tr>
<td>DTA</td>
<td>1.1</td>
<td>22.0</td>
<td>19.0</td>
</tr>
<tr>
<td>KM Pier IX</td>
<td>0.8</td>
<td>14.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Chesapeake Bay</td>
<td>0.4</td>
<td>10.0</td>
<td>7.5</td>
</tr>
<tr>
<td>CNX Marine (Consol)</td>
<td>1.2</td>
<td>18.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Mobile – 3 berths**</td>
<td>1.5</td>
<td>20.0</td>
<td>10.0</td>
</tr>
<tr>
<td>IMT</td>
<td>1.3</td>
<td>8.0</td>
<td>6.0</td>
</tr>
<tr>
<td>United</td>
<td>4.0</td>
<td>20.0</td>
<td>17.0</td>
</tr>
<tr>
<td>IC Rail Marine</td>
<td>1.0</td>
<td>4.0</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>126.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastwise (Subtracted)</td>
<td></td>
<td>(13.0)</td>
<td></td>
</tr>
<tr>
<td><strong>Total (M short tons)</strong></td>
<td>11.8</td>
<td>156.0</td>
<td>113.0</td>
</tr>
</tbody>
</table>

* Lamberts storage in railcars
** Mobile 1 dedicated export; 2 import (cap. 10m & 10m)
U.S. Terminal Expansions & Improvements

» Existing Terminal Improvements
  • 3-6 month time horizon
  • Track reconfigurations
  • Operational efficiencies
  • Ground storage manipulation

» New Terminal & Rail Projects
  • 3-5 year time horizon
  • Capital intensive
  • “If you build it, will they come?”
    ‣ Fairless Hills, PA
    ‣ Charleston, SC
    ‣ Tampa, FL
    ‣ Others…
U.S. East Coast – Coking Coal Exports
(January 2009 through October 2011)
U.S. East Coast – Coking Coal Exports
(Asia Focus)
All segments of the supply chain, i.e. mines, railways, barge lines, and terminals, are responding to the significant increase in demand for coal exports.
Top 10 U.S. Exporters – YTD October 2011
(East Coast Exports)
Asia - Demand

» Korea – integrated steel mills operating at 90%-100% capacity
  • Despite the potential for financial contagion from the Eurozone, demand within Asia remains stable

» Japan – despite the economic consequences of the earthquake and tsunami, the Japanese steel industry is forecasted to produce 105-110 million tons of steel in 2011
  • Some impact on auto production due to the flooding in Thailand

» Chinese Steel Production
  • 2010 - 627 million tons
  • 2011 - ~680 million tons based on current daily operating rates
  • As a comparison, the U.S. production:
    › Approximately 80.5 million tons of steel in 2010
    › Producing at an annualized rate of 94 million tons in 2011
U.S. Origin Coking Coal to Customers in Asia
(FY 2011 / 2012 Forecast)

<table>
<thead>
<tr>
<th>Destination</th>
<th>Metric Tons (rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>7,800,000</td>
</tr>
<tr>
<td>China</td>
<td>4,000,000</td>
</tr>
<tr>
<td>Korea</td>
<td>3,500,000</td>
</tr>
<tr>
<td>India</td>
<td>3,500,000</td>
</tr>
<tr>
<td>Taiwan</td>
<td>300,000</td>
</tr>
<tr>
<td><strong>Total Demand</strong></td>
<td><strong>19,100,000</strong></td>
</tr>
</tbody>
</table>

The total demand represents an increase of approximately 70% from CY2010 levels.
## U.S. East Coast - Coal Export Tonnage
(YTD October 2011 metric tonnes)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>2011 - YTD Oct (mt)</th>
<th>2010 - YTD Oct (mt)</th>
<th>% Change - YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NETHERLANDS</td>
<td>5,901,434</td>
<td>4,199,609</td>
<td>41%</td>
</tr>
<tr>
<td>2</td>
<td>BRAZIL</td>
<td>4,865,508</td>
<td>4,460,395</td>
<td>9%</td>
</tr>
<tr>
<td>3</td>
<td>JAPAN</td>
<td>4,474,979</td>
<td>2,214,615</td>
<td>102%</td>
</tr>
<tr>
<td>4</td>
<td>KOREA</td>
<td>4,268,966</td>
<td>2,084,261</td>
<td>105%</td>
</tr>
<tr>
<td>5</td>
<td>ITALY</td>
<td>3,974,852</td>
<td>2,148,225</td>
<td>85%</td>
</tr>
<tr>
<td>6</td>
<td>CHINA</td>
<td>3,699,749</td>
<td>2,609,495</td>
<td>42%</td>
</tr>
<tr>
<td>7</td>
<td>UKRAINE</td>
<td>2,477,718</td>
<td>1,879,007</td>
<td>32%</td>
</tr>
<tr>
<td>8</td>
<td>FRANCE</td>
<td>2,316,113</td>
<td>1,984,502</td>
<td>17%</td>
</tr>
<tr>
<td>9</td>
<td>INDIA</td>
<td>2,269,220</td>
<td>1,981,121</td>
<td>15%</td>
</tr>
<tr>
<td>10</td>
<td>UNITED KINGDOM</td>
<td>1,648,788</td>
<td>2,135,123</td>
<td>-23%</td>
</tr>
</tbody>
</table>
## U.S. East Coast - Coal Export Tonnage
(YTD October 2010 vs. YTD October 2011)

<table>
<thead>
<tr>
<th>Rank</th>
<th>2010 - YTD Oct (mt)</th>
<th>2011 - YTD Oct (mt)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>BRAZIL</td>
<td>NETHERLANDS</td>
</tr>
<tr>
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</tr>
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<td>CHINA</td>
<td>JAPAN</td>
</tr>
<tr>
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<td>KOREA</td>
</tr>
<tr>
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<td>ITALY</td>
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<td>UNITED KINGDOM</td>
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<td>INDIA</td>
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</tr>
<tr>
<td>10</td>
<td>UKRAINE</td>
<td>UNITED KINGDOM</td>
</tr>
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</table>
Supply Chain Improvements

» The challenge for U.S. origin coal is to ensure a sustainable, efficient, and competitive supply chain to customers in Asia

» In response to that challenge, Xcoal implemented the following “top-off” procedure
  • Load 180K – 200K DWT capesize vessel to ~125K
  • Load 55K – 75K DWT belted self-unloading vessel
  • The two vessels “meet” at a protected anchorage where the belted self-unloader transfers its cargo to the capesize vessel

» The customers realize the benefit of lower cost ocean freight which reduces the delivered cost of the coal

» The loading terminal realizes the efficiency improvements and increased capacity resulting from the use of larger vessels
Xcoal’s “top off” operation was recently recognized by World Coal magazine in its Annual Review of major coal projects.

World Review 2011

World Coal compiles its annual review of some of the major coal-related projects, in various stages of completion, across the globe.
Market Volatility

» 2010 – move to quarterly pricing from annual pricing
  • Australian HCC prices range from US$225-$200/MT FOBT

» Q4 2010 through Q1 2011 – flooding affects Australian coking coal production for the second consecutive year

» 2011 – attempt to shift to spot pricing from quarterly pricing
  • Australian HCC prices range from US$330-$235/MT FOBT

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Price (US$/MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2010</td>
<td>$209</td>
</tr>
<tr>
<td>Q1 2011</td>
<td>$225</td>
</tr>
<tr>
<td>Q2 2011</td>
<td>$330</td>
</tr>
<tr>
<td>Q3 2011</td>
<td>$315</td>
</tr>
<tr>
<td>Q4 2011</td>
<td>$285</td>
</tr>
<tr>
<td>Q1 2012</td>
<td>$235</td>
</tr>
</tbody>
</table>
Summary (1)

» Return of U.S. origin coking coal as a long term, sustainable supply source for the international market
  • U.S. companies with potential to increase coking coal production have responded

» Fundamentally, the global coking coal market appears tight

» Higher levels of U.S. seaborne met tonnage needed to balance the market

» Disruption in coal supply from Australia in late 2010 early 2011 highlight how exposed the met market is to Australian supply

» Expect met coal exports from the U.S. will remain strong over the year but see potential for some moderation as Australian supply recovers
Summary (2)

» Met coal consumers worldwide implementing diversification strategy

» China’s and India’s move to significant importers “structurally” changes the seaborne coking coal market

» Although met coal demand expected to grow in ROW, majority of growth expected to come from India & China

» Renewed merger activity and investments at home and abroad

» Subject to the regulatory environment, there are tremendous opportunities for sustainable operation, and new development, of metallurgical coal mines in West Virginia
Credits

» American Iron & Steel Institute
» CRU Analysis
» International Iron and Steel Institute
» John T. Boyd Company
» Macquarie Research
» McCloskey Group
» T. Parker Host
» World Steel Association
» World Steel Dynamics
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