Energy Community













ENERGY COMMUNITY

CBAM-Readiness Tracker

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Introduction

The European Union's Regulation establishing a carbon border adjustment mechanism[1] ("CBAM Regulation") became applicable on 1 October 2023. The obligations, which initially are of an administrative and reporting nature, but later will include financial obligations, will impact the trade of goods, including electricity, between Energy Community Contracting Parties ("Contracting Parties") and the Member States of the European Union ("EU"). As a result of the successful efforts pursuing energy market integration, which was at the same time not accompanied by the concurrent approximation of environmental and climate regulation, thermal power plants in the Western Balkans have been benefitting from preferential access to the Union's integrated electricity market, while not being subject to the EU Emissions Trading System ("EU ETS").

Even though the CBAM Regulation is not part of the *acquis* of the Energy Community, its implementation in the EU directly impacts the energy sector development in Contracting Parties and the coupling of their electricity markets with those of the EU Member States. The regional cooperation facilitated by the Energy Community can effectively help to minimise the impacts of CBAM on electricity trade in the Western Balkans, Ukraine and Moldova. The impact on non-electricity CBAM sectors[2] may potentially trigger a revision of Contracting Parties' industrial, social and trade policies.

The Energy Community CBAM Readiness Tracker provides an overview of the latest developments and the progress of Contracting Parties towards complying with the conditions for an exemption from CBAM for electricity. It focuses on the progress towards implementing electricity market coupling, the plans for avoiding the costs of CBAM such as via the introduction of domestic carbon pricing equivalent to the EU ETS, the achievements towards and plans for decarbonising the energy system and putting in place a strong governance system for a successful green transition.

The work on **implementing the three main pillars of the green transition** in the Energy Community continued in 2024, notably related to the Clean Energy Package,[3] the Electricity Integration Package[4] and the 2030 targets for greenhouse gas ("GHG") emission reduction, for increasing the share of renewable energy and for reducing primary and final energy consumption as outlined in the decision of the Energy Community Ministerial Council[5] ("Ministerial Council Decision").

While activities aimed at the transposition of the Electricity Integration Package are ongoing in all Contracting Parties, delay in its completion is slowing down earlier plans for electricity **market coupling**. Given that market coupling is a precondition for obtaining an exemption from CBAM in electricity, the lack of its implementation poses the risk that electricity imports from Contracting Parties to the EU will be subject to financial adjustment under CBAM starting from January 2026.

The commitment to the **2030 Energy Community targets** and the policies and measures to achieve them are two cornerstones of the integrated National Energy and Climate Plans ("NECPs"). To date, all Contracting Parties except Montenegro have submitted a draft NECP, in response to which the Energy Community Secretariat ("Secretariat") issued Recommendations. The NECPs of Albania, North Macedonia,[6] Georgia, Serbia and Ukraine have been adopted. Alignment with the 2030 targets set out in the Ministerial Council Decision[7] for Contracting Parties is strong, however the lack of clear policies and measures often make it challenging to confirm how those targets will be met.

The key to an economically effective green transition is to internalise the externalities stemming from pollution and high GHG emissions to the maximum possible extent. **Putting a price on carbon** would result in a predictable price signal for green investments. The resulting higher, and more realistic, level of capital and operational costs for emissions-intensive technologies could provide more appropriate price signals to operators, governments and investors about the (lack of) viability of keeping existing inefficient facilities in operation or investing in clean, low-carbon technologies. Driven by CBAM deadlines, the policy dialogue on carbon pricing in the Energy Community continued in 2024, although tangible results are yet to be achieved. In parallel, efforts must continue to compile complete, reliable and consistent information on GHG emissions at the level of individual installations via the implementation of the Monitoring Reporting Verification and Accreditation ("MRVA") rules[8] in Contracting Parties.

The ongoing war and the continued strikes on energy generation and transmission assets have further deteriorated supply security in **Ukraine** and increased the dependence on electricity imports from neighbouring markets. Political and economic uncertainty will continue to have an impact on the design and predictability of the regulatory framework and the application of the martial law substantially limits the scope of available information.

1 Regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism

2 Aluminium, cement, fertilisers, hydrogen, iron and steel

3 Decision 2021/14/MC-EnC on the incorporation of Directive (EU) 2018/2001, Directive (EU) 2018/2002, Regulation (EU) 2018/1999, Delegated Regulation (EU) 2020/1044 and Implementing Regulation (EU) 2020/1208 in the Energy Community acquis

4 Decision 2022/03/MC-EnC on the incorporation of Regulation (EU) 2019/942, Regulation (EU) 2019/943, Regulation (EU) 2015/1222, Regulation (EU) 2016/1719, Regulation (EU) 2017/2195, Regulation (EU) 2017/2196, Regulation (EU) 2017/1485 in the Energy Community acquis, amending Annex I of the Energy Community Treaty and on the amendments of the Ministerial Council Decisions No 2021/13/MC-EnC and No 2011/02/MC-EnC

5 Decision 2022/02/MC-EnC on amending Decision 2021/14/MC- EnC and incorporating Directives (EU) 2018/2001 and 2013/2002, Regulations (EU) 2018/1999, 2020/1044, and 2020/1208 in the Energy Community acquis

6 Albania and North Macedonia adopted their NECPs in December 2021 and May 2022 respectively. Both plans are subject to an update.

7 Decision 2022/02/MC-EnC on amending Decision 2021/14/MC- EnC and incorporating Directives (EU) 2018/2001 and 2013/2002, Regulations (EU) 2018/1999, 2020/1044 and 2020/1208 in the Energy Community acquis

8 Decision 2022/05/MC-EnC on amending Annex I to the Treaty establishing the Energy Community and incorporating Implementing Regulation (EU) 2018/2066, Implementing Regulation (EU) 2018/2067 and Directive 2003/87/EC in the Energy Community acquis

CBAM and an overview of Contracting Parties' compliance with the CBAM exemption criteria for electricity

CBAM becomes operational

With CBAM as a climate policy instrument, the EU pursues placing a financial burden equal to the EU ETS price on the import of aluminium, cement, electricity, fertilisers, hydrogen, iron and steel from non-EU countries on the basis of the level of GHG emissions embedded in their production. During the transitional phase until January 2026, CBAM imposes only a reporting obligation on EU importers regarding the amount of imported CBAM goods and the level of associated embedded emissions. Under the definitive regime starting in 2026, the reporting obligation will be replaced by the obligation to submit annual declarations and to purchase and surrender CBAM certificates equivalent to the amount of embedded emissions associated with the production of those goods.

The reporting obligations under CBAM require data collection, which is often transferred by EU importers to the producers in the third countries, entailing additional administrative costs. The methodology in the CBAM Regulation for determining actual embedded emissions builds on the experiences and practices of implementing Directive 2003/87/EC ("EU ETS Directive"), Commission Implementing Regulation (EU) 2018/2066 ("MRR") and Implementing Regulation (EU) 2018/2067 ("AVR"). The timely implementation of MRVA in the Energy Community, which includes precisely those acts, will be instrumental for the operators of installations in Contracting Parties in tackling this challenge in an efficient manner.

It is currently technically not possible to apply CBAM to the import of electricity from third countries whose electricity markets are coupled with the Union's internal energy market. If market coupling is in place, the CBAM Regulation allows for a time-limited exemption for the import of electricity from third countries, if specific conditions are fulfilled. In order to avoid being subject to financial adjustment under CBAM, an exemption for electricity would need to be secured before 31 December 2025. The CBAM Regulation does not rule out the possibility of an exemption being granted if the exemption criteria are met even after December 2025. However in such a case CBAM payments will remain applicable until the corresponding Commission decision on exemption enters into force.

Compliance with the CBAM exemption criteria for electricity

Progress in **electricity market coupling** – which is a precondition for an exemption from CBAM for electricity to be considered – remains weak, as the **transposition** of the Electricity Integration Package, adopted by the Ministerial Council in December 2022 has not been completed by any Contracting Party so far and several practical milestones have failed to be met. This shortcoming also negatively affects Contracting Parties' progress in implementing electricity market-related elements of the acquis in practice.

The **Energy Community Treaty** – as a comprehensive and legally binding legal system – provides an appropriate framework as an agreement with the Union to apply EU law in energy, electricity including renewable energy, environment and competition as required under the CBAM Regulation.

The progress in implementing **renewable energy** acquis shows various level of completion among Contracting Parties. The scores in the table represent the Energy Community Secretariat's own assessment of the transposition and implementation of the energy-related provisions of the Energy Community Renewable Energy Directive[9] ("Renewables Directive"), as the CBAM Regulation does not specify which elements of the EU or Energy Community acquis should be considered the "*main provisions of Union electricity market legislation, including on the development of renewable energy sources and the market coupling of electricity markets*".

No Contracting Party has submitted a **Roadmap** to the European Commission as referred to in Article 2(7c) of the CBAM Regulation. Further clarification by the European Commission regarding the required format, structure and content of the Roadmap would provide Contracting Parties with predictability about this criterion and could lead to submissions that follow the same outline and have the same content, making it easier for the Commission to carry out an assessment. The Decarbonisation Roadmap for the Contracting Parties of the Energy Community ("Decarbonisation Roadmap") – adopted in 2021 – lays out a list of EU legislation with proposed deadlines for adoption in the Energy Community. It aims, among other things, to support the path towards the 2030 energy and climate targets and mid-century climate neutrality, taking stock of existing and planned decarbonisation efforts and making progress on agreeing to a carbon pricing system for Contracting Parties. These objectives are well aligned with the policy intentions of CBAM, making an updated Decarbonisation Roadmap a potential vehicle for setting out a path and main milestones for an exemption for electricity. The Informal Ministerial Council of the Energy Community in July 2024 saw an expression of openness by Contracting Parties to update the Decarbonisation Roadmap reflecting their commitment to achieving climate neutrality by 2050 and to continue moving forward on carbon pricing with a view to joining the EU ETS upon accession at the latest.

The state of play in the commitment to **climate neutrality by 2050** shows varied progress among Contracting Parties, with only one climate law (Moldova) and one long-term strategy (Georgia) having been adopted including the 2050 climate neutrality commitment as required by the CBAM Regulation. For an exemption, both criteria must be fulfilled simultaneously, therefore it is highly recommended that the 2050 climate neutrality commitment be considered during the Contracting Parties' ongoing work on both their long-term strategies and climate legislation.

Discussions on **carbon pricing** and the possible parameters of a coordinated **emissions trading system** are ongoing both in the Energy Community context and domestically. In 2023, the Secretariat carried out four visits to individual Contracting Parties and organised three workshops dedicated to carbon pricing and to establishing a cap-and-trade system in particular. The informal and formal Ministerial Council

9 Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources as adapted and adopted by the Ministerial Council Decisions 2021/14/MC-EnC and 2022/02/MC-EnC.

meetings on 30 June and 14 December 2023 respectively focused on the potential role and function of carbon pricing in Contracting Parties, as well as the link of such instruments to tackling the impacts of CBAM. The design elements necessary for the introduction of an emissions trading system were presented and discussed, noting that due to the small size of domestic carbon markets in most of the individual Contracting Parties, synergies and shared infrastructure as well as resources could lead to a more cost-efficient implementation. In the absence of political support for such synergies and a coordinated approach, which was labelled "regional ETS", Contracting Parties invited the European Commission to prepare and present an impact assessment of various policy options for carbon pricing. The European Commission's report on the impact assessment is scheduled to be finalised by the end of 2024.

Lastly there are no actions aimed at the establishment of an **effective system to prevent indirect import of electricity into the Union** from third countries which do not fulfil the CBAM exemption criteria.

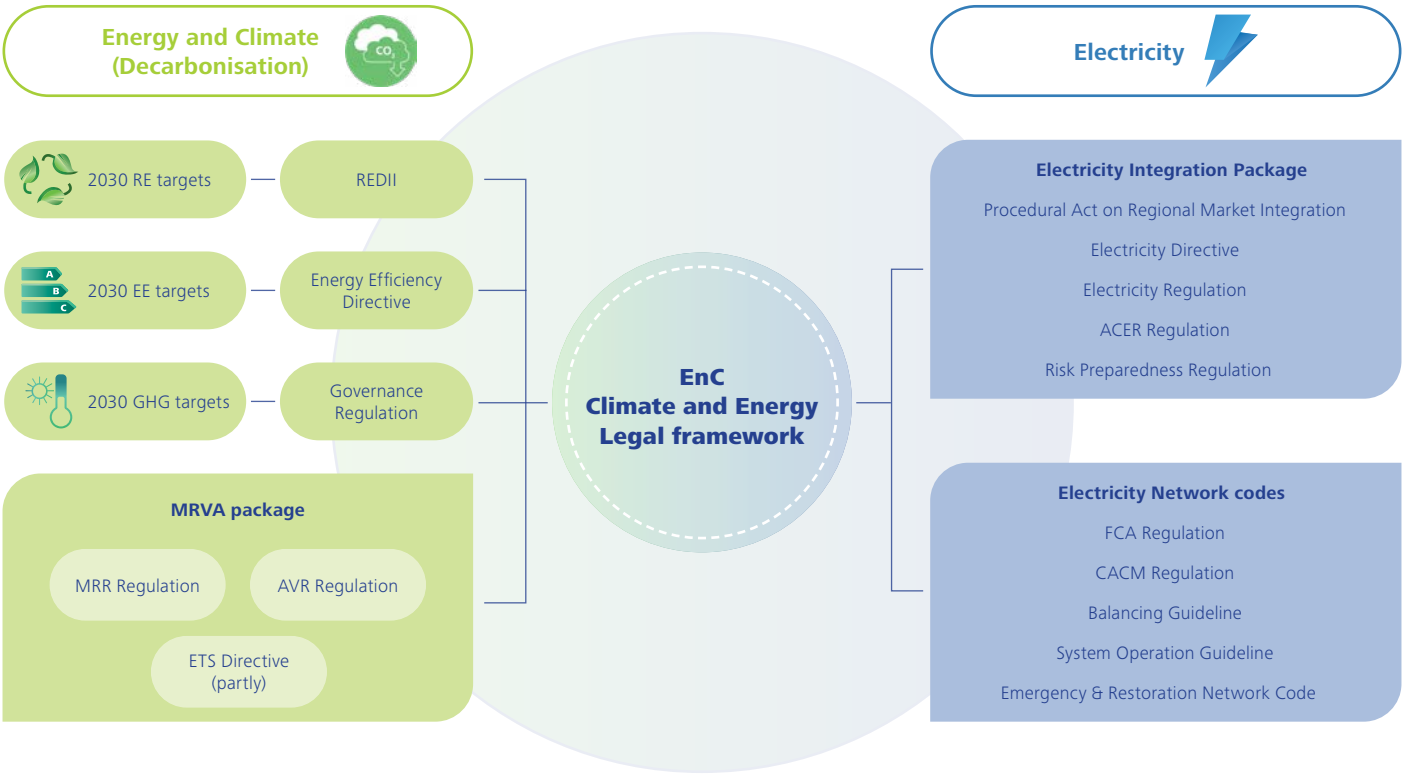
Table 1 Compliance with the CBAM exemption criteria for electricity

CBAM exemption criterion		AL	BA	GE	MD	ME	MK	RS	UA	XK*
Article 2.7 - Market coupling completed		🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Article 2.7 (a) - Concluded agreement with the Union with the obligation to apply Union law in energy, electricity including renewable energy, environment and competition		🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Article 2.7 (b) – Domestic legislation implements the main provisions of electricity market regulation and renewable energy and market coupling of electricity markets		Fulfilment of the condition of electricity market coupling is pending transposition and implementation of the Electricity Integration Package which was due on 31.12.2023, but not yet completed in any of the Contracting Parties.								
	Implementation ratio for renewable energy (preliminary assessment by the EnCS)	61%	48%	45%	62%	50%	48%	70%	59%	70%
Article 2.7 (c) - Roadmap submitted to the EC regarding the planned achievement of climate neutrality by 2050 and plans for alignment with the EU climate acquis, including carbon pricing and the establishment of an emissions trading system for electricity from 2030		🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Article 2.7 (d) - Commitment to achieve climate neutrality ("CN") by 2050 and implementing that commitment in domestic legislation; formulating and including the climate neutrality objective in a long-term low greenhouse gas emissions development strategy ("LTS") communicated to the UNFCCC if applicable	2050 CN in dom. leg.	🔴	🔴	🔴	🟢	🔴	🔴	🔴	🔴	🔴
	2050 CN in LTS	🔴	🔴	🟢	🔴	🔴	🔴	🔴	🔴	🔴
Article 2.7 (e) - Substantial progress on alignment with the EU climate aquis, including carbon pricing and the establishment of an emissions trading system for electricity with a price equivalent to the EU ETS from 2030		🔴	🔴	🔴	🔵	🔵	🔴	🔵	🔵	🔴
Article 2.7 (f) - An effective system is in place to prevent indirect import of electricity into the Union from other third countries or territories that do not fulfil the conditions for an exemption from CBAM for electricity		🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴

🟢 Condition completed 🔴 Condition not completed 🔵 Work ongoing / progress visible

Energy Community legal framework of the EU acquis relevant for CBAM

The Energy Community legal framework includes elements of the EU *acquis communautaire* in the field of electricity, including the legislation on the development of renewable energy sources, as well as rules in the fields of energy, environment and competition. CBAM is not part of the Energy Community acquis. However, due to the direct impact of its implementation on energy market integration, the Energy Community facilitates regional cooperation in order to avoid the negative impacts of CBAM on electricity trade.



Market coupling as a precondition for a CBAM exemption

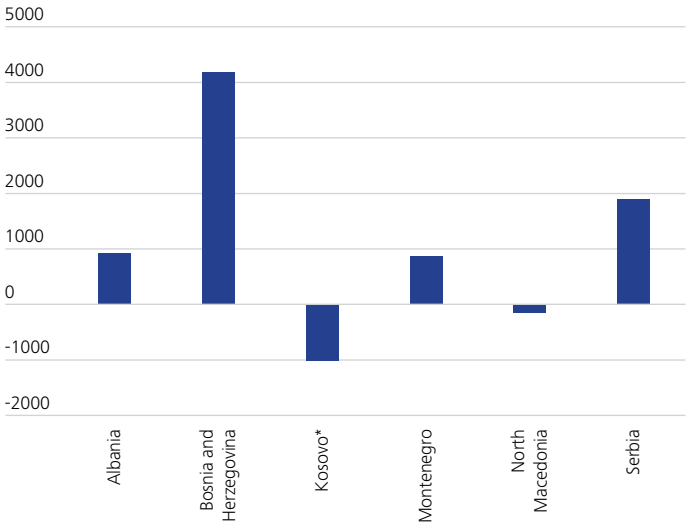
Electricity trade

Favourable hydrological and market conditions led to a historical peak in the net import/export position of the Contracting Parties (excluding Ukraine) in 2023.

The data in Figure 1 indicate that in 2023, Bosnia and Herzegovina held the largest net electricity export position in total, i.e. to the EU and neighbouring Contracting Parties' markets, followed by Serbia, Albania and Montenegro. Conversely, Moldova recorded the highest net electricity imports, followed by Kosovo*, while North Macedonia's net electricity imports were negligible.

On the other hand, based on the ENTSO-E Total Scheduled Commercial Exchanges data for 2023, Serbia recorded the highest volumes of electricity, including both exports and transits from Contracting Parties to the EU, followed by Montenegro, North Macedonia, Bosnia and Herzegovina and Albania, while Moldova registered the lowest volumes.

Figure 1 Net Import / Export 2023 [GWh]



Source: compiled by the Secretariat based on Contracting Parties' reports

Table 2 Total Scheduled Commercial Electricity Export and Transit from CPs to the EU in 2023

CPs	Albania	Bosnia and Herzegovina	Moldova	Montenegro	North Macedonia	Serbia
Borders	AL ➡ GR	BA ➡ HR	MD ➡ RO	ME ➡ IT	MK ➡ BG MK ➡ GR	RS ➡ BG RS ➡ RO RS ➡ HU RS ➡ HR
Volume [GWh]	2,181	2,489	237	3,693	3,409	12,373

Source: ENTSO-E Total Scheduled Commercial Exchanges, https://web-api.tp.entsoe.eu/api, MTU = 1 hour

A comparison between Figure 1 and Table 2 shows that except in the case of Bosnia and Herzegovina, there are significantly higher electricity volumes flowing into the EU Member States from Contracting Parties than the rate of individual net exports of the latter.

Table 3 The role of electricity transit in selected Contracting Parties

	Albania	**Bosnia and Herzegovina**	**Moldova**	**Montenegro**	**North Macedonia**	**Serbia**
Net export[10] [GWh]	920	4,187	-3,415	871	-150	1,893
Commercial[11] Electricity flows to EU MSs [GWH]	2,181	2,489	237	3,693	3,409	12,373

While the available data do not allow for precise identification of the origin of transits through the Contracting Parties indicated here, the topology of the electricity network indicates that they mainly originate either from neighbouring EU Member States or from other Contracting Parties. The Western Balkan Contracting Parties are entirely encircled by EU Member States. Additionally, Ukraine is fully synchronised with the EU power grid, with no electricity exchanges with Russia or Belarus. Moldova shares borders with Romania and Ukraine, while Georgia remains physically non-connected to the European power grid.

10 Positive figures indicate Contracting Parties exporting more than their imports and negative figures show more imports than exports. The values were compiled by the Secretariat based on Contracting Parties' reports.

11 Total Scheduled Commercial Electricity Export and Transit from CPs to the EU, based on ENTSO-E Total Scheduled Commercial Exchanges data.

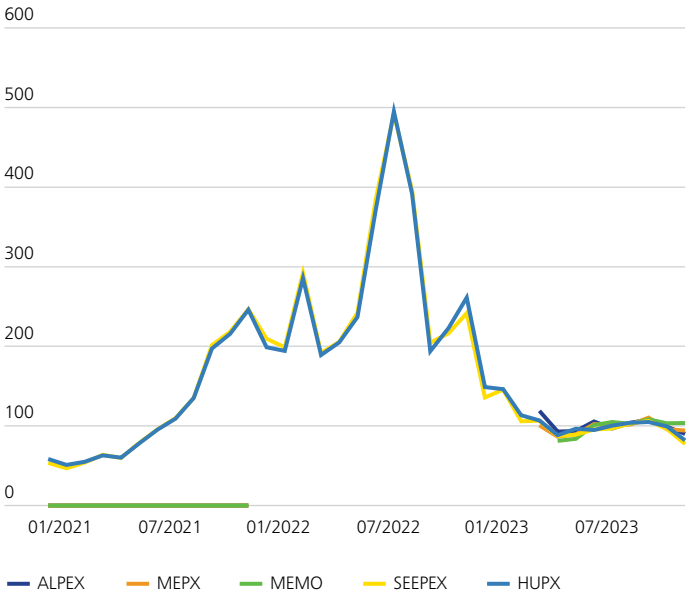
Considering the limited net export position of all Contracting Parties – except for Bosnia and Herzegovina – compared to the overall cross-border flows indicated in the data in the above tables, it may be noted that most of the transit volumes through the Contracting Parties originate from neighbouring EU Member States, with a smaller portion representing transits originating from other Contracting Parties.

Considering the above, it is important that for the purpose of enforcing CBAM through CBAM declarations, commercial imports into the EU from Contracting Parties which are not exempted from CBAM are clearly distinguished from the transit.

Getting the price signal right

In 2023, electricity wholesale prices stabilised, averaging around 100 EUR/MWh annually, as presented in Figure 2. It was almost three times lower than the 2022 average, yet double the pre-crisis average price. The high price correlation between the Contracting Parties' day-ahead market prices and HUPX day-ahead market price, Southeast Europe's most referential power exchange, indicates strong synchronisation with European market dynamics.

Figure 2 Average Baseload DAM Monthly Prices [EUR/MWh]

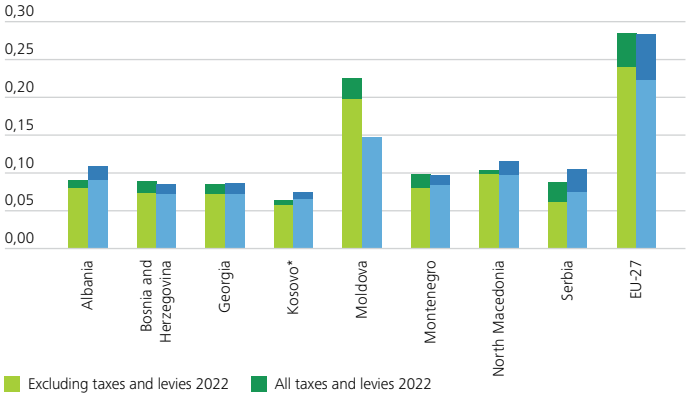


Source: PX Market Reports

However, due to widespread public interventions in electricity price setting, through which a significant portion of consumers, particularly households and small enterprises, were shielded from high prices, the wholesale price signals only partially reached the retail market.

In 2023, some of the Contracting Parties phased out the emergency measures introduced in 2022 in response to the energy crisis, which was reflected in their retail prices. Overall, there were significant price increases for households in the Dc consumption band[12] in Albania, Kosovo*, North Macedonia and Serbia. Conversely, Moldova experienced a substantial price decrease of 34,5% due to a tax break on household electricity consumption.

Figure 3 Household prices [EUR/kWh] band Dc consumption 2500-5000 kWh

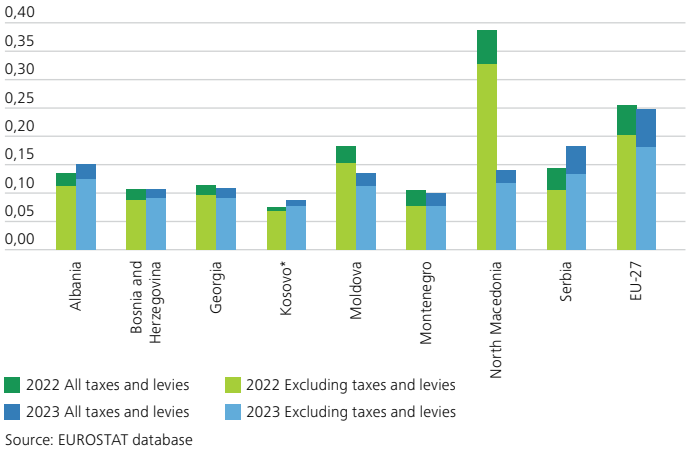


Source: EUROSTAT database

Despite these changes, the average household electricity price (Dc consumption band) in the Contracting Parties (excluding Ukraine) in 2023 remained nearly three times lower than the average price in the EU-27.

Price changes for industrial customers in 2023 (Ic consumption band)[13] varied among the Contracting Parties. In North Macedonia and Moldova, industrial retail prices, which were heavily impacted by soaring wholesale prices in 2022, saw significant reductions in 2023, aligning with wholesale price signals. Conversely, industrial prices rose sharply in Serbia by 27%, in Kosovo* by 16% and in Albania by 11.5%.

Figure 4 Industry prices [EUR/kWh] band Ic consumption 500-2000 MWh



Source: EUROSTAT database

12 Medium-sized household consumers (Consumption Band Dc with annual consumption between 2,500 and 5,000 kWh).

13 Medium-sized industrial consumers (Consumption Band Ic with annual consumption between 500 and 2,000 MWh).

Creating a coupled electricity market

A legally binding integration of Contracting Parties' electricity markets into the EU internal electricity market, including market coupling, was initiated by the adoption of the Electricity Integration Package by Decision of the Ministerial Council of the Energy Community on 15 December 2022. The Decision obliges Contracting Parties to complete the transposition and implementation of the Electricity Integration Package by 31 December 2023. However, manifold national and regional challenges, in particular political and legal complexities, resulted in a significant delay to the process in all Contracting Parties. On the other hand, the incentive for Contracting Parties to obtain an exemption from the application of CBAM if their markets are coupled with the EU single electricity market accelerated activities to fulfil minimum requirements for Contracting Parties' nominated electricity market operators ("NEMOs") and transmission system operators ("TSOs") to adhere to the market coupling projects, namely the single day-ahead coupling ("SDAC") and single intraday coupling ("SIDC"). Yet, the progress so far remains insufficient to initiate the accession to SDAC and SIDC.

Minimum prerequisites for starting the adherence to SDAC and SIDC include the full transposition of the Electricity Integration Package, as well as its implementation, starting with the designation of at least one NEMO in each Contracting Party, the adoption of a market coupling operator ("MCO") Integration Plan and the operationalisation of capacity calculation regions ("CCRs"). Once these preconditions are in place, 18 months is assumed to be the minimum time needed for the implementation and full accession to the SDAC and SIDC in an annual sequence, with Q1 for SDAC and Q4 for SIDC, starting in 2026 at the earliest. Given the current status of fulfilling these requirements, it is highly unlikely that Contracting Parties will couple by the end of 2025 and thus fulfil CBAM exemption requirements before the start of CBAM application on 1 January 2026. Therefore, it is assumed that CBAM payments on electricity imports from the Energy Community's Contracting Parties will be applicable as of 1 January 2026.

The current status of the transposition and implementation of the necessary preconditions for market coupling at national level is presented below.

Table 4 Current status of the implementation of necessary preconditions for market coupling[14]

Last update 11.10.2024	Transposition of the Electricity Integration Package completed (YES/NO)	NEMO(s)[3] designated in compliance with the Electricity Integration Package (YES/NO)/ Designated NEMO	Day-ahead market operational (YES/NO)	Intraday market operational (YES/NO)
AL	**NO**	**NO /** ALPEX non-compliantly designated 17-Jul-23	**YES**	**NO**
BA	**NO**	**NO**	**NO**	**NO**
GE[15]	**NO**	**NO**	**YES**	**YES**
XK*	**NO**	**NO /** ALPEX non-compliantly designated 17-Jul-23	**YES**	**NO**
MK	**NO**	**NO /** MEMO non-compliantly designated 09-Sep-20	**YES**	**NO**
MD	**NO**	**NO**	**NO**	**NO**
ME	**NO**	**NO** MEPX non-compliantly designated 30-May-24	**YES**	**NO**
RS	**NO**	**NO** / SEEPEX non-compliantly designated 16-Jun-22	**YES**	**YES**
UA	**NO**	**NO**	**YES**	**YES**

14 Currently designated NEMOs in the Contracting Parties, as per Table 4, cannot be considered compliantly designated NEMOs because their designation has been done based on the legislative framework preceding the adoption of the Electricity Integration Package.

15 Georgia is currently not interconnected with any of the Contracting Parties or EU Member States, therefore market coupling is for the time being not feasible.

The transposition of the Electricity Integration Package is ongoing in all Contracting Parties, with public consultations most recently being held in Moldova, Montenegro and Serbia. No legal act has, however been submitted in any of the Contracting Parties to the respective parliament for adoption, except in Ukraine where the draft law has been registered by Members of the Parliament on 7 October 2024. In the meantime, the Energy Community Secretariat has initiated infringement cases against all Contracting Parties for failing to transpose and apply the Electricity Integration Package.

Due to the delayed transposition, there is not yet a single compliantly designated NEMO in Contracting Parties. As a result, a submission of the MCO Integration Plan has been postponed. The MCO Integration Plan should provide a description and a timescale for the SDAC and SIDC extension to the Energy Community, as well as a description of the expected impact of the extension on the performance of the MCO functions. It was to be submitted by all NEMOs in the EU and the Energy Community to all regulatory authorities, the Energy Community Regulatory Board ("ECRB") and to the European Union Agency for the Cooperation of Energy Regulators ("ACER") by 15 December 2023.[16] In the absence of compliantly designated NEMOs in the Energy Community, the European Commission, ACER and the Energy Community Secretariat recommended postponing the submission of the draft MCO Integration Plan until 15 June 2024. As no progress has been made by that deadline, the European Commission and the Energy Community Secretariat urged Contracting Parties' ministers to complete the transposition of the Electricity Integration Package and the designation of the NEMOs as soon as possible to enable the submission of the MCO Integration Plan by 15 October 2024. Considering that all Contracting Parties will fail to meet that deadline, the submission of the draft MCO Integration Plan by EU NEMOs only is currently being considered with the aim of accelerating market coupling.[17]

The operationalisation of the three Capacity Calculation Regions, as established by Annex I of the Regulation (EU) 2015/1222 as adapted to and adopted in the Energy Community (EnC CCRs), i.e. Italy-Montenegro ("ITME") CCR, Eastern Europe ("EE") CCR and Shadow SEE CCR, is also a precondition for the accession to the SDAC and SIDC. As initial implementation steps, all TSOs involved in a CCR were to sign the respective cooperation agreement and to submit the coordinated capacity calculation methodology for the day-ahead and intraday timeframe by 15 June 2023 as defined in Annex I to the EnC CACM Regulation.

While the EnC and EU TSOs of the ITME CCR and EE CCR are proceeding with the operationalisation of the default CCR configuration, activities in the Shadow SEE CCR have not yet started due to the ongoing discussion on the possible CCR reconfiguration triggered by the political dispute between Serbia and Kosovo* and the decision by the Government of Serbia not to allow the TSO and the NEMO to enter into contractual agreements with the TSO and the NEMO in Kosovo*. Nevertheless, it should be acknowledged that, considering the cooperation and contractual framework surrounding the operation of CCRs, no technical solution could be found to avoid the establishment of a CCR that would include a bidding zone border between EMS and KOSTT and consequently adhering to respective agreements, even if the interconnection between Serbia and Kosovo* were to continue to be treated as it is now with available cross-zonal capacity set at zero.[18]

16 Requirement by Article 7(3) of the Regulation (EU) 2015/1222 as adapted to and adopted in the Energy Community ("EnC CACM Regulation")

17 While the formal submission is pending, on 28 June 2024 a so-called "shadow opinion" was issued by all EU NRAs and ACER on the draft MCO Integration Plan submitted by the EU NEMOs. In their opinion, ACER and all EU NRAs asked all NEMOs to take into account their comments, among other things, on the format, voting rights, the MCO functions and the go-live dates in the final submission of the MCO Integration Plan.

18 An infringement procedure has been initiated by the Energy Community Secretariat against Serbia for failing to make commercially available cross-border capacity on the interconnection with Kosovo*.

The current status of the operationalisation of the EnC CCRs and the establishment of the related Local Implementation Projects ("LIPs") for market coupling is as follows:

EnC CCRs	Cooperation Agreement signed	Capacity calculation methodology adopted	LIP established
ITME CCR 	**NO** Cooperation established, no legal obligation to sign a cooperation agreement	**NO** Drafted by TSOs, not yet formally submitted to NRAs for approval	**ITME LIP** applied for IBWT
EE CCR 	**NO** Drafting and the negotiation on the cost sharing key completed on 11 September 2024, removing the remaining obstacle to its finalisation. Signature procedure has been initiated.	**NO** Interim methodology drafted by TSOs, not yet formally submitted for NRAs' approval.	**EE LIP** MoU finalized, signature procedure has been initiated
Shadow SEE CCR 	**NO** Operationalisation has not started yet due to negotiations on the possible reconfiguration facilitated by ENTSO-E. The latest development reported by ENTSO-E is that formal support for the alternative CCR configuration where the bidding zone borders of Bosnia and Herzegovina, Montenegro and Serbia would be attributed to the CORE CCR and the bidding zone borders of Albania, Kosovo* and North Macedonia would be respectively attributed to the EU South-East (SEE) CCR was confirmed by the Serbian TSO. The discussion on the proposal and its practical implementation continued at the high-level meeting of EU and the EnC TSOs on 2 October 2024.	**NO**	**HU-RS LIP,** MoU signed **SEE MC LIP** (AL, GR, XK*, MK), MoU signed, applied for IBWT

Considering the current level and pace of transposition and implementation of the Electricity Integration Package, Contracting Parties are expected to become ready for market coupling in stages. So far Montenegro has been identified as a frontrunner considering the achievement of an advanced stage in the transposition, the ITME CCR being close to the operationalisation and application for adherence to the Italian Border Working Table ("IBWT") submitted by the ITME local implementation project ("LIP"). With no political obstacles in the way, Montenegro might be the first Contracting Party ready to adhere to SDAC/SIDC via its interconnection with Italy.

After having fulfilled the other conditions, Montenegro might also be the first to obtain a CBAM exemption for electricity. Should that happen, Montenegro would have to establish a system preventing indirect imports of electricity into the EU from other third countries or territories (including neighbouring Contracting Parties) that do not fulfil the exemption conditions (in line with Article 2.7 (f) of the CBAM Regulation). This would impact cross-border electricity trade with neighbouring Contracting Parties and imply that coupling with them would not be feasible until they also meet all CBAM exemption requirements.

Therefore, preserving the integrated regional electricity market and ensuring certainty for market participants requires harmonised and punctual actions by all Contracting Parties in line with deadlines established by the Decision of the Energy Community Ministerial Council in December 2022. Delays on the Contracting Parties' side, including neither operationalisation of the default Shadow SEE CCR nor agreement on an alternative CCR configuration in the Western Balkans, has led to the postponement of market coupling of the whole Western Balkan region with the EU. Any potential changes to the existing legal framework in the EU would cause further delays.

Building decarbonised energy sources

Reaching the 2030 renewable energy targets

The draft NECPs – as the vehicle for integrated energy and climate planning – serve as the reference point including for Contracting Parties' 2030 renewable energy targets. The draft NECPs show general alignment with the Ministerial Council Decision.[19]

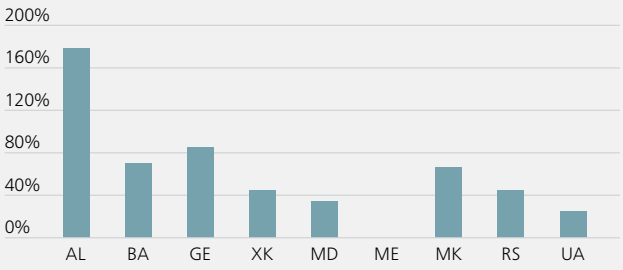
2030 renewable target in the draft NECP and compliance with the Energy Community 2030 target

Overall target

Albania	54.40%
Bosnia and Herzegovina	43.60%
Georgia	27.40%
Kosovo*	32.00%
Moldova	31.40%
Montenegro	Not available[20]
North Macedonia	38.00%
Serbia	33.60%
Ukraine	27.00%

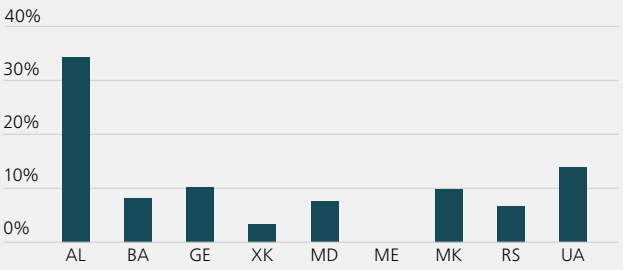
In their draft NECPs, the majority of Contracting Parties have either met or slightly exceeded their targets for renewables as stipulated in the Ministerial Council Decision. Serbia remains the only Contracting Party that has set a 2030 renewables target in its draft NECP approximately 7.1% points lower than mandated by the Ministerial Council Decision. The Secretariat in its recommendation on the draft NECP[21] invited Serbia to align or explain the specific national circumstances to justify the gap between the ambition in the draft NECP and the target agreed by the Ministerial Council Decision. Data for Montenegro is not included, as it remains the only Contracting Party that has not yet submitted its NECP to the Secretariat.

Electricity



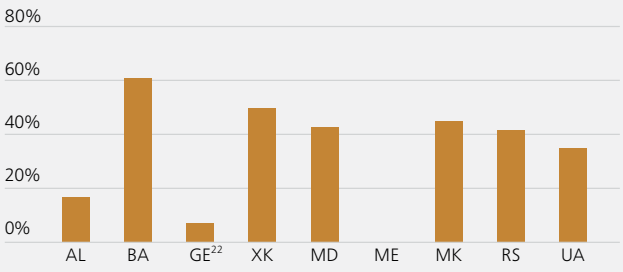
The graph showcases the targets set by the Contracting Parties for the share of renewables in electricity production for 2030. Since there is no obligatory electricity target mandated by the Renewables Directive or any other Energy Community acquis, Contracting Parties are free to set their own targets. These targets, along with the sectoral targets for transport and heating and cooling, are designed to contribute to achieving the binding overall 2030 renewables target.

Transport



All Contracting Parties, except Kosovo*, have set the mandatory target for renewable energy in the transport sector in compliance with the Renewables Directive, which can be reduced to 7% (instead of 14%) if no biofuels from food and feed crops are accounted as contribution to the target, or to 9% if up to 2% of the biofuels from food and feed crops contribute to the achievement of national target. However, the Contracting Parties have not yet established a system for verifying sustainability and GHG emissions saving criteria for biofuels, which prevents biofuels from contributing to the achievement of the target.

Heating and cooling



The heating and cooling targets declared in the draft NECPs of all Contracting Parties, except Ukraine, are below the levels specified by the Renewables Directive. Consequently, the Secretariat recommends[23] that Contracting Parties reassess their level of ambition regarding renewable energy and/or waste heat. They should adopt more ambitious targets for integrating renewable energy in heating and cooling, including district heating, to increase the share of renewable energy sources by 1.1 percentage points annually, in accordance with Articles 23 and 24 of the Renewables Directive.

19 Decision 2022/02/MC-EnC on amending Decision 2021/14/MC- EnC and incorporating Directives (EU) 2018/2001 and 2013/2002, Regulations (EU) 2018/1999, 2020/1044, and 2020/1208 in the Energy Community acquis

20 In September 2024, Montenegro was still in the process of developing its draft NECP and no draft NECP had been submitted to the Secretariat.

21 RECOMMENDATIONS 1/2023 by the Energy Community Secretariat on the Draft National Energy and Climate Plan of the Republic of Serbia

22 The target defined in the draft NECP of Georgia covers a broader range than heating and cooling only and includes total remaining energy consumption.

23 https://www.energy-community.org/implementation/package/NECP.html

Cleaning the way to renewable energy transition through auctions

Several auctions that were initiated earlier were finalised during the reporting period.

Albania completed its first wind auction in July 2023 for a 15-year contract. Even though originally announced as a Contract for Difference ("CfD"), it will instead operate using a fixed purchase price mechanism until the day-ahead market achieves sufficient liquidity for conversion. Three bidders were allocated a combined capacity of 222.5 MW, achieving prices ranging from EUR 44.88 to 74.95 per MWh, with project sizes between 72.6 MW and 75 MW. The significant price variance may be attributed to factors such as the availability of wind resources and the expenses related to land acquisition. In July 2024 in Albania, the latest auction for 283.9 MW of solar PV capacity was concluded. Eight consortia secured 15-year contracts, with the lowest bid at just EUR 39.7 per MWh, while the average price settled at EUR 51.3 per MWh.

A similar conversion arrangement is anticipated as Kosovo* concluded its inaugural solar auction in April 2024. The winning project has a capacity of 105 MW, secured at a price of EUR 48.88 per MWh.

In April 2024, Moldova launched its inaugural renewable energy auction to secure 105 MW of wind and 60 MW of solar projects. The ceiling price for wind is approximately EUR 77.88 per MWh, while for solar it stands at EUR 86.7 EUR per MWh (depending on the exchange rate applied).

In September 2023, Serbia concluded its inaugural auction for both solar and wind projects under a 15-year CfD. Interestingly, the 400MW wind power quota was swiftly allocated among four bidders, with prices ranging from EUR 64.48 to 79 per MWh. However, the 50 MW solar quota was only partially filled, with 25.2 MW, accounting for 50.4% of the quota, being awarded. It was distributed among five projects, with prices ranging from EUR 88.65 to 89.8 per MWh. The high price and limited interest in solar, compared to wind, can be attributed to the relatively low maturity of investors in this sector in Serbia.

The second auction held in Georgia saw 62 successful projects spanning various technologies, including solar, wind and hydro.

Three Contracting Parties that have not yet initiated auctions but have established the necessary legal frameworks are Bosnia and Herzegovina, Montenegro and Ukraine.

Table 5 Implementation of the most recent auctions in the Energy Community

Contracting Party	**Albania**		**Kosovo***	**Serbia**		**Georgia**				
Technology								HPP (run-of-river)	Reservoir HPP with regulating capacity of 1-4 hours	Reservoir HPP with regulating capacity of 4-8 hours
Timeline	2021 – 2023	2024	2023 – 2024	2023	2023	12.2023 – 06.2024	12.2023 – 06.2024	12.2023 – 06.2024	12.2023 – 06.2024	12.2023 – 06.2024
Mechanism	Fixed purchase price with conversion to Contract for Difference	Fixed purchase price with conversion to Contract for Difference	Fixed purchase price with conversion to Contract for Difference	Contract for Difference	Contract for Difference	Contract for Difference				
Contract duration (years)	15	15	15	15	15	15				
Total Capacity (MW)	222.5	283.9	105	25.2	400	239.8	204.2	183.2	53	130.6
Ceiling price (EUR/MWh)	75	59.97	65	90	105					
Achieved price (EUR/MWh)	44.88-74.95	39.7-56.11	48.88	88.65-89.8	64.48-79	46.8 - 54.3 USD/MWh (43.3 - 50.3 EUR/MWh)	55 - 59.8 USD/MWh (50.9 - 55.4 EUR/MWh)	58.9 - 65 USD/MWh (54.5 - 60.2 EUR/MWh)	74.9 - 75 USD/MWh (69.3 - 69.4 EUR/MWh)	70 - 73.5 USD/MWh (64.8 - 68 EUR/MWh)

Energy Community regional system for guarantees of origin and the Road to EU Recognition

As part of a regional project implemented by the Energy Community Secretariat in 2022, electronic registries for guarantees of origin were created for Albania, both entities of Bosnia and Herzegovina, Georgia, Kosovo*, North Macedonia, Moldova, Montenegro and Ukraine. Georgia led the way by signing the first direct agreement between its designated issuing body and the service provider Grexel in January 2023. Since then, five more issuing bodies have followed suit.

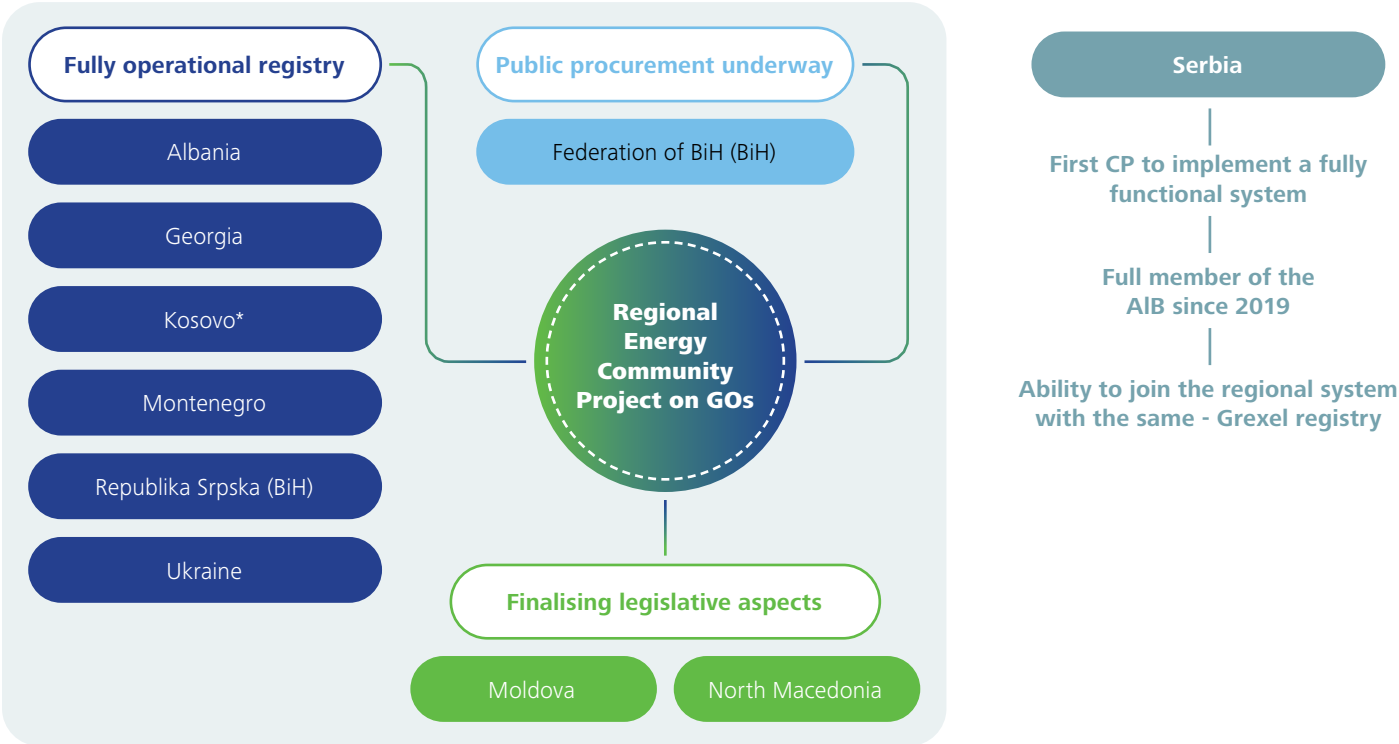
The registries in Albania, Georgia, Kosovo*, Montenegro, Republika Srpska (BiH) and Ukraine are already operational. Serbia had already operationalised its registries several years before the regional project began. Meanwhile, the issuing body in the Federation of Bosnia and Herzegovina (BiH) is finalising the public procurement procedure to operationalise its registry. Unfortunately, there have been no developments in this regard in North Macedonia and Moldova yet.

As Contracting Parties began utilising the registries, concerns emerged regarding the restrictions outlined in Article 19(11) of the Union's Directive 2018/2001/EU of 11 December 2018 on the promotion of the use of energy from renewable sources, since those restrictions prevent EU Member States from recognising guarantees of origin issued by Contracting Parties.

In the Energy Community Ministerial Council of 14 December 2023, the European Commission presented the Roadmap for the Recognition of guarantees of origin issued by Contracting Parties of the Energy Community in the EU. The Roadmap provides a preliminary assessment of the conditions specified in Article 19(11) of the Union's Renewables Directive and outlines the criteria that must be met to enable mutual recognition of guarantees of origin.

While the European Commission and the Energy Community Secretariat continue to finalise the Roadmap and prepare the Decision for the Ministerial Council, it is crucial for Contracting Parties to persist in their efforts not only to operationalise the registries and the regional system but also to further transpose and implement the Clean Energy Package.[24]

Figure 5 Current status of the implementation of systems for guarantees of origin in the Energy Community



24 Decision 2021/14/MC-EnC on the incorporation of Directive (EU) 2018/2001, Directive (EU) 2018/2002, Regulation (EU) 2018/1999, Delegated Regulation (EU) 2020/1044 and Implementing Regulation (EU) 2020/1208 in the Energy Community acquis

Putting energy efficiency first

Ambitious 2030 Energy Efficiency targets

Most Contracting Parties have set ambitious 2030 energy efficiency targets, including the maximum level of primary and final energy consumption, in their draft NECPs, which in most cases match the targets set out in the Ministerial Council Decision[25]. Bosnia and Herzegovina was invited to adjust its ambition levels for primary energy consumption and Serbia was encouraged to increase the ambition of its final energy consumption target. In Georgia's draft NECP there was no absolute level of primary energy consumption and Moldova's draft NECP contained inconsistencies regarding the target level of primary and final energy consumption, hence the specific level of ambition could not be verified. Montenegro has not yet submitted a draft NECP to the Secretariat and there are currently no nationally adopted 2030 energy efficiency targets.

To meet ambitious energy efficiency targets, Contracting Parties have designed a variety of energy efficiency policies and measures, particularly targeting the end-use sector and energy efficiency in buildings. Additionally, Georgia, Moldova and Montenegro have recently adopted updated legislation for energy efficiency and increased state energy efficiency financing (Kosovo*, Moldova, Montenegro, Serbia and Ukraine) to support the achievement of ambitious targets.

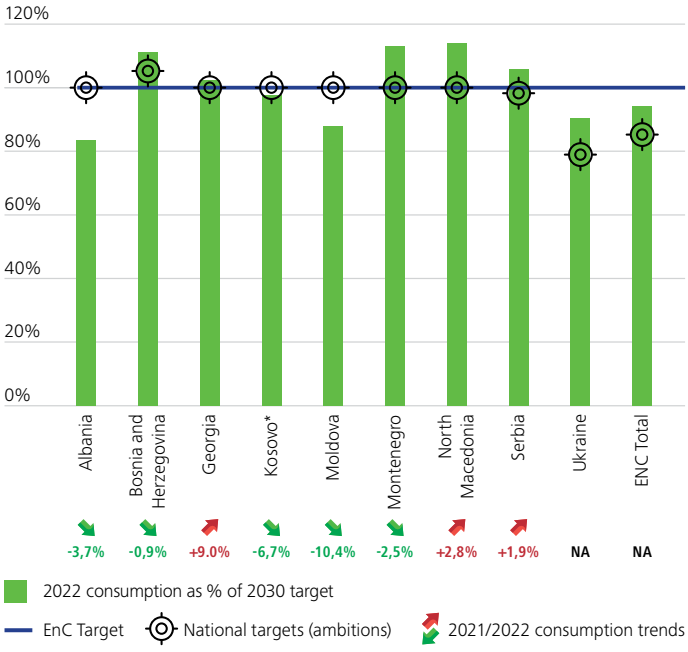
Implementing the Energy Efficiency First principle

The Energy Efficiency First ("EE1st") principle was introduced through the Energy Community Governance Regulation[26] ("Governance Regulation") and amendments to the the Energy Community Energy Efficiency Directive[27] ("Energy Efficiency Directive"). This principle emphasises the consideration of alternative, cost-efficient energy efficiency measures during energy planning, policy formulation and investment decisions. The goal is to enhance energy demand and supply efficiency.

While some Contracting Parties have already started incorporating the EE1st principle during the process of drafting their draft NECPs or have integrated EE1st into domestic legislation, challenges persist in implementing EE1st effectively.

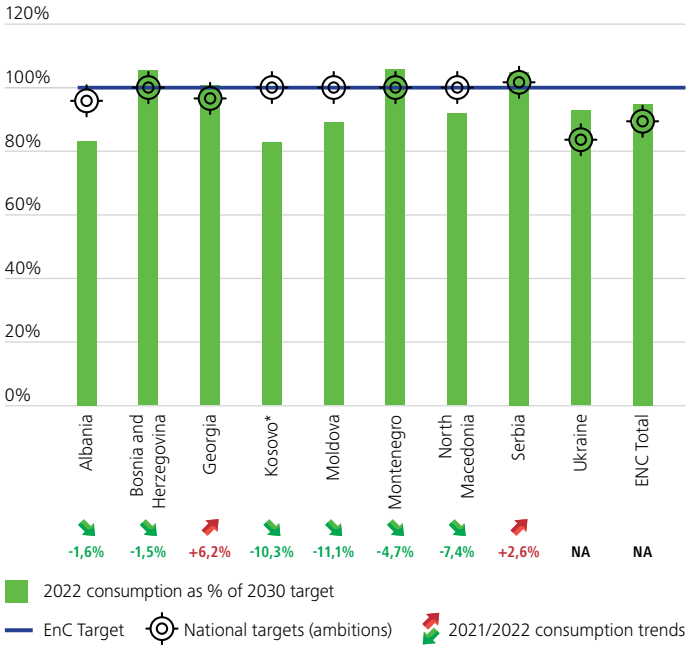
To address this, the European Commission and the Secretariat will propose a Recommendation to the 2024 Energy Community Ministerial Council on implementing the EE1st principle, focusing on the preparation of more structured legal and institutional preconditions. This effort aligns with the provisions outlined in Article 3 of the recent recast Energy Efficiency Directive,[28] which significantly strengthens the legal framework for applying the EE1st principle. Furthermore, this directive builds upon the principles already embedded in the Governance Regulation.

Figure 6 Energy efficiency (primary energy consumption) targets and consumption trends



Note: 2022 energy consumption data were not available for Ukraine.

Figure 7 Energy efficiency (final energy consumption) targets and consumption trends



Note: 2022 energy consumption data were not available for Ukraine.

25 Decision 2022/02/MC-EnC on amending Decision 2021/14/MC- EnC and incorporating Directives (EU) 2018/2001 and 2013/2002, Regulations (EU) 2018/1999, 2020/1044, and 2020/1208 in the Energy Community acquis

26 Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action as adapted and adopted by Ministerial Council Decision 2021/14/MC-EnC

27 Directive 2012/27/EU on energy efficiency as adapted and adopted by Ministerial Council Decisions 2015/08/MC-EnC, 2021/14/MC-EnC and 2022/02/MC-EnC

28 Directive (EU) 2023/1791

Decarbonising the energy systems

Compliance with the Large Combustion Plants Directive and links to GHG emissions

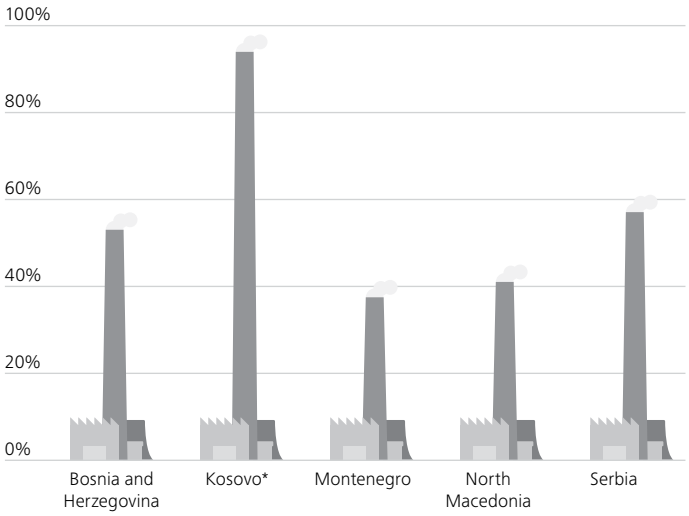
The Large Combustion Plants Directive[29] ("LCPD") regulates the emissions of sulphur dioxide (SO_2), nitrogen oxides (NO_x) and dust from existing thermal power plants. Even though the Directive has been in effect since 1 January 2018 in the Energy Community, investments necessary for its implementation have been significantly delayed in all Contracting Parties, resulting in a situation where currently all plants are exhibiting some form of non-compliance.

As in previous years, reported data for the year 2023 show major non-compliance with the emission ceilings for SO_2, NO_x and dust. This means that all coal- and lignite-fired thermal power plants are considered being part of a breach of the requirements of the LCPD, as confirmed by the Ministerial Council in the cases of Bosnia and Herzegovina, Kosovo* and North Macedonia. Montenegro and Serbia also face related, ongoing dispute settlement procedures.

Ensuring compliance requires either investments in reducing industrial emissions or closure of the plants. The situation is aggravated by the fact that the technologies necessary to curb emissions (with particular regard to SO_2) imply a reduction in plant efficiency due to an increase in self-consumption of the abatement units. This, in turn, increases the amount of GHG emissions relative to the electricity generated. The financial adjustment, to be paid under CBAM is expected to restrict business and export opportunities even further, which should incentivise Contracting Parties and operators alike to review their business models.

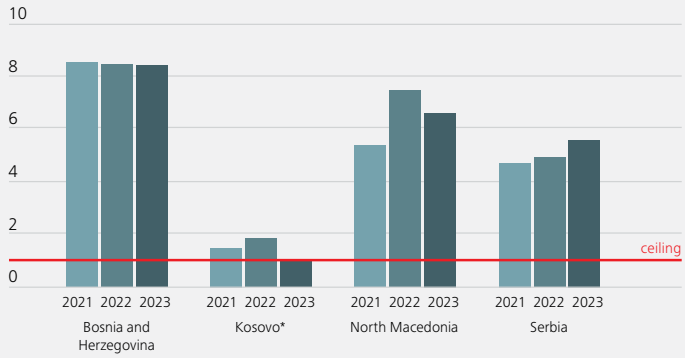
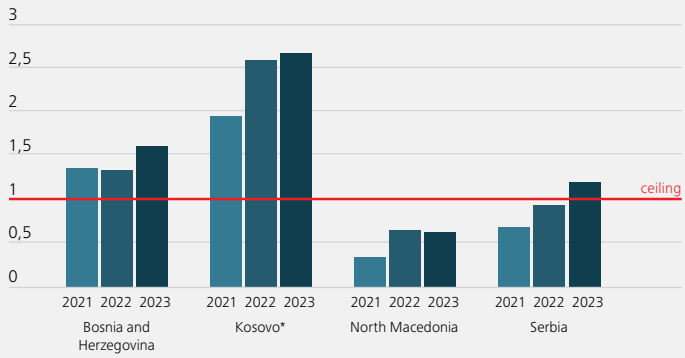
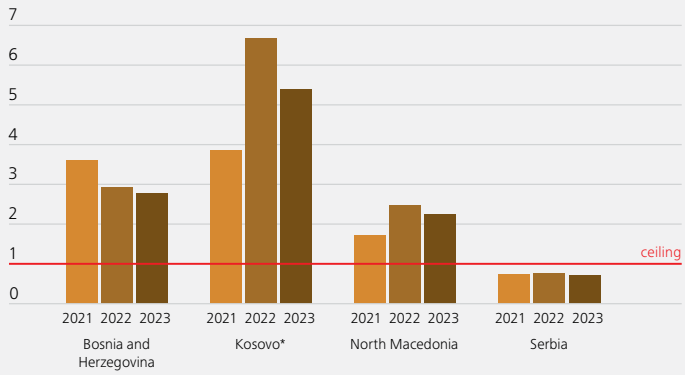
Large combustion plants are, at the same time, also one of the main sources of greenhouse gas emissions. On average, these plants accounted for 57% of total electricity generation in the region, with Montenegro having the lowest share at 38% and Kosovo* the highest at 94%. Considering that coal-fired power plants still account for approximately 40% or more of the total electricity production in the relevant Contracting Parties, they are often referred to as playing an important role as regards system adequacy, an argument which, however, cannot be used as justification for the lack of implementation of Energy Community law.

Figure 8 Share of coal-fired plants generation in total electricity generation [%]



Non-compliance with the LCPD obligations can no longer be maintained. Generators are facing pressure to invest in technologies and equipment that can reduce industrial emissions in their installations, but in addition to the investment costs, it would result in higher operational costs due to the increased fuel use for operating that equipment and the overall reduction of fuel use efficiency. At the same time, CBAM will put a downward pressure on the revenues of all generators in Contracting Parties because they will either need to reduce their prices by an amount equivalent to the carbon price imposed under CBAM (or a domestic carbon pricing system) or they will be able to export significantly less electricity to the EU than today. These uncertainty factors, coupled with the increasing number of non-planned outages in generation units, call into question the economic rationale of maintaining the operation of those units in the mid- and long-term.

29 Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plant as adapted and adopted by Ministerial Council Decisions 2013/05/MC-EnC and 2024/01/MC-EnC

SO_2		In 2023, the breach of the SO_2 emissions ceiling continued in all WB6 parties implementing NERPs, with the exception of Kosovo*, where compliance with the ceiling for this pollutant was recorded for the first time. Absolute emissions decreased, with the exception of Serbia, where an increase was recorded for the second time in a row. The level of the breach remains alarming: In Bosnia and Herzegovina it was more than eight times over the ceiling, while in Serbia it was close to five time and in North Macedonia more than six time over the ceiling.
NO_x		In the case of Bosnia and Herzegovina and Kosovo*, non-compliance continued with their ceilings for NO_x emissions, while Serbia failed to comply with the ceiling for the first time in five years. This is caused by the combination of an increase in absolute emissions with the fact that NO_x ceilings decreased progressively by approx. 50% between 2018 and 2023, making compliance increasingly challenging for all parties, a trend that is bound to continue in the coming years.
Dust		Overall dust emissions decreased in all parties, although the breach of the dust ceiling limits continued in all three parties concerned (Bosnia and Herzegovina, Kosovo* and North Macedonia). In the case of Bosnia and Herzegovina, dust emissions fell by a further 5% (complementing the reduction of more than 20% in the 2022 reporting year), yet they were more than two and a half times over the ceilings. Kosovo*, despite a reported major decrease in dust emissions, is still very far from the ceilings, with the breach being over five times the ceiling. North Macedonia was also still more than two times over the ceiling, despite decreasing overall dust emissions. Serbia continued its good track record on achieving compliance with the dust ceiling for the fifth time in a row.

Source: compiled and calculated by the Energy Community Secretariat.

The case of Montenegro is omitted from the above graphs given the fact that it only has one large combustion plant, hence no National Emission Reduction Plan applies.

Coal phase-out plans

To date no Contracting Party has committed to a coal phase-out in its domestic legislation. However, five out of nine Contracting Parties are members of the Powering Past Coal Alliance ("PPCA"). The coal phase-out dates are tentative and are not anchored in strategic planning documents.

Only one Contracting Party, namely North Macedonia, has adopted a Just Transition Roadmap. This Roadmap assumes the decommissioning of the two power plants in the years 2021 and 2025-2027. Other Contracting Parties, such as Serbia, Montenegro, Bosnia and Herzegovina are working on draft Roadmaps.

Table 6 - Planned year of coal phase-out

	Draft NECP	PPCA
AL	Not indicated, no coal in electricity generation[30]	Coal-free (electricity sector)
BA	No phase-out in electricity generation[31]	Not a member of PPCA
GE	Not indicated, no coal in electricity generation[32]	Not a member of PPCA
MD	Not indicated, no coal in electricity generation[33]	Not a member of PPCA
ME	No draft NECP submitted	2035[34]
MK[35]	2027-2029 (for electricity generation with the decommissioning of Oslomej and Bitola TPPs)[36]	2030[37]
RS	2050 (for electricity generation)[38]	Not a member of PPCA
UA	2035 (for electricity generation)	2035[39] (for electricity generation)
XK*	No phase-out in electricity generation	2050[40]

Long-term strategies and climate neutrality

Long-term low GHG emissions development strategies – also referred to in short as long-term strategies – ("LTS") constitute the primary roadmap for the decarbonisation of all sectors, representing a structured pathway to reaching the 2050 economy-wide climate neutrality target on a national level. The obligation for Contracting Parties to draft and adopt an LTS with a list of compulsory elements is defined in the Governance Regulation. The adoption of an LTS that leads to reaching climate neutrality by 2050 is one of the requirements for the CBAM exemption for the electricity sector. Of those Contracting Parties that have adopted an LTS so far, Georgia is the only Contracting Party that has defined a 2050 climate neutrality target in its strategy. Kosovo* and Montenegro, are currently drafting their LTSs and Ukraine is planning to start the development of an updated strategy in the near future.

Once adopted, an LTS with a 2050 climate neutrality target – where applicable – should be submitted to the UNFCCC Secretariat, which is an additional CBAM condition for the electricity exemption. In 2023, LTSs of three Energy Community Contracting Parties were submitted to the UNFCCC Secretariat, thereby increasing the number of Contracting Parties fulfilling this condition to five (Bosnia and Herzegovina, Serbia, Georgia, North Macedonia and Ukraine).

The requirement to enshrine the 2050 climate neutrality target in domestic legislation constitutes another CBAM exemption condition. Except Moldova, no other Contracting Party has transposed the 2050 climate neutrality commitment into its domestic legislation. Several Contracting Parties are working on their draft climate laws, such as Bosnia and Herzegovina, Georgia, Montenegro, North Macedonia and Ukraine, with only the latter having included the 2050 climate neutrality target in its draft act. Kosovo* adopted a climate law on 5 January 2024 without a 2050 climate neutrality target.

30 Coal is used in industry in Albania.

31 According to the "Policy" scenario in the draft NECP, in 2030, the share of coal in the energy transformation processes in Bosnia and Herzegovina is set at 70.1%. That is a decrease compared to the share of 80.46% projected in the "Baseline" scenario based on existing policies and measures.

32 Currently Georgia uses coal in industrial processes but not for electricity generation.

33 Coal is used mainly for industry and residential purposes in Moldova. 80% of electricity is imported and the main source of domestic energy is biomass.

34 Commitment as of 2021, see: Montenegro announces coal phaseout by 2035 (balkangreenenergynews.com)

35 North Macedonia adopted its NECP ahead of the decision of the Energy Community Ministerial Council. The information refers to the NECP adopted in May 2022.

36 To this date Oslomej TPP has not been decommissioned as was indicated for the year 2021 in the NECP. There are several different planned target dates for decommissioning the Bitola TPP in the adopted NECP. These dates cover a period between 2025 and 2028 and there is a reference to a possible delay of one or two years.

37 Commitment as of January, 2022, see: https://www.euractiv.com/section/enlargement/news/ebrd-backs-e4-billion-plan-to-wean-north-macedonia-off-coal-power/

38 The draft NECP of Serbia includes a reduction in lignite use, by up to 25% in 2030 compared to 2019.

39 Commitment reaffirmed in June 2023: https://poweringpastcoal.org/press-releases/amid-war-ukraine-recommits-to-phasing-out-coal-power-by-2035/

40 Commitment as of December 2023: https://poweringpastcoal.org/press-releases/the-united-states-heads-a-group-of-countries-making-new-commitments-to-phasing-out-coal/

Table 7 The status of Long-term Strategies and climate neutrality in domestic legislation

	Long-term Strategies					Domestic legislation
	Drafting started	Adopted	Covers the period up to 2050	Submission to the UNFCCC*	Includes climate neutrality by 2050	Includes climate neutrality by 2050
Albania	●	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●	●
Georgia	●	●	●	●	●	●
Kosovo*	●	●	●	●	●	●
Moldova	●	●	●	●	●	●
Montenegro	●	●	●	●	●	●
North Macedonia	●	●	●	●	●	●
Serbia	●	●	●	●	●	●
Ukraine	●	●	●	●	●	●

● Yes ● No * Where applicable

CBAM conditions

Source: compiled by the Energy Community Secretariat.

Reaching the 2030 GHG emission reduction targets

The policy scenarios in the draft NECPs of Contracting Parties, including the planned additional measures, generally all aim to achieve the respective 2030 target for reducing GHG emissions enshrined in the Ministerial Council Decision.[41] Considering that all additional policies and measures must be implemented to match the 2030 ambition, it will be essential to monitor their development and to assess the progress in the case of delays.

Table 8 2030 GHG emissions reduction compared to 1990, targeted level of emissions ($MtCO_2$)

	Albania	Bosnia and Herzegovina	Georgia	Kosovo*	Moldova	Montenegro	North Macedonia	Serbia	Ukraine
EnC Ministerial Council Decision[42]	12.00	15.65	20.50	8.95[43]	9.10	2.42[44]	2.20	47.82	309
Policy scenario with LULUCF, draft NECP 2030 GHG emissions reduction compared to 1990, targeted level of emissions ($MtCO_2$)	10.20[45]	15.65	27.2 – 17.1	8.95	9.10[46]	Not available[47]	2.20[48]	47.76	309

41 Decision 2022/02/MC-EnC on amending Decision 2021/14/MC- EnC and incorporating Directives (EU) 2018/2001 and 2013/2002, Regulations (EU) 2018/1999, 2020/1044, and 2020/1208 in the Energy Community acquis

42 Decision 2022/02/MC-EnC on amending Decision 2021/14/MC- EnC and incorporating Directives (EU) 2018/2001 and 2013/2002, Regulations (EU) 2018/1999, 2020/1044, and 2020/1208 in the Energy Community acquis

43 Compared to the 2016 level

44 The target of Montenegro excludes LULUCF emissions and removals.

45 Albania adopted its NECP ahead of the decision of the Energy Community Ministerial Council. The figure refers to the NECP adopted in December 2021.

46 Due to the listing of various target levels in the draft NECP and the unclear territorial applicability of the target, it is not possible to confirm that the ambition of Moldova is equivalent to the decision of the Energy Community Ministerial Council.

47 In September 2024, Montenegro was still in the process of developing its draft NECP. On 21 August 2024, the Ministry of Energy of Montenegro indicated to the Secretariat its interest in incorporating at least a partial impact of the LULUCF sector in terms of emissions and removals in the achievement of the 2030 GHG emissions reduction target.

48 North Macedonia adopted its NECP ahead of the decision of the Energy Community Ministerial Council. The figure refers to the NECP adopted in May 2022.

Carbon pricing

The carbon content of electricity

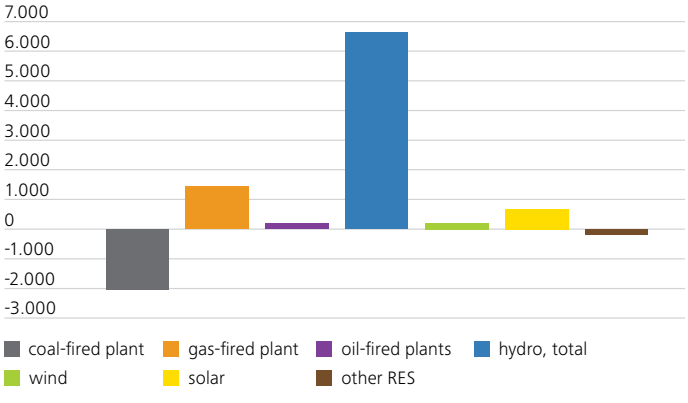
Generation mix

After reaching a five-year low in electricity production in the Energy Community (excluding Ukraine) in 2022, production in 2023 increased by 9.4% compared to the previous year. Electricity production rose across the Western Balkans (except Kosovo*), primarily due to favourable hydrological conditions. In Moldova, production increased significantly, driven by enhanced wind and solar generation due to new production facilities, mainly solar (installed capacity of WPPs increased by 15 MW in 2023 compared with 2022, and that of SPPs increased by 171 MW). Production levels in Georgia remained relatively stable. Data for Ukraine was unavailable due to the ongoing war.

The increase in electricity production was mainly from renewable energy sources with 8.5 TWh from hydropower production and wind, solar and biofuels collectively rising by 0.54 TWh. On the other hand, the Energy Community as a whole (excluding Ukraine) saw a reduction of 1.2 TWh in electricity production from coal and oil-fuelled thermal power plants, while output from natural gas power plants increased by 1 TWh. Gross electricity consumption fell by an average of 1.2%. This resulted in a historically highest net export position of 3.9 TWh of the Energy Community Contracting Parties (excluding Ukraine) in the last decade.

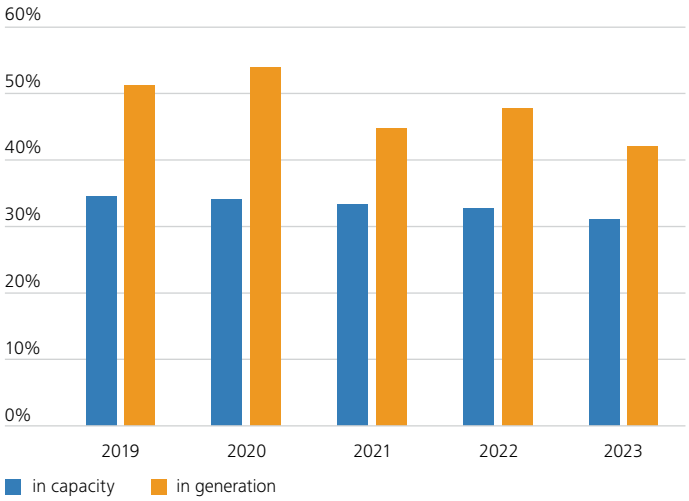
Despite relatively stable electricity production from fossil-fuelled thermal power plants in the past, a 4.9% decline in coal-generated electricity was observed in 2023 in comparison to its five-year average (2019 – 2023). In contrast, production from hydro and non-hydro renewable sources in 2023 increased by 18.44% compared to the respective five-year average. Overall, production from combustible fuels (coal, natural gas and oil) in the Energy Community (excluding Ukraine) slightly decreased by 0.86% over the five-year average. Meanwhile, after two years of increased production, the EU-27[49] saw a 6.7% drop in combustible fuel production in 2023 compared to the five-year average.

Figure 9 Difference in 2023 production and the 2019 – 2023 average for the Energy Community (excl. Ukraine) [GWh]



Source: compiled by the Secretariat based on Contracting Parties' reports

Figure 10 Share of coal-based capacity/production in total Energy Community capacity/production (excl. Ukraine)



Source: compiled by the Secretariat based on Contracting Parties' reports

No new coal-fired power capacities have been added in the past five years.

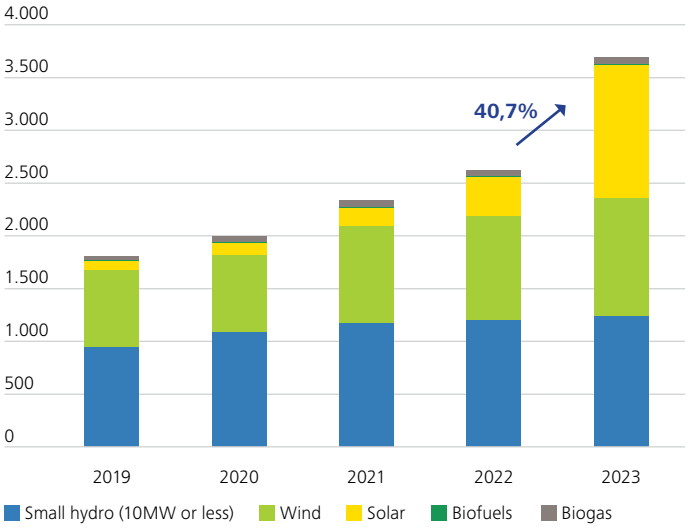
Meanwhile, the capacities of renewable energy sources have been steadily increasing, reaching 58.5% of the total installed capacity (including large hydro and pumped storage) in 2023.

The installed capacity in renewables, including small hydro, wind, solar and biofuels, significantly increased, accounting for 14.1% of total installed capacity in 2023, compared to 10% in 2022. Conversely, installed capacities in coal-fired plants decreased by 1.6% in 2023, exceeding the average annual decline of 1% in the share of coal-fired capacity.

Installations based on solar, wind, and biofuels have nearly quadrupled over the past five years, rising from 2.57% of the total installed capacity in 2019 to 9.35% in 2023.

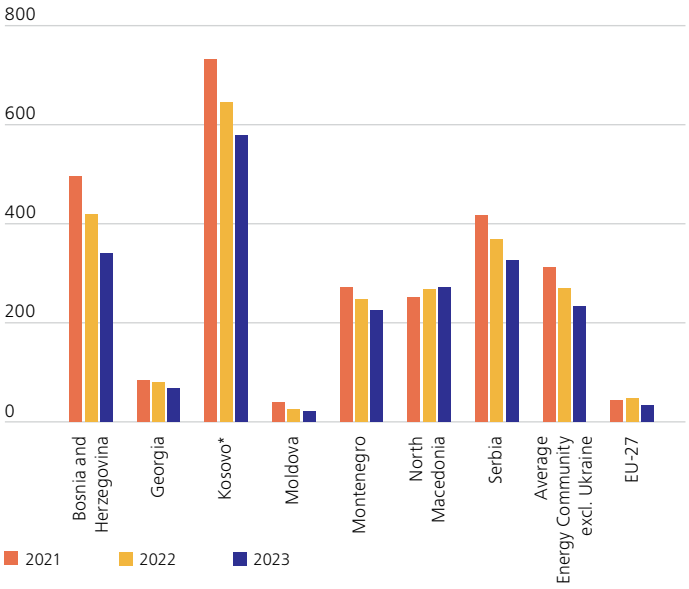
49 Calculation based on the EUROSTAT database, Net electricity generation by type of fuel - monthly data

Figure 11 Installed electricity generation capacities from RES (excl. large hydro) [MW]



Source: compiled by the Secretariat based on Contracting Parties' reports

Figure 12 CO_2 emissions from electricity production per GDP [g CO_2/EUR]



Source: compiled by the Secretariat based on reports from Contracting Parties, as well as data from Eurostat, the World Bank, the IMF and default emission factor values.

Reducing the carbon footprint

Electricity and heat production remain the primary sources of carbon emissions in all Contracting Parties except Albania and Georgia.

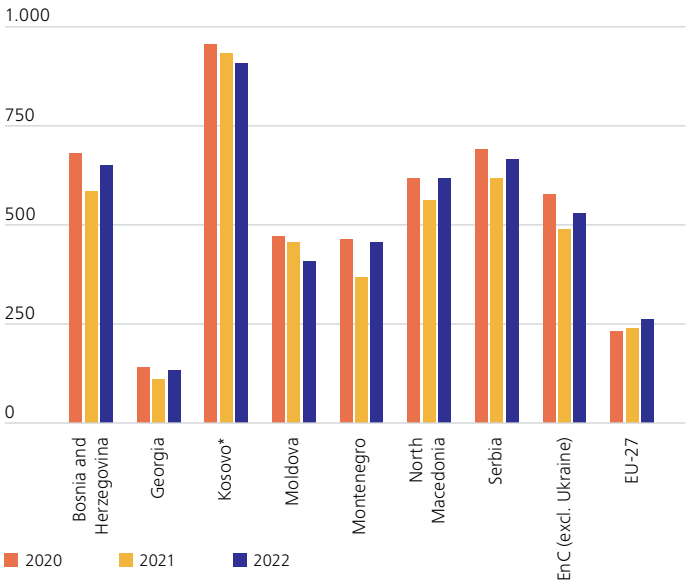
In 2023, carbon emissions from power plants, excluding Ukraine, decreased by 1.37% (615 kt) compared to 2022, totalling 44.4 mt. Furthermore, these emissions were 2.45% lower than the five-year average for the period 2019 – 2023.

Despite this progress, the carbon intensity of power production relative to economic development – measured as CO_2 emissions per unit of GDP – remains nearly seven times higher than in the EU-27. Specifically, in 2023, the observed Contracting Parties emitted 235 grams of CO_2 per 1 EUR of GDP, compared to just 34 grams in the EU. However, it is noteworthy that in 2023, the observed Contracting Parties achieved a 25% reduction in CO_2 emissions per unit of GDP compared to the five-year average (2019 – 2023), while the reduction compared to 2022 is 13%.

These figures demonstrate the strong correlation between sustainable economic development and the reduction of carbon footprints. They highlight the fact that economically advanced countries, such as those in the EU-27, are more productive and energy-efficient, achieving lower carbon emissions.

On the other hand, the power sector's carbon intensity – measured as CO_2 emissions per unit of generated electricity – reveals a lower disparity between the EU-27 and Contracting Parties. According to the latest available data from 2022, the carbon intensity of power generation in the Contracting Parties (excluding Ukraine) is double that of the EU-27.

Figure 13 Carbon intensity of the power sector [g CO_2/kWh]



Source: compiled by the Secretariat based on reports from Contracting Parties, as well as data from Eurostat, the European Environment Agency and default emission factor values.

Nevertheless, both indicators align with the necessity for Contracting Parties to commit continuously to bolstering their sustainable economic growth through aligning their legal frameworks with the relevant EU acquis, facilitating market integration, enhancing productivity, deploying new and clean technologies and significantly improving energy efficiency and decarbonisation efforts overall.

The following table presents the current default values of emission factors per Contracting Party used in the CBAM Transitional Registry.

Table 9 Default values of emission factors in the CBAM Transitional Registry per Annex IV of the CBAM Regulation

	Emission Factor (tCO_2/MWh)
Albania	0
Bosnia and Herzegovina	1.13897
Kosovo*	1.06294
Moldova	0.52073
Montenegro	0.97214
North Macedonia	0.92764
Serbia	1.04055
Ukraine	0.96184

Disclaimer: The values in this table are based on information obtained from regional traders with access to the CBAM Registry. They may not precisely reflect the exact default emission factor values used in the CBAM Transitional Registry.

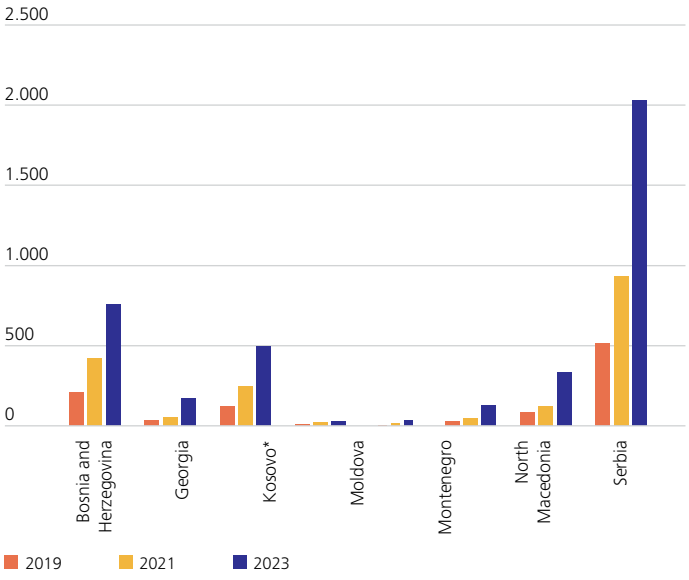
According to Article 7 of the CBAM Regulation, in the definitive phase of CBAM, embedded emissions in imported electricity shall be determined by reference to default values in accordance with the method set out in point 4.2 of Annex IV, unless the authorised CBAM declarant demonstrates that the criteria to determine the embedded emissions based on the actual emissions listed in point 5 of Annex IV are met. The emission factors for the production of electricity will be calculated using the weighted average of the CO_2 intensity of electricity produced from fossil fuels within a geographical area.[50] This approach assigns the same emission factor to electricity exports from Contracting Parties to the EU both from carbon-free sources – such as renewables or large hydro – and from fossil fuel-based generation. It will also lead to lower emission factors in those Contracting Parties where coal accounts for a lower share of fossil fuel-based production, imposing an extra burden on generators with lower carbon emissions and incentivising the increase of production and exports of coal-fired thermal plants.

Currently avoided carbon costs

Carbon pricing is currently implemented in Montenegro and Ukraine. In 2023, Montenegro's domestic power producer, EPCG, purchased the necessary allowances for EUR 9.26 million, reflecting an average carbon price of EUR 6.02 / tCO_2.[51]

Polluters in the remaining Contracting Parties do not internalise the costs of emitted CO_2. Considering the EU ETS allowance average annual price of EUR 89.05 / tCO_2 in 2023, the avoided costs in the Energy Community (excluding Ukraine) from power production exceed EUR 3.9 billion. This amounts to an average of 2.1% of the GDP of the observed Contracting Parties in 2023.

Figure 14 Avoided costs of emission at EU ETS price [mill EUR]



Source: compiled by the Secretariat based on reports from Contracting Parties, as well as data from Eurostat, the World Bank and default emission factor values.

In the absence of EU ETS allowances...
AVOIDED CARBON COSTS = 3,9 billion EUR or 2,1% of GDP in 2023

50 Default values for the transitional period of the CBAM Between 1 October 2023 and 31 December 2025 – https://taxation-customs.ec.europa.eu/system/files/2023-12/Default%20values%20transitional%20period.pdf

51 Calculations by the Energy Community Secretariat based on the financial statements of EPCG for 2023 in accordance with the accounting regulations of Montenegro. Source: https://app.scmn.me/Data/Download?folder=ELEKTROPRIVREDA_CRNE_GORE&file=EPCG_2023%20godi%C5%A1nji%20izvje%C5%A1taj.pdf

Plans for introducing carbon pricing

Monitoring reporting verification and accreditation (MRVA)

The system for monitoring, reporting and verifying greenhouse gas emissions (MRVA) is the backbone of any emissions trading scheme and a valuable instrument for the design of any other carbon pricing instrument. Its primary task is to provide reliable, accurate and verified information on the GHG emissions of installations subject to the obligation. The data that is collected by operators throughout the year, compiled in annual emission reports and verified by independent verifiers must be complete, reliable and consistent over the years in order to ensure credibility, comparability and transparency. The role of the public competent authorities is to ensure the integrity of the scheme and the equitable treatment of participants through the approval of permits and methodologies for monitoring GHG emissions (Monitoring Plan), the acceptance of annual emissions reports and the accreditation of verifiers.

The Energy Community Contracting Parties are obliged to transpose selected core provisions of the EU ETS Directive[52] and specific Commission Implementing Regulations, MRR[53] and AVR.[54] The deadline for the introduction of these provisions into domestic legislation was 31 December 2023. The Energy Community legislation introduced an additional two-year tentative period during which all involved public authorities and operators shall continuously work on complying with and implementing the provisions of those legal acts.

The timely transposition of the MRVA rules and the establishment of the necessary procedural and institutional framework represent a major challenge.

There is visible progress regarding the transposition of the general requirements of the MRVA system (scope of activities, GHG coverage, approval of permits etc.) in several Contracting Parties, which mostly have provisions incorporated into draft or adopted climate laws. Regarding the establishment of the other building blocks of MRVA however, work still needs to start in several Contracting Parties. The full implementation of the secondary legislation, the appointment of competent authorities, institutional capacity building, the approval of all GHG permits and monitoring plans and the creation of national systems for the accreditation of verifiers are all steps that need to be taken to enable full monitoring, reporting and verification from 2026 at the latest.

Table 10 Progress regarding the implementation of MRVA

	Legal base for MRVA exists	Competent Authority(ies) designated	Scope of operators and gases subject to MRVA is defined	GHG emissions permitting is in place and functioning	Monitoring Plans prepared by operators	Accreditation Body designated	Accreditation processes in place and functioning
Albania	●	●	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●	●	●
Georgia	●	●	●	●	●	●	●
Kosovo*	●	●	●	●	●	●	●
Moldova	●	●	●	●	●	●	●
Montenegro	●	●	●	●	●	●	●
North Macedonia	●	●	●	●	●	●	●
Serbia	●	●	●	●	●	●	●
Ukraine	●	●	●	●	●	●	●

● Completed ● Work ongoing / Partly completed ● Not started

Source: compiled by the Energy Community Secretariat

52 Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading as adapted and adopted by Ministerial Council Decision 2022/05/MC-EnC

53 Commission Implementing Regulation (EU) 2018/2066 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC as adapted and adopted by Ministerial Council Decision 2022/05/MC-EnC

54 Commission Implementing Regulation (EU) 2018/2067 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC as adapted and adopted by Ministerial Council Decision 2022/05/MC-EnC

Carbon pricing instruments

The development of carbon pricing policy tools has shown limited progress in Contracting Parties since the adoption of the Decarbonisation Roadmap in 2021, which aimed to achieve progress on agreeing to a carbon pricing system for the Contracting Parties of the Energy Community.

Environmental taxes in Albania and Ukraine have been in place since 2008 and an emissions trading system was established in 2020 in Montenegro, which is grappling with the low number of installations, hampering the trade of allowances and competition in auctions.

Even though CBAM led to a noticeable increase in the activities and policy discussions of governments regarding carbon pricing, most of those considerations remain at an initial stage of scoping and impact assessment. The draft NECPs, which should set out the main parameters of policies and measures up to 2030, reflect an elaborated concept for carbon pricing only in a few cases and often few details are presented apart from a general intention to introduce carbon pricing at a later date. There are plans both for establishing cap-and-trade systems in Albania, Bosnia and Herzegovina, Moldova and Ukraine as well as introducing a carbon tax in Moldova, North Macedonia and Serbia.

The information is based on the draft NECPs, which will be updated once the NECPs are adopted. For the relevance of CBAM, only those carbon tax initiatives are indicated which are aimed at the sectors covered by CBAM.

Table 11 Plans for carbon pricing instruments in the draft NECPs

	Type of carbon pricing instrument	Starting year	Starting price and price evolution (if applicable)	Sectors covered
AL[55]	Carbon tax	2026 for coal	EUR 0.05 / kg, which will increase to EUR 0.15 / kg in 2030	
	ETS	2025 – 2030	n.a.	Starting 2025, circulation of free allowances at national level with the participation of the cement, fertilisers, iron and steel industries
BA	ETS	2026	n.a.	Reduction in emissions from large thermal power plants exceeding 20 MW is indicated
GE	-	-	-	-
MD	Carbon tax	-	-	A carbon tax is considered an option for Moldova as a way to reduce the near-term impacts of CBAM
	ETS	Upon joining the EU	n.a.	No policy decision on the sectors or other design elements of a cap-and-trade system
ME	ETS	2020	EUR 24 / tCO_{2eq}	Thermal power plants, industry
MK[56]	Carbon tax	-	-	-
RS	Carbon tax	2027	Initially EUR 4 / tCO_{2eq} and with a subsequent increase to EUR 40 / tCO_{2eq}, in 2030, reaching the full projected EU ETS price by 2045	-
UA	Carbon tax	2011	UAH 30 per tonne during the martial law regime and assumption for EUR 1 per tonne from 2026 to 2027	Energy, industry and energy supply sectors
	ETS	2026, starting in test mode	Sectoral price increases to reach the level of the EU ETS price	Scope is still being considered
XK*	-	-	-	-

55 The information refers to the NECP adopted in December 2021.

56 The information refers to the NECP adopted in May 2022. The tool is called a CO_2 tax.

Cost of CBAM for the electricity sector

The CBAM Regulation allows for an exemption for electricity until 2030, which is unique compared to other CBAM goods. This represents an outstanding opportunity for generation companies in the Energy Community to temporarily avoid having to pay those CBAM-related costs and instead, accumulate those windfall profits within the company and mobilise them for investments in decarbonisation projects lowering the national emission factor, while still retaining their privileged access to the EU's internal electricity market. From 2030 upon the expiration of the exemption, any effective domestic carbon pricing instrument will – depending on its level – help to reduce the amount payable under CBAM and channel new revenues to the state budget for financing decarbonisation projects and programmes, including projects outside generation units and/or financing state programmes alleviating the social consequences of increased energy prices, in particular for vulnerable consumers.

Table 12 Estimate of CBAM Costs for Electricity Exports & Transit from CPs (except Ukraine) to the EU in 2023

Contracting Party bordering the EU	Export + Transit CP ➡ EU (MWh)	Average annual marginal CBAM price per MWh (EUR/MWh)	Total annual CBAM cost for EU importers (EUR)
Albania	2,180,799	0.00	0
Bosnia and Herzegovina	2,489,323	95.30	237,235,144
Moldova	236,886	43.34	10,267,477
Montenegro	3,692,858	80.63	297,761,310
North Macedonia	3,409,421	76.91	262,207,316
Serbia	12,373,039	86.48	1,070,013,746

The table above gives an example of the CBAM costs associated with EU electricity imports from Contracting Parties, using as an example the 2023 aggregated commercial flows[57] (exports and transit) and the 2023 monthly average EU ETS price from the auctions of allowances.[58] This calculation provides an estimate using historical data of the magnitude of additional costs that would need to be added to the overall import costs of electricity.

Such static analysis does not capture the full financial impact of CBAM in Contracting Parties, which may emerge in various ways such as changes and potential adjustments in flow patterns or economic consequences of higher unit costs for electricity generation due to lower level of exports. A dynamic estimation, which would require more detailed modelling and analysis, is beyond the scope of this report.

Given that it is not possible to separate exports from Contracting Parties from transit flows based on the currently available information, the estimation assumes that both export and transit volumes will be subject to CBAM. This assumption is based on feedback from regional traders, which suggests that during the initial reporting period most of the transactions for electricity entering the EU from Contracting Parties were declared solely as imports from the Contracting Parties regardless of their origin (this includes transits), due to unclear guidance from the relevant competent authorities. Further clarification on the practical aspects of declaring and verifying the origin of electricity will be instrumental in the appropriate implementation of CBAM, given electricity's unique characteristics as a commodity, particularly in the context of cross-border trade.

The average annual marginal CBAM price per MWh is estimated as the average of the monthly costs arising from the multiplication of the monthly average EU ETS auction price and the emission factor from the CBAM Transitional Registry weighted by the amount of commercial flows in that month. The total annual CBAM costs for electricity exports are derived from the multiplication of the average annual marginal CBAM price per MWh and the total of commercial flows.

The estimation is limited to Contracting Parties directly bordering the EU, but not including Ukraine, due to the unavailability of data for 2023.

57 Sourced from ENTSO-E's Total Scheduled Commercial Exchanges, which includes data for electricity volumes entering the borders of EU Member States from Contracting Parties.

58 Source:https://www.eex.com/fileadmin/EEX/Downloads/EUA_Emission_Spot_Primary_Market_Auction_Report/Archive_Reports/emission-spot-primary-market-auction-report-2023-data.xlsx