Türkiye's carbon market could raise up to 1.5 billion euros a year for the country's steel transition

Press release

A well-designed emissions trading system can become a driver of modernisation for the Turkish steel industry. Reinvested in the sector, carbon pricing revenues can finance its transformation, create thousands of jobs and cut over 90 percent of steel sector emissions by 2050.

Berlin and Istanbul, 3 November 2026. Carbon pricing policies could generate up to 1.5 billion euros a year for Türkiye, matching the estimated annual investment needs of the country's steel sector over the next 20 years, according to a new study by Agora Industry, the Istanbul Policy Center (IPC) and the Sustainable Energy and Finance Association (SEFiA). Reinvesting these revenues in near-zero-emission technologies, combined with greater use of domestic scrap could help the world's seventh-largest steel producer create jobs, drive innovation and secure its position on the global market.

Published ahead of COP31 in Antalya in early November, the study highlights the need to strike the right balance between domestic production and imports of near-zero-emission iron. Expanding domestic primary steelmaking capacity would keep value creation in Türkiye, allow the sector to produce more of the higher-grade flat steel it currently imports and reduce supply risks. Targeted imports, in turn, would broaden the range of secondary steel products.

"Decisive investment in clean production can give Türkiye's steel success story a new foundation. As global overcapacity and tightening scrap markets reshape the sector, companies that invest early stand to gain a stronger market position, more reliable supply chains and a future-proof business model. Clear policy signals and targeted support can help Türkiye seize these opportunities while balancing cost efficiency with supply resilience," says Dr Julia Metz, Director of Agora Industry.

Carbon price as the key driver of transformation

The study models three scenarios up to 2050. In a business-as-usual scenario, current policies remain in place and coal-based production continues to dominate. The moderate and accelerated scenarios assume increasing policy support and investment in near-zero-emission technologies.

At around 100 euros per tonne of carbon dioxide, steel made from domestic gas-based iron reaches cost parity with coal-based steel, the study finds. Hydrogen-based steel follows at around 140 euros per tonne of carbon dioxide, a level Türkiye could reach in the late 2030s, if its carbon price tracks the EU Emissions Trading System (EU ETS) which covers industry and power. This price signal gives companies a clear incentive to invest in domestic near-zero-emission iron production. Those who invest early can capture growing demand for low-emission steel, secure long-term supply contracts and shield their exports from EU carbon border measures. Furthermore, up to 29,000 jobs could be created across the solar photovoltaic, wind, electrolyser and hydrogen-based ironmaking value chains.

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A weaker carbon price would shift much of this value abroad. In the moderate scenario, the price does not exceed 50 euros per tonne of carbon dioxide until the early 2030s. From then on, imported gas-based iron from the Middle East and North Africa becomes cheaper than domestic coal-based iron. Coal is still phased out, but imports largely fill the gap. This route is cheaper in the short term but makes Türkiye considerably more import-dependent and forgoes much of the value creation and employment potential of the accelerated pathway.

"A credible carbon price sends a clear signal that clean steel pays off and rewards the cleanest producers. Türkiye's emissions trading system, now in its pilot phase, is an important step in that direction. With its strong base in electric arc furnace steelmaking, Türkiye is well placed to seize this opportunity, becoming a frontrunner in clean steel and avoiding fossil lock-in effects," underlines Dursun Baş, Industrial Decarbonisation Lead, IPC.

Early decarbonisation delivers deepest the emissions cuts

The steel sector accounts for around 40 percent of Türkiye's industrial emissions, making it central to the country's goal of climate neutrality by 2053.

The accelerated pathway cuts the sector's emissions by more than 90 percent between 2025 and 2050, significantly more than the moderate pathway. Remaining emissions can be addressed with levers that are already available: biochar in electric arc furnaces, fully renewable electricity via the grid or power purchase agreements and, for the very last share, high-quality carbon removal such as bioenergy or direct air capture combined with carbon capture and storage.

Building on carbon pricing with targeted support measures

According to the authors, a domestic emissions trading system and a carbon border adjustment mechanism form the backbone of an effective framework. Such a framework would also keep carbon revenues in the country. Because the EU's Carbon Border Adjustment Mechanism (CBAM) deducts the equivalent of carbon revenues already paid at home, a Turkish ETS price equivalent to the EU ETS would redirect around 1.5 billion euros a year from steel exports to the Turkish state instead of the EU. Channelled into a dedicated green steel fund, these revenues could support the sector's transformation.

Carbon contracts for difference and concessional finance can complement carbon pricing by reducing investment risks and lowering the cost of capital, while green public procurement, quotas and long-term offtake agreements can create stable demand for near-zero-emission steel. International trade agreements can further support the market for clean steel. The focus should be on modernising the European Coal and Steel Community–Türkiye Free Trade Agreement, which governs steel trade with the EU, Türkiye's key export market.

"With the recent adoption of its ETS legislation and Green Taxonomy Regulation, Türkiye is taking its industrial transformation into its own hands. Backed by further targeted measures, these instruments can give investors the predictability they need. The question is no longer whether Türkiye's steel industry transforms, but how quickly and with which technologies," underlines Bengisu Özenç, Director SEFiA.

The 60-page study "Transforming Türkiye's steel industry: a roadmap to net zero by 2053", written by Agora Industry together with IPC and SEFiA, is available for free download at www.agora-industry.org.

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About Agora Industry:

Agora Industry develops scientifically sound and politically feasible strategies for successful pathways to a climate-neutral industry – in Germany, Europe and internationally. The organisation which is part of the Agora Think Tanks works independently of economic and partisan interests. Its only commitment is to climate action.

About Istanbul Policy Center (IPC):

IPC is a global policy research institution that specialises in key social and political issues ranging from democratisation to climate change, transatlantic relations to conflict resolution and mediation. Since 2001, IPC has provided decision makers, opinion leaders and other major stakeholders with objective analyses and innovative policy recommendations.

About Sustainable Energy and Finance Association (SEFiA)

SEFiA is a research-oriented environmental NGO based in Ankara, Türkiye. It focuses on energy transition, climate change and low-carbon development discussions from the lens of economics and financial analysis. SEFiA works closely with other environmental NGOs, addressing shared research needs through academic integrity. While its main research domain is Türkiye, SEFiA also seeks opportunities to build alliances with international peers.

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