



## RECOMMENDATIONS 2/2023

*by the Energy Community Secretariat*

**on the Draft integrated National Energy and Climate  
Plan of Bosnia and Herzegovina**



Energy Community Secretariat

## Recommendations

on the draft integrated National Energy and Climate Plan of Bosnia and Herzegovina covering the period 2025-2030

Whereas:

- (1) Pursuant to Article 9(1) of the [Energy Community Governance Regulation](#)<sup>1</sup> (“Governance Regulation”) each Energy Community Contracting Party (“Contracting Party”) is obliged to prepare and submit to the Energy Community Secretariat (“Secretariat”) a draft integrated national energy and climate plan (“NECP”) covering the period from 2025 to 2030 in accordance with Article 9(1) and with Annex I.
- (2) The draft NECP was submitted by the authorities of Bosnia and Herzegovina to the Secretariat on 30 June 2023.
- (3) Pursuant to Article 9 of the Governance Regulation the Secretariat is required to assess the draft NECPs and may issue recommendations until 31 December 2023. The Secretariat made a comprehensive assessment of the draft NECP of Bosnia and Herzegovina, taking into consideration the relevant elements of the Governance Regulation.
- (4) In particular, the Secretariat’s recommendations may address (i) the level of ambition of objectives and targets with a view to achieving the Energy Union objectives and, in particular, the Energy Community’s 2030 targets for renewable energy and energy efficiency that the Contracting Party aims for in 2030; (ii) policies and measures relating to Contracting Party – and Energy Community-level objectives and other policies and measures of potential cross-border relevance; (iii) any additional policies and measures that might be required in the integrated national energy and climate plans; (iv) interactions between and consistency of existing and planned policies and measures included in the integrated national energy and climate plan within one dimension and among different dimensions of the Energy Union.

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<sup>1</sup> 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

- (5) The Governance Regulation also requires Contracting Parties to provide a general overview of the investment needed to achieve the objectives, targets and contributions set out in the integrated national energy and climate plan, as well as a general assessment on the sources of that investment. The national energy and climate plans should ensure the transparency and predictability of national policies and measures in order to provide investment certainty.
- (6) The Governance Regulation requires Contracting Parties to take due account of any recommendations from the Secretariat in their final NECP to be submitted until 30 June 2024. If the Contracting Party concerned does not address a recommendation or a substantial part thereof, it shall provide and make public its reasons.
- (7) Where applicable, Contracting Parties should report the same data in their NECPs and updates in later years as they report to Eurostat or the European Environment Agency. The use of the same source is also essential to calculate the baseline for modelling and projections and to allow for a better comparability of the data and the projections used in the NECPs.
- (8) All elements of Annex I of the Governance Regulation are to be included in the final NECP. In this context, the macroeconomic and, to the extent feasible, the health, environmental, employment and education, skills and social impacts of the planned policies and measures should be assessed. The public and other stakeholders are to be engaged in the preparation of the final plan.
- (9) The Secretariat's recommendations to Bosnia and Herzegovina are based on the assessment of Bosnia and Herzegovina's draft NECP, which is published by the Secretariat together with the present Recommendation.
- (10) **In the Secretariat's view, the draft plan of Bosnia and Herzegovina in its current form, lacks the analytical basis, the assessment of the impacts of the planned policies and the investments needed to achieve the corresponding targets and objectives. It does not fulfil its objective, namely, to provide a clear set of policies and measures ("PaMs") that will set Bosnia and Herzegovina on a predictable path to achieve its 2030 energy and climate targets.**

THE SECRETARIAT HEREBY PROVIDES THE FOLLOWING RECOMMENDATIONS ON THE DRAFT INTEGRATED NATIONAL ENERGY AND CLIMATE PLAN OF BOSNIA AND HERZEGOVINA:

*On procedural aspects:*

- (1) Establish an inclusive consultation process that considers the diverse governmental structures of Bosnia and Herzegovina. Ensure simultaneous participation at all government levels, involving the public and the authorities concerned by the implementation of the

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- plan. Ensure that all scenarios remain open for discussion to facilitate effective public participation. Provide a report explaining the consultation process in the final NECP.
- (2) Enable timely access to relevant information, comprehensive documents, and reports, including the Strategic Environmental Assessment (“SEA”) report, during the consultation process. Allocate sufficient time to ensure meaningful engagement, incorporating elements such as public hearings and transboundary consultations.
  - (3) Reflect the outcomes of comments, opinions, information, and analyses provided in the consultation process, including transboundary consultations, in a transparent and traceable manner. Explain the reasons if the received feedback was not fully or not at all incorporated into the final NECP.
  - (4) Prepare and submit the draft SEA report for the Secretariat’s review. Prioritize the presentation of comprehensive, reliable, and high-quality information, distinctly outline measures to address potential significant impacts and include a robust monitoring plan.
  - (5) Provide a detailed description of actions planned and taken for regional cooperation.
  - (6) Establish the legal form for adopting the final NECP in the absence of a legal basis. Explain how the NECP will be implemented in the entities of Bosnia and Herzegovina and how entity-level energy and climate plans (if any) will relate and be linked to the state-level NECP.

*On substance:*

- (7) Regarding **the general methodology and approach**, cover all elements as required by the Governance Regulation in the final NECP. Pay special attention to Section B, specifically the Analytical basis, including Chapters 4 and 5. Currently, these sections are entirely missing, making it challenging to seriously assess the adequacy of PaMs, monitor progress, and make the necessary adjustments. The absence of these crucial components increases the likelihood of not meeting the targets, which undermines the credibility of the entire plan.
- (8) Refer to the correct legal basis, namely the Governance Regulation, as adopted and adapted in the Energy Community, instead of the legal text applicable in the European Union or the [Recommendation of the Ministerial Council of the Energy Community \(2018/1/MC-EnC\)](#)<sup>2</sup>.
- (9) Thoroughly reformulate the language and style of the draft plan, minimise the amount of academic and theoretical explanations. Indicate what actions are going to be or are planned to be taken by the authorities and other stakeholders in Bosnia and Herzegovina.
- (10) Formulate tangible PaMs with a detailed description including precise actions, clear milestones and progress indicators. Outline the quantitative contribution of each PaM to

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<sup>2</sup> Recommendation of the Ministerial Council of the Energy Community (2018/1/MC-EnC) on preparing for the development of integrated national energy and climate plans by the Contracting Parties of the Energy Community

- the achievement of the respective 2030 target, or other policy objectives, in concrete terms, such as by adding the expected contribution to the reduction of greenhouse gas (“GHG”) emissions of each individual PaM. Include the estimated costs for each PaM and indicate whether it is part of the scenario with existing measures (“WEM”) or part of the policy scenario with additional measures (“WAM”).
- (11) Provide an assessment regarding the impacts of the planned PaMs on other Contracting Parties and/or Member States of the European Union.
  - (12) Explain why certain objectives and PaMs<sup>3</sup> are considered as "optional".
  - (13) Indicate in the figures and diagrams clearly whether they display a baseline or a policy scenario.
  - (14) Update the NECP with the latest information regarding national strategies, action plans and policy documents such as the Long-term Low Emission Development Strategy submitted to the Secretariat of the United Nations Framework Convention on Climate Change (“UNFCCC”) on 19 July 2023 and elaborate how the NECP will contribute to the realisation of those strategies.
  - (15) Related to **decarbonisation and GHG emission reduction**, cover all sectors in the final NECP, including agriculture, waste and industrial processes and product use (“IPPU), with sectoral targets and PaMs.
  - (16) Include in Chapter 5 of the final NECP an assessment of the impacts of the mandatory implementation of the Energy Community [Large Combustion Plants](#)<sup>4</sup> and [Industrial Emissions Directives](#)<sup>5</sup>, as required by Annex I of the Governance Regulation. Analyse the NECP’s interactions with air quality and present the impacts on air pollution for the various scenarios.
  - (17) Consider implementing methane emission reductions, reflecting Bosnia and Herzegovina's commitment to the Global Methane Pledge, in particular in coal mines and the gas sector.

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<sup>3</sup> Including the following instances:

- PaM 3.2 Reducing dependence on energy imported from third countries, in order to increase the resilience of domestic and regional energy systems (optional)
- 2.3.3 Goals for BiH in terms of reducing dependence on energy imported from third countries, in order to increase the resilience of domestic and regional energy systems (optional)
- 2.4.3.2 BiH objectives related to non-discriminatory participation of renewable energy sources, management of consumption and storage (optional)
- 2.4.3.3 Goals of BiH regarding ensuring that consumers participate in the energy system (optional)
- 2.4.4.1 BiH goals regarding energy poverty (optional).

<sup>4</sup> Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants as adapted and adopted by Ministerial Council Decision 2013/05/MC-EnC, amended by Decision 2015/07/ MC-EnC

<sup>5</sup> Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) as adapted and adopted by Ministerial Council Decision 2013/06/MC-EnC, amended by Decision 2015/06/MC-EnC

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- (18) Integrate fair and just transition aspects both on the level of objectives and in PaMs, by adding PaMs on these aspects also for the post-2025 period, and by providing more details regarding the social, employment and skills related impacts of planned objectives and PaMs.
  - (19) Indicate any planned target date for the phase-out of coal from the electricity production and from the energy mix for the overall economy also in consideration of the limited lifetime derogation of thermal power plants (“opt-out”).
  - (20) Improve the PaM on the establishment of an Emissions Trading Scheme (“ETS”), to take advantage of regional cooperation in view of the European Union’s Carbon Border Adjustment Mechanism<sup>6</sup> (“CBAM”). Align the strategic objectives and timeline of the PaM on ETS with the PaMs related to electricity market coupling.
  - (21) In the area of **decarbonisation and renewable energy**, consider more comprehensively the interaction between dimensions, such as how specific PaMs related to renewable energy contribute to energy and GHG savings.
  - (22) Adopt a more ambitious target for the integration of renewable energy in heating and cooling, including district heating in line with Articles 23 and 24 of the [Energy Community Renewable Energy Directive](#)<sup>7</sup> (“Renewables Directive”) respectively. Put forward detailed measures as recommended in paragraph (23)(24) of this Recommendation, with more ambitious deadlines to meet the indicative target in the heating and cooling sector in line with Articles 23 and 24 of the Renewables Directive.
  - (23) Elaborate more on the PaMs concerning energy generation from renewable sources for heating and cooling, in particular concerning investment needs, quantitative effects, progress indicators and the status of implementation.
  - (24) Establish a system for verification of compliance with the sustainability and greenhouse gas emissions saving criteria aligned with the requirements of the Renewables Directive.
  - (25) Enhance the PaMs related to spatial planning policy and measures to expedite the deployment of renewable energy projects by incorporating explicit criteria for designating suitable areas, while adhering to the “do no significant harm principle”. Consider institutionalising a digitalised one-stop-shop permitting process and establishing an efficient dispute resolution mechanism.
  - (26) Provide justification on the expected reduced use of energy from renewable sources in the electric railway-passenger sector.
  - (27) In **energy efficiency**, pursue the same level of ambition – i.e. maximum 6.50 Mtoe instead of 6.84 Mtoe – in the planned total maximum level of primary energy consumption by 2030 as per the [decision of the Energy Community Ministerial Council](#) (“Ministerial Council

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<sup>6</sup> Regulation (EU) 2023/956 on establishing a carbon border adjustment mechanism

<sup>7</sup> 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

- Decision”)<sup>8</sup>, or explain the specific national circumstances to justify the gap between the ambition in the NECP and the target agreed by the Energy Community Ministerial Council.
- (28) Include explanations and examples how the “energy efficiency first” principle is taken into account in the NECP and in the PaMs.
  - (29) Update and explain in more details the calculation of the cumulative target and the selected approach for reducing energy consumption pursuant to Article 7 of the [Energy Community Energy Efficiency Directive](#)<sup>9</sup> (“Energy Efficiency Directive”), taking into consideration the increased target imposed by the latest amendment of the Energy Efficiency Directive in 2021, and Annex III of the Governance Regulation.
  - (30) Regarding energy efficiency in buildings, prioritize the accelerated finalization, adoption, and rigorous implementation of a comprehensive long-term building renovation strategy – which was due to be submitted to the Secretariat by 10 March 2023 –, harmonized with the NECP and the Clean Energy Package.
  - (31) Concerning **energy security**, substantially improve the description and the quality of elaboration of PaMs, specify them, estimate the costs of their implementation, quantify the effects and define measurable targets for their implementation. Remove the instances of the same policies and measures appearing in multiple places.
  - (32) Properly address and reflect the legal obligations stemming from the [Electricity Integration Package](#)<sup>10</sup>, the role of the integrated electricity market, cross-border cooperation and utilisation of existing and new interconnection capacities in ensuring the energy security.
  - (33) Clarify the relevance of the measure concerning the development of “an Integrated Plan(s), which will cover both the portfolio of electricity production and consumption so as to satisfy the aspects of security of supply and the achievement of decarbonization goals” as it covers the scope of the NECP.
  - (34) Reconsider the objective concerning reducing the dependence on the import of electricity from third countries in light of the fact that Bosnia and Herzegovina is a net exporter of electricity.
  - (35) Elaborate in more details the concept for securing gas supplies considering Bosnia and Herzegovina’s legal obligations in this area.

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<sup>8</sup> 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

<sup>9</sup> 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

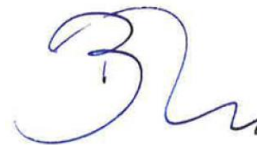
<sup>10</sup> Decision 2022/03/MC-EnC on the incorporation of Regulation (EU) 2019/942, Regulation (EU) 2019/943, Regulation (EU) 2015/1222, Regulation (EU) 2016/1719, Regulation (EU) 2017/2195, Regulation (EU) 2017/2196, Regulation (EU) 2017/1485 in the Energy Community acquis, amending Annex I of the Energy Community Treaty and on the amendments of the Ministerial Council Decisions No 2021/13/MC-EnC and No 2011/02/MC-EnC

- (36) Explain and justify the planned role of natural gas as a transition fuel, outlining what generation capacities it is planned to replace, under what timeframe and from which sources investments in natural gas are planned to avoid becoming stranded assets.
- (37) Regarding the **internal energy market**, commit to actual policy decisions in the NECP – for instance regarding the planned future structure of electricity generation compliant with the Decarbonisation dimension or the role of natural gas in the energy transition.
- (38) Substantially improve the description of objectives and the quality of elaboration of PaMs related to the internal energy market. Targets should be clear and quantified and accompanied by measurable indicators.
- (39) Include PaMs to respond to all the requirements from the Electricity Integration Package (national, regional and all-European).
- (40) Add PaMs outlining the practical implementation of the legal acts – still to be transposed – in both electricity and gas, to be carried out not just by public authorities but also market participants and other stakeholders.
- (41) Add PaMs related to the stock-taking, reporting, transparency obligations and an indicative phase out of subsidies for electricity production.
- (42) Elaborate PaM 4-2.1.1 in more detail and identify additional grid investments needed to support the integration of renewable energy sources.
- (43) Define more specific PaMs in the area of **research, innovation and competitiveness (“RIC”)**, with envisaged funding sources.

Vienna, 27 December 2023



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**ANNEX**  
**To the Energy Community Secretariat**  
**Recommendations**  
**on the draft integrated National Energy and Climate Plan of Bosnia and Herzegovina covering the period 2025-2030**

**Detailed assessment of the draft integrated National Energy and Climate Plan of Bosnia and Herzegovina**

**1. Summary**

**1.1. Overview of the key objectives and targets**

Target/objective		Energy Community 2030 target for Bosnia and Herzegovina	Value in the draft NECP of Bosnia and Herzegovina
	GHG emissions reduction of total emissions in the policy scenario compared to 1990 levels	- 41.2% (15.65 MtCO <sub>2</sub> of total emissions) compared to 1990 levels	- 41.2% (15.65 MtCO <sub>2</sub> of total emissions) compared to 1990 levels
	Share of renewable energy in gross final energy consumption	43.6%	43.6%
	Energy efficiency	Primary energy consumption: 6.50 Mtoe	Primary energy consumption: 6.84 Mtoe
		Final energy consumption: 4.34 Mtoe	Final energy consumption: 4.34 Mtoe

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## 1.2. Main observations

- (1) The consultations and participation chapter is cursory, outlining only a broad overview of how the process could be implemented rather than providing the detailed steps and methods involved when carrying out the process. There is no description how the draft NECP was prepared, whether the public and authorities concerned were identified, which authorities and stakeholders participated in the development and how the process was conducted. Targeted consultations with specific stakeholders, including non-governmental organizations (NGOs), can serve as valuable supplements to this process. The lack of content information on cross-border consultations and collaborations is noteworthy.
- (2) There was no SEA report prepared and submitted with the draft NECP to the Secretariat. Integrating an independent examination, such as a review panel or a joint government technical commission, for a thorough evaluation of the quality of information in the environmental report can significantly enhance the robustness and credibility of the NECP.
- (3) The section on regional cooperation includes a theoretical explanation of what actions and dimensions “may be covered”, but no concrete details on what actually was carried out or what is planned. The text: “These tips offer general guidelines that you can use as a starting point.<sup>11</sup>” reflects that input from external sources were taken aboard without reflection.
- (4) The legal framework that would define the adoption process and the implementation of the NECP is missing due to the lack of transposition of the Governance Regulation.
- (5) The draft plan describes the possible participation of the Parliament in drafting and discussing the NECP, only at a stage when the plan is adopted by the governments – thus without a meaningful participation. There is also no indication how the NECP will apply and will be implemented in the entities and how it relates to any entity-level energy and climate plans (if any).
- (6) The draft plan **does not meet the structural requirements of the Governance Regulation**. There is **no description of the modelling** work done, the scenarios used and how they were developed. **The entire analytical part of the draft NECP is missing**. The language used for referring to scenarios is inconsistent – in some instances “policy” as well as “implementation” is used, whereas “base” and “baseline” also appears interchangeably.
- (7) The draft NECP uses references and headlines of the EU’s Governance Regulation and not the adapted version applicable in the Energy Community. The legal **obligations in the Energy Community stemming from the Governance Regulation in particular related**

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<sup>11</sup> Bosnia and Herzegovina Integrated Energy and Climate Plan, Version 7, (p. 57), Chapter 1.3 Consultations and participation of parties from BiH and entities of the Energy Community and the outcome of the consultation

**to climate change, are not indicated** at all in the policy context. The reference to certain EU legal acts – for instance Regulation (EU) 2018/841 – point to obsolete legislation i.e. Regulation (EU) 525/2013 (a precursor of the Governance Regulation), which is no longer in force in the EU and has never been in force in the Energy Community.

- (8) The draft plan sets **2030 targets** for greenhouse gas emissions reduction, renewable energy and for final energy consumption in line with the targets set for Bosnia and Herzegovina by Ministerial Council Decision No 2022/02/MC-EnC. It however **falls short** of complying with the **maximum primary level of energy consumption by 2030**, without any explanation for such a difference.
- (9) Several sections of the draft NECP are formulated only by describing tasks, objectives, problems or options forward without any information on what and how the authorities in Bosnia and Herzegovina will be implementing, which is the primary function of an NECP<sup>12</sup>.
- (10) **Policies and measures** are listed in a structured manner, however the numbering of dimensions and PaMs is difficult to follow, especially in the Energy Security dimension. The numbering of PaMs does not correspond to the numbering of dimensions in general. The numbering of headings is incorrect, Energy Security, Internal Energy Market and Research, Innovation and Competitiveness all appear under the same heading number, 3.5. There is no indication which PaMs are part of the WEM, and which PaMs are part of the WAM scenario. There are links indicated to other dimensions, however there is no description why or in what way the links exist, and how the PaMs affect the other dimensions.
- (11) The majority of PaMs are defined in too general terms without concrete actions and are not linked to the 2030 targets relevant for their dimension, by indicating a quantified contribution thereto. The absence of such information will make the assessment of the potential contribution of individual PaMs in the achievement of targets impossible and the compilation of integrated progress reports on the implementation of the NECP – as

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<sup>12</sup> For instance:

- Section: 1.4.1: “When it comes to joint or coordinated planning with other EnC Contracting Parties and European Union member states in the context of an integrated energy and climate plan, some of the elements that may be covered are:” – this is followed by a description of possible areas, but no indication what Bosnia and Herzegovina is planning to consider for cooperation
- Section 2.4: “One of the pillars of the successful decarbonisation of the energy sector is a functionally organised market for energy products, both locally and regionally, and eventually the pan-European market. A successful market enables optimisation of development and use of natural resources, integration of renewable sources, participation of prosumers and energy communities in decarbonisation, aggregation of distributed resources and management of consumption. The market with the previously described characteristics is an important factor in ensuring the security of supply, including the adequacy and flexibility of the energy system.”
- Section 2.4.1. “Electric power interconnection – The EU has set goals for interconnections of 10% in 2020 and 15% in 2030. These goals form the ratio of Net Transfer Capacity (NTC) and installed capacity in electricity production of each country. In relation to this criterion, the Regulation also sets three additional sub-criteria for evaluating the degree of power interconnection, which are defined as follows:”

- stipulated in Article 17 of the Governance Regulation – by the authorities of Bosnia and Herzegovina all but possible.
- (12) There are no costs associated to any of the PaMs. Regarding the “Financial measures” the draft NECP provides a reference to a chapter that does not exist (“See Part 5 of Section B”).
  - (13) Certain PaMs, but also objectives in the Energy Security and Internal Energy Market dimensions, are marked as “**optional**”<sup>13</sup>. It is not clear why these measures, some of which are very relevant, for instance addressing energy poverty, are displayed in such a way.
  - (14) Diagrams and graphs do not indicate clearly which scenario (WEM or WAM) is pursued.
  - (15) In Decarbonisation, GHG emissions reduction, **non-energy sectors, such as agriculture, waste and industrial processes and product use are missing** in the draft NECP’s sectoral targets and PaMs.
  - (16) The **large combustion plant dimension** of the draft NECP is not elaborated in detail and requires substantial improvement. There is only one brief reference to the National Emission Reduction Plan (“NERP”), the implementation alternative chosen by Bosnia and Herzegovina to comply with the Large Combustion Plants Directive, which the country is breaching from 2018 onwards. There is also no reference to achieving compliance with the Industrial Emissions Directive, which is an obligation under the Energy Community Treaty from 1 January 2028 onwards.
  - (17) The draft NECP **also unlawfully considers plants that were subject to opt-out** and should have been closed already because they have reached the 20,000 hours limit (Tuzla 4 and Kakanj 5).
  - (18) There is only a single PaM related to just transition, which includes the implementation of a Roadmap for the transition of coal-rich regions in Bosnia and Herzegovina until 2025. It is not clear what is the document referred to as a Roadmap. Moreover, considering the role of coal in the energy sector of Bosnia and Herzegovina and the potential impact of the decarbonisation, it is important that there is a clear indication of planned actions going beyond 2025, aiming at the support of regions for a successful management of the transition.
  - (19) The draft plan **does not indicate any phase-out date for coal**, neither for electricity generation nor on the level of general economy, even though it refers to the overall

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<sup>13</sup> For instance:

2.3.3 Goals for BiH in terms of reducing dependence on energy imported from third countries, in order to increase the resilience of domestic and regional energy systems (p.90),

2.4.3.2 BiH objectives related to non-discriminatory participation of renewable energy sources, management of consumption and storage (p.95),

2.4.3.3 Goals of BiH regarding ensuring that consumers participate in the energy system (p.95),

2.4.4.1 BiH goals regarding energy poverty (p.97).

objective of carbon neutrality by 2050<sup>14</sup>. In the absence of projections until 2050 it is not possible to anticipate the role of coal in the primary and final energy consumption.

- (20) The draft plan includes a PaM regarding the establishment and functioning of a CO<sub>2</sub> **emission trading scheme** with a deadline of 2026. However, it focuses on setting up a national ETS without considering the assessment of a regional or European perspective, and lacks details, for instance on the sectoral scope, allocation methodologies and other essential building blocks.
- (21) The **target for heating and cooling**, including district heating is not in line with requirements of Articles 23 and 24 of the **Renewable Energy Directive**, respectively.
- (22) The draft plan does not take into account **waste heat** for achieving the renewable energy targets of Article 23 of the Renewables Directive. The analysis of waste heat utilisation is instrumental for the comprehensive assessment for efficient heating and cooling, and its potential, which needs to be assessed for achieving the renewable energy targets.
- (23) While policies and measures for **increasing renewable energy in heating and cooling** are envisaged (support for deployment of heat pumps and integration of renewable energy in district heating), more details on their implementation, as well as more ambitious deadlines are needed to ensure that they are implemented.
- (24) A significant increase of wind power capacity from 135 MW in 2022 to 600 MW and an increase of solar PV capacity from 102 MW to 1492 MW is foreseen in the draft plan. This expansion represents approximately a 4.4-fold increase for wind power and a 14.6-fold increase for solar power requiring suitable areas that can accommodate the deployment of renewable energy projects. The information concerning **renewable energy mapping and siting** is not covered under PaM 1B-3.1.1, which focuses on encouraging the generation of electricity from renewable sources. Furthermore, the PaM lacks information concerning a one-stop-shop institutional setup for expediting and streamlining the permitting process for renewable energy projects, as well as alternative dispute settlement mechanisms.
- (25) The expectations on the use of energy from **renewable sources in the electric railway-passenger sector** foresee an almost full phase out reducing from 5.27 ktoe to 0.85 ktoe, whereas the trend in expectations is clearly the opposite in other transport sectors.
- (26) The cumulative target and the selected approach for reducing energy consumption pursuant to Article 7 of the amended **Energy Efficiency Directive**, taking into consideration the increased target imposed by the latest amendments of the Energy Efficiency Directive in 2021, and Annex III of the Governance Regulation are missing. The reporting is not clearly outlined.

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<sup>14</sup> The correct terminology applied in the EU climate policy is “climate neutrality”.

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- (27) The PaMs in the draft NECP do not provide explanations or examples on how the “**energy efficiency first**” principle was taken into account, an obligation of the Governance Regulation.
- (28) A long-term **Renovation Strategy**, coupled with number of legislative acts is already drafted with the support of different technical assistance programmes. Its adoption as indicated in PaM 2-1.2-1 is pivotal in supporting the NECP implementation and achieving the long-term goal of decarbonisation of the buildings sector, however its adoption and implementation is not indicated as priority in the draft plan.
- (29) The draft plan lacks an explanation of the strategic priorities and of any quantified targets and objectives (such as diversification) in the field of **Energy Security**.
- (30) A number of PaMs in the **Energy Security** dimension lack complete description (for instance 3-2.1.2-1 and 3-2.1.3-1). Links to other dimensions are often indicated as not applicable, even though a PaM such as 3-1.2.1-1 “Support for the construction of at least one new interconnection” in gas has an impact on the dimensions of Internal Energy Market and on Decarbonisation.
- (31) There are three instances of a PaM indicating the **development “of an Integrated Plan(s)**, which will cover both the portfolio of electricity production and consumption so as to satisfy the aspects of security of supply and the achievement of decarbonization goals”<sup>15</sup>. As such a plan would substantially overlap with the NECP, it is important to have clarity regarding its precise content and function as well as its relation to the NECP.
- (32) The draft NECP focuses on diversifying energy sources and supply from third countries but lacks consideration of the regional cooperation and regional dimension, which could significantly decrease the energy transition costs. A balanced mix of diversification measures with policies that enhance cross-border energy trade, especially coming from sustainable renewable energy, will result in a lower level of necessary investments while reaching the same level of energy security in a low-carbon manner.
- (33) Bosnia and Herzegovina is a net electricity exporter, and in this light it is to be explained in detail, under which assumptions and in what timeframe the objective of reducing the dependence on electricity imports was considered.
- (34) A broad concept of energy security, including the legal obligations such as the preparation of a risk assessment and preventive and emergency action plans for securing gas supplies, is missing.
- (35) The **Internal Energy Market** dimension features open, undecided policy questions, such as related to the future structure of electricity generation, or to the role of gas in the transition. The basic function of the NECP is to provide clear answers and commitments, to reflect the policy decisions on strategic questions.

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<sup>15</sup> PaMs No.: 3-1.3.2-1; 3-3.3.1-1; and 3-3.3.3-2.

- (36) The draft NECP does not take full account of the Electricity Integration Package, but only touches upon on a very limited number of its requirements. The displayed measures are not sufficient to fully implement or are even contrary to the [Directive on common rules for the internal market for electricity](#)<sup>16</sup> (“Electricity Directive”), to the [Regulation on the internal market for electricity](#)<sup>17</sup> (“Electricity Regulation”) and to the Guidelines related to markets ([Regulation \(EU\) 2016/1719](#)<sup>18</sup>, [Regulation \(EU\) 2015/1222](#)<sup>19</sup>, [Regulation \(EU\) 2017/2195](#)<sup>20</sup>). Furthermore, the transposition of the [ACER Regulation](#)<sup>21</sup> is mandatory for Contracting Parties and a precondition to be included in the EU’s internal electricity market.
- (37) The PaM regarding the **phase out of subsidies to electricity production** represent a good direction but lacks the necessary details to ensure timely and effective implementation.
- (38) The long-term transmission network development plan 2021-2030 made by Elektroprenos BiH is based on the Indicative Production Development plan prepared by NOS BiH, but not adjusted to the draft NECP. Furthermore, it does not consider different scenarios of renewables integration.
- (39) The proposed objectives in **research and innovation** include increasing the share of investments in RIC gradually from the current 0.3% to 1.5% of the GDP by 2030, with the aim of further increasing and harmonising it with the EU average (3%) by 2040, which might be considered as reasonable and implementable. PaMs in this dimension are listed, but they are described too generally, because the needed funds, implementation deadlines, monitoring indicators, monitoring entity, and compliance with the policies of the Energy Community are missing. In addition, there are no PaMs related to the establishment of various bodies, plans, hubs, centres for boosting research and innovation.

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<sup>16</sup> Directive (EU) 2019/944 on common rules for the internal market for electricity as adapted and adopted by Ministerial Council Decisions 2021/13/MC-EnC and Decision 2022/03/MC-EnC

<sup>17</sup> Regulation (EU) 2019/943 on the internal market for electricity as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC

<sup>18</sup> Commission Regulation (EU) 2016/1719 establishing a guideline on forward capacity allocation as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC

<sup>19</sup> Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC

<sup>20</sup> Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC

<sup>21</sup> Regulation (EU) 2019/942 establishing a European Union Agency for the Cooperation of Energy Regulators as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC

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## 2. Preparation and submission of the draft plan

### 2.1. Process and structure

The draft plan was submitted to the Secretariat on 30 June 2023, within the legal deadline set in Article 9(1) of the Governance Regulation. The submission **did not include a Strategic Environmental Assessment Report** of the draft NECP.

The draft plan contains **no information about the development process** or a description of the work of technical groups that were set up (if at all) to provide input for the drafting.

The relevant provisions of the Governance Regulation regarding the NECP have not been transposed in Bosnia and Herzegovina, thus the adoption process and the implementation of the plan is not regulated. The draft plan is **missing the entire analytical section** (Section B, including Chapters 4 and 5), which makes any assessment of the foreseen trajectories and a comparison of the proposed PaMs with those trajectories impossible.

The majority of the draft NECP is **formulated in a non-committed and theoretical manner**, lacking indication and description of the steps that will be implemented by Bosnia and Herzegovina.

### 2.2. Public consultation

The draft plan contains no description of if and how public consultations were carried out.

### 2.3. Regional consultation

The draft plan contains no description of how **regional consultations** were carried out, which must be remedied in the final NECP. The submitted text outlines only a theoretical background of how consultations may be conducted.

The assessment regarding the **impacts of the planned policies and measures** on other Contracting Parties and/or Member States of the European Union, and regional cooperation at least until the last year of the period covered by the plan is missing. The contribution of Bosnia and Herzegovina to the consultations on neighbouring draft plans, if applicable, could also be described, indicating the potential links of other NECPs to the plan of Bosnia and Herzegovina.

If any **regional cooperation** took place in the development of the draft plan, it should also be described in the final plan.



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### 3. Assessment of the ambition of targets, objectives and adequacy of supporting policies and measures

#### 3.1. Decarbonisation – greenhouse gas emissions and removals

The 2030 greenhouse gas emission reduction **target** in the draft plan is in line with the Ministerial Council Decision, and it is in line with the plan to reach almost full carbon neutrality<sup>22</sup> in 2050<sup>23</sup>. The long-term outlook includes emission reductions until 2050.

There are **no specific sectoral targets for non-energy related emissions**, which would include sectors such as agriculture, waste and IPPU respectively. However, the trajectory for consolidated non-energy related emissions is still increasing by 7% between 2022-2030 (diagram 7). Targets for energy related emissions are broken down further. GHG emissions from energy transformation (electricity production) will be decreasing by 23% between 2022-2030. GHG emissions from final energy consumption (supposedly transport and industry) will be decreasing by 4% in the same period. It is not clear, whether energy efficiency gains from households are already included in the trajectory for final energy consumption or not.

There is inconsistency in the use of units of CO<sub>2</sub> and CO<sub>2eq</sub> throughout the document.

The NECP accounts for the **Global Methane Pledge** and the submitted Nationally Determined Contribution (“NDC”) under the UNFCCC.

There is **no coal phase out date**. Coal will still be present in the 2030 energy mix as indicated on Diagram 9. One PaM foresees phasing out subsidies for electricity from fossil fuels. However, a specific timeline for this PaM is missing.

The decarbonization and energy security dimensions appear compatible as there are no plans to increase the capacity of plants burning fossil fuels. In this context, the plans for the Tuzla 7 project should be specified.

The lack of quantification of **policies and measures** makes the assessment of their contribution to the achievement of 2030 targets and the tracking of the progress of their implementation impossible. PaMs for the agriculture, waste and IPPU sectors are missing.

The draft plan contains a reference to the European Union’s CBAM Regulation indicating that it is expected to have an impact, however no further details on the anticipated impacts are provided.

One of the PaMs covers the introduction of a national **emission trading system** (“ETS”) with free allocation for all operators, except for electricity producers. The anticipated potential price range of allowances (stemming from the regulatory elements as part of the ETS design) or the impact of

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<sup>22</sup> The correct terminology applied in the EU climate policy is “climate neutrality”.

<sup>23</sup> The policy scenario still foresees 0.11 mtCO<sub>2</sub> in 2050 including LULUCF in Table 2.

the introduction of the ETS on the electricity sector remain unknown. The relationship between the PaM on the ETS implementation and the PaM on energy fees (to finance energy efficiency programmes), which includes an extra cost on generating electricity from coal (2-0.1-3) is unclear.

The level of GHG emission reductions stemming from **LULUCF** appears the same in both the baseline and policy scenarios<sup>24</sup>. This gives an impression that there are no additional PaMs planned in the policy scenario compared to the baseline, which could represent a low level of ambition in the LULUCF sector.

References to actions related to **Just Transition** are only limited to the implementation of a Roadmap for the transition of coal-rich regions in Bosnia and Herzegovina until 2025. No additional impact, including on employment, has been analysed.

There is only one reference to the NERP, the implementation alternative chosen by Bosnia and Herzegovina to comply with the Large Combustion Plants Directive, and there is no reference to the compliance with the Industrial Emissions Directive (which is an obligation under the Energy Community Treaty, with a deadline of 1 January 2028). The draft NECP refers to plants that were **subject to opt-out** and should have been closed already because they have reached the 20,000 hours limit (Tuzla 4 and Kakanj 5) and are foreseen to remain in operation until 2023. In this regard, the draft NECP is not in line with the legal commitments related to Large Combustion Plants under the Energy Community Treaty.

There is **no date for planned coal phase-out** and there are no PaMs related to the reduction of emissions from thermal power plants.

### 3.2. Decarbonisation – renewable energy

The overall 2030 **target** of 43.6% share of renewable energy in gross final energy consumption as outlined in the draft NECP is in line with the target endorsed by the Ministerial Council Decision.

The overall 2030 renewable energy target is divided into **sectoral targets** for electricity (70.1%), transport (8.4%), and heating and cooling (60.8%). Yearly trajectories for each sectoral target are provided with clear annual breakdowns, which makes monitoring progress easier.

Following Article 26 of the Renewables Directive, Bosnia and Herzegovina has adjusted its minimum **target for renewable energy in transport** by 2030, reducing it due to the fact that the share of biofuels, bioliquids, and biomass fuels consumed in transport sector was below 1% in 2022.

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<sup>24</sup> Table 2: Values of framework indicators of greenhouse gas emissions at the transition between phases – Bosnia and Herzegovina Integrated Energy and Climate Plan, Version 7, (p. 13), Chapter 1.1.3.2 Stages of the decarbonization process until 2050

IRENA's study "Renewable Energy Prospects for Central and South-Eastern Europe Energy Connectivity (CESEC)"<sup>25</sup>, indicates that Bosnia and Herzegovina possess almost twice the potential to cost-efficiently harness onshore wind for **electricity generation** by 2030 compared to what is proposed in the draft NECP (1.03 GW compared to 0.6 GW proposed in the draft NECP). The suggested capacities for harnessing solar PV in the draft NECP align with the findings of the study (1.49 GW). In general, the PaM could benefit from a description what amount of renewables are planned to come from greenfield development and what amount from repower.

Nevertheless, considering that renewable energy accounted for 46.32% of electricity consumption in 2021, achieving a target of 70.1% by 2030 appears ambitious.

Targets and trajectories of renewables share in the **heating and cooling** sector for the period from 2022 to 2030 are indicated in the draft NECP, the target for heating and cooling in 2030 being 60.8%, which is not ambitious enough and thus not aligned with the requirements of the Renewables Directive. Moreover, an increase of **renewables in district heating** for 1 percentage point according to Article 24 of the Renewables Directive is not considered.

Article 23 of the Renewables Directive requires the increase of renewables in heating and cooling in the period from 2020 to 2030 for 1.3 or 1.1 percentage points (if waste heat is not taken into account) annually, and for 0.65/0.55 percentage points annually if a share of renewables is between 50% and 60%. Since the renewables share in the heating and cooling sector in Bosnia and Herzegovina in 2020 was 56.62% and the draft NECP does not reflect on the role of waste heat and cold in reaching the target, the increase is supposed to be 0.55 ppt annually. This would need to lead to a 63.12% share of renewables in heating and cooling in 2030. Therefore, the 2030 target set at 60.8% is not aligned with RED II and is not ambitious enough.

The draft NECP provides a technology breakdown for the heating and cooling sector in 2030 with specific numbers, envisaging that there will be an increase in the use of biomass and heat pumps.

**Policies and measures** envisaged for increasing the share of renewables in the heating and cooling sector are: subsidies and other incentives for domestic production and procurement of equipment; obligations for large consumers of heat energy (industrial and city heat plants) to generate part of the heat energy from renewable energy sources; financial incentive measures for centralised producers of thermal energy from renewable sources and phasing out subsidies for fossil fuels-based heating is envisaged. **These policies and measures lack details on investment needs, quantitative effects, progress indicators and status of implementation, therefore it is hard to assess whether they would result in the target being achieved.**

The anticipated increase in **biodiesel** both in passenger cars and road freight by 2030 underpins the need for the application of strict **sustainability criteria in line with Article 29 of the Renewables Directive.**

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<sup>25</sup> Available at: [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Oct/IRENA\\_REmap\\_CESEC\\_2020.pdf?rev=1d65ed29a9cf40d5849b7524d5a395b5](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Oct/IRENA_REmap_CESEC_2020.pdf?rev=1d65ed29a9cf40d5849b7524d5a395b5) – last accessed 18.10.2023.

Measures concerning the implementation of **sustainable forest management** lack the reference to the sustainability criteria required under the Renewables Directive. If biomass is not used in line with the sustainability criteria, it cannot be included in the calculations for reaching the renewables targets.

Bosnia and Herzegovina has **district heating** systems in approximately 30 cities. Measure 1B-5.1 on the expansion of district heating infrastructure envisages imposing an obligation on district heating plants to integrate renewables, as well as for local authorities to provide financial incentives. There is inconsistency in the text on the energy mix in district heating systems, as well as the targets concerning the integration of renewables in district heating. In the section on national targets and objectives Diagram 34: “Target trajectories of capacity for heat energy production in district heating systems by plant types in Bosnia and Herzegovina 2022-2030” (page 83) does not include any renewable capacities, only fossil fuels. According to Diagram 34, a use of petroleum derivatives in district heating is to be excluded, coal significantly reduced and the use of gas increased.

PaM 1B-3.1-1 aiming to encourage **generation of electricity from renewable energy** sources through support schemes is outdated. It envisages the adoption of laws which are already in place. There is no information on planned capacities, or information how PaMs will contribute to meeting both the overall target and the sector-specific electricity target. There is no explanation of how other relevant Energy Union dimension(s) have been affected, such as security of supply or the internal energy market.

Regarding PaM 1B-3.2-1, there are no specific and measurable targets or quotas in place that would offer a clear understanding of how the implementation of **auctions, self-consumption schemes, and energy community programs** will contribute to meeting both the overall target and the sector-specific electricity target.

There is no mention of **regional cooperation** in the area of renewables, except for the option to participate in the Energy Community regional system for guarantees of origin (PaM 1B-3.1-2).

PM 1B-3.2-1 and PM 1B-3.2-2 concerning the fostering **energy communities**, lack interlinkage with the Energy Efficiency dimension.

In the **transport sector**, diagram 22 shows that the use of energy from renewable sources in electric railway-passengers almost disappears by 2030, where the same indicator for freight transport is expected to increase. It is unclear whether this reflects expectations of a decline in passenger railway traffic in general or it shows plans to base electric railway traffic on electricity generated from fossil fuels.

### 3.3. Energy efficiency

The 2030 Energy Efficiency targets of Bosnia and Herzegovina outlined in the draft NECP are 6.84 Mtoe (maximum primary energy use) and 4.34 Mtoe (maximum final energy use). The achievement of the **2030 target** in energy efficiency is legally binding upon Bosnia and Herzegovina under the Ministerial Council Decision. This requires that Bosnia and Herzegovina pursues the same level of ambition – i.e. maximum 6.50 Mtoe instead of 6.84 Mtoe – in the planned total maximum level of primary energy consumption by 2030.

The 2030 overall targets for final energy consumption were not broken down to realistic sectoral targets, including heating and cooling.

Regarding the policies and measures, the draft NECP does not provide explanations or examples on how the “**energy efficiency first**” principle was taken into account, and it does not reflect on the obligation under Article 14 of the Energy Efficiency Directive to carry out a comprehensive assessment of the potential for the application of **efficient heating and cooling**.

The draft NECP explains that Bosnia and Herzegovina is working on the adoption of the Energy Efficiency Action Plan (“EEAP”), which is the state's obligation under the Energy Community Treaty, i.e. aligned with the Energy Efficiency Directive. However, with the latest amendments of the Directive under the Clean Energy Package in 2021, the EEAP is integrated within the NECP and is not anymore required as a separate planning document. It is **not clear how the envisaged EEAPs will be aligned with the NECP**.

The calculation of the **cumulative target** and the selected approach for reducing energy consumption through Article 7 of the Energy Efficiency Directive should be explained in more details. Also, the measure related to the establishment of an **Energy Efficiency Obligation** (“EEO”) scheme does not recognize the new updated target imposed by the amended Energy Efficiency Directive and the new extended EEO framework until 2030.

Energy efficiency **PaMs are not quantified**, which entails risks on how realistic and sufficient they are to achieve the 2030 targets. More detailed explanation of the planned PaMs is needed, including clear timeframes, expected energy savings and costs.

PaMs for energy efficiency in **heating and cooling** are included in section 3.2.6 *Increasing efficiency of heating and cooling systems*; however, they lack the necessary information on implementation, including indicators, financial aspects and deadlines. Namely, deadlines in all measures in this section are indicated as “continuous”, even though some of these measures concern the adoption of legal acts or carrying out a comprehensive assessment of the potential for efficient heating and cooling. Concrete deadlines need to be set for these measures. A PaM 2-5-7 *Establishment and implementation of a system for monitoring the implementation of main policy measures in heating and cooling* requires clarification on how it will be implemented, its aim, current state, desired effects and implementation deadline. Furthermore, certain PaMs do not appear ambitious. For example, PaM 2-0.3-1 *Introduction of metering and billing according to actual consumption in district heating, cooling, and hot water supply systems* envisages only the promotion but not the implementation of consumption-based billing in district heating, even though this is an obligation under the Energy Efficiency Directive. Also, this measure does not envisage local authorities as competent authorities, even though they have the central role in implementing it.

### 3.4. Energy security

Concerning **targets and objectives**, the draft plan recognizes the necessity to **diversify supply routes of oil and natural gas**, but inaccurately assumes the same need in the electricity sector which is well-interconnected. Bosnia and Herzegovina is also net exporter of electricity, contrary to the oil and gas sectors.

Regarding **flexibility** in the electricity system, more reserves are planned to appear on the consumers' side, but there is no analytical explanation for this assumption. Hydro power plants which exist in Bosnia and Herzegovina, and which are planned to be further developed, represent valuable flexibility resource for achieving security of supply and together with interconnections they could achieve more effective gains than, relying on the consumers. These projects need to be compliant with environmental regulations and follow a strict environmental and social impact assessment.

The contribution of the integrated electricity market and cross-border cooperation to the energy security objectives is lacking a clear link. The impact of the development of the **balancing market** in Bosnia and Herzegovina and its integration into European balancing platforms is not addressed. The objective to create **day-ahead and intraday markets is mentioned**, but their integration into European single day-ahead and intraday coupling is not elaborated and it remains unclear how and when Bosnia and Herzegovina is planning to achieve this objective defined in the Electricity Integration Package.

**Policies and measures** are described in a visibly shorter and less elaborated manner than in other dimensions and they lack progress indicators. There are **no investment needs estimated** at all, and the impacts of PaMs on the other Contracting Parties are not analysed.

There is no plan to transpose and implement the [Regulation on risk-preparedness in the electricity sector](#)<sup>26</sup> ("**Risk preparedness Regulation**") including the appointment of a competent authority and the creation of a risk preparedness plan. There are also no plans indicated concerning the transposition and implementation of the [network code on emergency and restoration](#)<sup>27</sup>. Both legislative documents, including the other elements of the Electricity Integration Package had to be transposed and implemented until 31 December 2023.

**Diversification of supplies for natural gas** is addressed via different initiatives, the most notable being the construction of two interconnection pipelines<sup>28</sup>. Both projects are in an early stage and

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<sup>26</sup> Regulation (EU) 2019/941 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC as adapted and adopted by Ministerial Council Decisions 2021/13/MC-EnC and 2022/03/MC-EnC

<sup>27</sup> Commission Regulation (EU) 2017/2196 establishing a network code on electricity emergency and restoration as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC

<sup>28</sup> Southern Interconnection with Croatia and a new interconnecting pipeline between Serbia and the Bosnia and Herzegovina entity of Republika Srpska

the draft NECP highlights to build “at least one” of them, without further details on how the choice is made and what the financing options are. The draft plan also does not address the issue of developing gas demand along such a route, nor any future planning to convert infrastructure to hydrogen and biogas.

The aspirations to commission a study determining the profitability of **exploiting domestic hydrocarbon reserves** aim to reduce import dependency and to increase the resilience of the gas market. However, the results of the study are expected by 2025, and arrangements with strategic partners are to be concluded by 2030. The pursuit of carbon neutrality by 2050 puts long-term investments such as this one into question.

References to the future use of **hydrogen and heat pumps** to reduce the role of natural gas in electricity production and residential heating appear but they lack concrete details and measurable planning.

The intention to conduct a study on the potential to increase energy efficiency of the gas infrastructure (2.6.2.1) and to develop a plan for introducing cost-effective improvements in the energy efficiency of that infrastructure (2.6.2.2) could contribute to energy security by reducing energy losses and preventing ‘natural-event-induced supply disruptions.

**Cybersecurity** is included among the PaMs, and represents good practice.

### 3.5. Internal energy market

The draft plan does not take account of the **objectives** in the **Electricity Integration Package** which aims at establishing well-functioning electricity markets and their full integration into the European internal market for electricity in different segments. Market development and integration into the EU's internal electricity market are essential to attract investments in renewable energy sources, storages and demand-side management necessary to achieve decarbonization goals in a cost-efficient manner while ensuring security of supply. Interlink and synergies between decarbonisation, internal energy market and energy security are not elaborated.

Objectives and targets for the creation of an **internal gas market** and its regional integration are closely linked with other dimensions such as Energy Security. The draft NECP foresees the establishment of an organized natural gas market in accordance with EU legislation (PaM 3.3.2.3), and its integration within the regional gas market (PaM 3.3.2.4) by 2025. This would imply the integration of current parallel gas market entities of the Federation (FBiH) and the Republika Srpska (RS) into a single one. This seems an ambitious objective, especially given the short deadline and the lack of any state legal framework for gas markets, which has been missing for decades. No investment needs are identified for any of the gas-related objectives.

Bosnia and Herzegovina addresses **energy poverty** in its draft plan in the description of the policy framework outlining general goals (indicated as optional). There is however currently neither a definition of energy poverty nor a clear methodology or implemented indicators to measure energy poverty. The plan should provide or refer to a detailed assessment of the estimated

number of energy poor households and to **formulate a national target to reduce the number of energy poor households**, including a clear baseline and timeline. In addition, there is a lack of relevant Eurostat data, such as for the Survey of Income and Living Conditions (“SILC”) and the Household Budget Survey (“HBS”). The draft plan does not include an analysis of energy poverty reduction. At state level, there are no systematic legally defined protection programmes for energy poor customers and there is currently no obligation to adopt a policy for the protection of socially vulnerable energy consumers.

There are no concrete targets for **demand response or consumer participation**.

Concerning **policies and measures**, the draft plan only touches upon a very limited number of requirements under the **Electricity Integration Package**.

The planned PaMs are not sufficient to fully implement or are even contrary to the Electricity Directive, to the Electricity Regulation and the Guidelines related to markets. Furthermore, the transposition of the [ACER Regulation](#)<sup>29</sup> is required for Contracting Parties to be included in the EU’s internal electricity market. In general, PaMs to achieve goal of establishing competitive and well-functioning wholesale and retail electricity markets and to leverage synergies across Europe and to enable decarbonization by further aligning and integrating national markets are missing.

PaMs regarding the national **electricity market** are often inconsistent, or the information is outdated and therefore they require substantial improvement, for instance:

- There is no PaM that foresees the implementation of the legal obligation to unbundle distribution system operators.
- The further development of the short-term and balancing markets, necessary to cope with the increase of renewable energy, is not addressed in details. The establishment of organized markets needs to be a priority (especially as legal deadlines expired). Additionally, the requirement of the Electricity Regulation for free price formation on wholesale markets (no price caps) would need to be reflected.
- There are no PaMs to address the legally binding target of increasing available cross-zonal capacity on existing interconnectors providing at least 70% of interconnection capacities to market participants.
- The need for increased regional cooperation of all involved entities, one of the main principles of the Electricity Integration Package, and its impact is not fully reflected for instance regarding coordinated capacity calculation, system operation regions, regional coordination centers, joint capacity allocation.
- The target of net metering needs revision as the Electricity Directive requires Contracting Parties, that have existing schemes that do not account separately for the electricity fed into the grid and the electricity consumed from the grid, to not grant new rights under such schemes after 31 December 2026.

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<sup>29</sup> Regulation (EU) 2019/942 establishing a European Union Agency for the Cooperation of Energy Regulators as adapted and adopted by Ministerial Council Decision 2022/03/MC-EnC



- The draft plan does not include and correctly reflect the legal obligation for the TSO to join the EU Balancing Platforms (PaM 4-3.1.1-4 is misleading).
- There are no PaMs linking the CBAM Regulation impacts and the plans for the internal electricity market. As the potential application of CBAM would have an impact on the electricity sector and a possible exemption would need specific targets to be achieved (electricity market coupling), this should be reflected in the NECP.

In **natural gas**, Bosnia and Herzegovina as a short-term priority, should couple its decoupled entity gas markets as a decisive and essential condition for any further market development. Being one of the smallest gas markets in Europe it could consider as a mid-term policy measure cross-border market integration in the form of a full market merger, a trading region or a satellite with a shared balancing market with further assessment and discussion.

Regarding **energy poverty**, Bosnia and Herzegovina plans to adopt regulations that define energy poor households and establish mechanisms for providing funding to implement a specific programme under five relevant PaMs. However, all policies and measures lack detailed information on how they will be developed and implemented, an impact assessment and clear funding. The PAMs are not measurable in terms of their progress and objective to reduce the number of energy poor, and it is unclear what measures the specific program for vulnerable customers will include. Thus, it is not possible to analyse whether the program will be sufficient to address the root causes of energy poverty (long-term or short-term measures). Special emphasis on the protection of women, children and minorities most vulnerable to energy poverty is missing as well as a vision of establishing a direct financing tool, such as an Energy Poverty Fund. Bosnia and Herzegovina is invited to consult the Energy Community's Policy Guidelines on identifying and addressing energy poverty.

It is mentioned that the **local SECAP (Strategic Energy and Climate Action Plan)** process under the Covenant of Mayors will play a role in addressing energy poverty. However, there is no national support for SECAP implementation in terms of dedicating funds to local budgets or other means of national support.

### **3.6. Research, innovation and competitiveness**

The **target** to gradually increase the share of investments in the RIC dimension from the current 0.3% to 1.5% of the GDP by 2030, with the aim of harmonising with the EU average (3%) by 2040, is positive and aligned with the EU goals. Although this increase seems substantial, it may be realistically implemented provided robust and consistent support from decision makers to achieve this objective. The goals within the dimension are generally aligned with the Science Development Strategy in Bosnia and Herzegovina for the period 2017-2022. However, that strategy needs to be updated as its relevance expired.

**Programmes** for the improvement of research and innovation in the fields of energy efficiency, renewables and transport are not presented in detail. There are PaMs listed for subsidising vehicles with low GHG emissions, cogeneration, using biogas for the production of biomethane, electricity and heat, injecting biomethane into the gas network, encouraging the use of renewable sources for heating, cooling, electricity generation, and transport, startup companies in the field of energy, as well as a very general encouragement of innovation and patents. However, these measures can only be considered innovative to some extent, as they have mostly already been implemented in other countries. In addition, part of those measures remain at the level of adopting regulations and thus complying with the legal obligations of Bosnia and Herzegovina. The PaMs lack details about the proposed technologies for the use of renewable sources, the modern solutions in the field of energy efficiency, the use of digital technologies in the energy sector and the foreseen realization of energy storage.

#### 4. Internal coherence, consistency, policy interactions and alignment with other strategic documents

The draft plan describes the **current policy context** related to Bosnia and Herzegovina's external obligations and links, such as the Energy Community framework in energy, the Sofia Declaration, and the obligations under the Paris Agreement and the UNFCCC regarding climate change, and it contains a reference to CBAM.

The draft plan does not include the **climate-related reporting obligations towards the Energy Community Secretariat and a reference to the Energy Community – and Bosnia and Herzegovina's – 2030 targets in GHG emission reduction, renewable energy and energy efficiency**. The obligations to establish and operate and seek to continuously improve **national inventory systems** to estimate anthropogenic emissions by sources and removals by sinks of greenhouse gases, and to operate and seek to continuously improve national and Energy Community **systems for reporting on policies and measures** and for reporting on **projections** of anthropogenic greenhouse gas emissions by sources and removals by sinks is also missing.

The draft plan includes multiple references to various **national and entity level strategies and action plans**<sup>30</sup>. The wide array of references shows that a thorough stocktaking of the existing policy framework was done. The draft NECP does not include however any reflection on which elements of those strategies and action plans fed into the draft plan, and which elements in those

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<sup>30</sup> Such as the Framework Energy Strategy of Bosnia and Herzegovina until 2035, the Building Renewal Strategy in Bosnia and Herzegovina by 2050, the Energy Development Strategy of Republika Srpska, the Development Strategy of the Federation of Bosnia and Herzegovina, the Science Development Strategy in Bosnia and Herzegovina for the period 2017-2022, the Framework Traffic Strategy of Bosnia and Herzegovina (2016-2030), Climate Change Adaptation and Low Emission Development Strategy (2013), the National Renewable Energy Action Plan for Bosnia and Herzegovina (NREAP).

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strategies and action plans (if any) were considered as outdated, or no longer adequate and thus recommended to be updated.

The section regarding **National Renewable Energy Action Plan** for Bosnia and Herzegovina (“NREAP”) indicates that “This plan will replace the NECP for BiH.<sup>31</sup>” As the NECP is expected to replace the NREAPs, it is understood that this is a typo and the NECP shall replace the NREAP.

The NECP accounts for the **Global Methane Pledge** and the submitted NDC under the UNFCCC. Bosnia and Herzegovina is not part of the **Powering Past Coal Alliance**.

**Policies and measures** are listed in a structured manner, however the numbering of dimensions and PaMs is difficult to follow, especially in the Energy Security dimension. The numbering of PaMs does not correspond to the numbering of dimensions in general. The numbering of headings is incorrect, Energy Security, Internal Energy Market and Research, Innovation and Competitiveness all appear under the same heading number, 3.5. There is no indication which PaMs are part of the WEM and which PaMs are part of the WAM scenario. There are links indicated to other dimensions, however there is no description why or in what way the links exist and how the PaMs affect the other dimensions. There are no costs associated to any of the PaMs. Regarding the “Financial measures” the draft NECP provides a reference to a chapter that does not exist (“See Part 5 of Section B”).

## 5. Investment needs

The draft plan **entirely lacks the description of investment needs**.

## 6. Robustness of the analytical basis of the draft plan

The draft plan **entirely lacks the description of the analytical basis** and Section B.

The descriptive part of the draft plan includes some tables and graphs for illustrative purposes only, without any explanation of the analytical base. The majority of those graphs and tables indicates projections only until 2030, and not until 2050, and often does not indicate which scenario is displayed.

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<sup>31</sup> Bosnia and Herzegovina Integrated Energy and Climate Plan, Version 7, (p. 9), Chapter 1.1.2 A strategy related to the five dimensions of the energy union

Diagram 2 on page 12 indicates a **steep increase in the share of renewables** in the gross final energy consumption for 2026 and 2027. There is no explanation for such a significant change in the speed of uptake in renewable energy.

Diagram 4 on page 13 indicates a **spike in GHG emissions** in the baseline scenario, which is not foreseen in the policy scenario. An explanation would help the understanding of the assumptions and the projections. On the same graph, a sharp reduction in GHG emissions is expected in 2034 in both scenarios, the drop being shorter and steeper in the baseline scenario. Such sudden changes would need to be described.

The graph regarding **LULUCF** indicators on Diagram 5 on page 14 shows a significant expansion of sink capacity between 2020 and 2022. Such a change would merit a detailed description. The expansion of sinks continues until 2035, from when it is expected to remain on the same level. Changes in the use of biomass, forest fires or reduction in sinks due to other unforeseen events does not appear to be included in the projections.

## 7. Best practices

A reference to **CBAM** is included and a PaM is planned regarding the establishment of an **emission trading system but it lacks details**.

The **planned creation of a multi-level governance platform** is a good example how Bosnia and Herzegovina is trying to improve planning and implementing energy and climate measures.

**Cybersecurity** aspects are presented through several policies and measures. This topic in relation to energy security is important, since due to fast digitalization future energy systems will be more vulnerable to cyber-attacks.

The draft NECP takes into account the **European Resource Adequacy Assessment** performed by ENTSO-E.

The draft NECP draws attention to the **linkage between energy poverty and other work streams, and particularly energy efficiency, renovation of residential buildings, the proliferation of renewables and decarbonisation**. Relevant measures could provide special benefits to energy poor households, in terms of enhanced support for those groups.