



THE FUTURE LANDSCAPE OF LITHIUM ION MINING ('THE NEW OIL') IN INDIA
STOCK BENEFICIARY



Our Top Picks

Nalco Ltd Target : ₹ 260

NMDC Ltd Target : ₹ 300

Coal India Ltd Target: ₹ 580

Adani Enterprises Ltd Target : ₹4000

Key Summary

- 1. Project Clean Energy.**
- 2. Potential Companies will Mine Lithium in India & Outside India**
- 3. India Pursues Strategic Lithium Partnerships and Mining Initiatives.**
- 4. "India's Strategic Moves to Secure Lithium Supply and Boost Domestic Battery Manufacturing"**
- 5. The demand for lithium is expected to remain strong in the future.**
- 6. Economic Drivers of the Indian LITHIUM-ION BATTERY (LIB) MANUFACTURING INDUSTRY & GOVT SUPPORT**

Project Clean Energy.

India made a commitment at the 26th United Nations Climate Change Conference (COP26) to reach net-zero emissions by 2070 and set ambitious near-term targets of deploying 500 GW of non-fossil electric power capacity by 2030 (Government of India, 2022). The country also signed up internationally for the EV30@30 campaign, aiming to achieve a 30% electric vehicle (EV) sales share by 2030 (Clean Energy Ministerial, n.d.). The anticipated clean energy transition to meet these targets is likely to rapidly increase the country's demand for critical minerals, such as lithium. India is mainly reliant on imports to meet its current needs but must secure a reliable supply of critical minerals to achieve these goals.

First, the extraction of lithium is heavily geographically concentrated, raising security-of-supply concerns. The top three lithium-producing countries control more than 90% of the world's production (United States Geological Survey [USGS], 2023). Additionally, 60% of global lithium-processing capacity is concentrated in China (International Energy Agency [IEA], 2022a). Second, the rapid increase in global demand for lithium, coupled with inadequate investment in mining, is likely to cause a supply deficit anticipated to contribute to greater price volatility.

India is mainly reliant on imports of Li-ion cells from other countries and currently has limited domestic assembly operations for modules and battery packs (Singh, Ghate, Ningthoujam, Gupta, & Sharma, 2022). Although the Li-ion cell manufacturing industry is at a nascent stage, several companies from the United States, the European Union (EU), and China have already engaged in long-term lithium offtake agreements with resource-rich nations. Consequently, India could find its options for a future lithium supply constrained when its domestic manufacturing industry matures (see Table 4 for examples of offtake agreements).

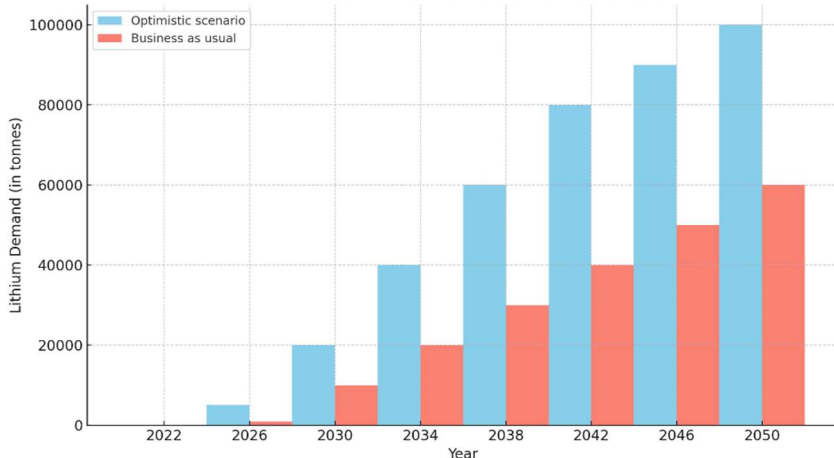
Lithium is currently used for a variety of applications in India and globally, but the share of clean energy technologies in the total demand for lithium globally is expected to reach almost 90% by 2040 (IEA, 2021). Therefore, the focus of this study is primarily on the use of lithium in Li-ion batteries for low-carbon technologies, such as EVs and battery energy storage systems (ESS).

One of the key applications of Li-ion batteries is stationary energy storage, which is essential for promoting grid flexibility and integrating intermittent renewable energy into the electricity grid. India has set a target of achieving 500 GW of non-fossil power capacity by 2030. The Central Electricity Authority has forecast that India will need to deploy battery ESS of 236 GWh capacity to meet its storage requirements by 2032 (PIB, 2023b). Achieving this target will require significant investments, with Li-ion batteries being one of the most promising storage technologies. Although there are several other ESS technologies, Li-ion batteries have reached an inflection point of becoming commercially viable for grid applications. Sodium-ion batteries are now under development and can contribute to India's stationary storage needs.

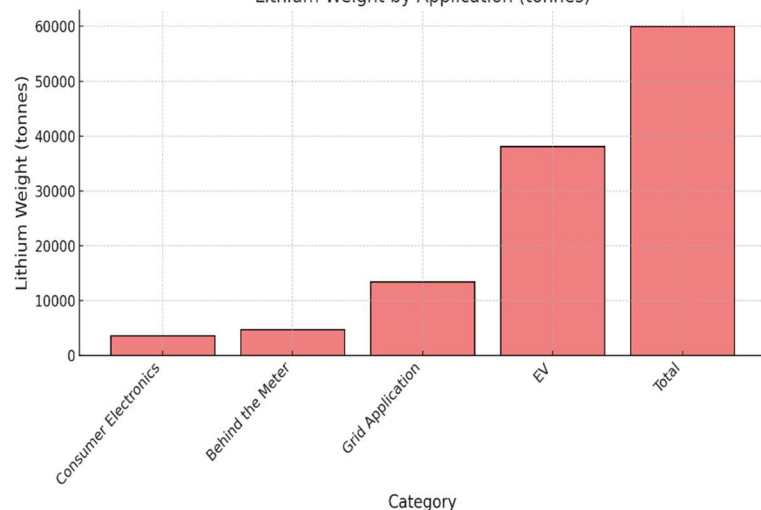
Battery ESS will play an important role in several areas of the power grid, including behind-the-meter applications, distribution and transmission systems, and large-scale centralized renewable generation facilities. In 2022, the total amount of power from ESS that had been commissioned or was under construction was around 85 MWh, with a pipeline of projects totaling 4.6 GWh, reflecting emerging momentum in this sector. Moving forward, India's storage requirements are likely to increase significantly since the Ministry of Power announced an Energy Storage Obligation in 2022, which recommends that stored renewable energy comprise 4% of total consumption by 2030.

Lithium is also used in the lubricant, glass, and ceramics industries. In India, its current main use is in the pharmaceuticals, medicinal chemicals, and botanical products industry, which constitutes about 39% of its demand.

Estimated Annual Lithium Demand in India



Lithium Weight by Application (tonnes)



Source : IBEF

Potential Companies will Mine Lithium in India & Outside India

NMDC and Hancock are actively exploring sites for lithium mining in Australia under a comprehensive strategic partnership. As the world's largest lithium producer, Australia boasts a more mature lithium industry compared to India.

NMDC is taking a multi-pronged approach to secure lithium for India's growing electric vehicle industry by looking abroad while also keeping an eye on domestic possibilities.

National Aluminium Company (NALCO), a government company operating in mining, metals, and power, is making a significant move towards ensuring the nation's critical mineral security. Through its leading partnership in KABIL, NALCO is embarking on a pioneering lithium exploration and mining project in Argentina. Argentina is part of the "Lithium Triangle," which also includes Chile and Bolivia, and holds more than half of the world's total lithium resources. Argentina has the second-largest lithium resources, the third-largest lithium reserves, and the fourth-largest lithium production in the world. Importantly, Australia's lithium reserves, like India's, are in hard rock form, giving NMDC an edge with any expertise gained.

This strategic initiative not only strengthens bilateral ties but also ensures a resilient and diversified supply chain for critical and strategic minerals essential for various industries. Beyond Argentina, KABIL is exploring lithium acquisition opportunities in other Latin American countries like Chile and Brazil, considering partnerships, long-term leasing of mines or lithium blocks, and direct investments in these mines.

Coal India plans to obtain a block from the government for exploration and, once the presence of lithium reserves is confirmed, will proceed with mining operations. Leveraging its extensive expertise in the mining sector, Coal India aims to expand its operations into critical minerals. The company is also exploring opportunities for mining critical and rare earth minerals in Chile, one of the world's top producers of these essential resources. A dedicated team will be sent to Chile for exploration and mining purposes, according to an official source.

In a strategic move to diversify into critical mineral mining and global resource acquisition, Coal India previously entered into two non-disclosure agreements (NDAs) with companies in New South Wales, Australia.

Adani Enterprises Ltd (AEL), the flagship company of the Adani Group, has shown interest in surveying and excavating a lithium mine discovered in Chhattisgarh's Korba district. In February 2023, the Geological Survey of India (GSI) identified lithium deposits in the Katghora tehsil. Preliminary reports indicate that these deposits cover an area of 256.12 hectares, including 84.86 hectares of forested land. Geochemical mapping by the GSI revealed variable lithium concentrations in seven composite samples from the Katghora area, ranging from 82.6 to 155 ppm (parts per million). The Katghora block is under consideration for a composite license, which would provide both a prospecting license and a mining lease. This block is part of the ongoing auction process for 20 mineral blocks across the country.

Vedanta, a major player in the aluminum industry, is now speculated to enter the lithium mining sector. Vedanta is planning to explore lithium mining opportunities in Zambia and the Democratic Republic of the Congo (DRC). In June, a delegation of ministry officials will accompany Vedanta executives to these South African countries to assess potential lithium exploration sites. Vedanta has also expressed interest in surveying and excavating a lithium mine discovered in Chhattisgarh's Korba district, alongside other companies such as Adani Enterprises. The winning companies will receive licenses to explore and mine lithium and will also be responsible for processing the extracted lithium into lithium concentrates or chemicals for the battery industry.

Hindustan Zinc is planning to explore, discover, and develop mineral blocks, focusing on critical, deep-seated, and offshore resources. The company intends to participate in auctions for critical mineral blocks such as copper, lithium, nickel, cobalt, and other rare earth minerals. To achieve this, Hindustan Zinc has established a wholly-owned subsidiary, Hindmetal Exploration Services Pvt Ltd, aimed at systematically exploring mineral deposits.

This subsidiary is expected to become operational within the next six to seven months, with exploration activities primarily conducted in India. Specific areas for exploration will be identified over the coming months. The Indian government has identified 24 minerals, including lithium, platinum-group elements, graphite, molybdenum, potash, phosphorite, rare earth elements, and glauconite, as strategic and critical for the country. These mineral blocks are located in states such as Bihar, Odisha, Uttar Pradesh, Chhattisgarh, Jharkhand, Tamil Nadu, and the union territory of Jammu and Kashmir.

"India Pursues Strategic Lithium Partnerships and Mining Initiatives"

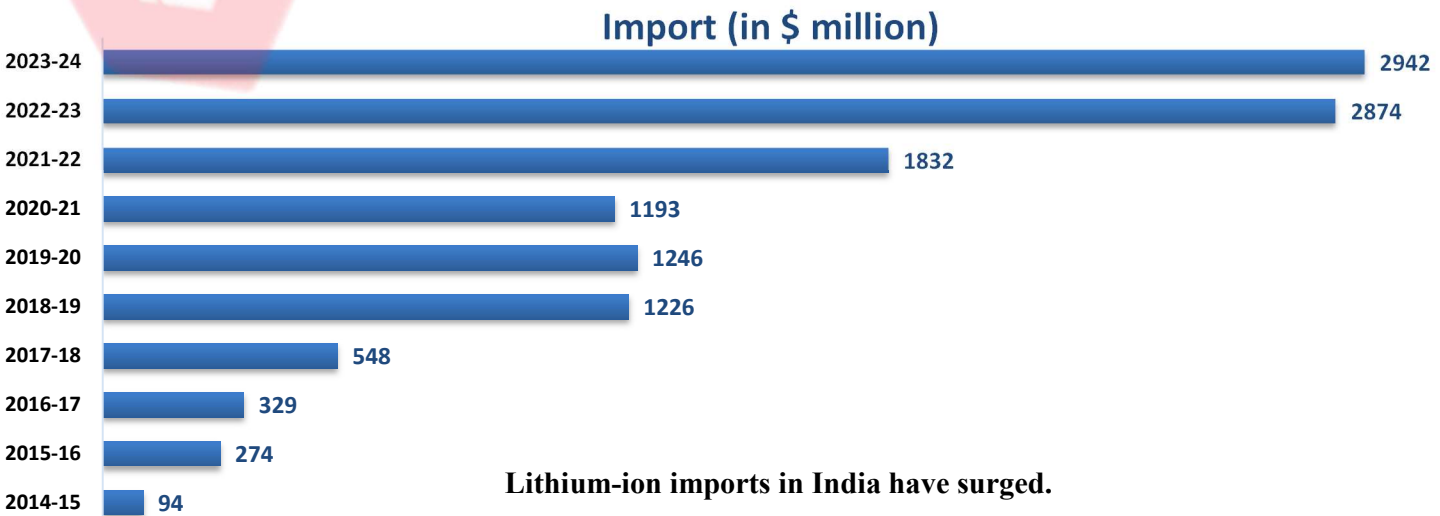
At the government-to-government level, the Indian government, represented by Khanij Bidesh Limited (KABIL), has signed MOUs with Argentina and Australia. While establishing these strong diplomatic relations is significant, it is important to note that mining companies are private entities, and MOUs between governments do not guarantee any offtake agreements or partnerships with lithium mining companies.

Insights have been gathered from prominent mining companies and government officials in Chile, Argentina, and Australia regarding their preferences for potential partnerships. As the demand from governments, OEMs, and battery manufacturers continues to rise, it is crucial for the Indian government and Indian companies to understand the expectations of these leading mining companies.

One prominent lithium company has indicated that these MOUs hold little significance for them, as they retain the freedom to sell to whomever they choose. The primary criterion for evaluating offtake agreements is their commercial viability.

In an effort to strengthen its lithium mining and electric vehicle (EV) industries, India is reportedly in talks with multiple countries for technical assistance on lithium processing. The Ministry of Mines initiated discussions with Australia and the US last year for this purpose. Additionally, the Indian government and some private companies have sought help from Britain, Bolivia, Japan, and South Korea.

Indian companies, including electric two-wheeler major Ola Electric, Coal India, and Vedanta, are considering bidding for mining rights for lithium blocks being auctioned by the Indian government. India is also engaged in talks with Argentina due to its salt-lake lithium, which provides a cost-effective extraction method compared to hard-rock mining. This makes it commercially appealing and significantly contributes to production.



"India's Strategic Moves to Secure Lithium Supply and Boost Domestic Battery Manufacturing"

In 2021, India imported USD 24 million worth of lithium oxide and hydroxide, and USD 9 million worth of lithium carbonates (UN Comtrade, n.d.). These import figures reflect India's early stages in battery cathode manufacturing. However, as the government aims to localize the value chain by promoting domestic production of cathodes and battery cells, these import numbers are expected to rise in the coming years.

In terms of import partners for lithium hydroxide, Russia led with 44%, followed by Belgium (19%), China (12%), Latvia (10%), and the United Arab Emirates (8%). For lithium carbonate, the United States accounted for 31%, followed by Belgium (28%), Austria (7%), Singapore (7%), and China (5%).

India's current top trading partners for lithium do not align closely with the countries having the largest lithium reserves or production globally, except for China and Russia. To support its push for increased domestic manufacturing of battery components, India needs to diversify its supplier base and forge partnerships with mineral-rich nations. Additionally, some of India's major suppliers may need to comply with mandates on domestic sourcing for critical minerals, such as those outlined in the EU's Critical Raw Materials Act (CRMA).

India is actively pursuing new trade partnerships and free trade agreements to ensure a reliable supply of lithium. For instance, the Australia–India Economic Cooperation and Trade Agreement includes provisions for cooperation on critical minerals. While these efforts are promising, they do not guarantee a stable supply and require additional actions, such as forming partnerships with global mining firms, to secure consistent access to lithium and other critical minerals.

India's potential membership in the MSP could yield several advantages, including attracting new investments into its critical mineral industry. Membership could also facilitate cooperation in research and development and information sharing among member countries. Additionally, Indian investments in overseas mineral ventures might benefit from participating in MSP-coordinated financing for strategic projects vetted for their significance.

On a broader scale, India's participation in the MSP indicates its readiness to align with the United States and its allies, enhancing its position within a global political bloc. This alignment could provide India with a valuable network of international allies in navigating the geopolitics of critical minerals. This partnership could prove crucial as India gains access to a wider array of technical, financial, market, and scientific resources.

However, joining the MSP would entail certain expectations. Specifically, the partnership is principle-oriented and would likely require India to gradually adopt the MSP Principles, aligning with the environmental, social, and governance (ESG) standards upheld by current MSP partners.

India stands to gain valuable insights from Germany, renowned as a leading manufacturing and automobile hub, particularly in its efforts to reduce dependence on imports from China. Germany, as an active member of both the EU and the MSP, emphasizes the importance of strategic alliances to strengthen its lithium supply chain. By observing Germany's approach, India can potentially learn effective strategies for enhancing its own domestic manufacturing capabilities and securing a stable supply of critical minerals like lithium through international partnerships and alliances.



The Australia–India Economic Cooperation and Trade Agreement includes a section on critical minerals cooperation (Australian Government Department of Foreign Affairs and Trade, n.d.). Additionally, Khanij Bidesh Limited (KABIL), a state-owned company mandated to source critical minerals for India, has signed agreements with Argentinian state-owned enterprises Jemse, Camyen, and Yacimientos Petroliferos Fiscales to explore sourcing lithium and other mineral assets in Argentina (Business Standard, 2022). KABIL has also signed a memorandum of understanding (MOU) with the Australian Department of Industry, Science, and Resources for joint investment in lithium assets (PIB, 2022). While these initiatives are promising, they do not guarantee supplies and require the establishment of specific operations, such as partnerships with international mining companies.

India's three leading lithium mining companies, which are part of the joint venture Khanij Bidesh India Ltd (KABIL) created by the Ministry of Mines, are:

1. National Aluminium Company Ltd (NALCO)
2. Mineral Exploration Corporation Ltd (MECL)
3. Hindustan Copper Ltd (HCL)

The demand for lithium is expected to remain strong in the future

The overall demand for lithium is expected to increase between 10 to 40 times from 2022 to 2030, driven by its various end applications. This underscores the urgency for policy-makers to engage in strategic planning to secure lithium supplies through equity investments and offtake agreements with international producing mines. Looking ahead to the period from 2030 to 2050, India can enhance its position through joint exploration initiatives and increased focus on recycling.

Among different sectors, electric vehicles (EVs), particularly four-wheeled passenger cars, are projected to be the primary driver of lithium demand in India over the coming decades, following both Accelerated Deployment and Business-as-Usual scenarios. Policy-makers and industry stakeholders must take these projections into account when planning for sustainable growth in the Li-ion battery industry and ensuring an adequate supply to meet rising demand.

The Indian lithium-ion battery (LIB) manufacturing industry is undergoing a metamorphosis, driven by the relentless surge of electric vehicles (EVs) and the government's unwavering commitment to clean energy. This report delves into the intricate details of this burgeoning industry, exploring its growth trajectory, key players, government initiatives, challenges, and future prospects.

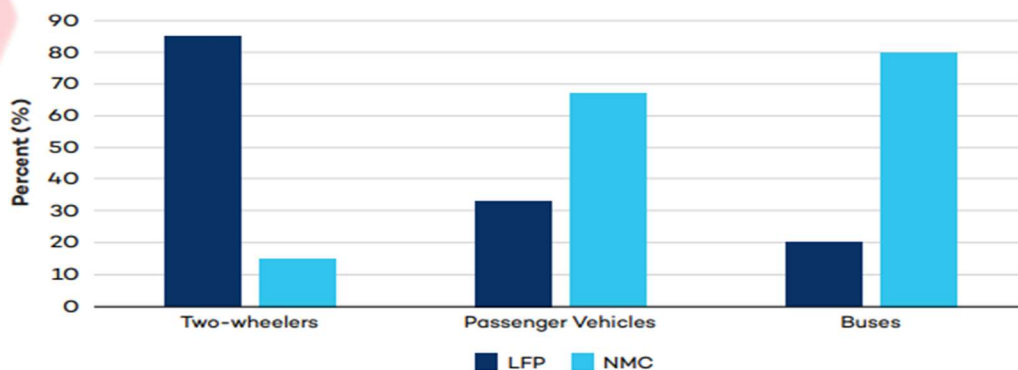
Market Dynamics: A High-Voltage Future

India's LIB industry boasts a projected growth trajectory that would make even the most seasoned investor envious. From a modest 2.9 gigawatt hour (GWh) in 2018, the industry is expected to reach a staggering 132 GWh by 2030, translating to a phenomenal CAGR of 35.5% [IBEF]. This exponential growth can be attributed to two primary factors:

1. The EV Revolution: Electric vehicles are no longer a futuristic fantasy; they are rapidly becoming a mainstream reality in India. As government policies incentivize EV adoption and consumer preferences shift towards eco-friendly mobility solutions, the demand for LIBs, the heart of EVs, is skyrocketing.

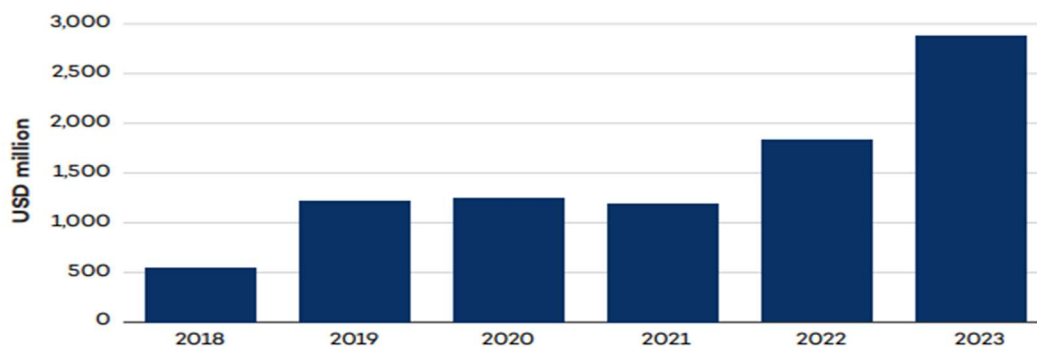
2. Energy Storage Solutions: Beyond EVs, LIBs are finding increasing application in energy storage systems for renewable energy integration and grid stability. With India aiming for an ambitious clean energy future, the demand for efficient and reliable energy storage solutions is propelling the LIB market forward.

Figure 4. Battery chemistries used in India for different vehicle segments in 2021



Source: Adapted from EY et al., 2022.

Figure 3. India's Li-ion imports have been growing rapidly from FYs 2018–2023



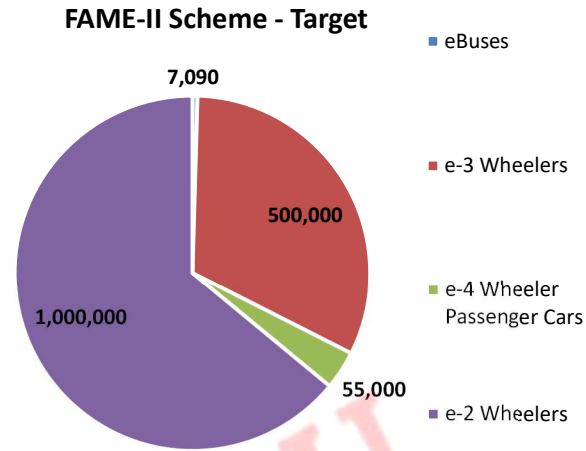
Source: Ministry of Commerce and Industry, n.d.

Economic Drivers of the Indian LITHIUM-ION BATTERY (LIB) MANUFACTURING INDUSTRY & GOVT SUPPORT.

Government Intervention: A Catalyst for Growth:

Production Linked Incentive (PLI) Scheme: This scheme offers financial incentives to companies establishing large-scale domestic LIB manufacturing plants. This not only boosts domestic production but also reduces dependence on imports, creating a more secure supply chain. The PLI scheme specifically focuses on the production of Advanced Chemistry Cell (ACC) batteries, which offer superior performance compared to traditional LIBs.

FAME-II Scheme: The Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME) initiative was introduced in 2015. The Ministry of Heavy Industries has been implementing the FAME India Scheme Phase-II for a five-year period starting April 1, 2019, with a total budgetary support of Rs. 10,000 crore (US\$ 1.20 billion). This phase focuses on boosting the electrification of public and shared transport, with the goal of supporting 7,090 eBuses, 500,000 e-3 Wheelers, 55,000 e-4 Wheeler Passenger Cars, and 1,000,000 e-2 Wheelers through demand incentives. The budget includes funds for the construction of charging stations and up-front incentives to lower the cost of purchasing vehicles.



Union Budget 2023: The budget includes several measures to support the lithium-ion battery and electric vehicle (EV) industries:

1. Basic customs duty exemption on the importation of machinery used in the manufacture of lithium-ion batteries for EVs, as well as vehicle parts and subsystems.
2. Reduction of customs duty on lithium-ion batteries from 21% to 13%.
3. Extension of concessional basic customs taxes for electric vehicles and hybrid batteries.
4. Allocation of additional funding to support the recycling of old vehicles.
5. Emphasis on promoting the production of green hydrogen and biogas.



Advanced Chemistry Cell (ACC) Battery Mission: Recognizing the need for cutting-edge technologies, the government has launched the ACC mission. This mission aims to promote research and development in next-generation LIB technologies with superior performance and range. This includes technologies like Lithium Nickel Manganese Cobalt Oxide (NMC), Lithium Nickel Cobalt Aluminum Oxide (NCA), and Lithium Iron Phosphate (LFP), each with its own advantages in terms of energy density, power output, and lifespan. By supporting R&D in these areas, the government is helping Indian companies build a moat of technological expertise, allowing them to compete effectively in the global market.

Securing Raw Material Supply: The government is strategically exploring domestic resources for lithium and other critical raw materials like cobalt, nickel, and graphite. Additionally, it is forging partnerships with countries rich in these resources to ensure a stable supply chain. This reduces dependence on volatilities in the global market and protects Indian manufacturers from potential supply disruptions.



Battery Swapping Policy (Draft): NITI Aayog designed the draft of the battery swapping policy to improve the efficient and effective use of resources (public funds, land, and raw materials for advanced cell batteries) for customer-centric services. EVs with swappable batteries are eligible for the same incentives as electric vehicles with fixed batteries. The proposed legislation specifies that the size of the incentive would be determined by the kWh rating of the battery and compatible EV.

100% FDI: The Indian government has incentivized new global entrants by allowing 100 percent foreign direct investment (FDI). Simultaneously, there are no entry barriers for domestic players interested in the battery pack/BMS segment.



Companies	CMP(₹)	Target Price (₹)	Return (%)	Market Cap (₹ in Cr.)	P/E	ROE(%)
Nalco	203.00	260.00	28.08%	37,476.00	21.00	12.70%
Coal India	494.00	580.00	17.41%	305,579.00	9.45	53.00%
Adani Enterprises Ltd.	3,111.00	4,000.00	28.58%	3,54,768.35	98.98	17.09%
NMDC	250.00	300.00	20.00%	73,356.00	12.79	23.90%



National Aluminium Ltd.
Target : ₹260



NMDC Ltd.
Target : ₹300

National Aluminium Co Ltd operates in two main segments: aluminum and chemicals. It manages the entire aluminum production process, from mining bauxite to producing alumina and smelting it into aluminum products. The company's aluminum segment generates the majority of its revenue, while its chemicals segment sells calcinated alumina and alumina hydrate. Additionally, National Aluminium Co Ltd owns and operates several power plants in India, where most of its revenue is generated.

A joint venture company, KABIL, has been established by three Central Public Sector Enterprises: National Aluminium Company Ltd. (NALCO), Hindustan Copper Ltd. (HCL), and Mineral Exploration Company Ltd. (MECL). Led by NALCO, this venture aims to explore critical minerals globally, enhancing India's mineral security and supporting the 'Aatmanirbhar Bharat' initiative. Argentina, part of the "Lithium Triangle" with Chile and Bolivia, holds significant lithium resources. This strategic collaboration strengthens India-Argentina relations and supports sustainable development in the mining sector, ensuring a resilient and diverse supply chain for essential minerals.

The company has achieved record-breaking figures: 4,63,428 metric tonnes of cast metal production, 76,00,230 metric tonnes of bauxite excavation, and 4,70,108 metric tonnes of metal sales. In FY 23-24, a new aluminum alloy ingot (AL59) was added to the product range. The alumina refinery reached 101.15% capacity utilization, producing 21,24,000 metric tonnes of alumina hydrate, and the captive power plant generated 7,193.62 million units of power. Additionally, the Utkal D coal block produced 2 million tonnes of coal, its peak rated capacity. CMD Shri Sridhar Patra acknowledged these achievements, expressing gratitude to the NALCO team and stakeholders for their dedication and cooperation in reaching these milestones through backward integration and securitization of raw materials and energy over the past four years.

Risk : Higher-than-expected debt-funded projects or a decline in the free cash balance, resulting in net leverage exceeding 1.5x on a sustained basis, would negatively impact the company.

NMDC Ltd mines various minerals, including iron ore, copper, rock phosphate, and more. The company also operates a windmill project in Karnataka. Iron ore, produced from three mines in Chhattisgarh and Karnataka, generates most of its revenue. The majority of its revenue comes from the Indian domestic market, with the Indian government holding a majority share.

Coal India and NMDC are actively searching for lithium mines globally, particularly in Chile and Australia, to enhance India's mineral reserves. GOI indicated that the government is exploring the possibility of expanding a trade agreement with Chile to include critical minerals. Additionally, there are plans to explore trade routes with Mongolia for copper and coal assets. The Indian government's global mineral strategy also encompasses Bolivia and Argentina, with Argentina being evaluated for additional opportunities in lithium blocks.

The capex target for the current financial year ranges from INR 2,000 crores to INR 2,500 crores. They plan to secure approvals for at least INR 40,000 crores out of the total INR 50,000 crores capex target. Peak capex is anticipated to reach around INR 7,000 crores to INR 8,000 crores over the next two to three years.

The production of iron ore is expected to reach approximately 290 million tons in the coming year. NMDC aims to achieve a production target of around 50 million tons in the current financial year. There is an expectation of an increase in domestic consumption of iron ore by 15 million tons to 20 million tons in FY'25. NMDC's market share in the iron ore segment is expected to remain around 18%.

Risk: There has been a significant decline in production or operating margin, resulting in a material deterioration in cash accruals. Major debt-funded capex has weakened the capital structure. Additionally, a reduction in Government of India (GoI) holding to less than 51% would dilute the central government's importance in the company.

Particulars	2022	2023	2024
Revenue	14,215	14,255	13,149
Operating Profit	4,550	2,448	2,873
Operating Margin (%)	32.01%	17.17%	21.85%
PAT	2,952	1,544	2,060
PAT Margin(%)	20.8%	10.8%	15.7%
ROE (%)	25.4%	11.17%	14.36%
ROCE (%)	29.6%	12.85%	17.62%

Particulars	2022	2023	2024
Revenue	25,965	17,667	21,308
Operating Profit	12,626	6,054	7,293
Operating Margin (%)	48.63%	34.27%	34.23%
PAT	9,429	5,601	5,571
PAT Margin(%)	36.3%	31.7%	26.1%
ROE (%)	39.37%	27.57%	23.10%
ROCE (%)	51.39%	35.64%	31.31%

Source : Fin2Research, NSE, BSE



Adani Enterprises Ltd.
Target : ₹4000

Adani Enterprises Ltd is a holding company with segments that include Integrated Resources Management, Mining, New Energy Ecosystem, Roads, Airports, and others. The company generates maximum revenue from the Integrated Resources Management segment.

The Adani Group is planning to invest Rs 1.3 lakh crore during the current fiscal year, according to Singh. Adani Green Energy Ltd. will contribute Rs 34,000 crore of this investment and set up up to 7 GW capacity during this period. The conglomerate has recorded 4.2 billion consumer interactions across its businesses in a year. Margins are at 30% after deploying all the capital, and cash per share growth stands at 43.2%, as stated by the Adani Group CFO.

They are servicing contracts for 8 coal blocks and 1 iron ore block. They have achieved a peak rated capacity of 5 million metric tons per annum in the Suliari mine in the second year of operation.

A major part of the Capex will go into ANIL and the Airports business, with about INR 50,000 crores allocated for these areas. Additionally, INR 12,000 crores will be invested in Roads, INR 10,000 crores in the PVC project, and INR 5,000 crores in a data center. The company is planning to achieve a capacity of 10 GW in the module integrated manufacturing business and 3 GW in the wind business.

In mining services, they are servicing contracts for 8 coal blocks and iron ore block. They achieved a peak rated capacity of 5 million metric tons per annum in the Suliari mine in its second year of operation.

An operational data center is located in Chennai, with facilities in Noida and Hyderabad currently in the final construction phase. Recently, contracts for the Pune data center have been signed. The order book in the data center business has reached 210 MW.

Anticipated module sales for FY25 are expected to range between 3.6 to 4 GW. Airport passenger movement is forecasted to continue growing throughout FY25. EBITDA margins are expected to remain stable, with growth anticipated across various segments.

Risk: The overall debt level of the Adani Group has increased to Rs. 50,120 crore in FY23, up from Rs. 38,320 crore. This rise is driven by both short-term and long-term debt. The short-term debt is primarily due to the working capital intensity of its main business, while new business initiatives, acquisitions, and the capital-intensive infrastructure nature and long gestation period of most of these businesses have led to higher long-term debt.

Particulars	2022	2023	2024
Revenue	69,420	127,540	96,421
Operating Profit	3,714	8,818	11,377
Operating Margin (%)	5.35%	6.91%	11.80%
PAT	788	2,422	3,335
PAT Margin(%)	1.1%	1.9%	3.5%
ROE (%)	3.94%	8.91%	8.98%
ROCE (%)	6.61%	8.07%	8.13%

Source : Fin2Research, NSE, BSE



Coal India Ltd.
Target : ₹580

Coal India Ltd is a state-owned coal mining company formed when the government took over many private coal mines. As one of the largest coal producers in the world, Coal India is responsible for the vast majority of India's coal production. The company operates across numerous mining areas spread over various provincial states of India and includes one mine planning and consultancy company. Coal India is primarily engaged in the production and sale of coal, operating hundreds of mines, the bulk of which are underground, followed closely by open-pit mines, and also manages multiple coking coal washeries.

They achieved a capex of INR 5,702 crores compared to the previous year. They backed around 300 megawatts of solar projects in Gujarat through e-auction. The capex target for FY '25 is INR 17,500 crores, with plans to increase to INR 18,000 crores in FY '26. The capex includes solar projects, railway lines, and coal gasification projects.

They expect to achieve a target of 780 million tons this year and 838 million tons next year. They are pursuing clearances and logistics to meet demands beyond the target of 838 million tons. The focus is on increasing washery capacities to beneficiate coal and meet demands. Management is optimistic about maintaining double-digit growth in production and dispatches.

Coal India Limited (CIL), in a bid to tap the latent coal reserves of some of its closed and discontinued underground mines, has awarded 23 such mines on a revenue-sharing model to successful private sector bidders. The cumulative peak rated capacity of these mines is 34.14 million tonnes per year (MT/Y), with total extractable reserves estimated at 635 MT. Earlier, CIL had identified a total of 34 discontinued mines where good quality coal reserves are lying dormant but may not be financially viable for CIL to mine them.

They expect to achieve a target of 780 million tons this year and 838 million tons next year.

The company aims to achieve a target of 780 million tons this year, with expectations to reach 838 million tons next year. Efforts are underway to secure clearances and optimize logistics to meet demands exceeding the 838 million tons target. There is a strategic focus on expanding washery capacities to enhance coal beneficiation and meet increasing demands. Management remains optimistic about sustaining double-digit growth in production and dispatches.

Risk: There are high contingent liabilities totaling ₹70,889 crore as of March 31, 2023 (compared to ₹1,05,600 crore in March 31, 2022) relative to the company's tangible net worth. Specifically, liabilities related to environmental clearances have decreased from ₹46,189 crore in March 31, 2022, to ₹2,915 crore in March 31, 2023.

Particulars	2022	2023	2024
Revenue	109,715	138,252	142,324
Operating Profit	24,721	36,810	47,971
Operating Margin (%)	22.53%	26.63%	33.71%
PAT	17,378	28,125	37,369
PAT Margin(%)	15.84%	20.34%	26.26%
ROE (%)	43.6%	63.3%	53.44%
ROCE (%)	20.64%	33.14%	31.13%



ANALYST CERTIFICATION

I Ashish Sanwariya Research Analyst, author, and the name subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect my views about the subject issuer(s) or securities. I 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. It is also confirmed that above-mentioned Analyst of this report has not received any compensation from the companies mentioned in the report in the preceding twelve months and does not serve as an officer, director, or employee of the companies mentioned in the report.

Terms & conditions and other disclosures:

Investments in the 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 the 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.

Fin2research Investment Advisor Private Limited (FIA) is the source of information and opinions in this report, which may be subject to change at any time. Any and all content in this report is confidentially sourced only for that intended audience and may not be altered, transmitted (in whole or in part), copied into another medium, or reproduced elsewhere without the written permission of Fin2research Investment Advisor Private Limited (FIA). Although we will endeavor to update the information contained herein for reasonable reasons, Fin2research Investment Advisor Private Limited (FIA) has no obligation to update or keep this information current. Due to regulatory, compliance, or other reasons, Fin2research Investment Advisor Private Limited (FIA) may be unable to do so.

The accuracy of this report is not guaranteed and it relies on information from public sources that have not been independently verified. This report and the information contained in it are for informational purposes only and should not be used or considered as an offer document or as an invitation to buy, sell, or subscribe to securities or other financial instruments. Although it is distributed to all clients at the same time, not all clients can receive this report at the same time. Fin2research Investment Advisor Private Limited (FIA) will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting, or tax advice or a representation that any investment or strategy is or would be appropriate for your particular circumstances.

The securities mentioned and opinions expressed in this document might not be appropriate for all investors, who have to make their very own investment decisions, primarily based totally on their very own investment objectives, economic positions, and needs of the particular recipient. This may not be taken in substitution for the exercising of independent judgment through any recipient. The recipient must independently compare the investment risks. Any number of factors, including fluctuations in interest rates and foreign exchange rates, could affect the value and return on investment. Fin2research Investment Advisor Private Limited (FIA) disclaims all responsibility for any form of loss or damage resulting from using this material. Future performance is not always predicted by past performance. Before making an investment in the securities markets, investors are recommended to review the Risk Disclosure Document to understand the risks involved. Actual results may differ materially from those set forth in projections. Statements that are deemed forward-looking are not guarantees and could change at any time.

As of the final day of the month before the research report was published, none of the following parties owned 1% or more of the equity securities of the company mentioned in the study: Fin2research Investment Advisor Private Limited (FIA), all of its subsidiaries, research analysts, or any family members of any of these parties.

The material contained in this study may not align with previous reports published by Fin2research Investment Advisor Private Limited (FIA) or reach a different conclusion. Fin2research Investment Advisor Private Limited (FIA) and its Research Analysts have not participated in any market-making activities on behalf of the firms listed in the report. We contend that no regulatory authority has taken any significant disciplinary action against Fin2research Investment Advisor Private Limited (FIA) that would have an impact on the company's ability to conduct equity research analysis.

The distribution, publication, availability, or use of this report by any person or entity that is a citizen or resident of, or located in, any locality, state, country, or other jurisdiction is not authorized or intended, as it may violate legal requirements or subject Fin2research Investment Advisor Private Limited (FIA) and affiliates to registration or licensing requirements in such jurisdictions. Certain groups of investors or all jurisdictions may not be able to purchase the securities covered here. It is expected of everyone who may come into possession of this material to become aware of and abide by these restrictions.

THANK YOU

Fin2Research Investment Advisor Pvt Ltd (FIA)

CIN: U70200DL2023PTC413207IA

Registration No: INA000018425

Registered Office: Plot No A 2nd Floor, Street New Bungalow Road, Malka Ganj, Delhi North Delhi, 110007 Delhi

Phone no: 9711885801

Email id: customercare@fin2research.com

Website: www.fin2research.com

For Research Query- researchdesk@fin2research.com