THE INTERNATIONAL REC STANDARD

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Making electricity an export product:
CBAM and the future of embedded emissions

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RE 100

Green Aluminium Project of EGA in Abu Dhabi

In February 2021, Emirates Global Aluminium (EGA) announced the sale of 40,000 tonnes of their CelestiAL – aluminium produced with renewable solar power – to BMW Group.

The solar power used to produce EGA's CelestiAL was procured from Dubai Electricity and Water Authority (DEWA) and the Mohammed bin Rashid Al Maktoum Solar Park. DEWA supplied EGA with roughly 560,000 megawatt hours (MWh) of solar power over the course of a year which allowed EGA to generate 40,000 tonnes of aluminium. DEWA was issued I-RECs from the Dubai Carbon Centre of Excellence (also referred to as Dubai Carbon or DCCE), the approved I-REC Issuer in the UAE for each MWh of solar power energy produced.

CBAM as an Example of Why a Uniform RE Reporting Structure is Key

The Carbon Border Adjustment Mechanism (CBAM) is an EU policy aimed at evening the embedded carbon costs of products regardless of where they are produced.

Designed in compliance with World Trade Organization (WTO) rules and other international obligations of the EU, the CBAM system will work as follows: EU importers will pay a tax corresponding to the carbon price that would have been paid, had the goods been produced under the EU's carbon pricing rules. Conversely, once a non-EU producer can show that they have already paid a price for the carbon used in the production of the imported goods in a third country, the corresponding cost can be fully deducted for the EU importer. The CBAM will help reduce the risk of carbon leakage by encouraging producers in non-EU countries to green their production processes.

Industries of major impact: Aluminum, fertilizers, steel, semi conductors, silicon, solar panels, electronics, etc.

Cause

- Third Countries may choose to adopt less stringent climate change mitigation measures compared to the EU.

Effect

- Transfer of production facilities from the EU to third countries with less stringent climate change mitigation measures, or EU products are replaced by imported products with a larger carbon footprint.

Consequence

- Global emissions are not reduced.
- EU climate ambition is undermined.

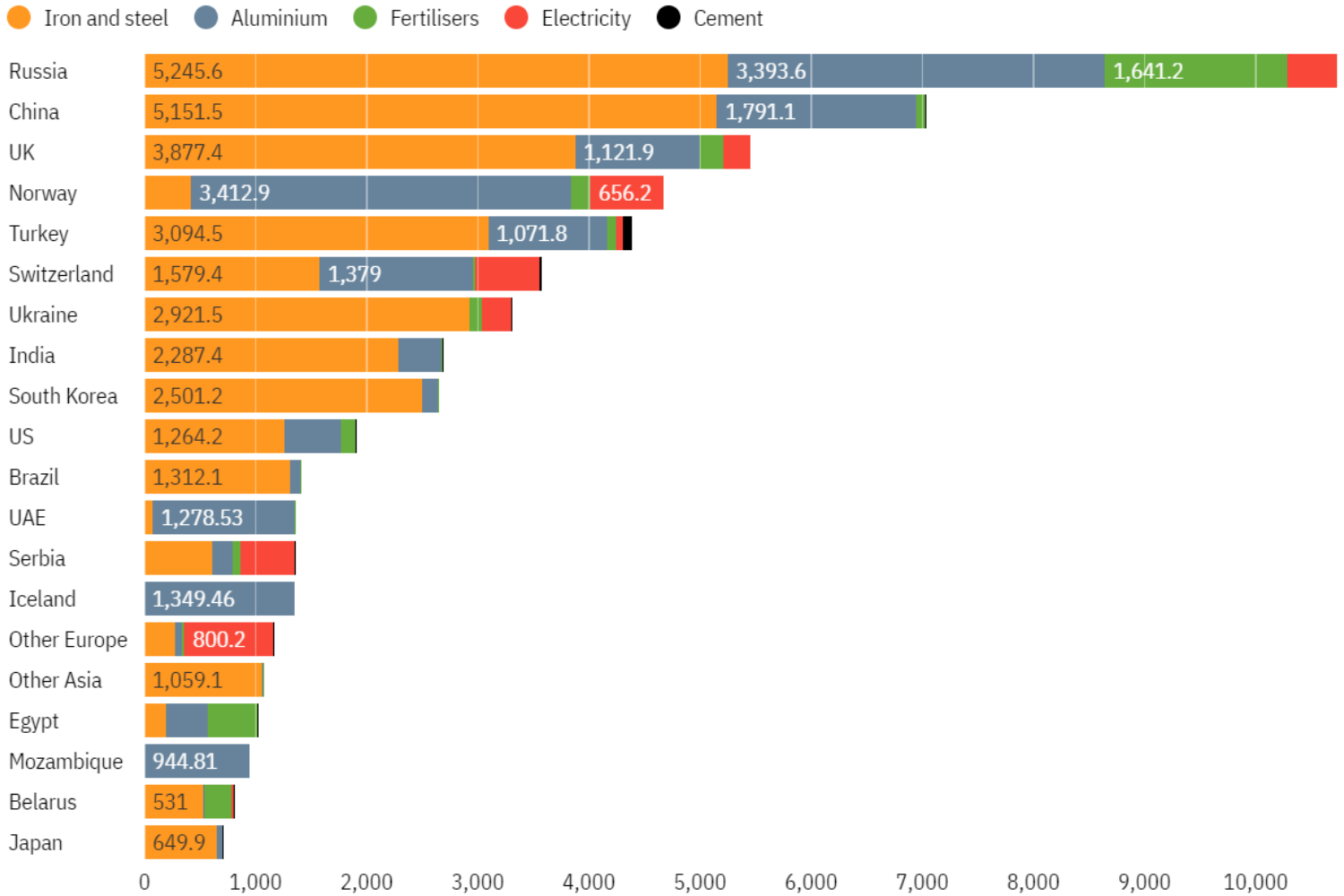
Proposed Approach

- Putting a carbon price on imports of certain goods from outside the EU via the Carbon Border Adjustment Mechanism (“CBAM”)

Key notes for Chinese companies: even if one purchases renewable (RE) energy in China, if it cannot be accounted for by a globally recognized system, the energy consumer’s products may be charged a carbon tax under the CBAM scheme, which will likely reflect the China power grid’s average carbon, rather than the RE that the industrial actually purchased.

Russian exports are most exposed to the CBAM

EU 27 imports of goods covered by the CBAM proposal, top 20 exporters, annual average ($m), 2015–19



History of CBAM

December 2019
European Green New Deal
- Considers the context for a Carbon Border Adjustment Mechanism

March 2020
- Impact assessment and public consultation from July – October 2020

July 14 2021
- European adopts CBAM proposal. Key askpects included
  - Only including direct (e.g. scope 1 emissions)
  - Focused on steel, aluminum, fertilizer, cement, electricity

June 8 2022
- Parliament postpones CBAM vote

June 22 2022
- Parliament CBAM position adopted
  - Increased emission scope, includes also in-direct emissions (e.g. scope 2 emissions)
  - Increased product scope, includes organic chemicals, plastics, hydrogen and ammonia
  - Earlier full implementation and a single body in Europe responsible for CBAM (not national)

July 22 2022
- Trialogues start, no expected end-date, rather significant concerns from some member states

There are concerns related to

The Center for Strategic and International Studies (CSIS) has published an article on the European Union's carbon border adjustment mechanism (CBAM).

The article cited the I-REC Standard Foundation (I-REC Standard) and our concerns around the current country and sectoral embedded emissions calculations.

The I-REC Standard Foundation has proposed potential means of solving this issue: through greater granularity in renewable energy procurement and traceability and the role that energy attribute certificates (EACs) can play in promoting greater transparency and accountability within renewable energy markets

Requested changes to CBAM

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Carbon Border Adjustment Mechanism: including contractually defined emissions ownership

The idea behind the Carbon Border Adjustment Mechanism (CBAM) is laudable. Protecting European industry from carbon leakage while pushing for more renewable energy and carbon pricing in Europe's trading partners is exactly the kind of parallel strategy that the European Climate policy needs. Protecting climate friendly production from carbon leakage while promoting the use of renewable energy in Europe's trading partners would be a giant push for renewable energy worldwide. However, the CBAM faces several challenges – including threatening the very goal it pursues.

As currently proposed, the CBAM threatens the goal of encouraging local renewable energy use. If a CBAM adherent product's embedded emissions are calculated based on national averages or sector standards, the CBAM would end up treating producers the same regardless of their efforts to reduce their climate impact by using onsite or offsite renewable energy as a production input. This will undermine the motivation for producers outside the EU to proactively use, and invest in, renewables.

Granularity and transparency push for more renewable energy

Promoting greater granularity of data and increased transparency in electricity markets are foundational measures that could help avoid increased trade tensions. However, while the potentially discriminatory aspects of the CBAM have been discussed at length by experts in Brussels, Washington, and elsewhere, an under-discussed consequence of the current CBAM proposal is that it risks disincentivizing deeper decarbonization by failing to capitalize on efforts to enhance grid emission granularity. This problem with the CBAM deserves more attention.

The CBAM relies on sectoral averages of emissions in calculating the relative "greenness" of certain industries. This approach omits firm-specific considerations that would provide greater granularity in assessing true emissions. As proposed, the CBAM would treat products from firms using a higher ratio of renewable energy the same as firms using energy with significantly higher emissions. This national and sectoral average approach ultimately results in firms paying twice: once for renewable energy and a second time for CBAM fees. If companies face a competitive disadvantage for using renewable energy, or carbon removal technologies, the CBAM risks dampening enthusiasm for investing in these tools. Reducing the demand for these technologies will impact their market value and as such, the eventual investment climate for the infrastructure we need to fight climate change.

The best way to encourage CBAM-adherent commodity producers to purchase more renewable energy or low-carbon technologies is to require them to substantiate their products' actual embedded emissions based on contractually defined emission ownership – such as energy attribute certificates (EACs). Making use of these internationally recognized and implemented certification standards will allow for clarity as to the use of renewable electricity, low-carbon (renewable gases), and decarbonizing (CDR/DACCS) technologies.

One way of achieving this is to develop greater granularity in renewable energy procurement and traceability. The I-REC Standard Foundation outlines the role that energy attribute certificates (EACs)

In article 7 paragraph 6 after "…including the level of detail and verification of the data" the following clause "**and rules for calculation of emissions evidenced by contractually defined emissions ownership**", and

- In article 35, paragraph 6 after "…installation-specific values of actual emissions and their respective application to individual goods" as follows: "**including as evidenced by contractually defined emissions ownership…**"

Add I-REC Solution side to CBAM

Working directly with European policy markets to ensure certificates adherent to standards can work with CBAM

This allows individual producers to have products that are “better than the grid average” and sell their products without tax into Europe

Coordinating work with multiple governments across the world and the I-REC would provide a key to this cooperation and adherence.

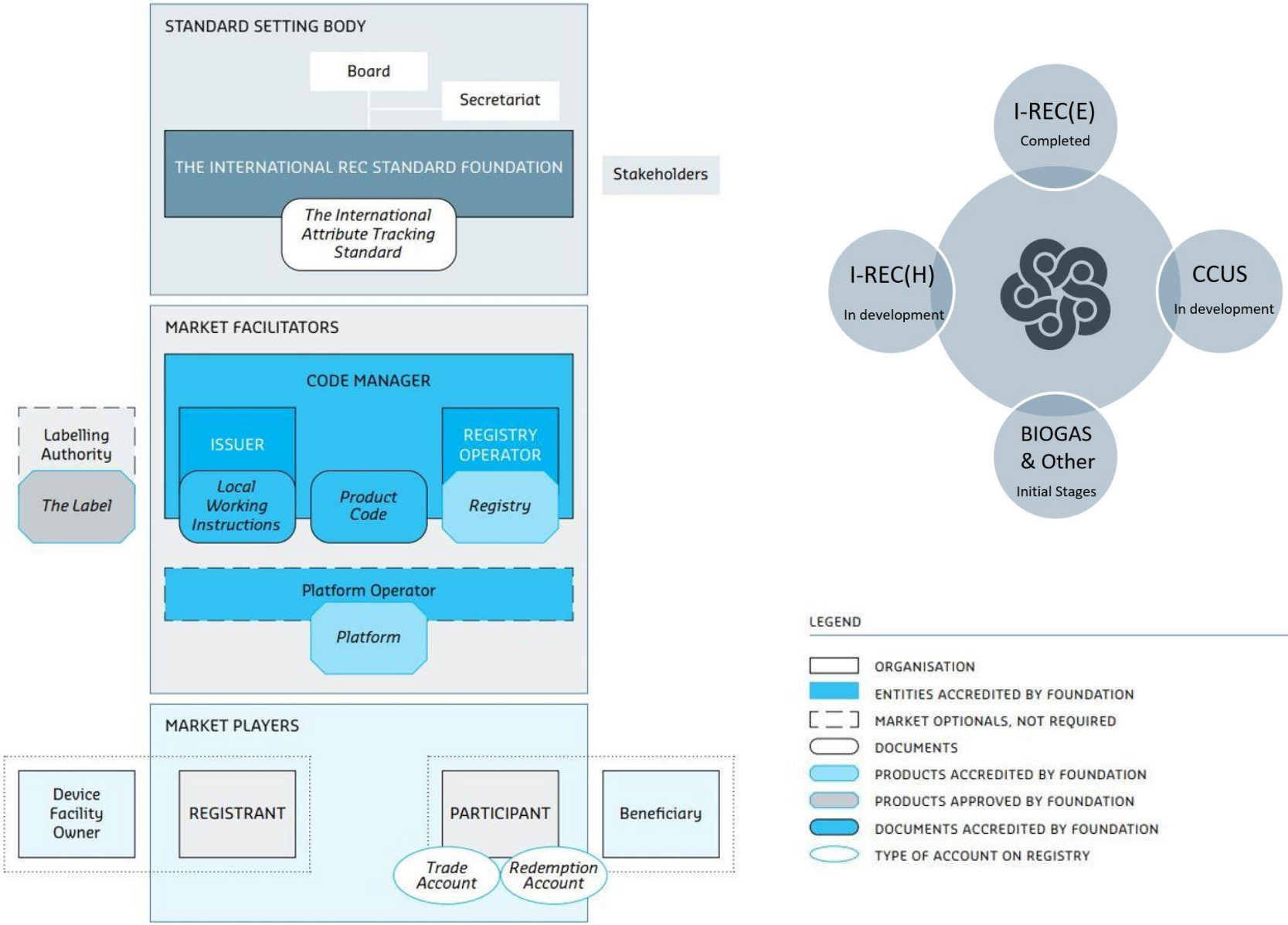
Email from the commission proves the need for standardization in this regard.

Dear Jared,

It’s been some time since I was involved in the CBAM discussions. The lead DG now for this is TAXUD.

I do, however, recall a fairly wide mandate for the Commission to draft delegated or implementing acts e.g., to develop a calculation method for indirect emissions embedded in imported goods. Provided that the governance and technical requirements of the attribute tracking system in a country is coherently implemented, reliable, independent, and fraud-resistant. I would expect such systems to be duly take into account.

Looking forward to talking to you,
XXX@ec.Europe.eu


STANDARD SETTING BODY
Board
Secretariat
THE INTERNATIONAL REC STANDARD FOUNDATION
The International Attribute Tracking Standard
Stakeholders
MARKET FACILITATORS
CODE MANAGER
ISSUER
Local Working Instructions
Product Code
REGISTRY OPERATOR
Registry
Labelling Authority
The Label
Platform Operator
Platform
MARKET PLAYERS
Device Facility Owner
REGISTRANT
PARTICIPANT
Beneficiary
Trade Account
Redemption Account
I-REC(E)
Completed
I-REC(H)
In development
CCUS
In development
BIOGAS & Other
Initial Stages
LEGEND
ORGANISATION
ENTITIES ACCREDITED BY FOUNDATION
MARKET OPTIONALS, NOT REQUIRED
DOCUMENTS
PRODUCTS ACCREDITED BY FOUNDATION
PRODUCTS APPROVED BY FOUNDATION
DOCUMENTS ACCREDITED BY FOUNDATION
TYPE OF ACCOUNT ON REGISTRY

Thank you

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