[For immediate release]

Transition Asia Urges Nippon Steel to Embrace Sustainable EAF Steel Production Amidst Overseas Expansion

Ovako AB's success in low-carbon steel provides a blueprint for future endeavours including US Steel acquisition

- Transition Asia's latest report analysed Nippon Steel's overseas operations and recent investments and acquisitions that both expand total crude steel production and offer opportunities for green steel production.
- Ovako provides Nippon Steel with its lowest overseas carbon intensity of steel with an average of 0.09tCO_2/t whereas AM/NS India provides its highest at 2.23 tCO_2/t, albeit a reduction from 3.33 tCO_2/t in 2015.
- Nippon Steel's overseas assets have adopted different climate targets such as intensity targets and absolute emission reductions of varying ambition. Nippon Steel should seek to show good stewardship to its minority-owned assets by targeting the alignment of its climate targets across all of its majority- and minority-owned assets where these are currently falling short.

Tokyo/Hong Kong, 15 April 2024 - **Transition Asia ("TA")**, a non-profit think tank that focuses on driving 1.5°C-aligned corporate climate action, today published report providing a breakdown of Nippon Steel's overseas operations and recent investments and acquisitions that both expand total crude steel production and offer opportunities for green steel production.

Nippon Steel needs to improve climate stewardship consistency across all assets amid diverse ambitions in climate targets

Nippon Steel's overseas assets have adopted different climate targets such as intensity targets and absolute emission reductions of varying ambition, suggesting room for alignment across Nippon Steel Group where targets are less ambitious than Nippon Steel's domestic targets. Although Nippon Steel publicly states that its climate targets are extended to majority-owned assets, minority-owned assets, notably ArcelorMittal Nippon Steel India ("AM/NS India") where Nippon Steel owns 40% of the JV, are impeding Nippon Steel's ability to limit its global emissions. Nippon Steel should seek to show good stewardship to its minority-owned assets by targeting the alignment of its climate targets across all of its majority- and minority-owned assets where these are currently falling short. AM/NS India has set targets of 20% reduction in carbon intensity by 2030 from 2021 levels and net zero carbon emissions by 2050. Notably, there has already been a 33% reduction in carbon intensity since 2015, decreasing from 3.33 tCO_2/t in FY 2015 to 2.28 tCO_2/t in FY 2022.[1]

[1] *AM/NS India Climate Action Report 2024, https://www.amns.in/storage/Reports/AMNS-Climate-Action-Report-2024.pdf.*

However, despite intensity targets, the expansion of BF-BOF processes and production levels at the AM/NS India mill is expected to lead to a significant increase in emissions toward 2030.[2]

Sanyo Special Steel Manufacturing India Pvt. Ltd ("SSMI") has reduced its emissions by approximately 25% in special steel manufacturing processes, with a maximum potential reduction of 42.5kt-CO_2 per year through the use of renewable electricity.[3] Despite this, the company currently lacks explicit emissions targets. Meanwhile, Ovako AB has made substantial progress in emissions reduction, achieving a 58% decrease in CO_2e emissions from their operations since 2015. The company has further set targets to reduce CO_2e emissions by 80% by 2030 and 90% by 2040.[4] Nippon Steel's group targets should be extended to G Steel Public Company Limited and GJ Steel in Thailand; however, the entities have not made any notable progress toward reducing emissions, despite the availability of renewable electricity procurement instruments in Thailand.

Recent BF-BOF expansionism is cause for concern: The pending US Steel acquisition

Nippon Steel is demonstrating a concerning trend in expanding plants with BF-BOF technologies and acquiring BF-BOF-overweight companies, best demonstrated through its AM/NS India expansion and the pending US Steel acquisition.

US Steel currently owns some EAFs, with an annual production of 4.2mtpa; however, it also operates BFs with annual production of 18.2mtpa.[5] Where low carbon products have been developed by US steel, notably their VerdeX steel which utilises 90% scrap steel, questions remain on how Nippon Steel will decarbonise its BFs in the future while maintaining its decarbonisation targets. Should the acquisition fail, it would be a short-term hindrance; however, there are numerous well placed, less carbon intensive American steelmakers who are better positioned to produce future-proof, low carbon steel should Nippon Steel seek to continue its expansion into the US domestic market beyond the AM/NS Calvert site.

Furthermore, it's essential to highlight the disparity between Nippon Steel's ambitious targets and those of US Steel. If the transaction is approved, US Steel would fall under Nippon Steel as a subsidiary. While Nippon Steel aims for 30% absolute emission reductions by 2030 from 2010 levels and net zero by 2050, US Steel has set a less ambitious intensity target of only 20% reduction per tonne of steel by 2030 compared to 2018 levels.

[2] *"ArcelorMittal Nippon Steel India Commences Rs 60,000 Crore Expansion Project in Gujarat." AM/NS India , 28 Oct. 2022, https://www.amns.in/press-releases?press-release=arcelormittal-nippon-steel-india-commences-rs-60-000-crore-expansion-project-in-gujarat.*

[3] *Nippon Steel Integrated Report. Nippon Steel Corporation, www.nipponsteel.com/en/ir/library/pdf/nsc_en_ir_2023_a3.pdf*

[4] *"Towards a Carbon Neutral Industry." Ovako, https://www.ovako.com/en/sustainability/environment/standard-page/. Accessed 30 Mar. 2024.*

[5] TA Analysis, Global Energy Monitor (GEM)

Transition Asia's Recommendations

Nippon Steel stands at a critical juncture in its journey towards sustainable steel production as it expands its operations overseas.

Transition Asia recommends Nippon Steel to (1) ensure that all mergers, acquisitions, and direct investments involving the steel production process align with Nippon Steel's near-term absolute emission reduction targets, as well as achieving net zero by 2050; (2) collaborate with industry partners such as ArcelorMittal, which are essential for setting and developing decarbonisation targets for Nippon Steel's overseas assets; (3) actively leverage the expertise of its overseas companies with proven success in EAF technology to develop and implement similar facilities within Japan; (4) build on the experience gained from Ovako's hydrogen electrolyser. Nippon Steel should spearhead the development of infrastructure and supply chains for H2-HBI and downstream steel processing. By capitalising on Ovako's expertise, Nippon Steel can expedite the incorporation of hydrogen-based processes to establish low-carbon iron supply chains to charge into EAFs and transform downstream steel processing.

Lauren Huleatt, Programme Manager and Investor Lead at Transition Asia commented, "Steelmaking, which rivals coal-fired power plants in its negative environmental impact, has often been overlooked in discussions by investors as they review their portfolio decarbonisation plans. It is time for investors to demand concrete actions from steelmakers worldwide, both domestically and internationally, to adopt cleaner practices. By holding steel companies accountable and pushing for sustainable solutions, we can turn 1.5°C-aligned corporate climate action from a distant goal into a tangible reality. "

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Notes to Editor

About Transition Asia

Founded in 2021, Transition Asia is a non-profit think tank that focuses on driving 1.5°C-aligned corporate climate action in East Asia through in-depth sectoral and policy analysis, investor insights, and strategic engagement. Transition Asia works with corporate, finance, and policy stakeholders across the globe to achieve transformative change for a net-zero, resilient future. Visit transitionasia.org to learn more.

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