India inc powers ahead on the road to net zero

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India's drive to reach its ambitious renewable energy targets – 500 GW non-fossil capacity by 2030 and net-zero emissions by 2070 demands is witnessing broad-based participation from corporations. Leading companies as well as start-ups are setting new benchmarks in renewable adoption, signalling that India Inc. is stepping up to support the government's transition agenda.

India's cumulative solar power capacity stood was 127.33 GW as of September 2025, of which 97.15 GW comes from ground-mounted solar plants, 21.52 GW from grid-connected rooftop systems, 3.26 GW from hybrid projects, and 5.40 GW from off-grid solar installations. According to Bridge to India's Q2 2025 Corporate Renewable Brief, India's corporate renewable capacity expanded 12% quarter-on-quarter to 50,450 MW, accounting for nearly one-third of all new renewable additions. Nationally, India added 22 GW of renewable capacity in H1 2025, a 57 per cent year-on-year increase, taking total installed renewable capacity (excluding large hydro) to around 197 GW till date. As of August, India ranks 4th globally in overall renewable capacity, 3rd in solar, and 4th in wind, underscoring how policy clarity, falling costs, and private investment are driving momentum.

The urgency for India Inc to support clean energy

India's energy demand is projected to grow faster than that of any country globally, intensifying the need for sustainable expansion. Corporates account for a sizeable share of this demand, and their choices directly affect whether the nation's green targets are met on schedule. The government's annual clean energy policies and tendering systems, supported by 100 per cent FDI for renewables, have created fertile ground for private investment.

In Q1 2025, renewables accounted for nearly 79 per cent of all new power generation capacity, with total installed clean energy rising to over 235 GW or 49 per cent of the country's total capacity, a threefold increase in a decade. Surging investment, policy incentives, and strong consumer and investor demand are spurring India Inc to play an increasingly central and visible role in this revolution. The corporate energy transition is now not just a sustainability imperative but an operational hedge against volatility in fossil-fuel prices and grid instability.

Encouragingly, signs of this transformation are now visible across sectors, from mining and metals to cement, steel, and energy, as leading Indian companies translate intent into measurable climate action.

Hindustan Zinc exemplifies how resource-intensive industries are realigning toward India's broader 2030–2050 climate roadmap by pursuing a dual strategy of reducing carbon intensity and adopting cleaner technologies. Its net-zero-by-2050 plan rests on boosting renewables, which already constitute 19 per cent of its energy mix and are targeted to reach 70 per cent by FY28. In FY25, the company reduced its greenhouse gas intensity by 15 per cent versus FY20 while increasing production. As India's only member of the International Council on Mining and Metals (ICMM), Hindustan Zinc benchmarks its sustainability practices to global ESG standards. Hindustan Zinc deployed its first underground battery electric vehicle at the Sindesar Khurd mines. The company's initiative to introduce LNG vehicles for inter-unit and finished goods transportation has further contributed to reducing Scope 3 emissions.

Key enablers include a 530 MW Power Delivery Agreement with Serentica and the launch of EcoZen, Asia's first "low-carbon zinc" produced primarily from renewable sources with a carbon footprint 75 per cent lower than the global average. The company's shift to electric logistics, marked by the rollout of an electric bulker fleet and the use of more than 643 million units of clean power for operations, underlines how renewables are driving both cost competitiveness and ESG outcomes.

Hindustan Zinc has also ventured into zinc battery technology in partnership with IIT Madras and JNCASR to develop cost-effective and sustainable alternatives to lithium-ion batteries. Reinforcing its global ESG leadership, Hindustan Zinc has retained its No1 position in the S&P Global Corporate Sustainability Assessment 2025 for the third consecutive year.

At the group level, Vedanta Limited mirrors India Inc's accelerating clean-energy momentum. As one of India's largest diversified natural resources companies, Vedanta is advancing a green energy strategy across its metals, power, and oil & gas businesses. In Q1 FY26 alone, it consumed nearly 850 million units of renewable power from solar, wind, and biomass-based sources, reflecting one of the fastest industrial-scale transitions in the country. It has already secured 1.9 GW of renewable capacity through power delivery agreements, set to become operational over the next few years to further cut emissions.

A major focus lies in Vedanta Aluminium, which is integrating renewables into its energy mix to decarbonise smelting. Through renewable power procurement, electrification, and recycling, it is positioning low-carbon "green aluminium" as a mainstream material. These initiatives make Vedanta one of India's largest industrial users of clean energy and reinforce its goal of achieving net-zero operations well before 2050.

These companies illustrate a broader shift in India's industrial mindset, where sustainability is emerging as the new currency of competitiveness. For sectors once considered hard to decarbonise, the transition is no longer about compliance but about leadership in global markets increasingly shaped by climate-conscious investors, carbon-border policies, and green finance.

Adani Group's trajectory underscores the same conviction, but at a system scale. Adani Green Energy Limited already operates over 16 GW of renewable capacity and is targeting 50 GW by 2030. Its hybrid solar-wind and pumped-hydro projects at Khavda in Gujarat are designed to deliver round-the-clock green power and reinforce grid reliability. By integrating generation, transmission, and green-hydrogen production, the Group is creating a unified renewable platform that anchors India's path to energy self-reliance. The strategy reflects a broader shift among conglomerates: seeing clean energy not as a vertical, but as the infrastructure underpinning all other businesses.

Reliance Industries offers a complementary play an innovation-driven roadmap that fuses energy transition with materials science. It has placed its New Energy and New Materials business at the centre of its plan to achieve net-zero carbon by 2035. Building on its earlier commitment of $10 billion for clean-energy infrastructure, the company is developing one of the world's most integrated ecosystems for green hydrogen, solar, wind, fuel cells, batteries, and advanced materials. Anchored on carbon-recycling and circular-economy principles, the initiative aims to shift India from a net energy importer to an exporter of clean fuels. Reliance is setting up a 'quartz-to-module' solar cell facility, fuel-cell and battery giga-factories, electrolyser and power-electronics manufacturing, and large-scale carbon-fibre and composite-materials plants in Gujarat.

As the new energy economy takes shape, India's industrial heavyweights are redefining what it means to be "hard-to-abate." Steel, cement, and mining companies once seen as carbon-intensive are now becoming laboratories of innovation, testing hybrid renewables, green hydrogen, and circular production models.

In the metals sector, Tata Steel has been steadily transforming one of India's most carbon-intensive industries into a global benchmark for circular production. It's recently announced 966 MW hybrid round-the-clock project (with Tata Power Renewable Energy) aims to green a significant segment of its operations by mid-2025. Tata Steel is also enabling India's domestic renewables manufacturing with a massive 2 GW solar cell and 1.2 GW module factory coming up in Odisha. The company is repeatedly recognized by the World Steel Association for sustainability, a testament to its deep efforts in decarbonizing a notoriously energy-intensive sector.

JSW Group provides yet another example of ambition meeting accountability. JSW Steel is targeting a 42 per cent CO_2-intensity cut by 2030 and is piloting green-hydrogen supply at Vijayanagar with JSW Energy. In parallel, JSW Energy now operates ~13,097 MW with 57 per cent renewables and is working toward carbon-neutrality by 2050, creating a cleaner power backbone for the steel business while advancing biomass, scrap-based circularity, and low-carbon process routes. The group is also investing in digital process optimisation and carbon-capture research to further reduce emissions across production sites.

Taken together, these corporate moves illustrate the new grammar of industrial growth, where energy transition, innovation, and competitiveness are increasingly inseparable. India Inc is not waiting for global validation; it is writing its own playbook for low-carbon leadership.

Aggregate impact and future trajectory

Globally, a record 582 GW of renewable capacity was added in 2024, a 15 per cent jump, but still short of the 16.6 per cent annual growth needed to stay on a 1.5 °C path (IEA 2025). Against this backdrop, India's 15–16 per cent CAGR over the past decade stands out as a relative success.

India's renewable transformation has reached a tipping point, driven not just by policy but by corporate conviction. As India eyes its 2030 and 2070 goals, it is India Inc. that will determine the pace and permanence of this transition. The country's enterprises are no longer followers of the green agenda; they are shaping it, turning sustainability into strategy, and decarbonisation into a defining competitive advantage for the decades ahead.

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