Call for evidence for an impact assessment on the application of CBAM to electricity imports

Brussels, 26 August 2025

EXECUTIVE SUMMARY

We support the overall objective of CBAM as a tool to put a fair price on the carbon emitted during the production of carbon-intensive goods imported into the EU, to avoid carbon leakage, and to encourage cleaner industrial production in non-EU countries.

The inclusion of electricity imports within the scope of CBAM should respect the principle of proportionality, ensuring that European businesses face no excessive costs or administrative burdens and that a proportionate carbon price is applied.

For the calculation of the carbon price, default emission factors should reflect the actual carbon intensity of the electricity mix imported from a third country, as accurately and as close as possible to real-time. Therefore, we insist that:

- **All generation technologies** are taken into account to calculate the emission factor of third countries from which electricity is imported
- The carbon intensity of electricity imports should be measured with an **hourly granularity**

When utilizing the actual embedded emissions of imported electricity, the following improvements are required so that applicable rules reflect the reality of electricity trading, respectively:

- **Power purchase agreement** – The definition should recognise PPAs concluded via intermediaries, such as when CBAM declarant is reporting via indirect representative, as well as both physical and virtual PPAs
- **Physical network congestion** – Once an importer can prove the hourly matching between electricity production and capacity nomination, and that Guarantees of Origin (GOs) eventually issued are immediately cancelled (in case of the absence of a framework for the recognition and exchange of "green certificates" between the EU and the third country), this criterion becomes redundant and hence should be removed
- **Capacity nomination and electricity production** - Imports should be reported (and accounted for) based on the hourly confirmed scheduled quantities provided by the TSOs to each market participant, to be linked back to the hourly data of the generation plant underpinning the PPA. Such TSOs reports should contain information on disaggregated

import, export and transit data so that CBAM is applied only to the actual imported values, without consideration for transited values

The listed improvements are crucial to ensure that CBAM is fit for purpose for electricity imports, leading to more efficient use of cross-border interconnections between the EU and third countries, preventing renewable curtailments, and promoting the uptake of low-carbon electricity production in third countries. Our suggestions will also limit cost increases for EU consumers that are not justified for carbon abatement in third countries.

Finally, the definitive period of CBAM application to electricity imports should not start without a thorough impact assessment and a clear legislative framework. Contracts for the delivery year 2026 are already traded on electricity markets as we speak, so clarity about how these will be treated from a customs perspective is urgently needed.

#1 FUNDAMENTAL SCOPE OF CBAM APPLICATION TO ELECTRICITY IMPORTS AND TRANSIT FLOWS

In view of the EU's single customs policy, CBAM should be treated – and is presented – as a payment levied on imports into the Union's customs area to ensure a level-playing field between third country producers and Union producers, with the point of levelling (payment of CBAM costs) being set at the point of import (to be paid by importers).

This guidance note will focus on the production of electricity and its importation into the Union. Due to the unique characteristics of electricity and the distinct treatment it receives under CBAM compared to standard definitions or methodologies, clarification, harmonisation of terminology, and effective practical implementation are required.

I. Guidance on interpretation

ACBAM defines the point of payment as import (in the sense of purchase and surrender of CBAM certificates that correspond to the emissions embedded in goods imported) and defines 'importation' with reference to established Union legislation on customs, i.e.:

> *'importation' means release for free circulation as provided for in Article 201 of Regulation (EU) No 952/2013 (CBAM, article 3, paragraph 4)*

where Regulation (EU) No. 952/2013 is the Union Customs Code. Within said code, release for free circulation entails the following:

Article 201 - Scope and effect

1. Non-Union goods intended to be put on the Union market or intended for private use or consumption within the customs territory of the Union shall be placed under release for free circulation

2. Release for free circulation shall entail the following:

(a) the collection of any import duty due;

(b) the collection, as appropriate, of other charges, as provided for under relevant provisions in force relating to the collection of those charges;

(c) the application of commercial policy measures and prohibitions and restrictions insofar as they do not have to be applied at an earlier stage; and

(d) completion of the other formalities laid down in respect of the import of the goods.

3. Release for free circulation shall confer on non-Union goods the customs status of Union goods

Within customs practice as arising from underlying legislation, the concept and procedure of importation as resulting in release for free circulation (and the collection of any import duty due as well as collection, as appropriate, of other charges) is to be contrasted with other so-called special procedures, which are defined within the Union Customs Code as follows:

Article 210 - Scope

Goods may be placed under any of the following categories of special procedures:

(a) transit, which shall comprise external and internal transit;

(b) storage, which shall comprise customs warehousing and free zones;

(c) specific use, which shall comprise temporary admission and end-use;

(d) processing, which shall comprise inward and outward processing.

Of particular relevance for CBAM and electricity is the transit procedure, given that electricity flows from outside the Union across Union borders yet where not every flow across a Union border represents importation.

Without delving into the details of external and internal transit, it is sensible to recognise that if electricity is produced outside the Union and at some point in its trade lifecycle flows across a Union border and subsequently exits the Union once again, this cannot be considered, in any way, importation as release for free circulation and similarly, if electricity is produced within the Union and at some point in its trade lifecycle exits the Union and subsequently re-enters the Union, this cannot be considered importation as release for free circulation.

While in both cases, electricity crosses a Union border, in neither case is non-Union electricity released for free circulation within the Union (in the first case, non-Union electricity exits the Union; in the second case, Union electricity re-enters the Union) and so neither case should be

considered as importation or a trigger for payment liability of CBAM (since no goods are in fact imported).

While the above conceptual clarity as arises from the Union Customs Code is relatively straightforward, there are two complicating factors when this clarity is applied to electricity imports (and consequently to CBAM) given the legislative framework currently in place, this being:

Potentially ambiguous wording regarding import, export and transit of electricity within CBAM

Depending on the region, much or all of cross-border electricity flows occur on the basis of explicit capacity allocation, and for these situations CBAM provides for the following:

> *By way of derogation from paragraph 1, where transmission capacity for the import of electricity is allocated through explicit capacity allocation, the person to whom capacity has been allocated for import and who nominates that capacity for import shall, for the purposes of this Regulation, be regarded as an authorised CBAM declarant in the Member State where the person has declared the importation of electricity in the customs declaration.* ***Imports are to be measured per border for time periods no longer than one hour and no deduction of export or transit in the same hour shall be possible.*** *(CBAM, article 5, point 4; emphasis added)*

The absence of clear definitions of import, export and transit of electricity within EU energy legislation

The current basis of the regulatory framework for electricity and cross-border trade therein is the Clean Energy Package, including both Directive 2019/944 and Regulation 2019/943, and the applicable network codes, specifically Regulation 2017/1485, which provide for high-level definitions of cross border trading flows and schedules yet do not disaggregate these into their constituent elements:

> *Cross-border flow (Regulation (EU) 2019/943): "A physical flow of electricity on a transmission network of a Member State that results from the impact of the activity of producers, customers, or both, outside that Member State on its transmission network."*
>
> *External commercial trade schedule (Regulation (EU) 2017/1485): "A schedule representing the commercial exchange of electricity between market participants in different scheduling areas."*

The constituent elements of cross-border electricity trade, defined at a resolution that would enable clearer mapping to Union customs legislation, were most recently defined within Regulation 714/2009:

> *(d) 'declared export' means the dispatch of electricity in one Member State on the basis of an underlying contractual arrangement to the effect that the simultaneous corresponding take-up*

(declared import) of electricity will take place in another Member State or a third country; (REG 714/2009, article 2, paragraph 2, point (d))

(e) 'declared transit' means a circumstance where a declared export of electricity occurs and where the nominated path for the transaction involves a country in which neither the dispatch nor the simultaneous corresponding take-up of the electricity will take place; (REG 714/2009, article 2, paragraph 2, point (e))

(f) 'declared import' means the take-up of electricity in a Member State or a third country simultaneously with the dispatch of electricity (declared export) in another Member State; (REG 714/2009, article 2, paragraph 2, point (f))

Unfortunately, while Regulation 2019/943 repealed Regulation 714/2009 while maintaining and building upon most of its constituent concepts, the above definitions were not amongst those kept. Yet regardless of formal repeal, the above definition of transit in energy regulation is still applied in practice and conceptually corresponds to transit from a customs perspective.

More specifically, the phrasing "*neither the dispatch nor the simultaneous corresponding take-up of the electricity will take place*" can be interpreted as representing the same concept as "*will not be released for free circulation*", given that it essentially means that the electricity flows across a given country (for example, from a third country across an EU Member State to another third country) without it being re-sold or consumed within that country (and consequently not being imported and released for free circulation).

Given the aforementioned context, it is crucial to ensure that the requirement of CBAM for electricity that

"imports are to be measured per border for time periods no longer than one hour and no deduction of export or transit in the same hour shall be possible."

is not understood as requiring payment of CBAM for transits or exports, but that it aims to ensure that imports, in the sense of volumes released for free circulation as per customs legislation, are charged with CBAM in full, and that this volume of imported electricity that is released for free circulation cannot be netted against exports within the same hour, nor transits occuring within that same hour.

The rationale here may be that those exports would represent imports in another country, and those transits would ultimately also represent imports at their ultimate destination, whereas neither should quantitatively interfere with or reduce the overall CBAM payment to be made for imports within a given hour.

However, at the same time, that does not mean that transits are not acknowledged within CBAM or that transits would be considered as equivalent to imports – such an interpretation would be contrary to Union customs legislation, which explicitly distinguishes between imports (in the sense

of release for free circulation) as events to which import duties may be applied, on the one hand, and transits as events to which import duties cannot be applied, on the other.

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

The official interpretation of the requirement in article 5, paragraph 4 of CBAM is that CBAM for electricity should be applied for all imported values, without consideration for exported values (to which CBAM is not applied) nor transited values (to which CBAM is not applied), and that to ensure accuracy thereof, volumes of import, export and transit must be clearly, and separately, accounted for at the level of each time interval as relevant to electricity trading, this being one hour unless a given bidding zone border where importation occurs has already transitioned to a 15-minute market time unit.

I. Guidance on practical application

In order to ensure accurate reporting of import values in both customs declarations and CBAM declarations, it is necessary that all market participants / CBAM Declarants have available the same level of reliable data of their imported quantities and that these are distinguishable from exports and transits. Within the context of cross-border electricity flows, the only sensible official data owner is the transmission system operator, who possesses information on scheduled and ultimately delivered quantities of electricity from one balance group to another, whether within a bidding zone or across bidding zones (considering the definitions of internal and external commercial trade schedules as per Regulation 2017/1485).

TSOs which still performs explicit allocation and nomination already issue appropriate documentation to market participants in the form of so-called TSO reports, which are used by market participants as official supporting documentation when submiting customs declarations.

However, while relevant TSO in Europe issue such documentation for distinguishing between imported and exported values, not all transmission system operators distinguish between imports, exports and transits; instead, such differentation arises more prominently in markets where the difference between imports and exports on the one hand and transits on the other hand is critical for accurate determination of associated fees and charges.

Given that fees applied to cross-border trading (in the sense of imports or exports) of electricity are no longer applied in the EU for many years already (since they obstruct cross-border trade and as such are, generally, not permissible within the EU legal framework) but have a more recent history in the Balkans, it is not surprising that most transmission system operators in the WB-6 provide monthly TSO reports which include differentiation between import, export and transit at

aggregate level, which can be further substantiated at hourly level when cross-checked with the underlying scheduling data.

For an example of such reports issued within the European Union, the Romanian TSO Transelectrica provides TSO reports where data for each month is differentiated not only by type of flow (import, export, transit) but also the direction of transit flows (origin -> Romania -> destination).

The provision of such data is therefore clearly technically feasible, and represents one of the two essential data inputs to market participants' and/or CBAM Declarants' compliance processes, including both customs and CBAM declarations and the calculations of CBAM exposures. Further, the provision and/or confirmation of such data by regulated entities – in this case, transmission system operators – supports the data verification process, since it directly arises from (and therefore corresponds to) actually scheduled quantities.

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

The official recommendation to support practical implementation of the requirement in article 5, paragraph 4 of CBAM is that Transmission System Operators (TSOs) in the Union that border third countries should adapt their processes to guarantee the preparation of TSO reports containing disaggregated import, export and transit data, including the direction of transit flows, at hourly level thereby enabling market participants and/or CBAM Declarants officially verified input data for volumes of imports to be considered in their CBAM compliance processes. The same approach for disaggregation of volumes could be applied also by non-EU TSOs where applicable from local regulatory perspective. In cases where electricity transits through more than one third country and the relevant TSO(s) cannot provide complete disaggregated data, CBAM Declarants should be allowed to rely on alternative evidence such as nominations and confirmation reports to substantiate the imported volumes declared under CBAM.

#2 CALCULATION AND APPLICATION OF DEFAULT VALUES TO ELECTRICITY IMPORTS

In view of the EU's single customs policy, CBAM should be treated – and is presented – as a payment levied on imports into the Union's customs area to ensure a level-playing field between third country producers and Union producers, with the point of levelling (payment of CBAM costs) being set at the point of import (to be paid by importers).

The focus of this guidance note will be on the calculation of the embedded emissions of imported electricity into the Union stemming from the production of electricity in a third country.

I. Guidance on interpretation

Regulation (EU) 2023/956 specifies the Methods for calculating embedded emissions in imported electricity (Annex IV, page 49) as follows:

> *"Specific default values shall be set at the CO2 emission factor in the third country, group of third countries or region within a third country, based on the best data available to the Commission."*
>
> with CO_2 emission factor defined as *"the weighted average emission factor of those electricity-generating sources that are based on the combustion of fossil fuels"* (Annex IV, page 47)

The choice of CO_2 emission factor has been justified thorugh the Impact assessment report SWD(2021)643 accompanying the CBAM regulation proposal (page 39) which states:

> *"Since export capacity is only available when internal demand is satisfied, the additional demand spurred by exports is, as a rule, met with coal and gas power plants on the far side of the merit order. Therefore, it can be assumed that extra-EU electricity imports from third countries are by default generated by price-setting coal and gas power plants with a measurable carbon footprint."*

First of all, the claim that *"export capacity is only available when internal demand is satisfied"* misrepresents how interconnected electricity markets function. Exports and imports happens simultaneosly to internal demand and they are market-driven outcomes of regional price formation — not residual surplus after local needs are covered.

Furthermore, the statement that *"additional demand spurred by exports is, as a rule, met with coal and gas power plants"* assumes a rigid, deterministic merit order. In reality, electricity dispatch in interconnected markets is more complex: imports can come from hydro, nuclear, renewables, or even surplus capacity depending on time of day, weather, reservoir levels, etc.

As a consequence, the CO_2 emission factor disregards renewables production and consider only fossil fuels generation, hence systematically overstating the carbon content of the imported electricity from a third country.

Given the fact that the choice of the CO_2 emission factor for electricity imports is based on wrong assumptions, the methodology for calculating embedded emissions in imported electricity should be reconsidered in order to more accurately reflect the actual embedded emissions of imported electricity.

Finally, the rule for the calculation of the default values should not be made with the objective of *"reflecting the price-setting mechanism of electricity in the EU"* as stated in the call for evidence document, but rather to associate a correct carbon price to the electricity imported

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

Default values should reflect or provide the best approximation of the actual carbon intensity of the electricity mix imported from of a third country. Therefore, emission factor for electricity should calculated taking into account all generation technologies (including low-carbon sources) and not just fossil fuels technologies (as currently foreseen with the CO2 emission factor).

II. Guidance on practical application

Default values should be as accurate as possible, have a clear methodology for calculation and be transparently available to all CBAM declarants.

Implementing Regulation 2023/1773 (Annex III, Chapter D, page 77) currently foresees a fixed default value based on previous five years' average to calculate the carbon content of electricity imports.

Applying a fixed default value based on previous year(s) would provide a clear ex-ante value to CBAM declarants (to be updated and published by the European Commission every year), however it will not correspond the actual carbon intensity of the electricity mix of a third country at the time of import, which fluctuates hourly.

Therefore, the most accurate solution would be to utilise the hourly carbon intensity of the generation or consumption mix of a third country. However in this case, CBAM declarants would not rely on an ex-ante value published by the Commission, but rather on a defined methodology in order to be able to forecasts of the carbon intensity of the electricity mix at the moment of the export.

Clarification on possible methodologies to calculate the carbon intensity

The carbon intensity of a third country's electricity mix can then be calculated either via a generation-based approach (only considering the electricity generated in a third country) or consumption-based approach (subtracting the carbon intensity of exports and adding the carbon intensity of imports). Whilst the correct theoretical approach would be consumption-based, the generation-based approach is more feasible in terms of practical implementation.

For CBAM purposes and in case of hourly calculations, an ex-post adjustment would be needed to remove volumes of electricity for which actual emissions have been claimed under PPAs in order to calculate more precisely the carbon content of the residual electricity. However, we note that such information would be only available ex-post to CBAM declarants complicating the forecast of the CBAM exposure.

Within the context of calculation of emissions associated to electricity imports at hourly level, the only sensible official data owners are the TSOs, who possess information on the electricity generated within a country and/or a bidding zone and of the emissions associated with each power plant.

Unfortunately, not all the non-EU TSOs publishes the carbon intensity of their electricity mix. A good practice is provided by the GB TSO publishes a Carbon intensity dashboard with a 30 minutes resolution as well as the historic generation mix and carbon instensity dataset (based on the consumption mix).

The hourly carbon intensity of the generation mix can be calculated by knowing the electricity production in a certain country for a certain hour and the emissions associated with each power plant:

$$EF_{c,h} = \frac{\sum E_{el,i,h} * ER_i}{\sum E_{el,i,h}} \; with \; c = country, h = hour, i = technology$$

where: $EF_{c,h} = Emission\ factor\ per\ contry\ per\ hour\ (t\ CO_2/MWh)$

$E_{el,i} = Electricity\ produced\ per\ technology\ per\ hour\ (MWh)$

$ER_i = Emission\ Rate\ by\ technology\ (t\ CO_2/MWh)$

The relevant data in the equation can be obtained as follows, respectively:

- $E_{el,i} = Electricity\ produced\ per\ technology\ per\ hour\ (MWh)$ is available for most third countries via the Entso-e transparency platform. The generation mix is available with hourly granularity and minimal time lag for the following areas: Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia. The

TSOs of the missing countries can be requested to provide electricity generation data for every quarter based on the template on the Entso-e transparency platform

- $ER_i = Emission\ Rate\ by\ technology\ (t\ CO_2/MWh)$ are obtainable through the International Energy Agency (IEA) who possesses a database on the emission rate of the technologies in each third country. Alternatively and for simplicity, general emission rate per each technology can be applied to all neighbouring countries.

To accommodate and automatise the calculation, the following actions should be performed, respectively:

- $E_{el,i} = Electricity\ produced\ per\ technology\ per\ hour\ (MWh)$ for each importing country should be uploaded on the CBAM declarant portal at least every quarter and be freely downloadable by the CBAM declarant
- $ER_i = Emission\ Rate\ by\ technology\ (t\ CO_2/MWh)$ should be published and made available to reporting declarants through the CBAM Registry

This centralised approach would not require any additional verification by the National Competent Authorities (NCA) to the data submitted by the CBAM declarants. The CBAM declarant portal should be therefore equipped with a function that matches the hourly imported volumes with the respective hourly carbon intensity to calculate the respective carbon emitted in that specific quarter and therefore the CBAM certificates required to be surrendered.

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

The hierarchy of default values for imported electricity should be updated as follows:

a) Hourly emission factor calculated based on generation mix of the third country TSOs and emission rate per technology defined by the IEA
b) Fixed average emission factor of the third country based on IEA data, if previous data is not available
c) CO2 emission factor of the EU based on IEA data, if previous value is not available
d) Reporting based on actual emissions of the installation, if the cumulative conditions are met

#3 APPLICATION OF ACTUAL EMBEDDED EMISSIONS TO ELECTRICITY IMPORTS

In view of the EU's decarbonisation ambitions, CBAM should be treated – and is presented – as a payment levied on imports into the Union's customs area, where the payment by importers is equivalent to the payment by EU producers in terms of emission allowance certificates.

The aim is to develop an equivalent pricing of a ton of CO_2 emitted to produce a kWh of electricity within the Union (through the EU ETS) and outside the Union (through CBAM Certificates) while at the same time stimulating decarbonisation outside the Union by enabling low-carbon sources of electricity production to utilise actual emissions in their CBAM exposures, i.e. enabling renewable energy sources to not pay CBAM costs given that their electricity production does not result in emissions of CO_2.

I. Background

Regulation (EU) 2023/956 clearly defines that actual embedded emissions in imported electricity can be used as an alternative to the use of default values, subject to five cumulative criteria outlined under Art. 5 (Annex IV) with the purpose of avoiding the risk of circumvention and improving the traceability of actual CO_2 emissions from import of electricity:

a) *the amount of electricity for which the use of actual embedded emissions is claimed is covered by a power purchase agreement between the authorised CBAM declarant and a producer of electricity located in a third country;*

b) *the installation producing electricity is either directly connected to the Union transmission system or it can be demonstrated that at the time of export there was no physical network congestion at any point in the network between the installation and the Union transmission system;*

c) *the installation producing electricity does not emit more than 550 grammes of CO 2 of fossil fuel origin per kilowatt-hour of electricity;*

d) *the amount of electricity for which the use of actual embedded emissions is claimed has been firmly nominated to the allocated interconnection capacity by all responsible transmission system operators in the country of origin, the country of destination and, if relevant, each country of transit, and the nominated capacity and the production of electricity by the installation refer to the same period of time, which shall not be longer than one hour;*

e) *the fulfilment of the above criteria is certified by an accredited verifier, who shall receive at least monthly interim reports demonstrating how those criteria are fulfilled.*

However, the phrasing of the criteria is not fully aligned with terminology within the EU energy regulatory framework, so that a surface-level reading could lead to multiple potential and mutually

exclusive interpretations, which prevents unified compliance by market participants and in some interpretations results in fulfilment of the cumulative critera being impossible in practice.

Such lack of clarity consequently reduces incentives for decarbonisation in third countries, since renewable electricity produced would, in the context of unclear-if-not-impossible to fulfil criteria for actual emissions, face CBAM payments when exported to the EU at an equivalent level as if they were fossil fuel generation, which is contrary to the express aims of CBAM itself.

II. II. Guidance on intepretation

Contractual arrangement between source and sink

The definition of Power purchase agreement (PPA) under CBAM regulation refers to the previous Regulation (EU) 2019/942:

> ***Power purchase agreement*** *means a contract under which a person agrees to purchase electricity directly from an electricity producer (point 1(f) Annex IV CBAM Regulation).”*

Which has now been amended by Regulation (EU) 2024/1747 (Electricity Market Design Reform) as follows:

> *“a contract under which a natural or legal person agrees to purchase electricity from an electricity producer on a market basis”*

In the CBAM context, a PPA may serve as a contractual basis for claiming actual embedded emissions for imported electricity from a third country (as established under Art. 5.a Annex IV) if:

> *“the amount of electricity for which the use of actual embedded emissions is claimed is covered by a power purchase agreement between the authorised CBAM declarant and a producer of electricity located in a third country”*

While requiring traceability from source (the producer of electricity) to sink (the CBAM declarant importing into the EU) to prevent circumvention is sensible, the imposition of a direct link rather than a traceable chain significantly limits the potential scope of renewable energy production that should be eligible for actual emissions.

In the specific case of Western Balkans (WB6), national-level requirements for local presence (usually arising from local tax legislation, rather than energy legislation) means that market participants active on multiple markets often have to establish a local subsidiary within a given market, and the flow of trading is that electricity produced by a producer is bought by the local subsidiary, and then sold by the local subsidiary to the EU-level company, with the latter being the CBAM Declarant.

Such a type of transaction flow, which is general market practice given local legislative requirements, cannot fulfil the first criterion for claiming actual emissions, since no power purchase agreement exists between the producer and the CBAM Declarant.

Given the aforementioned context, it is crucial to ensure that the "PPA criteria" (Art. 5.a Annex IV) is not understood as requiring a direct contract between the authorised CBAM declarant and the producer of electricity, but rather as contractual arrangements linking the authorised CBAM declarant and the producer of electricity underlying every single kWh produced by the producer and imported by the CBAM declarant, but that may cover multiple contracts between multiple counterparties along the transaction chain.

Such an interpretation of the PPA criterion ensures the same level of protection against circumvention as a requirement for a link between the producer and the importer, yet enables more renewable electricity to claim actual emissions and therefore actually supports, rather than negates, CBAM's ambitions for driving decarbonisation in third countries.

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

The official interpretation of the requirement of CBAM that claiming actual emissions for electricity should be conditional on the existence of a power purchase agreement is that this criterion can be fulfilled through demonstrating a contractual basis underlying every single kWh produced by the producer and imported by the CBAM declarant, which may cover multiple contracts between multiple counterparties, and which corresponds to supporting documentation provided for proving compliance with criteria. Importers are therefore allowed to conclude one or more renewable power purchase agreements directly, or via intermediaries. Intermediaries may be involved by various means and for various purposes, including as a contracting party.

When it comes to the nature of cross-border PPAs, it remains unclear whether both physical and financial PPAs are allowed by the CBAM regulation. We note that also in the CBAM definition there is no distinction between physical and financial PPAs and such fungibility under the Regulation shall be preserved.

Physical PPAs are generally used when the buyer has a physical presence close to the renewable energy asset or operates within the same national grid as the energy producer. Currently, there is no evidence of a physical cross-border PPAs between EU and non-EU countries concluded, hence virtual PPAs are currently the common agreement for cross-border transactions.

In the absence of a framework for the exchange and recognition of "green certificates" (e.g. Guarantees of Origins) between the EU and third countries, capacity nominations can act as a

proof of the ability of market participant of commercially delivering such electricity into the EU, alongside the proof of electricity generation.

Even in cases where electricity imports would be supported by virtual PPAs, a capacity nomination submitted to and validated by the relevant TSOs constitutes proof that the contracted electricity was not merely a financial settlement, but was effectively scheduled and transferred across the border.

Accordingly, where such nominations exist, they provide an objective and verifiable link between the commercial arrangement and the underlying commercial flow, thereby satisfying the evidentiary requirements for CBAM compliance and ensuring that the conditions of Article 5 (Annex IV) are duly fulfilled.

Therefore, as long as the importer can prove on hourly basis that the power plant(s) associated to the cross-border PPA is producing electricity matches the volumes to be exported, and that there is no double-counting of the renewable electricity produced (e.g. through the immediate cancellation of green certificates, if issued), the nature of the PPA contract becomes irrelevant. =

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

PPAs with evidence of generation in hours matchable with nominated cross-border capacity are sufficient conditions for complying with Art. 5 (Annex IV).

No physical network congestion

The following definition is provided in the context of the call for evidence:

> ***"Physical network congestion*** *means any network situation where forecasted or realised power flows violate the thermal limits of the elements of the grid and voltage stability or the angle stability limits of the power system (Article 2, point (18) Commission Regulation (EU) 2015/1222)"*

which clearly refers to physical network parameters and the operational-physical layer of the electricity system. By contrast, the relevant term for the commercial layer is "congestion", which refers to:

> *"a situation in which all requests from market participants to trade between network areas cannot be accommodated because they would significantly affect the physical flows on network elements which cannot accommodate those flows" (REG 2019/943)*

and is the condition which triggers competiton by market participants for those transmission rights which are available. In other words, from a commercial perspective, "congestion" is merely a situation where there is more demand for utilisation of cross-border capacity compared to the available capacity, while "physical congestion" is an operational circumstance which affects system operation.

Neither are therefore suitable as conditions or parameters for preventing circumvention, since one (congestion) refers to the process of securing cross-border capacity and the other (physical congestion) is outside the realm of market participants, yet at the same time, there should be imposed some conditionality that would to ensure that the transaction flow pathway from source to sink is in fact executable for hours and flows where actual emissions are to be claimed.

A potential situation in which it would not be possible for the electricity to flow from source to sink – and hence commercial flows would differ from physical flows – would be in the case of "curtailments" to be interpreted either as curtailment of the electric generation output or curtailment of cross-border transmission capacity. Both curtailments may indeed arise from physical congestion (or other risks to operational security) and are made with the purpose of maintaining grid stability.

In case of curtailment of electricity generation output, such evidence can be found in the data related to the production of electricity by the installation (and physical injection into the grid), whose provision and verification is already foreseen under Art. 5.d Annex IV. On the other hand, in the case of curtailment of cross-border transmission capacity, the CBAM importer would not be able to realise the commercial flows and therefore the actual physical flows would be systematically lower, resulting in a lower CBAM exposure. In case such event occurs, TSOs should provide CBAM declarants with the necessary information to demonstrate the capacity curtailment and the amount of electricity flows subject to CBAM should be adapted accordingly.

Given the aforementioned context, it is crucial to ensure that the "no physical network congestion" criterion specifying that:

> *"it can be demonstrated that at the time of export there was no physical network congestion at any point in the network between the installation and the Union transmission system"*

is not understood as requiring CBAM declarants to have available data on physical congestions (which cannot be predicted or forecasted, nor congestion data are made available), but rather as a confirmation that the electricity flow within a given hour from source to sink was technically possible and was in fact executed, which can be demonstrated via the physical production of electricity and the nomination of cross-border capacity.

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

The absence of physical network congestion as defined in Commission Regulation (EU) 2015/1222 in a given hour shall be demonstrated by the CBAM declarant through the evidence of generation in hours matchable with nominated cross-border capacity (Annex IV).

Capacity nomination

Art. 5.d Annex IV requires full traceability from source to sink through the matching between firm capacity nominations and the equivalent production of electricity in the same hour:

> *"the amount of electricity for which the use of actual embedded emissions is claimed has been firmly nominated to the allocated interconnection capacity by all responsible transmission system operators in the country of origin, the country of destination and, if relevant, each country of transit, and the nominated capacity and the production of electricity by the installation refer to the same period of time, which shall not be longer than one hour;"*

Capacity nominations indicate how much cross-border capacity market participants intend to use at a specific time and location and they are formally submitted to the relevant TSO. The following definition is provided in the context of the call for evidence:

> ***Capacity nomination*** *means the notification of the use of long-term cross-zonal capacity by a physical transmission rights (PTRs) holder and its counterparty to the respective Transmission System Operators (TSOs) (Article 2(7) Commission Regulation (EU) 2016/1719).*

Such definition stems from the Network Code on Forward Capacity Allocation, known as FCA Regulation. However, capacity nomination is not only long-term nominations. For reference, daily capacity allocation between EU borders and third countries are regulated by "Rules for Explicit Daily Capacity Allocation" and are published on the Joint Allocation Office (JAO) website. For reference, under such rules, (capacity) nomination is defined as follows:

> *"Nomination means the notification of the use of Daily Cross Zonal Capacity by a Physical Transmission Rights holder and its counterparty, or an authorized third party to the respective Transmission SystemOperator(s);"*

Capacity nominations take place in different timeframes (forward, day-ahead, intraday) and can occur in different directions as market participants adjust their commercial positions. Additionally, the nomination component does not distinguish between imports and transits, which is necessary in view of implementation of transit procedures, as explained in a separate guidance note.

Even though firm nominations of interconnection capacity are a precondition to demonstrate the ability of a CBAM declarant to import electricity, it is crucial to ensure that the requirement of the *"the amount of electricity for which the use of actual embedded emissions is claimed has been firmly nominated to the allocated interconnection capacity"* criterion is not understood as that capacity nominations to be used for the calculation of the volumes subject to CBAM payment

At the end of the nomination cycles, each TSO shares with each market participant a confirmation file (XML CNF file) whereas their final commercial position is stated and consists of the aggregated nominations from different timeframes.

Using TSO reports as the officially verified input for CBAM compliance ensures that all parties rely on a consistent source of information. This guarantees accuracy in calculating the volumes subject

to CBAM payments, while also providing an objective basis to demonstrate compliance with the conditions set under Article 5d (Annex IV).

EXPECTED GUIDANCE FROM THE EUROPEAN COMMISSION

The definition of capacity nomination is updated as following:

"Nomination means the notification of the use of Cross Zonal Capacity by a Physical Transmission Rights holder and, where applicable, by their counterparty, or an authorized third party, to the respective TSO(s)".

Importers can utilise TSOs reports as officially verified input data for volumes of imports to be utilised for CBAM compliance processes, both for the calculation of the volumes subject to CBAM payment or for demonstrating the fulfilment of the condition under Art. 5d (Annex IV).

To conclude, in order to ensure accurate reporting of actual emissions while improving efficiency for all stakeholders—the CBAM Declarant collecting and demonstrating evidence, the accredited verifier reviewing it, and the authorities ultimately auditing it—a clear and consistent "minimum compliance package" of supporting documentation can be established, given the strong overlap and interconnectedness of the required evidence.

Contact

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