Hindalco - Scaling New Heights

Hindalco Industries Ltd is a leading global non-ferrous metals player with interests in aluminium and copper. It is one of the largest producers of Primary Aluminium and Copper in Asia. The acquisition of Novelis Inc in 2007 positioned Hindalco among the top five aluminium majors worldwide in terms of shipments and No.1 in the world in FRP (flat rolled products) market with a global footprint in 12 countries. Total consolidated turnover of USD 16 billion (~Rs. 72,000 crore in FY11) places Hindalco in the Fortune 500 league.

In Aluminium business, Hindalco started with an integrated complex at Renukoot, UP, commissioned in 1962, and has grown over the years through a healthy mix of organic and inorganic growth with several brown field expansions and acquisitions, including that of INDAL, copper mines, Pennar Aluminium, Annapoorna Foils and Novelis.

Currently, Hindalco is a leading producer of Aluminium (one-third of India's total production) and the largest producer of value-added downstream products (half of FRP market and one-fifth of extrusions market). Hindalco's Copper business was acquired from Indo Gulf (a sister company within Aditya Birla Group) in 2002, as a strategic compliment to the Aluminium business. Copper is produced at Dahej, Gujarat, one of the world's largest single-location smelters, using imported copper concentrate. The business also produces many value-adding co-products including DAP fertilizer, precious metals and sulfuric acid.

Manufacturing Facilities

The following table shows the manufacturing facilities of Hindalco in India.

Products	Capacity (Ktpa)	Locations	Captive Use (if any)
Alumina	1,500	Renukoot (750), Belgaum (350), Muri (400)	~ 75-80% (Std grade Alumina)
Power (CPP)	1243 MW	Renukoot (742), Hirakud (367), Dahej (134)	100%
Primary Aluminium (Ingots, Wire Rods, Billets)	505	Renukoot (345), Hirakud (160)	~40-45%: Ingots for FRP and Billets for Extrusions
Flat Rolled Products	205	Renukoot (80), Belur (45), Taloja (50), Mouda (30)	~10% in the form of captive foil stock for Foils Business
Extrusions	31	Renukoot (23), Alupuram (8)	Nil
Foils	20	Silvassa (16), Kollur (4)	Nil
Copper Cathodes	500	Dahej	Partly (for CCR)
Continuous Cast Copper Rods	145	Dahej	Nil
Sulfuric Acid	1670	Dahej	~45-50%
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DAP & Complexes	400	Dahej	Nil

In Australia, Hindalco operates two copper mines through Aditya Birla Minerals – a 51% subsidiary of Hindalco, which is listed on Australian Stock Exchange. It was the first Indian controlled company to list on ASX. ABML owns two assets – Nifty Copper Mines in Western Australia and Mt. Gordon in Queensland. It produced ~58,000 tones of copper in concentrate in FY11 – which is supplied to Hindalco's copper smelter in Dahej.

Novelis produces close to 20% of the world's rolled aluminum products with facilities located in 11 countries across four continents: North America, South America, Europe and Asia. Novelis is the number one producer of rolled aluminum in Europe and South America, and the number two producer in North America and Asia. It is also the world's largest recycler of used beverage cans with recycling being a core element of its manufacturing process. Novelis recycles 40 billion used beverage cans a year, and is committed to recycling even more aluminum from the household and commercial waste stream, as well as other sources of scrap or used aluminum.

Market Outlook / Industry Scneario for Aluminium and Copper in India and across the world

Aluminium market globally has the size of around 44 mn tones at present. Demand prospects for the medium-term are robust on account of two factors – (a) emerging markets having crossed the inflexion point and witnessing rapid growth in aluminium consumption and (b) environment consciousness that will support greater penetration for aluminium in various applications including automobiles and construction. With these trends, aluminium will continue to be among the fastest growing metals in the medium-term with growth rates of 7-8% per annum.

We are witnessing a shift of manufacturing towards the East with India, China and Middle East accounting for most of the envisaged capacity expansions. There is also an upward trend in the cost curve with the relatively faster energy inflation. Given the trend in cost curve, the current prices of aluminium seem to be too low and will need to catch up in the medium-term.

In the copper industry, global market size is currently around 20 mn tones. Copper consumption will also benefit from the growth in emerging markets like China and India. The key issue for the industry will be availability of copper concentrates – given the delays in mining projects and falling mine grades.

For both these metals, the medium-term drivers of growth in India remain in place. India's per capita income has crossed $1,000-mark, which is an inflexion point for lifestyle changes that support consumption of these commodities. Accelerating urbanization is another supportive trend. India's per capita aluminium consumption stands at just 1.8 kg at present, as compared to 17 kg in China and around 25 kg in mature markets. There is a similar gap in copper where India's per capita consumption is 0.8 kg. This presents a tremendous potential for market growth over the coming years.

In contrast to these medium-term prospects, the outlook for the next few quarters has been dulled by the weak global economic prospects. But once the global recovery regains itself, the medium-term trends are expected to take over.

R&D Developments in the Company

Taloja R&D Centre (TRDC) is a centralized R&D set-up for downstream business in the fields of Metallurgy, Foil Conversion, Modeling, Environment and Energy. Similarly, Belgaum R&D Centre (BRDC) is a centralized R&D set-up for upstream Alumina business in the fields of Bauxite, Bayer process and Specialty Hydrates and Alumina. Both are recognized as Inhouse R&D by DSIR, Govt. of India.

TRDC had developed large range of products in lubrication, alloy development / modification covering all semi fab units and BRDC's

developed products are in speciality hydrates and aluminas for different application like Refractory, Ceramics, Insulators, Fire-retardant fillers etc . In all, TRDC & BRDC have 8 & 4 Patents respectively. Both have well-endowed Technology Information Centre –TIC which houses a number of books/ journals/ technical reports on relevant subjects.

Hindalco believes in appropriate linkages with academic experts from reputed university departments for furthering its frontiers of relevant knowledge. Such partnerships have been carved in 2 ways: (a) Project specific, (b) Supporting manpower upgradation. To quote a few, Hindalco has engaged national experts from Sardar Patel University-Anand, Gujarat, Indian Institute of Science, Bangalore for evaluation of red mud pond embankments at Muri and Belgaum, IIT- Rourkie, for development of embankment design for red mud pond at Renukoot.

Hindalco has also part-funded the Group R&D centre (Aditya Birla Science Mumbai &

Technology Centre- ABSTC, Navi Mumbai). Hindalco has partnered IITs for development of welding technology for aluminium sheets and for evaluation of coated aluminium sheets based on new in-house developed technology.

Financial Highlights

Hindalco's consolidated turnover and EBITDA have increased at a CAGR of 40% and 25% respectively over the last decade. The stellar financial performance was a result of both growth through acquisitions and continuous improvement in operating parameters.

In 2008/09 period, Hindalco was amongst the companies least affected by global meltdown – when many peers cut production and reported losses or substantially lower profits. This was a result of proactive cost rationalization and value stream optimization initiatives undertaken internally.

Hindalco's performance is also steadier than most aluminium companies because of its balanced portfolio model. It has two strong conversion businesses in its portfolio – Novelis (representing downstream aluminium products) and copper business in India. Because of this balanced portfolio model, Hindalco has been able to exhibit a robust performance even in the years when LME is weak.

Performance During FY11

In FY11, Hindalco registered the best ever financial performance; during which it generated strong cashflows, thus consolidating its liquidity position. This indeed was a strong show in a year that posed several challenges on both macroeconomic as well as operational front, thus once again proving the inherent strength and highlighting the advantages of its derisked business model. The performance was despite the fact that the company suffered rare one off setbacks such as Hirakud outage following thunderstorms and heavy rains and Dahej cooling tower failure.

On this backdrop, this year, Hindalco's turnover crossed USD 16 Bn - an increase of 24% over previous year. This indeed was a value accretive growth despite severe cost pressures with the underlying EBIDTA growing over 31% to USD 1.9 Bn.

Novelis continued from strength to strength, following one of the smartest turnaround in the recent times and delivered its best ever results. It registered an adjusted EBIDTA of USD 1.1 Bn, an increase of over 42% over previous year, even surpassing our own earlier estimations at the time of acquisition, which were widely doubted by the critics. Its liquidity surpassed USD 1.1 Bn. This performance is a testimony to its ongoing and unwavering commitment to cost reduction, improvements in manufacturing, operational efficiency, restructuring initiatives; and product mix rationalization along with successful negotiation of more favourable contract terms with major customers.

Novelis, in a span of less than 4 years not only has become value accretive to Hindalco but in an unprecedented initiative has returned around 50% of Hindalco's equity investment ~ USD 1.7 Bn. This was done by refinancing the entire debt at Novelis, which today is on a strong footing and increasing its leverage in view of predictability of the strong and sustainable cashflows thus using the proceeds to contribute to parents ambitious growth plans.

Birla Copper further reinforced its competitiveness by transforming itself from being a solely Tc/Rc dependent business to a business that is more stable, robust and has got multiple levers to contain its volatility. The business made significant strides in its waste to wealth initiatives. On the marketing front the business continued its leadership position and last year developed new lucrative export markets.

Aditya Birla Minerals, Hindalco's copper mining operations in Australia, have continued to build upon its turnaround with improved volumes and tight cost control at its Nifty mines. Nifty mines recorded its highest ever

EXPANSION PROJECT	Location	Capacity	Power plant	Timelines
Brownfield **Projects under Implementation**				
Hirakud Smelter Expansion	Hirakud	161 KTPA to 213 KTPA	367 MW to 467 MW	Early 2012
Hirakud Flat Rolled Products [FRP] Project	Hirakud		NA	Early 2012
Projects Under Evaluation				
Hirakud Smelter Expansion	Hirakud	213 KTPA to 360 KTPA	467 MW to 967MW	
Belgaum Specials Alumina	Belgaum	189 KTPA to 301 KTPA	Coal based CPP	
Greenfield Projects				
Utkal Alumina [UAIL]	Rayagada, Odisha	1.5 mio-tonne alumina refinery with integrated bauxite Mines *	90 MW	Second Half 2012
Mahan Aluminium	Mahan, MP	359 KTPA Aluminium Smelter **	900 MW CPP**	Early 2012
Aditya Aluminium	Lapanga, Odisha	359 KTPA Aluminium Smelter ***	900 MW CPP**	Early 2013
Aditya Alumina+	Koraput, Odisha	Alumina Refinery with Integrated Bauxite Mines		2014
Jharkhand Aluminium+	Sonahatu, Jharkhand	Aluminium smelter	2015	

* MoEF approval for 3 mio-tonne/annum ; ** MoEF approval for 325 KTPA and 750 MW CPP
*** MoEF approval for 260 KTPA and 650 MW CPP ; + The process of seeking approvals is in progress

EBIDTA of AUD 173 Mn on the back of highest ever production despite falling grades.

Expansion Plans of the Company

Hindalco is rolling out an ambitious capex programme to set up Greenfield alumina and aluminium capacities in India. During the last year, the first-wave projects – including Utkal refinery and Mahan and Aditya smelters – have progressed significantly, notwithstanding extremely challenging local conditions. Mahan is getting ready to tap its first metal in the next quarter itself. Utkal refinery and Aditya smelter are being readied to start production in the coming financial year.

These state-of-the-art facilities are designed to have a world-beating cost structure and are based on captive bauxite / coal mines. Together with the Aditya refinery and Jharkhand smelter project in the second wave, these projects will treble Hindalco's aluminium capacity to 1.7 million tones.

Novelis is also now ready for growth, and it has laid out a $1.5 billion capex programme – with a thrust on emerging markets. Novelis has set for itself ambitious targets that will increase its capacity by one-third over the next four years.

Hindalco's flat rolled products project at Hirakud, which involved relocation of one of Novelis' closed facilities, is now almost ready for commissioning. Beyond additional volumes, the significance of this brownfield expansion lies in the capability enhancement that allows Hindalco to tap the value-added growth opportunities in the Indian market, including an ability to produce canbody stock.

The Way Forward

With the strategic initiatives taken so far and with the currently on-going capex programme, Hindalco will be amongst the world's leading metals companies. ❍❍❍