

Better planning of biomass in the Romanian National Energy and Climate Plan



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Key messages

These Recommendations developed by WWF-Romania was based on the version published in December 2023 of Romania's National Integrated Energy and Climate Change Plan 2021-2030¹.

The updated National Plan of Romania for Energy and Climate Change 2021-2030 lacked inclusiveness and transparency, as well as the necessary coherence and clarity, which is also reflected in investments lacking vision or in the incomplete way certain topics, measures or investments are treated. For a substantial improvement of this extremely important public policy document for Romania, it is essential to immediately establish a *"multi-level climate and energy dialogue [...] in which local authorities, civil society organisations, the business community, investors and other relevant stakeholders, as well as the general public, actively engage and discuss the different scenarios envisaged for energy and climate policies, including in the long term, and review progress"*, as required by the EU Governance Regulation. The one-off measure of publishing the Plan for a period of time on the Ministry of Energy's website, despite the delay, is an essential first step, but without ensuring this dialogue. If this stakeholder consultation process is based on solid arguments, on accurate socio-economic and environmental data and information, with all Romanian citizens and their future at its centre, rather than political and group interests, it should involve a real dialogue leading to a substantial improvement of the NECP. This could be achieved by eliminating unsustainable investments (such as destructive hydropower projects) and promoting environmentally friendly renewables (both climate and biodiversity), independent energy communities, energy efficiency, real measures to reduce energy poverty; moreover, there is a need to complement and harmonise measures, and correct gaps and address lack of coherence and clarity. At the same time, transparency in the allocation of funds and regular reporting on progress are key to achieving national climate and energy targets.

The revised NECP is currently in the SEA procedure, which aims to analyse the plan with a view to going through the framing phase as a first step. Given the issues highlighted in this recommendations document, in particular the inclusion in the Plan of concrete investments in the energy sector with significant environmental impacts (for example, a number of 8 hydropower projects), we consider that this public policy document should go through the full SEA procedure, the Appropriate Assessment under the Natura 2000 Directives and the Water Impact Assessment under the Water Framework Directive. For example, we believe that the impact of each sector on biodiversity needs to be properly identified so that impact mitigation measures can be established. According to the SEA Directive, the final version of the proposed Plan must represent, from an environmental point of view, the best alternative

¹ Source: https://energie.gov.ro/wp-content/uploads/2023/12/NECP_Romania_first-draft-version-21.12.2023_RO.pdf.



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to achieve the proposed objectives. We remind you that the Directive specifies a clear obligation for the authorities to carry out the assessment **during the preparation of the strategic document**.

In the draft revised NECP text, the Romanian Government acknowledges the need to reduce biomass consumption, a renewable energy resource that, however, emits significant pollutants, negatively affecting the environment and the LULUCF² sector. In this regard, it proposes contradictory measures, aiming to reduce biomass consumption in the heating and cooling (H&C) sector from 97% in 2020 to 64% in 2030, replacing it with heat pumps that, optimistically, would reach a share of 25% in 2030. Additionally, it suggests tripling the percentage of electricity produced from biomass, from 4% in 2019 to 12% in 2030, thereby nullifying the reduction of biomass in the heating and cooling sector. Furthermore, although in the draft text, the measure (PAM 37 Increased share of heat pumps) to reduce biomass use in the heating sector is included, there are no detailed steps as to the actions needed to get there or indicators for monitoring progress.

The same contradictory approach is found in the chapter assessing the correlation with the LULUCF targets as well as the impact of the biomass scenarios on the LULUCF target, which fails to make a correlation between the two aspects - the estimated trajectory of bioenergy demand and the estimated trajectory of LULUCF forestry removals.

General recommendations for the draft revised NECP

Regarding public participation and consultation, the EU Governance Regulation contains several requirements, including that the public be given an “early and effective opportunity” to “express their opinion”. Member States are also required to establish “a multilevel climate and energy dialogue [...] in which local authorities, civil society organisations, the business community, investors and other relevant stakeholders and the general public are able actively to engage and discuss the different scenarios envisaged for energy and climate policies, including for the long term, and review progress”. In addition, all Member States are parties to the Aarhus Convention, which establishes rights concerning decision-making on environmental matters. In 2019, the Aarhus Convention Compliance Committee issued Advice to the European Union, which reiterated that public consultation processes should ensure that (amongst other things):

- arrangements are transparent and fair;
- the necessary information is provided to the public;

² Referring to Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No. 525/2013 and Decision No. 529/2013/EU.



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- there are reasonable timeframes for consultation, and
- due account is taken of the outcomes of public participation.

The revised NECP project, submitted to the Commission on 3 November 2023, did not include comprehensive consultations with civil society and other key stakeholders. To address these shortcomings, the Romanian Ministry of Energy, supported by the Ministry of Environment Water and Forests and other relevant authorities³, should proactively involve all stakeholders, including environmental organisations and local authorities, in order to gather input for a more balanced revision process. Additionally, there is a need for transparency in planning funding allocation within operational programs, coupled with a commitment to accountability through regular reporting on the progress and outcomes of national climate and energy targets. Regarding the content of the revised NECP, under the Governance Regulation, NECPs must include information such as (amongst other things) not only a description of national objectives, targets and contributions to the EU's overall targets and the planned policies and measures in relation to the corresponding objectives, targets and contributions; but also an assessment of the impacts of the planned policies and measures to meet the objectives.

The revised NECP lists the policies and measures aimed at achieving energy and climate targets in tables, incorporating specific deadlines, funding needs and sources, implementing entities, and progress indicators. This is a different configuration compared to the previous version. However, the overall presentation of policies and measures remains incomplete, as many of these tables lack essential information such as a specific timeline or progress indicators/milestones. In the absence of such details, it is impossible to assess the effectiveness and capacity to be implemented of the stated measures as well as their correlation with other measures.

Nature protection must guide land and maritime spatial planning in interaction with energy systems planning and the underlying modelling. Active information sharing and data collection on biodiversity impacts can minimise risks. Integrated approaches, such as nature-friendly infrastructure, need to be updated and promoted as new best practice.

The missing consultative dialogue could have considered multiple issues openly and widely with community engagement, inclusion, respect for rights, and issues of due compensation (also community payments). Public consultations should have been conducted early in advance and in a meaningful way with full, clear, and transparent information, entail good-quality environmental sensitivity analyses and follow due obligations to map for biodiversity and wildlife sensitivity, migratory routes, ecosystems needs, and consider all

³ From NECP page 35: 'In the implementation of the NECP, the main stakeholders are represented by the Ministry of Economy, Energy, and Business Environment, the Ministry of Environment, Waters, and Forests, the Ministry of Transport, Infrastructure, and Communications, the Ministry of Agriculture and Rural Development, the Ministry of Public Works, Development, and Administration, the Ministry of Education and Research, the Ministry of European Funds, the National Energy Regulatory Authority, Transelectrica, Transgaz, and OPCOM, as well as other entities to be designated through legislative acts, ministerial orders, etc., that have or will have responsibilities in this regard.'



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environmental impacts. Early involvement of the public can significantly reduce the planning and implementation of new infrastructure in the long run by addressing concerns at the very start. Sites that do not harm high-biodiversity areas should be prioritised on land and at sea. Nature-protection must guide land and maritime spatial planning, in interaction with energy system planning, and their underlying modelling. Active information exchange and data collection on biodiversity impacts can minimise risks. Integrated approaches, such as nature-positive infrastructures must be actualised and advanced, as new, best practices.

Unfortunately, the draft revised NECP continues to propose very controversial old hydropower projects which despite massive biodiversity impact would only bring an insignificant addition to the future energy mix.

Legislative Recommendations for the use of biomass in the energy sector

WWF proposes a series of reforms / legislative improvements to be taken into consideration during the process of revision of the Romanian NECP.

At the national level, there is a lack of clear statistics concerning the actual biomass use and potential, and the national legislative framework in this area leads to uncertainties regarding the categorization of certain resources, such as firewood, which is extensively used, especially in rural areas, under the biomass category⁴. WWF's solutions include unifying the terminology. For instance, Ordinance No. 1534/2016 uses both "assortment" and "biomass category," leading to divergent interpretations. It is recommended to exclusively use the term "biomass category."

Models for provenance and traceability documents for forest biomass feedstocks are not provided in the existing energy-specific legislation, contributing to difficulties in assessing the probative value of these documents. Further, the current methodologies lack additional conditions for provenance documents of imported biomass or those originating from intra-community exchanges, which can result in vulnerabilities in ensuring biomass traceability from these sources.

⁴ The definition provided by Order No. 1534/2016 for biomass derived from forestry and related industries, for which origin certificates are issued, is understood as follows:

- a) The biodegradable fraction of products resulting from the primary and secondary processing of wood harvested within Romania or imported through intra-community exchanges, including bark, wood chips, wood in the form of shavings or particles, sawdust from profiling lines, ends and sides of logs, wood residues resulting from the processing or recycling of wood materials, as well as downgraded wood materials within their own premises as a result of the wood material processing technological process;
- b) Wood chips, originating only from the categories included in letter a).



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Also, the existing legislation does not specify a priority order for using biomass categories based on the cascade use principle (prioritising the reuse of wood waste from the furniture and wood product industry based on size), the carbon cycle of different feedstocks, or the circular economy principle. It is recommended to define and operationalise clearly the cascade use of biomass in the relevant national legislation, as in the case of the Forestry Code and the transposition of RED III⁵.

The current legal framework does not require or specify methods for determining the moisture content of biomass⁶, which can lead to difficulties in assessing or determining the calorific value of the biomass used. The current legislative framework does not contain explicit obligations, clear procedures, or sanctions for inspections, which leads to vulnerabilities in biomass traceability. These vulnerabilities could be minimised if a mechanism based on estimated quantities of forest biomass, similar to the one adopted by Order No. 1446/2023 for biomass resulting from industrial and municipal waste, were adopted and implemented. Such a mechanism would require E-SRE producers to submit a declaration of estimated quantities to the Territorial Structure before using the biomass, correlated with the obligation for the Territorial Structure to conduct inspections during the use of these estimated quantities. This approach would enable verification of the conformity of the biomass quantities specified in the documents provided by the E-SRE producers with the actual amount of biomass effectively used in the electric energy production facility. To ensure clear legislative alignment, it might be beneficial to also amend existing legislation (for instance, Decision No. 497/2020) by including a section dedicated to biomass generated from forestry and related industries that can be used in electricity production.

This section could include references to the normative acts already adopted on biomass to provide an overall picture of the applicable regulatory framework and, moreover, could have its own regulations addressing unregulated or poorly regulated aspects in the existing legislation. Such a section will contribute to a better systematic interpretation of the legal norms contained in separate pieces of legislation adopted over time and, at the same time, may contribute to the primary goal of improving the biomass traceability control mechanism (origin, circulation, marketing, storage, etc.). Harmonising legal terminology can prevent the generation of interpretation problems in certain legal provisions, with implications for determining the minimum and mandatory conditions related to biomass provenance and the probative value of traceability documents.

The legislation for approving/authorising installations does not detail the biomass derived from forestry and related industries, nor essential elements regarding its use and control. Furthermore, information about the types of fuels used for co-generation production is not

⁵ With reference to Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources and repealing Council Directive (EU) 2015/652.

⁶The low moisture content of biomass increases the calorific power, enhancing the efficiency of combustion while simultaneously reducing emissions produced during the burning process.



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found in the documentation required for the qualification of electricity production capacities in co-generation.

Specific electricity labelling indicates only general categories of the origin of the electricity sold, i.e. the primary energy source types (e.g. coal, nuclear, natural gas, oil, other conventional sources, hydropower, wind, biomass, solar, or, as appropriate, other renewable sources), without distinguishing between the types of biomass (e.g. primary biomass or other types of feedstock) used as a primary energy source. This is also an aspect WWF recommends be taken into consideration in future legislative improvements as well as in the planning integrated within the revised NECP.

Finally, there is a need for regulating measures to ensure compliance with greenhouse gas emission reduction thresholds and sustainability criteria, as stipulated by Article 25 and Article 29, paragraphs (6) - (13), of Government Emergency Ordinance No. 163/2022. Currently, it is not clear from existing legislation on the authorisation and control of installations using forest biomass how these provisions are applied.

Biomass supply

In terms of biomass supply, WWF-Romania recommends that the revision of the NECP should incorporate a dedicated measure for the implementation of the cascading use of wood principle⁷. As well, it should stimulate, for instance through financial incentives, the utilization of low-moisture wood. Embracing the cascading principle allows for the optimal use of this resource. Additionally, consumer awareness campaigns should be initiated to educate the public on the importance of low-carbon biomass practices.

Alternative options to the use of forest biomass use can include switching to other renewable energy technologies and, where it is proved that such options are not feasible, the sustainable production of local biomass sources as agricultural residues⁸.

In accordance with Article 29(7b) of RED III, Member States are required to incorporate specific details within their final updated integrated national energy and climate plan. These details include an evaluation of the availability of domestic forest biomass for energy purposes during the period of 2021-2030, an assessment of how the anticipated use of

⁷ “When developing support schemes for bioenergy, Member States should therefore take into consideration the available sustainable supply of biomass for energy and non-energy uses and the maintenance of the national forest carbon sinks and ecosystems as well as the principles of the circular economy and the biomass cascading use, and the waste hierarchy established in Directive 2008/98/EC of the European Parliament and of the Council. In line with the cascading principle, woody biomass should be used according to its highest economic and environmental added value in the following order of priorities: 1) wood-based products, 2) extending their service life, 3) re-use, 4) recycling, 5) bio-energy and 6) disposal. Where no other use for woody biomass is economically viable or environmentally appropriate, energy recovery helps to reduce energy generation from non-renewable sources”

⁸ WWF supports only the utilization of local biomass obtained through sustainable forest management, with a low impact on biodiversity, and the exploitation must be carried out efficiently.



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forest biomass for energy production aligns with the targets and budgets of Member States for the years 2026 to 2030 and a description of the national measures and policies that will ensure harmony with these aforementioned targets and budgets.

The European Commission also notes the absence of these details in the NECP and recommends to: *“Include an assessment of the domestic supply of forest biomass for energy purposes in 2021-2030 in accordance with the strengthened sustainability criteria of Article 29 of Directive (EU) 2018/2001 as amended. Include an assessment of the compatibility of the projected use of forest biomass for energy production with Romania’s obligations under the revised LULUCF Regulation, particularly for 2026-2030, together with national measures and policies to ensure such compatibility. Include further measures to promote the sustainable production of biomethane, given Romania’s sustainable biogas/biomethane potential and production, its profile of natural gas consumption and existing infrastructure, and its digestate use and biogenic CO₂ applications.”*

In line with the Land Use, Land-Use Change, and Forestry (LULUCF) target, WWF Romania also highlights the need to ensure that overall biomass supply in Romania aligns with the broader goals of the NECP, as well as with the objective of contributing to the conservation of biodiversity and the sustainable use of natural resources, as set out in the EU forest strategy and national forest strategy. Properly interlinking biomass management with the LULUCF target is critical for an effective increasing carbon sequestration and a long-term stability and adaptability of carbon pools. This integration ensures that biomass supply contributes positively to Romania's overall climate and sustainability objectives.

The European Commission in its recommendations towards the Romanian government⁹ on the revised NECP, also emphasizes the need to: *“Set out a concrete pathway towards reaching the national LULUCF target as defined in Regulation (EU) 2018/841, in particular given the revision of Romania’s national greenhouse gas inventories. Include additional measures in the LULUCF sector detailing their timing and scope and quantifying their expected impacts to ensure that greenhouse gas removals are effectively aligned with the 2030 EU net removal target of -310 MtCO₂eq and with the country specific removal target of -2380 ktCO₂eq as defined in Regulation (EU) 2018/841.”*

Electricity & Heating

WWF Romania supports implementing measures and targets that actively encourage the use of renewable energy sources in both electricity and heat production. The Romanian government proposes to replace the biomass share in the gross final energy consumption in the heating and cooling sector, from 97% in 2020 to 64% in 2030, with the share of renewable energy in the heating and cooling sector, which will slightly increase to reach

⁹ Source:

https://commission.europa.eu/system/files/2023-12/Recommendation_draft_updated_NECP_Romania_2023.pdf



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36.3% in 2030, and the objective for the share of RES in the district heating is to reach 8.5% in 2030 mainly by the increase of heat pump usage and solar thermal energy.

WWF Romania criticizes the initial objective to achieve a share of renewable energy (SRE) in the gross final consumption of at least 36.2% by 2030 as lacking ambition, considering the vast potential of decarbonization and electrification in the residential sector. The Commission's assessment echoes this sentiment, explicitly stating the need for an increased target of renewable energy sources (RES) to reach at least **41%** by 2030. Furthermore, the Commission calls for a comprehensive long-term plan spanning the next decade, with a vision reaching to 2040, encompassing specific targets for innovative renewable energy technologies and sub-targets for buildings, industry, and renewable fuels.

A notable aspect of the recommendation is the emphasis on viable prosumer development, as well as the facilitation of energy communities, underlining the significance of empowering consumers to produce their own renewable energy. The draft revised NECP misses the opportunity to propose policies and measures aimed at promoting the role of local renewable energy communities in contributing to the implementation of renewable energy targets. At the same time, there are no measures included regarding demand-side management and the rethinking of the distribution network. Without these, the technical realization of increasing the number of prosumers and energy communities cannot be achieved.

The draft revised NECP calls for the development of a comprehensive national plan to transition to alternative heat sources, as outlined in PAM 37 - Increased share of heat pumps. Unfortunately, this is a general presentation of a program without complete details on policies and measures, and there is no additional information available regarding a specific timeline or progress indicators. To include a financially accessible and widespread adoption of heat pumps to decrease reliance on traditional, often pollutant heat sources is a pivotal step for reducing environmental impact and improving air quality in Romania.

Romania aims to achieve a minimum of 34% renewable energy in gross final energy consumption by 2030. Government projections indicate that by 2025, this percentage will reach 32%, further increasing to 36.3% by 2030. The share of renewable energy sources (RES) in the electricity sector is expected to reach 55.8% by 2030, driven by the construction of new RES capacities, particularly in wind and solar energy generation.

Despite biomass being considered a polluting energy source impacting the LULUCF sector, the estimated trajectory of bioenergy demand, separated into heat and electricity, reveals a tripling of the target for electricity produced from biomass. This target is projected to increase from 4% in 2019 to 12% in 2030, representing a growth from 160 ktoe in 2019 to 481 ktoe in 2030. A similar tripling of the target for electricity obtained from biomass is outlined in PAM 27, which focuses on increasing domestic capacity for biomass and biogas through CHP and PP. This measure includes an annual growth of 10 MW until 2050 through



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new biomass-based combined heat and power (CHP) plants. It involves incentives from the state budget and the mobilization of additional biomass quantities, including sustainable biomass, from both domestic potential and imports from third countries. The necessity of tripling the target for electricity produced from biomass and increasing the installed capacity with an annual growth of 10 MW is not justified anywhere in the text of the National Energy and Climate Plan.

Energy efficiency

WWF Romania emphasizes the importance of promoting individual energy storage capabilities and the formation of energy communities. This measure is aimed at fostering an efficient energy storage system, giving individuals and local communities the tools they need to manage and store energy effectively, thus creating a more resilient and sustainable energy infrastructure.

Moreover, in light of the pressures to expand large-scale transmission grids, cost-efficient energy efficiency measures need to be better considered. The “Energy Efficiency First” principle aims to prioritise energy efficiency and avoid energy waste. Concerning grids, this principle points to prioritising energy savings over investments in energy infrastructure, optimising existing energy infrastructure, and consequently minimising energy losses. Its application is enshrined in the 2023 Energy Efficiency Directive. The revised NECP should better incorporate this principle, regarding decisions on energy infrastructure, network planning and network development. Although more grid capacity will be needed, without taking into account the need for energy demand reduction, calls for “more grids” alone do not result in economically, socially or environmentally optimal solutions. Placing also the proper emphasis on the distribution system level, with demand-side flexibility and digital solutions, will help lower transmission system expansion. The revised NECP should take into consideration the need for a better balance between distribution and transmission grids, with DSO/TSO coordination, which should enable a better use of the existing power grid, while expanding the capacity of grids to incorporate renewables.

However, the required investments in our energy infrastructure also come with a cost, and it is of utmost importance that these costs are addressed fairly. At the moment, the cost of moving into the prosumer model is passed to consumers, via bills. The costs of improving the distribution grids need to be optimised. The Romanian Government's responsibility is to keep energy affordable through structural change (not with emergency measures, ill-suited to this task).

Without detailed programs, specific timelines, and performance indicators, the targets and milestones outlined in the revised NECP for 2030, aiming to reduce the share of final energy consumption from 33% in 2019 to 30% by 2030, especially in the building sector, are unlikely to be achieved. The projected annual renovation rates are planned to gradually



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increase from 0.69% to 3.39% between 2021 and 2030. While these progressive renovation rates are anticipated to result in a 9% support reduction of final consumption in 2030 (0.83 Mtoe) and a cumulative 24% reduction in greenhouse gas (GHG) emissions from 2021 to 2030, achieving the ambitious goal of a 65% reduction in final consumption in 2050 (6.14 Mtoe) and an 80% cumulative GHG emission reduction from 2021 to 2050 appears challenging without more detailed and realistic plans.

Of the 3.5 million households in Romania that rely on firewood for heating and cooking, the majority are using high-moisture, inefficient, and polluting biomass in energy-inefficient dispatched homes. Therefore, it is essential to find tailored solutions such as financial incentives supporting the installation of new high-efficiency systems or the modernization of existing heating systems in order to enhance the energy efficiency of older housing stock. By renovating and improving the energy efficiency of ageing households, there are simultaneously improving living conditions and reductions in energy usage. Such structural intervention measures should complement the existing price relief type of measures that are in place at the moment to improve the affordability of energy costs for vulnerable consumers.

In addition, we strongly recommend the development of stricter energy performance standards, following the implementation of the future Energy Performance in Buildings Directive. These standards, coupled with investments in energy efficiency, are essential for reducing energy consumption across all sectors, including industrial processes.

Moreover, WWF advocates for conducting information and awareness campaigns to educate the public about energy efficiency support solutions and alternatives. Through these campaigns, individuals and businesses can be empowered with knowledge, enabling them to make informed decisions that contribute to reduced energy consumption.

Energy poverty and energy communities

Energetic poverty is another crucial element of the energy transition process, insufficiently addressed in the revised NECP. In this case, the authorities' sole objective is to establish a more fair and efficient computerized system for granting energy subsidies by local public administration authorities. Unfortunately, even for this insufficient measure, detailed information regarding a concrete timeline or progress indicators is not available. It is mentioned in the draft revised NECP that the implementation of the program for vulnerable consumers, along with energy efficiency measures, is expected to significantly improve the indicator "Population unable to keep home adequately warm by poverty status," without specifying a reduction target for the 2030 timeframe. Furthermore, the European Commission has issued recommendations to the Romanian government to *"Further develop the approach to addressing energy poverty by including an assessment of the situation of currently affected households and indicating a specific measurable reduction*



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target as required by Regulation (EU) 2018/1999, taking account of Commission's Recommendation (EU) 2023/2407. Provide additional detail on existing and potential measures to address energy poverty, and on the dedicated financial resources from the perspective of both social policy (affordability) and structural energy measures, particularly as regards access to energy efficiency, building renovation and renewable energy”

However, addressing country-specific issues is paramount in the fight against energy poverty. Despite a very diversified energy mix compared to other European countries, regardless of the fact that normally when there are negative prices in the market, consumers in Romania should benefit in the sense of paying a very low final price for electricity, they will not pay, because the ceiling set by authorities remains fixed and high. In Romania, there is a regulated price, including for production, which, given the very low prices on the European energy market, makes no sense. The price ceiling should be a flexible instrument, correlated with the reality of the market or provided as a maximum protection limit, thus leaving Romanian consumers the benefit of lower prices, if the market allows.

WWF Romania advocates for social equity and adherence to Romania's environmental commitments related to the utilization of firewood. It expresses concerns about firewood prices being capped without appropriate compensation, leading to complications in the market. This measure has had a detrimental impact on the population's accessibility to firewood, resulting in increased illegal wood trade, tax evasion, and unsustainable utilization of high-quality wood, consequently contributing to heightened carbon emissions.

The implementation of a price cap on firewood has triggered a multitude of adverse consequences, particularly affecting rural areas where a substantial portion of the population relies on firewood for heating. This regulation has caused a reduction in the availability of firewood, escalated the actual costs incurred by consumers, and triggered environmental concerns stemming from the usage of lower-quality wood. In light of these challenges, WWF Romania proposes a comprehensive approach to address this issue, which includes the provision of conditional subsidies for the responsible sourcing of firewood, investments in forest infrastructure, the enhancement of regulatory frameworks to combat illegal wood harvesting, and the initiation of financial programs aimed at promoting the adoption of more efficient wood-based products. Consequently, WWF Romania highlights the necessity of addressing specific challenges faced in the Romanian context, especially by vulnerable consumers, which are not effectively addressed by current government programs that are capping and compensating energy prices for household heating.

Following the adoption of the current NECP, several legal acts directly addressing or relevant to vulnerable energy consumers have been adopted and implemented. However, the most relevant one is Law No. 226/2021, which establishes social protection measures for vulnerable energy consumers. Unfortunately, this law lacks implementing norms and budgets regarding the household energy efficiency of vulnerable consumers. Therefore,



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there is no program or measures for the purchase, within a household, of energy-efficient equipment necessary for lighting, cooling, heating, and providing hot water for consumption in the household. Additionally, the law does not provide aid for the purchase of products and services aimed at improving the energy performance of buildings or connecting to energy sources.

Furthermore, the price cap and price relief type of measure offer only temporary solutions for a segment of people affected by energy poverty. However, the most relevant is Law 226/2021, which establishes social protection measures for vulnerable energy consumers. Unfortunately, this law lacks implementing rules and budgets on energy efficiency for vulnerable consumer households. In addition, cap-and-trade measures provide only temporary solutions for a segment of people affected by energy poverty. It is important that the revised NECP puts forward a definition for energy poverty, being that for vulnerable consumers, in line with the definition from the Energy Efficiency Directive¹⁰. Following the formulation of a clear definition and criteria for identifying those living in energy poverty, structural measures are needed to address the multi-faced dimensions of energy poverty nationally, including supporting vulnerable people through full compensation to engage in the energy transition through measures such as: improving home energy efficiency, improving access to smart grids and mini-grids, reforming the distribution network to allow for the embedding of more decentralised renewable based energy sources etc.

WWF Romania recommended a concrete solution through the introduction of a program for exchanging old stoves "Rabla pentru Sobe", with the costs of stoves and their installation fully subsidized for families facing energy poverty. This program seeks to replace inefficient traditional stoves with high-energy-efficient stoves. Such a transition not only ensures improved energy efficiency but also helps to reduce energy costs at household level.

To achieve a more sustainable and localised approach to renewable energy and particularly to biomass utilisation, WWF Romania recommends engagement of the local communities. These communities can play a vital role in shaping local solutions for biomass utilisation. By empowering local regions to take charge of their biomass resources, Romania can simultaneously reduce its environmental footprint and stimulate economic development at the community level.

Energy communities work towards the development of a decentralised, renewable, clean and efficient energy system with citizens at its core. As such, these communities have great potential in supporting the phase-out of fossil fuels, whilst simultaneously enhancing resilience against energy price spikes and import dependence, contributing to local efforts

¹⁰ 'energy poverty' means a household's lack of access to essential energy services, where such services provide basic levels and decent standards of living and health, including adequate heating, hot water, cooling, lighting, and energy to power appliances, in the relevant national context, existing national social policy and other relevant national policies, caused by a combination of factors, including at least non-affordability, insufficient disposable income, high energy expenditure and poor energy efficiency of homes;



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for renewable energy and energy savings as well as supporting local economic development.

While the draft revised NECP occasionally mentions energy communities, it fails to address core barriers to their establishment and operation. Thus, although a framework for such communities is created in primary legislation, in reality there are no operational energy communities in Romania that can rely on their own energy production. This is due to the absence of secondary legislation based on a systemic assessment of existing barriers in our country. The national legislation states that competent central public administration authorities, local public administration authorities under the conditions of articles 8 and 9 of the Law on the public service of thermal energy supply no. 325/2006 (with subsequent amendments and additions), as well as ANRE, have the obligation to contribute, in accordance with the specific field of activity, to ensure a favourable framework for the promotion and facilitation of the development of renewable energy communities. This is not happening in practice, and stronger legislative measures are needed, with deadlines, related funding measures and even sanctions. Another major barrier slowing down the development of energy communities in Romania is the lack of accessible, targeted and consistent funding and financing. The revised NECP is a very good framework to plan such an approach, an opportunity that is not being taken advantage of in the current version of the Plan. It needs to integrate programmes and instruments that provide non-reimbursable financial support, enabling a workable business model, in the initial stages of setting up and developing energy communities. In addition, non-reimbursable financing and financing options (e.g. social loans) at project level are needed to engage citizens in this type of local initiatives. Romania should make more effective use of the variety of EU funding streams to implement such measures.

The proposed hydropower investments

Unfortunately, the draft revision of the NECP continues to propose the installation and commissioning by 2050 of 8 old and highly controversial hydropower projects, which would only add a cumulative capacity of 304 MW to the future energy mix. These projects are controversial not only in terms of their significant environmental impact, but also in terms of their insignificant contribution to the energy system. Moreover, the hydropower capacities included in the NECP (P&M 24) - AHE Livezeni-Bumbești, AHE Pașcani (on the Siret), AHE Cornetu - Avrig (on the Olt), AHE Surduc-Siriu, AHE Cosmesti - Movileni (on the Siret), AHE Răstolița, AHE Cerna-Belareca, AHE Izbiceni-Dunăre (Islaz) required the creation of a permissive legislative framework (OUG 175/2022 for the establishment of measures concerning the investment objectives for the implementation of hydropower schemes in progress, as well as other projects of major public interest using renewable energy, and for the modification and completion of some normative acts) parallel to/ in violation of the legislative framework that transposed the Natura 2000 Directives and the Water Framework Directive in Romania, and which would not allow the completion and commissioning of these investments.



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The hydropower projects in question were planned decades ago and abandoned over time for reasons of economics, profitability, efficiency and major environmental impact, as they are mostly located on the last natural river sectors in Romania, so they cannot represent a serious component of such a strategic document at the moment. Moreover, the technical and economic analyses of these investments have not been updated and no longer correspond to the present moment, and some of the investments have even been declared illegal by the Romanian justice (see the case of AHE Livezeni-Bumbești, which was stopped in 2017 after the Bucharest Court of Appeal annulled the construction permits).

The hydropower investments listed in the NECP do not comply with the DNSH (do no significant harm) principle, nor do they present a case-by-case assessment as required by EU legislation, even though they are planned in areas of high value not only for their biodiversity but also for the ecosystem services they provide to people.

As a reminder, Romania is already in infringement proceedings for systemic violation of EU legislation since 2015¹¹ for the authorisation and construction of small hydropower plants. In addition, in November 2023 the European Commission sent an additional letter to Romania¹², which only confirms that the procedures for approving hydropower plants are carried out in a superficial manner, and allow the destruction of Romania's mountain rivers by providing insignificant amounts of electricity.

WWF has repeatedly drawn attention to the fact that energy production can only be truly clean if robust biodiversity avoidance and conservation measures are properly implemented. Instead of promoting small hydropower plants that violate the DNSH principle and EU environmental legislation, the NECP should urgently propose to assess the potential for retrofitting existing infrastructure and prioritise such investments, which could improve energy production and storage while also being beneficial for nature (e.g. by restoring lateral and longitudinal connectivity of rivers, facilitating sediment distribution, etc.).

In conclusion, WWF Romania believes that the damage to nature caused by the completion of such projects will be disproportionate to the modest benefits to the energy sector and as with other previous strategic documents we request their removal from the final version of the NECP. Specific arguments that we request to be taken into account in the SEA procedure:

The Bumbești - Livezeni Hydroelectric Power Plant (65 MW) affects the entire Defileul Jiului National Park and the ROSCI0063 Defileul Jiului Natura 2000 site with which it overlaps, in violation of Romanian and European nature conservation legislation, a fact

¹¹ Source:

https://wwf.panda.org/wwf_news/?248033/EC-starts-an-infringement-procedure-against-Romania-on-small-hydropower

¹² The European Commission asks Romania to remedy damage to a body of water linked to the construction of small hydropower plants

https://romania.representation.ec.europa.eu/news/apa-comisia-solicita-romaniei-sa-remedieze-deteriorarea-unui-corp-de-apa-legata-de-construirea-de-2023-11-16_ro



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confirmed by the fact that the investment was halted in 2017 after the Bucharest Court of Appeal annulled the construction permits. Moreover, in 2020, the Bucharest Court of Appeal by Decision no. 140214 annulled Government Decision no. 1032/2018 on the approval of the site and the triggering of expropriation procedures for privately owned real estate related to the power line for the connection of this hydropower installation to the energy system. The completion of this project will irreversibly alter more than 30 km across the Defile area reducing the current river flow by up to 85%, with a major negative impact on flow-dependent species and habitats and connectivity. In this regard, even the Appropriate Assessment Study for the Romanian Energy Strategy 2019-2030, with a 2050 perspective¹³, confirms that the implementation of the hydroelectric power plant on the Jiu River has a very high degree of sensitivity in terms of impact on the Natura 2000 site ROSCI0063 Defileul Jiului.

AHE Pașcani on the Siret (12 MW) is a project started in 1985 and currently abandoned. If this project were to be completed, it would involve the complete destruction of a portion of the Siret Valley, in violation of the Water Framework Directive (significant damage to a body of water, a section of the Siret River). In addition, it is public knowledge that the project involves very high costs per MW, making it unprofitable¹⁴.

AHE Cornetu - Avrig, on the Olt (55 MW) is in fact a project for which a significant number of citizens¹⁵ have mobilized to stop and which, if completed, would lead to the complete destruction of the Olt River in the area of Turnu Rosu Pass, a reference area for the natural framework of Romania and Europe. These are river sectors for the protection of which the Natura 2000 site 'Oltul Mediociu - Cibin - Hârțibaciu' has been designated. In the case of this project even the Water Body Impact Study (SEICA) concluded significant impact on the water body.

AHE Surduc - Siriu (55 MW) is a project that will lead to the drying up of the Bâsca Mare river, a project that the international community has demanded to be stopped in previous years¹⁶ and whose legality is currently being disputed before the courts (the environmental permit was issued without a proper assessment despite the fact that some of the abstractions are located in Natura 2000 sites).

AHE Cosmești - Movileni, on Siriu (38 MW) involves the destruction of a sector of the Natura 2000 site "Lunca Siretului Inferior". And the Environmental Protection Agency of Galati has issued rejection decision no. 603/2016 for this project.

AHE Răstolița (35 MW) is a project started 30 years ago, which after the power plant is used, provides minimum flows only for human use, not for ecosystems. The project involves

¹³ Version rev.05/ July 2019, prepared by KVB Consulting & Engineering, Table 14 Analysis of impacts on Natura 2000 sites crossed by SRE objectives, based on sensitivity and magnitude classes.

¹⁴ Source:

<https://www.ziaruldeiasi.ro/stiri/ping-pong-intre-giganti-cu-cea-mai-mare-investitie-din-judet-facuta-din-fonduri-publice--164016.html>

¹⁵ Source: <https://campaniamea.declis.ro/petitions/salvati-oltul-in-pasul-turnu-rosu>

¹⁶ Source: https://balkanriverdefence.org/wp-content/uploads/2019/04/Basca-Mare_Romania_open_letter.pdf



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both the abstraction of several watercourses (Ilva Mare, Valea Bradului, Donca, Bistra, Gălăoaia Mică, Gălăoaia Mare and Vișa) through separate intakes (some of which will even remain without flow easements), and the complete destruction of the Răstolița river, upstream of the dam, its course to be replaced by a reservoir and dried up downstream. Water from the reservoir would be diverted through the mountain via an 8.5 km pipeline to the power plant, where it would flow directly into the Mures River. If this investment were to be completed, it would negatively affect the ecological status of at least 10 water bodies, 8 of which would be severely damaged and thus violate the principle of non-deterioration established by the Water Framework Directive. This aspect is confirmed by several expert studies, and the most recent one by the Study of the appropriate assessment of the Energy Strategy of Romania 2019-2030, with the perspective of year 2050¹⁷, which confirms that the implementation of the Răstolița hydroelectric power plant has a high degree of sensitivity in terms of impact on the Natura 2000 site ROSPA0133 Călimani Mountains and very high on the Natura2000 site ROSCI0019 Călimani Gurghiu.

AHE Cerna - Belareca (15 MW) involves diverting the flow of the Belareca river, one of the most valuable rivers in the country, into the Cerna. It therefore violates not only the Water Framework Directive but also the European Landscape Convention.

AHE Izbiceni - Danube, Islaz (29 MW) implies significant damage to several Natura 2000 sites. The project was also discussed at the 2012 Ramsar Conference in Bucharest because it has a significant negative impact on the Ramsar site "Confluența Olt Dunăre". In addition, the National Agency for Environmental Protection rejected the project by Decision No 4/2015.

List of abbreviations

NECP - Integrated National Energy and Climate Plan

ANRE - National Energy Regulatory Authority

DSO - Distribution System Operators

TSO - Transmission System Operator

RES - Renewable Energy Sources

SRE-E - Renewable Energy Sources in the Electricity Sector

BMWK - German Federal Ministry for Economic Affairs and Climate Action

LULUCF - Land Use, Land Use Change and Forestry

DNSH - Do no significant harm

CHP - Combined Heat and Power Plant

CCGT - Combined Cycle Gas Turbine

GHG - Greenhouse Gases

SEA - Strategic Environmental Assessment

¹⁷ Version rev.05/ July 2019, prepared by KVB Consulting & Engineering, Table 14 Analysis of impacts on Natura 2000 sites intersected by the SER objectives, based on sensitivity and magnitude classes.



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RED III - Renewable Energy Directive
AHE - Hydroelectric Power Plant
EU - European Union
WWF - World Wildlife Fund for Nature
SEICA - Water Body Impact Assessment Study



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