SMART ENERGY

CBAM Effects on Regional Market Dynamics

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Vice Chair of the Board, Energy Traders Europe

Montel 1st SEE Energy Day
Belgrade, 04.04.2024

Overview

I. About the GEN-I Group

II. About Energy Traders Europe

III. CBAM in the Context of Crises

IV. CBAM Essential Elements

V. CBAM and the CSEE Region

   I. Relevance for Electricity

   II. Timeline of Implementation

   III. Potential Exemptions …

   IV. … and Important Challenges

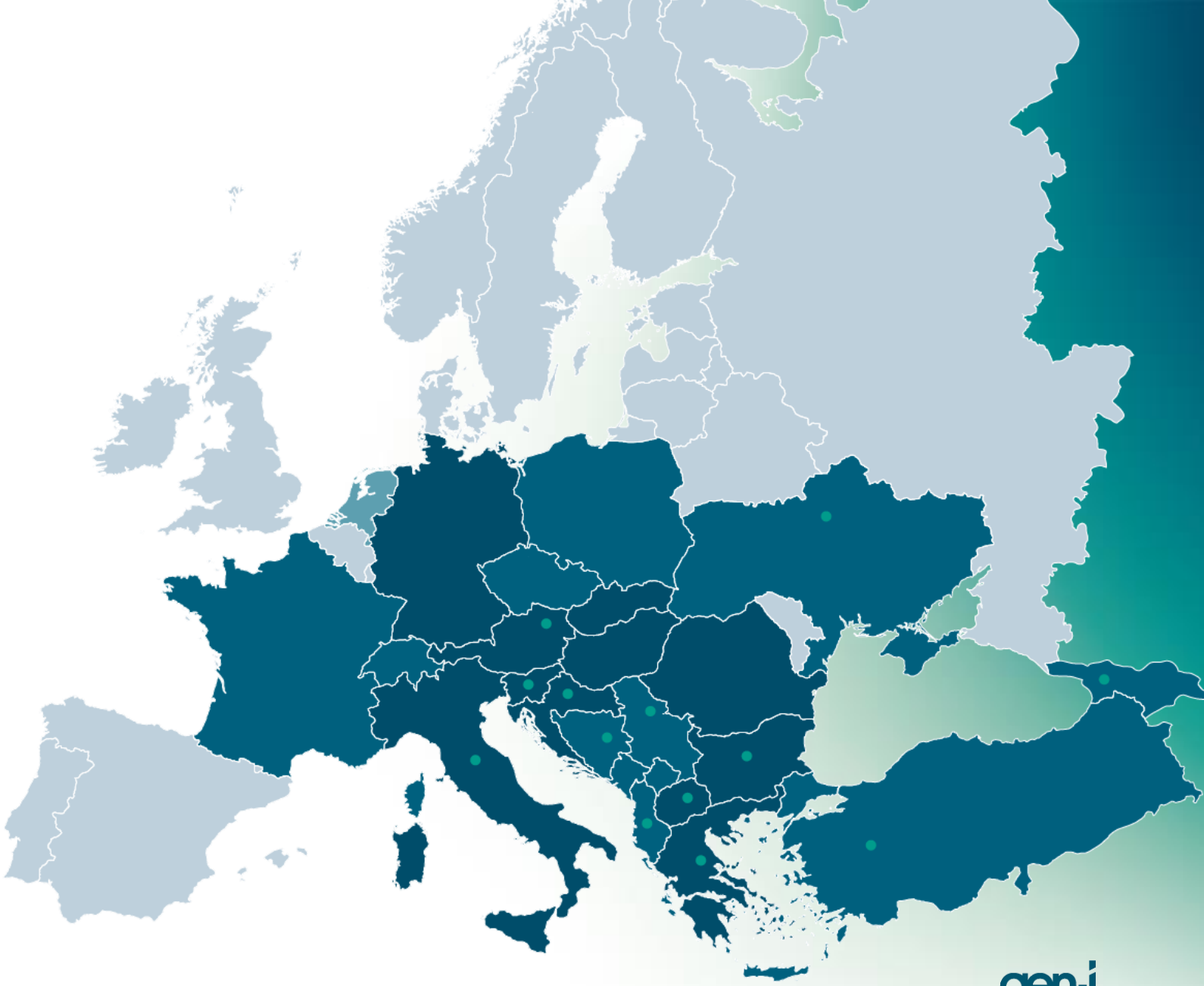
VI. No Regret Options

I. About the GEN-I Group
Geographic presence

17 companies within GEN-I Group

Present on **20+ energy markets**

Centralized strategic governance over all subsidiaries



I. About the GEN-I Group
Comprehensive PPA solutions

INVESTOR

- Planning/obtaining permits
- Financing
- Construction

PREPRODUCTION PHASES

Negotiations > Initial Offer

GEN-I

- Balancing
- Forecasting and optimisation
- Energy offtake at Index price model

TEST OPERATION PERIOD

Index price: linked to the local power exchange(s)

GEN-I

- Balancing
- Forecasting and optimisation
- Energy offtake – different PPA models

COMMERCIAL OPERATION PERIOD

Products and services tailored to Investors needs:

Model 1: Fixed price

Model 2: Indexed price – linked to local power exchange(s)

Model 3: Cap and floor model – linked to local power exchange(s) with a price cap and floor

Model 4: Price locking model – timing for hedging/un-hedging production price is on the investor

II. About Energy Traders Europe

25 years of promoting competitive, Europe-wide markets

- **25 years** of promoting competitive, integrated and harmonised energy markets
- Representing **150 members** all across Europe (and beyond)
- A consistent voice in favour of liberalization, competition and standardization
- Lots achieved – lots more still to do.

Energy Traders Europe booth at eWorld (Essen), visited by CEER

II. About Energy Traders Europe

Brussels, 11 July 2023

Key messages

1. Cost-efficiency and competition in the supply of decarbonised electricity would be enhanced by the UK and EU linking their ETSs, ensuring efficient cross-border trading rules and exempting each other from the application of CBAM.
2. It is essential for the Energy Community countries to meet the requirements for an exemption, as CBAM could slow down the pace of market integration and decarbonisation in the region.
3. The technical implementation rules for electricity imports need to reflect the features of cross-border electricity trading.

energy traders europe

Europe-wide

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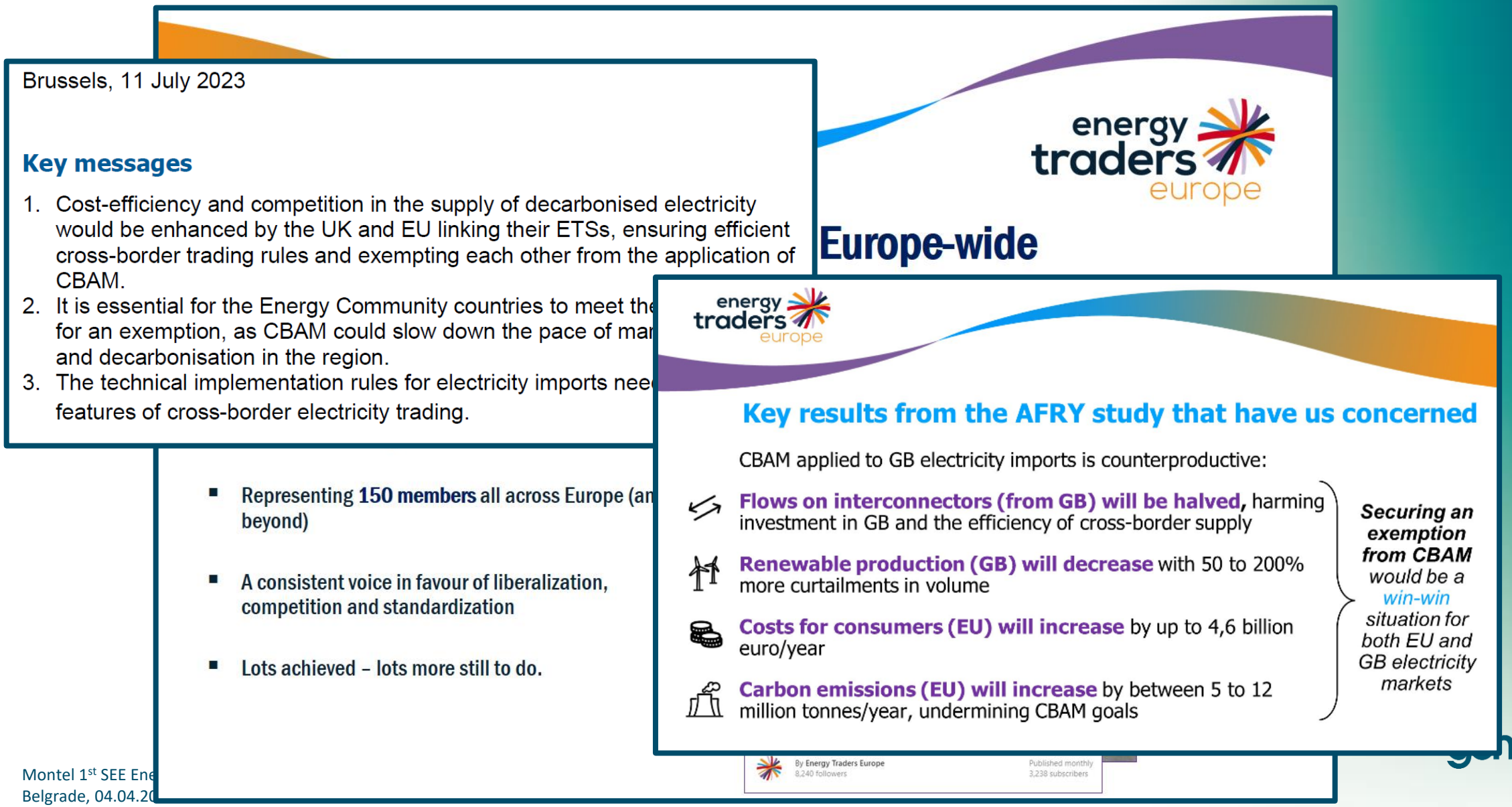

III. CBAM in the Context of Crises

CLIMATE CRISIS

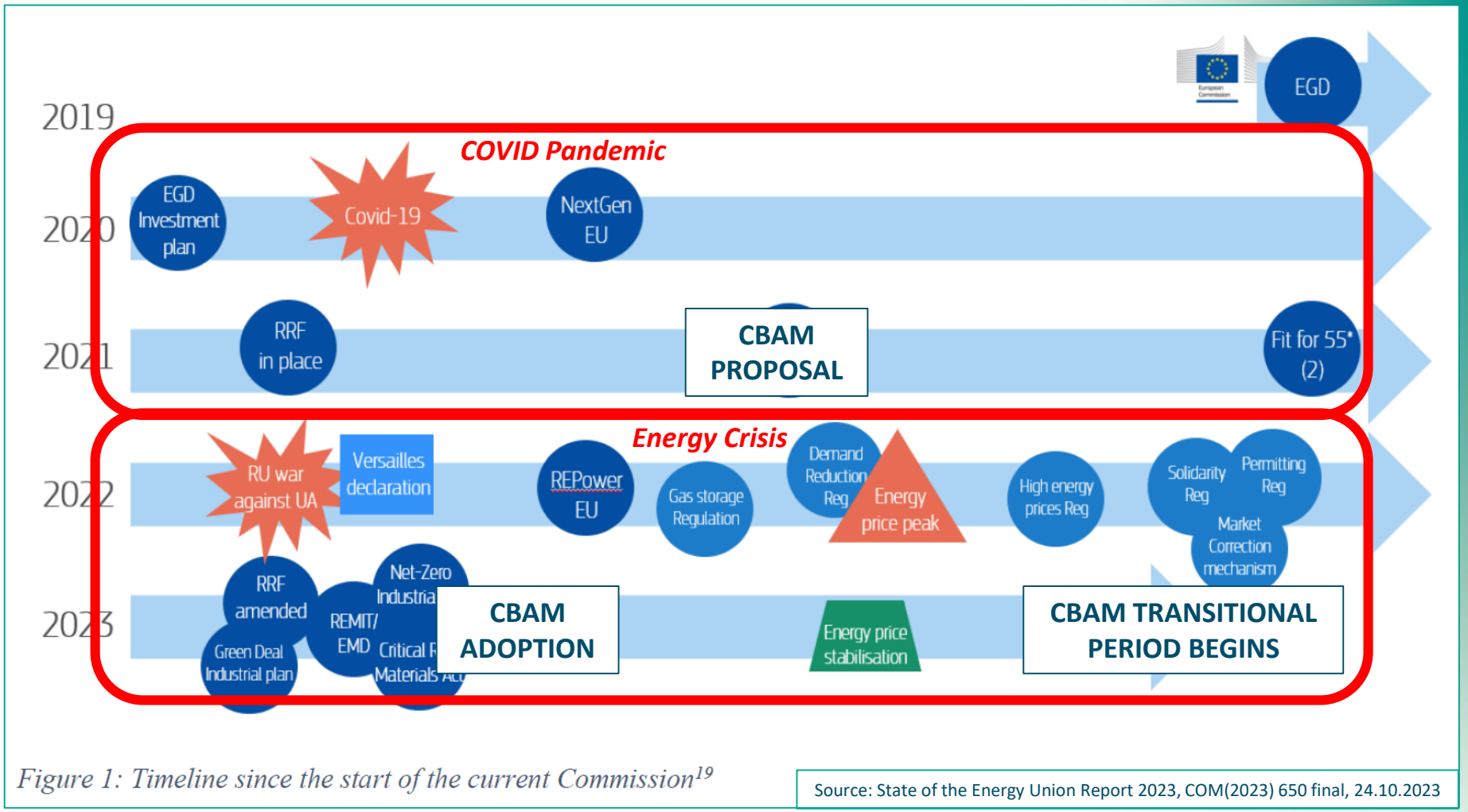

Figure 1: Timeline since the start of the current Commission[19]

Source: State of the Energy Union Report 2023, COM(2023) 650 final, 24.10.2023

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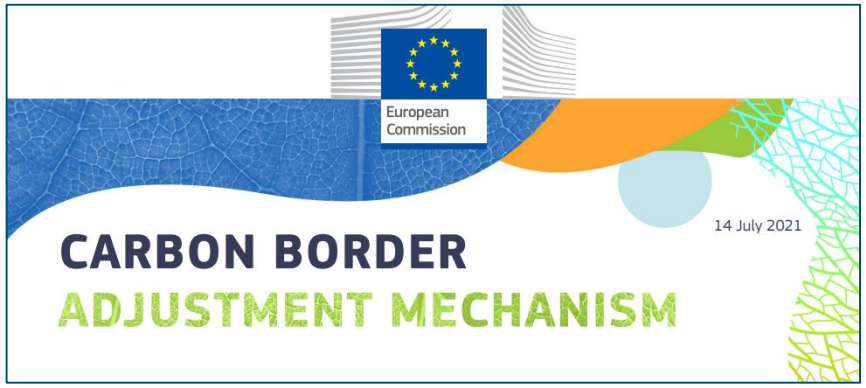
IV. CBAM Essential Elements



Aim: address carbon leakage in relevant sectors, by charging imported (covered) goods with CBAM certificates (price link with EU ETS) according to their embedded emissions, to ensure level-playing field between EU and non-EU sectors

KEY POINTS FOR IMPORTERS OF ELECTRICITY TO REMEMBER IN THE CBAM TRANSITIONAL PHASE

Electricity importers or their customs representatives must declare on a quarterly basis:

For direct emissions, quarterly reports should be based on the actual emissions produced during production of the goods. If the importer does not have all necessary information, default values can be used to some extent throughout the transitional period. For indirect emissions, reporting is generally based on default values, but actual embedded indirect emissions may be reported under certain conditions. Products falling within the scope of the new reporting obligations are detailed in Annex I to the CBAM Regulation.

Any carbon price due or paid in a country of origin for the embedded emissions in the imported electricity, deducting any rebate or other form of compensation already received.

EMISSIONS

EMBEDDED

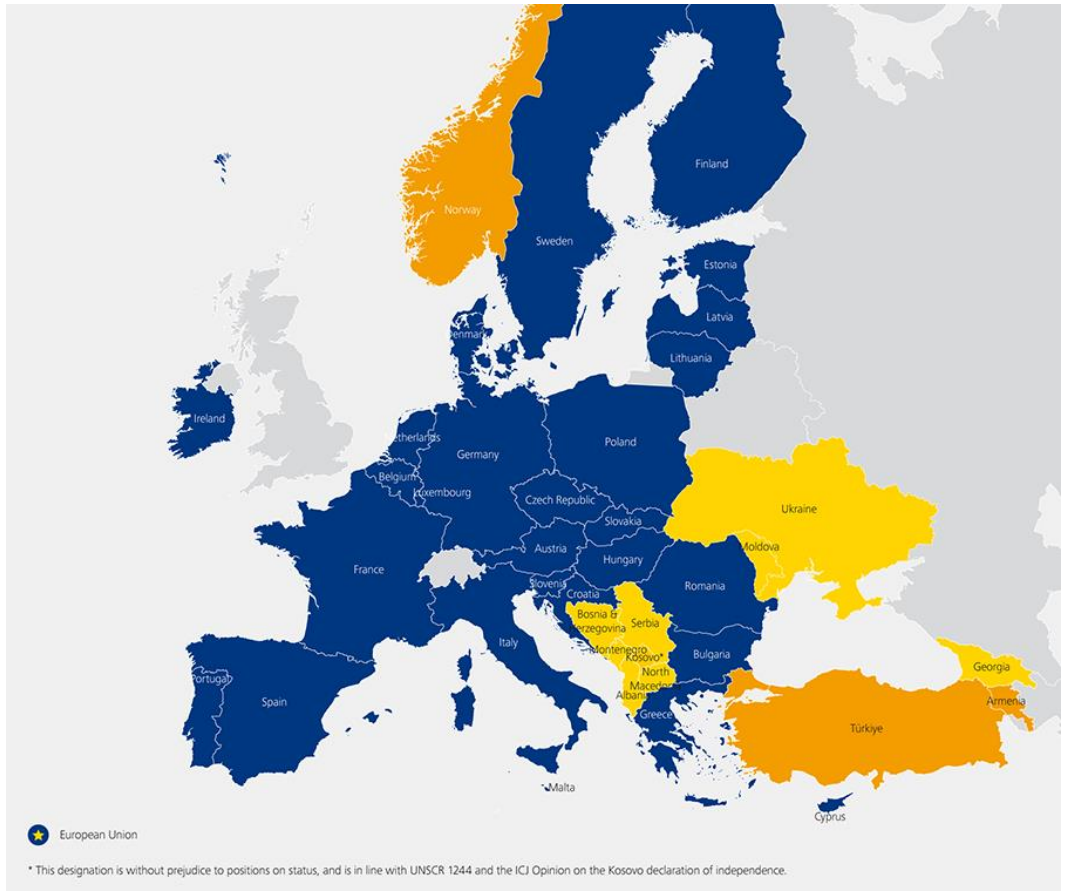
ACTUAL

INDIRECT

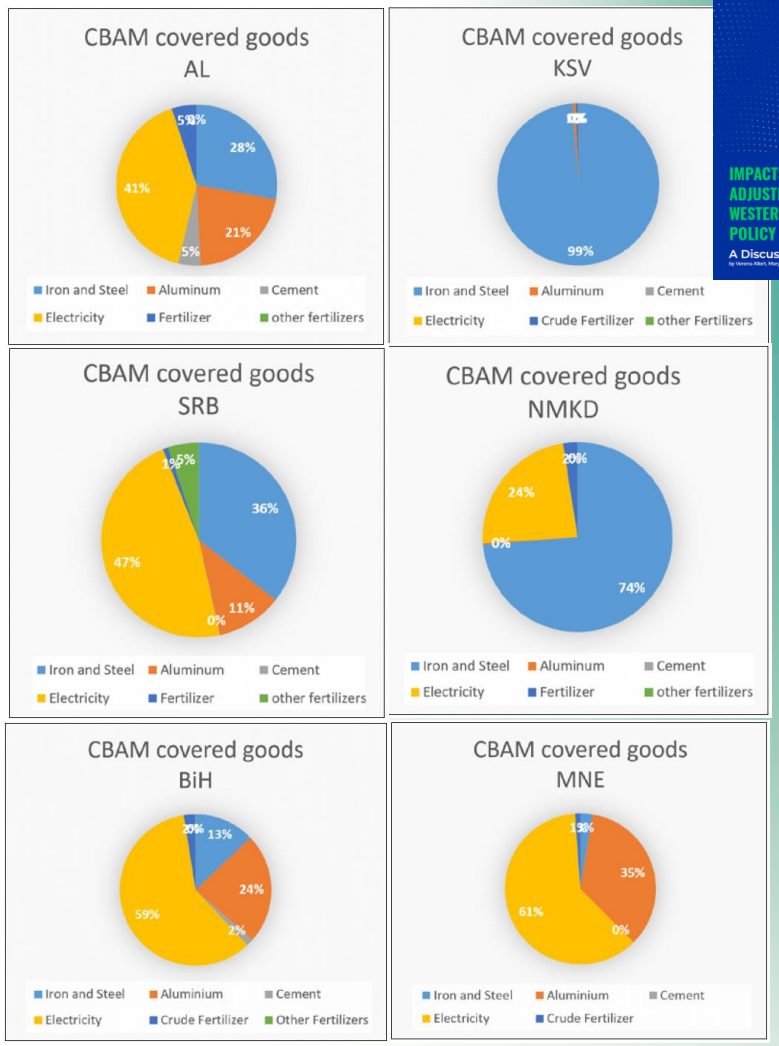
DIRECT

COVERED SECTORS

V. CBAM and the CSEE Region
Relevance for Electricity

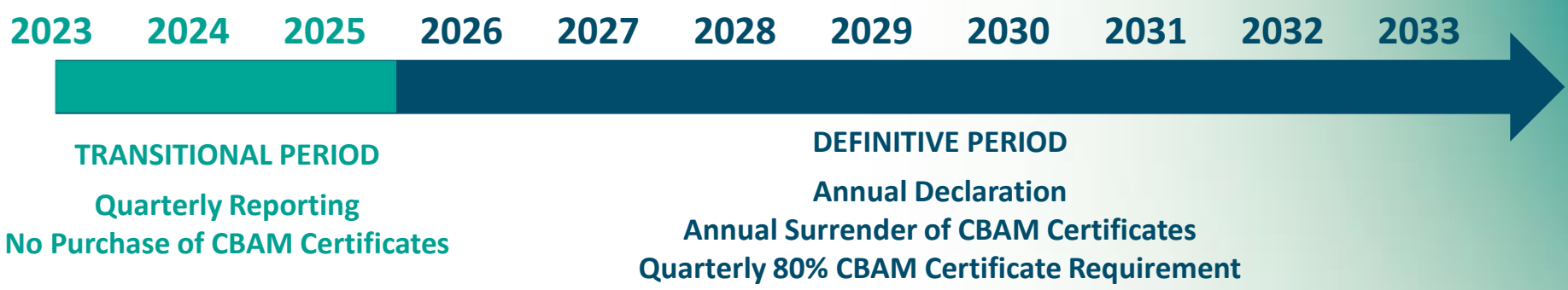


Non-EU countries of the CSEE region are an integral part of the broader European energy market, in particularly regarding electricity and in particular the WB-6.



From all CBAM covered sectors, electricity represents a sizeable share in almost all WB-6 countries.

V. CBAM and the CSEE Region
Timeline of Implementation



V. CBAM and the CSEE Region
Potential Exemptions …

National-level exemption
Article 2(7)

- Market Coupling – PX, NEMO, …
- EU Energy and Climate Acquis Implementation
- Climate Neutrality Commitments
- Carbon Pricing Implementation Roadmap

→ enables exemption from CBAM until 2030 (depending on CBAM compatibility with Market Coupling)

…yet: Complexity of legislative implementation
Question of timing in view of 2026 go-live

Utilisation of actual embedded emissions for electricity
Annex IV, point 5.

- PPA between CBAM Declarant (EU or customs representative for non-EU) and Producer (non-EU)
- Direct connection to Union *or* no physical congestion at any network point between installation and EU
- Maximum emissions of 550 gCO2/kWh
- Firm nomination from origin to destination, including transit, at hourly level
- Verification by accredited verifier

→ enables claiming of actual embedded emissions throughout plant lifetime

…yet: Unreasonable stringency of hourly matching (vs. EU)
Absence of guarantees of origin (vs. EU)
Coherence of local presence requirements?

V. CBAM and the CSEE Reg
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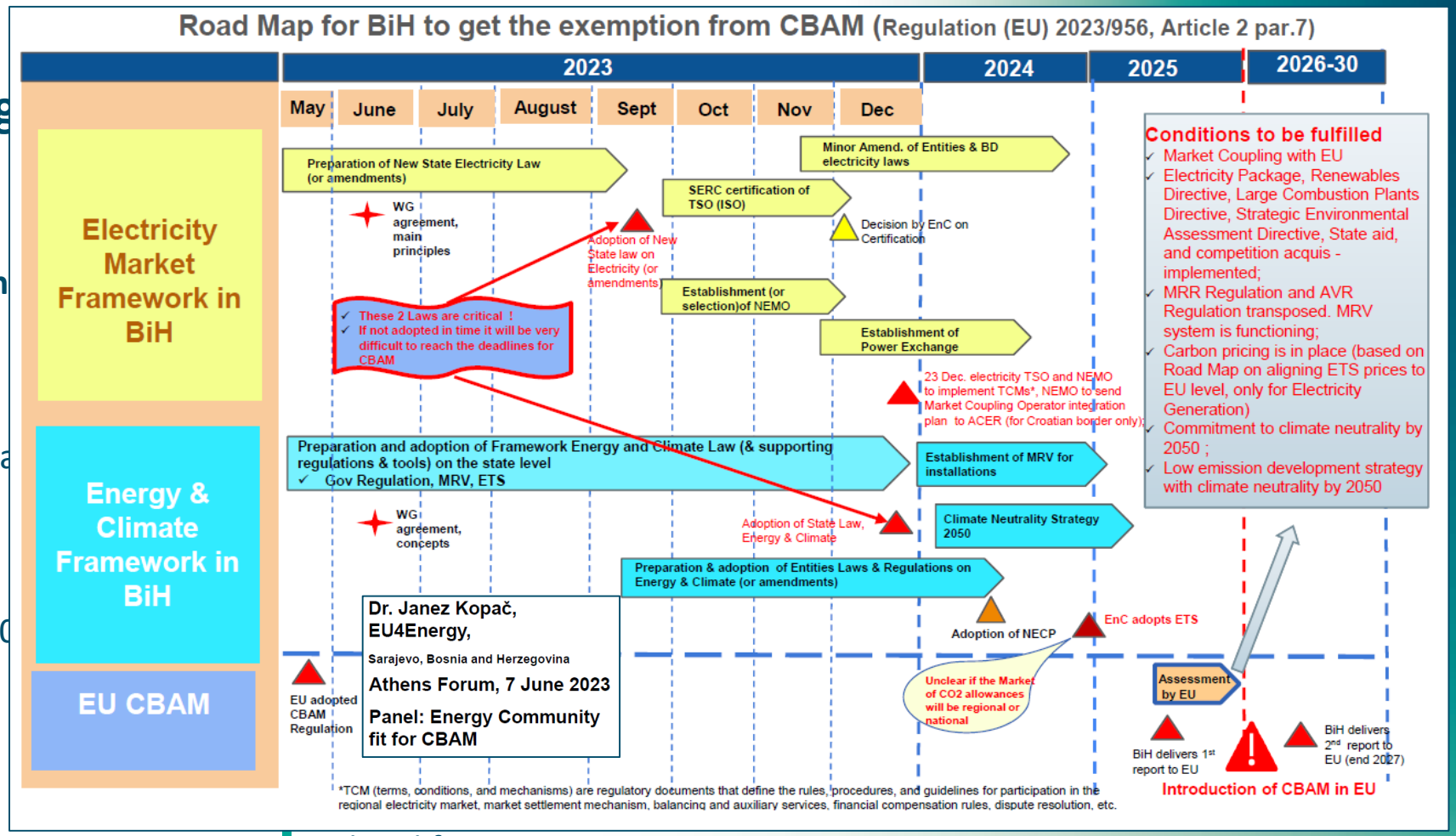

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plant lifetime

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V. CBAM and the CSEE Region

Potential Exemptions

NON-PAPER

Harmonisation of licensing regimes in electricity and gas

Energy Community (2018)

Annex IV – requirements for a local establishment (status quo)

	REQUIREMENT FOR A LOCAL ESTABLISHMENT			
	WHOLESALE ELECTRICITY	RETAIL ELECTRICITY	WHOLESALE GAS	RETAIL GAS
Austria	no			
Albania	yes[xxxvi] [*]			
Bosnia and Herzegovina	Yes		yes Republika Srpska[xxxvii]	
Bulgaria	no			
Croatia	no			
fYR of Macedonia	yes[xxxviii]			
Greece	no[xxxix]			
Hungary	no[xl]			
Kosovo*	yes[xli] [*]			
Moldova	yes[xlii]		yes[xliii]	
Montenegro	no	yes[xliv]	*No gas market*	
Poland	no[xlv]			
Romania	no[xlvi]			
Serbia	yes[xlvii] [*]			
Slovakia	yes[xlviii]			
Ukraine	yes[xlix]		no	

- Marke
- EU Ene
- Climat
- Carbor

→ enabl
CBAM co

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Coherence of local presence requirements?

V. CBAM and the CSEE Region
Potential Exemptions …

Without either the national-level exemption or fulfilment of all criteria for embedded emissions, every MWh imported into the EU from a given third country is subject to the same country-level default values (*which generally reflect domestic fossil fuel generation*).

Non-EU renewables will have to pay the same as if they were fossil fuel producers!!!

V. CBAM and the CSEE Region
…and Important Challenges

Illustrative example based on Q4/2023 and Q1/2024 data:

Country	*Emission Factor (tCO2/MWh)* *SOURCE: default values in CBAM Registry*	*Average EU ETS Price for Q4-23 (EUR/tCO2)* *SOURCE: monthly average of end-of-week EUA closing prices (EEX)*	*Hypothetical CBAM cost for imported electricity into EU, if paid for Q4-23 (EUR/MWh)*
Albania	0	76.43	-
Bosnia and Herzegovinia	1.13897		87.05
Kosovo	1.06294		81.24
North Macedonia	0.92764		70.90
Montenegro	0.97214		74.30
Serbia	1.04055		79.53
Ukraine	0.96184		73.51
Moldova	0.52073		39.80
**Turkey*	0.70563		53.93

Monthly average DAM price in January 2024 (EUR/MWh)	
ALPEX	90.47
MEMO	93.00
MEPX	89.05
SEEPEX	86.01

Application of CBAM will have drastic effects on CSEE electricity markets!

V. CBAM and the CSEE Region
…and Important Challenges

EU CBAM impact study focused on electricity imports from Great Britain

AFRY

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Key results from t

CBAM applied to GB electri

Flows on interconnecto
investment in GB and the e

Renewable production (
more curtailments in volum

Costs for consumers (EU
euro/year

Carbon emissions (EU)
million tonnes/year, underr

EXECUTIVE SUMMARY

Identified issues for application of CBAM to electricity imports from GB unduly increase carbon price exposure for GB resource and the cost of imports into the EU

	GB CONTEXT	CHALLENGES	PROBLEM STATEMENT
Carbon intensity	– GB already has a **lower carbon intensity**[1] than many Member States, has net zero commitments and ambitions similar to the EU, and is actively pursuing stated decarbonisation goals.	– Under CBAM rules, carbon content of imports from GB is likely to be based on a CO_2 emission factor that reflects GB **fossil fuel generation carbon intensity**.	**#1** Use of fossil fuel-based CO_2 emission factor **overstates carbon intensity**. This **unduly increases carbon price exposure for electricity exports from GB.**
Carbon pricing	– **Carbon pricing** is already **in place** for GB generation creating eligibility for CBAM rebates (i.e. reduction in the number of CBAM certificates to be surrendered).	– While **carbon emitting generation** in GB will have paid the domestic carbon price, the nature of trading (i.e. frequently traded anonymously and multiple times) means it is **not practicable for a reporting entity to demonstrate this**. – Even if proof of carbon price paid was practicable**, zero carbon** generation does not pay carbon price and so **cannot demonstrate** payment domestically.	**#2a** Barriers to demonstration of carbon price paid in country of origin **block** ability to claim CBAM rebates (i.e. a reduction in CBAM certificates to be surrendered), which **increases carbon price exposure** of GB electricity exports.[2]
Trading	– In line with common practice throughout Europe, electricity is frequently **traded anonymously**, for example via power exchanges, and the same MWh can be traded **multiple times**.		**#2b** Non-carbon emitting generation in GB will not pay a domestic carbon price and so will be **unable to claim a reduction in CBAM certificates.** This means **zero carbon GB generation faces an undue carbon price.**

CBAM cost inflator linked to overstated carbon intensity

1. In 2023, more than 50% of electricity generation was from zero carbon sources, 32% from gas and 1% from coal. https://www.nationalgrideso.com/news/britains-electricity-explained-2023-review
2. To illustrate that payment made under UK ETS cannot be demonstrated and so is duplicated, the UK carbon cost is replicated in the CBAM certificates column.

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Montel 1st SEE Energy
Belgrade, 04.04.2024

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…and Important Challenges

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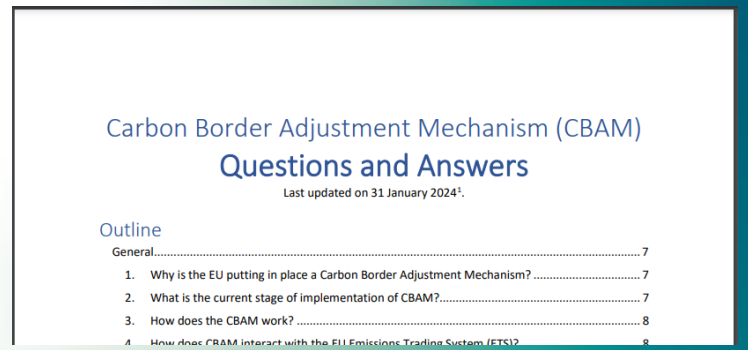
The highlighted issues are direct consequences of CBAM design, and are therefore equally relevant – and equally problematic – for the WB-6 and other Energy Community Contracting Parties.

VI. No Regret Options
PPAs as the Cornerstone – for Trading and Supply


Carbon Border Adjustment Mechanism (CBAM)

Questions and Answers

Last updated on 31 January 2024[1].

Outline

General 7

1. Why is the EU putting in place a Carbon Border Adjustment Mechanism? 7
2. What is the current stage of implementation of CBAM? 7
3. How does the CBAM work? 8
4. How does CBAM interact with the EU Emissions Trading System (ETS)? 8

Issue	CBAM good					
	Cement	Fertilisers	Iron/Steel	Aluminium	Hydrogen	Electricity
Reporting metrics	(per) Tonne of good					(per) MWh
Greenhouse gases covered	Only CO_2	CO_2 (plus nitrous oxide for some fertiliser goods)	Only CO_2	CO_2 (plus perfluorocarbons (PFCs) for some aluminium goods)	Only CO_2	Only CO_2
Emission coverage during transitional period	Direct and indirect					Only direct
Emission coverage during definitive period	Direct and indirect		Only direct, subject to review			Only direct
Determination of direct embedded emissions	Based on actual emissions, but estimations (including default values) can be used for up to 100% of the specific direct embedded emissions for imports until 30 June 2024 (i.e. CBAM reports due until 31 July 2024) and for up to 20% of the total specific embedded emissions for imports until 31 December 2025					Based on default values, unless several cumulative conditions are met
Determination of indirect embedded emissions	Based on actual electricity consumption and default emission factors for electricity, unless conditions are met (i.e. direct technical connection or power purchase agreement). Estimations (including default values) can be used for up to 100% of the specific indirect embedded emissions for imports until 30 June 2024					Not applicable

PPA between CBAM Declarant and Producer one of conditions

...yet:

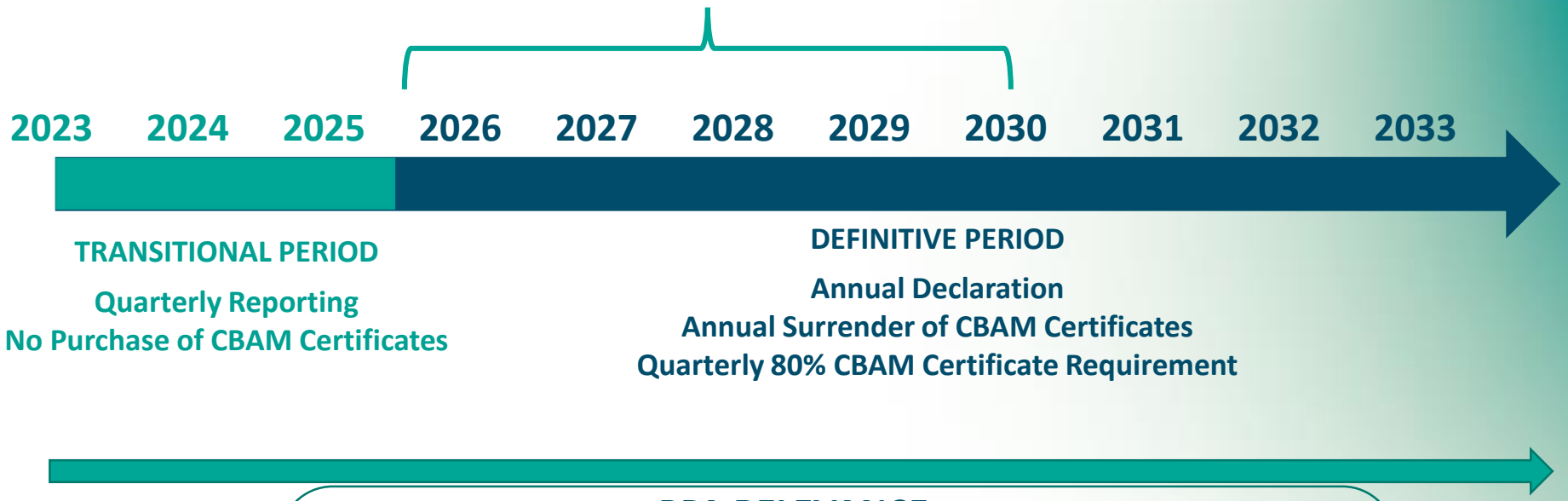
61. Can market-based certificates (Guarantee of Origin, Renewable Energy Certificates, etc.) be used to justify the use of actual emission factors?

- During the transitional period, the general rule for the emission factor for electricity is to use default values which will be provided by the Commission. However, actual emission factors for electricity can be used if the relevant conditions are met (i.e., existence of a direct technical link or a power purchase agreement, as explained above).
- Market-based specific emission factors, determined for example by Guarantees of Origin or Green Certificates cannot be used to justify the use of actual emission factors.

VI. No Regret Options
Timeline of Implementation – and Adaptation

GOVERNMENTAL AND INSTITUTIONAL LEVEL

POTENTIAL TIMEFRAME FOR NATIONAL-LEVEL EXEMPTIONS



PPA RELEVANCE

PPAs for electricity as input to production processes for CBAM covered sectors

PPAs for electricity imported into EU, subject to **(for now)** stringent cumulative criteria

MARKET ACTORS AND SOLUTIONS

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Thank you for your attention!

Contact: luka.jazbec@gen-i.si