

Vision for Sustainable Future

Vision for Sustainable Future

At Hindalco, we envision growth beyond scale, to enable a more sustainable, inclusive, and resilient future for all the stakeholders, including customers, communities, and the environment. In times of climate change, Artificial Intelligence (AI), and geopolitical shifts – the global economy is getting reconfigured. Our approach, combined with financial discipline, operational agility, and a steadfast commitment to sustainability, positions us to succeed in an increasingly resource conscious economy.

Supported by our three foundational pillars – **Sustainability, Organisational Culture and Digital Transformation** – we are enhancing our capacities towards low-carbon, circular solutions across Aluminium, Copper, and Specialty Alumina

businesses. Ahead of this is our value-driven culture, that fosters people to transform, adapt, and bring sustainable change from within. We actively nurture an inclusive and engaging workplace through continuous learning, collaboration, and employee engagement initiatives. Our focus on wellbeing, safety, and development empowers our people to perform at their best and grow with the organisation. This strong people-first approach reinforces a high-performance culture aligned with our long-term aspirations.

Furthermore, with an agile and strategic approach to navigate the dynamic and complex market landscape, we are investing in progressive technologies such as Artificial Intelligence (AI), automation, and digital twin solutions.

This transformation is underpinned by a methodical approach to capital

allocation operational agility and sustainability. In our India operations, we continue to focus on doubling down our upstream capacities, to reinforce our commitment to cost leadership, drive efficiencies, and enable strong cash flows. This involves focused approach of investing in expansions of aluminium and copper smelters, and alumina refinery. We are further strengthening this through resource securitisation via captive coal mines (Chakla, Meenakshi, Bandha), long-term raw material linkages, and integrated operations – enhancing supply security, reducing cost volatility, and improving margin resilience. As a result of these efforts, our operational strength places us in the first decile of the global cost curve. This also underscores disciplined cost management and execution excellence, which is reflected in

industry leading upstream aluminium EBITDA per tonne.

While continuing to strengthen upstream capacities, we are strategically prioritising downstream expansion with a clear objective to quadruple downstream EBITDA by FY 2029–30 from the FY 2023–24 base, driven by an accelerated scale-up of value-added offerings across aluminium, copper, and specialty alumina, including Novelis; with nearly two-thirds of the portfolio being non-LME linked and an increasing share of downstream revenues, this shift structurally enhances earnings resilience, reduces exposure to commodity price volatility, and supports a more stable and predictable margin profile.

Driven by our legacy of responsible manufacturing, we have been evolving from a pure metals manufacturer to a co-creator of solutions across our Aluminium, Copper, and Specialty Alumina businesses. Our focus lies in strengthening capabilities, deepening value chain integration, and moving towards more customer-centric, innovation-driven, and high-performance offerings. By strategically prioritising high-growth sectors such as automotive, renewables, aerospace and defence, packaging, electricals, consumer durables, and smart infrastructure – we aim to deliver advanced, downstream value-added solutions tailored to the needs of a rapidly evolving market. We are also expanding our portfolio of premium downstream products including Inner Grooved Tubes (IGT), alloy rods, battery-grade aluminium foils, and advanced recycling solutions such as e-waste processing and recovery of critical materials, enabling superior product mix and value realisation.

Guided by our operating model, we are proactively leveraging key megatrends – ESG, electrification, the circular economy, low-carbon manufacturing, technological disruption, and infrastructure growth. To capitalise on these shifts, we are investing in advanced technologies, strengthening our R&D capabilities, and developing a robust innovation pipeline aligned with the rising demand for lightweight, localised, and premium downstream products.

In line with this strategic direction, Novelis plays a pivotal role in advancing our sustainability-led growth agenda. The expansion of Novelis’ rolling and recycling capacities, including the Bay Minette facility, will further increase our exposure to high-value, non-LME linked segments such as beverage packaging, automotive and specialty applications.

With its 3x30 vision, Novelis adheres to its commitment to circularity, low carbon footprint, and returns to strategic investments. They are working towards achieving 75% average recycled aluminium content across their products portfolio, while aiming on reducing the carbon footprint of their products to less than 3 tonnes of CO₂e per tonne of flat rolled products shipped. Novelis continues to retain its leadership position on Return on Invested Capital (ROIC) with strong emphasis on balance sheet, cash-flows and return to shareholders.

Leveraging Global Megatrends to Power Strategic Innovation

We are being shaped by global megatrends including ESG-led decision-making, technological disruption, accelerating urbanisation and evolving consumption patterns. These forces are driving demand for innovative, value-added solutions

and guiding our focus on portfolio expansion and future-ready growth. We are actively shaping the future of the metals industry with our bold affirmation of strategic imperatives and long term vision, in line with these global megatrends.

India’s accelerating commitment to sustainability and the energy transition continues to be a significant growth driver. The national target of achieving 500 GW of non fossil fuel capacity by 2030, with an emphasis on solar photovoltaic (PV) and wind energy, is expected to significantly drive demand for aluminium and copper approximately 21 tonnes¹ and 5.5 tonnes per megawatt², respectively. These trends align directly with our capabilities of being a force for sustainable solutions.

Further, aligned with India’s decarbonisation commitment till 2035 under the vision of *Viksit Bharat*, our renewable energy capacity stands at 470 MW powered by solar, wind, and hydro sources. We have operationalised 65 MW of Renewable Energy Round The Clock (RE-RTC) and ramping up to 100 MW at Aditya. In addition, we have contracted 100 MW RE-RTC at Mahan and 200 MW of RE-RTC capacity for the Aditya smelter expansion. These initiatives support our goal of reducing GHG intensity by 25% by 2030 and achieving net zero emissions by 2050.

ESG considerations remain deeply embedded in our strategic framework, which is not only shaping capital allocation but also focusing on operational priorities, and long-term value creation. Alongside renewable energy integration, we are strengthening circularity and resource efficiency through investments in advanced technologies and recycling infrastructure with recycling projects at Pakhajan. Our water stewardship



¹ Harnessing The Sun: How Rising Solar Power Demand Impacts Base Metals | Wood Mackenzie
² CDA Solar Infographic_3

initiatives such as RO-ZLD plants, tube settlers, runoff recovery systems at Hirakud, condensate polishing at Utkal Alumina, and optimisation of cooling tower operations at Aditya and Hirakud – are enabling increased recycling, reduced freshwater intensity, and improved resilience of our operations. Moreover, our Aluminium Stewardship Initiative (ASI)-certified operations position us to capitalise on the growing demand for low-carbon materials, reinforcing our commitment to responsible production and enhancing our competitiveness in a sustainability-led global landscape.

Novelis continues to embed sustainability across its operations, aligned with key global megatrends. With a defined pathway to net zero, it is advancing closed-loop recycling, increasing recycled content, and accelerating decarbonisation. In response to rising metals consumption and rapid urbanisation, Novelis is strategically expanding its regional manufacturing footprint to support sustainable solutions in infrastructure, mobility, and packaging. This is exemplified by the development of a state-of-the-art 600 KT aluminium facility at Bay Minette, reinforcing its commitment to localised, low-carbon growth.

India's economic trajectory is characterised by robust consumption growth and rapid urbanisation, which provides a compelling long term opportunity for the aluminium and copper sectors. India's per capita aluminium consumption of ~4 kg remains significantly below the global average of 12.5 kg³. Copper consumption at ~0.6 kg lags the global average of 3 kg⁴, highlighting substantial domestic growth potential for these metals. We are building

³ Development of Aluminium and Copper Industries, Standing Committee Report Summary, Committee Reports

⁴ Development of Aluminium and Copper Industries, Standing Committee Report Summary, Committee Reports

⁵ Gearing up for India's Rapid Urban Transformation

⁶ National Critical Mineral Mission January 2025, Copper: The Material of Choice for Vehicle Manufacturers - International Copper Association

⁷ Aluminium Vision Document to Drive Green Manufacturing and Resource Security, Press Release Page | Press Information Bureau

⁸ Make in India

⁹ Viksit Bharat 2047: Vision for a Developed Nation | Viksit India



Aditya Aluminium is the first in India to set up a Zero Liquid Discharge (ZLD) unit within its premises

on this low base by strengthening our presence across key demand segments, while actively positioning aluminium as a sustainable alternative to conventional materials. Today, we account for over 50% of India's domestic flat-rolled aluminium market.

Urbanisation is expected to rise significantly, with more than 600 million people projected to live in urban areas by 2036.⁵ This demographic shift will drive demand for infrastructure development, mobility solutions, and consumer goods. Being the leading supplier of downstream aluminium and copper products, we are well-positioned to meet these evolving requirements through continued investments in value added offerings, strengthened

supply chain capabilities, and customer centric platforms.

The automotive sector's shift to electrification and accelerating demand for critical minerals is also boosting copper demand, with electric vehicles (EVs) requiring significantly more copper than Internal Combustion Engine (ICE) vehicle counterparts.⁶ This transition is enabled by providing lightweight, high-performance materials that support energy efficiency and emission reduction. We are enabling this transition through our copper products engineered for EV wiring, charging infrastructure, and battery connections, alongside lightweight aluminiums solutions that improve vehicle range and efficiency.

The aerospace and defence sector is also emerging as a key strategic

growth opportunity Our position as a solution provider in advanced manufacturing, supported by capabilities such as our battery-grade aluminium foil, which has been validated for such applications, including ISRO's Chandrayaan and Mangalyaan missions.

Furthermore, we are aligning our strategy with the Government of India's Aluminium Vision⁷, which recognises aluminium as a critical enabler of clean energy, electric mobility, and modern infrastructure. By building economies of scale and enhancing global competitiveness, our fully integrated upstream downstream approach supports the objectives of the Make in India⁸ initiative and Viksit Bharat 2047⁹. Key projects—including the Aditya Alumina Refinery, Aditya Aluminium Smelters (Phases I & II), and the copper smelter—are progressing well and support our ambition to significantly expand upstream

capacity by 2030, while our captive coal mines at Chakla, Meenakshi, and Bandha will enhance supply security, reduce power costs, and improve margins. At the same time, we are accelerating downstream growth by scaling up our Aditya FRP facility (170 KTPA) to meet rising demand across automotive, packaging, and industrial segments, alongside commissioning a new foil rolling facility for high-growth applications such as batteries and aseptic packaging. In copper, we are expanding our presence in inner groove tubes for HVAC applications and advancing the commissioning of copper and e-waste recycling facilities, further strengthening our integrated, value-driven growth strategy.

To stay ahead of technological disruption and evolving consumer preferences, we are advancing next-generation applications across electric mobility, renewable energy,

and circular packaging solutions. Our focus on lightweighting, premiumisation, and regional customisation – supported by close customer collaboration – enables the co-creation of sustainable, high-performance aluminium solutions tailored to diverse end-use requirements.

We remain aligned with the national vision of Bold Vision, Brighter Future and are committed to driving integrated value creation across economic, social, environmental, and governance dimensions. Supported by strategic investments, continuous innovation, and a strong sustainability focus, we are well positioned to contribute meaningfully to India's transition towards a resilient, low-carbon, and technology-led economy.

SP-1
PRUDENT CAPITAL STRUCTURE

- 
 - + Financial prudence in capital allocation
 - + Growth capex in India and Novelis supported by robust cashflows and strong balance sheet
- 
 - + Novelis \$5 billion Strategic growth investment in Bay Minette, Alabama
 - + India Business Capex of around ₹50,000 crores for capacity expansions and in upstream business and scaling up premiumisation in downstream products and resource securitisation
 - + Long-term consolidated net debt to EBIDTA to be maintained below 2x
- 
 - + Consolidated business segment EBIDTA was up 6% year-on-year at ₹37,217 crores as of 31 March 2026.
 - + Consolidated Leverage below 2 times at 1.83x in FY 2025-26

SP-2
SCALING UP UPSTREAM THOUGH DOUBLING-DOWN ON CAPACITIES

- 
 - + Focus on shareholder value creation by organically expanding upstream capacities in aluminium and copper
 - + Cost optimisation through resource securitisation in terms of coal and bauxite
- 
 - + Target commissioning of captive coal mines: Chakla – H1 FY 2026-27, Bandha – FY 2026-27, Meenakshi – FY 2028-29
 - + Aditya Alumina Refinery FY 2027-28
 - + Aditya Aluminium Smelter Ph 1 (181KT) FY 2027-28
 - + Aditya Aluminium Smelter Ph 2 (193 KT) FY 2028-29
 - + Copper smelter (300 KT) – FY 2028-29
- 
 - + 145 patents granted during FY 2025-26

 Our Approach

 Impact

 Way Forward

SP-3
SCALING UP DOWNSTREAM THROUGH PORTFOLIO ENRICHMENT (NON-LME LINKED)

- 
 - + Aggressively expanding India aluminium downstream business, targeting a 4x increase in downstream EBITDA by FY 2029-30 vs FY 2023-24
 - + Advancing from a metal producer to a provider of engineering solutions
 - + Enriching product mix by increasing the share of high end value added products
 - + Focus on high-margin end-use segments:
 - Automotive & EVs (battery enclosures, lightweight components)
 - Packaging (cans, foil, pharma), Electrical, renewables, and industrial applications
 - + Strong brand-led downstream portfolio (Eternia, Freshwrapp, PrizTec, EcoEdge)
- 
 - + Novelis' 600 KT greenfield rolling and recycling facility to commission in FY 2026-27 taking the total rolling capacity of flat rolled products to nearly 5 millions tonnes, supporting North-American markets
 - + Strengthening downstream product portfolio: Scaling up Aditya FRP, aluminium battery foil and copper inner groove tube and evaluating new product expansion across business segments
 - + Recycling of Copper and E-waste (50 KT) by FY 2026-27
- 
 - + Scaling-up overall FRP production - Aditya FRP (170 KTPA)
 - + Battery Enclosure (Chakan) - Fully ramped up to its optimal levels
 - + Undergoing trial runs of Copper Inner Groove Tubes (25 KTPA) (Vadodara)
 - + Began commissioning of AC Fins (Taloja); customer qualification in progress
 - + Commissioned Aditya Battery Foil
 - + Commissioning of the Precipitated Hydrate (PPT) plant at Belagavi, with a capacity of 20 KTPA

SP-4
STRONG ESG COMMITMENT, CULTURE AND DIGITAL

- 
 - + Focus on ESG implementation across the value chain
 - + ESG commitments to strengthen our position as the industry leader in sustainability
 - + Proven performance delivered through our policies, philosophies and frameworks
 - + Innovation-first thinking strengthening upstream capacities while also focusing on developing customer-centric solutions
- 
 - + Achieve 884 MW of renewable installed capacity by FY 2026-27 and 1,514 MW by FY 2027-28
 - + Grid connectivity upgrades at Mahan, Renukoot and Dahej to strengthen grid reliability and improve access to renewable rich regions
 - + Integration of 'Shillim' in Hindalco Business System (HBS), thereby, embedding culture more deeply into our practices
 - + Develop inhouse 300 kA potline technology for upgradation of old smelters
- 
 - + Featured once again in the S&P Global Yearbook 2026, ranking among the top 1% in S&P Global ESG scores within the aluminium industry
 - + 88% of the total waste generated was recycled or reused
 - + 0.2 lakh saplings planted in 11 hectare offsite Aditya Aluminium. 8.55 lakh saplings planted across mines and plant locations vs 5.3 lakh in FY 2024-25. >1,600 fully grown trees transplanted as part of No Net Deforestation commitment
 - + 470 MW RE capacity powered by solar, wind, and hydro sources
 - + 19.2 tCO₂ per tonne of aluminium produced – aluminium-specific GHG footprint, marking the lowest level achieved
 - + 93% score achieved on VIBES employee engagement survey
 - + My People Hour™ (10,000+ sessions) and Bhoomika initiative (49,000 recognition cards) to build everyday connections, appreciation, and a sense of belonging
 - + Parivartan and Hobby Clubs – Renukoot, Tamrodaya – Copper business, and UDAAN – Hirakud Power and Smelter (P&S), demonstrating cultural transformation
 - + Advanced digitalisation through an integrated command and control centre, fleet management systems, and a bauxite supply chain tracking platform
 - + Leveraging predictive models for particle size distribution and surface area analytics to enhance product consistency – specialty alumina and refinery operations
 - + Improving copper cathode and copper continuous cast rods quality, increasing the recovery of copper, gold, and silver, and developing processes for the recovery of other critical metals