

# **Fit to succeed?**

## **An assessment of the Romanian draft energy and climate plan**

# Table of contents



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**Executive summary / 1**

**An assessment of the Romanian draft national energy and climate plan / 3**

Scope, ambition and credibility / 4

In-depth sectoral analysis / 7

Transport / 7

Buildings / 12

Agriculture / 16

Public participation and transparency / 21

Co-benefits / 21

**Overall score and conclusions / 23**

**Annexes / 25**

Assessment criteria / 26

LIFE PlanUp project description / 33

# Executive summary

As part of the European Union's 2030 climate and energy package, EU member states are required to develop energy and climate strategies to plan and to report on their 2030 climate and energy objectives.

The LIFE PlanUp project (for more information, see Annex II), analyses the draft national energy and climate plans (NECPs) from five countries - Romania, Poland, Hungary, Italy and Spain.

Divided into four sections, this briefing assesses the draft plan of Romania. An overall score is provided at the end of the assessment (for more information, see Annex 1 on assessment criteria).

The first section covers the scope of the plan, and the ambition and plausibility of its overall objectives.

Romania published its draft NECP in November 2018. It respects the mandatory template, but several key components, such as a detailed explanation of the policy measures, the quantitative methodology used for the scenarios presented as well as a comprehensive impact assessment, are missing.

The second chapter provides an in-depth analysis of the transport, buildings and agricultural sectors with regard to the proposed objectives and policy measures.

Greenhouse gas (GHG) emissions from transport in Romania increased by 44% between 1990 and 2015, making it one of the fastest growing emitters in the country. Regardless of this, the draft NECP only provides a general description of possible measures without a detailed strategy on how to achieve set objectives.

Romania's planned policies for the buildings sector are patchy and often inconsistent with climate targets, and there are no clear measures to incentivise the uptake of renewables in heating and cooling of buildings.

Agriculture accounts for 16% of Romanian greenhouse gas emissions. One major problem with the plan is that it is based on a false assumption that most of this comes from energy use, while in fact 10% are due to livestock.

Overall, agriculture is not given the priority it deserves. While the plan includes some positive policies, such as supporting farm modernisation and promoting carbon sequestration in agriculture, other important measures and clear investments are missing.

The third section focuses on transparency and public participation of the NECP development process. While the government provided opportunities for stakeholder input in the course of the plan development, overall, the process lacked in transparency and inclusiveness. There is no dedicated website for accessing the received feedback, nor was there a multi-level dialogue with stakeholders such as the civil society and local and regional authorities.

Finally, the last section looks at the impact assessment of planned policies with regard to co-benefits such as job creation, air quality improvement and reduction of energy poverty.

While the Romanian NECP does not cover job creation or air quality in its impact assessment, it does include a very good strategy to reduce energy poverty that, if well implemented, will yield positive results.

Overall, the Romanian draft NECP scores very low in all the most important criteria. It is therefore paramount that in the final plan, the Romanian government addresses these shortcomings and includes more effective policies that can untap Romania's full potential of reducing greenhouse gas emissions in the transport, buildings and agricultural sectors.

# **An assessment of the Romanian draft national energy and climate plan**



# Scope, ambition and credibility

The Romanian draft NECP was published at the end of November 2018, thus respecting the deadline set in the EU Governance Regulation. It follows the mandatory template outlined in the regulation, although some sections are more detailed than others, and a full explanation of the methodology used for the scenarios presented in the plan is missing.

Overall, the plan covers all sectors of the Climate Action Regulation (CAR) (also known as the Effort Sharing Regulation) i.e. the transport, buildings, agricultural and waste sectors, or “non-ETS sectors”, and gives an overview of decarbonisation targets for the sectors that fall under the EU Emissions Trading System (EU ETS) i.e. the power sector and heavy industry. However, the measures included in the plan do not provide adequate details or even strategies for possible development towards the 2030 decarbonisation objectives.

## Greenhouse gas emission target

The Romanian draft NECP includes two greenhouse gas (GHG) emission reduction targets for 2030.

Compared to 2005, Romania sets out to cut emissions by 43.9% in the EU ETS sectors, and by 2 % in the CAR sectors. The latter is in line with the emission reduction contribution that Romania is supposed to make according to the Climate Action Regulation.

As outlined in the table below, these targets are consistent with their baseline years and in relation to each other. For example, GHG emission reduction targets for the ETS and CAR sectors are both compared with 2005 emissions.

### Overview of the main objectives of INECP 2021-2030 for 2030

|   |              |
|---|--------------|
| ETS emissions (% compared to 2005)  | -43.9%       |
| Non-ETS emissions (% compared to 2005)                                    | -2%          |
| <b>Total shared of renewable energy in final gross energy consumption</b> | <b>27.9%</b> |



|   |               |
|---|---------------|
| RES-E   | 39.6%         |
| RES-T   | 17.6%         |
| RES-H&C   | 31.3%         |
| <b>Energy efficiency (% to PRIMES 2007 projection for 2030)</b> | <b>-37.5%</b> |

Source: Romanian National Energy and Climate Plan

When looking at GHG emissions projections, Romania's total emissions in 2030 (EU ETS and non-ETS, excluding the Land use, Land use change and Forestry (LULUCF) will be 118,35 CO<sub>2</sub> eq. Compared to 1990, total greenhouse gas emissions will be reduced by about 50% in 2030. However, most of this reduction has been achieved through the closing down of inefficient loss-making state industries, meaning that Romania's emissions would have reduced anyway, without a link to emissions reduction policies.

Moreover, in the analysis of GHG emission projections with existing measures (Chapter 4), there is an inconsistency between the data presented in the NECP and the official data reported in the latest publication of the European Environment Agency (EEA) "Trends and Projections in Europe 2018". While the historic GHG emissions (total and non-ETS) match for the years 2015 and 2016, there is a distinct discrepancy in the 2005 data. In the Romanian NECP, 2005 GHG emissions in the non-ETS sectors are reported as 81 Mt CO<sub>2</sub>eq while in the EEA report they are reported as 75.4 Mt CO<sub>2</sub>eq. The reason for this difference is unclear but poses certain questions as 2005 is the base year for the calculation of the country's contribution to GHG reduction in the non-ETS sectors.

In order to achieve these targets, the draft plan mentions making use of Land use, Land use change, and Forestry (LULUCF) flexibility up to a maximum of 13.4 million tons of CO<sub>2</sub> equivalent for the period 2021-2030. This represents the maximum use of flexibilities from LULUCF but no further details are provided on how the offsetting will be utilised.

The numbers reported in the plan lack analytical ground and quantitative modelling that would clearly explain how the targets will be achieved. Moreover, an annex that is meant to explain the interaction between WEM and WPM scenarios is mentioned but was not provided in the draft NECP.

## **Renewable energy**

Regarding the 2030 share of renewable energy in gross final energy consumption, the plan indicates a share of 27.9%, which is below the average EU target and below the 28.1% share expected for 2025.

For this target to be achieved, the plan foresees an increase in wind capacity, and mentions the creation of an Energy Efficiency Fund. The final NECP should include much more detail of allocated resources and ways of financing this fund.

While the share of renewable energy is expected to show a slow but continuous increase, the share of renewable electricity is dropping after 2025, even below the level of 2020. It is not clear how the calculations were made. A methodological annex to the NECP would help clarify this.

## **Energy efficiency**

The Romanian draft NECP proposes an objective of 36.7 Mtoe primary energy consumption, equal



ent to a 37.5% reduction compared to the PRIMES 2007 projection for 2030. A final energy consumption objective is indicated, but not clearly defined. In the past, during the period 2005 to 2016, Romania has reduced its primary energy consumption by 15%, and its final energy consumption by 10%.

The estimation for primary energy consumption to reach 36.7 Mtoe (+13% v 2016) in 2030, compared to the expected primary energy consumption of 30.3 Mtoe in 2020 represents a massive change compared to the historic trend. Final energy consumption is expected to reach 23.7 Mtoe (+6% v 2016) in 2030. Increased industrial production and improved living standards are put forward as main drivers for an increase in energy consumption.

Criticism concerning the projected energy consumption numbers for 2030 have been raised by national experts including the Energy Policy Group<sup>1</sup> referring to lower projections of the previous Romanian Energy Strategy 2016-2030.

In combination with increased gross domestic product, energy efficiency measures, including an energy efficiency fund, are expected to lead to a decrease in primary energy intensity, from 195 toe / EUR'15 in 2015 to around 150 toe / EUR'15 in 2030 bringing it closer to the EU average (currently at 113 toe/EUR'10 in 2015 for the EU 28).

As for Romania's obligation to achieve an annual rate of savings of at least 0.8% in compliance with Article 7 of the Energy Efficiency Directive, the draft NECP refers to a continuation of the National Energy Efficiency Action Plan IV.

Overall, there is no clear commitment to the Paris Agreement's objectives in the draft plan and the comparatively high projections for energy consumption make it more challenging to achieve the overall GHG and RES objectives for 2030. Modelling based on the PRIMES 2016 scenario prepared for the Ministry of Energy are provided until 2030 but fall short of the 2040 projections, mandated by the NECP template.

| Criterion | Indicator   | Indicator description  | Score                      |
|-----------|---|--|----------------------------|
| Scope     | Consistency with Energy Union governance regulation | Does the plan follow the mandatory template as outlined in the Governance Regulation? <sup>2</sup> | 3/4 = to a moderate extent |
|           | Sectors/policies coverage                           | Does the plan include policies covering all required sectors?                                      | 3/4 = to a moderate extent |
|           | Deadline  | Has the plan been published on time/respecting deadline?   | 4/4 = yes, no delay        |

1 Energy Policy Group 2019: The Draft of the Romanian National Energy-Climate Plan 2021-2030 <https://www.enpg.ro/wp-content/uploads/2018/12/NECP-Romania-EPG-Analysis.pdf>

2 <http://data.consilium.europa.eu/doc/document/PE-55-2018-INIT/en/pdf>

| Criterion                 | Indicator                                     | Indicator description   | Score                   |
|---------------------------|---|---|-------------------------|
| Ambition/<br>plausibility | Greenhouse gas (GHG) emissions                | Does the plan include an economy-wide GHG emissions reduction target for 2030?              | 1/4 = to a small extent |
|                           | Consistency among targets                     | Does the plan utilise consistent and harmonised GHG emission targets and related baselines? | 4/4 = to a great extent |
|                           | Renewable energy                              | Does the plan include a national 2030 renewable energy target? <sup>3</sup>                 | 1/4 = to a small extent |
|                           | Energy efficiency                             | Does the plan include a national 2030 energy efficiency target?                             | 2/4 = to some extent    |
|                           | Alignment with 2050 decarbonisation objective | Is there a clear commitment to the Paris Agreement's objectives?                            | 0/4 = not at all        |

| Criterion                   | Indicator                               | Indicator description   | Score                             |
|-----------------------------|---|---|-----------------------------------|
| Consistency and credibility | Adaptation plan                         | Has an adaptation plan been devised? Is it reflected in the NECP? <sup>4</sup>                                  | 1/4 = unclear adaptation strategy |
|                             | Use of loopholes                        | Does the plan include use of loopholes in achieving GHG emission targets? <sup>5</sup>                          | 1/4 = yes, large use              |
|                             | Policy projections<br>Impact assessment | Does the plan use a strong and effective model used for the impact assessment of planned policies and measures? | 0/4 = not at all                  |

## In-depth analysis of sectors

### Transport

In 2015, the CO<sub>2</sub> emissions from road transport in Romania were almost 44% higher than in 1990, reflecting the consistent increase of passenger and freight traffic. This pattern clearly shows that in the coming years the decarbonisation of the transport sector will require significant investments and

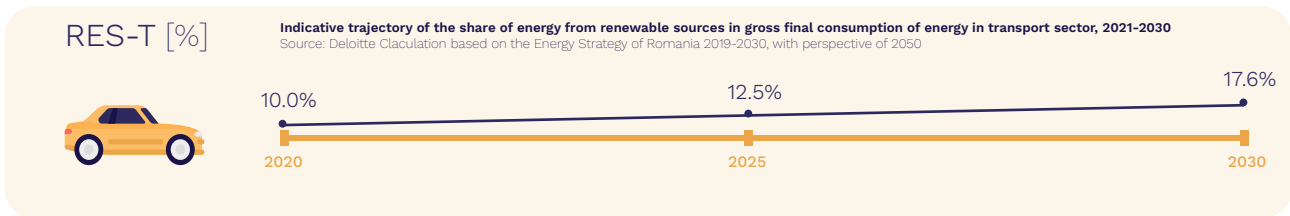
3 <https://www.ecofys.com/en/publications/national-benchmarks-for-a-more-ambitious-eu-2030-res-target/>

4 Art. 19 Governance Regulation: <http://data.consilium.europa.eu/doc/document/PE-55-2018-INIT/en/pdf>

5 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0842&from=EN>

a structural shift. However, the measures included in the draft plan do not provide adequate details or strategies for possible development in this direction.

The Romanian draft NECP does not include a specific GHG reduction target for the transport sector, one of the highest emitting sectors in the country. However, as shown in the figure below, the share of renewable energy in transport by 2030 is set at 17.6%, which is very promising.



The plan also mentions that the projection for the share of renewables in transport (“RES-T”) does not account for new methodologies for the calculation of this indicator, which involve different multipliers for biofuels and the consumption of electricity from renewable sources. This means that the share of renewable energy in transport could in fact increase by 11.2%. However, given the use of these multipliers available for advanced fuels (such as advanced biofuels, renewable electricity, etc.) as per the Renewable Energy Directive (REDII), the share of RES-T can get as high as 17.6%, once the multipliers have been taken into account.

The Romanian draft NECP does not mention what type of biofuels will be used. This leads to further questions, such as: Will biofuels be food-based? What type of advanced biofuels will be used?

Absolute numbers (and not shares) expressed in oil eq. are broken down in the graph below. According to the table, 2nd generation biofuels share (out of all biofuels used) will be around 22%.



A robust increase in the use of 1st generation (food based) biofuels is also shown in the table. This increase will put pressure on agricultural land (food-crops) and lead to indirect land use change (ILUC) effect. Moreover, this policy is not in line with the EU legislation, as according to the REDII the share of first generation biofuels is meant to remain at 2020 levels.

**Indicative trajectory, broken down by technology, of energy from renewable sources in gross final consumption of energy in transport sector, 2021-2030 [Ktoe]**  
Source: Deloitte Claculation based on the Energy Strategy of Romania 2019-2030, with perspective of 2050

| Ktoe   | 2020         | 2025         | 2030           |
|--|--------------|--------------|----------------|
| Renewable energy in road transport                               | 1.8          | 9.7          | 95.3           |
| Renewable energy in rail transport                               | 66.3         | 82.6         | 105.5          |
| 1st generation biofuels  | 356.8        | 392.34       | 439.2          |
| 2nd generation biofuels  | 52.5         | 110.2        | 124.5          |
| <b>Total final gross renewable energy conuption in transport</b> | <b>568.5</b> | <b>775.7</b> | <b>1,227.7</b> |

The above table from the Romanian draft NECP does not have any multiplication factor when calculating the RES share in transport. However, these indicators are pertinent for analysing the development of the main factors based on which the share is established. Between 2005-2016, the energy consumption in the transport sector increased. The main trends are: a significant increase in the consumption of second generation biofuels, which are compliant with the REDII and can be accounted towards the target of renewables in transport; an upward trend in the consumption of electricity from renewable sources in the road transport; a small increase in the consumption of electricity from renewable sources in the rail transport.

Although the share of renewable energy in both road and rail transport is spiking towards 2030, in absolute numbers it is a rather modest increase.

With regard to aviation and shipping, the draft plan makes no mention of how aviation will be decarbonised, neither in domestic nor international flights. Shipping, both maritime and internal is mentioned merely in the context of intermodality, including the Trans-European Transport Network (TEN-T).



Although the plan is very specific on gas-related measures and policies, there is no mention of liquefied gas used as an alternative (green) fuel in transport. This is considered a very positive aspect of the plan, as gas can never be considered as the 'green' option.

Lists of sectoral objectives bring about a positive discourse on how policies will be shaped. Following the grand objective of energy efficiency, in the realm of transport, the plan envisions the following policies and measures:

- Developing the infrastructure for alternative fuels
- Increasing efficiency allocation of energy resources throughout the transport sector by optimising the fossil fuels and alternative fuels ratio
- Developing sustainable, resilient, climate-friendly, smart, safe and intermodal TEN-T rail transport networks
- Developing intelligent digital road and rail traffic management systems
- Developing intelligent digital urban management systems
- Optimising and reducing energy consumption in transport by supporting the development of multimodal transport (including TEN-T), national waterways and ports
- Increasing efficiency of urban transport, including the extension of the metro transport network (for Bucharest).

Specific measures designed to reduce emissions (both GHG and Nitrogen Oxide) are listed in the draft plan:

- Introducing strong economic incentives for an environmentally friendly transport system through price instruments
- Reinstating a pollution tax to reduce GHG and NOx emissions caused by imports of old cars
- Expanding smart transport management systems in major cities
- Developing cycling infrastructure
- Promoting alternative fuel infrastructure, complementing and simplifying the related legal framework.

Financial measures, schemes and incentives will also entail:

- Economic incentives for an environmentally friendly transport system through price instruments
- A plan to implement public charging networks for electric vehicles, as well as to encourage private investment to develop infrastructure through a stimulus mechanism
- Tax reductions and exemptions for the purchase and use of electric or hybrid vehicles - especially for fleets of companies
- Regulations to support agents interested in investing in electromobility infrastructure
- Attractive tariffs for new electrical applications such as electric mobility, reflecting the current purchase cost and system costs
- High and strict environmental taxes to limit the purchase of used vehicles
- Municipal regulations to encourage clean mobility, such as low emissions zones in cities
- A pollution tax to reduce GHG and NOx emissions caused by imports of old cars
- Smart transportation management systems in major cities
- Cycling infrastructure.

With regards to infrastructure, an important element of the transport sector reform is the on-going restructuring of the road and rail agencies. The newly created Authority for Railway Reform is supposed to restructure the national rail network by increasing its competitiveness (energy union fact-sheet, 2017). However, the plan does not mention the current status of the reform.

As key policy measures for transport, the plan foresees support measures to drive the uptake of electric and hybrid cars, including by supporting research, establishing common standards and developing the necessary infrastructure. However, there are no specific details on how the transposition of the Directive 2014/94/EU on the deployment of alternative fuels infrastructure will be translated into concrete policies and measures.

In terms of R&D for sustainable transport, the National Hydrogen and Fuel Cell Center (CNHPC), part of ICSI Energy Rm. Valcea, coordinates the research activities in the field of generation, storage and use of hydrogen in fuel cells.

Overall, transport is poorly covered in the plan. The section on transport only provides general orientation of possible measures; such as preparing actions to promote the importance of electromobility, promoting alternative fuel infrastructure and completing and simplifying the legislative framework. The section is lacking a detailed strategy to achieve the outlined objectives. Some of the policies indicated are not consistent with the EU legislation.

The document needs significant improvement especially in terms of clear vision, targets, estimates and the use of numbers.

| Criterion                     | Indicator  | Indicator description  | Score                    |
|-------------------------------|--|--|--------------------------|
| Sectoral policy:<br>Transport | Alignment/plausibility with 2030 goals           | Are transport policies included in the plan plausible to reach 2030 national climate goals? <sup>6</sup> | 1 /4 = to a small extent |
|                               | Inclusion of long-term strategy                  | Do plans include transport policies beyond 2030?   | 0/4= not at all          |
|                               | Consistency with EU legislation                  | Are transport policies consistent and in line with EU legislation? <sup>78910</sup>                      | 1/4 = to a small extent  |
|                               | Infrastructure                                   | Are proposed infrastructure investments aligned with the long-term climate goals?                        | 1/4 = to a small extent  |
|                               | Policies beyond or additional to EU requirements | Does the plan include policies that are additional or go beyond EU requirements?                         | 2 /4 = to some extent    |

6 [https://ec.europa.eu/clima/policies/effort/proposal\\_en](https://ec.europa.eu/clima/policies/effort/proposal_en)

7 [https://eur-lex.europa.eu/resource.html?uri=cellar:609fc0d1-04ee-11e8-b8f5-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:609fc0d1-04ee-11e8-b8f5-01aa75ed71a1.0001.02/DOC_1&format=PDF)

8 [https://eur-lex.europa.eu/resource.html?uri=cellar:3eb9ae57-faa6-11e6-8a35-01aa75ed71a1.0007.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:3eb9ae57-faa6-11e6-8a35-01aa75ed71a1.0007.02/DOC_1&format=PDF)

9 [https://ec.europa.eu/transport/themes/urban/vehicles/directive\\_en](https://ec.europa.eu/transport/themes/urban/vehicles/directive_en)

10 [https://ec.europa.eu/transport/themes/urban/cpt\\_en](https://ec.europa.eu/transport/themes/urban/cpt_en)

# Recommendations

- Include a GHG emission reduction objective specific for the transport sector, to be able to follow up on actual emissions reductions in such an emitting sector.
- Reconsider the target for renewables in transport, as setting a high target can potentially lead to the use of unsustainable biofuels. The 14% target set by the EU is optional, and countries can remain at the 7% binding level of advanced fuels.
- Revisit the share of 1st generation biofuels, as this is not in line with the EU REDII. Include measures to reduce emissions in the aviation and shipping sectors, as they are currently barely covered in the plan.
- Include more details on the measures outlined for transport. The measures are positive, but there's no information in terms of objectives, investments and impacts.
- Include a long-term decarbonisation vision in order to have an objective to aim for.

## Buildings

In 2016, direct greenhouse gas emissions from the buildings sector in Romania were 8% lower compared to 1990. This reduction was mainly due to developments in the population, in the amount of heated living space, as well as in energy performance of the built environment and shifts between heating sources (especially between solid fuels, district heating and individual gas heating).

The Romanian draft plan does not include a specific GHG reduction target for the buildings sector, but does provide data on final energy consumption for heating and cooling for the residential sector.

### **Energy efficiency of the buildings sector**

While the draft NECP contains a number of measures, including energy performance of buildings standards developed as part of the implementation of the Energy Performance of Buildings Directive, the overall projections for the sector do not show great ambition. This can be deduced from a number of issues.

The draft NECP includes a number of different and diverging estimates of the energy consumption in the buildings sector, drawing from different scenarios, including an adjusted version of the Primes 2016 scenario with higher gross domestic product development, and the scenarios calculated for the Energy Strategy of Romania 2019-2030.

A main observation is that the projections of the draft NECP assume a higher primary and final energy consumption than the existing baseline of the Primes 2016 model. In view of the expected reduction in population, it is unclear if the full energy savings potentials are considered in the scenarios and objectives for the buildings sector. A more detailed analysis has also been carried out by the Coalition for Energy Savings, identifying further energy savings potentials due to the implementation of Art. 7 of the EED and the effects of the EcoDesign Regulation and the CO2 standards in transport.<sup>11</sup>

## Renewable energy in the buildings sector

The draft NECP sets out a target for renewables in heating and cooling of 31.3%, which is a very limited increase from the 26.5% already achieved in 2020. The objective is supposed to be met using biomass (firewood and agricultural waste) - taking sustainability criteria into account -, and heat pumps. While a range of measures to promote the uptake of renewable energy in the buildings sector are included, like solar thermal and photovoltaic energy, the draft NECP does not clearly show the contribution of these measures to the achievement of the objective. Similarly, for the uptake of renewable energy in district heating and cooling measures, no clear set of policies and measures are included, which is especially surprising, as Romania has an extensive district heating infrastructure.

## Heating



Romania foresees an increase in the use of natural gas in heating and further distribution of gas among dwellings and inhabitants in the rural areas of Romania. How this fuel shift towards gas is supposed to align with the 2030 targets and the long-term decarbonisation goal is not considered in the draft NECPs.

Romania has an extensive infrastructure of high-efficiency cogeneration and district heating. In their report from 2015, the Ministry of Regional Development and Public Administration and the Ministry of Energy identify a high potential to increase its application, but the legislative framework has seen significant delays.

## Policies and measures

The measures listed in the draft NECP are largely derived from existing programmes including the continuation of the National Energy Efficiency Action Plan IV, the Energy Strategy of Romania 2019-2030 and the Strategy for mobilizing investment in the renovation of residential and commercial buildings fund, both public and private, existing at national level - Version 2/2017.

<sup>11</sup> Coalition for Energy Savings 2019: State of Energy Efficiency in National Energy and Climate Plans: [http://energycoalition.eu/sites/default/files/20190402\\_TheCoalitionForEnergySavings\\_State\\_Energy\\_Efficiency.p](http://energycoalition.eu/sites/default/files/20190402_TheCoalitionForEnergySavings_State_Energy_Efficiency.p)



While information on the cost-optimal levels of minimum energy performance requirements was provided in 2013, five years later the draft NECP states that there is not sufficient information at present time to be able to establish the cost-optimal levels of minimum energy performance requirements from national calculations, in accordance with Article 5 of Directive 2010/31/EU.

The draft NECP lists the relevant maximum specific annual energy consumption [KWh / m<sup>2</sup>, primary energy] and, partially, minimum RES shares for 2030, but no milestones for 2040 or 2050. The energy performance requirements are comparable to other Member States. The With Planned Measures Scenario (WPM) foresees a 16.1% increase in final energy demand compared to the With Existing Measures (WEM) scenario.

As the national objective for 2030 is significantly above the current use and the updated projections for 2030, it is possible that Romania will reach the proposed energy efficiency objective, but a transparent quantification of the policies and measures is missing. The existing analysis strongly suggests that this will leave significant potential for decarbonisation, energy savings and renewable energy untapped in the Romanian buildings sector.

Finally, the draft NECP does not include any dedicated national measures that go beyond 2030.

| Criterion                     | Indicator  | Indicator description  | Score                |
|-------------------------------|--|--|----------------------|
| Sectoral policy:<br>Buildings | Alignment/plausibility with 2030 goals           | Are buildings policies included in the plan plausible to reach 2030 national climate goals?        | 2/4 = to some extent |
|                               | Inclusion of long-term strategy                  | Do plans include buildings policies beyond 2030?   | 0/4 = not at all     |
|                               | Consistency with EU legislation                  | Are buildings policies consistent and in line with EU legislation? <sup>12 13 14</sup>             | 2/4 = to some extent |
|                               | Infrastructure                                   | Are proposed infrastructure investments aligned with the long-term climate goals? <sup>15 16</sup> | 0/4 = not at all     |
|                               | Policies beyond or additional to EU requirements | Does the plan include policies that are additional or go beyond EU requirements?                   | 0/4 = not at all     |

12 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0844&from=EN>

13 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016PC0761&from=EN>

14 [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016PC0767R\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016PC0767R(01)&from=EN)

15 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0027&from=EN>

16 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0844&from=EN>

# Recommendations

- Include a clear link between energy efficiency measures and their related budget, timeline and governance structure. This would allow a solid assessment of the feasibility and expected impact of the policies.
- Include a detailed breakdown of investment needs by sector and within the buildings sector in residential, public and commercial to give a better overview and to allow for better benchmarking.
- Revisit the projections for primary and final energy consumption, which are currently higher than the relevant baselines. In view of the expected reduction in population and existing potential for energy savings, the NECP needs to establish a clear pathway for tapping the full energy savings potential to ensure a cost-effective transformation of the Romanian buildings sector towards a full decarbonisation.
- Ensure the harmonisation and coordination between energy efficiency programmes established at national level and those established through EU-funded programmes. This will avoid overlapping of funds and ensure that targeted measures and public investments are developed for the low income households in the 20th income percentile and lower.
- Include a provision for the development of a methodology for measuring progress in implementing building renovation strategies. This would ensure the optimal use of European funds and avoid any ambiguity on the eligibility and efficiency of their use.
- Establish a national database of Energy Performance Certificates containing reliable information to allow aggregation of data at European level.
- Establish a framework for long-term energy efficiency funding (by 2030) to encourage Romanian firms to invest in recruiting a workforce with expertise in the field to meet the demands of works to improve the energy efficiency of buildings.
- Devise a dedicated strategy to tackle key issues related to high use of biomass, such as impact on air pollution and the availability of sustainable biomass. Hybrid systems of solar thermal warm-water and bioenergy can significantly reduce the operational hours of biomass systems. Insulation in combination with controlled ventilation systems can reduce the remaining bioenergy need, and bioenergy systems combined with water buffer heat storage and automatic control and fuel feed minimise user errors.
- Address shortfalls in the tendering, planning and implementation of thermal renovation investments that have been identified to create issues around indoor air quality.
- Provide proper skills for construction professionals, and awareness programmes and training for tenants of newly renovated buildings.

# Agriculture

According to an analysis made by the Ministry of Environment in its “National strategy for climate change and economic growth based on reduced carbon emissions, 2016-2030” reported in the draft plan, the agriculture sector is currently responsible for 16% of the country’s greenhouse gas emissions, and its emissions have been on a downward trend in recent years.

The report foresees a future increase in productivity and a decrease in the number of small farms, which could increase GHG emissions.

A reduction in GHG emissions is a clear target for the agriculture sector, for which the plan envisages the following sub-objectives:

- Promoting knowledge transfer
- Supporting investments in modernisation
- Promoting agricultural best practices
- Promoting carbon sequestration (by incorporating vegetation in soils and by adding green cover)

Although the points above include activities that could receive funding under Pillar 1 or, more likely, Pillar 2 of the National Rural Development Programme (NRDP), there is no mention of the Common Agricultural Policy (CAP) or of the NRDP in the document. This is a major omission, as the CAP funding available is significant and it should be clearly linked to energy and climate objectives.

The aforementioned analysis of the ‘National Strategy for climate change and economic growth based on reduced CO<sub>2</sub> emissions, 2016-2030’ explains that reduced GHG emissions is also a target for the silviculture sector, with the following sub-objectives:

- Managing forests in a sustainable manner
- Increasing forest area
- Maximising opportunities for carbon sequestration in forests



This analysis fails to recognise the very important role of grassland for carbon sequestration, that can be achieved in two ways: protecting permanent grassland from ploughing (ploughing of grassland releases a very large amount of CO<sub>2</sub>), and supporting the sustainable management of permanent grasslands.

Grasslands sequester CO<sub>2</sub> as much as forests, and maintenance of grasslands is therefore a key element in Romania's carbon reduction policies. Research has shown that 0.3 kg of CO<sub>2</sub> are lost per square meter in the first 6 months after ploughing of grassland, = 3t/CO<sub>2</sub>/ha/year, and that sequestration by grassland is 0.6 t/C/ha/year carbon in the soil.

The draft NECP includes information on the availability of biomass (firewood and agricultural waste). This is meant to promote the shift to renewable energy, even though wood burning as a renewable energy source is increasingly questioned.

The draft plan has a graph that illustrates the indicative trajectory of biomass demand for electricity and heat production. It shows a projected 55% increase in demand for biomass for electrical and thermal energy, between 2020-2030, satisfied by domestic supplies, and a slight decrease in imported biomass. These figures are supported by a description of the sectors responsible for this increasing demand.

In addition to agricultural policies and biomass use, the NECP maps the governments' other policies and objectives that will support agriculture-related targets of the NECP. Some examples of operational objectives are listed below:

- Operational Objective (OP) 5: increasing the flexibility of the national energy system is supported by the national energy strategy 2019-2030 from November 2018, which predicts that agriculture will be one of the sectors that makes use of this.



- OP 13: reduction of emissions of greenhouse gases and Nitrous Oxides (NO<sub>x</sub>) is supported by the national action plan for implementing the National Climate Change Strategy, which aims at supporting farm modernisation, promoting best practice management and promoting carbon sequestration in agriculture (P26). The fact that the emission reductions are linked to existing policy, and support measures funded, for example, under the CAP, is encouraging.

- OP 15: combating climate change, is supported by the national action plan for implementing the National Climate Change Strategy, which aims at modernising irrigation and drainage, and good management of land for adaptation to climate change (P29).

Forest sources of biomass: firewood biomass usage is currently 7M m<sup>3</sup>/year, of which Romsilva state forest agency supplies 4.4M m<sup>3</sup> and other forest administrators supply 2.5M m<sup>3</sup>.

Agriculture sources of biomass: potential supply of biomass is estimated as between 21.5 Mt -35.8 Mt, made up of plant stalks, corn cobs.

17 K.J. Hargreaves, P. Levy and T.D. Murray. Field measurements of carbon loss from soil following ploughing. Centre for Ecology and Hydrology, Edinburgh, UK. Contract Report for Department for Environment, Food & Rural Affairs, UK, April 2003.

Although reference is made to operational objectives within the National Climate Change Strategy, the NECP makes no mention of environmental legislation, in particular the Nature Directive and the Water Framework Directive.

Research shows that climate change mitigation and adaptation go along with halting biodiversity loss and preserving water quality and minimising abstraction. For instance, draining wetland would certainly have a net contribution to GHG emissions, biodiversity loss and a decrease of water quality.

Overall, the Romanian NECP does not give agriculture the priority it deserves.

| Criterion                       | Indicator  | Indicator description   | Score                |
|---------------------------------|--|---|----------------------|
| Sectoral policy:<br>Agriculture | Alignment with 2030 goals                        | Are agricultural policies included in the plan plausible to achieve 2030 climate goals? | 2/4 = to some extent |
|                                 | Inclusion of long-term strategy                  | Do plans include agricultural policies beyond 2030?                                     | 0/4 = not at all     |
|                                 | Consistency with EU legislation                  | Are agricultural policies consistent and in line with EU legislation?                   | 0/4 = not at all     |
|                                 | Infrastructure                                   | Are proposed infrastructure investments aligned with the long-term climate goals?       | 2/4 = to some extent |
|                                 | Policies beyond or additional to EU requirements | Does the plan include policies that are additional or go beyond EU requirements?        | 0/4 = not at all     |

18 [https://ec.europa.eu/clima/policies/effort/proposal\\_en](https://ec.europa.eu/clima/policies/effort/proposal_en)

19 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0841&from=EN>

# Recommendations

Include specific agricultural policies and measures into the NECP and make sure that:

- Agricultural mitigation measures cover all sources of emissions from the agricultural sector.
- All measures are environmentally proofed (in terms of air - water - biodiversity).
- Specific budget is allocated for each measure and the number of farmers expected to enroll is put forward.
- The measures include maintenance of grasslands which is a key element in Romania's carbon reduction policies and is currently missing from the plan.
- The policies include a revised 2030 target for biomass in order to ensure long-term sustainability and biodiversity protection.

## Transparency and public participation

The Romanian draft NECP was submitted to the European Commission in November 2018, ahead of the official deadline, and was made publicly available on the Ministry of Energy website. An English version of the draft was published in February 2019, to allow for improved regional cooperation with bordering countries, in particular with Bulgaria.

The draft plan was submitted to public consultation initially for 10 days before it was sent to the EU Commission. After having published the English version in early February 2019, the government reopened the consultation initially for three weeks, but then extended it until March 15, 2019. Comments could be submitted in written to the Ministry of Energy.

The current draft NECP already includes all the comments that the government received from civil society organisations (CSOs) and other stakeholders. However, according to the government, no input was provided by local authorities in the first consultation phase which only lasted 10 days in November 2018.

While recent developments of the consultation process are encouraging, the lack of transparency - no dedicated website where feedback received is easily accessible to the public - and the absence of reference to a multi-level dialogue still raise concern.

| Criterion    | Indicator            | Indicator description   | Score   |
|--------------|----------------------|---|---|
| Transparency | Public participation | Does the plan include early and effective opportunities for public participation? <sup>21</sup>   | 2/4 = no, public consultation but too short a time to respond |
|              | Publication          | Is the draft plan publicly available? <sup>22</sup>   | 1/4 = yes, but for a limited period of time                   |
|              | Multilevel dialogue  | Does the plan cater for a multilevel dialogue where local authorities, NGOs, business, investors and the general public can actively engage and discuss the climate and energy policy scenarios, and review progress? <sup>23</sup> | 0/4 = no provision for dialogue                               |

## Recommendations

- Publish a summary of stakeholder contributions to public consultation.
- Make the timeline for the remaining NECP process publicly available, so that citizens and stakeholders can receive early and effective information on how they can contribute.
- Organise a broad public consultation following the Commission recommendations in June.
- Organise regional gatherings to discuss the NECP with local and regional authorities (LRAs), civil society organisations (CSOs) and other stakeholders in the 2nd half of 2019.
- Make use of existing local energy and climate initiatives, such as the Covenant of Mayors, to gather the potential contribution of LRAs to the NECP. National associations of LRAs, as well as the Covenant of Mayors national club in Romania, can be used to reach out to all LRAs.
- Establish a multi-level energy and climate dialogue for the finalisation of the NECP, making use of existing formats like working groups, taskforce or other consultative bodies that involve all stakeholders; provide the dialogue with an administrative structure to ensure its duration and its involvement in regularly following up on the NECP implementation from 2020 onwards.

21 Art. 10 Governance Regulation: <http://data.consilium.europa.eu/doc/document/PE-55-2018-INIT/en/pdf>

22 Art. 3.4, 9.4 Governance Regulation: <http://data.consilium.europa.eu/doc/document/PE-55-2018-INIT/en/pdf>

23 Art. 11 Governance Regulation: <http://data.consilium.europa.eu/doc/document/PE-55-2018-INIT/en/pdf>

# Co-benefits

## Air quality

Air quality improvement is addressed in the plan in several operational objectives. Moreover, among all the measures listed to achieve Romania's GHG emission reduction objective, there is one section that is specifically dedicated to "protecting the quality of air, water, soil and biodiversity".

Due to the very general character of these measures, it is however impossible to determine whether a real improvement will be seen in the next 10 years.

## Energy poverty

Romania's Energy Strategy 2019-2030 defines objectives, policies and measures aiming to protect vulnerable consumers through properly adjusting the level of social assistance for energy costs, especially in the poor areas of the country.

Several measures are outlined in the plan, divided in financial and non-financial. Non-financial measures include clear definition of vulnerable consumers, data collection on energy poverty and energy vulnerability, and implementation of schemes for utility bills payment and of national social security IT system.

Financial measures include subsidies and a solidarity fund to support vulnerable consumers.



Reduction of energy poverty is one of the main focuses of the Romanian plan. As outlined above, concrete measures are defined in the plan to tackle this problem. If all planned measures are carried out, it is likely that, in combination with the slight decreasing trend of Romanian population, energy poverty will decrease.

## Job creation

Although the plan states that there are no sufficient elements at this time to configure an impact assessment, the WPM scenario shows an increase in gross value added in 2030. Specifically, the construction sector is expected to increase by 20.8%, the tertiary (services + agriculture) by 46.6%, energy by 19%, and industrial by 41.4%. This growth will most likely create jobs but it is not clear whether they will be in low-carbon industries.



| Criterion   | Indicator      | Indicator description  | Score  |
|-------------|----------------|--|--|
| Co-benefits | Air quality    | Do proposed policies improve air quality?  | 0/4 = no effect predicted  |
|             | Energy poverty | Do proposed policies reduce energy poverty?  | 3/4 = moderate improvement   |
|             | Job creation   | Does the plan include investments in low-carbon industries, thus promoting job creation in these industries? | 2/4 = moderate increase but unclear whether due to low-carbon industries |

## Recommendations

- Include a strategy to monitor air quality improvements in WPM scenarios.
- Ensure that economic growth is focused on creating jobs in sectors that can deliver further emission reductions.

# Overall score and conclusions



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| Criteria                    | Weight | RO points |
|-----------------------------|--------|-----------|
| Scope                       | 5      | 10/12     |
| Ambition                    | 20     | 8/20      |
| Consistency and credibility | 20     | 2/12      |
| Transport policies          | 10     | 5/20      |
| Buildings policies          | 10     | 4/20      |
| Agriculture policies        | 10     | 7/20      |
| Transparency                | 20     | 3/12      |
| Co-benefits                 | 5      | 5/12      |

**Total score: 31%**

The Romanian draft NECP scores very low on all the most important criteria.

The ambition of its climate and energy objectives and the transparency of the NECP development require major improvement. Higher ambition and targets would set Romania on the right path to significantly reducing its emissions and contributing to the achievement of the Paris Agreement objectives.

A more transparent process where all relevant stakeholders and the general public are consulted on the country's climate objectives and planned policies would ensure greater support and commitment from all parties involved.

With regard to sectoral objectives and policy measures, the draft plan needs review and improvement in buildings, transport and agricultural policies. As transport emissions are rising and are the highest of all non-ETS sectors in Romania, stronger emission reduction policies and greater focus on public transport, modal shift and rail infrastructure would better contribute to effectively tackling the problem. Policy measures planned for the buildings sector fall short of exploiting Romania's potential and existing infrastructure, such as district heating and renewable energy. It is paramount that in the final NECP, the Romanian government addresses these shortcomings and includes more effective policies that can untap Romania's full potential in these sectors.

A comprehensive impact assessment that includes projections on co-benefits resulting from planned policies is currently missing from the draft plan. Such assessment should be developed for the final NECP, as it would ensure a full understanding of the effects and consequences of the planned policies and measures.

The Romanian draft NECP can and should be improved. There is a great untapped capacity, and more ambition is needed to exploit its full potential. It is of paramount importance that when developing its final plan, Romania increases its commitment to the 2030 climate objectives, includes long-term goals and involves all stakeholders in a more transparent process.

# Annexes



# Assessment criteria

## Methodology

To develop the used set of criteria, we conducted desk research and looked mainly at two examples: the criteria used in the LIFE Maximiser Project and the criteria developed by Climate Action Network (CAN) Europe.

The LIFE Maximiser project analysed EU Member States' 2050 low-carbon development strategies (LCDS). For this purpose, LIFE Maximiser developed a complex technical tool<sup>24</sup> to assess and score the quality (in terms of substance, credibility and process) and status of the EU Members' LCDS. The tool was broken down into 10 criteria, and based on these criteria, further into 48 indicators and sub-indicators. The overall approach used by LIFE Maximiser was normative, meaning that their tool was designed with the primary purpose to measure what elements should be included in the LCDS they analysed. Of the 10 criteria, the most relevant for our work were: ambition, scope, integration, public transparency and process transparency.

The guidelines developed by CAN Europe (part 1<sup>25</sup> and part 2<sup>26</sup>) are intended to serve as a tool to empower civil society organisations across Europe to engage actively and effectively in the process of the development of the NECPs; to demand ambitious targets and policies from their governments; to check on the accuracy and coherence of governmental proposals; and to hold them accountable for what they have committed to do. They are meant to provide an understanding of the plans and how they work. The guidelines are composed of five pillars, one per topic analysed. Each pillar is underpinned by a set of criteria and indicators. For our work, we looked at all the pillars and selected the relevant criteria and indicators.

Additionally, we developed sector-specific indicators to analyse sectoral policies that are the focus of our project. Each sector - agriculture, buildings and transport - was given a set of indicators that explore the ambition level of sectoral policies, their alignment with EU legislation and the level of their infrastructure investment.

## User manual

The result of this methodology was a set of eight criteria, underpinned by a total of 38 indicators. In addition, a scaling system was introduced to measure and evaluate the indicators.

The participatory assessments shall be conducted on the basis of the eight criteria listed below.

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24 <https://static1.squarespace.com/static/57050297356fb0e173a11732/t/5b3107a96d2a73fc7bbaaa28/1529939892483/final+tool+concept+Maximiser+formatted.pdf>

25 <https://docs.google.com/document/d/1A4qGHLX2ThnlwlrnkHjJHRZTdh0jghlV6PxUjqxDzI0/edit>

26 <https://docs.google.com/document/d/1tLOHUF1T0gYWPMU7SeBpybw1AvPwH3L-TLGPmbozDnA/edit#heading=h.2nusc19>

These criteria should be used to provide a general indication of the strengths and weaknesses of the specific NECP section on a scale from 0 to 4. The score should be properly justified in a dedicated paragraph.

These criteria, and related indicators, rely exclusively on existing data provided within the NECPs. Lack of data or sections in the NECPs should be highlighted but not compensated for. The lack of details and data shall instead be translated into concrete policy asks to be submitted to Member States in public consultations.

When impact assessment of policies and measures is missing in the NECP, the following national projections may be used to explain the point assigned to each indicator: Climate and Energy country profiles.

### Assessment criteria template

| Criterion | Indicator   | Indicator description   | Score  |
|-----------|---|---|--|
| Scope     | Consistency with Energy Union governance regulation | Does the plan follow the mandatory template as outlined in the Governance Regulation? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent   |
|           | Sectors/policies coverage                           | Does the plan include policies covering all required sectors?                         | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent   |
|           | Deadline  | Has the plan been published on time/respecting deadline?                              | 0 = no publication<br>1 = considerable delay<br>2 = no, reasonable delay<br>3 = yes, some delay<br>4 = yes, no delay |

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| Criterion             | Indicator                      | Indicator description   | Score  |
|-----------------------|--------------------------------|---|--|
| Ambition/plausibility | Greenhouse Gas (GHG) emissions | Does the plan include an economy-wide GHG emissions reduction target for 2030?              | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                       | Consistency among targets      | Does the plan utilise consistent and harmonised GHG emission targets and related baselines? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |

| <b>Criterion</b>          | <b>Indicator</b>                              | <b>Indicator description</b>                                     | <b>Score</b>   |
|---------------------------|---|--|--|
| Ambition/<br>plausibility | Renewable energy                              | Does the plan include a national 2030 renewable energy target?   | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                           | Energy efficiency                             | Does the plan include a national 2030 energy efficiency target?  | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                           | Alignment with 2050 decarbonisation objective | Is there a clear commitment to the Paris Agreement's objectives? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |

| <b>Criterion</b>                 | <b>Indicator</b>                       | <b>Indicator description</b>  | <b>Score</b>   |
|----------------------------------|--|---|--|
| Sectoral<br>policy:<br>Transport | Alignment/plausibility with 2030 goals | Are transport policies included in the plan plausible to reach 2030 national climate goals? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                                  | Inclusion of long-term strategy        | Do plans include transport policies beyond 2030?  | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                                  | Consistency with EU legislation        | Are transport policies consistent and in line with EU legislation?                          | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                                  | Infrastructure                         | Are proposed infrastructure investments aligned with the long-term climate goals?           | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |

| <b>Criterion</b>              | <b>Indicator</b>                                 | <b>Indicator description</b>   | <b>Score</b>   |
|-------------------------------|--|--|--|
| Sectoral policy:<br>Transport | Policies beyond or additional to EU requirements | Does the plan include policies that are additional or go beyond EU requirements? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |

| <b>Criterion</b>              | <b>Indicator</b>                                 | <b>Indicator description</b>  | <b>Score</b>   |
|-------------------------------|--|---|--|
| Sectoral policy:<br>Buildings | Alignment/plausibility with 2030 goals           | Are buildings policies included in the plan plausible to reach 2030 national climate goals? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                               | Inclusion of long-term strategy                  | Do plans include buildings policies beyond 2030?  | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                               | Consistency with EU legislation                  | Are buildings policies consistent and in line with EU legislation?                          | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                               | Infrastructure                                   | Are proposed infrastructure investments aligned with the long-term climate goals?           | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                               | Policies beyond or additional to EU requirements | Does the plan include policies that are additional or go beyond EU requirements?            | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |

| <b>Criterion</b>                | <b>Indicator</b>                       | <b>Indicator description</b>   | <b>Score</b>   |
|---------------------------------|--|--|--|
| Sectoral policy:<br>Agriculture | Alignment/plausibility with 2030 goals | Are agricultural policies included in the plan plausible to reach 2030 national climate goals? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |



| <b>Criterion</b>                | <b>Indicator</b>                                 | <b>Indicator description</b>  | <b>Score</b>   |
|---------------------------------|--|---|--|
| Sectoral policy:<br>Agriculture | Inclusion of long-term strategy                  | Do plans include agricultural policies beyond 2030?                               | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                                 | Consistency with EU legislation                  | Are agricultural policies consistent and in line with EU legislation?             | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                                 | Infrastructure                                   | Are proposed infrastructure investments aligned with the long-term climate goals? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |
|                                 | Policies beyond or additional to EU requirements | Does the plan include policies that are additional or go beyond EU requirements?  | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = to a great extent |

| <b>Criterion</b> | <b>Indicator</b>     | <b>Indicator description</b>  | <b>Score</b>  |
|------------------|----------------------|---|---|
| Transparency     | Public participation | Does the plan include early and effective opportunities for public participation? | 0 = no opportunities/form of consultation<br>1 = no only limited and not public<br>2 = no, public consultation but too short time<br>3 = yes, several opportunities<br>4 = yes, several opportunities and ample time to participate |
|                  | Publication          | Is the draft plan publicly available?   | 0 = no<br>1 = yes, 6 or more months delay<br>2 = yes, 2-3 months delay<br>3 = yes<br>4 = yes, plus summary in English   |

| <b>Criterion</b> | <b>Indicator</b>    | <b>Indicator description</b>  | <b>Score</b>   |
|------------------|---------------------|---|--|
| Transparency     | Multilevel dialogue | Does the plan cater for a multilevel dialogue where local authorities, NGOs, business, investors and the general public can actively engage and discuss the climate and energy policy scenarios, and review progress? | 0 = no provision for dialogue<br>1 = very limited effort<br>2 = only limited to very few stakeholders<br>3 = yes, some effort in including multiple stakeholders and gather input<br>4 = yes, effective dialogue and high engagement |

| <b>Criterion</b>            | <b>Indicator</b>                        | <b>Indicator description</b>  | <b>Score</b>   |
|-----------------------------|---|---|--|
| Consistency and credibility | Adaptation plan                         | Has an adaptation plan been devised? Is it reflected in the NECP?   | 0 = no<br>1 = no, unclear adaptation strategy<br>2 = yes, but not clearly reflected in the plan<br>3 = yes, but limited<br>4 = yes, fully developed and integrated |
|                             | Use of loopholes                        | Does the plan include use of loopholes in achieving GHG emission targets?                                       | 0 = yes, full use/no alternative sought<br>1 = yes, large use<br>2 = yes, most opportunities used<br>3 = yes, but limited<br>4 = no loopholes used                 |
|                             | Policy projections<br>Impact assessment | Does the plan use a strong and effective model used for the impact assessment of planned policies and measures? | 0 = not at all<br>1 = to a small extent<br>2 = to some extent<br>3 = to a moderate extent<br>4 = yes, very strong and detailed model used                          |

| <b>Criterion</b> | <b>Indicator</b> | <b>Indicator description</b>              | <b>Score</b>  |
|------------------|------------------|---|---|
| Co-benefits      | Air quality      | Do proposed policies improve air quality? | 0 = no effect<br>1 = minimal effect<br>2 = small improvement<br>3 = moderate improvement<br>4 = great improvement |

| <b>Criterion</b> | <b>Indicator</b> | <b>Indicator description</b>   | <b>Score</b>   |
|------------------|------------------|--|--|
| Co-benefits      | Energy poverty   | Do proposed policies reduce energy poverty?  | 0 = no effect<br>1 = minimal effect<br>2 = small improvement<br>3 = moderate improvement<br>4 = great improvement  |
|                  | Job creation     | Does the plan include investments in low-carbon industries, thus promoting job creation in these industries? | 0 = no investment<br>1 = almost insignificant increase<br>2 = small increase<br>3 = moderate increase<br>4 = great investment and substantial job growth |

The table below summarises the weight that each criterion has on the overall score of the NECP.

Given the difference in importance of the criteria in our analysis, a weight system helps us quantify this difference and ensure that it is reflected in the overall score of the NECP. For example, while the consistency between the NECP document and template provided in the Governance regulation is important, the plausibility of the policies listed, the ambition level in targets set for each sector and the dialogue with multiple stakeholders in the development of the NECP are much more relevant and important to the objective of this exercise, and therefore should be given more prominence in the overall assessment.

Hence, a good performance in particular in these criteria should be graded higher in the overall assessment of climate and energy policies.

| <b>Criteria</b>             | <b>Weight</b> | <b>Points</b> |
|-----------------------------|---------------|---------------|
| Scope                       | 5             | 12            |
| Ambition                    | 20            | 20            |
| Consistency and credibility | 20            | 12            |
| Transport policies          | 10            | 20            |
| Buildings policies          | 10            | 20            |
| Agriculture policies        | 10            | 20            |
| Transparency                | 20            | 20            |
| Co-benefits                 | 5             | 12            |

**A NECP should obtain at least 65 points to be considered a good plan.**

# LIFE PlanUp project description

LIFE PlanUp supports the shift to a low-carbon and resilient economy through the development and implementation of effective and ambitious national 2030 energy and climate plans (NECPs) in Hungary, Poland, Romania, Spain and Italy. A key objective of the PlanUp project is to strengthen the climate and energy governance processes in these countries by increasing the involvement of local and regional authorities (LRAs) and civil society organisations (CSOs) in the development and implementation of the NECPs.

Aiming to support the five target countries in strengthening their national NECPs and to engage in their development, a core action of the PlanUp project is the participatory assessment of draft and final NECPs. In order to conduct meaningful and consistent analyses for all five Member States, we developed a set of assessment criteria that will guide the assessments and ensure their comparability.

# LIFE PlanUp

Published: May 2019

Analysis by Carbon Market Watch, 2Celsius and Adept Fundatia, with input from Transport and Environment, European Environmental Bureau and Energy Cities.

Expert group: Agnese Ruggiero, Nat Page, Raul Cazan, Cristina Mestre, Roland Joebstl, Stephan Piskol, Berenice Dupeux and David Donnerer.

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The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the European Commission.

## Further Information

Agnese Ruggiero

Policy Officer

Carbon Market Watch

[agnese.ruggiero@carbonmarketwatch.org](mailto:agnese.ruggiero@carbonmarketwatch.org)

Rue d'Albanie 117, B-1060 Brussels, Belgium, Belgium | Tel: +32 2 335 36 66

[www.carbonmarketwatch.org](http://www.carbonmarketwatch.org) | [@carbonmrktwatch](https://twitter.com/carbonmrktwatch) | fb: Carbon Market Watch



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