Asian Supply Dynamics: India Emerges as a Significant Force

Matt Ferguson
Vice President, Energy Coal Marketing

12 September 2007
Disclaimer

The views expressed here contain information derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. Any forward looking information in this presentation has been prepared on the basis of a number of assumptions which may prove to be incorrect. This presentation should not be relied upon as a recommendation or forecast by BHP Billiton.

Nothing in this release should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.
Contents

• The Growing Demand for thermal coal in India
• Supply Options
• Asian Supply Dynamics and the Challenges
• BHP Billiton’s Positioning
• Summary
Contents

The Growing Demand for thermal coal in India

• Supply Options
• Asian Supply Dynamics and the Challenges
• BHP Billiton’s Positioning
• Summary
India - A Real Growth Story!

- India’s Thermal Coal requirement is approx 380Mtpa and indigenously, it produces in excess of 350Mtpa. However, 2 significant constraints exist in India’s thermal coal requirement for self-sufficiency:
  - Logistics constraints (esp. rail) in transporting coal from the main production centres in the East to the demand hubs in the west and south east.
  - Indigenous coal is of a lower quality, relative to global standards, especially in terms of ash content (>30%).

7-9% GDP Growth  
Energy security a “key focus”

Energy requirements 6% growth per annum

4 fold increase in India’s Energy requirement in the next 25 years

Private sector participation in ownership and operation of fuel assets
Broad basing supply chain
Focus on longer term price protocol

4.5% increase in global coal consumption in 2006 → 90% of consumption growth and 80% of production growth occurring in the APAC region. At the end of 2006, 909Bt of Coal estimated globally, a third of which are in the APAC region - BP

Source: Planning Commission of India
India’s Primary Energy Sources for Power

The currently known extractable reserves of coal would be exhausted in 45 years. We are now importing 20-22 mt of coal annually, and much of it is coking coal. Imported coal might become cheaper in coastal areas. By the end of the 11th plan, the imports could be 40-50 mt or even more. Coal will be India’s predominant fuel till at least 2031-32. We will be relying more on imported energy. Rail freight tariff for coal needs to be rationalised by doing away with the cross-subsidy from coal to other freight. We’ve been taking this up with the rail ministry.

Source: Kirit Parikh – Energy Commission India

Source: Planning Commission of India
Increased Need for Additional Power….

India’s current installed power capacity stands at 128,000MW, and of this 70,000MW is fired by coal. To meet peak demand and energy requirements as projected, India plans to increase installed capacity by 4 or 5 fold.

India’s generators to raise imports 50%

Source: McCloskey

<table>
<thead>
<tr>
<th>India’s importing generators</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTPC</td>
<td>5.00</td>
<td>7.00</td>
</tr>
<tr>
<td>TNEB</td>
<td>1.20</td>
<td>1.50</td>
</tr>
<tr>
<td>GEB</td>
<td>1.20</td>
<td>2.00</td>
</tr>
<tr>
<td>Mahagenco</td>
<td>0</td>
<td>2.50</td>
</tr>
<tr>
<td>Punjab</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Haryana</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>DVC</td>
<td>0</td>
<td>0.75</td>
</tr>
<tr>
<td>WBPD</td>
<td>0</td>
<td>0.12</td>
</tr>
<tr>
<td>Tata</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Reliance</td>
<td>0.70</td>
<td>0.70</td>
</tr>
<tr>
<td>Torrent</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>CESC</td>
<td>0.40</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Source: The McCloskey Group
Global demand growth expected: Pacific market growth is most rapid

- China and India are key to demand growth expectations
The Drivers Behind an Increase in Imported Thermal Coal

A deficiency or lack of...

- Coal sector reforms
- Inland infrastructure weaknesses
- Bituminous Coals sourced from Indonesia
- Exports from China
- Alternative sources of energy

An efficiency and progress in...

- A buoyant economy
  - Power sector reforms (transparent bidding process)
  - Cement industry growth – 10%
  - Port investments
  - Environmental awareness
Contents

• The Growing Demand for thermal coal in India
  Supply Options
• Asian Supply Dynamics and the Challenges
• BHPB’s Positioning
• Summary
India’s First Import of Thermal Coal

Indian Thermal Imports 1997 - 2006

Source: Barlow Jonker
India’s Import of Thermal Coal - 2002

China – 1.7Mt
Indonesia – 5.1Mt
South Africa – 3.8Mt
Australia – 1.8Mt

Source: Barlow Jonker
India’s Import of Thermal Coal – 12 mo. ending Jun 2007

China – 2.3Mt
Indonesia – 18Mt
South Africa – 6.5Mt
Australia – 0.6Mt

Source: McCloskey, China Customs, Barlow Jonker
India’s Thermal Coal Import Demand

Note: Import coal is estimated on 5500NAR basis
Source: Barlow Jonker
Contents

• The Growing Demand for thermal coal in India
• Supply Options
• Asian Supply Dynamics and the Challenges
• BHP Billiton’s Positioning
• Summary
Supply Dynamics: India – As a Customer

• Key swing demand centre between the Atlantic and the Pacific

• Power generators are able to burn a wide range of coal specifications

• Large domestic supply to provide blending opportunities

• Growing port infrastructure to increase imports though expansion projects

• India plays a key role the triangular freight route between Australia and China, and thus forms a key freight route, especially after more cape berths are established in India
Coming of Age in International Coal Markets

- Pricing on a delivered, multi-source index basis
- Credit and reliability
- Consolidate group requirements
- Producer / end user relationship
- Clean Development Mechanism projects
Contents

• The Growing Demand for thermal coal in India
• Supply Options
• Asian Supply Dynamics and the Challenges

BHP Billiton’s Positioning
• Summary
BHP Billiton is Well Positioned to Capture a Share of India’s Growth

• Long presence in India with a deep knowledge & understanding of the market. Sales of 10Mt of coking coal to India in FY07.

• Geographic location of India and BHP Billiton’s asset base provides a unique opportunity for a multi-basin supply position.

• Potential to establish a significant long term position in a fast growing and large import market in the Pacific basin – key to identify partners in India for current and future business.
2006 BHP Billiton Thermal Coal Position

Note: All sales including sales of coal from agency and 3rd party sourcing Colombia sales refers to equity share of Cerrejon sales.
Specifically BHP Billiton in India offers…

- **Security of supply**
  - BHP Billiton’s seabourne thermal coal book is >55mtpa
  - Access to the Atlantic and Pacific traded positions

- **Quality assurance**

- **Risk mitigation**
  - Pricing on an index related basis

- **Freight position**

- **Emissions credits**

- **Strong balance sheet**
Contents

- The Growing Demand for Energy Coal in India
- Supply Options
- Asian Supply Dynamics and the Challenges
- BHP Billiton’s Positioning

Summary
Summary - The Future for Imported Thermal Coal into India is Very Bright

*This is driven by:*

– The inability of domestic resources to ramp up production in a timeframe conducive to the steep growth curve.
– The intrinsic demand for power, and the energy commission decree that coal is the fuel of choice for the next 20 years.
– The economy driving the need for infrastructure growth – rapidly – fuelling the 10% growth in cement production.
– India is placed, geographically, in a desirable position as a sink for most grades of coal.

*Translates into*

– The industry will move to being **less price sensitive** and more price receptive in line with industry norms.
– **Security of supply will become key** and thus lead to long term coal supply agreements priced on an index basis – Thus moving away from spot sales and prompt tenders on a fixed price basis.
– **End consumers will look for a packaged service directly with producers,** rather than merely coal supply to a port, i.e. quality management, forward joint planning, risk mitigation and carbon emissions consultation.
Thank You

bhpbilliton