REPORT

Territorial and Distributional Aspects of Just Transition in the draft updated Bulgarian National Energy and Climate Plan

Reform Institute in cooperation with BLUE LINK

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I. Introduction and purpose of the document

National Energy and Climate Plans (NECPs) are planning tools required under the EU Governance Regulation. Bulgaria, like other Member States (MS), is updating its NECP to adjust the plan to a more ambitious climate agenda in line with the European Climate Law and the Fit for 55 package. The draft updates were expected to be submitted to the European Commission (EC) by the end of June 2023. Less than a third of Member States have met the deadline and submitted their Plans on time. The Bulgarian NECP was published with a delay in January 2024[1].

The final updated versions of NECPs should be made available by the end of June 2024. By then, documents should include revisions made by the national governments based on the feedback and recommendations provided by the EC, as well as based on outcomes of extensive dialogue with stakeholders and the wider public. National Energy and Climate Plans serve as a crucial tool for integrating national efforts into the broader European context, fostering sustainability, and ensuring a coordinated approach to address the challenges posed by climate change and the transition to a climate-neutral economy. The plans also provide the opportunity to include measures that encourage innovation in clean energy technologies and practices, fostering socio-economic development and competitiveness. The purpose of this document is to present the assessment of the just transition aspects included in the draft updated NECP developed by Bulgaria.

Bulgaria has experienced stable economic growth in recent years. However, growth is moderate compared to more developed EU economies. Bulgaria is one of the countries with a lower GDP per capita[2], indicating a lower standard of living than the EU average. Average wages in Bulgaria are among the lowest in the Union[3], leading to significant labour migration to other EU countries. There are significant differences in the level of development between the regions. The capital, Sofia, is much more developed than other parts of the country, particularly rural areas, which lag behind in terms of infrastructure and economic opportunities. Bulgaria faces the problem of an ageing population and high emigration of young people. This is leading to a shortage of skilled labour and putting pressure on the social security system. What is more, Bulgaria, like many other countries, confronts the challenge of adapting to a changing world, especially in the context of climate change and its far-reaching effects.

The assessment focuses on both the territorial and distributional aspects of the just transition. We define just transition as a process that maximises positive opportunities and outcomes related to the transition to climate neutrality, while mitigating the challenges and minimising the negative effects for impacted regional and local communities (territorial aspects of just transition) and vulnerable individuals (distributional aspects of just transition).

This document summarises the extent to which Bulgaria has implemented the principles of just transition in its draft updated National Energy and Climate Plan, published in January 2024.

1 https://commission.europa.eu/publications/bulgaria-draft-updated-necp-2021-2030_en

2 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=GDP_per_capita,_consumption_per_capita_and_price_level_indices

3 https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20221219-3

II. Methodology and development of assessment criteria

This document follows a comprehensive assessment methodology developed by the project team[4]. It includes the checklist of criteria that should be fulfilled by the updated NECPs if they aim to be effective in addressing the just transition challenge.

The assessment follows two essential dimensions of just transition: territorial and distributional, which are further divided into sets of criteria covering their most important aspects.

Territorial Aspects	1. Ambitions and targets
	2. Supporting local economies and communities
	3. Local clean energies and decarbonised industries
	4. Inclusivity of regional transition
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Distributional Aspects	6. Overarching assessment of distributional impacts
	7. Energy poverty
	8. Transport poverty
	9. Financing needs and sources of funding
	10. Tax, insurance and social security policies
	11. Work conditions and re-training
	12. Stakeholder engagement and public consultation

Each of these criteria can be assessed using the following scale:

0	1	2	3
no mention of a given issue	issue addressed to a limited extent	Issue addressed to a significant extent	good practice

Each of the aspects has its own, more specific description that outlines what is required from a given NECP to be awarded a given number of points. These are described in more detail in the methodological report[5].

In the following chapters, we provide an assessment of each aspect, with the justification and the source provided (e.g. the page number of the document where the specific information can be found). Furthermore, recommendations for potential improvements in the final version of the updated NECP are highlighted.

4 Stefańczyk, A., Grześczyk, A., Lipiński, M., and Śniegocki, A. (2023), Territorial and Distributional Aspects of Just Transition in the updated National Energy and Climate Plans – Assessment Methodology, Reform Institute, Warsaw. https://ireform.eu/s/uploads/Assessment_Methodology.pdf

5 See above.

III. Territorial aspects

Territorial aspects of just transition focus on the impact of the transition on regions, communities, and local economies, with special attention paid to those particularly vulnerable to changes brought by the new EU energy and climate policies. In this part, we focus primarily on the assessment of NECP elements that support local communities in the process of green transition, provide incentives for decarbonisation at the local scale, ensure inclusive regional transition, and provide governance frameworks and tools conducive to just transition. The assessment also investigates to what extent draft NECPs are consistent with Territorial Just Transition Plans (TJTPs) and guide actions on the regional level. Territorial aspects are only considered with respect to territories that have been recognised by the national governments as most affected by the decarbonisation process. Bulgarian regions of Stara Zagora, Kyustendil and Pernik that face the biggest socio-economic challenges have been identified as territories most affected by the transition.

Aspect 1. Ambitions and targets

Clear objectives and targets are the backbone of any climate policy and a prerequisite for other elements to play their role. How ambitious the targets are, naturally sets the tone for the measures that the policy includes and determines to what extent the policy will be effective in addressing the real-life issues which it aims to address. It is also crucial that ambitious climate goals (and the timelines for them) are set in all the relevant sub-categories such as the phase-out of coal, oil and gas, so that the progress is comprehensive and the assessment of it is exhaustive.

The first category of this study focuses on these aspects. It examines the overall level of ambition reflected in the NECP, including their coherence with TJTPs and transition frameworks from fossil fuels, including coal (separately for the energy sector and the entire economy, as in practice actions in these areas are often developed separately by governments), oil, and gas. Timeframes are also assessed in terms of ambition levels.

However, before proceeding with the evaluation, it is worth briefly discussing the challenges identified regions face. They influence the adopted ambitions and goals.

At first, two regions in Bulgaria were identified as most affected by the transition to climate neutrality – Stara Zagora and Kyustendil. Additionally, the European Commission included Pernik, recognizing that these three regions are potentially the most vulnerable to the transition due to their concentration of local coal mining and coal-fired power generation, as well as the economic structure associated with these activities. As stated by the TJTPs, the comparative analysis of demographics, economic profiles, Gross Value Added (GVA) and jobs affected revealed that the three districts share common trends and challenges such as depopulation, an ageing population and the dominance of SMEs, albeit to different degrees. We refer to these plans in this document:

- **Stara Zagora,**
- **Kyustendil,**
- **Pernik.**

Stara Zagora region stands out as severely affected due to its concentration of 4 coal-fired power plants and mines. This not only impacts its economic structure but also makes it particularly vulnerable in terms of potential job loss. The just transition process to a climate neutral economy is envisaged to cover the entire territory of Stara Zagora region. The most affected municipalities are Radnevo and Galabovo alongside the main urban and economic centre of Stara Zagora. But Stara Zagora's leading position in GVA is due in part to the Maritza Iztok Energy Complex, which attracts commuters from other regions – Yambol, Sliven and Haskovo. This causes the phaseout of coal mines and thermal power plants to affect a larger area, extending beyond the boundaries of the specific municipalities where the TPPs are located.

The Kyustendil region is the most vulnerable in terms of socio-economic and demographic trends because the phaseout of coal and lignite mining and coal-fired electricity production has been ongoing for the past two decades. No new jobs or economic activities have been planned during this period. In Kyustendil region, the municipalities of Bobov Dol, Dupnitsa and Kyustendil are the most affected. However, the just transition to a climate-neutral economy is expected to cover the entire territory of Kyustendil region, with a focus on the coal and energy sectors. The territorial distribution of directly affected jobs varies at the municipal level within Kyustendil region – the highest concentration of affected jobs is in the municipalities of Bobov Dol, Dupnitsa and Kyustendil, while other municipalities in the region are affected to a lesser extent.

Pernik region has experienced structural, demographic and transition challenges over the past 40 years. The region has the fourth lowest GVA among all regions in Bulgaria. Pernik is the region where the process of phasing out of coal-based energy production is already in progress. This directly impacts the labour market. At the municipal level in the Pernik region, the problem is concentrated in the municipality of Pernik. In Pernik region, there is a concentration of employees (one thousand), which are primarily based in the city of Pernik and nearby villages on the territory of Pernik municipality. On the other hand, the other municipality in the region – Radomir – is affected in terms of ETS emissions.

1. Ambitions and targets		
1.1 Increasing ambition and avoiding backsliding on targets from Territorial Just Transition Plans	**0**	**does not mention targets set in TJTP; the draft does not mention TJTP at all**
		It is worth to add such information into the final version of the NECP.
1.2 Clear and science-based timeline for coal exit in the power sector	**0**	**lignite exit in power sector is declared as 2038; the plan does not mention the exit timeline for coal in general in power sector; however TJTPs mention 2038 as coal exit in the power sector; this aspect needs clarification**
		Lignite phase-out mentioned in the NECP: *Bulgaria relies heavily on lignite-fired electricity production during the energy transition period, before it is phased out by the end of 2038. A sustainable shift to low-carbon energy requires a phase and smooth replacement of coal plants with new low-emission technologies, so that systemic adequacy is not compromised. These processes should be carried out by maintaining sufficient operational capacity in thermal power plants and coal-mining areas, while at the same time accelerating the decline in mining activities.* (P. 27)

		Coal phase-out mentioned in TJTPs: *The foreseen energy transition pathways take into account further the Recovery and Resilience Plan on Bulgaria (RRP), approved in May 2022, assuming that the coal-based electricity generation shall cease by 2038. Similar trajectory has been mandated with the decision of the National Assembly from 12 January 2023.* (P. 1 IN ALL TJTPS) **This aspect needs clarification.** What is more, NECP mentions a possible extension. *In parallel, existing coal capacities could also be used for longer than initially expected while respecting environmental requirements* (P. 40) Coal is a significant part of Bulgarian electricity mix. *Power plants in coal regions produce a significant part of the country's electricity. These power plants use lignite and brown coal and do not have access to adequate high-pressure gas transmission infrastructure with sufficient capacity to allow fuel switching with less carbon-intensive fuels, such as natural gas and a transition fuel towards carbon neutrality.* (P. 46) *The use of indigenous coal reserves has a future as a stabilising source of energy. Indigenous coal-fired power plants are a major provider of electricity system balancing services, which is why they are a major contributor to a country's electricity security. This defines the role of indigenous coal as a strategic energy resource, in terms of the country's energy and national security.* (P. 149) **The coal phase-out schedule in the final version of the NECP should be more transparent and more ambitious.**
1.3 Clear and science-based timeline for transition away from coal in the whole economy	**0**	**does not mention the exit timeline for coal** The draft of the plan only mentions the phase-out of fossil fuels for home heating, as illustrated below but without timeline. This is insufficient. *Aggregated policies and measures for the domestic and public sector* ▪ *Accelerating the date of entry into force of the Ecodesign Regulation 2015/1185; and introducing a mandatory, accelerated phase-out of traditional polluting heaters (stoves) in line with the National Air Pollution Control Programme 2020-2030;* (P. 100) *Key challenges for national energy performance standards in the period up to 2030 will be: — Phasing out the use of fossil fuel boilers in buildings;* (P. 196) However, NECP mentions achieving climate neutrality by 2050 as an objective (P. 17). **In the final version of the NECP, there should be a mentioned schedule for the phase-out of coal in the whole economy.**
1.4 Clear and science-based timeline for transition away from fossil gas in the whole economy	**0**	**does not mention timeline for transition away from fossil gas; gas is a replacement for coal** *Harnessing the potential of natural gas and a step-by-step change of the fuel base from solid fuels to natural gas.* (P. 57) *It is appropriate to provide new enabling gas transmission infrastructure for transmission to thermal power plants and other potential users in coal regions in order to create market conditions for the modernisation of the combustion plants of thermal power plants and other energy users, to switch from coal to natural gas.* (P. 100) ▪ *All of the measures listed in the Third National Climate Change Action Plan (2013-2020) have been extended to 2030 as follows:* ▫ *Fuel switching – from coal to natural gas;* (P. 100) ▫ *National Air Pollution Control Programme 2020-2030;* (P. 101) ▫ *Households affected by the mandatory phase-out of traditional stoves to convert to natural gas heating;* (P. 101) *Despite a relatively low share of final energy consumption, gas is a significant natural resource with the potential to increase its share of the country's total energy consumption in the coming years.* (P. 241) **In the final version of the NECP, there should be a mentioned schedule for the phase-out of gas.**

1.5 Clear and science-based timeline for transition away from oil in the whole economy	**0**	**does not mention timeline for transition away from oil** NECP only mentions the phase-out of fossil fuels for home heating, as illustrated below. This is insufficient. *Aggregated policies and measures for the domestic and public sector* *Accelerating the date of entry into force of the Ecodesign Regulation 2015/1185; and introducing a mandatory, accelerated phase-out of traditional polluting heaters (stoves) in line with the National Air Pollution Control Programme 2020-2030.* (P. 100) Key challenges for national energy performance standards in the period up to 2030 will be: — Phasing out the use of fossil fuel boilers in buildings; (P. 196) **In the final version of the NECP, there should be a mentioned schedule for the phase-out of oil.**
1.6 Clear and science-based industrial transition to net zero emissions timeline (conversion or closure of industrial plants which emit GHGs from fossil fuels use or industrial processes)	**0**	**does not mention timeline for industrial transition** *ii. Where available, national 2050 targets (...) for the decarbonisation of the power sector and energy-and carbon-intensive industries (...)– There are no national targets in this area.* (P. 82) The significant energy intensity of the industry is indicated, along with a demonstrated reduction in emissions over the past years. There is also an identified need for further changes in this regard and several actions that can be taken. However, it is not a transparent plan and does not account for territorial aspects. **This is an area for improvement in the final version of the NECP.**

Aspect 2. Supporting local economies and communities

Energy transition will disproportionately affect regions whose local economies are most dependent on the fossil fuel industry. If national climate policy will not take that into account, those regions will be left behind. Beyond direct employment, communities in those regions often rely on fossil fuel companies for investment and funding in areas ranging from local infrastructure to educational scholarships, which significantly impact life quality in the region. A just energy transition should support those most-affected communities in moving away from this reliance and finding new possibilities for endogenous growth and socio-economic thriving. It should also account for the importance of preserving traditional identities of those communities despite industrial change, and revitalizing the natural environment affected by past extraction.

During the development of the Territorial Just Transition Plan, the Kyustendil region had the most unfavourable socio-economic indicators in the South-West region. It had a lower population density than the national average and a poorly structured labour pool, with one of the highest unemployment rates in the country in 2019 (8.1%). Over the past three years, the poverty rate has been below the national average. In 2022, the share of the population living below the national poverty line was 19.9%, compared to 22.9% nationwide. The labour market in the region showed several positive trends in 2022. Economic activity and employment rates grew significantly, exceeding the national averages for the second consecutive year. The unemployment rate remained stable at 7.8%, compared to the national rate of 5.2%. Unfortunately, investment activity in Kyustendil region again remained among the lowest in the country in 2021.

Kyustendil has one of the highest shares of workforce with secondary education which aligns with the region's industrial profile. However, the labour market continues to face the challenge of an aging population. The working-age population share continues to decline. The demographic development in Kyustendil region is among the worst in the country. Kyustendil is among the regions with the highest rate of population aging, preceded only by Vidin, Gabrovo and Smolyan in this indicator. The natural population

growth rate remains significantly below the national average however, the net migration rate is positive[6].

In the Stara Zagora region, the key economic activities are centred around the thermal power plant and its associated services. The economic structure is primarily composed of manufacturing, construction, and trade. The local employment landscape, which is heavily reliant on mining activities, coal-fired power generation, and various ancillary services, will be significantly impacted by the transition. The poverty level in the Stara Zagora region continues to rise, surpassing the national average. In 2022, 29.1% of the population lived below the national poverty line, compared to 22.9% nationwide.

Despite these challenges, the local labour market performance is relatively strong, positioning Stara Zagora among the top three regions (after the capital and Varna) in 2022. Recent increases in economic activity have led to higher employment rates and lower unemployment. The unemployment rate stands at 4.3%, compared to the national rate of 5.2%. The educational structure of the workforce has slightly improved, with a relatively high proportion of workers possessing secondary education, aligning with the region's industrial profile.

However, the Stara Zagora region has a relatively small number of enterprises. The natural population growth rate remains below the national average. Nevertheless, Stara Zagora continues to attract residents, with a positive net migration rate. In 2022, the region's population aging rate was similar to the national average[7].

Over the past 40 years, Pernik region has faced structural, demographic, and transition challenges. The region's vulnerability to the transition is significant, as alternative economic activities may not fully compensate for the Gross Value Added currently generated by the coal-mining and coal-based energy sectors. Pernik region is traditionally specialized in the manufacture of basic iron, steel, and ferro-alloys, which contribute significantly to carbon emissions from ETS sectors. Although Pernik is in the "agglomeration shadow" of Sofia, this proximity could become an advantage, especially if measures are implemented to stimulate daily labour migration from the capital. Despite these challenges, salaries and pensions in Pernik region continue to rise, and the poverty level remains low. The workforce is notable for its relatively high proportion of individuals with secondary education. However, investment activity in the region is relatively sluggish, and age dependency continues to worsen[8].

6 https://www.regionalprofiles.bg/en/regions/kyustendil/

7 https://www.regionalprofiles.bg/en/regions/stara-zagora/

8 https://www.regionalprofiles.bg/en/regions/pernik/

2. Supporting local economies and communities		
2.1 Policies and measures supporting local economies through stimulating their endogenous growth potential, including promoting entrepreneurship, supporting SMEs and social economy	1	**some policies and measures are mentioned and also this kind of information can be found in other documents** Measures mentioned in the NECP – P. 28. *The Maritsa Iztok complex is one of the most affected by the transition, linked to its structural role in electricity production and the economy of the regions of Stara Zagora, Haskovo, Sliven and Yambol. In this regard, the most important tasks to address during the energy transition in these regions are:* ▪ *The investments needed to develop energy infrastructure and the effect on security of supply;* ▪ *Exploiting the potential for economic diversification and corresponding development opportunities;* ▪ *Creating quality new jobs and providing upskilling opportunities;* ▪ *Implementation of projects to develop competitive and high value-added industries in clean technologies* In Stara Zagora the Just Transition Fund will support the diversification of the local economy by investing in small and medium-sized enterprises (SMEs) and in research and development (R&D) related to the circular and climate-neutral economy. In Kyustendil, SMEs will be supported to put up renewable energy installations and focus will be put on the decarbonisation of the energy sector. The creation of industrial parks with clean technology solutions will provide a suitable environment for investors. In Pernik JTF will support SMEs focused on R&D, design

		and installation of photovoltaic panels, the production of biogas, as well as pilot projects for the production and storage of renewable hydrogen and the deployment of renewables. The fund will further develop the Pernik Industrial and Logistics Area and create an R&D centre focusing on industrial design and a material science centre[9]. **There is no such information in the NECP. Mentioned measures apply to the entire territory of Bulgaria** (e.g. "Recovery of SMEs through energy efficiency improvement" – P. 170; "Innovation and Growth" – P. 174). Policies and measures are also mentioned in TJTPs: ▪ **Stara Zagora** (P. 16 IN THE TJTP) ▫ 3. Support for the creation of a cleantech (zero-emission) industrial parks ▫ 11. Research and innovation support for enterprises ▪ **Kyustendil** (P. 16 IN THE TJTP) ▫ 2. Supporting SMEs for the production of renewable energy equipment ▫ 3. Support for the creation of a cleantech (zero-emission) industrial park ▪ **Pernik** (P. 17 IN THE TJTP) ▫ 2. Support for SME focused on R&D, design and installation of PV panels ▫ Support for SME focused on biogas (biomethane) installations **It is worth mentioning such actions in the final version of the NECP.**
2.2 Policies and measures for preservation of the identity of mining/ traditional industrial communities	**1**	**some policies or measures in this area are mentioned, but they are largely insufficient to be effective** *National strategy for the development of the mining industry until 2030 has been used to prepare the updated Integrated Energy and Climate Plan.* (P. 17) This sentence is the only mention of 'mining' in the plan. It is known, therefore, that there is a strategy, but even its initial scope has not been presented in the NECP. On the other hand, we know that JTF will support the Stara Zagora's citizens in the transition to a green economy with new job opportunities, including across ten satellite municipalities of the Sliven, Yambol and Haskovo regions, where part of the labour force resides. In the Kyustendil region, where coal phasing-out started two decades ago, the JTF will also support the reskilling and upskilling of workers and offer assistance to jobseekers. The region of Pernik, will also benefit from the Just Transition Fund where around 1,000 alternative jobs will be needed[10]. It is worth to add such information into the NECP. Policies and measures are also mentioned in TJTPs: ▪ **Stara Zagora** (P. 19 IN TJTP) ▫ 1. Recultivation of lignite quarries ▪ **Kyustendil** (P. 15 IN TJTP) ▫ 1. Recultivation of the coal quarries ▪ **Pernik** (P. 16 IN TJTP) ▫ 1. Recultivation of the coal quarries However, the mentioned actions do not specifically focus on the preservation of the identity of mining/traditional industrial communities. **It is worth mentioning such actions in the final version of the NECP and TJTP's actualizations.**
2.3 Policies and measures for revitalisation of natural environment, both for restoring biodiversity and recreational purposes	**1**	**does not mention any policies or measures in this area but it is possible to find such information in other documents** Policies and measures are also mentioned in TJTPs: ▪ **Stara Zagora** (P. 19 IN TJTP) ▫ 1. Recultivation of lignite quarries ▪ **Kyustendil** (P. 15 IN TJTP) ▫ 1. Recultivation of the coal quarries ▪ **Pernik** (P. 16 IN TJTP) ▫ 1. Recultivation of the coal quarries **It is worth mentioning such actions in the final version of the NECP.**

9 https://ec.europa.eu/commission/presscorner/detail/en/ip_23_6756

10 https://ec.europa.eu/commission/presscorner/detail/en/ip_23_6756

2.4 Dedicated, region-specific policies and measures promoting smart and sustainable mobility (both within territories most affected by the transition and connecting it with other regions)	**2**	**many policies or measures in this area are discussed, but some important details are missing** **More information with a focus on regions is needed.** *The introduction of hydrogen electro-transport is planned to start from urban bus transport, for which municipalities are responsible. This approach is more cost-effective due to the possibility of scaling up with a large number of means of transport and charging infrastructure with a high percentage of regulated usability. For the time being, in Bulgaria, 4 municipalities are interested in introducing hydrogen bus transport: Sofia, Stara Zagora, Burgas and Ruse.* (P. 138) This measure may include territories from TJTP: *New policies and measures, as well as the continuation of existing ones in the transport sector on fleet modernisation are set out in the National Air Pollution Control Programme 2020-2030:* ▪ *Legal provisions have been introduced to establish low-emission zones (LEZ) in cases where the type and extent of ambient air pollution significantly increases the risk to human health and/or the environment or failure to achieve the limit values for harmful substances (pollutants) in ambient air and limit values for deposition of harmful substances (pollutants), approved by regulations of the Minister for the Environment and Water and the Minister of Health. The relevant municipal council is to lay down, by decree, the terms and conditions for the establishment and introduction of low-emission zones in all or part of the municipality. The Regulation may restrict the circulation of motor vehicles or certain categories of motor vehicles and/or certain environmental groups of motor vehicles in the territory of the municipality concerned and/or in low emission zones established and introduced.* (P. 87) *11) Stimulate the development and deployment of electric mobility and the use of renewable energy in transport* *In order to stimulate the development and deployment of electric mobility, responsibility for local authorities in the framework of their long-term programmes to introduce their own specific measures on their territory are laid down to increase the attractiveness of the use of this transport. Those programmes should provide for measures to promote the development and use by the population of urban and rail electric transport, through measures for the use of energy from renewable sources in municipal transport, as well as renewable liquid and gaseous transport fuels of non-biological origin and recycled fuels in transport, and support schemes for such projects.* (P. 109) As part of the Transport Connectivity Programme 2021-2027, the Modernisation of the railway line Sofia-Per-Radomir, Sofia – Pernik section is planned. (P. 84) Policies and measures are also mentioned in TJTPs: ▪ **Stara Zagora** (P. 30 IN TJTP) ▫ It is foreseen that under Pillar 2, the following activities will be funded: • Transport connections: investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure. These activities complement the sustainable mobility measures envisaged in the TJTPs by providing additional funding through financial instruments. ▫ It is foreseen that under Pillar 3, the following activities will be funded: • Transport connections: investments in smart and sustainable local mobility, including decarbonisation of the local transport sector and its infrastructure. These activities complement the sustainable mobility measures envisaged in the TJTPs by providing additional funding through financial instruments ▪ **Kyustendil** (P. 19 IN TJTP) ▫ 9. Diversification and adaptation of enterprises to economic transition – The measure will also enable low carbon local transport connectivity. ▪ **Pernik** (P. 19 IN TJTP) ▫ 7. Development of Industrial and Logistic Zone Pernik – The measure will also enable low carbon local transport connectivity. **It is worth mentioning more actions in the final version of the NECP.**

Aspect 3. Local clean energies and decarbonised industries

A well-designed just energy transition should include the assessment of specific local needs of most affected regions in terms of the use affordable green energy and decarbonizing industrial processes. Based on those previously identified region-specific needs, it should further on introduce adequate policy for each region.

The use of renewable energy in Bulgaria is becoming increasingly important in all sectors: electricity, heating and cooling and transport. As the NECP states, the national target is to achieve 34.1% share of renewable energy in gross final energy consumption in 2030. The aim of all the regions analysed is to increase the use of renewable energy sources.

The Kyustendil region has the potential to decarbonize its existing energy-intensive industries by leveraging its significant capacity for developing renewable energy-based facilities, particularly geothermal and solar power plants. The region also boasts a competitive agricultural sector, which could drive growth if integrated with sustainable business practices and renewable energy[11].

As stated by the TJTP, Stara Zagora is one of the most suitable areas for ground-mounted photovoltaic installations, with a cumulative technical potential of 15-20 GW. One-fourth of the mining complex area has been reclaimed, and these areas do not conflict with agricultural land or protected zones. Encouraging the development of renewable energy can enhance investor attractiveness and increase foreign direct investment. Measures to promote renewable energy and energy storage are complementary and aim to diversify the economy, boost employment and quality of life, and support climate neutrality objectives. The region also has the potential to become one of the EU's hydrogen hubs. Developing a hydrogen-based economy is seen as a strategic priority for Stara Zagora's transformation. This will attract investment and contribute to a synergistic effect in the region: reducing carbon emissions, increasing regional GDP, creating attractive employment opportunities, and developing human capital.

The region of Pernik would be relatively less affected by the green transition. However, most of the local industries are energy-intensive and have been slow to adopt low-carbon technological solutions and diversify away from their dependence on fossil fuels. Alternative sectors that can provide enhanced low-carbon economic growth in Pernik County include the manufacture of renewable energy-related equipment, including photovoltaic panels, inverters, aluminium frames for photovoltaic systems, hydrogen electrolysers and auxiliary equipment[12].

11 https://csd.eu/fileadmin/user_upload/publications_library/files/2023_05/BRIEF_133_ENG_WEB.pdf

12 https://csd.eu/fileadmin/user_upload/publications_library/files/2023_05/BRIEF_134_ENG_WEB.pdf

3. Local clean energies and decarbonised industries		
3.1 Assessment of needs in the area of deployment of affordable clean energy (including – if applicable – district heating), energy efficiency and/or decarbonised industrial processes	**1**	**some overview is provided, but the assessment is of insufficient quality** **More information with a focus on regions is needed.** *The measures of the Third National Climate Action Plan 2013-2020, which are planned to be continued and upgraded by 2030:* ▪ An assessment of the energy potential of biogas from landfills that are planned to be closed. (P. 96) *In accordance with the requirements of Article 7 (2) (17) of the Renewable Energy Act, the Executive Director of the Agency for Sustainable Energy Development prepares an assessment of the existing unjustified barriers and of the potential for the development of self-consumers and renewable energy communities. The assessments prepared are submitted to the Minister for Energy for approval and contain proposals to remove unjustified regulatory and administrative barriers.* (P. 106)

		vi. Assessment of the need to build new infrastructure for district heating and cooling derived from renewable sources; (P. 114) **In the final version of the plan more information with a focus on the most affected regions is needed.**
3.2 Policies and measures to fulfil the needs in the area of affordable clean energy (including – if applicable – district heating), energy efficiency and/or decarbonised industrial processes	**1**	**some policies or measures in this area are mentioned, but they are largely insufficient to be effective** *It is intended to develop a Plan for the identification of priority areas for the development of wind power generation sites. In priority areas, the administrative procedures for the construction, reconstruction and commissioning of energy sites will be carried out within a shorter timeframe.* (P. 25) Actions are being taken in this area within the country, for example, 2) Relaxation of administrative and connection procedures for the construction of energy facilities for the production of electricity from renewable sources (P. 106)" but the only distinction concerning one of the most vulnerable territories is outlined below. *Under Priority Strand 3 'Transfers of Technology and Knowledge' of Priority 1 'Sustainable Development of the Bulgarian Research and Innovation Ecosystem', a 'Complementary funding procedure to support Bulgaria's participation in the Clean Hydrogen European Partnership for the construction of a hydrogen valley' in the municipality of Stara Zagora under the project proposal Zagora Sustainable Hydrogen Region (ZAHYR) is foreseen. The project aims to build a long-term partnership between business and science, as well as with all regional stakeholders. Under the same strand, a measure for the development of Green and Digital Partnerships for Smart Transformation is foreseen. The measure focuses on strategic projects addressing a specific problem of a business partner or transferring knowledge and experience to a business partner, enabling sustainable solutions by providing green and/or digital services, creating a market advantage through the introduction/ development of green and digital solutions and eco-innovation.* (P. 172) Policies and measures are also mentioned in TJTPs: ▪ **Stara Zagora** (P. 20 – 21 IN TJTP) ▫ 3. Support for the creation of a cleantech (zero-emission) industrial parks; ▫ 4. Support scheme for photovoltaic parks with electrolyser and /or storage systems; ▫ 5. Support scheme for the utilisation of green hydrogen; ▫ 6. Support for the production and distribution of biomethane and wind power generation; ▪ **Kyustendil** (P. 16-17 IN TJTP) ▫ 3. Support for the creation of a cleantech (zero-emission) industrial park; ▫ 4. Support scheme for photovoltaic parks and production and utilization of green hydrogen, including for energy storage; ▫ 6. Support for the production and distribution of Biogas (biomethane); ▫ 10. Support for the use of geothermal power in the region for commercial and district heating purposes; ▪ **Pernik** (P. 17, 19 IN TJTP) ▫ 4. Support scheme for RES and production and utilization of green hydrogen; ▫ 7. Energy efficiency and RES measures focused on energy poverty **Examples of actions from TJTPs should be included in the final version of the NECP.**

Aspect 4. Inclusivity of regional transition

For the energy transition to be socially just it must both account for large pre-existing social inequalities and forms of exclusion and consider which social groups are particularly vulnerable to exclusion in the context of the transition. It will most often be the case that groups which face broader socio-political marginalization will also be at risk of exclusion throughout the transition if policymakers do not pay special attention. If, for example, women lack political representation in the region generally, their gender-specific interests will also not be considered in the regional decision-making pro-

cesses related to the energy transition[13]. Identifying such groups and including them and their interests in policymaking is key. In the context of exclusion, the pandemic has also played a significant role.

Many aspects related to exclusion are intertwined with employment. The necessity of transforming the most vulnerable regions has a significant impact on the rise in unemployment, disproportionately affecting individuals who face greater challenges in adapting. The process of transformation will require additional efforts to secure quality alternative employment and compliance with the principle of "let no one be left behind". Creating alternative quality employment opportunities is key. Several groups of workers have been identified as most vulnerable and affected by the transition. These groups include workers in domestic coal mining and coal-based power and heat generation, workers in power plant suppliers and mines, those employed in basic iron, steel and ferroalloy production, family members of the above groups, and young people due to complete their education by 2030. However, the role of women, people with disabilities, and others is not mentioned.

13 https://www.europarl.europa.eu/RegData/etudes/STUD/2024/754488/IPOL_STU(2024)754488_EN.pdf

4. Inclusivity of regional transition		
4.1 Promotion of gender equality to address the specific situation and role of women in the transition to the climate-neutral economy	**0**	**does not mention any policies or measures in this area** As part of Social Investments (P. 237), there is a highlighted need to reduce inequalities, increase inclusion, social enterprise and the social economy, social inclusion, improve citizens' health, general well-being and quality of life, which boosts educational outcomes by supporting a just transition to a low carbon economy. However, specific areas of action have not been indicated. **This is an area for improvement in the final version of the NECP, especially as the TJTPs don't mention gender equality either.**
4.2 Special attention paid to vulnerable groups (such as people with disabilities) that suffer disproportionately from the adverse effects of the transition	**0**	**does not mention any policies or measures in this area** According to the Social Assistance Act and Ordinance No RD-07-5 of 16 May 2008 on the conditions and procedure for granting targeted heating aid is granted to certain socially vulnerable groups during the heating season. The scope of the targeted assistance covers persons and families who meet the statutory conditions and requirements. 5 risk groups are defined, (P. 162). Previous version of the NECP mentioned requirements related to income, property and health status, marital status, age, education and employment, etc. but this sentence was deleted. NECP also mention The Regulation which lays down the criteria, conditions and procedures for determining the status of household in energy poverty and the status of vulnerable customer for the supply of electricity. *Criteria have been introduced to determine the status of vulnerable customer for the supply of electricity according to age, state of health, disposable average monthly income reduced by energy costs, the need for independent living aids and/or life-sustaining medical devices whose functioning depends on a source of electricity, the receipt of monthly social benefits.* (P. 79) However, the information primarily relates to the issue of energy poverty. The NECP also mentions that *it is very likely that there will be more poor people living in Bulgaria until 2050.* (P. 234) **Issues such as disabled persons etc. are not addressed. This is an area for improvement in the final version of the NECP, especially as the TJTPs don't pay special attention to vulnerable groups either.**
4.3 Policies and measures addressing demographic impacts of the ageing population of regions in transition	**0**	**does not mention any policies or measures in this area** According to the Social Assistance Act and Ordinance No RD-07-5 of 16 May 2008 on the conditions and procedure for granting targeted heating aid is granted to certain socially vulnerable groups during the heating season. The scope of the targeted assistance covers persons and families who meet the statutory conditions and requirements. 5 risk groups are defined. (P. 162) Previous version of the draft NECP mentioned requirements related to income, property and health status, marital status, age, education and employment, etc. but this sentence was deleted.

		NECP also mention The Regulation which lays down the criteria, conditions and procedures for determining the status of household in energy poverty and the status of vulnerable customer for the supply of electricity. *Criteria have been introduced to determine the status of vulnerable customer for the supply of electricity according to age, state of health, disposable average monthly income reduced by energy costs, the need for independent living aids and/or life-sustaining medical devices whose functioning depends on a source of electricity, the receipt of monthly social benefits.* (P. 79) However, the information primarily relates to the issue of energy poverty and don't address demographic impact of the aging population of regions in transition. TJTPs mention that *The comparative analysis of demographics, economy profile, GVA and affected jobs outlined that the three districts have been experiencing common trends and challenges (e.g., depopulation, aging population, domination of SMEs) but with different magnitudes.* (P. 3 IN ALL TJTPS) Theoretically, actions such as 'Diversification and adaptation of enterprises to economic transition', mentioned in the TJTPs, could address population aging. However, this is not explicitly stated. **This is an area for improvement in the final version of the NECP.**

Aspect 5. Regional just transition governance

Adequately managing and facilitating energy transition processes (transition governance) is key in achieving set objectives. And including relevant stakeholders and citizens whose interests are at stake in transition governance processes at the regional level is crucial for both a fair outcome of the processes and a perception of fairness among the general public. Successful governance must also coordinate the processes on regional and national levels so that those are part of one cohesive endeavour with complimentary objectives.

In the context of just transition governance the pandemic has also played a significant role. During the TJTPs development process most of the meetings were held with a few participants or online due to COVID 19 pandemic but on the other hand it allowed participation of a large number of various stakeholders.

The Regulation (EU) 2018/1999 regarding the Governance of the Energy Union and Climate Action sets up a dynamic and resilient framework for transparent and synergistic collaboration among EU Member States and the European Commission. This framework facilitates maintaining a cohesive strategy across energy and climate policies and fosters coordinated efforts among Member States. The EU Governance Regulation mandates an ongoing consultation mechanism with the EC, involving the evaluation of Integrated National Energy and Climate Plans by the Commission, alongside periodic updates of these plans and the compilation of progress reports by the Member States. The regulation applies to all member states, including Bulgaria.

5. Just transition governance		
5.1 Consistency of regional and national transition planning process	**0**	**does not mention consistency of regional and national transition planning process** The topic of regional cooperation is addressed in the NECP only in the context of cooperation between EU member states. At the national level, the NECP mention cooperation between ministries (P. 38). However, NECP does not mention just transition regions. TJTPs only mention that *Bulgaria National Energy and Climate Plan (NECP) 2021-2030 is the primary document setting out objectives and measures for the implementation of the national energy and climate policies in the context the ambition for EU-wide climate-neutrality by 2050.* (P. 1 IN ALL TJTPS) **This is an area for improvement in the final version of the NECP.**

5.2 Institutional coordination on just transition implementation between regional and national authorities	**1**	**does not mention institutional coordination on just transition implementation but it is possible to find information in other documents** The topic of regional cooperation is addressed in the NECP only in the context of cooperation between EU member states. TJTPs mention institutional coordination under the **horizontal pillar: Technical assistance (**P. 19 **in Kyustendil's TJTP,** P. 20 **in Pernik's TJTP and** P. 23 **in Stara Zagora's TJTP).** ▪ Technical assistance of the MRDPW as a Managing Authority (MA) of PDR 2021-2027 for the effective administration and use of the JTF ▪ ME will act as Intermediate body for implementation of the just transition plans after completing the relevant procedures Indicative non-exhaustive list of eligible activities/measures: ▪ Organisation of periodic training of stakeholders' staff such as workshops, study tours and seminars aimed at exchanging experience and good practices; Technical assistance / consulting services / specialised expertise from external organisations / experts in response to the specific needs of the beneficiaries ▪ Research, feasibility studies, studies on the potential of SMEs on district level, other analyses, etc.) and a set of projects related to the transition process ▪ Support to well-functioning government mechanism and key stakeholders for facilitating the transition towards a climate neutral economy (e.g. regional development agencies) ▪ Trainings for local/regional administration in order to design and implement just transition projects ▪ Information Days organized with the support of the social partners in the affected regions to ensure that the topics of energy transition are thoroughly communicated with the local communities and to ensure their engagement in the process. **It's worth adding this information in the final version of the NECP.**
5.3 Inclusion of stakeholders and citizens into regional transition governance	**1**	**practice shows that stakeholder and citizen involvement is taken into account in many relevant cases, but this is not stated in the NECP** The topic of regional cooperation is addressed in the NECP only in the context of cooperation between EU member states. *Written contributions to the draft INECP were received from various stakeholders, such as NGOs, private and state energy companies, industry associations, economic institutes, citizens, etc. Stakeholder comments refer to all sections of the draft INECP.* (P. 40) TJTS's mention institutional coordination under the **Horizontal pillar: Technical assistance (**P. 19 **in Kyustendil's TJTP,** P. 20 **in Pernik's TJTP and** P. 23 **in Stara Zagora's TJTP).** ▪ Technical assistance of the MRDPW as a Managing Authority (MA) of PDR 2021-2027 for the effective administration and use of the JTF ▪ ME will act as Intermediate body for implementation of the just transition plans after completing the relevant procedures Indicative non-exhaustive list of eligible activities/measures: ▪ Organisation of periodic training of stakeholders' staff such as workshops, study tours and seminars aimed at exchanging experience and good practices; Technical assistance / consulting services / specialised expertise from external organisations / experts in response to the specific needs of the beneficiaries ▪ Research, feasibility studies, studies on the potential of SMEs on district level, other analyses, etc.) and a set of projects related to the transition process ▪ Support to well-functioning government mechanism and key stakeholders for facilitating the transition towards a climate neutral economy (e.g. regional development agencies) ▪ Trainings for local/regional administration in order to design and implement just transition projects ▪ Information Days organized with the support of the social partners in the affected regions to ensure that the topics of energy transition are thoroughly communicated with the local communities and to ensure their engagement in the process. **It's worth adding this information in the final version of the NECP.**

IV. Distributional Aspects

Distributional aspects of green transition are principally related to the differentiated impact of climate policies, which are related to the unequal distribution of income, opportunities and challenges among the population. This is reflected in the changes in the standard of living of the whole population and vulnerable groups, especially in their access to essential public services, amenities and rights, as well as the labour market. Therefore, the NECP should explicitly recognise the distribution of costs and benefits of planned measures and focus especially on supporting the groups which are already in the most difficult position or are most likely to be negatively affected by the transition.

Thus, selected criteria chosen to assess the distributional dimension of just transition policies in NECP concern the following aspects: energy and transport poverty prevention (following the inclusion of buildings and road transport into the ETS framework), financing mechanisms and public policy instruments (especially fiscal and social security instruments) introduced to support vulnerable groups, policies affecting the workforce, and the overall quality of public participation in the NECP revision process. The assessment of the distributional aspects is conducted at the national level (in contrast to the territorial aspects).

Aspect 6. Overarching impact assessment of distributional impacts

Policymakers needs to be aware of the profound and multifaceted distributional impact of just transition legislation and programmes. To adequately assess this impact certain key socio-economic groups, which can be expected to face particular consequences of the transition, need to be identified (such as people of different income groups or rural vs. urban households). Clear objectives and criteria for progress measurement in terms of socio-economic impact also need to be established to not lose track of the core justice aspect of the transition.

It is worth remembering that while the implementation of the measures outlined in the National Energy and Climate Plan will contribute to reducing emissions across various sectors, decreasing fossil fuel consumption, and increasing the share of renewable energy sources, it will also have impacts that will particularly affect vulnerable consumers, including the poorest. Unfortunately, the document does not give sufficient attention to these aspects. Although the NECP mentions that it is very likely that there will be more poor people living in Bulgaria until 2050.

6. Overarching impact assessment of distributional impacts		
6.1 Assessment of overall distributional impacts of the policies and measures covered by NECP update – by income groups	**0**	**expected overall distributional impacts are not mentioned** The plan includes an impact assessment of planned policies and measures in areas such as the environment and adaptation to climate change (Section 5.2 – from P. 229), but it does not focus on distributional impact on people. **This is an area for improvement in the final version of the NECP.**
6.2 Assessment of overall distributional impacts of the policies and measures covered by NECP update – by other relevant groupings (e.g. rural households, pensioners)	**0**	**expected overall distributional impacts are not mentioned** The plan includes an impact assessment of planned policies and measures in areas such as the environment and adaptation to climate change (Section 5.2 – from P. 229), but it does not focus on distributional impact on people. **This is an area for improvement in the final version of the NECP.**
6.3 Common understanding of terms and measuring progress toward targets	**1**	**terms are used inconsistently across different documents but the translation can be a problem in this case measuring progress toward targets has been partially addressed** An example of inconsistent use of terms was provided in the first aspect – targets and ambitions. The NECP mentions phasing out lignite by 2038, while the TJTP refers to phasing out coal. In the context of measuring progress, examples where this has been taken into account are provided below. The relevant measures from the National Waste Management Plan and the Third National Action Plan on Climate Change are scheduled to continue to be updated until 2030 and build on the progress of their implementation. (P. 185) In the building context the table with *Indicative intermediate renovation targets for residential and non-residential building stock* (P. 52-53) provides information on indicative milestones for ten annual periods from 2021 to 2050. In the context of energy poverty there is a plan of the creation of a new Knowledge Centre which would serve as a comprehensive information resource for stakeholders on energy poverty levels in Bulgaria and measures to tackle it, and also to stimulate progress in state-of-the-art analytical research on the causes and consequences of the problem in the country. (P. 80) **It's worth mentioning more of such actions in the final version of the NECP.**

Aspect 7. Energy poverty

Energy poverty is a situation in which households are unable to access essential energy services and products. Addressing this phenomenon through climate policy is crucial from the perspective of social fairness and justice as it ensures that the most economically disadvantaged and vulnerable members of society are not disproportionately burdened with the costs of the energy transition. The issue of energy poverty is one where there is a crossover between policy needs related to climate neutrality objectives and socio-economic well-being, and addressing both accurately offers a chance to garner additional social support for the energy transition. Alleviating energy poverty also improves the wellbeing of communities in many crucial areas such as access to education, public health, or opportunities for business activity[14].

The term 'energy poverty' has surfaced in recent years as a consequential aspect of the ongoing global climate transformation. Bulgaria stands out as a Member State with some of the highest energy poverty rates in Europe, characterized by structural issues linking energy, low incomes, and poorly renovated housing. Consequently, addressing energy poverty presents a significant challenge in Bulgaria. The 49th National Assembly of

14 https://energy-poverty.ec.europa.eu/system/files/2023-12/JRC134832_01.pdf

the Republic of Bulgaria, through the adoption of the Act amending and supplementing the Energy Act (ZIDZE), reaffirmed on 10th November 2023 and published in State Gazette No 96 of 17th November 2023, took significant steps. This Act introduced national definitions for 'household in energy poverty' and 'vulnerable customer for the supply of electricity' for the first time, alongside amendments outlined in Article 38e of the Act. Moreover, the Act mandates the assessment of the number of households experiencing energy poverty and the establishment and maintenance of an information system on such households and vulnerable electricity customers. This responsibility falls upon the national institution designated to develop a National Social Climate Plan. These developments provide a solid foundation for addressing the challenge of combating energy poverty.

7. Energy poverty		
7.1 Inclusion of indicative objectives aimed towards reduction of energy poverty	1	**objectives are there but they are not sufficiently detailed and/or do not use appropriate indicators** The NECP reports on how: *The Energy Act obliges the Council of Ministers to designate a body to (...) maintain an information system on the number of households in energy poverty and vulnerable customers for the supply of electricity.* And further on declares that: *"The proposed Observatory aims to be the platform to bring together a wide community of practitioners, officials and researchers working in this field in Bulgaria and beyond. (...) This proposal includes the creation of a new Knowledge Centre which would not only serve as a comprehensive information resource for stakeholders on energy poverty levels in Bulgaria and measures to tackle it, but also to stimulate progress in state-of-the-art analytical research on the causes and consequences of the problem in the country. In addition, the Observatory will develop innovative policies and practices to tackle energy poverty and will also serve as a forum for stakeholder discussions and knowledge sharing on the topic.* (P. 80) Nonetheless, there are no measurable goals or detailed targets regarding the reduction of energy poverty in Bulgaria. **This is an area for improvement in the final version of the NECP.**
7.2 Assessment of the level of energy poverty and quality of used indicators	2	**energy poverty is described thoroughly, and the assessment is based on good quality indicators, but some important details are missing** The scale of the problem is not quantified in the plan. Only the current number of families benefiting from support was provided in the plan. Some general assessment of the state of energy poverty in Bulgaria is included (such as the statement below). Yet, concrete data is missing. *Bulgaria is a Member State where energy poverty rates are among the highest in Europe and where structural problems in the link between energy, low incomes and unrenovated housing are particularly pronounced.* (P. 80) Specific data is only provided for the amount of people benefitting from financial assistance provided by the state to alleviate energy poverty: *To date, a measure is in place to support the most vulnerable persons and families meeting the defined income and means-tested criteria. Under the Social Assistance Act and Regulation No RD-07-5 of 16.5.2008 on the conditions and procedure for granting targeted heating aid, targeted heating aid is granted to socially vulnerable groups during the heating season. The scope of the targeted assistance covers persons and families who meet the statutory conditions and requirements. 5 risk groups are defined, with different sizes of differentiated minimum heating income depending on the level of risk and the priorities set. To date, around 320 000 individuals and families benefit from this assistance.* (P. 159) The measures for and criteria of assessment specified in the plan are as follows: *Action was taken to this end, with the 49th National Assembly of the Republic of Bulgaria adopting the Act amending and supplementing the Energy Act (ZIDZE), readopted on 10.11.2023, published in State Gazette No 96 of 17.11.2023. The additional provisions of this Act introduced for the first time national definitions of 'household in energy poverty'*

		and 'vulnerable customer for the supply of electricity', which, together with the amendments provided for in Article 38e of the Act, are essential for the implementation of Reform C4.R3. Development of a definition and criteria for 'energy poverty' (Reform) of the National Recovery and Resilience Plan of the Republic of Bulgaria (NRRP). *(...) The Act lays down an obligation to assess the number of households in energy poverty and to establish and maintain an information system on the number of households in energy poverty and vulnerable electricity customers, by the national responsible institution designated for the development of a National Social Climate Plan under Regulation (EU) 2023/955 of the European Parliament and of the Council of 10 May 2023 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060 (OJ L 130/1 of 16 May 2023) or by another body designated by an act of the Council of Ministers.* (P. 158-159) **In the final version of the NECP, it's valuable to include concrete data. It would be worthwhile to provide a more detailed explanation of the scale of the problem.**
7.3 Direct support to alleviate energy poverty	**2**	**existing and planned policies or measures in this area are described and expected to deliver a meaningful change, but do not address the problem comprehensively** The following existing policies around direct support to alleviate energy poverty are discussed: *To date, a measure is in place to support the most vulnerable persons and families meeting the defined income and means-tested criteria.* ***Under the Social Assistance Act and Regulation No RD-07-5 of 16.5.2008 on the conditions and procedure for granting targeted heating aid, targeted heating aid is granted to socially vulnerable groups during the heating season.*** *The scope of the targeted assistance covers persons and families who meet the statutory conditions and requirements. 5 risk groups are defined, with different sizes of differentiated minimum heating income depending on the level of risk and the priorities set.* *(...) The support mechanism is as follows: The aid is for the relevant heating season (1 November – 31 March), i.e. for 5 months, and the amount of the aid is determined by order of the Minister of Labour and Social Policy before the start of the season, in accordance with the electricity price per household consumer set by the KEVR on the basis of 500 kWh of electricity, including 300 kWh of daily and 200 kWh overnight (amount of energy needed to heat a room). Targeted heating aid is granted for the purchase of – heat, electricity, natural gas or solid fuel.* ***This assistance will continue to be implemented as a measure to support the most vulnerable individuals and families.*** (P. 162) **In the final version of the plan, it would be worthwhile to add more details about the support.**
7.4 Measures which support investments which structurally decrease energy bills by investment in energy efficiency and zero-emission energy sources	**2**	**many policies or measures in this area are discussed, but some important details are missing** **The following policies which aim at structurally decreasing energy bills are discussed in relation to energy efficiency:** *According to the provisions of Directive 2010/31/EU and Directive 2012/27/EU,* ***public authorities at national, regional and local level should lead by example with regard to energy efficiency.*** *In this connection, the Republic of Bulgaria has set a more ambitious objective for the renovation of buildings owned and occupied by the central administration (...).* (P. 130) On **pages 130-132** there is a comprehensive set of measures supporting *achieving a highly efficient and decarbonized building stock.* Examples of measures include: ▪ Periodic review of minimum energy performance requirements for buildings using cost-optimal use and harmonisation of technical requirements for the design, construction and operation of stable, healthy, high-tech and energy-efficient buildings (...); ▪ Research on energy efficiency in buildings, through applied research to provide a scientific basis for building energy efficiency standards, for the period 2015-2030; ▪ Improving the conditions for inclusion in construction activities of products ensuring the fulfilment of the essential requirements under Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2 011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC Text with EEA relevance and Regulation (EU) 2019/515

		of the European Parliament and of the Council of 19 March 2 019 on the mutual recognition of goods lawfully marketed in another Member State, and repealing Regulation (EC) No 764/2008 (...); ▪ Increasing the capacity and expanding the operation of the National Council of Experts to promote and coordinate the increase in the number of nearly zero-energy buildings in an efficient manner, in the period 2030-2021"; ▪ Under Article 30a of the Energy Efficiency Act, when conducting public procurement procedures, public contracting entities purchase only products, services and buildings with high energy efficiency performance. **The following measures which aim at structurally decreasing energy bills are discussed in relation to investment in zero-emission energy sources:** NECP sets an aim for *a 45.5% share of energy from renewables in heating and cooling* by 2030. (P. 48) Reaching this goal further requires: 1) an increase in renewable energy (excluding waste heat and cold) in gross final energy consumption in the heating and cooling sector by 1.5 percentage points, calculated as an annual average over the period 2021-2030, starting from the share of renewable energy in heating and cooling in 2020; 2) increase the share of energy from renewable sources and from waste heat and cold in district heating and cooling by an indicative 2.2 percentage points as an annual average calculated for the period 2021 to 2030, starting from the share of energy from renewable sources and from waste heat and cold in district heating and cooling in 2020. (P. 50) **In the final version of the plan, it would be worthwhile to mention such actions in the section dedicated to energy poverty.**
7.5 Addressing energy market inefficiencies which negatively affect vulnerable customers	**2**	**many policies or measures in this area are discussed, but some important details are missing** The actions that can be associated with this aspect have been provided in section vi. "Description of measures to develop measures to utilize energy efficiency potentials of gas and electricity infrastructure" – (P. 140.) The KEVR (Energy and Water Regulatory Commission) under the Energy Act shall take into account "requirements for the efficient use of energy in production, transmission and distribution" when setting the prices of electricity, heat and natural gas. Its other responsibilities in this area include for example: calling on *electricity and gas network operators to assess the energy efficiency potential of the networks concerned by reducing technological costs, including an analysis of transmission, distribution, load management, efficient operation of networks and possibilities for the connection of decentralised energy generation installations.* (P. 140) Furthermore, the section which includes "*main assumptions and strategic objectives*" on the basis of which the updated Integrated Plan has been developed includes the following commitment: *Continue the liberalisation of energy markets, with commitment to managing possible social risks and negative impacts on vulnerable social groups.* (P. 18) *Under the internal energy market dimension, Bulgaria is developing a competitive market by taking action to fully liberalise the market and integrate it into the regional and panEuropean markets. A key element in the full liberalisation process is the protection of energy poor and vulnerable customers. In line with the EC recommendation on the development of competitive wholesale and retail markets, Bulgaria is phasing out regulated electricity prices and is projected to be completed by the end of 2025. Other policies and measures aimed at developing the internal energy market in line with the objectives of the Energy Union are demand response, stimulating the creation of renewable energy communities and stimulating a more active role for consumers.* (P. 21) **In the final version of the plan, it's valuable to incorporate more detailed aspects concerning the topic.**

Aspect 8. Transport poverty

Transport poverty refers to the financial challenges faced by people with limited access to affordable public transportation or private means of transport. It results in further serious disadvantages such as difficulties in accessing healthcare, education or employment. Part of a just energy transition is ensuring that climate policies focused on cutting emissions in the transport sector simultaneously prioritize providing all communities and members of society with access to reliable public transportation. Addressing transport poverty is a multifaceted challenge that requires a combination of measures, including investments in public transportation and the implementation of social policies to ensure equal access to mobility for all. The Bulgarian NECP includes a range of transport policies that are either currently in place or planned. However, the majority of these policies are primarily focused on reducing emissions from the transportation sector rather than addressing transport exclusion. This approach is well-founded, considering that since 1991 fuel consumption in Bulgaria has steadily increased, mainly due to road transport. Although there was a decline in 2013, the use of fuels (diesel) for road transport started to increase again since 2014. In 2022, the transport sector accounted for 35% of final energy consumption, maintaining its leading position in final energy consumption over the last ten years. The reduction of emissions from transportation is crucial, particularly as this sector is soon to be included in the Emissions Trading System. Nevertheless, addressing transport poverty is a multifaceted challenge that requires a combination of measures, including investments in public transportation and the implementation of social policies to ensure equal access to mobility for all.

Among others the strategic objectives of Bulgarian transport policy until 2030 are to:

- Improve transport connectivity and accessibility (internal and external);
- Improve the management of the transport system;
- Improve the connectivity of the Bulgarian transport system with the Single European Transport Area;
- Ensuring quality and accessible transport in all regions of the country (p. 85).
- These actions will contribute to the fight against transport poverty, but there is a lack of detail.

8. Transport poverty		
8.1 Inclusion of indicative objectives aimed towards reduction of transport poverty	**0**	**objectives aimed at reducing transport poverty are not mentioned**
		This is an area for improvement in the final version of the NECP.
8.2 Assessment of the level of transport poverty and quality of used indicators	**0**	**does not assess the level of transport poverty**
		This is an area for improvement in the final version of the NECP.
8.3 Direct support to alleviate transport poverty	**0**	**does not mention existing and planned policies or measures in this area**
		The document does not include any specific policies or measures designed to directly alleviate transport poverty. This is an area for improvement in the final version of the NECP.
8.4 Measures to structurally decrease transport poverty by investment in sustainable and zero-emission mobility options	**2**	**objectives are mostly well-defined and use appropriate measures, but some crucial information is missing**
		While the updated draft of NECP does not highlight objectives in the context of transport poverty, some of its provisions are related to this issue. Notably, most of those measures focus almost exclusively on the growth of the hybrid and electric cars sector as opposed to the development of sustainable and accessible public transportation.

Under Component 8 'Sustainable Transport' of the NRRP, Investment C8.17 'Green mobility – pilot scheme to support sustainable urban mobility', procedure BG-RRP-8.013 'Green mobility' – Measures to support sustainable urban mobility by developing environmentally friendly, safe, functional and energy-efficient transport systems; creating less energy consuming public transport, which will save public resources; effective urban-rural connectivity, through partnerships with projects/priorities identified in Integrated Municipal Development Plans (IPDPs) and in the Integrated Territorial Development Strategies for NUTS 2 regions, as well as compliance with Sustainable Urban Mobility Plans (integrated in PEAR or updated in line with PEAR). The procedure is in the process of applying for project proposals. (P. 129)

The main measures through which Bulgaria aims to improve energy efficiency in the [transport] sector include the following objectives relevant to the structurally decreasing transport poverty:

a) Increasing the share of public electric transport

The measure shall include:

- Improvement of railway infrastructure;
- Renewal of the rolling stock of electric rail transport. (P. 136)

Furthermore, *the main policy objectives for reducing greenhouse gas emissions in the transport sector are:*

- Promoting the production of electric and other green vehicles;
- Promoting the consumption of/demand for new eco-friendly vehicles;
- Accelerated deployment of charging infrastructure for electric and hybrid vehicles;
- Promoting research and development activities related to green vehicles;
- Organisation of awareness-raising campaigns, capacity building of stakeholders with regard to the development of sustainable mobility. (P. 83)

The plan also introduces the following measures in the category of *promoting sustainable urban mobility* relevant to this aspect:

- Rehabilitation and modernisation of existing road infrastructure to ensure optimal speed and optimum driving modes for motor vehicles;
- Introduction of intelligent transport systems on the national and urban road network;
- Increasing the share of public electric transport – rail, trolleybus, tram, metro. (P. 86)

According to the functions allocated to the departments, the MEG is responsible for preparing the draft Act on the Promotion of Electric Mobility, which is milestone No 178 of the Annex to the Council Implementing Decision on the approval of the assessment of the Recovery and Resilience Plan for Bulgaria. (P. 174)

Since 2016, a pilot scheme has been launched to promote the purchase of electric and hybrid vehicles in the state administration of the National Trust EcoFund by granting a subsidy. (P. 137)

The Policy Framework for the development of the market for alternative fuels in the transport sector introduces the following list of potential measures to **promote the uptake of electric vehicles**. (P. 137)

- Setting standards for energy consumption in circulation (applicable not only for initial registration but also for subsequent sale/registration of vehicles);
- Setting emission standards for road vehicles (applicable not only for first registration but also for subsequent sale/registration of vehicles);
- Introduction of access areas (especially in central urban areas) with only energy efficient and low-emission vehicles;
- Applying progressive taxation promoting the use of energy-efficient and low emission vehicles;
- Providing direct subsidies for the purchase of new zero-emission vehicles (valid for a limited number/time, until a minimum number of such vehicles is reached);
- Granting tax credits for the purchase and use of zero-emission vehicles (valid for a limited number/time, until a minimum number of such vehicles is reached);
- Ensuring access to bus lanes for zero-emission vehicles (valid for a limited number/time until a minimum number of such vehicles is reached);
- Use of electric vehicles for the needs of public administration and local authorities;
- Promoting the uptake of zero-emission vehicles for shared use;
- Stimulate the transition of taxi companies and public carriers to the use of zero-emission vehicles.

In the final version of the NECP, the implemented policies should be integrated with the issue of combating transport poverty.

Aspect 9. Financing needs and sources of funding

Financial needs and sources are a key element of national energy and climate plans. Including information on financing needs and available sources is important for several reasons. First, it allows for a realistic assessment of the scale of the challenge of achieving the climate and energy goals set. Understanding the financing needs makes it possible to determine whether the available resources are sufficient to meet these challenges or whether additional investment is needed. Second, transparency on financing facilitates more effective engagement with different stakeholders, including the private sector, financial institutions and other partners. Information on financing needs and sources is key to attracting investment and mobilising public support. In addition, reporting on financing is key to effectively monitoring progress towards the objectives of energy and climate plans. The availability of financial resources and their effective use have a direct impact on the achievement of the targets set, so detailed information in this respect is essential.

The Bulgarian NECP gives a good description of the financial needs and the resources used. However, specific information on the amounts needed is not always provided.

9. Financing needs and sources of funding		
9.1 Description of financing needs for each proposed policy and measure addressing the distributional impacts	**2**	**identifies financing needs for most of the proposed policies and measures, but some of the important information is missing** In some cases, both financial needs and funding sources of each discussed measure have been specified. In Bulgarian NECP there is a whole section **5.3 – overview of investment needs** which presents investment needs for the national energy system as a whole and by specific sectors or areas of investment. The available funds have been supplemented by the activities to which the funds will be allocated. In many cases, however, the amounts of money are not stated. A good example of this practice is the section on "New policies and measures in the waste sector". Each measure discussed includes a description like the one in the example below: "**Measure 1:** Completion/upgrading of regional municipal waste management systems Instruments: A programme to reach the preparing for re-use and recycling targets for municipal waste. Necessary financial resources: BGN 235 million Sources of funding: Environment Programme 2021-2027 Performance indicator: share (%) of funds implemented; number of closed contracts; number of installations built. Responsible institutions: MA of PIC, municipalities; THE WSFU". (P. 96) **Yet, numerous other sections, such as the one introducing measures and policies aimed at reducing GHG emissions in the transport sector** (P. 83-88) **as well as the section on reducing GHG in the agricultural sector** (P. 89-95), **do not include the necessary financial resources for the discussed measures. It is worthwhile to add such information.**
9.2 Description of sources of funding for each proposed policy and measure addressing the distributional impacts	**2**	**identifies public and private funding sources of most of the proposed policies and measures, but some of the important information is missing** **Section 5.3 "overview of investment needs"** lists "existing investment flows and forward investment assumptions with regards to the planned policies and measures". (P. 234 – 239.) It includes a non-exhaustive list of potential sources of funding which includes: 1) Structural Funds: European Regional Development Fund and Cohesion Fund; 2) InvestEU; 3) Modernisation Fund; 4) European Investment Bank Loans; 5) Private Investment.

		Similarly, in cases in which sources of funding for specific areas of action are discussed elaborately (aside from the 5.3 section), the details about distributing funds from different sources among different measures and policies are not included. For example: *Measures to increase energy efficiency will be supported by well-designed and effective financial instruments, and cooperation between public and private stakeholders to develop large-scale investment programmes and funding schemes will also be encouraged. Union funds and other financing schemes for energy efficiency improvement measures will be used for this purpose:* *1) 1. Structural Funds 2021-2027 (...).* (P. 144.) **In the final version of the plan, more details, particularly regarding the amounts, should be added.**

Aspect 10. Tax, insurance and social security policies

Tax, insurance, and social security policies play a key role in influencing behaviour towards more sustainable and environmentally friendly development. If thoughtfully designed and implemented, these policies are essential to the effective implementation of national energy and climate plans.

Through well-designed policies, governments can incentivise investment in renewable energy, energy efficiency and environmental initiatives. Tax incentives or similar incentives can motivate both businesses and citizens to adopt more sustainable practices. Social policies, in turn, can act as a support mechanism for citizens engaged in projects related to the above areas.

Encouraging investment in energy efficiency technologies and solutions can help reduce emissions and redirect investment in more sustainable directions. Community support can be crucial to the success of projects and to public acceptance of energy and climate action.

However, the transfer of responsibility for change to community groups must be accompanied by the allocation of funds for these purposes. It is advantageous for funds for investments to come, for example, from revenues generated by taxes, fees and climate-related charges. Using revenues from climate-related costs to reduce these costs in the future seems an obvious solution.

10. Tax, insurance and social security policies		
10.1 Use of income from climate-related tax, levies and fees (or similar instruments, e.g. EU ETS revenues) for the support of the most vulnerable groups	1	**the principle is reflected in some of the proposed policies and measures for which it would be reasonable to apply it, but is neglected in most of the cases** *As regards the allocation of [climate change] adaptation funding, the analysis concludes that focusing adaptation resources in sectors (and not only on the most vulnerable sectors) has more benefits for the Bulgarian economy and citizens, as it increases the availability of capital in the productive sectors, with an expansion of production and added value, partly exceeding the negative impacts of climate change.* (P. 234) The plan does discuss some policies which include support for the most vulnerable groups, e.g., in the context of alleviating energy poverty. *Criteria have been introduced to determine the status of vulnerable customer for the supply of electricity according to age, state of health, disposable average monthly income reduced by energy costs, the need for independent living aids and/or life-sustaining medical devices whose functioning depends on a source of electricity, the receipt of monthly social benefits; (...) At present, a measure to support the most vulnerable persons and families meeting the defined income and means-tested criteria is being implemented in Bulgaria by providing these persons and families with targeted heating assistance from the social assistance system during the heating season.* (P. 79-80) **Yet, the source of funds dedicated to supporting vulnerable groups has not been specified.**

10.2 Accounting for and preparing framework for utilisation of the Social Climate Fund	**1**	**SCF is mentioned but only the basic framework for its utilisation is presented** The Social Climate Fund is only mentioned in the context of funding for one measure. *The maintenance of the Observatory after its establishment and the implementation of other specific activities related to tackling energy poverty will be supported by the EU Social Climate Fund, other financial instruments with an EU funding source and the national budget.* (P. 80-81) **In the final version of the NECP, more information about the Social Climate Fund should be included.**
10.3 Recognition and consistent application of "polluter pays" principle across the economy	**1**	**the principle is applied in some of the proposed policies and measures for which it would be reasonable to apply it, but is neglected in most of the cases.** *Only one direct mention: The aim is to develop a new legal framework to promote the deployment of recharging infrastructure and zero-emission vehicles and to limit the use of the most polluting vehicles. (...) The law must introduce incentives for the market uptake of electric vehicles (EVs) and comply with* ***the polluter pays principle****, including specific measures: subsidies for zero-emission vehicles; differentiation of registration/property taxes according to the level of emissions* (...). (P. 174-175) However, it is worth mentioning that Bulgaria does not provide subsidies, including for fossil fuels (P. 227). **It's worth including more information on the polluter pays principle in the final version of the NECP.**
10.4 Built-in protection of the most vulnerable groups in tax instruments and cross-sectional support programmes related to green transition	**1**	**the protection is available in some of the proposed policies and measures for which it would be reasonable to apply it, but is neglected in most of the cases** Built-in protection for most vulnerable groups is most present in policies related to alleviating energy poverty. Policies and measures to achieve national energy poverty targets: ▪ Ensuring adequate protection for energy poor persons under their competence, including by providing targeted heating aid for those who meet the conditions of the Regulation laying down the criteria, conditions and procedures for determining the status of a household in a situation of energy poverty and the status of vulnerable customer for the supply of electricity; ▪ Implement a mechanism to protect vulnerable customers when launching the process towards full liberalisation of electricity prices for final customers, including domestic ones; ▪ (...)Increasing energy efficiency by introducing to the national target referred to in Article 8 of Directive (EU) 2023/1791 the requirement to implement energy efficiency improvement measures as a priority among vulnerable customers, including households affected by energy poverty, and, where appropriate, in social housing. – (P. 161.) *Criteria have been introduced to determine the status of vulnerable customer for the supply of electricity according to age, state of health, disposable average monthly income reduced by energy costs, the need for independent living aids and/or life-sustaining medical devices whose functioning depends on a source of electricity, the receipt of monthly social benefits; (...) At present, a measure to support the most vulnerable persons and families meeting the defined income and means-tested criteria is being implemented in Bulgaria by providing these persons and families with targeted heating assistance from the social assistance system during the heating season.* (P. 79-80) **This is an area for improvement in the final version of the NECP to include more detail on issues other than energy poverty.**

Aspect 11. Work conditions and re-training

Creating safe work conditions in the emerging sectors and re-training people at risk of unemployment caused by the transition are crucial aspects of the decarbonization process, especially in regions that may be most affected by it. Up- and re-skilling of workers must be aligned with the shifts in what is in demand on the labour market and go

hand-in-hand with the creation of green decent jobs. Particular attention should be paid to supporting decent employment of social groups which face additional barriers such as women or people with disabilities.

NECP mentions that revenues from skilled and unskilled labour will decrease in all scenarios. Thus, in combination with rising prices and falling labour revenues, more people are expected to fall below the poverty threshold. This kind of situation demand an additional effort. A good example of action mention in the NECP is Priority strand 3 'Transfer of technology and knowledge' which contains cooperation programmes for innovation and knowledge and technology transfer in the areas of European value chains. Joint programmes between industry, SMEs and scientific organisations and higher education institutions to build long-term cooperation and make significant progress and contribution to the regional economy (p. 166).

Such measures help to strengthen the country's labour market. However, the NECP does not make sufficient mention of retraining workers.

11. Work conditions and re-training		
11.1 Coverage of retraining, upskilling and reskilling of the workers affected by the transition	**1**	**provides general framework or promotion for retraining, upskilling and reskilling that is somewhat relevant to the green transition** The objectives set by the Bulgarian state in the field of research, innovation and competitiveness include: *Upskilling and the creation of a skilled workforce to sustain the manufacturing of net-zero technologies, including the creation (or participation) of Net-Zero Academies.* (P. 82) *PINIDIT* [the Research, Innovation and Digitalisation for Smart Transformation Programme 2027-2021] *supports the development of skills for smart specialisation, industrial transition and entrepreneurship. The main objective of this support is the development of human capital and such knowledge, skills and competences in enterprises, the lack of which would result in the loss of staff due to the digital and green transformation of the economy.* (P. 166) "(...) providing upskilling opportunities" next to new quality jobs is also mentioned as one of the most important tasks in the most vulnerable regions of Stara Zagora, Haskovo, Sliven and Yambol. (P. 28) **Yet, no concrete measures or policies in this area are proposed. This is an area for improvement in the final version of the NECP.**
11.2 Tailored measures to support hiring, job creation and transition incentives, in particular for women or persons with disabilities, and in most affected territories	**0**	**offers little to no support for transition-relevant job creation** **This is an area for improvement in the final version of the NECP.**
11.3 Analyses the impact of the green transition on health and safety at work and preparation or continuation of measures to address the risks	**0**	**pays no attention to the impact of green transition on work health and safety** **This is an area for improvement in the final version of the NECP.**

Aspect 12. Stakeholder engagement and public consultation

Active and systemic inclusion of all relevant stakeholders and a wide representation of the general public is crucial for procedural justice of the energy transition, which concerns itself with how decisions are made, and who is involved in the decision-making process, which further determines the legitimacy of the process. An extension of

a well-conducted process is establishing a permanent consultative body with a representation of stakeholders on the issue of just transition. Conducting extensive and early enough consultations, including trans-border dialogue, is also crucial for developing a well-informed and situationally appropriate NECP update.

The obligation to conduct consultations through a multi-level dialogue platform on climate and energy stems directly from the regulation introducing the NECP[15]. According to the regulation, local governments, social organizations, entrepreneurs and investors, as well as other interested parties and the general public, should participate in the process. Public participation in decision-making processes is also one of the pillars of the Aarhus Convention.

15 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.328.01.0001.01.ENG

All relevant ministries were consulted and actively involved in the process of developing the update of the Plan. The institutions responsible for the preparation of the NECPs participated in various conferences, meetings, roundtables and stakeholder forums where topics related to the NECPs were discussed. The plan does not address the issue of consultations with other Member States. Additionally, it is not always clearly stated whether the consultations covered aspects of a just transition.

12. Stakeholder engagement and public consultation		
12.1 Engagement of social partners, civil society actors and the general public in discussion of just transition related issues during public consultations of the NECP	**1**	**public consultations were organized but many important just transition related issues were not discussed in their course** Section "iii. Consultations of stakeholders, including the social partners, and engagement of civil society and the general public" provides the following summary: *The institutions responsible for the preparation of the INECPs participated in various conferences, meetings, roundtables and stakeholder forums where topics related to the INECPs were discussed.* *The draft INECP was published for preliminary public consultations on the official websites of the Ministry and the Ministry of the Environment and Water on 22.12.2023 and all interested parties had the opportunity to submit their comments and recommendations on it. Following the presentation of the draft INECP, ministries continued to receive additional opinions and recommendations from various stakeholders.* *Written contributions to the draft INECP were received from various stakeholders, such as NGOs, private and state energy companies, industry associations, economic institutes, citizens, etc. Stakeholder comments refer to all sections of the draft INECP.* (P. 40) **Yet, no details have been provided regarding the scope of these consultations (such as the number of stakeholders of each kind involved, the timeline of consultations, key matters discussed, recommendations implemented etc.).**
12.2 Establishment of permanent body of consultation with stakeholders, covering issues related to just transition	**0**	**does not provide a permanent body of public consultation either the one proposed is one-time only** *The plan merely states that the EU Governance Regulation provides for a permanent consultation process with the EC, consisting of an evaluation of the INECPs by the Commission, as well as updates to the plans and the preparation of progress reports by the Member States.* (P. 40) **This is an area for improvement in the final version of the NECP.**
12.3 Organisation of early and effective dialogue with local authorities, regarding issues related to just transition	**0**	**dialogue with local authorities on issues related to just transition was not mentioned** In the section titled "ii. Involvement of local and regional authorities" there is the following information provided: *All relevant ministries were consulted and actively involved in the process of developing the update of the Plan.* (P. 39) **Despite the title of the section, only cooperation between various national ministries is described with no mention of the involvement of local or regional authorities.** **It is also unclear whether the consultations addressed issues related to the Just Transition.**

12.4 Identification of opportunities for trans-border dialogue on issues related to just transition	**1**	**provides some possibilities of trans-border dialogue on issues related to just transition, but these measures are largely insufficient** *The development of regional cooperation is important to ensure consistent planning and addressing risks related to the security of energy supply, with a view to ensuring the construction of energy infrastructure and promoting market integration. Changes in energy policy demonstrate the need for regional cooperation to contribute to increasing the resilience and preparedness of the energy system and accelerating the clean energy transition.* (P. 41) *It is essential to strengthen the potential of public-private partnerships focusing on initiatives to accelerate the development of new technologies to implement the green transition and energy storage. Opportunities for effective regional energy cooperation are seized through activities for the preparation and implementation of memoranda and cooperation contracts to build regional, pan-European and international partnerships.* (P. 44-45) **It's worth pointing out specific examples of collaboration.**

V. Summary

Bulgaria remains one of the most energy-intensive economies and has a high share of greenhouse gas emissions in the European Union. Although Bulgaria has experienced stable economic growth in recent years, this growth is moderate compared to more developed EU economies. The challenge of achieving climate neutrality is therefore greater in Bulgaria than in many other EU countries.

There are several areas that require special refinement before the final version of the plan is released in 2024. These include in particular the following aspects of just transition:

- Ambitions and targets,
- Inclusivity of regional transition,
- Overarching assessment of distributional impacts,
- Work conditions and re-training.

For these aspects, there were the most instances where the relevant issues were completely omitted in the draft of the updated Bulgarian NECP. The greatest need for improvement is in the area of ambitions and targets and also inclusivity of regional transition. Achieving climate neutrality by 2050 is mentioned but the phase-out of fossil fuels and the path to carbon neutrality are not clear. Goals for the phase-out of gas and oil have not been established, and in the case of coal, it is unclear whether the phase-out pertains to coal as a whole or only to lignite. The NECP also does not refer to TJTPs. In general, the Bulgarian NECP inadequately addresses territorial issues, focusing mainly on national-level matters.

Bulgaria faces the problem of an ageing population and high emigration of young people. This is leading to a shortage of skilled labour and putting pressure on the social security system. Unfortunately, as assessed in terms of the inclusivity of the regional transition, the NECP does not address these issues sufficiently, particularly from a territorial perspective.

The overall assessment of distributional impacts is also inadequate. The document does not pay sufficient attention to these aspects, although the NECP mentions that it is very likely that there will be more poor people in Bulgaria by 2050. The aspect of working conditions and retraining also needs improvement. The NECP only provides a general framework for retraining, which is somewhat relevant to the green transition, but omits the issue of supporting the creation of jobs relevant to the transition.

Another aspect requiring particular improvement is transport poverty. Although the document includes some measures that can help combat transport poverty (e.g., improvement of the management of the transport system and the connectivity of the Bulgarian transport system with the Single European Transport Area), they are not directly related to the aspect.

No aspect in the development has been assessed as a "good practice". The aspect of financing needs and sources of funding received the highest rating due to the thorough description of these needs and sources. The energy poverty aspect was also highly rated because of the numerous actions and remedies aimed at addressing it. However, in many cases, details are lacking.

Average scores for the just transition aspects in the draft updated Bulgarian NECP

Territorial Aspects	1. Ambitions and targets	0
	2. Supporting local economies and communities	1.25
	3. Local clean energies and decarbonised industries	1
	4. Inclusivity of regional transition	0
	5. Regional just transition governance	0.67
Distributional Aspects	6. Overarching assessment of distributional impacts	0.33
	7. Energy poverty	1.8
	8. Transport poverty	0.5
	9. Financing needs and sources of funding	2
	10. Tax, insurance and social security policies	1
	11. Work conditions and re-training	0.33
	12. Stakeholder engagement and public consultation	0.5

Note: 0 – no mention of a given issue,
1 – issue addressed to a limited extent,
2 – issue addressed to a significant extent,
3 – good practice

Below are our key recommendations regarding the final version of the updated Bulgarian National Energy and Climate Plan.

- Specific **targets and timelines** need to be established in the pursuit of climate neutrality and the phasing out of fossil fuels.
- Putting a greater emphasis on **regional issues,** particularly for the most vulnerable territories.
- Key information on **the planned policies and measures from other documents,** such as territorial plans, **should be added to the final version of the NECP.**
- Special attention should be paid to vulnerable groups, not only in the context of energy poverty.
- Actions such as the promotion of gender equality are needed to address the specific situation and role of women in the transition to a climate-neutral economy.
- **Increase the level of detail in the description of the measures and policies outlined** especially in the context of the amounts needed for investment. This will enable the achievement of good practices.
- The policies and measures should consider in more detail the distributional issues, including in particular **transport poverty** and **the overall distributional impact** of the climate and energy policy on different socio-economic groups.
- More details should be provided on the implementation of the planned actions up to date, to **assess actual progress in the past and highlight areas for further improvements.**
- Significantly more efforts need to be allocated to the just transition aspects during consultations.

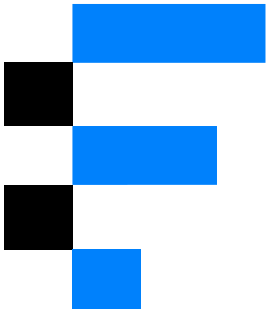
Overall, the additional work on improving just transition aspects of the updated Plan should be implemented as a part of a broader effort to deliver an ambitious vision for Bulgarian's decarbonisation pathway, together with the associated robust governance framework.

Annex. Summary table for the aspects considered in the assessment

Territorial aspects	**1 Ambitions and targets**		
	1.1 Increasing ambition and avoiding backsliding on targets from Territorial Just Transition Plans	0	Does not mention targets set in TJTP. The draft does not mention TJTP at all.
	1.2 Clear and science-based timeline for coal exit in the power sector	0	Lignite exit in power sector is declared as 2038. The plan does not mention the exit timeline for coal in general in power sector. However TJTPs mention 2038 as coal exit in the power sector.
	1.3 Clear and science-based timeline for transition away from coal in the whole economy	0	Does not mention the exit timeline for coal.
	1.4 Clear and science-based timeline for transition away from fossil gas in the whole economy	0	Does not mention timeline for transition away from fossil gas.
	1.5 Clear and science-based timeline for transition away from oil in the whole economy	0	Does not mention timeline for transition away from oil.
	1.6 Clear and science-based industrial transition to net zero emissions timeline (conversion or closure of industrial plants which emit GHGs from fossil fuels use or industrial processes)	0	Does not mention timeline for industrial transition.
	2 Supporting local economies and communities		
	2.1 Policies and measures supporting local economies through stimulating their endogenous growth potential, including promoting entrepreneurship, supporting SMEs and social economy	1	Some policies and measures are mentioned and also this kind of information can be found in other documents.
	2.2 Policies and measures for preservation of the identity of mining/traditional industrial communities	1	Some policies and measures are mentioned and also this kind of information can be found in other documents.
	2.3 Policies and measures for revitalisation of natural environment, both for restoring biodiversity and recreational purposes	1	Soes not mention any policies or measures in this area but it is possible to find such information in other documents.
	2.4 Dedicated, region-specific policies and measures promoting smart and sustainable mobility (both within territories most affected by the transition and connecting it with other regions)	2	Many policies or measures in this area are discussed, but some important details are missing.
	3 Local clean energies and decarbonised industries		
	3.1 Assessment of needs in the area of deployment of affordable clean energy (including – if applicable – district heating), energy efficiency and/or decarbonised industrial processes	1	Some overview is provided, but the assessment is of insufficient quality.
	3.2 Policies and measures to fulfil the needs in the area of affordable clean energy (including – if applicable – district heating), energy efficiency and/or decarbonised industrial processes	1	Some policies or measures in this area are mentioned, but they are largely insufficient to be effective.
	4 Inclusivity of regional transition		
	4.1 Promotion of gender equality to address the specific situation and role of women in the transition to the climate-neutral economy	0	Does not mention any policies or measures in this area.
	4.2 Special attention paid to vulnerable groups (such as people with disabilities) that suffer disproportionately from the adverse effects of the transition	0	Does not mention any policies or measures in this area.
	4.3 Policies and measures addressing demographic impacts of the ageing population of regions in transition	0	Does not mention any policies or measures in this area.

Territorial aspects	**5 Just transition governance**		
	5.1 Consistency of regional and national transition planning process	0	Does not mention consistency of regional and national transition planning process.
	5.2 Institutional coordination on just transition implementation between regional and national authorities	1	Does not mention institutional coordination on just transition implementation but it is possible to find information in other documents.
	5.3 Inclusion of stakeholders and citizens into regional transition governance	1	Practice shows that stakeholder and citizen involvement is taken into account in many relevant cases, but this is not stated in the NECP.
Distributional aspects	**6 Overarching impact assessment**		
	6.1 Assessment of overall distributional impacts of the policies and measures covered by NECP update – by income groups	0	Expected overall distributional impacts are not mentioned.
	6.2 Assessment of overall distributional impacts of the policies and measures covered by NECP update – by other relevant groupings (e.g. rural households, pensioners)	0	Expected overall distributional impacts are not mentioned.
	6.3 Common understanding of terms and measuring progress toward targets	1	Terms are used inconsistently across different documents but the translation can be a problem in this case. Measuring progress toward targets has been partially addressed.
	7 Energy poverty		
	7.1 Inclusion of indicative objectives aimed towards reduction of energy poverty	1	Objectives are there but they are not sufficiently detailed and/or do not use appropriate indicators.
	7.2 Assessment of the level of energy poverty and quality of used indicators	2	Energy poverty is described thoroughly, and the assessment is based on good quality indicators, but some important details are missing.
	7.3 Direct support to alleviate energy poverty	2	Existing and planned policies or measures in this area are described and expected to deliver a meaningful change, but do not address the problem comprehensively.
	7.4 Measures which support investments which structurally decrease energy bills by investment in energy efficiency and zero-emission energy sources	2	Many policies or measures in this area are discussed, but some important details are missing.
	7.5 Addressing energy market inefficiencies which negatively affect vulnerable customers	2	Many policies or measures in this area are discussed, but some important details are missing.
	8 Transport poverty		
	8.1 Inclusion of indicative objectives aimed towards reduction of transport poverty	0	Objectives aimed at reducing transport poverty are not mentioned.
	8.2 Assessment of the level of transport poverty and quality of used indicators	0	Does not assess the level of transport poverty.
	8.3 Direct support to alleviate transport poverty	0	Does not mention existing and planned policies or measures in this area.
	8.4 Measures to structurally decrease transport poverty by investment in sustainable and zero-emission mobility options	2	Objectives are mostly well-defined and use appropriate measures, but some crucial information is missing.

Distributional aspects	**9 Financing needs and sources of funding**		
	9.1 Description of financing needs for each proposed policy and measure addressing the distributional impacts	2	Identifies financing needs for most of the proposed policies and measures, but some of the important information is missing.
	9.2 Description of sources of funding for each proposed policy and measure addressing the distributional impacts	2	Identifies public and private funding sources of most of the proposed policies and measures, but some of the important information is missing.
	10 Tax, insurance and social security policies		
	10.1 Use of income from climate-related tax, levies and fees (or similar instruments, e.g. EU ETS revenues) for the support of the most vulnerable groups	1	The principle is reflected in some of the proposed policies and measures for which it would be reasonable to apply it, but is neglected in most of the cases.
	10.2 Accounting for and preparing framework for utilisation of the Social Climate Fund	1	SCF is mentioned but only basic framework for its utilisation is presented.
	10.3 Recognition and consistent application of "polluter pays" principle across the economy	1	The principle is applied in some of the proposed policies and measures for which it would be reasonable to apply it, but is neglected in most of the cases.
	10.4 Built-in protection of the most vulnerable groups in tax instruments and cross-sectional support programmes related to green transition	1	The protection is available in some of the proposed policies and measures for which it would be reasonable to apply it, but is neglected in most of the cases.
	11 Work conditions and re-training		
	11.1 Coverage of retraining, upskilling and reskilling of the workers affected by the transition	1	Provides general framework or promotion for retraining, upskilling and reskilling that is somewhat relevant to the green transition.
	11.2 Tailored measures to support hiring, job creation and transition incentives, in particular for women or persons with disabilities, and in most affected territories	0	Offers little to no support for transition-relevant job creation.
	11.3 Analyses the impact of the green transition on health and safety at work and preparation or continuation of measures to address the risks	0	Pays no attention to the impact of green transition on work health and safety.
	12 Stakeholder engagement and public consultation		
	12.1 Engagement of social partners, civil society actors and the general public in discussion of just transition related issues during public consultations of the NECP	1	Public consultations were organized but many important just transition related issues were not discussed in their course.
	12.2 Establishment of permanent body of consultation with stakeholders, covering issues related to just transition	0	Does not provide a permanent body of public consultation either the one proposed is one-time only.
	12.3 Organisation of early and effective dialogue with local authorities, regarding issues related to just transition	0	Dialogue with local authorities on issues related to just transition was not mentioned.
	12.4 Identification of opportunities for trans-border dialogue on issues related to just transition	1	Provides some possibilities of trans-border dialogue on issues related to just transition, but these measures are largely insufficient.



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