Dear [Name],

Apologies for coming back to this issue of the Climate Screening criteria of Sustainable Finance. It is however making such an undue very high impact against our decarbonization projects – impacting with this also European/Belgian technological leadership – that we think it is important enough to address you.

You can see the attached list of our decarbonization projects at risk, with emission reduction volumes potential and budget (non exclusive even). It is rather impressive unfortunately; reduction linked with these projects would likely not have been able to arrange its financing with this wrong criterion.

This is all due to the use as criterion of the ETS steel benchmark, uncorrected for the waste gas exports, and exclusion of CCU technology. We only ask to be treated the same way as other sectors so all emissions are taken into account: to correct for the exported waste gases in this ETS benchmark, for this new purpose.

We sincerely hope you could help that this can be corrected in the newly drafted proposal?

Kind regards,

[signature]
CO2 Climate Neutral Technology
The Sustainable Finance Climate Screening Criteria are drafted in a delegated act in a way that unintentionally discriminates steel sector decarbonization projects. This is because exported waste gases from steel production are not taken into account in these benchmarks (as they were designed for ETS allowance allocation reasons), and Carbon, Capture & Use technologies are not included in this draft Delegated Act (unlike in the base Regulation).

The consequence of this is that the same projects could qualify for other sectors, but not for steel. It means financing could be blocked and/or made highly uncertain for these globally leading decarbonization projects and technologies in Europe.

Hereby presented is a list of the 2021-2025 demonstration projects in ArcelorMittal Europe, which are not in line with these unsuitable sustainable finance climate screening eligibility criteria.

A simple solution is to make a correction for the exported waste gases regarding the ETS steel benchmarks, and to include CCU technologies (also according to the Regulation).
ArcelorMittal is committed to the Paris Agreement. Over the last 10 years, a large number of breakthrough technologies has been developed and tested. Based on this AM has set up a roadmap to become carbon neutral in 2050 by integrating “Electrification”, “Hydrogen”, “CCU”, “CCS” and “Circular Economy”. We are also active in the Sustainable Finance to help launching new instruments to finance the projects. Although those projects are receiving support from EC (HorizonEurope, EIB, …) and are stepwise leading to a carbon neutral steelmaking process, the technical criteria of Sustainable Finance proposal would exclude these breakthroughs.

Main Issues with the technical criteria to check the eligibility are:

- “All green new steel production, or combination of new and recycled steel production, is eligible if the emissions fall below the thresholds above (ETS Benchmark values)”
- “Additionally, all production of steel in EAF where at least 90% of the iron content in the final products is sourced from scrap steel is considered eligible. In this case, no other thresholds are applicable.”
- For hydrogen-based steelmaking only “hydrogen steelmaking in shaft furnaces using hydrogen produced via water electrolysis (e.g.; using renewable electricity sources)” is considered
- Carbon valorisation/Carbon Capture and utilisation technologies have not been included in the above list of breakthrough technologies
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Sustainable Finance is key for the transition, but the eligibility criteria need to be technology neutral.

- ETS benchmarks has been set to define the free allocations for the existing plants but are not suited as eligibility criteria to assess breakthroughs technologies.
  - For Blast Furnace: The hot metal benchmark is not including the waste gas impact as exported to powerplants (as powerplant do not receive free allocation).
  - This is creating a large gap between the Best Available technology vs ETS Benchmark (> 25% above the ETS benchmark) which is not possible to close in 1 step as the scale up need to be done stepwise
  - For other processes there is not ETS benchmark (DRI for example).
  - There are no ETS benchmark for combined processes Steelmaking+Chemicals
  - There are no ETS benchmark for using waste (waste sector is not in ETS)

- Steelmaking installations are done at very large scale. Adding breakthrough innovations (even when these are net zero carbon with H2, CCU, CCS) can not bring down the average emissions of the existing installation to close the gap with the ETS benchmark in BF at once (again due to the large gap with BAT as part of the emissions have not been included in the ETS benchmark)

- Shifting from coal to alternative reductants as Hydrogen are today only possible at smaller scale due to limited Green power availability, but also as the scale of the electrolysers is today limited.

- Secondary (based on scrap) and Primary (based on iron ore) steelmaking are going hand in hand (one is not possible without the other). Re-use of steel scrap is possible in multiple ways and eligibility should not be limited to EAF with 90% scrap use

- Steelmaking processes are not making one single product, but are also co-producing products as chemicals, cement, heat, ... without additional CO2. This holistic approach of the CO2 abatement, including synergies between sectors are not included in the Sustainable Finance criteria

- Novel technologies will be integrated in ways we can not image yet today. CCU from steel waste gas will be a significant part of the future circular economy.
Sustainable Finance is key for the transition, but the eligibility criteria need to be technology neutral

• Steelmaking will be part of the solution to create a carbon neutral economy. Green steel will be required to build up the renewable energy infrastructure and the infrastructure for hydrogen and CCUS.
• Novel technologies will be integrated in ways we can not image yet today. These possibilities are not reflected in the ETS benchmark values or in thresholds for EAF.
• None of these projects, although they lead to carbon neutrality at longer term, are eligible for Sustainable Finance due to the formulation of the technical criteria. Main issue is the reference to ETS benchmarks which are not reachable with BAT and lack of technology neutrality (fe referring to EAF in case of use of scrap)
Backup
ArcelorMittal is fully committed to the Paris Agreement

September 2020

ArcelorMittal sets 2050 group carbon emissions target of net zero

ArcelorMittal (the Company) today announces a group-wide commitment to being carbon neutral by 2050, building on the commitment made in 2019 for its European business to reduce emissions by 30% by 2030, and be carbon neutral by 2050.

June 2020

Climate Action in Europe
Our carbon emissions reduction roadmap:
30% by 2030 and carbon neutral by 2050

Related links

Climate Action in Europe  Climate Action Report
We see three clean energy vectors to transition steel industry to net zero: circular carbon, CCS and clean electricity.

ArcelorMittal Europe Plan: -30% in 2030 & Carbon Neutral in 2050

- Recycle waste back into high valuable Chemicals through steelmaking
- Contingent on biomass & waste availability and technology for chemical recycling

Contingent on low electricity and green Hydrogen costs

Contingent on development of CCS infrastructure

ArcelorMittal Europe Plan : -30% in 2030 & Carbon Neutral in 2050
Steelanol - Torero: Recycles carbon into sustainable fuel
This project is co-funded by the European Union.
ArcelorMittal Europe has committed to 30% emissions reductions by 2030; to be achieved through increase in scrap use and innovation.
Increased use of scrap in steelmaking will reduce the carbon emissions intensity of the steel we produce.

1. **INCREASE USE OF SCRAP**

   - **BOF**
     - Increase amount of scrap versus hot metal in BOF
     - Operational improvement
     - Pre-melting technology

   - **EAF**
     - Invest in electric arc furnace technology to increase steel produced using scrap
Availability of scrap is limited due to its “finite” nature, dependent on disposal at end of life of products, equipment and buildings.

Disproportionate increase in scrap consumption in Europe would lead to shift in scrap trade flows, leading to increased iron ore based steel production in laxer CO₂ jurisdictions outside of Europe.

- Source: ArcelorMittal Corporate Strategy team analysis
Paradigm Shift of Industry: From Energy Integration to Carbon Integration

All energy requirements are “imported” with the raw materials for the production process.

**BOUDUART REACTION**

at High Temperature!!!

\[
\begin{align*}
\text{FeO} + \text{C} + \text{O}_2 & \rightarrow \text{Fe} + \text{CO} + \text{CO}_2 + \text{Heat} \\
\text{FeO} + \text{H}_2 + \text{O}_2 & \rightarrow \text{Fe} + \text{H}_2 + \text{H}_2\text{O} - \text{Heat}
\end{align*}
\]

ETS Benchmark of 1.328 kg/t hot metal is not including the waste gas which is transferred to the power plant.
Moving to “Carbon Integration”:
CAPTURE, REUSE and RECYCLE the Carbon molecules

1. CAPTURE
2. USE
3. RECYCLE
4. H2
5. CCUS

Green H2 → Blast Furnace DRI module → 3D → Carbon4PUR

CO, CO2, H2