Report on the European Union Law Vulnerabilities of the Japanese Green Steel Standard and the JISF Mass-Balance Approach

EXECUTIVE SUMMARY

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The analysis and conclusions in this report remain those of the authors.

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EXECUTIVE SUMMARY

KEY FINDINGS

Why Japan's Green Steel Certificates Have Little Value Under the Main EU Climate Rules

01

CARBON CHARGE AT THE BORDER

The certificates give no relief at the EU border. Certified blast-furnace steel is charged on the emissions actually produced in making it.

02

BUYER'S EMISSIONS REPORTING

A buyer cannot count the certificates as a cut in the emissions it reports for the steel it buys.

03

BUYER'S CONSUMER-CLAIM RISK

A buyer that advertises products made with the steel as "low-carbon" takes on the legal risk under EU consumer law.

PRACTICAL RESULT

An EU buyer has little legal or financial reason to pay a "green" premium for steel certified under the Japanese scheme.

1. **The "green" label has little value under EU climate rules.** Japan's largest steelmakers sell part of their output as "green" on the strength of certificates. The steel itself is made in the same coal-fired blast furnaces as the rest. EU rules on the carbon border charge and on company emissions reporting count the emissions actually produced in making a product, so the certificates do not reduce the emissions counted under those rules.

2. **EU importers pay the full carbon charge for certified steel**, exactly like ordinary blast-furnace steel. Under the EU's carbon border charge (CBAM), the certificate provides no reduction in liability calculated on the steel's verified embedded emissions. A proposed extension from 2028 would cover products containing steel, such as car parts and machinery. The European Commission

estimates that approximately €2 billion in imports from Japan would be brought within scope.

3. **EU buyers cannot report a product-specific reduction.** The accounting standard used in EU company climate reports (the Greenhouse Gas Protocol) does not let a buyer use certificates of this kind to reduce the supply-chain emissions it reports. The Science Based Targets initiative's 2026 standard does not treat them as a cut in the emissions of a specific product either.

4. **Consumer claims based on the certificates are at risk**. Since 27 September 2026, new EU consumer-protection rules have substantially increased the risk of climate claims based on offsetting or credit allocation. This affects mainly companies, such as car makers, that advertise products made with the steel to EU consumers.

5. **The risk falls mainly on European buyers.** Those customers have no legal or financial reason to pay more for certified steel.

WHAT THE REPORT COVERS

6. **The report examines how the "green steel" sold by Japan's three integrated steelmakers** – Nippon Steel, JFE Steel and Kobe Steel – is treated under European Union law. It maps legal risks. It does not bring or recommend any legal action, and it does not cover Japanese domestic law.

HOW THE CERTIFICATES WORK

7. Most steel made by the three companies comes from blast furnaces fuelled by coal. On the companies' own figures, this produces about 2 tonnes of carbon dioxide for every tonne of steel. Steel made from scrap in electric furnaces, the main lower-emission method, produces far less.

8. When one of the companies reduces its emissions somewhere in its operations – for example, by using more scrap iron in a furnace – an independent body verifies the reduction and it is recorded as a certificate. The company then assigns

those certificates to a small share of its steel, which it sells as "green" or "GX" steel under brand names such as NSCarbolex Neutral (Nippon Steel), JGreeX (JFE) and Kobenable Steel (Kobe Steel). The industry calls this "mass balance," but the method works in substance as "book and claim."

9. The certified steel comes out of the same furnaces as the rest, and the companies state that its quality and function are unchanged. What differs is the accounting. The certified volumes are small: JFE's supply of certified steel is under 1% of its output.

10. The Japanese government supports the scheme. Government buyers are told to prefer certified steel when they buy goods made of steel, and public subsidies fund the projects that generate the reductions.

WHY EU LAW IS A PROBLEM FOR THE SCHEME

11. EU climate rules measure the emissions actually produced in making a particular product, at a particular plant, and require that figure to be checked. A certificate that moves a reduction from one part of a company to a different product does not change the emissions of that product. For that reason, the certificates do not reduce CBAM liability or establish a product-specific reduction in the buyer's reported emissions inventory, and consumer-facing claims based on them may face legal challenge. The problem arises under several laws at once, each applying to different companies and on a different timetable.

THE EU CARBON BORDER CHARGE (CBAM)

12. Since 1 January 2026, EU companies importing steel must buy certificates covering the carbon emitted in producing it, at a price linked to the EU's own carbon market. The charge is based on emissions measured at the producing plant and checked by independent verifiers. The rules contain no mechanism for taking the Japanese certificates into account. Certified steel is therefore charged as ordinary blast-furnace steel, and an EU importer paying the full charge gains nothing from the "green" label.

13. Proposals published by the European Commission in December 2025 would go further. One targets practices that attach low-carbon claims to goods sent to the EU while higher-emission goods are sold elsewhere, which the Commission calls "resource shuffling." Another would extend the charge from 2028 to about 180 products that contain steel or aluminium, including vehicle parts and machinery. The Commission estimates that about €2 billion of imports from Japan would be covered. EU governments and the European Parliament have each backed a wider list – about 200 and about 457 product lines respectively – and are now negotiating the final text.

COMPANY CLIMATE REPORTING (CSRD)

14. Large companies operating in the EU must publish audited reports on their climate impact under the Corporate Sustainability Reporting Directive (CSRD). The accounting standards those reports rely on – the Greenhouse Gas Protocol and the Science Based Targets initiative (SBTi) – do not allow a buyer to count certificates of this kind as a reduction in its own emissions. The SBTi's 2026 standard also rules out assigning reductions pooled across a company to a chosen part of its output, which is what the Japanese method does. A European car maker that buys certified steel therefore cannot rely on the certificate to establish a lower product-specific Scope 3 inventory figure, and would risk misstating its reported inventory if it did.

15. Nippon Steel owns two companies in the EU that appear large enough to report in their own right: U. S. Steel Košice in Slovakia (to be renamed Nippon Steel Slovakia) and Ovako in Sweden. On the reported figures, reporting could begin with financial year 2027 and publication in 2028. Group-level reporting may follow from around 2029, subject to the conditions of the third-country undertaking regime. JFE and Kobe Steel have no steelmaking companies in the EU; they are affected through the reports of their European customers.

CONSUMER PROTECTION (EmpCo)

16. Since 27 September 2026, an EU directive known as EmpCo has banned claims that a product has a neutral, reduced or positive effect on the climate where the

claim relies on offsetting. EU law also prohibits misleading claims about a product's characteristics more generally. In 2024 Germany's highest civil court held, in a case about a confectionery maker (Katjes), that cutting emissions and offsetting them are not the same thing, and that any explanation of a "climate-neutral" claim must appear in the advertisement itself. The certificate does not demonstrate that the particular steel was produced through a physically lower-emission process, so a claim that it is low-carbon is open to challenge on both grounds.

17. These rules apply to claims made to consumers, and steel is sold to companies. The risk arises when a company that uses the steel, such as a car maker, advertises its own product to EU consumers as low-carbon because of the certified steel. The Japanese scheme anticipates exactly this use: its guidelines explain how customers can use the certificates to claim a lower carbon footprint or carbon neutrality. In Japan, certified steel is already used in drinks cans, garden sheds, office furniture and cars, including the new Nissan Leaf. Leafs sold in Europe are built at Nissan's plant in Sunderland, in the United Kingdom, and whether they contain certified steel has not been established.

18. In Germany, competitors and consumer associations can go to court directly, without waiting for a regulator. For widespread breaches across several EU countries, fines must be available of at least 4% of the company's annual turnover.

INTERNATIONAL LAW AND TRADE LAW

19. In July 2025 the International Court of Justice advised that States must take due care to regulate the emissions of private companies, and that subsidising fossil fuels can breach their obligations. Japan argued for a narrower reading; the Court did not accept it. The advisory opinion gives no legal claim against the steelmakers themselves, but it is relevant to how the Japanese government certifies and funds the scheme.

20. Under World Trade Organization rules, the EU defends its carbon border charge as an environmental measure. That defence depends on treating steel with the same emissions in the same way. Giving value to the certificates would weaken it, so trade-law pressure makes the EU less likely to accept them.

WHO IS AFFECTED, AND WHEN

The table summarises the position under each body of law.

Principal corporate exposure

EU law	Who is affected	From when	What it means
Carbon border charge (CBAM)	EU importers of steel – often the customer	Since 1 January 2026	Certified steel is charged like ordinary steel; the certificate brings no reduction
Extension of the charge to products containing steel (proposal)	Importers of car parts, machinery and similar goods	From 1 January 2028, if adopted	About €2 billion of imports from Japan covered
Consumer protection (EmpCo)	Companies advertising products to EU consumers – in practice manufacturers using the steel	Since 27 September 2026	Offset-based climate claims may be prohibited under transposed Annex I rules; court action is possible by competitors in Germany
Company climate reporting (CSRD)	Nippon Steel's EU companies, later the whole group; EU customers	Reports on 2027, published 2028; group from about 2029	Certificates cannot be counted as reductions; gaps become visible to investors

Contextual frameworks

Legal Route	Immediate addressee	Timing	Practical Consequence
International law (ICJ advisory opinion, 2025)	The Japanese government	Now	Duty to regulate company emissions; no claim against the steelmakers
Trade law (WTO)	The European Union	If the charge is challenged	The EU's defence of the charge depends on not recognising the certificates

LIKELY OBJECTIONS

21. **"European steelmakers do the same."** Some do. ArcelorMittal (XCarb), thyssenkrupp (Bluemint) and Tata Steel (Zeremis) sell steel under similar certificate schemes. The report's findings concern how EU law treats this kind of certificate, and apply to those schemes in the same way.

22. **"These are our own reductions, not bought offsets."** The consumer rules look at what the buyer is led to believe. Wherever the reduction was made, it is not

contained in the steel that is sold.

23. **“International standards recognise mass balance.”** The international standards body ISO published two separate standards in 2026: one for mass balance (ISO 22095-2) and one for book and claim (ISO 22095-3). The Japanese method fits the second. The steel industry’s own global guidance, published by the World Steel Association, states that its approach “cannot strictly follow” the earlier ISO standard.

LIMITS OF THE REPORT

24. The report does not conclude that the certification method is unlawful in itself. Its finding is that the certificates do not reduce CBAM liability or establish a product-specific reduction in the buyer’s emissions inventory, and that consumer-facing claims based on them carry legal risk.

25. Facts about the Japanese companies come from research by Japanese counsel, current to August 2026, and some points are still being verified. Several of the EU measures discussed – including the extension of the carbon border charge and new reporting standards – are proposals or awaiting adoption, and may change.

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