Transition Finance Case Studies: Scrap Steel

Background

In 2023, Standard Chartered provided a $25 million transition trade finance facility to a prominent Asian steel company to support their ongoing procurement of scrap steel as part of their scrap-based electric arc furnace (EAF) production. Since its establishment in 2016, the client has been producing steel using 95-100% scrap as raw material and using EAFs in its production facilities. Compared to traditional blast furnaces, using EAFs to refine the steel enables the steel scrap to be constantly reprocessed, thereby consuming less energy, and reducing CO_2 emissions by an estimated 75%.

This credit extension is part of Standard Chartered's commitment to help raise sustainable financing in Southeast Asia (SEA) and support the client's broader climate ambitions. Standard Chartered strives to be a key contributor to the sustainable development of Vietnam and continues to work closely with its clients and ecosystem of stakeholders to provide finance to where it matters most.

How It Was Financed

Company	Asian steel company
Location	Vietnam
Timeframe	2023 – ongoing
Deal Size	$25 million
Financing Structure	Working capital facility
Use of Proceeds	Scrap steel procurement

Climate Credibility and Equity Considerations

At Standard Chartered, assets and activities which qualify for labeling as 'Transition' will:

- Be compatible with a 1.5 °C-degree trajectory, established by science; and,
- Not hamper the development and deployment of low-carbon alternatives or lead to a lock-in of carbon-intensive assets, and,
- Meet the minimum safeguards as defined in Standard Chartered's Environmental and Social Risk Management (ESRM) Framework

Since its establishment in Vietnam in 2016, the client has been producing steel using 95-100% scrap as raw material and using EAFs in its production facilities. The client recognizes the environmental impact of steel manufacturing activities and has implemented a transition strategy, which includes using 100% EAF and over 90% scrap steel as a primary raw material. The company has been disclosing emissions since 2003, and has a net-zero target for 2050, along with interim 2030 decarbonization targets.

Efforts in the iron and steel sector must accelerate substantially if the world is to meet the goals outlined in the Paris Agreement. The emissions reduction potential of conventional steelmaking is limited, and innovation in the near term will be critical for the steel sector to move the dial on near-zero emission steel production. However, in the short term, scrap steelmaking is a powerful lever for decarbonization within the steel sector. Scrap-EAF steelmaking is already used in many countries, although rates differ widely across the globe. Secondary steelmaking via scrap could be expanded in many nations, helping to decarbonize the steel sector as scrap-EAF's emissions are lower than the conventional steelmaking routes.

The client's transition strategy and broader commitment to environmentally friendly methods of steel production enabled this transaction to be labeled as 'Transition'. The client intends to continue decarbonizing to meet its 2030 target primarily by increasing its use of renewable energy and modifying its EAFs to improve efficiency. In the longer term, additional decarbonization levers include techniques such as using carbon capture, use, and storage (CCUS), using low-carbon fuels, and implementing process improvements and energy efficiency measures. The client is also investing in research and development (R&D) of hydrogen use in the iron and steel industry, although it has not committed to the future use of green hydrogen in its production processes.

All transactions labelled as 'Transition' must also align with Standard Chartered's position statements and minimum safeguards as defined in the ESRM Framework mentioned above. For clients operating in sensitive sectors where environmental and social risks are heightened, Standard Chartered has established sector-specific position statements to manage sector-specific risks, drawing on industry standards and best practices, that are applied in addition to the bank's cross-sector criteria. Clients in these sensitive sectors must meet both cross-sector and applicable sector-specific threshold criteria. Standard Chartered's position statement for chemicals and manufacturing (which includes iron and steel manufacturing) can be found on the bank's website.

Governance

Standard Chartered has robust governance processes to ensure that the transition finance labeling process follows the three gating criteria put forward by the bank's Transition Finance Framework.

The transition finance labeling sub-committee manages the process for labeling deals as 'Transition' as per the bank's Transition Finance Framework. It is a delegate sub-committee of the Sustainable Finance Governance Committee (SFGC), the bank's foremost committee on managing greenwashing risk in sustainable finance product design and labeling. All deals must be presented to the transition finance sub-committee to be labeled as 'Transition Finance'.

The transition finance sub-committee consists of the following representatives:

- Chief Sustainability Office - Chair
- Global Head, ESRM
- Head of Sustainable Finance Solutions
- Executive Director, Reputational and Sustainability Risk
- Executive Director, Climate Risk Management

Challenges

- **Need for internal upskilling**: Upskilling internal partners on the critical role of scrap steel and EAF in the overall decarbonization journey of the steel sector and emphasizing the lack of alternatives for the industry was a key focus of this transition finance transaction.

  Decarbonizing the steel industry to contribute to meeting the Paris Agreement's objectives is challenging. Recently, the focus has been on using green hydrogen to produce direct reduced iron (DRI) to decarbonize steel production, which is currently highly reliant on energy- and carbon-intensive blast furnace and basic oxygen furnace (BF-BOF) technology. However, cost-competitive green hydrogen to use at scale is still years away. Scrap-EAF steelmaking, on the other hand, is already cost-competitive with BF-BOF processes and is used in many countries. Secondary steelmaking via scrap could be expanded in many nations, helping to decarbonize the steel sector, as scrap-EAF's emissions are lower than primary BF-BOF steelmaking.

- **Contribution to additional decarbonization:** While the financing supported the client's continued scrap steel procurement, an important lever for steel sector decarbonization, the client was already procuring 95-100% scrap for its production. As a result, the financing did not encourage further decarbonization than the client had already achieved, nor does it address the high emissions associated with primary steel production — the more challenging aspect of global steel sector decarbonization.

Key Success Factors

- **Urgent need for the steel sector to decarbonize**: The iron and steel sector is the single largest source of industrial process heat, accounting for around 7% of global emissions. With demand forecast to increase by more than a third by 2050, the industry must halve emissions by 2050 if the world is to meet the goals outlined in the Paris Agreement. Improving process efficiency and increasing steel recycling are the most viable near-term steps toward decarbonization. Standard Chartered has set an interim 2030 decarbonization target for its steel portfolio, aiming for a 22-32% decrease in portfolio emissions intensity compared to a 2021 baseline, or 1.4–1.6 tCO_2 / metric ton of steel. This transaction was aligned with near-term decarbonization levers available to the steel sector, such as scrap steel and electric arc furnace use.

- **Market leading for the region**: This was one of the first transition trade finance facilities in the region, underscoring Standard Chartered's strong commitment to sustainable development in Vietnam and the broader region. With this transaction demonstrating the feasibility of this type of financing, additional financing opportunities could create a supportive environment for near-term steel industry decarbonization.

Outcomes

By employing electric furnaces over traditional blast ones, the client has significantly reduced its energy consumption and estimates it has seen a 75% reduction in CO_2 emissions. EAFs are an important transition step in the near-term steel sector decarbonization trajectory until technologies that will further lower emissions, such as green hydrogen, become economic and scalable. This transaction demonstrates the feasibility of transition trade finance in the steel

sector, particularly for a client currently using lower-emissions steelmaking methods with a published transition plan and demonstrated steps towards further decarbonization.

To encourage additional decarbonization of the steel sector, future trade finance transactions may consider targeting the transition of higher-emitting clients with low levels of scrap steel use and/or who are reliant on blast furnaces. Introducing covenants or requirements to the financing for further emissions reductions via, for example, improving production efficiencies, switching from blast to electric arc furnaces, or increasing scrap use could encourage greater decarbonization ambition and progress from clients.