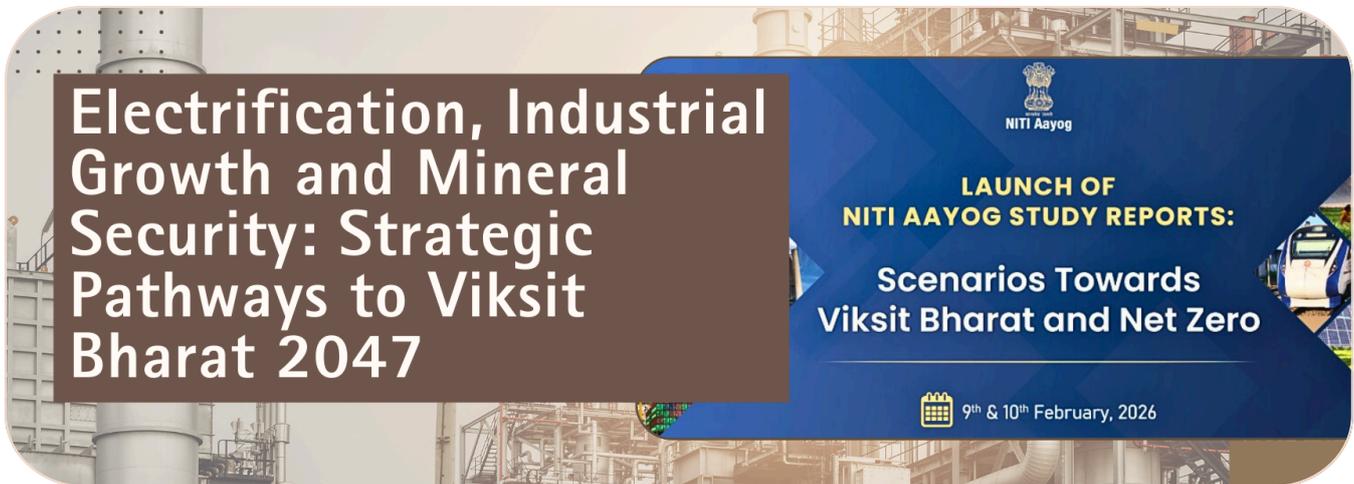


January 2026

Cover Story



In 2026, NITI Aayog released a series of detailed scenario studies outlining India's pathway towards Viksit Bharat 2047 and its Net Zero target by 2070. The sectoral reports covering Transport (Vol. 3), Industry (Vol. 4), Power (Vol. 7), and Critical Minerals (Vol. 10) present an integrated, long-horizon assessment of how energy systems, industrial expansion, and resource security must evolve in tandem to sustain economic growth while reducing emissions intensity.

A central finding across the studies is the scale of electrification required. Electricity's share in final energy demand is projected to increase from 21% in 2025 to nearly 60% by 2070. To support this transition, non-fossil sources could account for 80–85% of electricity generation by mid-century. The reports also recognise that coal consumption may continue to rise until 2047 in line with economic growth, underscoring the need for calibrated transition strategies rather than abrupt shifts.

In the transport sector, the analysis indicates that electricity, biofuels, and green hydrogen together could meet close to 90% of energy demand by 2070. This transformation will require significant investment in charging infrastructure, fuel supply chains, grid capacity, and storage technologies. Similarly, industrial output, particularly steel, cement, and aluminium, are expected to expand four to six times by 2070. Decarbonising these hard-to-abate sectors will depend on electrification, energy efficiency, and the gradual integration of green hydrogen into industrial processes.

The reports further highlight that improvements in circularity, energy efficiency, and demand-side management could reduce overall final energy demand by approximately 20% by 2070. This indicates that technology adoption must be accompanied by systemic efficiency gains across production and consumption cycles.

Copper's Strategic Role as the Foundational Substrate

Within this framework of mineral preparedness, copper emerges as a primary strategic pillar, serving as the essential substrate for large-scale electrification and high-efficiency energy systems. According to the Vol. 10 assessment, India's cumulative copper demand is projected to reach approximately 66 million tonnes by 2070 under the Net Zero Scenario, a volume 51% higher than the current policy trajectory. With copper underpinning nearly 55% of EV battery demand and 30% of solar PV capacity, the studies identify it not merely as a commodity, but as a critical technical enabler of decarbonization. Furthermore, as two-thirds of this demand is expected to materialize after 2050, the reports emphasize an urgent need for "back-loaded" supply chain security, necessitating immediate exploration reforms and the development of domestic refining and recycling clusters to prevent material bottlenecks from stalling India's 2047 milestones.

A recurring theme is mineral preparedness. The Critical Mineral Assessment emphasises that India's transition will significantly increase demand for minerals essential to renewable power systems, grid infrastructure, storage solutions, and advanced manufacturing. Meeting this demand will require a combination of domestic exploration and production, diversified international partnerships, institutional reforms, and strengthened recycling ecosystems. Taken together, the studies underline that India's pathway to Net Zero will not hinge on a single sector or intervention. It will require coordinated planning across power generation, transport electrification, industrial transformation, and mineral resource management, anchored in long-term policy alignment and infrastructure readiness.

Copper Updates

India's copper conundrum: Chasing self-reliance in a metal-hungry age



India's copper demand is rising fast, but a large share still comes from imports. The gap is not in mining alone. It is in fabrication — rods, wires, and highpurity copper used in EVs, renewables, and electronics.

After losing key smelting capacity in 2018, India shifted from net exporter to net importer. Even with new plants coming up, demand is expected to surge further by 2030.

The article argues that India must strengthen mid-stream and downstream processing to:

- Reduce import dependence
- Build supply resilience
- Create skilled jobs
- Move beyond low-value assembly

Self-reliance in copper is central to India's industrial growth.

[Read full Article >](#)

ICA India Events



Discussion About Reducing Lifecycle Cost and Enhancing Reliability of Motors & Cables

09 January 2026 | Chandigarh

70 members of Chambers of Chandigarh Industries were briefed about the advantages of copper intensive high-efficiency induction motors and cables, which ensure higher system reliability, minimizing downtime while offering long-term asset value.



Highlighting Copper's Role in Industrial Cabling to 40 Officials of MECON

23 January 2026 | Ranchi

ICA advocated for copper as reliable, safe & durable asset solution for industrial cabling at a workshop at MECON, a leading public sector engineering consultant company active in Indian steel & mining industry.



ICA and Finolex Reinforced the Importance of Sustainable Construction

22 January 2026 | Tiruchirapalli

Through workshops, architects were educated about copper based solutions that enhance safety, reliability, and sustainability in modern constructions, while aligning with India's green building framework.

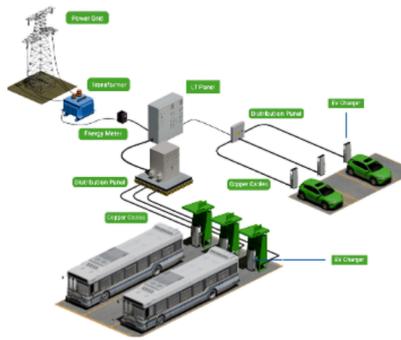


Introduction of Solutions to Indian OEMs for Optimizing Existing Room AC Designs

16 January 2026 | Mumbai

ICA India introduced 4 mm IGT copper heat exchanger solutions for room ACs to meet revised energy efficiency norms applicable from 2028. The web meeting was hosted by ICA and presentation made by Shanghai Jiao Tong University, had participation from 6 HETA India AC OEM members.

ICA India Events



Advocating For a New Standard to Address Critical Operational Safety Gaps in Expanding EV Charging Network

12 January 2026 | Delhi

ICA participated and achieved consensus amongst technical committee members of Bureau of Indian Standard for standardization of electrical installation of EV charging infrastructure.