



2022

Task Force on
Climate-related Financial
Disclosures Report



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About this report

Sidenor Steel Industry S.A., Stomana Industry S.A. and their subsidiaries (hereafter “the companies”) are leading producers of steel products and the largest steel recyclers in Southeastern Europe. The companies hold a distinguished position in the industry. Renowned for their wide range of steel products, including long, flat, and downstream offerings, the company operates across five state-of-the-art facilities situated in Greece, Bulgaria, and the Republic of North Macedonia. These manufacturing sites enable them to meet diverse market demands and solidify its presence as a key player in the steel industry within the region.

The companies offer a varied selection of steel products within their portfolio. Each company has earned a reputation for delivering products of outstanding quality, providing excellent customer service, and showcasing innovative features. Sovel and Stomana Industry, in particular, have obtained Environmental Product Declaration (EPD) certifications, which underscore their dedication to sustainable practices and managing their environmental footprint. The companies are widely recognized for their manufacturing proficiency, flexibility, extensive distribution network, and the exceptional services provided by their representatives, ensuring top-notch quality across all operations.

The companies offer a diverse range of solutions within the steel industry to meet the requirements of their clients in Greece and beyond. Their products play a vital role in significant technical and construction projects, both domestically and internationally. Steel products serve as essential components in various applications, encompassing building and infrastructure, engineering and mechanical applications, shipbuilding, automotive, rail, mining, and the energy sector.

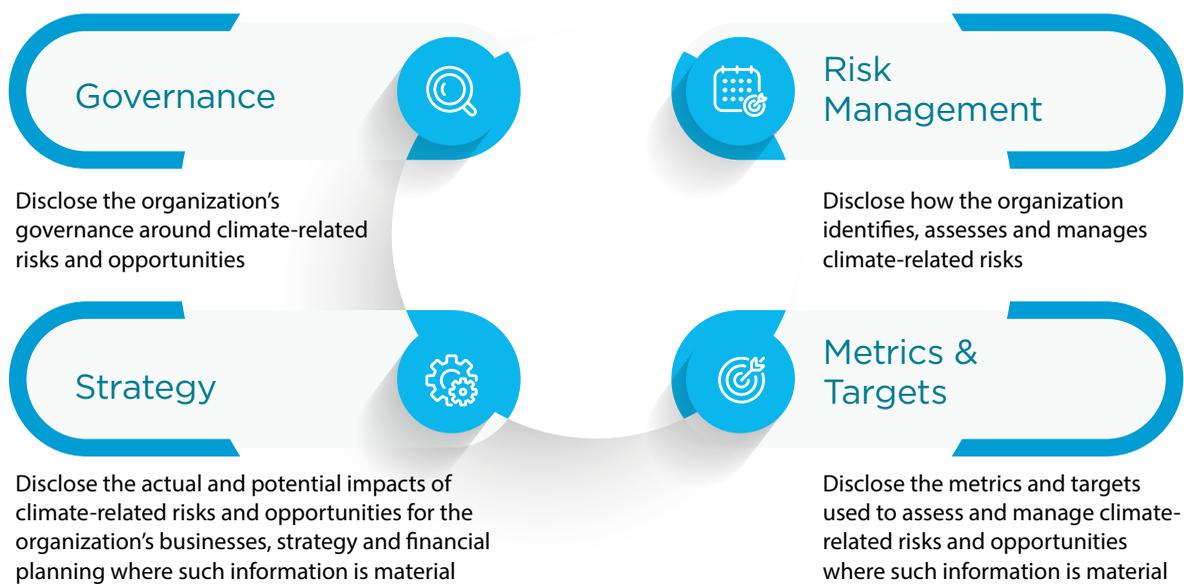
The companies manage a total of five (5) production units, sixteen (16) distribution centers, and three (3) ports, ensuring comprehensive coverage across all stages of production, processing, and distribution. They hold a substantial market presence in Europe and maintain a strong sales foothold in North African, North American, and Asia-Pacific markets. The companies consistently pursue advancements by enhancing their processes and expanding their product range. The primary objective is to meet customer demands, stay adaptable to emerging trends, and maintain a sustainable competitive edge in the long run.



TCFD implementation

As part of their commitment to transparency and responsible management, the companies have undertaken an assessment of their climate-related risks and opportunities, aligning with the guidance provided by the Task Force on Climate-related Financial Disclosures (TCFD). This report marks an introductory TCFD disclosure, outlining companies' strategic approach to managing climate-related risks and seizing opportunities in the context of the transition to a low-carbon economy. The report highlights the potential financial implications of climate-related risks on their business and presents the metrics companies employ to monitor their progress towards climate-related goals.

By sharing this report, the companies' objective is to offer stakeholders a transparent and comprehensive understanding of their climate-related risks and opportunities, as well as the steps they are taking to address them. The companies recognize the significance of climate-related financial disclosures in fostering trust among investors, customers, and other stakeholders. The report encompasses disclosures related to all their operations and business units, encompassing the four core elements of TCFD recommendations, as illustrated in the table below. Through this disclosure, the companies affirm their commitment to responsible and sustainable practices that align with global best practices.



The companies remain committed to addressing the challenges of climate change and transitioning to a more sustainable future and believe that this TCFD report represents a significant step towards achieving these goals.

Reporting on Other Sustainability-Related Topics

While the focal point of this Report lies in addressing climate-related risks and opportunities, it is essential to acknowledge that the companies have also provided comprehensive disclosures on their sustainability practices, which encompass various areas including environmental, social, and governance topics. A detailed account of these additional aspects can be found in the dedicated [2022 Sustainability Report](#). By expanding the scope beyond climate-related matters, the companies aim to offer stakeholders a holistic view of their sustainability efforts, demonstrating their commitment to responsible practices and its broader impact on environmental and social dimensions.

Governance

The companies acknowledge the current absence of a dedicated governance structure focused on climate-related topics. We are fully committed to establishing a robust governance framework that prioritizes climate matters and aligns with industry best practices and emerging global standards, including the recommendations of TCFD. As part of their approach to climate risk management, the companies actively evaluate and determine the most suitable measures to establish an effective governance structure. This entails exploring options such as forming an internal dedicated committee to integrate climate considerations into existing governance frameworks.

The companies' primary objective is to establish a robust governance structure that enables them to systematically address climate-related risks and opportunities, enhance their decision-making processes, and strengthen their resilience in the face of a rapidly evolving climate landscape.

The companies are committed to providing updates on their progress in subsequent TCFD reports, thereby demonstrating their unwavering commitment to advancing climate governance within the organization and ensuring transparency in their actions.

Strategy

The companies incorporate climate-related trends, as well as the associated risks and opportunities, into their strategic outlook and planning for climate-related matters. By conducting thorough analysis, they have identified the most substantial climate-related risks and opportunities that could potentially have material financial implications for the business. These risks and opportunities, outlined in the tables provided below, play a critical role in shaping companies' strategy, financial planning, and operational decisions. Through this comprehensive understanding, the companies can proactively respond to climate challenges, optimize financial performance, and effectively capitalize on sustainable opportunities.

Steel segment companies

Climate-related risks					
Type	Category	Title	Description	Time horizon	Impact and management
Transition	Technology	Increase in energy prices due to climate change policies	Higher production cost due to the increase of the electricity price resulting from increased RES contribution, cost of energy storage and higher cost of carbon allowances.	Short/medium-term (0-10 years)	Energy prices are increasingly volatile, both from the increased volume of RES entering the system, cost of storing energy and from initiatives to reduce CO ₂ emissions through market mechanisms such as cap-and-trade schemes and other regulatory initiatives. Long term green PPAs have the potential to ensure long term stable prices for low carbon energy but other factors need to be addressed in order to ascertain 24-hr availability of electricity at predictable prices. Improving energy footprint is another way to mitigate the risk of increased energy prices and this can be achieved through energy efficiency investments.
Transition	Policy and Legal	Carbon taxes (CBAM)	Potential for lack of competitiveness due to circumvention of taxes by importers.	Short/medium-term (0-10 years)	The companies are monitoring the implementation of CBAM rules and how these may affect trade intensities and competitiveness with third country producers. These risks may be mitigated through close collaboration with trade associations and EU authorities in an effort to point out necessary adjustments to ensure a level-playing field.
Transition	Policy and Legal	Effect of ETS	Gradual increase of shortage regarding EU Allowances in 2026.	Short/medium-term (0-10 years)	Free EU Allowances will be decreased gradually starting in 2026. Indirectly, the cost of thermal energy will increase as the consumption of natural gas causes carbon emissions. For steel products, this directly affects the production process. Energy efficiency measures will be further explored in order to mitigate this effect.
Physical	Acute	Adverse weather events	Adverse weather events (such as extreme low/high temperature, flooding due to heavy rainfall, heavy snowfall) may lead to significant disruptions in the production process, supply chain and transportation routes, and customer deliveries.	Long-term (10+ years)	Risks related to increased severity of extreme weather events that may impact the company's activities and key customers/suppliers. The companies continue to implement a loss prevention program at all production plants, which seeks to foresee and mitigate material losses and stoppages, such as by monitoring changes in the weather.

Climate-related risks					
Type	Category	Title	Description	Time horizon	Impact and management
Physical	Chronic	Water availability	Increased electricity consumption for full recycling of water will increase cost. Shortage of water may hinder the company's production activities resulting from the changes in precipitation patterns in the long run due to climate change and warmer temperatures.	Long-term (10+ years)	Water is an essential element of steel's production process, and its availability is important to the companies' business continuity. Water related risks are associated with the availability of adequate water in both quantity and quality. Water supply-related risks are considered from a financial and environmental perspective. The companies aim to mitigate water management risk and improve their water footprint by continuously monitoring water usage and try to optimize their consumption by eliminating losses and reusing water wherever possible.

Climate-related opportunities			
Type	Description	Time horizon	Impact and management
Energy source	Leverage energy price fluctuations in prices from RES	Medium-term (5-10 years)	The steel segment has an increased flexibility in intermittent operation making it suitable for the intermittent production of RES. As such the companies can take advantage of the price fluctuations that arise from wider renewables deployment and operate during more favorable hours.

This analysis serves as the foundation for assessing the resilience of the companies' strategy, considering various climate-related scenarios, including a 2°C or lower scenario. The companies acknowledge the importance of reviewing a wide range of external factors in order to gain further insights into the potential effects of different climate scenarios while maintaining consistent financial metrics.

To evaluate the impact of climate risks on the companies' assets and operations, climate risks have been assessed under two distinct climate scenarios across multiple time horizons. Additional information regarding these scenarios is provided in the table below.

	Scenario 1	Scenario 2
	Moderate climate change scenario	High climate change scenario
Scenario	RCP 4.5 / SSP2-4.5	RCP 8.5 / SSP5-8.5
GHG emissions	<p>Intermediate GHG emissions. GHG emissions gradually decline after peaking in 2030-2050, then falling but not reaching net zero by 2100.</p>	<p>Very high GHG emissions. GHG emissions continue to grow up through 2100. CO₂ emissions triple by 2075 compared with 2020.</p>
Policy reaction	<p>Transition risks are relatively high.</p> <ul style="list-style-type: none"> • Governments will meet their current commitments to reduce climate impact. • Economic development goals are achieved despite a slowdown in the growth of resource consumption and energy consumption. • Climate policy is likely to boost the demand considerably for metals by 22%. 	<ul style="list-style-type: none"> • Transition risks are relatively low. Only currently implemented policies are preserved, leading to high physical risks. • The global development patterns remain unchanged. • Some countries introduce decarbonization measures, but this is not sufficient to reduce the resource and energy intensity of the global economy. • Climate policy regulations are weak and insufficient to combat climate change and its adverse impacts.
Energy & Resources	<p>Moderately intensive use of resources and energy.</p> <ul style="list-style-type: none"> • Global oil consumption would peak by 2030-2035, gas consumption would continue growing through 2022-2050 and coal consumption would continue to decline without recovery. • The price of electricity will be in the middle range due to the use of various sources of energy production. • The resource intensity and energy intensity of the global economy declines as a result of decarbonization measures taken by developed countries and subsequent similar actions introduced by developing countries with a delay of several decades. • All metals face strong growth in annual demand, regardless of the scenario, mostly as a result of population and GDP growth. 	<p>Intensive use of resources and energy.</p> <ul style="list-style-type: none"> • Usage of fossil energy sources will increase. • Electricity prices will be lower compared to other scenarios. • Economic development is achieved through intensive growth, which entails increased consumption of materials and energy and exploitation of natural resources. • All metals face a strong growth in annual demand, regardless of the scenario, mostly as a result of population and GDP growth.
Sea level rise	<p>A significant decrease in anthropogenic GHG emissions leads to moderate physical impacts of climate change. Average global sea-level rise will reach 0.44-0.76 m by 2100.</p>	<p>The increase in GHG concentrations leads to significant physical impacts of climate change. Average global sea-level rise will reach 0.63-1.01 m by 2100.</p>
Relevant forecasts and scenarios used	<ul style="list-style-type: none"> • <u>IPCC AR5 Representative Concentration Pathway (RCP) 4.5</u> • <u>Shared Socioeconomic Pathway 2 (SSP 2)</u> • <u>NGFS Nationally Determined Contributions (NDCs)</u> 	<ul style="list-style-type: none"> • <u>IPCC AR5 Representative Concentration Pathway (RCP) 8.5</u> • <u>Shared Socioeconomic Pathway 5 (SSP 5)</u> • <u>NGFS Current Policies</u>

In the table below, the evaluation of risks and their potential impact on financial performance, based on the climate scenario analysis performed for the transition and the physical risks per segment, is presented.

Climate impact legend

High ● | Medium ● | Low ●

Steel segment companies

Type	Category	Title	RCP 4.5 / SSP2-4.5		RCP 8.5 / SSP5-8.5	
			2030	2050	2030	2050
Transition	Market	Increase in energy prices due to climate change policies	●	●	●	●
Transition	Policy and Legal	Carbon taxes (CBAM)	●	●	●	●
Transition	Policy and Legal	Effect of ETS	●	●	●	●
Physical	Acute	Adverse weather events (flooding due to heavy rainfall)	●	●	●	●
		Adverse weather events (heatwave)	●	●	●	●
Physical	Chronic	Water availability	●	●	●	●

In this analysis they are presented the results of the multiple climate scenarios aimed at assessing the climate-related risks identified for the companies. The potential impacts have been classified through 3 climate impact areas, namely high, medium, and low, in an effort to shed light on the potential consequences of climate change. It is important to note that these scenarios are based on current understanding and projections, and while they provide valuable insights, uncertainties in predicting the exact impacts still exist.

Based on the results of the analysis, increase in energy prices due to climate change policies, the effect of ETS and water availability risks appear to have the most financial impacts. More specifically, the increase in energy prices due to climate change policies risk is anticipated to have high financial impacts in the short-term, medium-term, and long-term in the RCP 4.5 scenario, as the companies are energy-intensive and especially electro-intensive, and potential increase particularly of the electricity price, would result to higher production costs.

Moreover, ETS related costs are anticipated to have high financial impacts in all timeframes up to 2050 only for the RCP 4.5 climate scenario, as free EU Allowances will be gradually decreased and this would directly affect the operational cost, while the relative impacts under scenario RCP 8.5 are considered low.

Water availability appears to pose medium and high impacts in both climate scenarios since the companies are relatively water-intensive and potential problems in water supply could affect the business continuity and consequently their financial performance.

For all the other climate-related risks identified, the analysis concluded that the impact under both scenarios and all timeframes is quite low.

Risk Management

The management team of the Company reports on business risks and challenges to the Company's Executive Management on a regular basis; they provide the Board and the Audit Committee with a detailed business review which analyses risks and challenges. Among other managed risks, each subsidiary identifies, assesses and manages climate related risks and opportunities across its operations and ensures alignment with TCFD recommendations and industry best practices.

Metrics & Targets

The companies are fully dedicated to transparently disclosing their advancements in managing climate-related risks and capitalizing on sustainable opportunities. To ensure transparency and accountability, they have established a comprehensive set of metrics and targets that align with the recommendations of TCFD. These metrics and targets serve as crucial tools for tracking performance in key areas, including greenhouse gas emissions and energy consumption. By consistently measuring and reporting on these indicators, the companies aim to showcase their progress in achieving their sustainability objectives and actively contribute to global efforts in combating climate change. Regular monitoring of the companies' performance against these metrics allows them to identify areas for improvement, implement targeted actions, and align their operations with emerging industry standards and best practices.

The companies' commitment extends to refining their metrics and targets as necessary, ensuring that the relative reporting on climate-related performance remains meaningful and transparent. Through these efforts, they strive to demonstrate their commitment to sustainable practices, foster stakeholder trust, and drive positive change in addressing climate-related challenges.

Steel segment companies

Impact area	Unit	Indicator	2020	2021	2022
Energy	MWh	Thermal energy consumption	535,918	614,146	630,469
Energy	MWh	Electricity consumption	1,116,441	1,239,117	1,251,306
Energy	kg	LPG	11,645	9,783	9,769
Energy	MWh	LPG	153	129	128
Energy	lt	Diesel	1,186,804	1,148,940	1,238,252
Energy	MWh	Diesel	11,908	11,528	12,424
Energy	tn	Heavy Oil	2,540	1,896	0
Energy	MWh	Heavy Oil	28,504	21,277	0
Energy	MWh	Natural gas	495,353	581,213	617,917
Water withdrawal	m ³	Water withdrawal	2,782.119	2,791.565	2,484.137
Carbon emissions	tCO ₂ e	Direct (Scope 1) GHG emissions	176,038	199,877	201,761
Carbon emissions	tCO ₂ e	Indirect (Scope 2) GHG emissions	502,236	535,538	685,008
Carbon emissions intensity	tCO ₂ e/tons of product	Direct (Scope 1) GHG emissions intensity	0.128	0.130	0.126
Carbon emissions intensity	tCO ₂ e/tons of product	Indirect (Scope 2) GHG emissions intensity	0.365	0.349	0.412

