BUY

CMP: **INR 1,192** Target Price: **INR 1,615** ▲ 35%

ICICI Securities Limited is the author and distributor of this report

14 February 2025

India | Equity Research | Initiating Coverage

Lloyds Metals and Energy

Metals & Mining

Catch it early, catch it young

We initiate coverage on Lloyd Metals and Energy (LMEL) with **BUY** recommendation. Key points: 1) Structural iron ore cost advantage compared to peers; 2) capex of INR 327bn for 4.2mpta steel plant likely to be value accretive; 3) various cost initiatives may provide a cumulative benefit of USD 2.4bn over the next 10 years; 4) acquisition of TEIL likely to be cost efficient; and 5) superior returns vs peers. Going ahead, we expect EBITDA/PAT CAGR (FY24-31E) of 35% and RoE/RoCE in excess of 23% (best among steel peers). As the benefits of ongoing capex would be visible only post FY29, we value LMEL on DCF-based methodology, resulting in TP of INR 1,615. Besides, the option value from TEIL acquisition is an extra INR 320/share, to be realised once the transaction is over.

The stars shine down

We believe LMEL's cost competitiveness stems from 1) being the sole merchant iron more miner in Maharashtra; 2) massive (extractable) BHQ reserves; and 3) being in the lowest royalty bracket in India. We believe these structural advantages may aid the company in having the cost advantage of up to INR 5,200/te at source, resulting in better profitability vs peers. While the company could commence mining operations (due to local unrest in the region) from FY22 only, post involvement of Thriveni Earthmovers Pvt Ltd (TEMPL) as MDO, we believe that with responsible mining practices and active involvement of local community, the company has just started on the value creation path.

BHQ: The under-rated wealth of iron ore

In India, many players have tried to beneficiate Banded Haematite Quartz (BHQ), which is available in plenty, yet, the success has been limited owing to its low yield, unsatisfactory ore liberalisation and high silica-alumina content. The in-situ BHQ at Surjagarh mine (in Maharashtra) does not suffer from this deficiency as results from both external inspections in domestic and international labs and in LMEL's own 5 TPH pilot plant have been encouraging. Combined with cost advantage of lumps/fines ore, BHQ adds another competitive cost dimension. Also, the design of BHQ beneficiation plant is similar to the latest technology utilised by Forteseque, Australia, resulting in less water consumption and tailings generation.

Financial Summary

Y/E March (INR mn)	FY24A	FY25E	FY26E	FY27E
Net Revenue	65,217	75,386	1,50,959	1,67,404
EBITDA	17,283	28,460	66,441	71,919
EBITDA Margin (%)	26.5	37.8	44.0	43.0
Net Profit	12,429	19,308	48,849	50,185
EPS (INR)	24.6	36.9	93.4	96.0
EPS % Chg YoY	37.1	50.1	153.0	2.7
P/E (x)	48.5	32.3	12.8	12.4
EV/EBITDA (x)	33.0	19.3	7.8	7.8
RoCE (%)	55.7	40.6	48.0	31.0
RoE (%)	57.3	41.1	48.7	31.4

Amit Dixit
amit.dixit@icicisecurities.com
+91 22 6807 7289

Mohit Lohia
mohit.lohia@icicisecurities.com

British Urumkar
British.urumkar@icicisecurities.com

Market Data

Market Cap (INR)	624bn
Market Cap (USD)	7,179mn
Bloomberg Code	LLOYDSME IN EQUITY
Reuters Code	LYMT.BO
52-week Range (INR)	1,478 /522
Free Float (%)	23.0
ADTV-3M (mn) (USD)	10.7

Price Performance (%)	3m	6m	12m
Absolute	26.6	59.6	124.1
Relative to Sensex	28.6	63.2	117.7

ESG Score	2023	2024	Change
ESG score	NA	NA	NA
Environment	NA	NA	NA
Social	NA	NA	NA
Governance	NA	NA	NA

Note - Score ranges from 0 - 100 with a higher score indicating higher ESG disclosures.

Source: SES ESG, I-sec research

Operations: Streamlined and systematic

Instead of building the plant in a piecemeal manner and later scouting for incorporating efficiencies, we believe LMEL is setting the operations in a systematic manner. Key points: 1) Sustainable iron ore mining by full electrical equipment fleet; 2) BHQ to take precedence over fresh ore, resulting in waste to wealth conversion; 3) transportation of iron ore fines through slurry pipeline to pellet plants located at Konsari and Ghugus (both in Maharashtra) from day 1; 4) putting up longs and flats capacities at separate locations; and 5) deployment of best community involvement practices for inclusive mining. We believe the company has an advantage of making a fresh start on a clean slate as all the projects are greenfield in nature. Hence, the best practices from iron ore mining to community involvement are being deployed.

Acquisition of stake in TEIL to bring in more management oversight

TEMPL is one of India's leading MDO operators with environmental clearance (EC) capacity of 71mt, which is likely to expand to 124mt over medium term. Thriveni Earthmovers and Infra Pvt. Ltd. (TEIL) is a subsidiary of TEMPL, which is in the process of demerging its MDO business. TEMPL operates MDO operations across India and Indonesia and manages 15 operational mines for iron ore, coal, and baryte. For FY24, TEMPL reported an EBITDA of INR 9.3bn. We believe the acquisition of 79.82% stake in TEIL would further enhance the management oversight beside lowering the cost. We believe this would be extremely positive for the company as TEIL brings in the required mining expertise as well as a track record of managing operations in a cost-efficient manner throughout India and in other geographies as well. This would also reduce Related Party Transactions (RPT) significantly. During our site visit, we had an opportunity to interact with the senior management of TEMPL who has vast experience in operations across the steel value chain in India and abroad.

Expect EBITDA/PAT at INR 143bn/INR 99bn through to FY31E

We expect LMEL's earnings growth, primarily from capacity ramp-up. Our realisation estimates, on the other hand, are lower than the prevailing prices for various products. We also expect IPS benefits from Government of Maharashtra of INR 27bn (10% of steady-state EBITDA) to flow from FY31-38E. We view FY29 and FY31 as important milestones when key capacities may be ramped up to full capacity at Konsari and Ghugus, respectively. As a result, we expect FY31E EBITDA/PAT at INR 143bn/INR 99bn, respectively, with healthy EBITDA margin of 42.7% owing to the cost efficiencies across the value chain. On leverage front, the company is expected to be net debt free by end-FY30 and free cashflow is likely to be utilised for further expansion opportunities.

Valuation and risks: We value LMEL at INR 1,615

Through to FY27, LMEL offers better growth and RoE potential compared to peers. On RoE as well, LMEL scores above ferrous peers under coverage. On leverage, we expect LMEL to fare better than all except Shyam Metallics and NMDC. However, in our view, the real earnings potential of LMEL will be visible post FY29 when capacity ramp up will start. While other peers are also expected to expand capacity, we believe sustainable cost differential compared to peers, starting from iron ore is likely to ensure better returns. We value LMEL as per DCF methodology until FY31. Our TP works out to INR 1,615/share, excluding an option value of INR 320/share from TEIL acquisition, once TEMPL's MDO business is demerged into TEIL. We initiate coverage on LMEL stock with **BUY** rating.

We see the delay in execution for INR 327bn capex, commodity price volatility and regulatory environment in the state of Maharashtra as the key risks on profitability and performance of the company.

Table of Contents

Executive Summary

The metamorphosis in business model

LMEL is on the cusp of significant transformation from an iron ore miner to cost efficient steel player in the upcoming steel cluster, Vidarbha (in Maharashtra). In the first phase, iron ore capacity is likely to grow from 10mtpa in FY25 to 55mtpa (including BHQ) by FY29. This would support 1.2mtpa longs products complex at Ghugus and 3mtpa flats steel complex at Konsari, in the second phase. This would ensure that LMEL runs an integrated steel plant, with the advantage of captive iron ore benefit lasting until CY57. Besides, the company has embarked on a number of green initiatives: 1) Slurry pipeline of 85km from Hedri to Konsari and 190km from Hedri to Ghugus via Konsari; 2) 100MW of RE power for captive consumption; 3) use of electrical mining equipment at Sujagarh mine; and 4) waste to wealth conversion- BHQ to usable iron ore.

Commercial use of BHQ- first in India

Although India is blessed with large reserves of iron ore, a substantial amount of this iron ore is unsuitable for direct use in the blast furnace because of high amounts of impurities in the form of Al_2O_3 and SiO_2. Due to fast depletion of high-grade iron ores and increased industrial demand, low-grade iron ores have become a focus of interest in recent years. Thus, beneficiating low-grade iron ores to remove gangue minerals and enhance its grade is a prospective proposition today. In general, Branded Haematite-Quartzite (BHQ) ores contain around 30–38% Fe, 45–50% SiO_2 and 1–2% Al_2O_3 and hence can hardly be used in steel making. However, if they are beneficiated and enriched to around 64% Fe, which is possible only in fine size range, they can be utilised in a palletisation plant. LMEL has reserves of 706mt of BHQ in Surjagarh mine. Unlike other BHQ deposits in India, the liberalisation tests have been encouraging with Fe content in excess of 65% and combined SiO_2 + Al_2O_3 content of <3%. This is a unique proposition in India as most of the blast furnaces' usable concentrate has combined SiO_2 + Al_2O_3 content of >6%.

(Consistently) low royalty in iron ore offers sustainable advantage

India's iron ore landscape has undergone a tectonic shift since FY15 when 'auction' replaced 'allocation' of mines. In case of auctioned mines, the average auction premium has increased from 86.14% in FY16 to 130.86% in FY23 of IBM prices. Post 2020, auctions have rendered merchant mining economically unviable due to statutory liabilities, with royalties and additional levies. The share of private miners in Odisha has gone down from 30% in Oct'17 to 8% in Dec'24. The iron ore royalty rate (including premium) in India in case of PSUs (still under allocation regime) has increased significantly since the commencement of MMRD Act 2015 and at present the effective royalty rate is ~42.3%, which includes 15% royalty + 30% DMF (of royalty) + 2% NMET (of royalty) + 22.5% additional royalty (whose mining lease has been extended after the commencement of the Act). However, LMEL's mine is one of the few mines in the country that is on allocation basis and it is not required to pay any premium to the government over the lifetime of the mine for operations which significantly reduce the operating costs as compared to mines which have been auctioned by the government.

Cost savings of more than USD 2.4bn over 10 years in store

In addition to being one of the lowest cost iron ore producers, LMEL's management is taking several initiatives to reduce cost across the domains of transportation, logistics and operations. On transportation front, the company is setting up 85km (10mtpa) slurry pipeline from Hedri to Konsari and 190km (5mtpa) from Hedri to Ghusghus. These pipelines are expected to result in freight cost reduction of INR 500-600/te and INR 800-1,000/te, respectively. In order to streamline its logistics, the management is planning to add a fleet of trucks which will result in savings of INR 100-150/te. In order

to secure coking coal, the key raw material for steelmaking, the management is considering access to coking coal mines for Ghusghus through MDO operations. This would result in savings of INR 1,800-2,000/te for 1.2mtpa steel plant at Ghugus. On energy front, the management is investing in RE to secure 100MW of power for captive consumption. This may result in cost savings of INR 1bn p.a. besides reducing the carbon footprint of the steel produced. Lastly, the acquisition of Thriveni's MDO operations (80%) at an investment of INR 700mn would result in cost savings on iron ore in the range of INR 400-500/te. Hence, we believe it can achieve total cost savings of INR 200bn (USD 2.4bn) over 10 years.

Expect EBITDA growth of 35% CAGR from FY24-31E

We expect capacity ramp up from iron ore to steel to be the primary mover of revenue, likely to grow at 26% CAGR from FY24-31E. As a result of higher downstream mix, from 0% in FY26 to 66% by FY31 (I-sec estimates), cost reduction initiatives and IPS benefits, we expect EBITDA and PAT growth of 35% CAGR each from FY24-31E. During FY24-31E, total capex is expected to be INR 321bn (72% of the cash generated from operations) as the company puts up its steel plants and logistics network in place. The peak capex is expected to be incurred in FY27E of INR 97bn. Currently, the company is debt free and we expect net cash position of INR 10.4bn by end-FY25E, aided by QIP of INR 12.2bn. We expect peak cash burn to be INR 62bn in FY28E and FCF generation to commence from FY29.

Valuation: Value LMEL on DCF method yielding TP of INR 1,615

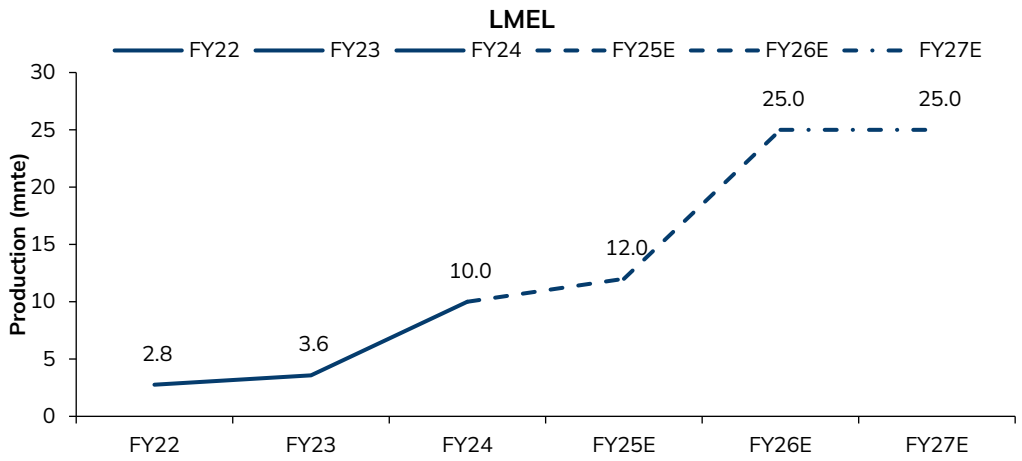
We believe LMEL's growth story could commence only from FY29 when mines reach rated capacity, BHQ plant is commissioned and steel plant commences operations. Hence, we value LMEL by using DCF methodology. Our explicit forecast extends till FY31, beyond which we have applied a terminal growth rate of 3%. We discount the cashflow by a WACC of 11%, taking into account the risk to the earnings from the possible delay in projects or end-product price volatility. That said, the company has laid the 85km slurry pipeline in record time and with TEMPL as MDO contractors (due to their experience), we anticipate no delays in mining- the backbone of the project. As per DCF-based methodology, our TP works out to INR 1,615/share, excluding INR 320/share (at 30% discount to fair value) arising post demerger of TEMPL's MDO business in TEIL.

Risks

Given the significant capex plan of ~INR 320bn over the next 5-6 years, the company is susceptible to project execution risk as it does not have a track record of executing such a large project. Further, given the cyclical nature of the industry, the operations and profitability of the company is susceptible to the volatility in the sponge iron and iron ore prices along with the cyclicality in the steel industry. Also, any unfavourable regulatory changes may impact the company and mining industry as a whole.

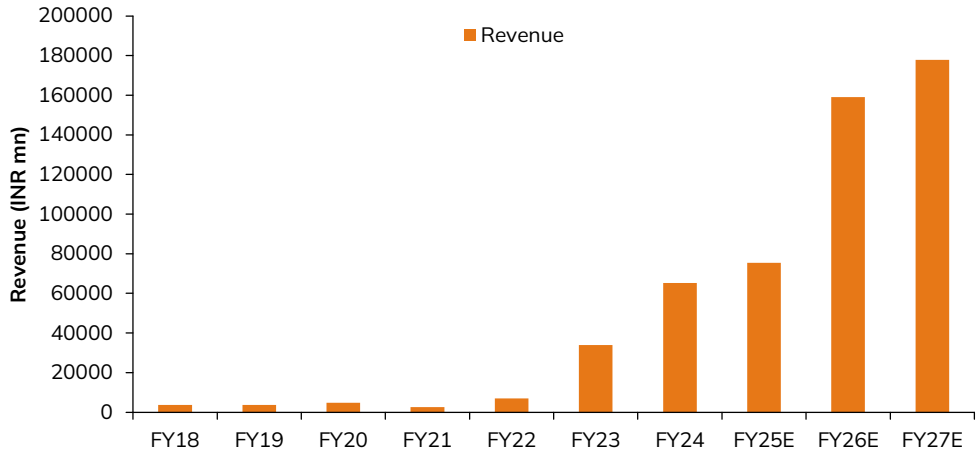
Story in Charts

Exhibit 1: Iron ore production to increase to 25mnte by FY26



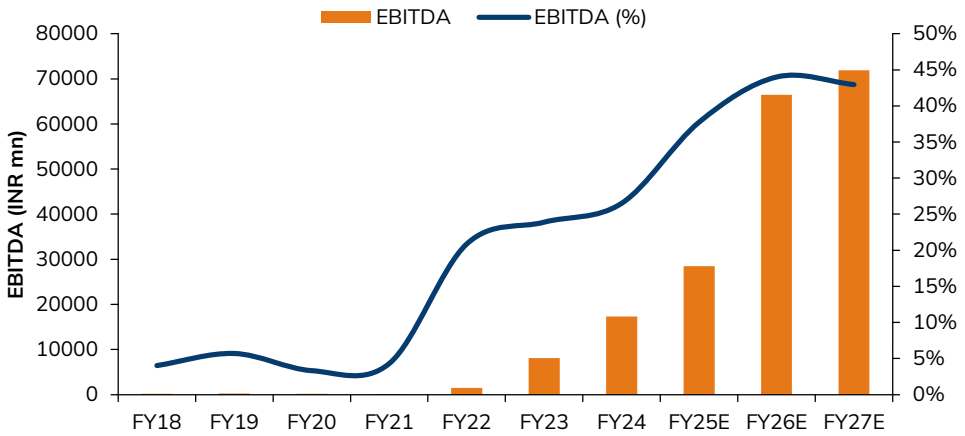
Source: Company data, I-Sec research

Exhibit 2: Revenue to grow 2.7x over FY25-27E



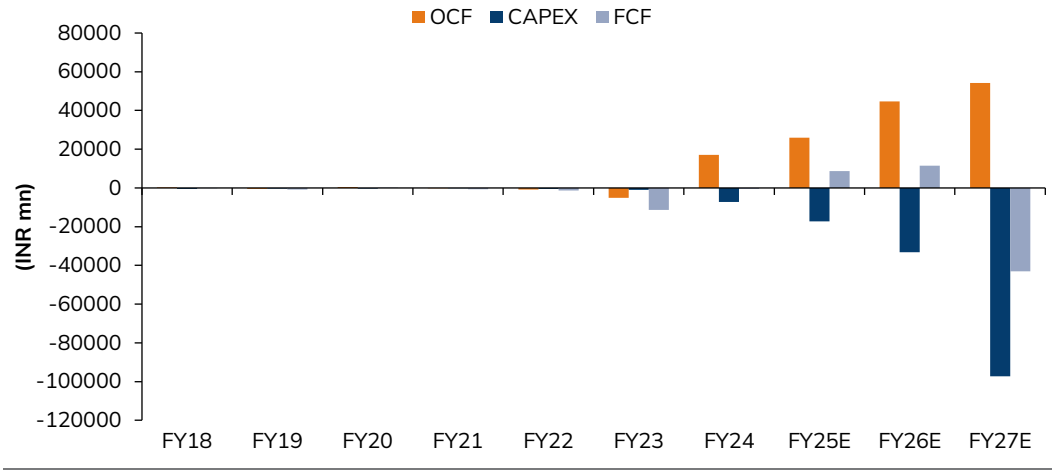
Source: Company data, I-Sec research

Exhibit 3: EBITDA to increase to ~INR 72bn by FY27E; margins to expand



Source: Company data, I-Sec research

Exhibit 4: Capex and FCF



Source: Company data, I-Sec research

Investment theme

Setting up an integrated and cost-efficient steel plant

The company currently operates in two segments: 1) Iron ore mining and 2) production of sponge iron. Its mining operations are based out of Surjagarh Mining Complex (SMC), while manufacturing facilities are located at Ghugus and Konsari in Maharashtra. Currently, the company is in the process of augmenting the capacity and increasing its footprint across the value chain:

- Augmenting mining extraction capacity to 55mtpa (including BHQ) from 10mtpa at 25mtpa output;
- Increasing the capacity of the existing sponge iron manufacturing plant at Ghugus to 0.70mtpa from 0.34mtpa;
- Increasing the capacity of its captive power plant to 504MW from 34MW as of 31 Mar'24 pursuant to the expansion of the sponge iron manufacturing plant at Ghugus; and steel plant in Ghugus and Konsari;
- Setting up 8mtpa pellet plant and a grinding and pumping unit at Konsari Manufacturing Plant; and 4mtpa pellet plant in Ghugus;
- Laying down 85km long slurry pipeline from Hedri to Konsari, and 190km long slurry pipeline from Hedri to Ghugus;
- Setting up a 1.2 mtpa wire rod unit at Ghugus;
- Setting up an integrated 3mpta steel plant at Konsari;
- Setting up a beneficiation plant of 45 mtpa at Hedri,

These expansion activities will enable the company to forward integrate its capabilities to become an integrated and cost-efficient steel manufacturer in coming years.

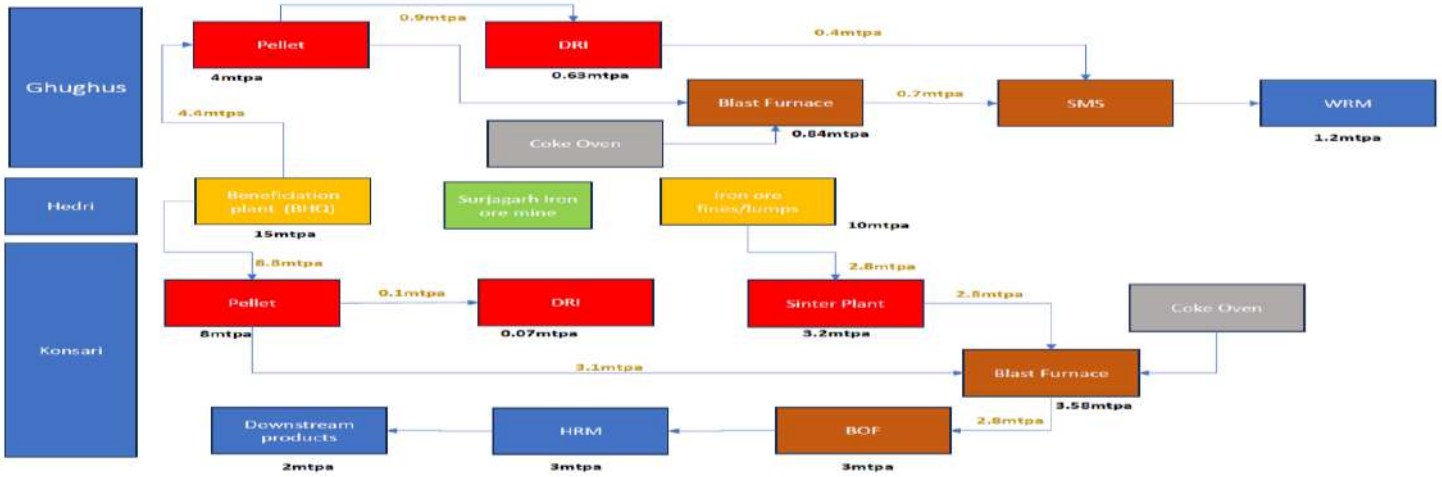
Exhibit 5: Existing and proposed capacity expansion

(mnte)	Category	Ghugus Plant		Kansari Plant		SMC		Total		
		Existing capacity	Proposed Expansion	Existing capacity	Proposed expansion	Existing capacity	Proposed Expansion	Existing capacity	Proposed expansion	Proposed Total
Beneficiation Plant	Iron Ore						45.00		45.00	45.00
CPP (MW)	Power Plant	30	125	4	346			34	470	504
Iron pellet plant	Steel		4.00		8.00				12.00	12.00
Sponge iron plant	Steel	0.27	0.36	0.07	0	0	0	0.34	0.36	0.70
Slurry Pipeline (kms)	Slurry Pipeline		190		85				275	275
Wire rods	Steel		1.20						1.20	1.20
Blast furnace	Steel		0.84						0.84	0.84
Coke Oven Plant	Steel		0.35						0.35	0.35
Steel plant	Steel		3.00						3.00	3.00

Source: I-Sec research

Post completion of capex, LMEL will be an integrated and cost-efficient steel player with two steel complexes- Konsari and Ghugus. While Konsari (1.2mtpa) will be focused on longs, Ghugus (3mtpa) will be the flats steel plant. The pellet plants at the respective steel sites would be fed by (low silica and alumina content) BHQ iron ore. This will lead to better techno-commercial parameters of the blast furnace, likely further lowering the cost at hot metal stage and improving the quality.

Exhibit 6: Material flowchart



Source: I-Sec research, Company data

Value from source: One of the lowest cost iron ores in the country

The company is one of the largest iron ore miners (by volume) in India with permitted extraction capacity of 10mnte as of FY24-end. It was granted iron ore mining rights over an area of 348.09 Ha. in CY07, with a lease period of 50 years (valid till CY57). As of FY24 end, it has resources (proved and probable) of 157mnte of hematite ore and 706mnte of banded hematite quartz (BHQ). *Being an allocated mine, the company gets competitive advantage for its mines as it is exempted from additional premium and royalties linked to MMDR Act-2015 (till CY57).*

The iron ore royalty rate in India has increased significantly since the commencement of MMRD Act 2015 and at present the effective royalty rate is ~42.3% which includes 15% royalty + 30% DMF (of royalty) + 2% NMET (of royalty) + 22.5% additional royalty (whose mining lease has been extended after the commencement of the Act).

Exhibit 7: Current royalty structure (ex- DMF and NMET)

Iron ore miners	Royalty + additional premium
NMDC	15%+ 22.5%= 37.5%
OMC Mines	15% +22.5% = 37.5%
LMEL	15%

Source: I-Sec research

Further, in case of auctioned mines, premium is even higher as the average auction premium has increased from 86.14% in FY16 to 130.86% in FY23 of IBM prices. Post 2020, auctions have rendered merchant mining economically unviable due to statutory liabilities, with royalties and additional levies.

Exhibit 8: Auction premium

Year	Avg. auction premium (% of IBM notified prices)
FY16	86.14
FY17	93.62
FY18	98.98
FY19	85.92
FY20	115.15
FY21	116.58
FY22	105.29
FY23	130.86

Source: IBM, Ministry of Mines, CRISIL Research

As per Exhibit 9, the royalty payment to the government in case of auctioned mines over the past five years has been ~INR 6,182/te, considering the average auction premium over the past 5 years.

Exhibit 9: Cost for auctioned mines (in INR)

For mines auctioned in last 5 years	Price/t
IBM notified price for 62-65% Fe fines (Nov'24)	4,845
Royalty @15%	727
DMF @10% of Royalty	73
NMET Fund @2% of Royalty	15
Auction Premium (avg. premium of last 5yrs considered) @ 110.8%	5,368
Total	6,182

Source: I-Sec research, Company data

In case of allocation mines to PSUs (in this case NMDC), dead rent is 150% of royalty. Hence, total royalty cost works out to INR 2,049/te.

Exhibit 10: Royalty cost for PSUs (in INR)

For NMDC's Chhattisgarh mines	Price/t
IBM notified price for 62-65% Fe fines	4,845
Royalty @15%	727
DMF @30% of Royalty	218
NMET Fund @2% of Royalty	15
Auction Premium (150% of Royalty)	1,090
Total	2,049

Source: I-Sec research, Company data

However, in case of companies such as LMEL, royalty cost works out to a mere INR 959/te as there is no additional premium/dead rent payable. This gives an advantage of ~INR 5,200/te on iron ore cost to LMEL that would percolate all the way down to EBITDA/te for steel business in next couple of years.

Exhibit 11: Royalty cost for LMEL (in INR)

For Mines allocated pre-MMDRA	Price/t
IBM notified price for 62-65% Fe fines	4,845
Royalty @15%	727
DMF @30% of Royalty	218
NMET Fund @2% of Royalty	15
Total	959

Source: I-Sec research

Another aspect is the lack of framework on royalty for BHQ. As per the IBM prices notified in Nov'24, BHQ is likely to fall in the lowest band (below 45% grade) wherein the grade-adjusted royalty would work out to INR 58/t.

Exhibit 12: IBM price for different grades (in INR)

Grade	Price
Below 45% Fe, Fines	401
45% to below 51% Fe, Fines	851
51% to below 55% Fe, Fines	2,178
55% to below 58% Fe, Fines	3,147
58% to below 60% Fe, Fines	3,778
60% to below 62% Fe, Fines	4,670
62% to below 65% Fe, Fines	4,845
65% and above Fe, Fines	5,804

Source: I-Sec research, Company data

Assuming yield of 40%, the royalty for BHQ (equivalent to iron ore of 65% and above) works out to INR 144/te which is significantly lower than royalty of INR 1,185/te.

Exhibit 13: Royalty comparison between BHQ and fines (in INR)

BHQ	Price/t
IBM notified price for below 45% Fe fines	401
IBM adjusted price (for 33% grade)	294
Royalty @15%	44
DMF @30% of Royalty	13
NMET Fund @2% of Royalty	0
Total	58
Fines	
IBM notified price for above 65% Fe fines	5,804
IBM adjusted price (for 67% grade)	5,983
Royalty @15%	897
DMF @30% of Royalty	269
NMET Fund @2% of Royalty	18
Total	1,185
Assuming 40% yield	144

Source: I-Sec research, Company data

BHQ: Nature's gift to LMEL

In general, BHQ ores contain around 30–38% Fe, 45–50% SiO_2 and 1–2% Al_2O_3 and hence can hardly be used in steel making. However, if they are beneficiated and enriched to around 64% Fe, which is possible only in fine size range, they can be utilised in a pellet plant. LMEL has ~706mnte of BHQ (Banded Hematite Quartzite) reserves while extractable reserves are ~157mnte. However, the key difference between Surjagarh mine and elsewhere in India is the degree of liberalisation of silica and alumina from the ore, leading to the final concentrate with low silica and alumina content.

The comparative analysis for the beneficiation test for Surjagarh Iron Ore Mine (SIOM) and Meghatuburu Iron Ore Mine (MIOM) is given below. As seen, the feed from SIOM has higher content of silica than MIOM, however, the yield is much higher. Also, in the resultant product, silica-alumina content is much lower in case of SIOM.

Exhibit 14: Yield comparison between SIOM and MIOM

	SIOM	MIOM
Feed analysis		
Fe (%)	33.0	37.5
SiO_2 (%)	50.2	42.2
AL_2O_3 (%)	0.6	0.8
Product analysis		
Fe (%)	67.6	63.7
SiO_2 (%)	1.4	9.3
AL_2O_3 (%)	0.4	0.7
Yield	40.0	28.0

Source: I-Sec research, Company data

The company has entered into an agreement with Sino Steel to set up India's 1st BHQ beneficiation plant with input capacity of 45mnte. The setting up of plant, environmental approval and land acquisition are under process. Further, the pilot plant has been commissioned, and the results are as per expectations. As per initial results, the yield is 38-40% and it has 65- 66% Fe content on consistent basis.

Exhibit 15: Test results on SIOM ore by different labs

Institute	Grade (%)	Yield (%)	Tails Fe (%)
IMMT, Bhubaneswar	65.04	32	26
IBM, Nagpur	65.03	32	19.89
TGMRC, BBSR	63.38	38.08	12.18
Metso, Pori Lab	68.2	31	17
72 hrs Scale up test			
CRIMM, China	68.1	40	9
Sino Steel, China	67.8	42.71	12.26

Source: I-Sec research, Company data

The company plans to add one module of the beneficiation plant every year with input of 15mnte and output of 5mnte, capping the total output at 25mnte over the life of the mine. Upon the completion of plant, the input will be 45mnte and output will be 15mnte. *China currently mines around 300mnte of BHQ and beneficiates Fe from ~28% Fe to 65% Fe.*

Sharp focus on cost

LMEL's iron ore cost (at IBM price of Nov'24) is expected to be INR 5,200/te lower vs peers with auctioned mines. Besides, the royalty cost of BHQ (on an equivalent iron ore basis) is still lower. However, the management has planned several initiatives up front to save cost, particularly in the areas of operations, logistics and power. Total potential savings from these are expected to be USD 2.4bn over 10 years. We expect this to keep steel making competitive, thereby, aiding margins.

Exhibit 16: Cost-saving initiatives

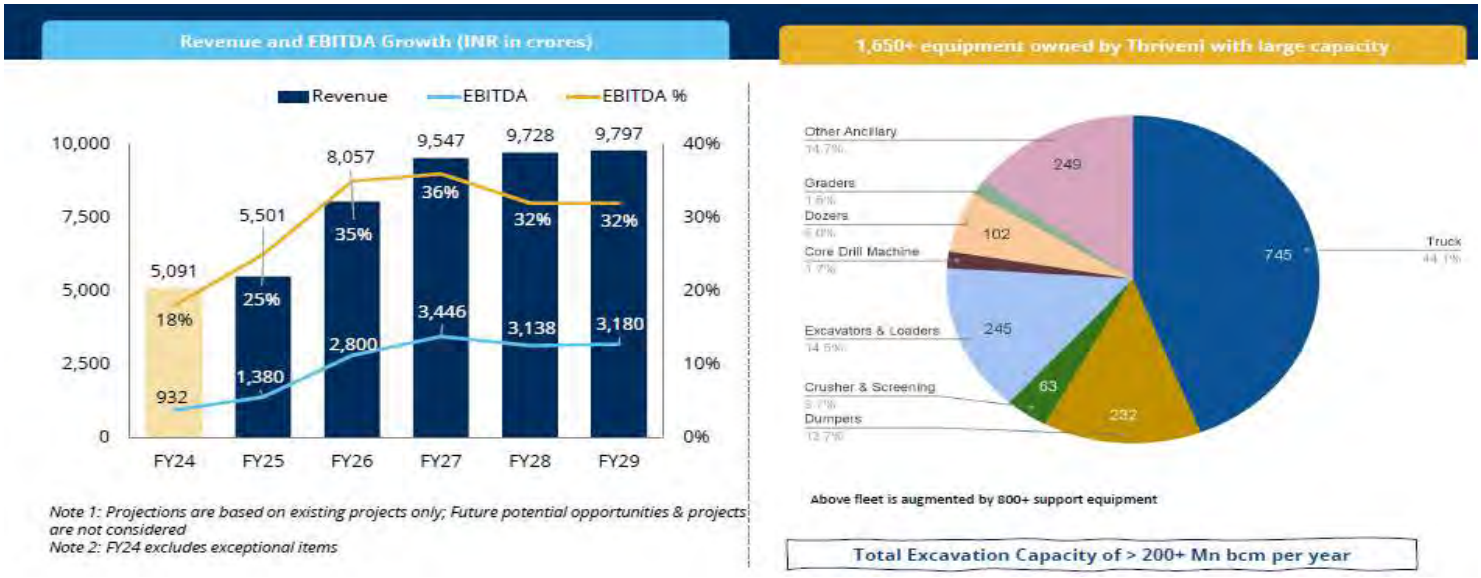
Initiative	Area	Potential benefits
Acquisition of Thriveni MDO operations (80%) for INR 700mn	Mining operations	Savings to the tune of INR 400-500/te of iron ore mining
Slurry Pipeline	RMHS	
Hedri to Konsari- 85km (10mtpa)		Freight cost reduction of INR 500-600/te
Hedri to Ghugus- 190km (5mtpa)		Freight cost reduction of INR 800-1,000/te
Captive Logistics	Logistics	
Investment in a fleet of trucks to ensure captive logistics		Freight to reduce by INR 100-150/te
Investment in Renewable Energy	Power	
To secure 100 MW of power for captive consumption		Cost savings up to INR 1bn p.a. for the pellet and mining operations
Ensuring Raw material security through access to coking coal mines via MDO	Raw material	Savings of INR 1,800-2,000 per tonne in coal costs for 1.2mnt steel plant in Ghugus

Source: I-Sec research, Company data

Acquisition of stake in TEIL likely to be value accretive

LMEL is set to acquire 79.82% stake in TEIL by subscribing to 700mn equity shares for a total consideration of INR 700mn. TEMPL operates the mine development and operations (MDO) business of Thriveni Earthmovers. As part of the deal, LMEL will also provide guarantees amounting to INR 49.6bn to TEIL. The guarantees include: i) INR 21.6bn in redeemable preference shares (RPS) issued by TEIL to its existing promoters at 9% coupon rate and ii) INR 28bn in debt obligations (TEIL is expected to repay both RPS and debt during FY26-28E via internal cash flows). The transaction is likely to take 6-8 months and post completion of equity subscription, TEIL will become a subsidiary of LMEL.

Exhibit 17: Financial and assets snapshot



Source: Company data, I-Sec research

According to the company, the acquisition is likely to reduce mining cost for the company by ~INR 500/te and the MDO business is projected to have cumulative revenue of ~INR 270bn and EBITDA of INR ~90bn during FY26-28 from current projects under execution.

Exhibit 18: Summary of MDO contracts

Name of the Mine Owner	Name of the Mines	Current EC (mtpa)	EC after enhancement (mtpa)
Surjagarh iron ore mine			
Lloyds Metal & Energy Ltd	Surjagarh iron ore mines	10.0	55.0
Odisha iron ore mine			
M/s D R Patnaik	Murgabeda iron ore mines	2.0	2.0
Smt. Geetharani Mohanty	Raikela iron ore mines	5.0	3.0
M/s Shree Metaliks	Khandbandh iron ore mines	1.8	1.8
M/s MG Mohanty	Patabeda iron ore mines	1.5	1.5
M/s Odisha Mining Corporation Ltd	Guali iron ore mine	9.0	9.0
M/s Odisha Mining Corporation Ltd	Mahaparbat iron ore mine	1.0	1.0
M/s Arcelor Mittal Nippon Steel India Ltd	Sagasahi iron ore mines	7.2	9.0
M/s Indrani Patnaik	Unchabali iron ore mine	4.0	4.0
DC Jain	Dalpahar iron & Mn mine	3.0	3.0
Dr Sarojini Pradhan	Baitarani iron ore mine	0.6	0.6
Government Contracts			
NTPC	Pakri Barwadih Mine	18.0	21.0
NTPC	Pakri Barwadih North West	3.0	3.0
APMDC	Mangampet Baryte	3.0	3.0
International Contracts			
PT Arutmin Indonesia	Satui Coal Project	5.0	5.0
	Total	**71.0**	**123.0**

Source: Company data, I-Sec research

Synergies from the transaction

Post the completion of this deal, we expect LMEL's consolidated mining costs to decrease substantially. Further, the company will be established as a strong MDO with robust balance sheet, positioning the company to participate in larger-scale mining projects in the future.

Exhibit 19: Key benefits to LMEL from the acquisition

Margin Expansion

- MDO margins shall boost mining business margins
- Backward Integration to MDO
- Expected mining margin uplift by ~10-15%

Growth Engine

- Combination of LMEL BS strength and Thriveni skills to grow business through revenue and product sharing MDO contracts
- Potential to do end-to-end MDO contracts including mineral processing

Step towards producing non-cyclical "low-cost" steel of India

Cost and Time Synergies

- Optimization of resources between LMEL and Thriveni
- Cost reduction as we scale up
- Acquiring proven and established expertise for MDO vs developing MDO expertise in-house (time consuming with long learning curve)

Alignment of Shareholder Interest

- Long term alignment of shareholder interest with key partner Thriveni
- Biggest cost (MDO) fully integrated with cost efficient operator
- Collaboration for longer term to multiply shareholder returns

Source: Company data, I-Sec research

Exhibit 20: Thriveni's history of turnaround and expertise to scale up

	Surjagarh mines of LMEL	Odisha – Multiple mines	PB Mines of NTPC
01 BEFORE Thriveni	• License since 2007 • Unable to operate due to social disturbance and instability • Started operations a few times but could not run sustainably	• Non-mechanized small scale mining operations • Lack of training, skills and large-scale mining equipment • Social support lacking for mining operations	• Thiess Pty Ltd, leading global MDO was awarded contract by NTPC in 2011 • It was unable to start the mine until 2014, when it was cancelled and re-auctioned in 2015
02 Transformation WITH Thriveni	• Partnered with LMEL in 2021 • Mobilized equipment and started mine operations within 6 months • Integrated and focused on community development • Enhanced security measures and collaboration with police	• Partnered and grew several large mines as partner to mine owners • Pioneered revenue sharing concept, sharing risks with mine owners • Integrated community through skilling, training and education • Developed entrepreneurs, locally helping growth with a circular economy model	• Went beyond defined scope, helping in settlement of R&R issues • Worked hand-in-hand with mine owner to resolve social demands • Large mining equipment mobilized from its rebuild fleet • Innovative ideas to start transport before infrastructure completion
03 POST Transformation	• Achieved 10 MTPA within 2 years of collaboration with Thriveni • Looking to grow capacity to 25+ Mn tons per annum in coming years	• Mined 35+ Mn tons at peak before mines auction in 2020 • Notably grew Balda block, from 1.5 MTPA to 15 MTPA	• Thriveni won the tender in 2015 and did first shipment of coal in Feb 2017 • Achieved peak production of 16+ Mn tons in FY24

Source: Company data, I-Sec research

Business Description

One of the largest and lowest cost iron ore producers of the country

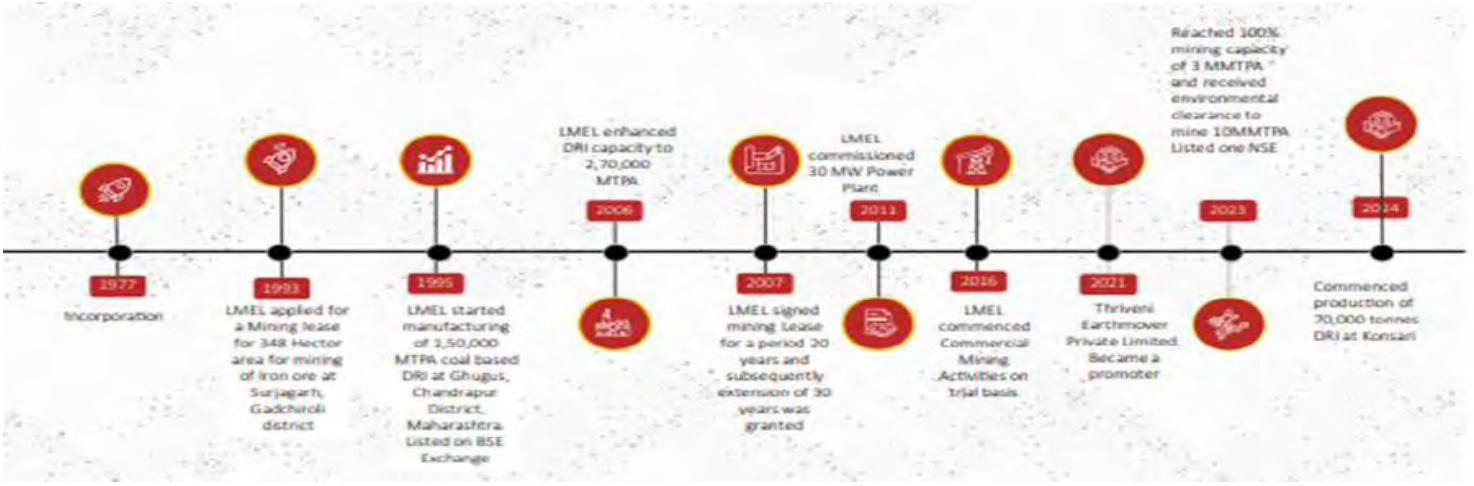
LMEL is one of the largest iron ore miners (by volume) in India with permitted extraction capacity of 10mnte as of FY24-end. It was granted iron ore mining rights over an area of 348.09 Ha. in CY07, with a lease period of 50 years (valid till CY57). As of FY24 end, its Surjagarh Mining Complex (SMC) has resources (proved and probable) of 157mnte of hematite ore and 706mnte of banded hematite quartz (BHQ). Being an allocated mine, it is not required to pay any additional premium to the government during the period of lease. After the induction of Thriveni Earthmovers Private Limited (TEPL) as the mine developer and operator (MDO) and co-promoter of the company, LMEL's mining extraction capacity has increased significantly over the past three years, and the company has become one of the largest iron ore miners in the country and is well positioned to capture the industry tailwinds.

In FY24, LMEL had entered into a JV with Sino Steel to set up India's 1st BHQ beneficiation plant (in phased manner) with input capacity of 45mnte. It has low silica and alumina content in its iron ore. Its BHQ is ~35% Fe and will be beneficiating up to 65-67% Fe. The pilot plant has been commissioned, and the results are as per expectations.

Apart from mining, LMEL also has two sponge iron plants at Ghugus and Konsari in Maharashtra with a combined capacity of 0.34mnte as of FY24-end. The Konsari plant has a capacity of 0.07mnte while Ghugus plant has installed capacity of 0.27mnte as of FY24-end and it operates seven rotary kilns (two in Konsari and five in Ghugus; 95tpd each). The aggregate capacity utilisation at its sponge iron plant for FY22, FY23 and FY24 was 43.3%, 75.6% and 85.9%, respectively. Going ahead, LMEL plans to double its DRI capacity to 0.7mnte by FY26.

Further, the company have set-up two captive power plants (CPP) with a combined capacity of 34MW. The power is generated by utilising the waste heat emanating from its kilns as well as coal waste generated. In FY22, FY23 and FY24, captive power plants accounted for 58.0%, 69.9% and 77.7%, respectively, of its total power units consumed. Going ahead, given its aggressive expansion plans, LMEL plans to increase its CPP capacity by 470MW to 504MW.

Exhibit 21: Major events and milestones



Source: Company data, I-Sec research

Brief summary of each vertical is mentioned below:

Surjagarh Mining Complex (SMC): The company was granted iron ore mining rights over an area of 348.09 Ha. at Surjagarh village (Maharashtra) in CY07 (lease valid till CY57). As of FY24 end, SMC has resources (proved and probable) of 157mnte of hematite ore and 706mnte of BHQ. The iron ore reserves are processed in both lump ore and fine ore. The mining operations are conducted by Thriveni Earthmovers Private Limited (TEMPL), one of its promoters through partnership arrangement. Its iron ore mining operations are fully mechanised. The operators employ systematic bench formation for both overburden and ore extraction. The bench heights typically range between 10 and 15 metre. The iron ore mine has received 5-star rating from Indian Bureau of Mines (IBM). Further, it has developed a 'Stockyard' near Allapalli with a truck weighment and screening facility capable of handling 10mnte of iron ore material. The power requirements of the mine are met through a 33 KVA state grid installed inside the mine. It also relies on generators for additional power requirements and water is sourced from borewells and surface water present in the area.

While the mining lease was granted in CY07, the company has been able to successfully operate from FY22 only as it had faced significant operational challenges in the past due to political extremism and related security issues which include protests from local villagers, politicians and other anti-social/extremist groups. This has led to intermittent mining operations at SMC between FY07 and FY21. **After the induction of Thriveni Earthmovers Private Limited (TEPL) as mine developer and operator (MDO) and co-promoter of the company, the mining extraction capacity has increased significantly over the past three years**, and the company has become one of the largest iron ore miners in the country and is well positioned to capture the industry tailwinds.

Iron ore: The company is one of the largest iron ore miners (by volume) in India with permitted extraction capacity of 10mnte. It has applied for EC to enhance its mining capacity from 10mnte to 55mnte (including BHQ). The quality of iron ore mined from the mines comprises hematite with an average grade of 63% Fe and BHQ has ~35% Fe content. The company had engaged Tata Steel Industrial Consulting (TSIC), consulting arm of Tata Steel Limited in CY22, to carry out further mineral exploration for its mines with modern technologies and high-power machineries. As per the Mineral Resource Report (MRR) received from TSIC and as per JORC, it estimates a geological resource of 863mnte which comprises 157mnte of iron ore and 706mnte of BHQ. Further, it does not have to pay any premium to the government over the lifetime of its mine as it is an allocated mine. While the company was granted the mining lease in the year CY07, it was able to successfully operate the mine only from FY22. The company aims for sustainable and long-term growth journey with an increase of 5.5x in mining over the next 4-5 years.

- **EC clearance for enhanced 25mnte mining:** The management in recent interaction highlighted that its mining plan, TOR have been approved. The public hearing has been completed, EC is expected to be issued by the central government, MoEA Q4FY25end and it has already started mining for 2-2.5mnte a month and has already started implementing machineries in the mines. In FY26, mining production is expected to be ~25mnte.

- **BHQ beneficiation plant:** LMEL has entered into an agreement with Sino Steel to set up India's 1st BHQ beneficiation plant with input capacity of ~45mnte. The setting up of plant, environmental approval and land acquisition is under process. Further, pilot plant has been commissioned and the results are as per expectations. As per initial results, the yield is 38-40% and it has 65- 66% Fe content on

consistent basis. Lloyd has ~706mnte of BHQ (low silica and alumina content) in its iron ore. Its BHQ is ~35% Fe and will be beneficiating up to 65-67% Fe.

Sponge Iron Plant: LMEL have two sponge iron plants at Ghugus and Konsari in Maharashtra with a combined capacity of 0.34mnte as of FY24-end. The Konsari plant has a capacity of 0.07mnte while Ghugus plant has installed capacity of 0.27mnte as of FY24 end and it operates seven rotary kilns (two in Konsari and five in Ghugus; 95tpd each). The Konsari plant (70kte capacity) was commissioned in record time of 13 months after receiving environmental clearance. Further in FY24, the company undertook modernisation and overhauling of the DRI plant in Ghugus to increase its throughput capacity. The aggregate capacity utilisation at its sponge iron plant for FY22, FY23 and FY24 was 43.3%, 75.6% and 85.9%, respectively. Going ahead, LMEL plans to double its DRI capacity to 0.7mnte.

- **Ghugus Plant:** The plant had an installed capacity of 0.27mnte as of FY24-end. It is spread over 280 acres, which has been leased from MIDC. The plant comprises five direct reduced iron kilns (capacity of 100tpd each). It has a coal washery, which helps in optimising the coal consumption. Also, the plant has one captive power plant of 30MW, which utilises pollution dust, char/ flu gases, waste heat and solid wastes (dolochar) from sponge iron plants to generate electricity. It has a water storage unit and a power substation.

- **Konsari Plant:** The plant consists of direct reduced iron kilns (two kilns of 95 TPD each) with an installed capacity of 0.07mnte as of FY24-end. It is spread over 50.29 Ha (124.27 acres) of land which has been leased from MIDC. The plant has one captive power plant of 4MW which utilises non-fossil fuel, pollution dust, char/ flu gases, waste heat and solid wastes (dolochar) from sponge iron plants to generate electricity. It has a water storage unit and a power substation.

Power Plants: The company has set-up two captive power plants (CPP) to support the power requirement of its sponge iron plant, with a combined capacity of 34MW. The power is generated by utilising the waste heat emanating from its kilns as well as coal waste generated. In FY22, FY23 and FY24, captive power plants accounted for 58.0%, 69.9% and 77.7%, respectively, of its total power units consumed. Any surplus power generated from plants, is sold outside, serving an additional source of revenue. Going ahead, given its aggressive expansion plans, LMEL plans to increase its CPP capacity by 470MW to 504MW.

Iron Pellets: LMEL has commenced seed marketing of pellets, through strategic tie-up with Mandovi River Pellets Private Limited (MRPPL). This collaboration involves the sale of iron ore fines to MRPPL, which transforms them into pellets for subsequent sale to Lloyds Metals. MRPPL has an annual pellet production capacity of 2mnte, providing a significant market potential for its iron ore.

Massive outlay of ambitious capex plans of INR 327bn; capex will be funded through equity/internal accruals

LMEL is in the process of (i) expanding its mining extraction capacity to 55mnte (including BHQ) from 10mnte; (ii) increasing the capacity of its sponge iron plant at Ghugus to 0.70mnte from 0.34mnte; and (iii) increasing the CPP capacity to 504MW from 34MW; (iv) setting up a pellet plant and a grinding and pumping unit at Konsari; (v) laying down 85km long slurry pipeline from Hedri to Konsari and 190km long slurry pipeline from Hedri to Ghugus; (vi) setting up 1.2mnte WRM at Ghugus; (vii) setting up an integrated 3mnte steel plant at Konsari; and (viii) setting up a beneficiation plant of 45mnte at Hedri.

Key projects include:

- BHQ beneficiation plant of 45mnte
- DRI facility of 0.36mnte
- Wire rod plant of 1.2mnte
- HR coil manufacturing facility of 3mnte
- Pellet plants of 12mnte
- Two slurry pipelines of 85kms and 190kms, respectively
- Power plant of 470MW

Aggressive capex plans. The company is in the process of: (i) Expanding its mining extraction capacity to 55mnte (including BHQ) from 10mnte; (ii) increasing its sponge iron capacity to 0.70mnte from 0.34mnte; and (iii) increasing captive power plants capacity to 504MW from 34 MW; (iv) setting up a pellet plant and a grinding and pumping unit with a capacity of 12mnte; (v) laying down 85km long slurry pipeline from Hedri to Konsari and 190km long slurry pipeline from Hedri to Ghugus,; (vi) setting up 1.2mnte wire rod unit at Ghugus; (vii) setting up an integrated 3mnte steel plant at Konsari; and (viii) setting up a beneficiation plant of 45mnte at Hedri.

Exhibit 22: Existing and proposed capacity expansion

Particulars	Unit	Category	Ghugus Plant		Konsari Plant		SMC		Total		
			Existing capacity	Proposed expansion	Existing capacity	Proposed expansion	Existing capacity	Proposed expansion	Existing capacity	Proposed expansion	Proposed Total
Beneficiation Plant	mnte	Iron Ore						4.5		4.5	4.5
CPP	MW	Power Plant	30	125	4	346			34	470	504
Iron pellet plant	mnte	Steel		4		8				12	12
Sponge iron plant	mnte	Steel	0.27	0.36	0.07	0	0	0	0.34	0.36	0.7
Slurry Pipeline	Kms	Slurry Pipeline		190		85				275	275
Wire rods	mnte	Steel		1.2						1.2	1.2
Blast furnace	mnte	Steel		0.84						0.84	0.84
Coke Oven Plant	mnte	Steel		0.35						0.35	0.35
Steel plant	mnte	Steel		3						3	3

Source: I-Sec research, Company data

BHQ beneficiation project: The company has entered into an agreement with Sino Steel to set up India's 1st BHQ beneficiation plant with input capacity of 45mnte. The setting up of plant, environmental approval and land acquisition is under process. Further, the pilot plant has been commissioned, and the results are as per expectations. As per initial results, the yield is 38-40% and it has 65- 66% Fe content on consistent basis. Lloyd has ~706mnte of BHQ (Banded Hematite Quartzite) reserves while extractable reserve is ~157mnte. It has low silica and alumina content in its iron ore. Its BHQ is ~35% Fe and will be beneficiating up to 65-67% Fe.

The company plans to add one-one module of the beneficiation plan every year with input of 15mnte and output of 5mnte, capping the total output at 25mnte over the life of the mine. Upon the completion of plant, the input will be 45mnte and output will be 15mnte. *China currently mines around 300mnte of BHQ and beneficiates Fe from ~28% Fe to 65% Fe.*

In the proposed plant, the raw material will be stacked at RMHS stockyard through 3 nos. of stacker cum reclaimer and one no. of reclaimer. It is proposed to have 3 nos. of conveyors with travelling tipper arrangement to feed to HPGR (High Pressure Grinding Rolls) feed bins.

The low-grade iron ore/BHQ (raw material) from bin will feed HPGR for size reduction. The crushed ore from HPGR will be conveyed through belt conveyor to the vibrating screen. The screen over size will be re-circulated back to the HPGR by set of conveyors.

The screen under size will be collected in sump and mixed with addition of water to make slurry for further wet processing of the fines. The slurry from the sump will be pumped with the help of slurry pumps to the spiral concentrator for gravity separation of minerals. The concentrate from the spiral concentrator will feed to set of Wet High Intensity Magnetic Separator (WHIMS-Roughers & Scavengers) backed by LIMS (Low Intensity Magnetic Separator). The magnetic concentrate from the set of WHIMS (Roughers & Scavengers) will be fed to primary mill (ball mill/ verti Mill) for further size reduction.

The tailings from the spiral concentrator and non-mag particles from the set of WHIMS (Roughers & Scavengers) will be collected in the sump and pumped to dewatering screen for recovery of water. The dewatered coarse tails will be conveyed to the tailing disposal area through series of conveyors for disposal of these coarse tailings (-3 mm).

The undersize hydro-cyclones/ultra-fine screens will be fed to set of WHIMS for separation of magnetic and non-magnetic particles. The magnetic particles from set of WHIMS will be pumped to secondary mill for further size reduction which will run in close circuit. The undersize will be fed to set of WHIMS for further separation of magnetic and non-magnetic particles. The magnetic particles will be further processed in reverse floatation circuit for recovery of concentrate. The reverse floatation circuit consists of floatation cells with rougher, cleaner and scavenger for efficient recovery of the iron particles. The concentrate Fe from the reverse floatation circuit will be collected as non-froth products and pumped to concentrate thickener for thickening. The thickened concentrate slurry will be pumped to slurry storage tanks for temporary storage, from storage tanks it will be transferred to LMEL downstream units i.e. Konsari Unit, through a dedicated close loop slurry pipeline network of 10mtpa capacity and the balance quantity will be dewatered and supplied to different parties by road. Further, it has been proposed that a separate slurry pipeline network will be extended up to LMEL, Ghugus Unit, for easy and safe transportation of minerals which will further reduce the load on road transportation.

The tailings collected as froth material from the floatation circuit, the non-mag particles from set of WHIMS and undersize of dewatering screen will be taken to tailing thickener for thickening of slurry and recovery of water which will be recirculated to the beneficiation circuit.

The thickened tailing slurry will be pumped to the filtration unit and after filtration, the recovered water will be pumped back to beneficiation plant and the filtered tailings in the dry form (about 20% moisture) conveyed to tailing disposal area with a series of conveying system. Tailings deposited into the Tailing Storage Facility are spread by mechanical equipment, rising in layer by layer.

What is BHQ?

Composition: BHQ is composed mainly of alternating layers of hematite (Fe_2O_3) and quartz (SiO_2). Hematite is a key iron-bearing mineral, while quartz is a non-ore component. The iron content in BHQ is relatively low, typically ranging from 30% to 40%, making it less desirable for direct use in steelmaking without beneficiation.

Exhibit 23: LME's BHQ characterisation through pilot test (%)

Element	Content
Fe	30.5 -35.5
Silicon Oxide (SiO2)	45.5 - 50.5
Aluminium oxide (Al2O3)	0.3 – 0.7
P	0.01 – 0.02

Source: I-Sec research, Company data

Exhibit 24: Quality of iron ore at various mines in India

	Sandur Mines	SIOM
Fe	29.23% to 33.2%	30.5%-35.5%
Silicon Oxide (SiO2)	48.22% to 52.12%	45.5%-50.5%
Aluminium oxide (Al2O3)	0.28% and 1.22%	0.3%-0.7%
P	0.03%	0.01%-0.02%

Source: I-Sec research, Company data

Note: (Link)

BHQ beneficiation test- pilot project

LMEL has set up a pilot plant with a capacity of 5TPH for research and testing purposes. The best Indian as well as international laboratories were selected to conduct lab scale studies. Multiple tests were conducted to select the best practice in the field of mineral conservation and technology selection and in the end own pilot plant was set up to repeat the laboratory results. As per initial results, the yield was 38-40% with 65- 66% Fe content on consistent basis.

Exhibit 25: BHQ test results

Institute	Grade (%)	Yield (%)	Tails Fe (%)
IMMT, Bhubaneswar	65.04	32	26
IBM, Nagpur	65.03	32	19.89
TGMRC, BBSR	63.38	38.08	12.18
Metso, Pori Lab	68.2	31	17
72 hrs Scale up test			
CRIMM, China	68.1	40	9
Sino Steel, China	67.8	42.71	12.26

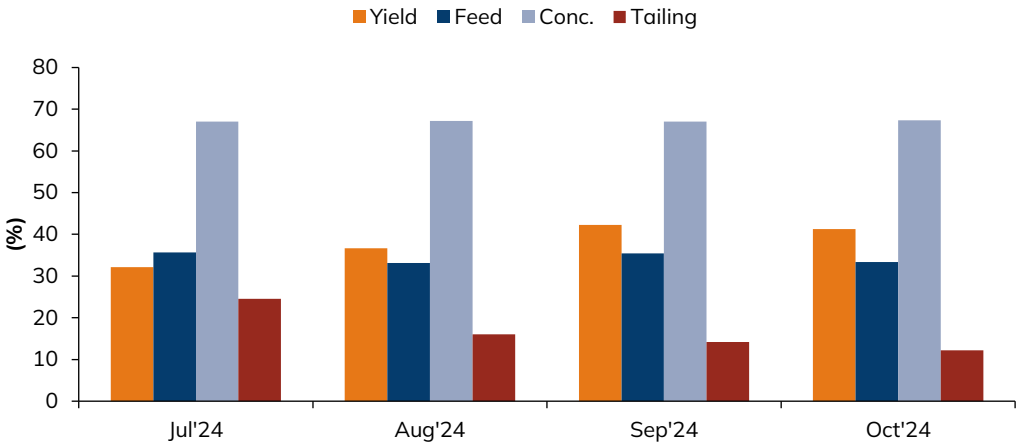
Source: I-Sec research, Company data

Exhibit 26: Month-wise yield and quality trend from pilot plant

	Jul'24	Aug'24	Sep'24	Oct'24
Production Yield (%)	32.12	36.63	42.26	41.23
Feed Analysis (%)				
Fe	35.7	33.1	35.43	33.4
SiO2	46.13	45.8	47.35	50.33
Al2O2	0.71	0.59	0.59	0.68
Product Analysis (%)				
Fe	67.02	67.2	67.01	67.31
SiO2	2.23	2	2.13	1.89
Al2O2	0.4	0.41	0.39	0.32
P	0.016	0.021	0.018	0.019
Tailing Analysis (%)				
Fe	24.51	16.01	14.19	12.12
SiO2	63.1	75.6	78.18	79.12
Al2O2	0.69	0.56	0.55	0.65

Source: I-Sec research, Company data

Exhibit 27: Summary of test results



Source: I-Sec research, Company data

The concentrate % remains stable, while the yield shows a significant rise from Jul Sept'24 before stabilising, tailing consistent decrease over the months, indicating improved process efficiency.

Status of completion: As of Oct,'24, various data points have been calculated, analysed, and simulated to enhance plant operations. The plant has successfully achieved optimal operational efficiency, leading to improved performance and resource management. The continuous data-driven adjustments have ensured process reliability, minimised downtime, and maximised throughput. As per our interaction with the management, the first beneficiation plan should come online by FY27 and the last phase of BHQ would be completed by Sept'27 (FY28). The management expects to complete this plant 6 months earlier than that for all the three phases. So, every year the company will add one-one module of the beneficiation plan of input of 15mnte and output of 5mnte, capping the total output at 25mnte over the life of the mine.

DRI Plant of 0.36mnte: The DRI plant of 0.36mnte will be set up in Ghugus which will enhance the total capacity to 0.63mnte at Ghugus. The plant is expected to be commissioned by FY25-end. Post the commissioning of this plant, total DRI capacity of LMEL would be 0.7mnte (Ghugus 0.63mnte and Konsari 0.07mnte).

- **Ghugus Plant:** The plant has an installed capacity of 0.27mnte as of FY24-end and post the expansion, the capacity will increase to 0.63mnte by FY25-end. It is spread over 280 acres, which has been leased from MIDC. At present, the plant comprises five direct reduced iron kilns (capacity of 100tpd each). The plant has a coal washery, which helps in optimising the coal consumption. Also, the plant has one captive power plant of 30MW, which utilises pollution dust, char/ flu gases, waste heat and solid wastes (dolochar) from sponge iron plants to generate electricity. It has a water storage unit and a power substation
- **Konsari Plant:** The plant consists of direct reduced iron kilns (two kilns of 95 TPD each) with an installed capacity of 0.07mnte as of FY24-end. It is spread over 50.29 Ha (124.27 acres) of land which has been leased from MIDC. The plant has one captive power plant of 4MW which utilises non-fossil fuel, pollution dust, char/ flu gases, waste heat and solid wastes (dolochar) from sponge iron plants to generate electricity. It has a water storage unit and a power substation.

Wire Rod Mill (WRM) of 1.2mnte capacity at Ghugus

LMEL is planning to set up 1.2mnte of wire rod mill along with blast furnace and coke oven plant as a part of its forward integration plan at Ghugus. The wire rod segment is amongst the fastest growing in steel, at CAGR of >10% for last 3 years. The total investment for the project is INR 41.5bn and the final product will be carbon steel and low alloy wire rod. As per recent management interaction, WRM is expected to be commissioned by Sept'26 (FY27).

Mentioned below are key highlights of the same:

- Sponge Iron Plant- 2 x 500 TPD
- Power Plant- 125MW
- EAF-based SMS- 2x50 Tonnes
- Ladle Refining Furnaces- 2x50te
- Vacuum degassing unit- 1x50te
- RHF- 120 TPH
- Wire Rod Mill – 2 x 600,000te
- Blast Furnace - 840,000te
- Vertical non-recovery type coke oven - 400,000te

HR coil manufacturing facility of 3mnte

The company is planning to set up an integrated steel plant via conventional BF route with BOF and conventional rolling, and hot rolling mill. It will be a low cost and low carbon steel making integrated plant for which iron bearing material will be from beneficiated BHQ, which will further contribute to lower costing, and hence, highest metallic yield. Further, transportation of raw material by pipeline will also add to lower carbon footprint. All by-product gases will be used for power generation requirement of the plant. According to the company, total capex of the plant is expected to be ~INR 160bn and the plant is expected to be commissioned by CY28.

Pellet Project at Konsari and Ghugus

Setting up a 4mnte pellet plant at Konsari: The company is setting up a 4mnte pellet plant at Konsari primarily for the production of blast furnace and DRI grade pellets. The company will also set up an iron ore grinding unit as part of the project. Straight grate technology is being used by the company for erection of the pellet plant and the pellet grade of Fe: 64.3%. The technology provider for the same is NewFer GmbH based in Germany and the engineering consultant is Essar Constructions India Limited

(ECIL). The iron ore pellets produced may be sold outside as well as utilised by its existing sponge iron plants. The total estimated cost for the project is INR 18.3bn as per the detailed project report dated 6 May'24, prepared by KORUS Engineering Solutions Private Limited (KESPL) (link). The pellet plant is expected to completed by FY25-end. Further, LMEL will be setting up similar size pellet plant in its phase 2 expansion, which may complete by Mar'26 and the capex for the project (phase 1 and phase 2) is expected to be ~INR 45bn. Post the commissioning of both the plants, total installed capacity of pellet plant at Konsari would be ~8mnte.

Exhibit 28: Breakup of capex for 4mnte plant is mentioned below

(INR bn)	Total estimated cost
Land and site development	0.2
Civil and structural works	3.9
Main plant and equipment	10.3
Miscellaneous fixed assets	2.4
Engineering, consultancy and project management	0.5
Preliminary and pre-operative expenses	0.5
Contingency	0.4
Total	**18.3**

Source: I-Sec research, Company data

Exhibit 29: Status of approval for the project

	Initial Approvals		Final Approvals	
	Nature of Approval	Status	Nature of Approval	Stage at which approval is required
Maharashtra Pollution Control Board	Consent for establishment	Obtained	Consent to operate	Upon completion of construction and before commissioning
Maharashtra Industrial Development Corporation	Sanction Plan	Obtained	Area Drg with green belt	Before commissioning

Source: Company data, I-Sec research

Slurry Pipeline - Hedri to Konsari 85kms – Completed in record time

The company has successfully laid slurry pipeline of 85kms from Hedri to its sponge iron manufacturing plant at Konsari. The pipeline was completed in record time of 8-9months since the start of the project. This pipeline will be used for pellet plant at Konsari which is expected to commission by FY25-end. The slurry pipeline will carry the iron ore extracted at SIOM and it will lead to a significant reduction in its transport, logistics, operational cost and carbon footprint. The consultant for the slurry pipeline was Ausenco, USA.

As per our recent management interaction, the first pellet plant of 4mnte capacity, the slurry pipeline of 85kms (Hedri to Konsari), doubling the DRI capacity to 0.7mnte would be up and running by FY25-end. In FY26, the company will start its second pellet plant of 4mnte and in FY27 (Q2FY27), the 1.2mnte of WRM plant would be commissioned. Further, given the quality of the iron ore and the slurry pipeline, along with pellet plant, the company expects minimum delta of INR 1,200-INR 1,500/te.

Setting up a 4mnte pellet plant in Ghugus

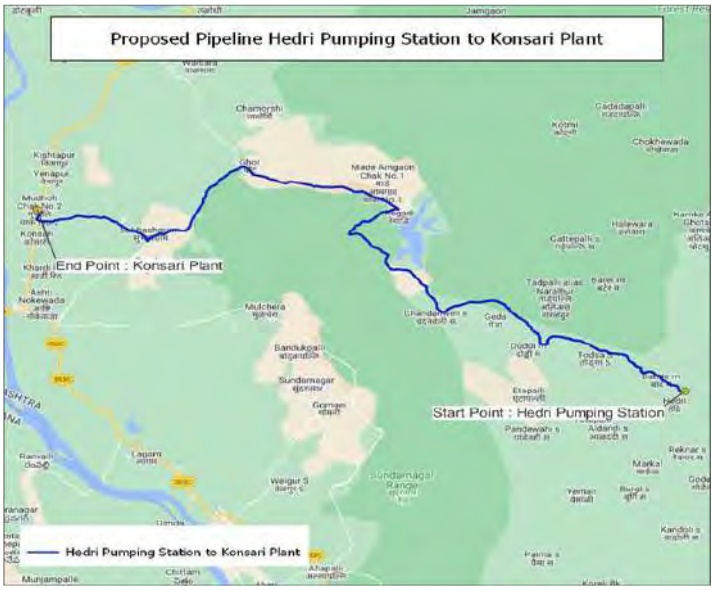
LMEL is also in the process of setting up a 4mnte pellet plant at Ghugus as a part of its forward integration initiative (iron ore mined from SIOM to manufacturing of pellets). Straight grate technology is being used by the company for erection of pellet plant and pellet grade of Fe: 64.3%. The technology provider for the same is NewFer GmbH based in Germany and the engineering consultant is Essar Constructions India Limited (ECIL). Further, a slurry pipeline for transporting iron ore in slurry form is also being put up by the company. Of the 4mnte pellets produced, some will be for internal consumption and the rest will be sold in open market. The capex for the erection of a pellet plant and a slurry pipeline is INR 22.5bn.

Slurry pipeline project

Project 1- Hedri to Konsari 85kms – completed in record time

The company has successfully laid slurry pipeline of 85kms from Hedri to its sponge iron manufacturing plant at Konsari. The pipeline was completed in record time of 8-9months since the start of the project. This pipeline will be used for pellet plant at Konsari which is expected to commission by FY25-end. The slurry pipeline will carry the iron ore extracted at SIOM and it will lead to a significant reduction in its transport, logistics, operational cost and carbon footprint. The consultant for the slurry pipeline was Ausenco, USA.

Exhibit 30: Pipeline from Hedri to Konsari



Source: Company data

Exhibit 31: Salient features of the pipeline

Particulars	Description
Length of Pipeline (km)	87
Total Pipeline volume (m3)	12,745
Throughput Capacity (mntpa)	10
Pipeline Diameter (inch)	18
Length of Pipeline Thickness wise	17.48mm Thk. # 13km
	15.88mm Thk. # 12km
	12.70mm Thk. # 19km
	11.13mm Thk. # 14km
	9.53mm Thk. # 29km
Pipe Material Spec	API 5L Gr. X70
Pipe Coating Type	3LPE
Total Crossings (Maj.)	89
Communication System (OFC)	2x24F OFC through HDPE duct - 87km
CP/PMS Stations	2 Stations
CP System	TCP & PCP
Automation System	SCADA (Supervisory Control & Data Acquisition)

Source: Company data, I-Sec research

Project 2- Hedri (Maharashtra) to Ghugus, Maharashtra – 190kms

The company is also in the process of setting up a slurry pipeline from Hedri to Ghugus ~190kms. The consultant for the slurry pipeline is Ausenco, USA. The slurry pipeline will carry the iron ore extracted at SIOM and it will lead to a significant reduction in its transport, logistics, operational cost and carbon footprint. According to the company, the project is expected to commissioned by FY28.

Acquisition of 79.82% stake in TEIPL

Thriveni Earthmovers and Infra Private Limited

TEPL is a subsidiary of Thriveni Earthmovers (TEMPL), which is in the process of demerging its MDO business. TEMPL operates MDO operations across India and Indonesia; it manages 15 operational mines for iron ore, coal, and baryte, and has an environmental clearance (EC) capacity of 71.1mnte which may expand to ~123.9mnte over medium term. For FY24, TEMPL reported an EBITDA of INR 9.3bn and over FY26-29, TEIL anticipates an annual EBITDA of INR 31.3bn based on existing projects.

Exhibit 32: Thriveni's footprint in India and Indonesia

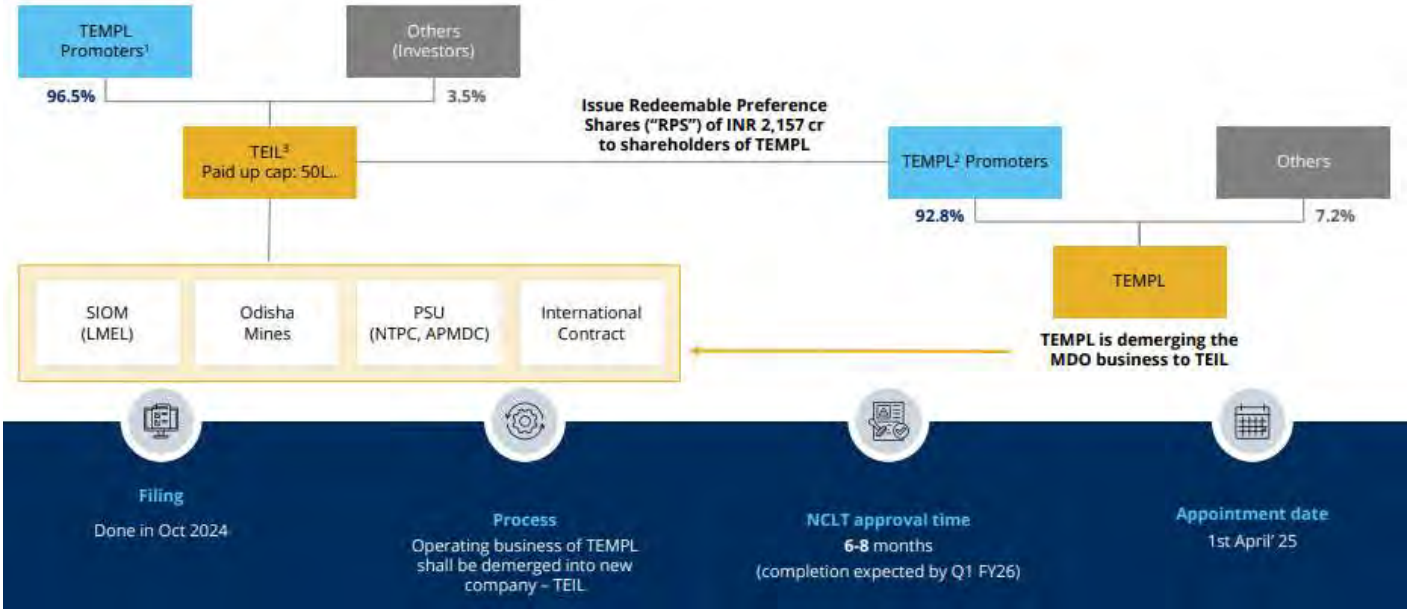
Source: Company data

MDO business background

- TEIL is a leading MDO; the company offers end-to-end mining services, bolstered by its unique strength of a "Social License" for mining.
- The company is promoted and managed under the leadership of Mr. Prabhakaran—a pioneer and stalwart in the Indian mining industry. It upholds his belief that "no mining can be successful without empowering the people of the land." Further, the company has 7,000+ strong team and a robust execution track record.
- Its engineering and rebuild capabilities include one of Asia's largest heavy equipment maintenance centres in Jamshedpur, enabling quick turnaround of over 1,000 HEMM at just 30% of the capex cost of new equipment. With a global supply chain network of 2,000+ vendors, it sources parts directly from manufacturers, reducing operational costs by 40–50% and ensuring supply-chain efficiency.
- It is a leader in mining innovations and green mining, operating fully electric trucks, loaders, and crushers while promoting sustainability through equipment rebuilding and reverse engineering.
- With a global footprint and strong operations in India and Indonesia, the company maintains a supply chain spanning all continents for parts sourcing.

- Its bulk mining operations cover a diverse range of minerals, including iron ore (~35mtpa), coal, and barytes (~90+mnbcm), with plans for further expansion.

Exhibit 33: Current demerger plan / issuance of RPS in lieu of MDO business



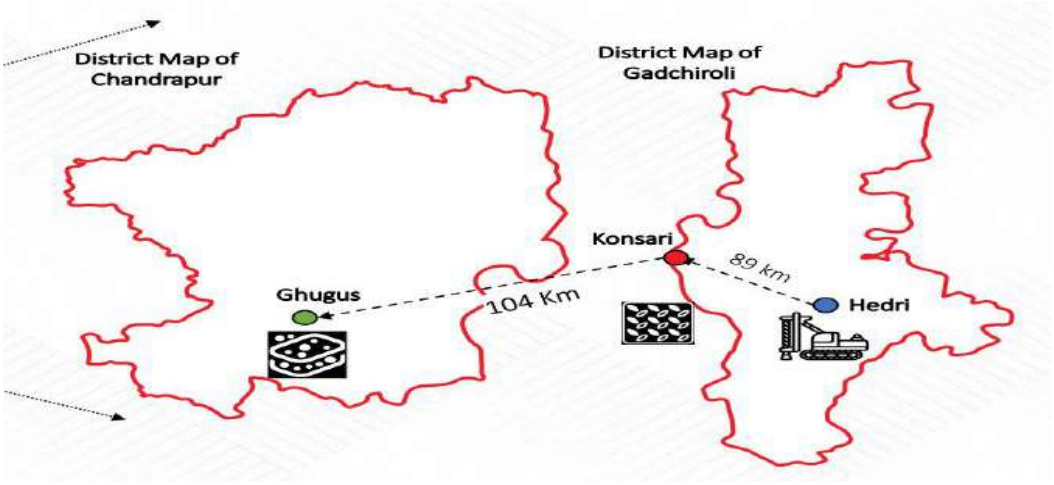
Source: Company data, I-Sec research

Financial Section

The story is about capacity ramp-up: Look out for FY27 and FY29

LMEL is putting up an integrated steel plant with two distinct steel hubs- longs at Konsari and flats at Ghugus, with iron ore supplied centrally from Hedri via slurry pipeline.

Exhibit 34: Relative locations of key operations



Source: Company data

We expect capacity of iron ore (including BHQ) to progressively increase from 10mtpa in FY24 to 55mtpa by FY29E. We expect FY27E to be the transformational year for LMEL when the first module of BHQ would get operational and longs complex will complete at Konsari with 1.2mtpa wire rod mill. The next jump in capacity is expected in FY29E when flats complex at Ghugus will complete and BHQ capacity will reach 55mtpa. The downstream (flats) capacity is likely to complete by FY30. Hence, FY31 would be the first year when the ongoing expansion will be fully reflected in the P&L.

Exhibit 35: Capacity rollout plan (MTPA)

Capacity	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
Iron ore	10.0	12.0	25.0	35.0	35.0	55.0	55.0	55.0
Lumps	1.5	1.5	2.8	2.8	2.8	2.2	2.2	2.2
Fines	8.5	10.5	22.3	17.2	17.2	7.8	7.8	7.8
BHQ	0.0	0.0	0.0	15.0	15.0	45.0	45.0	45.0
Usable Iron ore								
Lumps and Fines	10.0	12.0	25.0	20.0	20.0	10.0	10.0	10.0
BHQ	0.0	0.0	0.0	5.0	5.0	15.0	15.0	15.0
Sinter	0.0	0.0	0.0	0.0	0.0	2.3	3.1	3.2
Pellets	0.0	4.0	4.0	8.0	12.0	12.0	12.0	12.0
Sponge Iron	0.3	0.3	0.7	0.7	0.7	0.7	0.7	0.7
Hot Metal	0.0	0.0	0.0	0.8	0.8	4.2	4.4	4.4
Wire Rods	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2
HR Coil	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
Downstream Products	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0

Source: Isec Research, Company data

Sales volume progression: Towards downstream

We expect iron ore to be the earnings growth driver until FY26. From FY27, sales mix is expected to be more skewed towards value-added products, starting with wire rods. By FY31, we expect external iron ore sales volume to be reduced below FY24 levels due to captive consumption. External sales of metalics- sponge iron and pig iron may also reduce progressively. By FY31, external sales of HRC could taper off owing to downstream capacity ramp up.

Exhibit 36: Sales volume rollout (MTPA)

Sales Volume	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
Iron ore	9.57	11.17	20.60	19.63	16.28	10.76	9.12	8.96
Lumps	1.07	1.59	2.75	2.71	2.66	2.01	1.94	1.91
Fines	8.50	11.33	17.85	16.92	13.62	5.85	5.16	5.02
BHQ	0.00	0.00	0.00	0.00	0.00	2.90	2.02	2.02
Pellets	0.00	0.00	3.23	3.04	5.59	6.65	6.70	6.54
Sponge Iron	0.24	0.34	0.54	0.43	0.21	0.21	0.21	0.21
Hot Metal	0.00	0.00	0.00	0.08	0.04	1.31	0.46	0.04
Wire Rods	0.00	0.00	0.00	0.60	1.08	1.08	1.08	1.08
HR Coil	0.00	0.00	0.00	0.00	0.00	1.05	1.20	1.05
Downstream Products	0.00	0.00	0.00	0.00	0.00	0.00	1.30	1.95

Source: I-Sec research, Company data

Revenue growth expected at 26% CAGR through to FY31E

As a result of capacity ramp up, we expect revenue growth to stay strong at 26% CAGR through to FY31E. We expect LMEL's iron ore fines/pellets to fetch better realisation in the market due to lower silica-alumina content, which is more amenable for blast furnaces and higher grade.

Exhibit 37: Revenue progression (in INR mn)

Revenue	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
Iron ore	36,961	64,444	1,00,511	93,397	77,709	51,503	43,807	43,027
Lumps	4,916	8,728	14,850	14,319	14,055	10,613	10,231	10,099
Fines	32,045	55,715	85,661	79,078	63,654	27,335	24,135	23,486
BHQ	-	-	-	-	-	13,554	9,441	9,441
Pellets	-	-	31,335	28,809	52,975	62,999	63,454	62,010
Sponge Iron	6,636	9,524	14,913	11,624	5,737	5,737	5,737	5,737
Hot Metal	-	-	-	2,675	1,323	41,845	14,757	1,387
Wire Rods	-	-	-	30,900	55,620	55,620	55,620	55,620
HR Coil	-	-	-	-	-	51,540	58,903	51,540
Downstream Products	-	-	-	-	-	-	78,000	1,17,000
Total	**43,597**	**73,967**	**1,46,759**	**1,67,404**	**1,93,364**	**2,69,244**	**3,20,277**	**3,36,321**

Source: I-Sec research, Company data

Our revenue assumptions are mainly driven by capacity ramp up. We have maintained our realisation estimates at the same level FY27 onwards.

Exhibit 38: Realisation estimates

Realisation (INR/te)	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
Iron ore								
Lumps	4,600	5,198	5,200	5,075	5,075	5,075	5,075	5,075
Fines	3,770	4,518	4,499	4,374	4,374	4,374	4,374	4,374
BHQ						4,374	4,374	4,374
Pellets			9,688	9,475	9,475	9,475	9,475	9,475
Sponge Iron	28,000	28,302	27,667	27,254	27,254	27,254	27,254	27,254
Hot Metal				32,000	32,000	32,000	32,000	32,000
Wire Rods				51,500	51,500	51,500	51,500	51,500
HR Coil						49,086	49,086	49,086
Downstream Products							60,000	60,000

Source: I-Sec research, Company data

We expect cumulative IPS refund of > INR 114bn over FY25-FY31E

By the virtue of investing in Vidarbha, the company is likely to get Industrial Promotion Subsidy (IPS) for the sales and utilisation of iron ore mined in Maharashtra, based on the incurred capex. Under this scheme, the company would receive 115% of its Chandrapur project's (Ghugus project) cost; 150% of the Gadchiroli project's (Konsari) and 150% for its Beneficiation projects cost as subsidy, which will be disbursed through State Goods and Service Tax (SGST) refund spread over eight years. We expect cumulative SGST refund of INR 114.2bn over FY25-FY31.

Exhibit 39: Expected IPS benefits

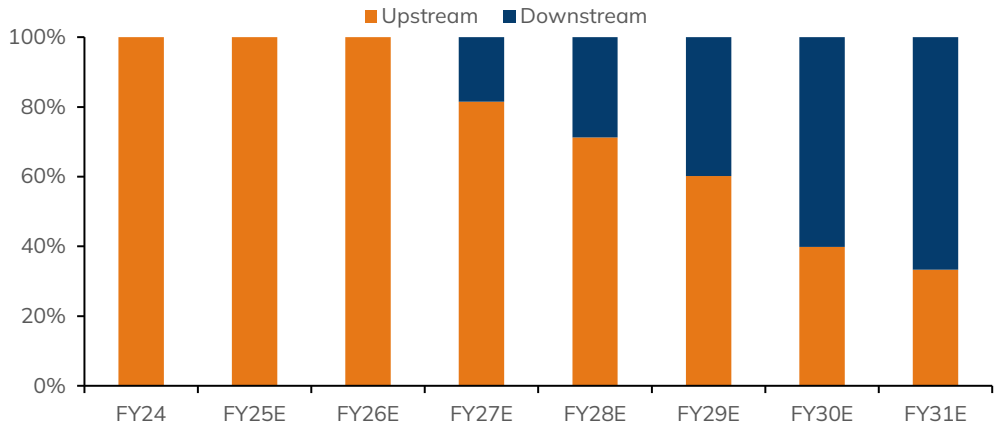
(In INR bn)	FY25	FY26	FY27	FY28	FY29	FY30	FY31
Ghugus	1,528	2,373	3,305	3,868	3,646	3,628	3,628
Konsari	4,819	5,676	5,826	13,660	18,107	19,598	19,657
Beneficiation project	-	-	1,381	1,014	832	832	832
Total	6,347	8,049	10,512	18,542	22,586	24,058	24,118

Source: I-Sec research

Expect 30%-plus EBITDA/PAT CAGR

We expect EBITDA/PAT CAGR of 35% each through to FY31E. The earnings growth is also driven by higher percentage of downstream products from FY27 and IPS benefits. Compared to FY26, when revenue is fully from upstream products (hot metal and above), we expect 66% of revenue from downstream products by FY31E. While downstream products do not yield the same margins as upstream products, we believe earnings are likely to scale up only due to value-added products.

Exhibit 40: Product mix focused on downstream



Source: I-Sec research, Company data

Owing to peak capex in FY27 and peak cash burn in FY28, we expect the company to turn free cashflow positive only from FY29. That said, the FCF generation is likely to increase materially post FY29, post capacity ramp-up. However, we do not rule out further capex in adjacent areas based on significant cashflow generation potential.

Exhibit 41: Summary Financials

(INR mn)	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
Revenue	65,217	75,386	1,50,959	1,67,404	1,93,364	2,69,244	3,20,277	3,36,321
Rev Growth (%)	92.2	15.6	100.2	10.9	15.5	39.2	19.0	5.0
Gross Income	56,297	70,980	1,35,727	1,37,841	1,51,055	1,68,542	1,92,194	2,01,530
Gross margin (%)	86.3	94.2	89.9	82.3	78.1	62.6	60.0	59.9
EBITDA	17,283	34,807	66,441	71,919	92,275	1,11,237	1,34,920	1,43,529
EBITDA (%)	26.5	46.2	44.0	43.0	47.7	41.3	42.1	42.7
PAT	12,429	25,655	48,849	50,185	61,603	73,511	91,215	99,602
PAT(%)	19.1	34.0	32.4	30.0	31.9	27.3	28.5	29.6
Net Debt	-3,162	-24,020	-55,524	-12,490	6,019	-19,848	-1,02,639	-2,14,316
Net D/E (x)	-0.1	-0.4	-0.4	-0.1	0.0	-0.1	-0.2	-0.4
OCF	17,010	25,928	44,754	54,216	70,241	83,118	1,03,241	1,13,128
CAPEX	(7,240)	(17,200)	(33,200)	(97,200)	(88,700)	(57,200)	(20,400)	(1,400)
FCF	(475)	8,728	11,554	(42,984)	(18,459)	25,918	82,841	1,11,728
RoE (%)	57.28	54.55	48.67	31.39	28.55	25.95	24.94	21.60
RoCE(%)	55.71	54.11	47.97	31.02	27.85	25.43	24.64	20.97

Source: I-Sec research, Company data

Capex rollout plan through to FY29

LMEL has embarked on investing ~INR 327bn in capex through to FY29 in steel making facilities, logistics and infrastructure development.

Exhibit 42: Plants that are likely to commission over FY25-29

Plants	Commissioning year	Remarks
BHQ beneficiation plant of 45mnte	FY27-FY29 (Phased manner)	The estimated capex is ~INR 50bn. The first plant will be commissioned in FY27 with input capacity of ~15mnte and output of ~5mnte. Last plant will be commissioned by FY29 with combined input capacity of ~45mnte and output of ~15mnte.
DRI facility of 0.36mnte	FY25	The plant is expected to be commissioned in FY25-end.
Wire rod plant of 1.2mnte	FY27	The estimated capex is ~INR 41.5bn. The plant is expected to be commissioned by Sept'26.
HR coil plant of 3mnte	FY28-FY29	The estimated capex is ~INR 160bn. The plant is expected to be commissioned by CY28.
Pellet plants of 12mnte	FY25-FY28	The estimated capex is INR 65-70bn. First plant is expected to be commissioned by FY25, second plant by FY26 and the last plant by FY28.
Two slurry pipelines of 85kms and 190kms	FY25-FY28	Slurry pipeline of 85kms has been commissioned in FY25 while 190km pipeline is expected to be commissioned by FY28.

Source: I-Sec research, Company data

Performance over the past three years

LMEL has effectively commenced its mining operations since Oct'21; its iron ore production has increased 3.6x while sales have increased 31.5x since FY22. In FY24, the company had produced 10mnte (EC limit of 10mnte) and sold 9.7mnte of iron ore; mining has contributed 80.4% of revenue in FY24. Further, production of sponge iron increased from 0.12mnte in FY22 to 0.26mnte in FY24, which has also contributed to increased revenue in FY24. Also, apart from iron ore and sponge iron, LMEL has started selling and exporting pellets in line with technological and commercial tie-up with MRPPL.

Exhibit 43: Segmental revenue

(INR mn)	FY22	As a %	FY23	As a %	FY24	As a %
Sponge Iron	4,454.1	61.2%	7,489.9	21.6%	8,274.8	12.6%
Mining	2,379.7	32.7%	26,511.0	76.5%	52,831.9	80.4%
Power	438.7	6.0%	666.8	1.9%	1,178.2	1.8%
Trading of Pellet					3,460.8	5.3%
Total	**7,272.5**	**100.0%**	**34,667.7**	**100.0%**	**65,745.7**	**100.0%**

Source: I-Sec research, Company data

Exhibit 44: Iron ore production and sales

(in mnte)	FY22	FY23	FY24	CAGR (FY22-24)	in times
iron ore production	2.8	3.6	10	90%	3.6
YoY (+/-)		30%	179%		
Iron ore sale	0.3	5.3	9.7	462%	31.5
YoY (+/-)		1640%	81%		
Sales value (INR in mn)	2380	26511	52832		
Average realisation/te	7777	4978	5475		

Source: Company data, I-Sec research

Exhibit 45: Sponge iron production and sales

Sponge Iron	FY22	FY23	FY24	CAGR
Production (mnte)	0.12	0.2	0.26	50%
Revenue (INR mn)	4454	7490	8275	36%
Revenue/te	38,060	36,686	31,585	

Source: I-Sec research, Company data

Mining, royalty and freight expenses

Mining, royalty and freight expenses comprise (i) mining charges payable to District Mineral Foundation (DMF), (ii) royalty charges payable under mining concession agreement and (iii) freight expenses payable to road transporters and Indian Railways towards transportation of iron ore extracted from the mine.

Exhibit 46: As production ramped up, mining cost/te dipped significantly in FY24

(In INR)	FY23	FY24
Mining Charges	6,729	9,940
Royalty	3,721	7,502
Mining + Royalty	**10,450**	**17,442**
Freight Expenses	7,067	14,955
Total expenditure	**17,516**	**32,398**
Production volumes (mnte)	3.6	10
Sales volumes (mnte)	5.3	9.7
Royalty/te	*1,034*	*750*
Mining Charges/te	*1,869*	*994*
Freight expenses/te	*1,327*	*1,496*

Source: I-Sec research, Company data

The mining, royalty and freight charges have increased from INR 1.74bn in FY22 to INR 17.5bn in FY23 to INR 32.4bn in FY24. The increase was mainly on account of increase in mining expenses due to increase in operations, increase in royalty charges due to increased extraction of iron ore and freight expenses on account of increased transport charges of additional iron ore extracted as well as increase in operations.

Industry Section

Iron ore: Iron ore is one of the main raw materials in steel making; production of 1mnte of steel requires 1.5-1.7mnte of iron ore. Nearly 98% of iron ore mined globally is used in steel making.

Iron ore mining: Iron ore is mined in ~50 countries; its global production was ~2,500mnte in CY23. Australia is the major producer of iron ore, accounting for ~38% of the global output in CY23. The other major iron ore producers are Brazil, China and India, having a share of 18%, 11.2% and 10.8%, respectively. These four countries have produced 75-80% of the global iron ore output from CY18 to CY23.

Iron ore consumption: China consumes 55-60% of global iron ore production. India is the second largest consumer of iron ore, with demand of 234mnte in CY22. Australia is the largest exporter of iron ore in the world. In CY22, it exported ~887mnte of iron ore, accounting for ~ 57% of global iron ore market. While the country has huge iron ore reserves, its crude steel production is minimal, making it a major ore exporter.

Iron ore exports: In CY22, Australia exported 95% of its production. The other leading exporters of iron ore are Brazil (22% global market share), Africa (5%) and India (1%). In CY22, India exported ~16mnte iron ore, with China being the major destination, according to WSA. India exported ~6% of the ore produced in the country.

Iron ore imports: China and Japan are the major iron ore importers. China contributes ~70.9% share of global ore imports as of CY22. The country is the top crude steel producer, accounting for 50-55% of global production. In CY22, China's iron ore production (feasible grade for production) was 21% of its apparent ore consumption, making it a net importer and Japan had ~7% share in imports market. It was the third largest steel producer in 2023 and its iron ore production is almost zero.

Iron ore- India

Haematite and magnetite are two prominent iron ores found in India. Haematite comprises ~70% of total ore reserves while magnetite accounts for ~30% of iron ore reserves. Nearly 79% of total haematite ore deposits are found in Assam, Bihar, Chhattisgarh, Jharkhand, Odisha and Uttar Pradesh while ~93% of magnetite ore occurs in Andhra Pradesh, Goa, Karnataka, Kerala, and Tamil Nadu. Karnataka alone contributes ~72% of magnetite deposits in India.

The primary reserves/resources of haematite are concentrated in Odisha (9,409mnte or ~39%), Jharkhand (4,710mnte or ~20%), Chhattisgarh (4,592mnte or ~19%), Karnataka (2,836mnte or ~12%) and Goa (1,198mnte or ~5%). The remaining 5% of haematite resources are distributed across other states. Magnetite, another significant iron ore, occurs in the oxide form, either in igneous or metamorphosed banded magnetite silica formations.

According to the National Mineral Inventory (NMI) database using the United Nations Framework Classification (UNFC) system, total reserves/resources of magnetite as of 1 Apr'20, stood at an estimated 11,227mnte, with 202mnte categorised as 'reserves' and 11,024mt as 'remaining resources'. In India, 96.70% of magnetite reserves/resources are concentrated in Karnataka (7,802mnte or ~69.5%), Andhra Pradesh (1,472mnte or ~13.1%), Rajasthan (916mnte or ~7.1%), Tamil Nadu (529mnte or 4.7%) and Goa (266mnte or ~2.30%).

Review of iron ore production in India

In FY23, production of iron ore, including lumps, fines and concentrates increased to 257.85mnte. Odisha led iron ore production (accounting for ~53.82% of the country's production), followed by Chhattisgarh (~16.27%), Karnataka (~15.88%) and Jharkhand (~9.74%). The remaining production came from Andhra Pradesh, Madhya Pradesh, Maharashtra and Rajasthan. In FY24, ~276.7mnte of iron ore was mined as per the initial estimates of the Ministry of Mines. Public sector entities, NMDC, OMC and SAIL remained the major miners. SAIL, Tata Steel Ltd, JSW Steel and AMNS India are the major producers for captive consumption. NMDC and OMC are the largest merchant miners.

The number of reporting mines decreased to 245 from 280 in FY22, with 43 mines in public sector and 202 in private sector. Additionally, 10 mines reported iron ore production as an associated mineral in FY22, one more than the previous year. The mine-head closing stocks of iron ore for FY22 stood at 119.19mnte, compared with 121.17mnte in FY22.

Iron ore mining operations employ open-cast methods, which can be manual, semi-mechanised or mechanised depending on the geological characteristics of the ore deposits. Large-scale mechanised mines are predominantly in public sector, while manual and semi-mechanised operations are prevalent in private sector, particularly for float ores.

Most public sector mines are fully mechanised, which is also prevalent in many captive mines in private sector. Nearly 90% of iron ore in India is produced from mechanised mines, with NMDC operating several such large mines in Chhattisgarh and Karnataka. Iron ore processing involves various stages, including crushing, screening, washing and, at times, beneficiation and agglomeration. Crushing and screening are primarily for sizing and removing gangue minerals, with dry and wet grinding employed in some cases. The resulting lumps and fines are marketed, with fines often converted into sinters for use in steel plants and pellets made from concentrates/fines exported or used domestically in iron and steel industries.

A look at iron ore history of India

To boost exports, iron ore was deregulated in mid-1996, enabling private miners and exporters to access the export market. The surge in iron ore exports and production began gradually from the year 2000, coinciding with the increasing demand from China. This upward trend reached its peak in FY10, with exports reaching 117.37mnte and production hitting 218.55mnte. However, exports and production started to decline thereafter, especially from FY12. This decline was notably influenced by the government's decision to raise export duties. From Mar'11, the export duty was increased from 5% on fines to 20% for both lumps and fines. Subsequently, it was further raised to 30% from Dec'11.

Despite the extraction of 2,041mnte of iron ore between 2000 and 2013, the reported iron ore resources increased by 9,215mnte with a continued momentum towards iron ore exploration. This resulted in a total resource estimate of 31,323mnte as of FY13-end, compared to 22,108mnte at FY20-end. The remarkable growth in iron ore resources was facilitated by robust export demand, particularly from China. Over the past four years, apart from the pandemic-induced lockdowns and trade standstill in FY21, the volumes of exports have been on the rise, reaching 46.4mnte in FY24.

Mining and export bans in Goa

Mining activities in Goa came to a halt in Sept'12 following a ban, resulting in the suspension of shipments that had previously reached ~50mnte during FY11. The Supreme Court's intervention and subsequent rulings highlighted the severity of these issues and the need for accountability.

Mining in Goa restarted again in 2014, before being banned again in 2018 after the Supreme Court scrapped all existing mining leases citing irregularities in renewal processes. The mining started again in the Q1FY25 with private players getting permission to extract 3mnte from the Bicholim block.

Mining and export bans in Karnataka and introduction of production caps

Similarly, in Karnataka, the ban commenced in 2011. After the Supreme Court-appointed Central Empowered Committee (CEC) report brought attention to rampant violations in mining, the SC passed an order in 2011 to stop mining operations in Ballari. Additionally, the SC banned export of iron ore pellets from Karnataka with an aim to prevent environmental degradation. The ban, implemented as a part of the government's efforts to crack down on illegal mining, had resulted in a drastic reduction in iron ore exports by ~85%, equivalent to around 100mnte, for two years.

The ban of mining in 2011 in Karnataka was lifted in 2012 with the introduction of production caps. The Supreme Court, in 2022, raised the ceiling limit of iron ore mining for the Ballari mine (from 28mnte to 35mnte, Chitradurga and Tumakuru districts (from 7mnte to 15mnte collectively) and in May'23, allowed the direct sale and export of already excavated iron ore.

Government regulations

Since 2015, the Indian government, under the Ministry of Mines, has introduced several significant policy changes to unlock the potential of the mineral sector.

The Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act, 1957) was amended in 2015 to introduce transparent auction processes for granting mineral concessions, ensuring fairness, and eliminating discretion. This amendment also established District Mineral Foundations to support communities affected by mining and created the National Mineral Exploration Trust to promote exploration activities.

To ensure sustainable mineral production, especially as many mining leases were set to expire in Mar'20, the Central Government further amended the MMDR Act through the Minerals Laws (Amendment) Act, 2020. These reforms facilitated the smooth transfer of clearances to new lessees selected through auctions and allowed state governments to initiate auction processes for mineral blocks before lease expiry, ensuring uninterrupted production.

Additionally, the MMDR Act underwent further amendments in 2021 with the aim of increasing mineral production, expediting mine operations, boosting employment and investment in the mining sector, ensuring continuity in operations after lease transfers, and accelerating exploration and auction processes for mineral resources.

MMDR Amendment Act, 2015

The Act was aimed at curbing illegal mining and making the allocation process more transparent. The major changes made to the Act include the following:

- Mine auction was made the only mode for mine allocation, and the auction was made completely online. This increased transparency significantly.

- Mine blocks were given for a 50-year lease to the successful bidder.
- Captive players were allowed to bid for mines previously held by non-captive players. However, captive players could not sell non-required iron ore production to external buyers.
- Captive players had the first right of refusal after the lease expired and could get a 15-year extension to curb illegal mining, a penalty of up to INR 0.5mn per hectare and five years of imprisonment was introduced in the Act.
- A composite prospecting lease (PL)-cum-mining lease (ML) licence was introduced for virgin blocks.

These reforms were beneficial for state governments since the states earned extra revenue through the auction process through bid premium, compared with only royalty earlier.

Mineral Laws (Amendment) Act, 2020

The MMDR Amendment Act, 2015, garnered a positive response from the steel industry. To make the auction process easier, further changes were introduced in 2020. Major changes include the following:

- The government abolished restrictions related to end use for captive and non-captive leases.
- A new composite licence reconnaissance permit (RP)-cum-PL-cum-ML was introduced for virgin blocks.
- The central government directed state governments to auction mines with pre-embedded clearances to shorten the lead time before the start of mining operations. Here, state governments were made responsible for obtaining necessary clearances.

Following these changes, more captive players started taking part in the auctions, as restrictions related to the end use of production were removed.

MMDR Amendment Act, 2021

Post the amendments introduced in 2020, the government introduced new amendments in 2021 to improve the availability of high-grade iron ore for the Indian market:

- Captive mines were allowed to sell up to 50% of the production to external buyers.
- Statutory clearances remained valid even after the expiry of the lease. This promoted ease of doing business.
- The lessee who could not undertake mining operations could transfer the lease to the interested party without any additional charges, thus, ensuring continuation of mine production.

These changes promoted ease of doing business and boosted mine production.

Thereafter, considering that at present the availability of critical minerals or technologies for their extraction and processing are concentrated in a few geographical locations which may lead to supply-chain vulnerabilities and even disruption of supplies, the central government has amended the MMDR Act, through the MMDR Amendment Act, 2023.

Reduction and removal of export duties on iron ore

India exported >26mnte of iron ore in FY22, constituting ~10% of total domestic production. The government had imposed export duties in May'22 on iron ore to ensure better availability in domestic market, thus, bringing down prices. While earlier the government had imposed an export duty on high-grade iron ore (58% Fe and higher) to curb exports, the export of low-grade ores, as well as iron ore pellets, continued. However, once both steel and iron ore prices corrected, the Indian government rolled back the export duty for pellets and low-grade ore (fines and lumps 58% Fe) and lowered the duty on high-grade ore (fines and lumps >58% Fe) to 30% from 50% earlier. The move helped scale up exports over the last four months of FY23. In fact, India exported close to 14mnte of iron ore from Nov'22 to Mar'23, after having exported only 7.3mnte over the first eight months of the year.

Exhibit 47: Custom duty on mining exports

Material	HS Code	Customs Duty		
		Before May'22 order	After May'22 order	Post May'22 order
Iron ore Fines (>58% Fe)	2601	0%	50%	30%
Iron ore Fines (<58% Fe)	2601	0%	50%	0%
Iron ore Lumps (>58% Fe)	2601	30%	50%	30%
Iron ore Lumps (<58% Fe)	2601	0%	50%	0%
Iron ore Pellets	2601	0%	45%	0%

Source: Company data, I-Sec research

Auction of iron ore mines post-2015

The auctioning of iron ore mines under the MMRDA 2015 has been a significant development in India's mining sector. This legislation aimed to bring transparency, efficiency, and sustainability to the allocation of mineral resources, including iron ore, by introducing a competitive bidding process for the grant of mining leases. Under the MMDR Act, iron ore mines are auctioned to private entities and state-owned enterprises through a transparent and competitive bidding process. This process ensures that mining leases are allocated to the most qualified and financially capable entities, promoting fair competition and maximizing revenue for the government.

A total of 116 leases, combination of both mining lease (ML) and prospecting license-cum-mining lease (PL-cum ML) or composite license has been done between FY15 and FY23.

Exhibit 48: State-wise allocation of mining lease over FY15-23

FY	Andhra Pradesh	Chhattisgarh	Jharkhand	Karnataka	M P	Maharashtra	Odisha	Rajasthan	Uttar Pradesh	Goa	Total
2016				7			1				8
2017							2				2
2018			1	7	1						9
2019				4		1					5
2020							17				17
2021	1						9				10
2022	1	7		6	3	6		2		4	29
2023	3	3	2	5	4	5	3	4	2	5	36
Total	**5**	**10**	**3**	**29**	**8**	**12**	**32**	**6**	**2**	**9**	

Source: Company data, I-Sec research

The auction premium paid under the MMDRA mine auction system is a key component of the auction process. When mineral blocks, including iron ore mines, are put up for auction by the government, bidders are required to pay an amount known as the auction premium, in addition to the royalty for the mined mineral along with other statutory payments.

Expiry of existing iron ore mining leases (2024 to 2030)

As number of iron ore mining leases in India approach their expiry dates leading up to 2030, the industry faces a critical juncture marked by both challenges and opportunities. The expiration of these leases raises concerns about the continuity of iron ore supply, given that India is one of the world's leading producer and consumer of iron ore. One of the primary challenges associated with the expiry of mining leases is the potential disruption to iron ore production. If existing leases are not extended or auctioned in a timely manner, it could lead to a shortfall in iron ore supply, impacting various downstream industries including steel manufacturing and downstream end-use industries. However, the expiry of mining leases also presents an opportunity for miners and end users to acquire new assets available in the auction post the lease expiry and gain market share.

Exhibit 49: Year-wise expiry of iron ore mining leases in India

FY	No. of Mines	Estimated total Production Capacity (mtpa)
2024	1	3
2025	6	25
2026	6	5
2027	3	2
2029	2	17
2030	8	59

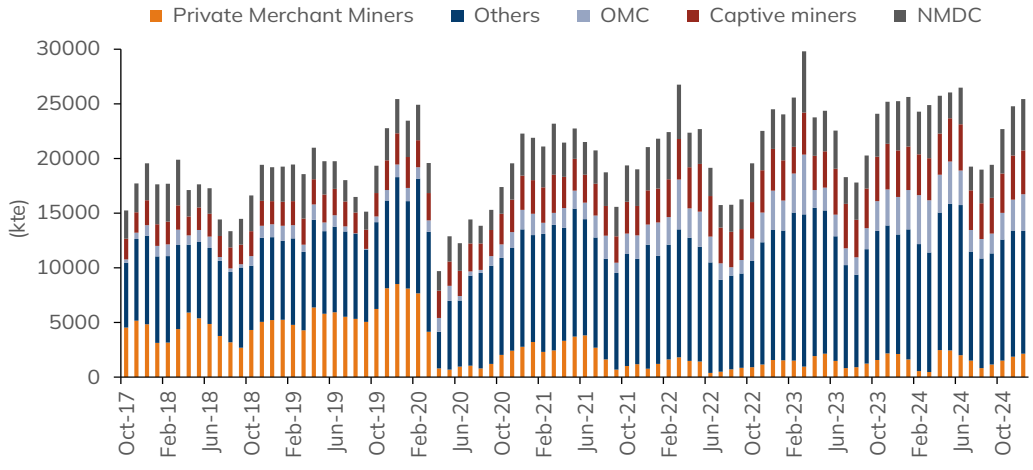
Source: Ministry of Mines, CRISIL Research

Although ~110mnte of mining leases are estimated to expire between 2024 and 2030. Some mines are owned by Steel Authority of India Ltd (SAIL), which may get a preferential treatment, under MMDR Amendment Act 2021, for renewal of mining leases.

How the mining environment has changed since FY20

The share of merchant miners in Odisha has reduced significantly post their mines were bid and won by the steel players at a steep premium. From 30% in Oct'17, the share of private merchant miners has gone down to 8% in FY25.

Exhibit 50: Iron ore supply landscape in India



Source: I-Sec research, Company data

Despite iron ore production rising since CY20, imports have also risen as capacity ramp up has taken place and steel production has increased.

Exhibit 51: Iron ore imports and production

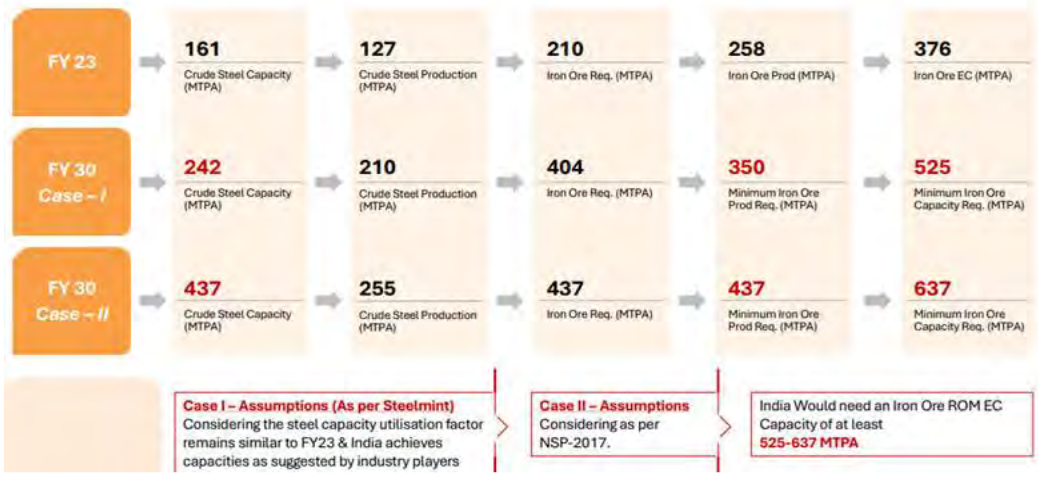
(In mnte)	Imports	Production
2020	0.5	205.6
2021	1.2	246.3
2022	1.4	252.1
2023	5.0	278.7
2024	5.3	283.6

Source: I-Sec research, SteelMint

The incremental demand of iron ore will arise as steel capacity expands and ~110mnte of mining leases are set to expire between FY24-30

The installed steel capacity of the country was ~180mnte in FY24 and as the country is set to expand its steel capacity to ~300mnte by FY31, it would need incremental iron ore of ~150-160mnte (assumed capacity utilisation of 75%). Apart from this, ~110mnte of mining leases are expected to expire between CY24 and CY30 (may appear for extension).

Exhibit 52: India - likely steel capacity expansion



Source: Company data, I-sec research

Exhibit 53: Expiry of mining leases (MTPA)

Year	Nos. of mines	Est. production capacity
FY25	6	25
FY26	6	5
FY27	3	2
FY29	2	17
FY30	8	59
Total	26	111

Source: IBM, Ministry of Mines, CRISIL Research

LMEL is at vantage point to take the advantage of both 1) being a lowest cost producer of iron ore and 2) increasing its iron ore output capacity to ~25mnte (including BHQ) to meet the incremental demand of the industry.

Major demand drivers for the sector

Based on end use, demand can be attributed to the following four major demand buckets for FY25:

- Infrastructure (30-35%)
- Building and construction (25-35%)
- Automobile (11-13%)
- Engineering, fabrication and others (25-30%)

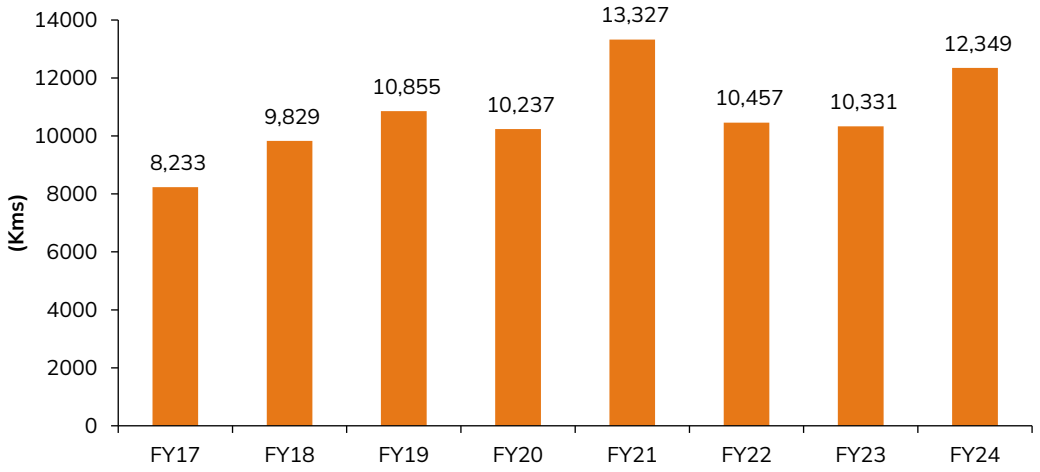
Infrastructure

The capex towards infrastructure sector continues to be on upward trajectory. The strong momentum of infrastructure is likely to continue, led by government spending, primarily across its flagship schemes such as PM Gati Shakti and the National Infrastructure Pipeline. While the infrastructure segment is expected remain a key demand driver, only a marginal rise of 4% in capex for core infrastructure ministries for FY25BE over FY24RE is expected to slow down demand growth of the infrastructure segment to 7.5-8.5% in FY25 from 17.5-18.5% in FY24 (and a CAGR of 9.5-10.5% over FY19-23). The government's focus on developing dedicated rail corridors for energy, mineral and cement sectors, a higher budget allocation for metro, the Ude Desh ka Aam Naagrik (UDAN) scheme for airports, expansion of metro rail and Namo Bharat to more cities, ongoing National Highways Authority of India (NHAI) and Bharatmala road projects should continue to support infrastructure demand in FY25. Projects focusing on port connectivity, tourism infrastructure and amenities on islands, including Lakshadweep would also support the infra segment, along with ongoing metro construction and development of airports.

Roads-NHAI

Bharatmala is an umbrella project of the central government launched in CY15; it aims to improve efficiency in the road sector. It envisages the construction of 83,677km of highways under the following categories: 1) National corridors (north-south, east-west, and golden quadrilateral), 2) Economic corridors, 3) Inter-corridor roads, and 4) Feeder roads. Bharatmala, along with other schemes, requires a total outlay of INR 6.9trn. Similar to previous year, the entire allocation of INR 2.72trn would be via Gross Budgetary Support (GBS) as the Internal and Extra Budgetary Resources (IEBR) limit has been completely eliminated to reduce the NHAI's dependence on market borrowings. The budgetary allocation of INR 1.68trn towards NHAI for the next year has remained flattish vis-à-vis FY24RE. The phase I target is ~34,800 km: 24,800 km of various categories of roads and 10,000 km of residual NHDP projects at a cost of INR 5.35trn. As of Dec'23, ~26,418km had been awarded and ~15,045km completed (~43% completion of target). The remaining projects are targeted for awarding by FY25 end. Phase-I has witnessed significant cost overruns on account of expensive land acquisition and high inflation.

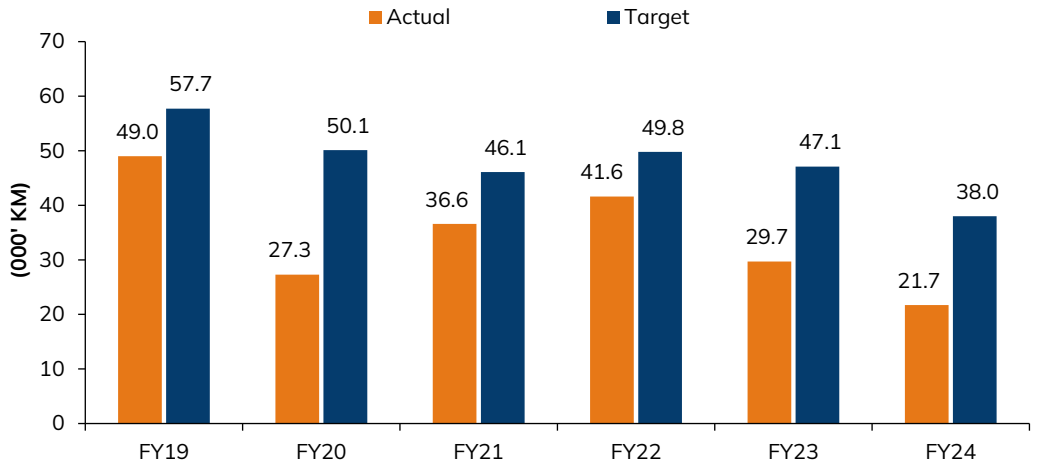
Exhibit 54: National highway construction (in km)



Source: Ministry of Road Transport & Highways, CRISIL Research

Roads – Pradhan Mantri Gram Sadak Yojana (PMGSY): PMGSY seeks to provide all-weather road connectivity to all eligible unconnected habitations existing in the core network in rural areas of the country. PMGSY-I was launched in 2000 and 97% of the target was achieved. Under PMGSY-II, 75% of the target was achieved. The target for PMGSY-III is 40% lower than the length of roads constructed over the past five years. Execution under PMGSY improved in FY22 as ~41,971 km was constructed against a revised target of ~50,000 km (~84% completion rate; original target was 61,700km). In FY23, a target of 47,171 km was set under the scheme, of which, ~29,700 km has been constructed. Further, out of a lower target of ~38,000 km set for FY24, ~21,700 km was constructed during the year (~57% achievement). The pace of execution is expected to moderate as the budgetary allocation for PMGSY has been 29% lower for FY25BE vs FY24RE.

Exhibit 55: Actual road construction vs target under PMGSY



Source: PMGSY, CRISIL Research

Dedicated freight corridors (DFCs): This was intended to help the Indian Railways regain freight share by cutting the turnaround time between importing and consuming destinations, compelling industries to realign their logistics strategies. Thus, roads that have outperformed railways over the past decade will lose some share to railways once DFCs are commissioned. The DFC project is estimated to cost INR 1.24trn for Eastern (1,337 km) and Western (1,506 km) sectors. The Western DFC covers 1,504 km, linking Jawaharlal Nehru Port Trust near Navi Mumbai, Maharashtra to Dadri, Uttar Pradesh, passing through Vadodara, Ahmedabad, Palanpur, Madar, Phulera and Rewari. The Eastern DFC covers 1,337 km, connecting Ludhiana, Punjab to Dankuni

near Kolkata, West Bengal, passing through Haryana, Uttar Pradesh, Bihar and Jharkhand.

Both routes account for more than 20% of the pan-India primary freight in billion tonne kilometre terms (BTKM). Container traffic (~65% of Western DFC) and bulk commodities (~89% of Eastern DFC), which dominate freight carried on these routes, are expected to shift to railways. As of Feb'24, 2,557km out of 2,843km had been commissioned (~90% physical progress and 88% financial progress was achieved under both Eastern and Western DFCs). Nearly 100% of land has been acquired for Western DFC. All routes of Eastern DFC have been commissioned.

Sagarmala: As a part of the programme, >800 projects at an estimated cost of ~INR 5.48trn have been identified for implementation. This includes logistics projects such as modernisation of existing ports and terminals, new ports and terminals and tourism jetties, enhancement of port connectivity, inland waterways, lighthouse tourism, industrialisation around ports, skill development, and technology centres.

At an overall level, as of Feb'24, 241 projects worth INR 1.22trn had been completed out of 839 identified projects worth INR 5.79trn under the scheme; 598 projects worth INR 4.57trn were under implementation and in various stages of development. Projects under Sagarmala include the SEZ at the Jawaharlal Nehru Port Trust, Smart Industrial Port City at Deendayal Port and Paradip Port, and the Coastal Employment Unit at the V O Chidambaranar Port.

Exhibit 56: Construction status of projects under Sagarmala scheme

Project	Completed		Under Impletation		Under Development		Total	
	No. of Projects	Cost (INR mn)	No. of Projects	Cost (INR mn)	No. of Projects	Cost (INR mn)	No. of Projects	Cost (INR mn)
Port Moderization	94	315,170	65	769,580	75	1,831,470	234	2,916,220
Port Connectivity	82	417,800	67	811,910	130	833,920	279	2,063,630
Port Led Industrialization	9	458,650	3	92,470	2	7,750	14	558,870
Voastal community Development	21	15,590	32	61,660	281	38,470	81	115,730
Coastal Shipping & IWT	35	18,340	67	56,170	129	70,750	231	145,260
Total	**241**	**1,225,560**	**234**	**1,791,790**	**364**	**2,782,360**	**839**	**5,799,710**

Source: Company Data

Urban infrastructure: It includes the construction-intensive mass rapid transit system, bus rapid transit system, water supply and sanitation (WSS) projects, smart cities, and related infrastructure development. Investment in India's urban infrastructure is driven by government schemes such as the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Swachh Bharat, the National Mission for Clean Ganga and Jal Jeevan Mission. WSS projects, metro rail construction in major Indian cities, and commencement of work on 105 smart cities have boosted urban infrastructure investments in the past five years. The central government intends to expand metro rail and Namo Bharat services to more cities with focus on rapid urbanisation and has allocated INR 249.3bn for FY25BE against INR 231.0bn in FY24RE (7.9% higher).

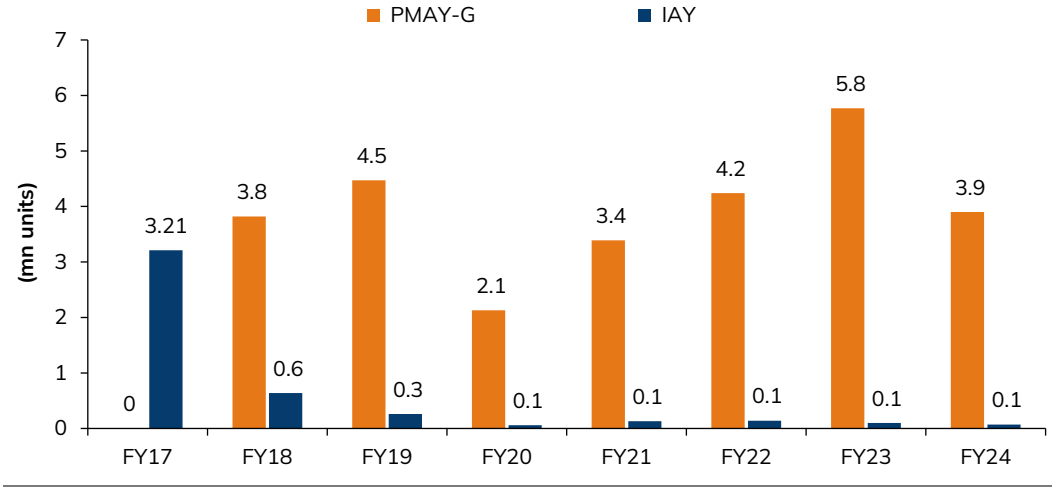
Building and construction

a) **Rural housing demand:** To achieve Housing for All by 2022, the government launched a restructured rural housing scheme, Pradhan Mantri Awas Yojana - Gramin (PMAY-G) in Nov'16 to construct 29.5mn houses with basic amenities by CY22. As of Mar'24, ~28.1mn units were sanctioned, of which, ~25.8mn houses were constructed (~92% completion against sanctioned units) and ~2.3mn units were under construction in the scheme.

   FY21 was impacted by Covid-19. In FY22, construction picked up further on a high base as higher sanctioning over FY20 and FY21 led to strong execution. The construction pace was ramped up sharply in FY23 under the scheme to achieve the set targets. However, it slowed down during H2FY24 as uneven and delayed

monsoon impacted agriculture activities regionally. Execution under PMAY-G was expected to slightly moderate in the H1FY25 due to fund diversion during elections but is expected to ramp up in H2FY25 due to higher focus on rural development. Also, lower agri profitability in previous year may impact rural liquidity next year. The announcement in the Vote of Account 2025 to bring two crore additional houses under the ambit of PMAY-G over the next five years is likely to support demand. Further, the actual shortage remains well above the deficit identified at 29.5mn units and will continue to drive demand even beyond FY26. Hence, rural housing is expected to grow at a healthy 6.5-7.5% CAGR over the next five years, supported by a lower development base and continued concretisation of kutcha houses.

Exhibit 57: Construction of houses under PMAY-G over FY17-24



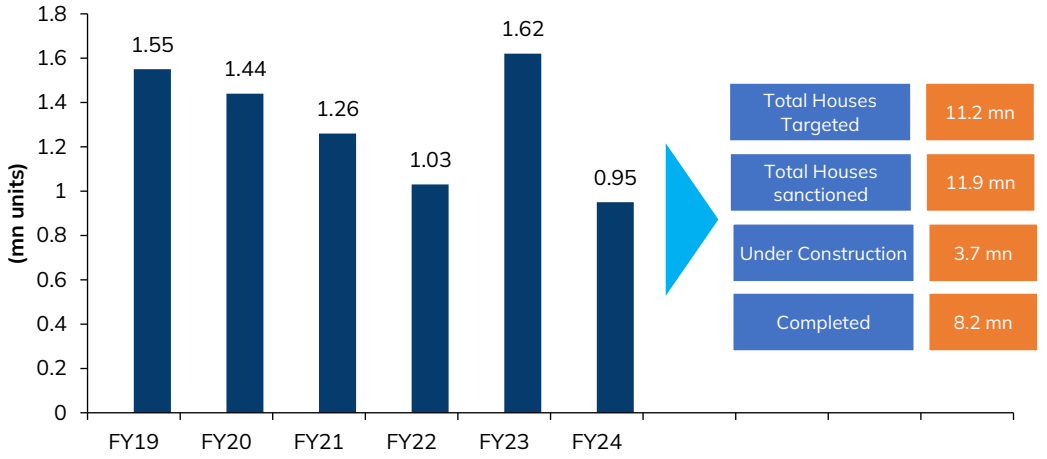
Source: Ministry of Rural Development, CRISIL Research

b) **Urban housing demand:** Pradhan Mantri Awas Yojana - Urban (PMAY-U) is an affordable housing scheme under implementation from 2015. It seeks to achieve the objective of Housing for All by 2022. The scheme comprises four components: (i) In situ rehabilitation of existing slum dwellers (using the existing land under slums to provide houses for slum dwellers) through private participation; (ii) credit-linked subsidy scheme for economically weaker sections and low- and middle-income groups; (iii) affordable housing partnership with states/ union territories/ cities, including the private sector and industries; and (iv) subsidy for beneficiary-led individual house construction.

The PMAY-U programme witnessed healthy construction in FY19 and FY20, but lost momentum in FY21 as urban construction was adversely impacted by the pandemic-induced lockdown. While ~1.55mn and ~1.44mn units were constructed in FY19 and FY20, respectively, ~1.26mn was constructed in FY21, despite the pandemic, as construction pace was healthy in the second half. In FY22, construction momentum slowed down further to ~1.03mn units due to weak execution in the second quarter. In FY23, construction pace recovered with fast-paced and steady execution of ~1.62mn units during the year.

After a healthy run in the previous year, construction pace moderated in FY24 with ~0.95mn units built, after witnessing fast-paced execution of ~1.62mn units in FY23. While most of the targeted houses have been sanctioned (~11.9mn houses sanctioned as of Mar'24), ~8.2mn houses have already been completed (~69%) and another ~3.7mn are under various stages of construction. However, despite the increase in approvals, execution pace slowed down during FY24 due to delay in fund releases, political instability, etc. across regions. However, with higher under-construction units as of Dec'23, the scheme's execution is likely to be extended beyond Dec'24.

Exhibit 58: PMAY-U construction



Source: Ministry of Housing & Urban Affairs, CRISIL Research

On real estate front, with home buyers making use of reduction in stamp duty in metro cities, aided by bumper offers, residential sales numbers indicate a remarkable post-pandemic recovery. The work-from-home culture and social distancing norms have boosted affordable and mid-segment home buying. Real estate construction surged in FY22 and remained strong in FY23. After witnessing strong momentum over the past two years, demand growth is estimated to moderate to 12-14% in FY24 and 10-12% in FY25 amid higher interest rates and an increase in capital values.

Overall, the urban housing segment clocked a low CAGR of 3-4% between FY19 and FY23, majorly limited by the real estate downfall during FY20 and FY21. Thus, demand from the urban housing segment is expected to grow a moderate 4-5% in FY25, and higher capital appreciation and interest rates are likely to limit urban housing growth from the real estate segment. Also, closure of PMAY-U scheme will further restrict growth in FY25.

Automobile

Steel demand from automobile industry accounts for 10-13% of total domestic demand. Both flat and long steel are used in various parts of automobiles. Demand from all automobile sub-segments, such as passenger vehicles, two-wheelers and commercial vehicles, is positive over medium term and will continue to drive steel demand.

a) **Passenger vehicles:** Between FY18-23, passenger vehicle volume logged a low CAGR of 3%, due to a decline in FY20-FY21. Sales of small cars increased ~19% in FY23 as several users moved towards the lower end of the spectrum due to pandemic-impaired income sentiments as well as unavailability of utility vehicles (UVs) owing to chip shortage. However, with subdued entry-level income sentiments and a continued shift towards UVs, small car segment is expected to log a negative CAGR of 3-5% between FY23 and FY28.

   Stagnant sales are also expected in marginalised large car segment (with a low base), for which CAGR is expected to be rangebound at a negative 2-4% between FY23 and FY28. For small and large cars, it was negative 4% and negative 12%, respectively, between FY18 and FY23. The UV segment is expected to exert pressure on small- and large-car segments, limiting growth prospects. After 34% growth in FY23, UV and van sales are expected to register 12-14% CAGR FY23-FY28 (CAGR between FY18 and FY23 was 14%), driven by a continued shift in consumer preferences, multiple model launches, and availability of superior features at affordable prices. Entry of new players in UV segment is also expected

to aid traction. Moreover, replacement demand is likely to rise, as car owners opt for newer models due to higher affordability, competitive pricing of new models and easy availability of finance. Overall, car and UV segments are expected to sustain a CAGR of 6-8% between FY23 and FY28.

b) **Two-wheelers:** Volume of two-wheelers is projected to improve 9-11% in FY25, after estimated growth of 11-13% in FY24, driven by recovery in scooter sales as urban income sentiments improve and EV penetration increases. The prediction of normal monsoon is expected to support demand for motorcycle segment. The acquisition price for an entry-level two-wheeler is estimated to have increased 40-45% since FY19 owing to safety norms, BS-VI implementation and higher input costs.

In medium to long term, we expect manufacturers to focus on expansion of distribution network in semiurban and rural areas, and new model launches in 125cc segment for scooters and in premium segment for motorcycles. CRISIL MI&A Research projects domestic two-wheeler sales to record a CAGR of 8-10% between FY23 and FY28, after robust recovery in FY23. This includes assumption of two below-normal monsoons. The two-wheeler industry's volume declined at 4% CAGR between FY18 and FY23. CRISIL MI&A Research expects e-two-wheeler penetration to reach 20-25% by FY28.

c) **Commercial vehicles:** Commercial vehicle (CV) sales has surpassed the pre-pandemic level of FY19. This trajectory is underpinned by increased government spending and replacement demand. Key end-user sectors, especially construction and mining, are expected to sustain their demand, contributing to this upward trend. The long-term projections for various sub-categories are as follows:

- The medium and heavy commercial vehicle (MHCV) industry is projected to clock a CAGR of 2-6% between FY23-FY28. Between FY18 and FY23, the industry logged a strong CAGR of 8%. The rise in tonnage addition is expected to be driven by an improved product mix, with a notable surge in demand for multi-axle vehicles.
- Demand for light commercial vehicles (LCVs) is expected to clock (2)-2% CAGR between FY23-FY28, as the industry is highly cyclical and pent-up demand was actualised in FY22 and FY23. In addition, the sub-one tonne segment has been facing competition from the electric three-wheeler goods market. Between FY18-FY23, the industry clocked a CAGR of 4%. Upper-end LCVs (ULCVs) offer transporter lower returns, as compared with intermediate CVs (ICVs) and are most suited for captive use. Entry restrictions on ICV trucks and higher tonnage MHCVs are expected to keep demand buoyant from this segment. However, higher toll for ULCV trucks vs pickups may limit growth in the segment.
- Domestic bus sales are expected to clock a CAGR of 9-13% between FY23-FY28, supported by increasing demand for inter-city/state travel, aided by better road infrastructure and higher personal disposable incomes, coupled with government spending on transport undertakings and PM-eBus Sewa scheme. The unregulated segment, which mainly caters to demand from schools, companies and inter-city travel by private operators, will remain the largest end-user. However, further expansion in bus sales would be impacted by the implementation of metro-rail and monorail in several cities.

d) **Tractors:** Domestic tractor sales are expected to rise 2-4% on-year in FY25 on the back of normal monsoon prediction and healthy replacement demand. Domestic demand is expected to clock a CAGR of 4-6% between FY24-FY29.

Exports, accounting for ~10% of overall tractor sales as of FY24, are expected to grow 8-10% on year to 100,000-110,000 units in FY25 on a low base of 90,000-100,000 after recording a decline of 23-25% on year in FY24. Revival in demand from the US, Europe and Asia will further support growth, and medium term CAGR of exports is expected to be 5-7%.

Engineering, fabrication and others

This segment comprises a wide range of end-use sectors such as general engineering, capital goods, consumer durables, electrical goods, industrial bodies, and fabrication. According to CRISIL MI&A Research estimates, the sector accounts for 25-30% of total steel demand. Cumulatively, growth in steel demand from sub-segment is estimated to have been 10% in FY23, increasing to 13% in FY24. For FY25, in line with the anticipated slowdown in overall demand growth rate, demand from engineering, packaging and others will increase 6-8%. Between FY25 and FY28, CRISIL MI&A Research expects the segment to clock a CAGR of 6-8%.

Peer comparison

We have compared LMEL's earnings, returns and valuations with ferrous companies under coverage.

On revenue front, LMEL is expected to grow by 26.6% CAGR through to FY27E, mainly benefitting from capacity ramp up. It is noteworthy that Shyam Metallics is also expected to grow by 19%, again, due to capacity ramp up.

Exhibit 59: Revenue comparison through to FY27E

(INR mn)	FY24	FY25E	FY26E	FY27E	CAGR (FY24-FY27E)
Tata Steel	22,91,708	22,04,731	23,47,244	24,57,835	1.8%
JSW Steel	17,50,060	16,96,763	18,43,688	20,44,439	4.0%
JSPL	5,00,268	5,18,983	5,93,344	6,42,062	6.4%
SAIL	10,53,746	10,00,691	9,93,349	10,19,737	-0.8%
Shyam Metalics	1,31,952	1,53,396	2,23,257	2,63,297	18.9%
NMDC	2,13,079	2,52,955	2,63,743	2,72,139	6.3%
LMEL	65,217	75,386	1,50,959	1,67,404	26.6%

Source: I-Sec research

On EBITDA, we expect much higher growth compared to peers under coverage, mainly due to capacity ramp up and sustainable cost advantage coming from iron ore. Post FY27E, we expect this advantage to further increase following the commissioning of BHQ plant.

Exhibit 60: EBITDA progression through to FY27E

(INR mn)	FY24	FY25E	FY26E	FY27E	CAGR (FY24-FY27E)
Tata Steel	2,23,059	2,49,025	3,27,193	3,70,418	13.5%
JSW Steel	2,82,360	2,49,765	3,50,125	4,41,679	11.8%
JSPL	1,02,008	1,07,885	1,37,151	1,52,644	10.6%
SAIL	1,11,317	1,01,833	1,07,290	1,21,231	2.2%
Shyam Metalics	15,700	18,154	27,407	35,609	22.7%
NMDC	72,928	83,478	86,882	88,952	5.1%
LMEL	17,283	28,460	66,441	71,919	42.8%

Source: I-Sec research

On PAT, only Tata Steel is expected to show higher growth, mainly due to turnaround of TSE operations. Also, financial leverage in LMEL is minimal as incremental debt is unlikely to be high in FY27 as compared to peers.

Exhibit 61: PAT progression through to FY27E

(INR mn)	FY24	FY25E	FY26E	FY27E	CAGR (FY24-FY27E)
Tata Steel	22,271	41,849	86,178	1,14,762	50.7%
JSW Steel	83,840	73,938	1,41,324	2,03,480	24.8%
JSPL	59,384	50,777	71,428	80,667	8.0%
SAIL	33,563	18,697	21,400	33,588	0.0%
Shyam Metalics	10,289	10,048	17,233	22,413	21.5%
NMDC	55,722	60,369	62,082	62,781	3.0%
LMEL	12,429	19,308	48,849	50,185	41.8%

Source: I-Sec research, Company data

On RoE front, we expect a progressive drop as the company embarks on capex plan and earnings diversify from mining. However, LMEL's RoE in FY27 is still likely to be better compared to peers despite the incremental earnings from growth projects not getting fully reflected.

Exhibit 62: RoE progression through to FY27E

%	FY24	FY25E	FY26E	FY27E
Tata Steel	2.1	4.3	9.2	11.9
JSW Steel	11.7	9.6	16.2	20.6
JSPL	14.7	11.4	14.2	14.2
SAIL	6.4	3.5	3.9	5.9
Shyam Metalics	13.0	10.3	15.0	17.2
NMDC	25.2	23.4	21.4	19.4
LMEL	57.3	41.1	48.7	31.4

Source: I-Sec research

On EV/EBITDA, LMEL is trading at premium to peers mainly due to higher-than-expected RoE. That said, EV/EBITDA for LMEL is expected to reduce progressively as earnings build up post FY27.

Exhibit 63: EV/EBITDA across peers

(x)	FY25E	FY26E	FY27E
Tata Steel	10.1	7.3	6.3
JSW Steel	12.2	8.6	6.6
JSPL	9.0	7.0	6.2
SAIL	7.9	7.0	6.0
Shyam Metalics	10.4	6.8	4.7
NMDC	0.9	0.7	0.5
LMEL	19.3	7.8	7.8

Source: I-Sec research

On P/E, LMEL's stock is trading at discount to peers on FY27E EPS due to lower leverage. As seen, companies with lower debt levels such as Shyam Metalics and NMDC are trading at far lower P/E compared to major steel companies. PEG for LMEL works out to 0.2x, among the lowest levels across the peers.

Exhibit 64: PE across peers

P/E	FY25E	FY26E	FY27E	PEG
Tata Steel	38.3	18.6	14.0	0.21
JSW Steel	31.7	16.6	11.4	0.17
JSPL	16.8	12.0	10.6	0.41
SAIL	24.2	21.1	13.4	0.40
Shyam Metalics	20.5	11.9	9.2	0.19
NMDC	9.2	8.9	8.8	4.47
LMEL	30.8	12.2	11.8	0.19

Source: I-Sec research

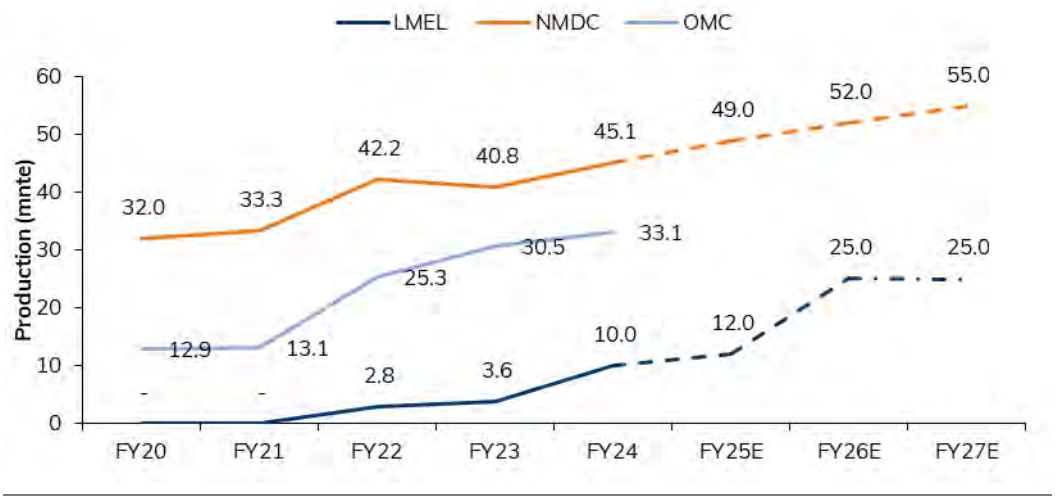
Comparison with direct peer- NMDC

Exhibit 65: About the companies

Player	Brief details
NMDC	NMDC is primarily involved in iron ore mining. It has seven operational iron ore mini leases: five in Chhattisgarh and two in Karnataka.
Odisha Mining Corp. Ltd	The company owns 11 iron ore mines, 3 chrome ore mines, one bauxite mine decorative stone mine and 1 lime stone mine.

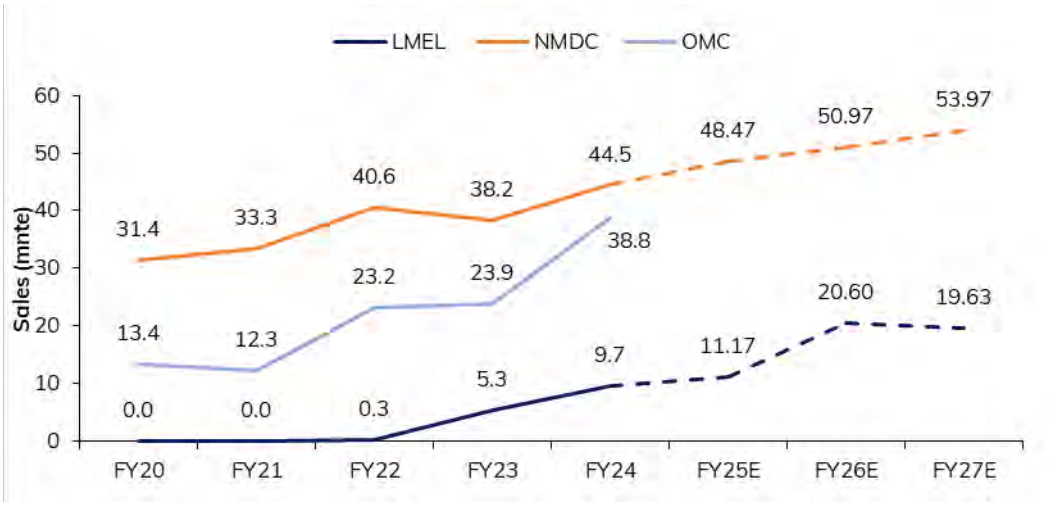
Source: Company data, I-Sec research

Exhibit 66: Iron ore production volumes



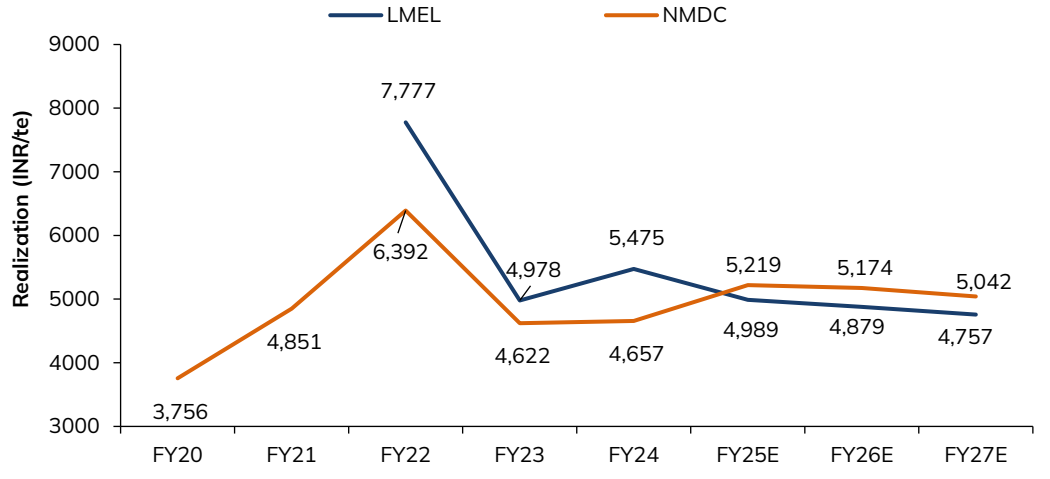
Source: Company data, I-Sec research

Exhibit 67: Iron ore sales volumes



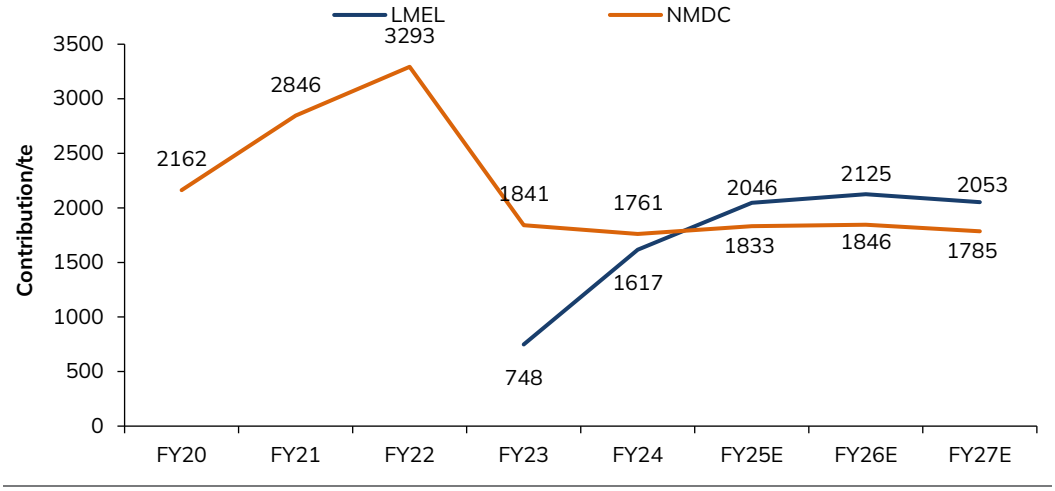
Source: Company data, I-Sec research

Exhibit 68: Average realisation/te



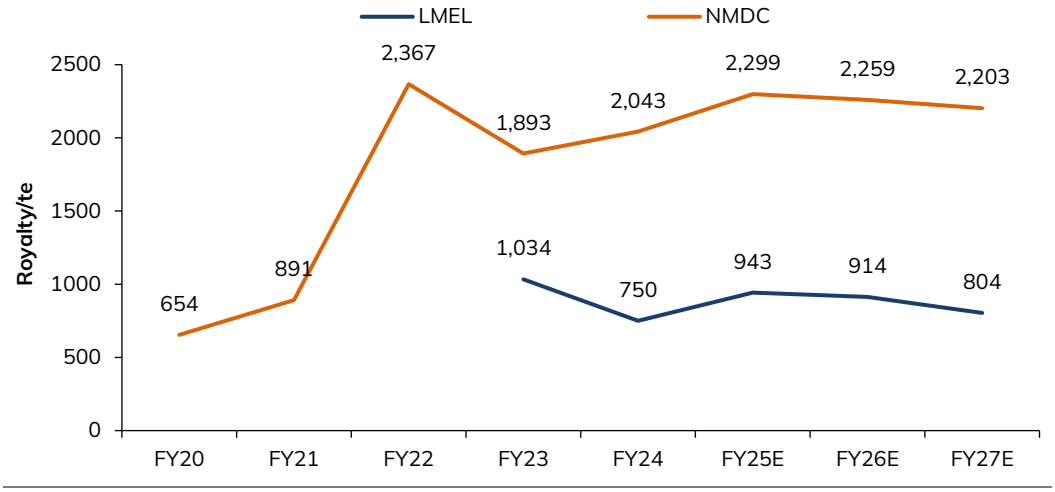
Source: Company data, I-Sec research

Exhibit 69: Contribution/te



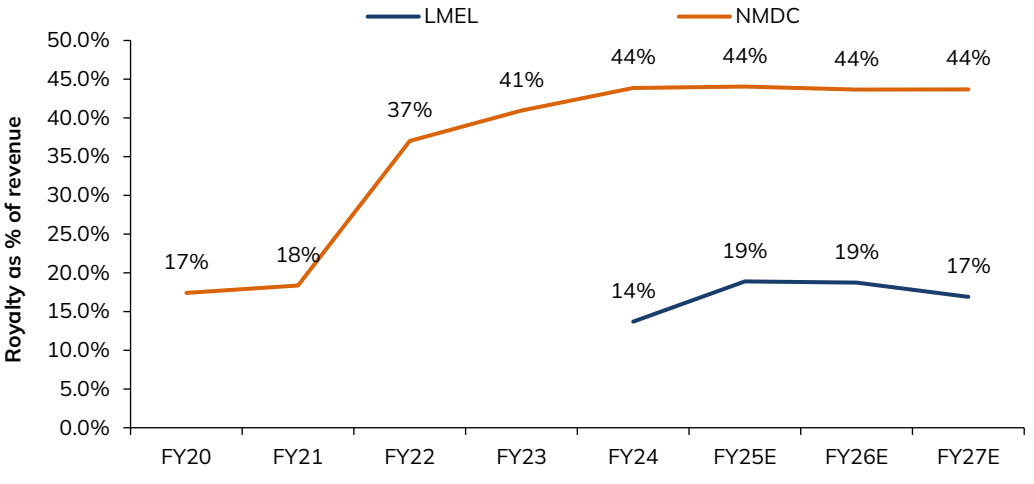
Source: Company data, I-Sec research

Exhibit 70: Royalty/te



Source: Company data, I-Sec research

Exhibit 71: Royalty as % of revenue



Source: Company data, I-Sec research

Valuation

We value LMEL by using single stage DCF valuation methodology. We have adopted DCF methodology as sustainable cashflow from business will only start coming from FY31 when capacities are ramped up fully. We have adopted single stage valuation model as in case of commodities, price assumptions in future are usually debatable owing to the inherent volatility in them. Besides, the capex is front-ended, hence, the company is likely to be free cash positive only in FY29. Hence, valuing the company on any of the relative valuation methods will not be appropriate.

We have taken terminal growth rate of 3% and WACC of 11%. Our TP works out to INR 1,615.

Exhibit 72: DCF Valuation

(In INR mn)	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	TV
EBITDA	17,283	34,807	66,441	71,919	92,275	1,11,237	1,34,920	1,43,528	
Tax	-4,836	-8,643	-16,457	-16,907	-20,754	-24,766	-30,730	-33,555	
Working Capital	1,539	-568	-6,216	-1,639	-1,479	-3,644	-2,473	-799	
Capex	-7,240	-17,200	-33,200	-97,200	-88,700	-57,200	-20,400	-1,400	
FCF	6,745	8,396	10,567	-43,827	-18,658	25,627	81,317	1,07,773	13,87,583
PV		0	0	1	2	3	4	5	6
Discounted cashflow			10,567	-39,484	-15,143	18,738	53,566	63,958	7,41,859
Terminal growth	3%								
WACC	11%								
EV	8,34,061								
Cash	10,383								
Market Cap	8,44,445								
Fair value	**1,615**								

Source: I-Sec research

Option value of TEIL comes to INR 320/share

TEMPL is an operating company with stable earnings and is expected to enjoy a healthy EBITDA margin of 35% in FY27E. Besides, there is no significant risk to earnings as MDO business, typically is secured and comes with long term contract. Hence, we value it on 10x FY27E EBITDA. Our fair value for TEIL's MDO business for comes to INR 458/share. We ascribe 30% discount to TEIL's fair value to account for the illiquidity of the holding, resulting in option value of INR 320/share for LMEL shareholders.

Exhibit 73: Option value of TEIL (in INR mn)

Year	FY27E
EBITDA	32,030
Multiple	10
EV	3,20,300
Value of debt/RPS	21,210
Market Value	2,99,090
% holding of LMEL	79.82%
Value of shareholders	2,38,734
Value/share	**458**
Discount @30%	**320**

Source: I-Sec research

Experienced Promoters and senior management team

Mr Mukesh Gupta is the Chairman and Mr Babulal Agarwal is the Vice-Chairman of the company. Also, the company has two Managing Directors - Mr Rajesh Gupta and Mr B. Prabhakaran. Further, the company has two Executive Directors and six Independent Directors. Also, >50% Board members are independent directors and the Board has six committees.

Exhibit 74: Directors' profile

Name & Designation	Description	Other Directorship
Mukesh Gupta **Chairman**	Mr Gupta is a founder member of Lloyds Group and he has over 44 years of experience in the industry. This includes project implementation, finance, marketing and other areas in steel, power and real estate industries.	Amvak Pvt Ltd Lloyds Engg. & Works Ltd Lloyds Logistics Pvt Ltd
Babulal Agarwal **Vice-Chairman**	Mr Agarwal is also the founder Board member of Lloyds Group. He has over 54 years of experience in steel industry. He is a law graduate. He is involved in daily activities of the company, and has expertise in legal, administration and management field.	Lloyds Enterprises Ltd
Rajesh Gupta **Managing Director**	He is a founder Board member of Lloyds Group. Mr Gupta has over 35 years of experience in production, management, consultancy and other areas of steel, power and trading industries. He is a graduate and has led LMEL and other group companies in implementing several projects in steel sector, including power plant.	Lloyds Logistics Pvt Ltd Lloyds Enterprises Ltd BBV Fourum Lloyds Surya Pvt Ltd Lloyds Infinite Foundation
B. Prabhakaran **Managing Director**	Mr Prabhakaran is a computer science graduate. He has over 30 years of experience in mining industry. He is the Promoter of Thriveni Earthmovers Private Ltd.	Safe and Sound Holdings Pvt Ltd Prakar Estates & Holding Pvt Ltd Thriveni Earthmovers & Infra Pvt Ltd Sompuri Natural resources Pvt Ltd Asshrivachan Infra & Mining Pvt Ltd Lloyds Logistics Pvt Ltd Niladri Minerals Pvt Ltd Thriveni Sainik PBNW Pvt Ltd KJS Pellets & Power Pvt Ltd Mahaprabhu Ventures Pvt Ltd Mahaprabhu Projects Pvt Ltd Prakar Automotive India Pvt Ltd Thriveni Earthmovers Pvt Ltd Indravati Projects Pvt Ltd Geomysore Service India Pvt Ltd Thriveni Sainik Mining Pvt Ltd Sompuri Infrastructure Pvt Ltd Liberating Minds Foundation Baitarani Mining Pvt Ltd Thriveni Metals Pvt Ltd Mandovi River Pellets Pvt Ltd Growsoham Agrowth Pvt Ltd
Madhur Gupta **Executive Promoter Director**	He holds a Master in Science degree from the University of Warwick. Mr Madhuar has experience of over eight years in real estate and infrastructure.	Indrajit Properties Pvt Ltd Lloyds Surya Pvt Ltd Lloyds Infra. & Construction Ltd Lloyds Infinite Foundation Lloyds Health & Beauty Pvt Ltd Hemdil Estates Pvt Ltd Trofi Chan Factory Pvt Ltd
S. Venkateswaran **Executive Director**	He has extensive experience in operations of various mining projects, and has knowledge of all aspects of mining driving their profitability. He was associated with India Cements, Neyveli Lignite Corporation, L&T ECC and MDO operations across various iron ore mines in Odisha in the past.	Thriveni Bhushilp Pvt Ltd Lloyds Infra. & Construction Ltd
Ramesh Luharuka **Independent Director**	He is a practicing CA with over 40 years of experience in corporate finance, capital market, investment banking, and other related activities.	Nariman Point Finance Ltd
Dr Seema Saini **Independent Director**	Dr. Seema Saini is the CEO of N. L. Dalmia Educational Society which runs three Schools of excellence: · Management Studies, High School and College of Arts Commerce & Science, Ph.D. from Mumbai University and has a Master's degree in Economics (Mumbai University) and a Masters in Human Resource Development from Xavier University, Cincinnati (USA).	

Name & Designation	Description	Other Directorship
Satish Wate **Independent Director**	Dr. Satish R. Wate holds Masters and Doctorate in Biochemistry from Nagpur University. Dr. Wate joined as a scientist and rose to the position of Director in Aug'10 at CSIR-NEERI, Nagpur. He was also assigned an additional charge of Director Central Leather Research Institute, Chennai in Mar'15. Dr. Wate has several years of experience in Environmental Impact and Risk Assessment, Water Resource Management, Environmental Systems Design, Modeling, and Optimization, Carrying Capacity Based Developmental Planning, Environmental Biotechnology, Wastewater Treatment, and Environmental Materials for Field Applications.	SMS Water Grace BMW Pvt Ltd Lloyds Metals & Energy Ltd Suntech Infraestate Nagpur Pvt Ltd Allygrow Tech. Pvt Ltd Allygram Sys. & Tech. Pvt Ltd Shardha Infra projects Ltd Maharashtra Enviro Power Ltd Ceinsys Tech Ltd
Subbarao Munnang **Independent Director**	Mr. Subbarao Venkata Munnang has completed his B.Tech (Metallurgy) from NIT Warangal, DIM (Management) from IGNOU, PG Diploma (Marketing) from Annamalai University, and MBA (Marketing) from JRNRV University. He was the Chairman-cum-Managing Director of KIOCL Limited. He has also been associated with NMDC Limited, and JSPL Limited, as an advisor for global procurement of bulk minerals, mining, palletization, arbitration, recruitment, etc.	
Mahendra Singh Mehta **Independent Director**	Mr. Mehta is a BE Mech and MBA from IIMA. Mr Mehta has over 40 years' experience in leading organisations. His experience covers wide ranging industries such as non-ferrous metals, mining, steel, power generation and distribution, cement, infrastructure, etc. Mr. Mehta has been a part of Vedanta's growth journey which includes large acquisitions like Balco, Hindustan Zinc, Sesa Goa, KCM- Zambia, Anglo's Zinc assets in Namibia, Ireland and South Africa and Cairn India. In Vedanta group, he held different strategic roles including Head of Copper Business, Group level Commercial Director, CEO and WTD of HZL and retiring as the Group CEO Vedanta PLC. He was on the Boards of Vedanta PLC and Vedanta Limited. Mr. Mehta also had a stint as CEO of Reliance Infrastructure comprising Delhi and Mumbai Power Discoms, Metro rail, toll road business, EPC, cement, power transmission. He was instrumental in bringing significant improvement in the working of Delhi Discom business (BSES) in 2014-15 and 2015-16.	Hindustan Construction Company Ltd Talwandi Sabo Power Ltd
Dinesh Kumar Jain **Independent Director**	Mr Jain is an alumnus of IIT Kanpur (B.Tech & M.Tech in Mechanical Engineering) and the University of Hull, UK (MBA). He has over 40 years of experience across Indian and international institutions. A former Member of the Lokpal of India (2019-2024) and 39th Chief Secretary of Maharashtra, he has led key governance, anti-corruption, and policy initiatives, bringing lasting impact to public administration.	

Source: Company data, I-Sec research

Exhibit 75: Over 50% independent directors in Board

Board has 7 Independent Director out of 13 Directors		
Key Committees	**Chairman**	**Description**
Audit Committee	Ramesh Luharuka (Independent Director)	4 members with 3 Independent Director
CSR Committee	Dr Seema Saini (Independent Director)	3 members with 2 Independent Director
Nomination & Remuneration Committee	Dr Satish Wate (Independent Director)	3 members with 2 Independent Director
Stakeholders Relationship Committee	Mukesh Gupta (Chairman)	3 members with 2 Independent Director
Risk Management Committee	Rajesh Gupta (Managing Director)	4 members with 2 Independent Director
Independent Directors Committee		6 members
1 Board Committee with 100% of Independent Directors		

Source: Company data, I-Sec research

Exhibit 76: Related-party transactions

Name (INR mn)	Transaction	FY20	FY21	FY22	FY23	FY24
Thriveni Earthmovers Pvt Ltd	Mining Charges	-	-	533	6,693	10,794
	OFCD - Interest	-	-	-	2	-
Lloyds Engg. & Works Ltd	Paid Capex	-	-	196	2,243	4,443
Trofi Chain Factory Pvt Ltd	Other Services Paid	3	-	-	0	1
Lloyds Logistics Pvt Ltd	Advance for Materials	-	-	-	-	-
Thriveni Logistics Services LLP	Transportation Service	-	-	-	5	-
Lloyds Infinite Foundation	Donation for CSR	-	-	-	7	666
Mandovi River Pellets Pvt Ltd	Sale of Goods	-	-	-	84	4,406
	Purchase	-	-	-	-	3,702
Brahmani Tiver Pellets Ltd	Sale of Goods	-	-	-	82	41
Sunflag Iron & Steel Co. Ltd	Sale of Goods	-	-	-	-	3,399
Lloyds Infra. & Construction Ltd	Capex	-	-	-	-	3,536
	Expense reimbursement	-	-	-	-	1
	Sale of Product	-	-	-	-	-
Thriveni Apparels & Textiles Pvt Ltd	Advance for uniform purchase	-	-	-	-	2
Lloyds Surya Pvt Ltd	Investment in Subsidiary		-	-	-	1
Thriveni Lloyds Mining Pvt Ltd	Transportation Service	-	-	95	-	-
Aeon Trading LLP	Purchase	3	-	-	-	-
	Trade Payable	3	-	-	-	-
Shree Global Tradefin Ltd	Purchase	6	-	-	-	-
	Trade Payable	6	-	-	-	-
Snowwhite Reality Developers	Purchase	-	151	-	-	-
Lloyds Employees Welfare Trust	Advance Paid	-	5	128	0	2

Source: Company data, I-Sec research

Note:

- Thriveni Earthmovers Pvt Ltd is managed by Mr Prabhakaran (MD of the company), LMEL has now acquired ~80% stake in the company.
- Lloyds Engg. & Works Ltd and Lloyds Infra. & Construction Ltd are the group companies, and is largely taking care of the capex of LMEL.
- In case of Mandovi River Pellets Pvt Ltd, Mr. B Prabhakaran (MD of the company) is also the Director and Member of the related party.

Key Risks

Execution risk: Given the significant capex plan of ~INR 320bn over the next 5-6 years, the company is susceptible to project execution risk as it does not have a track record of executing such a large project. The project cost will largely be met by internal accruals or equity infusion. Any delay in project execution could impact its investment thesis. The project execution progress will be a key monitorable.

Profitability susceptible to volatile commodity prices and cyclicality inherent in the industry: Given the cyclical nature of the industry, the operations and profitability of the company is susceptible to the volatility in the sponge iron and iron ore prices along with the cyclicality in steel industry. Considering majority of LMEL's costs are fixed in nature, any fluctuation in iron ore prices may directly affect its EBITDA margin.

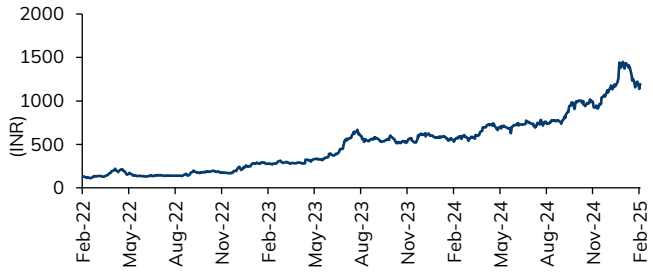
Regulatory risk: Since 2015, the Ministry of Mines, has introduced several significant policy changes to unlock the potential of the mineral sector. The Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act, 1957) was amended in 2015 to introduce transparent auction processes for granting mineral concessions, ensuring fairness, and eliminating discretion. Further, to ensure sustainable mineral production, especially as many mining leases were set to expire in Mar'20, the Central Government further amended the MMDR Act through the Minerals Laws (Amendment) Act, 2020. Additionally, the MMDR Act underwent further amendments in 2021 with the aim of increasing mineral production, expediting mine operations, boosting employment and investment in the mining sector. Any unfavourable regulatory changes may impact the company and mining industry as a whole.

Exhibit 77: Shareholding pattern

%	Jun'24	Sep'24	Dec'24
Promoters	65.7	63.5	63.5
Institutional investors	1.2	3.3	3.7
MFs and other	0.1	1.1	1.5
Banks/ FIs	0.0	0.0	0.0
Insurance Cos.	0.0	0.1	0.1
FIIs	1.1	2.1	2.1
Others	33.1	33.2	32.8

Source: Bloomberg, I-Sec research

Exhibit 78: Price chart



Source: Bloomberg, I-Sec research

Financial Summary

Exhibit 79: Profit & Loss

(INR mn, year ending March)

	FY24A	FY25E	FY26E	FY27E
Net Sales	65,217	75,386	1,50,959	1,67,404
Operating Expenses	**39,014**	**42,521**	**77,336**	**76,434**
EBITDA	17,283	28,460	66,441	71,919
EBITDA Margin (%)	**26.5**	**37.8**	**44.0**	**43.0**
Depreciation & Amortization	490	791	2,072	5,620
EBIT	16,793	27,669	64,369	66,299
Interest expenditure	57	50	50	50
Other Non-operating Income	529	333	987	843
Recurring PBT	17,265	27,951	65,306	67,092
Profit / (Loss) from Associates	**-**	**-**	**-**	**-**
Less: Taxes	**4,836**	**8,643**	**16,457**	**16,907**
PAT	12,429	19,308	48,849	50,185
Less: Minority Interest	-	-	-	-
Extraordinaries (Net)	-	-	-	-
Net Income (Reported)	12,429	19,308	48,849	50,185
Net Income (Adjusted)	**12,429**	**19,308**	**48,849**	**50,185**

Source Company data, I-Sec research

Exhibit 80: Balance sheet

(INR mn, year ending March)

	FY24A	FY25E	FY26E	FY27E
Total Current Assets	10,984	32,327	67,435	25,185
of which cash & cash eqv.	2,871	23,729	55,234	12,199
Total Current Liabilities & Provisions	7,225	7,141	4,529	3,674
Net Current Assets	**3,759**	**25,186**	**62,906**	**21,511**
Investments	291	290	290	290
Net Fixed Assets	11,568	27,977	64,105	1,60,685
ROU Assets	780	780	780	780
Capital Work-in-Progress	12,682	12,682	7,682	2,682
Total Intangible Assets	-	-	-	-
Other assets	3,072	3,072	3,072	3,072
Deferred Tax Assets	-	-	-	-
Total Assets	**32,151**	**69,986**	**1,38,835**	**1,89,019**
Liabilities				
Borrowings	**-**	**-**	**-**	**-**
Deferred Tax Liability	**3,462**	**3,462**	**3,462**	**3,462**
provisions	249	249	249	249
other Liabilities	-	-	-	-
Equity Share Capital	505	523	523	523
Reserves & Surplus	27,603	65,421	1,34,270	1,84,455
Total Net Worth	**28,109**	**65,944**	**1,34,793**	**1,84,977**
Minority Interest	-	-	-	-
Total Liabilities	**32,151**	**69,986**	**1,38,835**	**1,89,019**

Source Company data, I-Sec research

Exhibit 81: Cashflow statement

(INR mn, year ending March)

	FY24A	FY25E	FY26E	FY27E
Operating Cashflow	**17,010**	**25,928**	**44,754**	**54,216**
Working Capital Changes	1,539	(568)	(6,216)	(1,639)
Capital Commitments	(17,485)	(17,200)	(33,200)	(97,200)
Free Cashflow	**(475)**	**8,728**	**11,554**	**(42,984)**
Other investing cashflow	**231**	**-**	**-**	**-**
Cashflow from Investing Activities	(17,254)	(17,200)	(33,200)	(97,200)
Issue of Share Capital	2	12,180	20,000	-
Interest Cost	(8)	(50)	(50)	(50)
Inc (Dec) in Borrowings	-	-	-	-
Dividend paid	-	-	-	-
Others	-	-	-	-
Cash flow from Financing Activities	(6)	12,130	19,950	(50)
Chg. in Cash & Bank balance	**(250)**	**20,858**	**31,504**	**(43,034)**
Closing cash & balance	26	20,884	52,388	9,354

Source Company data, I-Sec research

Exhibit 82: Key ratios

(Year ending March)

	FY24A	FY25E	FY26E	FY27E
Per Share Data (INR)				
Reported EPS	24.6	36.9	93.4	96.0
Adjusted EPS (Diluted)	24.6	36.9	93.4	96.0
Cash EPS	25.6	38.4	97.4	106.7
Dividend per share (DPS)	-	-	-	-
Book Value per share (BV)	55.6	126.1	257.8	353.8
Dividend Payout (%)	-	-	-	-
Growth (%)				
Net Sales	92.2	15.6	100.2	10.9
EBITDA	113.3	64.7	133.5	8.2
EPS (INR)	37.1	50.1	153.0	2.7
Valuation Ratios (x)				
P/E	48.5	32.3	12.8	12.4
P/CEPS	46.6	31.0	12.2	11.2
P/BV	21.4	9.5	4.6	3.4
EV / EBITDA	33.0	19.3	7.8	7.8
P / Sales	8.8	7.6	3.8	3.4
Dividend Yield (%)	-	-	-	-
Operating Ratios				
Gross Profit Margins (%)	86.3	94.2	95.2	88.6
EBITDA Margins (%)	26.5	37.8	44.0	43.0
Effective Tax Rate (%)	28.0	30.9	25.2	25.2
Net Profit Margins (%)	19.1	25.6	32.4	30.0
NWC / Total Assets (%)	-	-	-	-
Net Debt / Equity (x)	(0.1)	(0.4)	(0.4)	(0.1)
Net Debt / EBITDA (x)	(0.2)	(0.8)	(0.8)	(0.2)
Profitability Ratios				
RoCE (%)	55.7	40.6	48.0	31.0
RoE (%)	57.3	41.1	48.7	31.4
RoIC (%)	85.6	72.4	98.8	50.7
Fixed Asset Turnover (x)	8.0	3.9	4.0	1.9
Inventory Turnover Days	24	17	20	16
Receivables Days	8	6	7	5
Payables Days	41	24	5	1

Source Company data, I-Sec research

This report may be distributed in Singapore by ICICI Securities, Inc. (Singapore branch). Any recipients of this report in Singapore should contact ICICI Securities, Inc. (Singapore branch) in respect of any matters arising from, or in connection with, this report. The contact details of ICICI Securities, Inc. (Singapore branch) are as follows: Address: 10 Collyer Quay, #40-92 Ocean Financial Tower, Singapore - 049315, Tel: +65 6232 2451 and email: navneet_babbar@icicisecuritiesinc.com, Rishi_agrawal@icicisecuritiesinc.com and Kadambari_balachandran@icicisecuritiesinc.com.

"In case of eligible investors based in Japan, charges for brokerage services on execution of transactions do not in substance constitute charge for research reports and no charges are levied for providing research reports to such investors."

New I-Sec investment ratings (all ratings based on absolute return; All ratings and target price refers to 12-month performance horizon, unless mentioned otherwise)
BUY: >15% return; ADD: 5% to 15% return; HOLD: Negative 5% to Positive 5% return; REDUCE: Negative 5% to Negative 15% return; SELL: < negative 15% return

ANALYST CERTIFICATION

I/We, Amit Dixit, PGDM, B.Tech; Mohit Lohia, CA; Pritish Urumkar, MBATech (Finance); authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report. Analysts are not registered as research analysts by FINRA and are not associated persons of the ICICI Securities Inc. It is also confirmed that above mentioned Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months and do not serve as an officer, director or employee of the companies mentioned in the report.

Terms & conditions and other disclosures:

ICICI Securities Limited (ICICI Securities) is a full-service, integrated investment banking and is, inter alia, engaged in the business of stock brokering and distribution of financial products. Registered Office Address: ICICI Venture House, Appasaheb Marathe Marg, Prabhadevi, Mumbai - 400 025. CIN: L67120MH1995PLC086241, Tel: (91 22) 6807 7100. ICICI Securities is Sebi registered stock broker, merchant banker, investment adviser, portfolio manager, Research Analyst and Alternative Investment Fund. ICICI Securities is registered with Insurance Regulatory Development Authority of India Limited (IRDAI) as a composite corporate agent and with PFRDA as a Point of Presence. ICICI Securities Limited Research Analyst SEBI Registration Number – INH000000990. ICICI Securities Limited SEBI Registration is INZ000183631 for stock broker. ICICI Securities AIF Trust's SEBI Registration number is IN/AIF3/23-24/1292 ICICI Securities is a subsidiary of ICICI Bank which is India's largest private sector bank and has its various subsidiaries engaged in businesses of housing finance, asset management, life insurance, general insurance, venture capital fund management, etc. ("associates"), the details in respect of which are available on www.icicibank.com.

ICICI Securities is one of the leading merchant bankers/ underwriters of securities and participate in virtually all securities trading markets in India. We and our associates might have investment banking and other business relationship with a significant percentage of companies covered by our Investment Research Department. ICICI Securities and its analysts, persons reporting to analysts and their relatives are generally prohibited from maintaining a financial interest in the securities or derivatives of any companies that the analysts cover.

Recommendation in reports based on technical and derivative analysis centre on studying charts of a stock's price movement, outstanding positions, trading volume etc as opposed to focusing on a company's fundamentals and, as such, may not match with the recommendation in fundamental reports. Investors may visit icicidirect.com to view the Fundamental and Technical Research Reports.

Our proprietary trading and investment businesses may make investment decisions that are inconsistent with the recommendations expressed herein.

ICICI Securities Limited has two independent equity research groups: Institutional Research and Retail Research. This report has been prepared by the Institutional Research. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, and target price of the Retail Research.

The information and opinions in this report have been prepared by ICICI Securities and are subject to change without any notice. The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of ICICI Securities. While we would endeavour to update the information herein on a reasonable basis, ICICI Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent ICICI Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or ICICI Securities policies, in circumstances where ICICI Securities might be acting in an advisory capacity to this company, or in certain other circumstances.

This report is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. ICICI Securities will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. ICICI Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice.

ICICI Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months.

ICICI Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction.

ICICI Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months.

ICICI Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. ICICI Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither ICICI Securities nor Research Analysts and their relatives have any material conflict of interest at the time of publication of this report.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

ICICI Securities or its subsidiaries collectively or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report.

Since associates of ICICI Securities and ICICI Securities as a entity are engaged in various financial service businesses, they might have financial interests or actual/ beneficial ownership of one percent or more or other material conflict of interest in various companies including the subject company/companies mentioned in this report.

ICICI Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

Neither the Research Analysts nor ICICI Securities have been engaged in market making activity for the companies mentioned in the report.

We submit that no material disciplinary action has been taken on ICICI Securities by any Regulatory Authority impacting Equity Research Analysis activities.

This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject ICICI Securities and affiliates to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

This report has not been prepared by ICICI Securities, Inc. However, ICICI Securities, Inc. has reviewed the report and, in so far as it includes current or historical information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. None of the research recommendations promise or guarantee any assured, minimum or risk free return to the investors.

Name of the Compliance officer (Research Analyst): Mr. Atul Agrawal, Contact number: 022-40701000, **E-mail Address** : complianceofficer@icicisecurities.com

For any queries or grievances: Mr. Bhavesh Soni Email address: headservicequality@icicidirect.com Contact Number: 18601231122