An attractive opportunity for coking coal miners to invest in coke making business in India, given the low cost coke plant technology as well as lowest coke processing cost in the world.

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Metcoke World Summit 2013, Pittsburg, PA, USA
November 4, 2013 – November 6, 2013
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Standalone merchant coke plants in India have no future because coke making is primarily:
- a prerogative of coking coal miners and
- an in house activity for a steel maker.

- India does not have low ash metallurgical coking coal. It depends on imported coal from Australia, Russia, US, Mozambique, Canada to run its coke manufacturing activities.
- Low cost of production of metcoke is one of the crucial factors for the survival of a coke plant.
- Total dependence on imported coking coal will continue to expose the Indian met-coke industry to unhealthy market volatility.

So, how will the Indian met-coke industry survive?
Change in Operating and Structural Model

The merchant coke industry in India can survive by changing the operating model and structure of coke production in the country by:

- Securing long-term coking coal supply directly from coal miners, OR by owning captive coal mines;
- Optimal use of coal- by generating power through waste heat recovery method;
- Securing long term marketing tie-up in form of off take agreements with consumers of coke.
The demand for metallurgical coke in India is estimated to be 27Mt with integrated steel plants accounting for two-thirds of the demand and merchant pig iron producers about 20%.

India does not have low ash coking coal. Nevertheless, requirements for Met Coke are expected to grow exponentially to feed India’s steel production target of 120 million tons over the next 3-4 years.
The integrated steel plants have their own captive coke ovens meeting their entire coke requirement (E.g.: SAIL, TATA, RINL).

The pig iron producers mainly operate mini blast furnaces and several of them do not have captive coke ovens.
Merchant Coke Demand

- Non captive pig iron plants account for half of the merchant coke demand.
- Ferroalloy producers (SiMn/FeMn/FeCr etc.) account for about 26% of the demand.
- Other coke consumers include soda ash, zinc and lead smelters, and small scale foundries among others.
India has an estimated merchant coke demand of 5.7Mt driven mainly by the non integrated mini blast furnace based pig iron producers and ferro-alloy producers. While the merchant coke producers meet majority of the merchant coke demand in India the balance of demand is met from imports. India has become a structural importer of coke with consistent imports of more than 2Mtpa during the last 5 years. Currently, there is a shortage of good quality coke from the domestic sources with very few reputed producers.
Indian coke imports 2001 – 2012, (1,000 t)
Estimated Indian coke imports by country of supply 2012, total 2600kt

- Ukraine
- Japan
- Others
- Russia
- China
Global Coke Exports

- The global seaborne merchant coke demand is estimated to be in the range of 10-15Mt and India accounts for about 20-25% of this demand.
- Traditionally, China dominated the global seaborne merchant coke market with a share of 50% or more. However, starting 2009, its exports declined significantly owing to a steep hike in China’s captive consumption followed by export tax and quotas imposed by the Chinese government on coke exports.
- Other significant suppliers into the global seaborne merchant coke market include Ukraine, Russia, Poland, Japan, and Colombia.
India - Industrial Facts

4th Largest Producer of Crude Steel in the World
- Present Capacity around 66 Mt.
- Production around 53.90 Mt

Estimated Capacity Addition
- 120 Mt by 2017 – 18
- 220 Mt by 2021 – 2022

India’s Steel consumption is expected to grow by 8% annually after 2014.
Largest Producer of Sponge Iron with an annual Growth of 14%
Steel demand in India is expected to grow 3.4% this year, faster than the 2.6% expansion recorded in 2012, when high inflation and structural problems in the economy restricted its use. Next year, however, the demand is set to grow at a substantially faster 5.6% due to accelerated attempts to implement structural reforms, according to the World Steel Association's short range outlook for 2013 and 2014.
India’s steel consumption in the first six months of the current fiscal remained flat, showing just 0.8 percent year-on-year growth due to poor offtake by construction and automobile sectors.

The consumption of finished steel, a key indicator to the health of an economy, was at 36.58 million tonnes (MT) during the April-September period of the current fiscal, data compiled by Joint Plant Committee (JPC), a unit of the Steel Ministry, has revealed.

India, world's fourth largest steel maker, had consumed 36.28 MT steel during the April-September period of the last fiscal.

Coupled with beleaguered auto sector, the bad run of the construction sector, which consumes maximum steel, is taking a toll on the steel consumption, according to industry analyst, adding good times are ahead with the elapse of the monsoon season.

Meanwhile, imports of steel during the April-September period has also come down by 25.2 percent to 2.9 MT against 3.9 MT a year earlier.

Exports were also down by 0.4 percent to 2.3 MT.
Total production, however, was up by 6.2 percent to 40.3 MT during the April-September period compared to 38 MT during the same period last fiscal, JPC data revealed.

SAIL's production was up by 5.8 percent at 5.28 MT. RINL produced 11.8 percent to 1.38 MT. Tata Steel's production was up by 27.4 per cent to 3.65 MT.

World Steel Association (WSA) has recently slashed its projection for India's steel demand growth to 3.4 percent for the current year from the earlier forecast of 5.9 percent.

"In India, steel demand is expected to grow by 3.4 per cent to 74 million tonnes (MT) in 2013 following 2.6 per cent growth in 2012 as high inflation and structural problems are constraining steel using sectors' activities," the industry association had said in its short-range outlook released earlier this month.

WSA had in April projected India's steel demand growth at 5.9 per cent for 2013, pinning hopes on monetary easing and investment activities.
Based on data provided by The Planning Commission of India, India is proposing to increase its steel production to 120 million tons in the next 3-4 years.

This means additional steelmaking capacity of 53 million tons will be built in the next 3-4 years.

If 70% of the new capacity is produced through the BF route, additional 37 million tons of steel production will require additional 24 million tons of coke.

Now, from where will the additional coke be sourced?
Opportunity

- 32 million tons of coking coal [i.e. at a coal to coke yield ratio of 75%] will be required.
- Incidentally most of the coke will be produced by ISPs.
- But around 7-8MT will be catered to by merchant coke plants and/or through imports.
- The Indian Ferro-alloy production was 3MT in 2012 and is one of the fastest growing industry sectors of the country. This sector is completely reliant on merchant coke plants.
- The combined growth of non captive pig iron plants and Ferro Alloys production will increase merchant coke demand to 10MT over the next 3-4 years.
Present Structure of the Industry

Existing merchant coke plants in India are unviable because of:

(a) Fragmented and unorganized industry
(b) Low scale of operation,
(c) No coking coal supply security and
(d) No utilization of waste heat to generate power.
Coke making business in India needs **structural changes**.

- Economic scale of operation;
- Captive coking coal supplies;
- Compulsory Waste Heat Recovery for Power Generation*;
- Low operating cost with optimum coal blending;
- Firm off take agreement with coke consumers.

*Note: Cost of electricity in India is very high. There is a huge demand supply gap. This is one of the factors which contribute to better viability of heat recovery coke ovens as against by-product recovery coke ovens.*
India can be a very big market for US coal miners.

US has the capacity to invest in large coke plants suitable for securing economies of scale, build waste heat recovery power plants.

US coking coal is available in all grades (low vol, high vol, mid vol) – which makes it perfect for blending for quality coke making at a competitive price.
India uses a low cost high yield technology for production of coke.

- Low cost technology means both low capital cost as well as low operating cost as compared to cost of production for similar grade of coke produced elsewhere.
- India boasts of low cost highly skilled man power.
- Waste Heat Power is a high revenue generator due to India’s energy deficiency.
- India being a peninsula is easily accessible by sea providing ideal conditions for trade.
- Strategic location allowing to tap the demands of middle eastern and South East Asian markets.
About Us

Global Coke Limited
GCL - Capacity

Present Capacity : 0.444 Mt

Proposed Capacity
By 2014-15 : 0.600 Mt
GCL – Jamnagar, Gujarat Plant
GCL – Sindhudurg, Maharashtra Plant
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Thank You