Commitment to Decarbonization Decarbonization

Biomass Boiler, Três Marias smelter, Brazil





Nexa's zinc production has **one of the lowest carbon footprints** in the industry, with an emission intensity of **0.36 tons of CO₂ equivalent**^{*} per ton of zinc and zinc oxide sold.

Our emissions inventory adheres to the **GHG Protocol** methodology.

* Including Scopes 1 and 2.

ESG Commitments: Decarbonization

Achieve a **20% reduction** in Scope 1 emissions (equivalent to **52,000** tons of CO₂) by 2030, while ensuring that Nexa>s energy sources remain predominantly renewable.

Achieve emission **neutrality by 2040.**



Achieve **net zero by** 2050, in alignment with the **Paris Agreement**.





We are reducing our greenhouse gas (GHG) emissions year after year¹.



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OPE 1 SCOPE 2 Electricity consumption Direct emissions



How do we do this?

Renewable sources comprise **74% of our** energy matrix, playing a significant role in our sustainability efforts:

- Trade agreements for **100% renewable** energy use in Brazil and Peru.
- Use of natural gas, biomass and other • renewable energy sources as alternatives to fossil fuels.

Our Scope 1 and 2 emissions are approximately 9 times lower than the **global zinc industry** average³.

1 The increase in Scope 2 is due to the inclusion of our new Aripuanã mine in Brazil.

Data is not comparable due to a change in calculation methodology to the 'purchase choice approach'.

3 Global average of the combined Scope 1 and 2 emissions, based on an analysis conducted in 2021 by Skarn Associates.







decarbonization, we log our carbon emissions on "LMEpassport", a platform by the London Metal Exchange that promotes sustainability and transparency in the base



We are participating in discussions with the International industry guidelines, with the aim to standardize pertinent



Main Initiatives

Bio-oil in Zinc Oxide Furnace

Nexa is the pioneer in using renewable bio-oil for zinc oxide production.

This new biofuel emits no CO₂ and serves as a replacement for fossil fuels.

 We currently operate 3 zinc oxide furnaces, with plans to scale to 12 by the end of 2023.

In the subsequent 3 years, we anticipate all furnaces at Três Marias will run on bio-oil, aiming for a GHG emissions reduction of up 30% in this smelter.



Três Marias smelter, Brazil





Main Initiatives



- This initiative enables the partial substitution of diesel with hydrogen, marking a preliminary first step toward GHG reduction in both Nexa's and our suppliers' vehicles.
- We conducted tests with this technology in 2021 and 2022, and given the positive outcomes, we are transitioning to a longterm contract.



Main Initiatives



The goal is to substitute petroleum coke with a solid fuel derived from vegetable coal and bio-oil.

✓ Ongoing industrial testing in 2023.

The initiative, at the Juiz de Fora smelter, is projected to result in a CO₂ equivalent reduction of **25,000 tons** per year.





Mining that changes with the world

