



50
YEARS IN INDIA



HINDUSTAN ZINC



DISCLOSURE INSIGHT ACTION

CASE STUDY: HINDUSTAN ZINC LIMITED

SCIENCE-BASED TARGETS

Validated Targets

Hindustan Zinc Limited commits to reduce absolute Scope 1 and Scope 2 GHG emissions **14% by 2026** from a 2016 base-year. HZL also commits to reduce absolute Scope 3 GHG emissions **20% by 2026** from a 2016 base-year.



About Hindustan Zinc Limited

Hindustan Zinc Ltd. (HZL), a subsidiary of Vedanta Ltd., is India's largest and the world's second largest integrated zinc-lead mining company. Vedanta owns a 64.9% stake in the business, while the government retains a 29.54% stake. With over 50 years of operational excellence, HZL is among the top 10 silver producers globally, with an annual capacity of 600 MT. HZL's fully integrated zinc operations hold a 78% market share in India's primary zinc industry. HZL is listed on the National Stock Exchange of India Ltd and BSE.

Inclination Towards Science-Based Targets

Sustainability is an integral part of HZL's business and represents their commitment to stakeholders, and society at large. The company aims to eliminate any potential damage to the environment by reducing its carbon footprint across its operations and value chain. The company demonstrates responsible stewardship by adopting sustainable practices, such as transition to green energy, conservation of natural resources, waste minimisation and improving operational performance.

In June 2017, HZL committed to the Science-Based Target initiative (SBTi) to set GHG emissions reduction targets in accordance with the current climate science and Paris Agreement goals, and excel in operations by upholding exceptional standards of governance. Its targets were approved in September 2018, making it the second Indian company to have approved science-based targets.

Strategic Approach to Meet Science-Based Targets

Setting science-based targets has facilitated a science-based pathway for HZL to reduce its GHG emissions, improve energy efficiency, conserve natural resources and make a groundbreaking impact on its business. From 2018 to 2019, the company reduced Scope 1 and Scope 2 emissions by 2% each. The company successfully achieved this by implementing various measures, such as replacement of brush seals of turbines, development of transformer taps, optimisation of cement

Figure 1: Emissions Profile (metric tonnes CO_{2e})

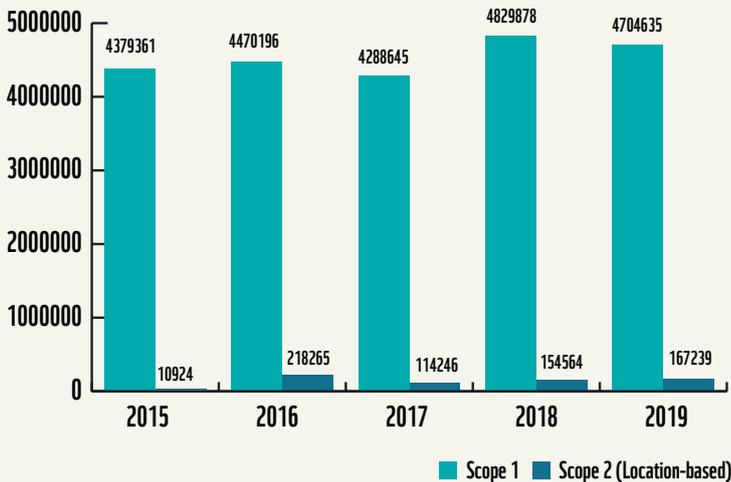
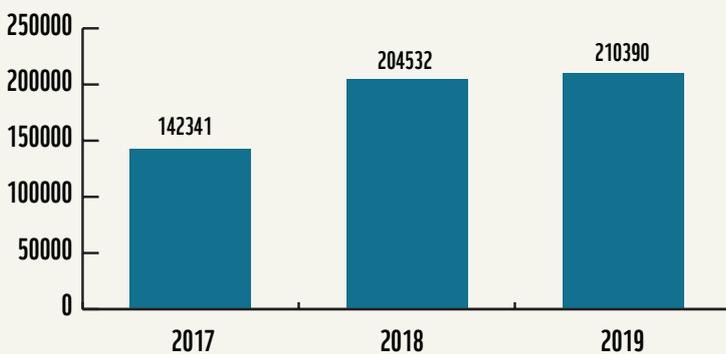


Figure 2: Renewable Energy Consumption (MWh)



bulker unloading compressions, replacement of compressors, shift from liquefied petroleum gas burners to electric heaters, installation of LED lights etc. These measures helped the company improve energy efficiency and reduce power consumption at its thermal power plants. In 2018, shift from open cast mining to underground mining resulted in reduction of more than 68,000 tonnes of CO₂ equivalent, which significantly saved the consumption of high-speed diesel.

HZL has been focusing on strengthening its green energy portfolio by investing in renewable energy sources. From 2017 to 2019, HZL increased its total renewable energy consumption by 48%, which has reduced its carbon footprint by over 66,000 MT of CO₂ equivalent a year. Presently, the company has a total green power capacity of 348 MW, comprised of 274 MW of wind power, 39 MW of solar power and 35 MW of waste heat power. The company has recently commissioned a 12 MW solar power plant at one of its zinc smelters, which is efficiently reducing HZL's carbon footprint by nearly 14,000 MT annually. To increase its clean energy consumption, HZL installed a 22 MW solar power project at the Rampura Agucha site, and a 4 MW at the Dariba site, as the land there was deemed unfit for any other productive use.

The company is planning to establish new green power projects, including a waste heat recovery boiler, wind power plants of 50 MW capacity and various solar power projects. Installation of a floating solar power station at a captive dam near Chanderia will not only help saving land space, but will also reduce water evaporation in the water-stressed zone.

These Scope 3 emissions of HZL include purchased goods, business travel, and upstream and downstream transportation and distribution. The company is in the process of framing an approach to reduce its Scope 3 emissions.

This case study has been prepared by WWF-India, based on a case study prepared by CDP India in February 2020. Available at: <https://sciencebasedtargets.org/case-studies-2/hindustan-zinc-limited/>

Disclaimer: Science Based Targets initiative is a collaboration between CDP, the United Nations Global Compact, World Resources Institute (WRI), and the World Wide Fund for Nature (WWF) and one of the We Mean Business Coalition commitments. In India, WWF and CDP have collaborated and launched Science-Based Targets initiative Incubator which is supported by Shakti Sustainable Energy Foundation(SSEF). We are thankful to SSEF for their support.

