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Republic of Bulgaria  
ECONOMIC  
AND SOCIAL COUNCIL

## **RESOLUTION**

**on the Updated Draft of  
Integrated National Energy and Climate Plan  
(own-initiative act)**

**Sofia  
June 2024**

On 17 June 2024 at the meeting of Economic and Social Council's Plenary Session a decision was taken to adopt a Resolution on the Updated Draft of Integrated National Energy and Climate Plan.

The resolution's drafting was allocated to the ESC's Presidents Board with Vice-Presidents Evgeniy Ivanov (Group 1), Plamen Dimitrov (Group 2) and Bogomil Nikolov (Group 3) as rapporteurs. The work of the rapporteurs was supported by an external expert Anton Ivanov.

At a meeting held on 24 June 2024, Presidents Board adopted the resolution's draft.

## **1. Conclusions and recommendations**

1.1. The Economic and Social Council (ESC) notes that the Integrated National Energy and Climate Plan (INECP) reflects European policies for the transition to a low-emission economy. Together with REPowerEU, the National Recovery and Resilience Plan (NRRP) and the Territorial Just Transition Plans (TJTP), the INECP sets the framework for channelling financial resources towards targeted actions to achieve climate objectives and accelerated decarbonisation, the ESC points out that linking a wide range of measures necessary for the economic development of the country with concrete steps to accelerate decarbonisation in the energy sector poses a number of challenges for Bulgaria's economy.

1.2. In its resolution of 2023, the ESC recommended the updated version of the Integrated Energy-Climate Plan be adopted after reaching public agreement on the reforms enshrined in the NRRPs, which would ensure anticipation of the development of the energy sector in our country in the next 10 years with maximum use of local resources and the application of tools against the high volatility of the markets, as well as creating a favorable environment for investment in the sector.

1.3. The ESC points out that the projected results of modelling under a scenario with additional measures to reduce greenhouse gas emissions in Bulgaria point to the implementation of measures to reduce the production of electricity from thermal power plants and the transition from solid and liquid fuels to natural gas in energy consumption.

1.4. In addition, the ESC notes the transition to carbon neutrality in industrial sectors requires mobilising capital to invest in advanced technologies and heat recovery. The proposed target scenario with additional measures shows the need to invest an additional 10-38% more funds in order for the industry to decarbonise effectively.

1.5. The ESC points out that when setting national energy efficiency targets, the potential of end-users to participate with their own resources in the process of general modernisation should be assessed. This implies developing policies to raise the standard of living of the population and increase the competitiveness of the Bulgarian economy.

1.6. In this regard, the ESC points out that in the scenario of additional measures, the costs of supplying electricity by 2030 are higher due to higher capital costs. The high level of price encumbrance by 2030 exacerbates the negative effects of full market liberalisation and accelerated capacity shutdowns.

1.7. The ESC underlines the conclusion that total system expenditure for households follows an upward trend, which is expected to stabilise only by 2035. Due to the investments made in the energy modernisation of residential buildings, the household expenditure structure is shifting, with fuel expenditure accounting for a decreasing share (reaching 13% of total system expenditure in households by 2050) in favour of investment expenditure on equipment and direct efficiency.

1.8. The ESC recommends that in its decarbonisation strategy, Bulgaria adheres to the scenario without additional policies and measures, as such a scenario corresponds to the current financial capabilities of the population and businesses, and takes into account the announced opportunities for European support.

1.9. The ESC points out that the used energy planning model is adapted to the specifics of the Bulgarian energy system, building on the PRIMES mathematical modelling apparatus. It should be pointed out that when discussing INECs in 2019, this model was criticized, and the EC is already switching to other base models (the METIS model). When presenting the INECs for public consultation, it is imperative to provide the tables with baseline information and the results of the model in order to draw reasoned conclusions in an independent analysis.

1.10. The ESC draws attention to the projects that can contribute to overcoming energy poverty in Bulgaria, including those for the renovation of multi-family and single-family residential buildings. Based on the identification of the number, scope, location of the households concerned, a specific channelling of European funding to such housing can be planned, with the participation of the state being 100% for the respective household in a situation of energy poverty. At the same time, a new form of support can be implemented, by providing subsidies when a result is achieved up to a higher energy class, thereby stimulating the personal initiative of households.

1.11. The ESC welcomes the progress on the legal regulation of the definition and conditions for consumers who can produce energy themselves ("active customers" and "citizen energy communities"), but insists on providing clear mechanisms to reduce the administrative and financial burden for these consumers, as well as regulating the obligations and responsibilities of state and municipal authorities.

1.12. The ESC recalls that the implementation of investments and reforms must be carried out in compliance with the principles of cooperation and partnership and insists on the establishment of joint mechanisms to monitor progress in the implementation of planned measures.

1.13. The ESC insists on the presentation of an Energy Strategy within a short period of time with a clear priority to preserve the strategic national independence from imported fuels by supporting the maintenance of the operational readiness for the supply of coal from the Maritsa East Mines, as well as the maintenance of the units in the Maritsa East 2 TPP in good operational condition.

1.14. The ESC recommends deepening the partnership and cooperation between the public administration and the private sector and creating thematic working groups in the programming, discussion and joint development of national legislation as a guarantor of transparency, quality and stability of regulatory documents.

## 2. Introduction

2.1. The ESC is committed to discussing plans to implement climate policies and decarbonisation, including the first Integrated National Energy and Climate Plan<sup>1</sup>, but also the related National Recovery and Resilience Plan, REPowerEU and Territorial Just Transition Plans. In its opinions, the ESC presented concrete proposals developed by the social partners for measures in the field of low-carbon economic development, development of competitive and secure energy, reduction of dependence on imported fuels and energy and ensuring affordable energy for all consumers.

2.2. The ESC recalls that the Plan was published for preliminary public consultations on the official websites of the Ministry of Energy and Ministry of Environment and Water on 22.12.2023 and a number of stakeholders submitted their comments and recommendations, and the draft itself was submitted for assessment to the EC on 20.02.2024, which published an opinion<sup>2</sup> on it on 26.04.2024. The plan will be definitively submitted to the EC by 30.06.2024.

2.3. The ESC underlines that the project of 22.12.2023 presented the concepts for an update without completing the modelling under the baseline scenarios. The ESC notes that the latest version, published for public discussion on 12.06.2024, is not accompanied by the details of the modeling of the two scenarios, which limits our assessment capabilities too much.

2.4. The ESC considers the updated version of the INECPs as a document of high socio-economic importance for our country, as it sets out the higher goals set by the European Green Deal and the European Climate Law, the Fit for 55 package, REPowerEU, and which goals will be transposed into legislation, which will significantly change the economic framework in our country. The document has a long-term impact by setting national targets across the five dimensions of the 2030 Plan – decarbonisation, energy efficiency and security, the internal energy market, as well as research, innovation and competitiveness.

2.5. The ESC points out that the goals set are extremely ambitious, and their implementation requires finding a balance between maintaining security of supply and the transition to a low-emission economy. It should be recognised that common binding targets have been set at European Union level up to 2030, but there are no requirements for specific national targets. The EC's leverage on national commitments is by promoting higher ambition in the INECPs and securing funding in this direction.

2.6. Drawing attention to the consistency of the proposals and recommendations presented so far, the ESC stresses that this resolution reflects the concerns of representatives of organised civil society regarding the delay in the implementation of NRRP and TJTP measures.

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<sup>1</sup> <https://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=1301>

<sup>2</sup> [https://commission.europa.eu/publications/commission-recommendation-assessment-swd-and-factsheet-draft-updated-national-energy-and-climate-24\\_en](https://commission.europa.eu/publications/commission-recommendation-assessment-swd-and-factsheet-draft-updated-national-energy-and-climate-24_en)

### **3. Key aspects of the INECPs**

3.1. The ESC draws attention to the fact that the national framework set out in the INECP for Bulgaria is set by the climate targets, which include more specific commitments, such as:

- Achieve climate neutrality by 2050;
- Phasing out coal-fired electricity production by the end of 2038;
- Adopt a national GHG emission reduction target for 2030 compared to 2005 for non-ETS sectors of 10% compared to their 2005 emissions;
- Adopt a national target of 34.48% for the share of renewable energy in gross final energy consumption by 2030, which has three sub-sections – electricity, heat and cooling and transport;
- Reduce primary energy consumption by 2030 compared to the 2020 Reference Scenario by 11.6%;
- Reduce final energy consumption by 2030 compared to the 2020 Reference Scenario by 10.7%;
- Achieve a 15% electricity interconnection level by 2030.

3.2. These broader objectives have an impact on all economic sectors and have been taken into account in the design of both scenarios:

- Scenario of existing policies and measures (WEM);
- Scenario with additional policies and measures (WAM).

**In particular, policies and measures have been developed as follows:**

#### ***Decarbonisation dimension***

3.3. The ESC notes that the decarbonisation dimension is directly linked to climate change mitigation policies, with the INECPs presenting assessments of climate risks and vulnerabilities, mainly through temperature increases and intense rainfall. In this regard, adaptation and preventive actions are recommended.

3.4. The ESC takes into account that the main category contributing to the removal of greenhouse gases is the forestry sector. All other categories (arable land, settlements, water areas) are sources of CO<sub>2</sub> emissions. The main reason for the overall consistent performance for sinks is due to the decline from removals by the forest sector.

3.5. The ESC notes that the energy sector is responsible for approximately three quarters of GHG emission reductions between 1988 and 2022, but in the future, under the pressure of market mechanisms, the main energy sites emitting CO<sub>2</sub> will be curbed.

3.6. The ESC points out that the energy-intensive industry and its competitiveness in the decarbonisation process must be included in detail in the analyses accompanying the

preparation of the INECs. The energy-intensive industry should be examined in detail by sector and specific energy and climate measures should be identified. This industry is important in terms of balancing the electricity system.

3.7. The ESC stresses that the implementation of decarbonisation objectives in the industrial sector can be achieved by taking into account the characteristics of the existing model of industrial symbiosis and in particular of the metal recycling industry, which makes a major contribution to both the circular economy and climate policy, saving primary resources, energy and CO<sub>2</sub>. In this context, it is important to explore the market potential of industrial options for removing greenhouse gases by capturing, storing or converting them into high value-added products.

3.8. The ESC recalls that a significant part of the industry (combustion installations, energy-intensive industry) is covered by the Emissions Trading Scheme, which links decarbonisation and the risks to the operation of our electricity system with risks to the business activities of businesses.

3.9. The ESC supports the recommendation already expressed to take into account the need for contributions from all sectors, taking into account the possibilities for decarbonising the industrial sector while respecting the principle of technological neutrality - both in terms of technology and in terms of applying the measures to specific technological processes. It is necessary to take into account the specifics of the regions and the specific factors and prerequisites for development at local level, to provide conditions for technology transfer in line with incentives / support for scientific and applied development.

3.10. ESC supports the expectations for the uptake of innovative renewable technologies for electricity production and for an increasing contribution of hydrogen used in end-use in industry for energy and non-energy needs. These expectations should be linked to specific measures under the research, innovation and competitiveness dimension. On the other hand, where immature technologies are used, additional financial support should be provided in the investment phase and in the operational expenditure phase for the deployment of innovative renewable technologies for the production of electricity and of hydrogen used in the industry's final consumption for energy and non-energy purposes.

### ***Energy efficiency dimension***

3.11. The ESC supports the emphasis in the INECs on the policies covered by the long-term strategy to support the renovation of the national stock of residential and non-residential buildings, both public and private, towards a highly energy-efficient and decarbonised building stock by 2050. These policies should facilitate the cost-effective transformation of existing buildings into nearly zero-energy buildings by prioritising buildings with energy consumption classes E, F and G for all building categories.

3.12. The ESC notes that the INECs consider incentives for efficient district heating, as well as measures for the construction of gas distribution networks, the retrofitting of combustion plants to replace used solid, liquid fuels and electricity and the supply of natural gas, as well as

a set of measures and actions to improve the management of combustion plants at end-users. These measures require significant financial resources, not only from energy companies but also from consumers.

3.13. To support the achievement of the national energy efficiency target, an energy savings obligation scheme has been put in place by 31 December 2030, as well as alternative measures to ensure the achievement of an overall cumulative end-use energy savings target. The ESC points out that so far the practice of applying this scheme and the alternative measures has not been positive, and the measures for the renovation of the national building stock are significantly lagging behind.

3.14. The ESC stresses that the result of the implementation of the envisaged measures leads to an increase in household expenditure, as total system expenditure follows an upward trend that stabilises only by 2035. Due to the investments made in the energy modernisation of residential buildings, the household expenditure structure shifts, with fuel expenditure accounting for a decreasing share (reaching 13% of total system expenditure in households by 2050) in favour of investment expenditure on equipment and direct efficiency.

### ***Energy security dimension***

3.15. The ESC supports the scope of national objectives under this dimension, which include:

- Diversification of the supply of energy resources – gas and nuclear fuel;
- Wide range of measures for the development of the gas transmission network and new gas projects;
- Sustainable use of indigenous energy resources, including the development of local natural gas production projects and the creation of a strategic national natural gas reserve;
- Developing the potential for utilization of geothermal energy sources.
- Increasing the flexibility of the national energy system;
- Addressing limited or interrupted supply of an energy source in order to improve the resilience of regional and national energy systems;
- Enhancing network and information security (cybersecurity).

3.16. At the same time, the ESC stresses that by 2030, the early decommissioning of solid fuel power plants and the short timeframe for the implementation of renewable energy projects lead to a decrease in exports and an increase in electricity imports. Our position as an exporter is restored only with the commissioning of a new unit at Kozloduy NPP by 2035.

3.17. The ESC has repeatedly expressed the position that coal-fired power plants are a major provider of electricity system balancing services, which is why they are a major factor in the country's electricity security. This function should be supported by an adequate remuneration of the costs of participating in a balancing market with the provision of system services.



3.18. The ESC points out that in order to achieve the objectives in the electricity sector, it is important to encourage investment in the development of the country's electricity transmission and distribution networks. On this topic, the INECPs focus mainly on European support instruments and there is no assessment of national contributions. At the same time, measures to increase the flexibility of the energy system by introducing smart meters are key to encouraging electricity consumers to participate more actively and effectively in the market.

3.19. Although the INECPs do not aim to ensure a just energy transition, the ESC takes the stand that the plan has a direct bearing on the operating forecasts of coal plants and hence on the planning of actions under the Territorial Just Transition Plans.

3.20. The ESC considers that the recommendations reflected in the INECP for the inclusion of TPP Maritsa East 2 EAD in a mechanism to ensure the reliability of the energy system and the introduction of a capacity mechanism in the form of a strategic reserve have not been prioritised, and there are no planned measures in the scope of Chapter POLICIES and MEASURES in this sense. When discussing the decarbonisation dimension and the energy security dimension, the focus is on natural gas as a substitute fuel. At the same time, local production, demand and exploration for natural gas in Bulgaria are blocked, including for shale gas, where technologies have undergone rapid development and are much more environmentally friendly.

3.21. ESC notes the expectations for an increase of nearly 84% in the energy capacity using natural gas, which in 2040 will reach 2.69 GW. This generally shows the trend of replacing coal with natural gas, which essentially means replacing a domestic resource with an imported raw material. At the same time, the envisaged new electricity capacities of natural gas and new PSHPPs do not compensate for the current capabilities of coal-fired power plants, such as reserve and balancing installations of national and regional importance. For these reasons, we do not support the idea that the system is balanced, justified by the projected drastic reduction in gross electricity production by – 23.7% in 2030 compared to 2022.

3.22. The ESC stresses the importance of plans for the retraining of workers and employees, as well as the need to structure the process of linking mining activities with planned mining works and the implementation of land restoration activities.

### ***Internal energy market dimension***

3.23. The ESC notes that attention has been paid to the level of electricity interconnection for each Member State, with Bulgaria setting a target of at least 15% electricity interconnection and will achieve this target through the implementation of projects of common interest and additional initiatives. Due to good market and physical connectivity, this priority is feasible for us.

3.24. At the same time, the ESC points out that in the field of electricity transmission infrastructure, projects for pumped-storage hydropower plants, digital transformation of the electricity transmission network and sustainable adaptation of the national electricity

transmission network for the connection of new RES and measurement of supplies to low-voltage consumers are important for Bulgaria.

3.25. The ESC points out that for Bulgaria the main challenge is the liberalization of the market and the elimination of the regulated market for household consumers. This process will take place in the face of increasing costs:

- The RES penetration projected for the energy sector in the additional policies and measures (WAM) scenario is responsible for the increased investment costs, which in 2030 are more than double the corresponding costs of the existing policies and measures (WEM) scenario.
- As energy efficiency is promoted more intensively under the WAM scenario, the corresponding investment costs in all industrial sectors increase by more than 2-3 times compared to the WEM scenario.
- Consumer gas prices correspond to blended pipeline gas, which from 2040 onwards includes a significant share of hydrogen, biogas and synthetic methane, a fact that explains the upward trend in the period 2040-2050.

3.26. The ESC stresses that the objectives of market liberalisation in the electricity sector must be combined with measures of predictability and lack of price volatility, in connection with which regulatory mechanisms and a well-functioning market infrastructure are needed. Reforms of the regulated market depend on the introduction of a mechanism to protect energy vulnerable consumer groups, but also have a direct link with the objectives of a just transition in coal regions. Market liberalisation and decarbonisation must not lead to an increase in unemployment and the marginalisation of significant population groups. We believe that from the earliest stage adequate active labour market measures should be planned and set as part of the plans, and the implementation of support measures according to the criteria for "energy poverty" for households should precede liberalisation.

3.27. At the same time, the ESC expresses its serious concern about the timing of the finalisation of the legislative process for the adoption of all provisions important for society, the economy, the energy sector and households, as well as the application of the definition of the phenomenon of energy poverty and the criteria for determining the scope of persons and households in energy poverty.

3.28. The ESC points out that speeding up the deadlines for identifying and registering people and households in energy poverty will create the real prerequisites for the social assistance of these entities and will ensure a greater degree of fairness in the energy transition and reduce the negative impact on these entities in the context of the liberalisation of the energy market.

3.29. The ESC welcomes the steps taken regarding the legal regulation of the definition and conditions for consumers who can produce energy themselves – so-called "active customers" (or "prosumers") and for so-called "citizen energy communities". However, we believe that these measures are extremely late in their introduction into the legal framework and

socio-economic relations and the process should be accelerated and synchronized in the energy and by-laws.

### ***Research, innovation and competitiveness dimension***

3.30. The ESC supports the development themes identified in the framework of research, innovation and competitiveness, which are aimed at:

- Implementation of high-efficiency energy technologies;
- Smart energy grids and energy storage;
- Research in the field of nuclear energy;
- Explore the possibilities of deploying electrochemical energy sources such as batteries, hydrogen-based technologies and fuel cells;
- Technologies to produce renewable hydrogen as well as green ammonia, including transport, storage and distribution systems for end-use.

3.31. The ESC draws attention to the need for a clear commitment on the part of the state to adequately support scientific units, universities and industrial laboratories in initial funding and participation in international projects.

## **4. Sectoral impact of INECPs**

4.1. The ESC stresses that the energy sector bears the brunt of measures to significantly reduce emissions with measures in the fields of electricity and heating and cooling, with the sector responsible for 89% of the CO<sub>2</sub> reductions achieved in 2030.

4.2. The INECPs propose a set of reforms and/or investments to help deliver the green transition and modernisation of the energy sector and the energy efficiency targets set. Despite the positive nature of the measures taken separately, the ESC points out that they do not make an equal contribution to achieving the objectives. For example, investments in energy efficiency have a relatively limited result in the years up to 2030, while ambitions to build new RES capacity are too high relative to the capacity of the electricity transmission and distribution networks. Thus, one of the main measures to protect consumers from rising energy costs will have a much more delayed effect than initiatives leading to higher final prices for consumers.

4.3. The transport sector has a share of 29.66% of renewable energy in final energy consumption in transport in 2030, relying on biofuels and projected consumption of green hydrogen produced using renewable electricity (wind and solar). Equally, electro-mobility should contribute to this objective, which requires an accelerated deployment of charging infrastructure for electric and hybrid cars. The ESC points out that these objectives are associated with significant financial resources, especially when planning the application of new technologies that are currently at a relatively early level of technological development.

4.4. The ESC notes that the main measures for reducing greenhouse gases in the industrial sector are energy efficiency in industry and reducing heat losses, increasing the use of natural gas and alternative fuels in industry through new infrastructure, introducing energy

management systems in industry, as well as promoting carbon capture and storage projects. All these measures require the provision of adequate support programmes for the private sector.

4.5. By 2030, the transport and industry sectors are expected to see an increase in the use of biomass, which is the result of an increase in the sustainable use of advanced biofuels and solid biomass. The ESC stresses that the implementation of a strategy for forest and waste management is key in this regard.

4.6. Households are expected to see a decline in final biomass consumption with increased energy efficiency, increased electricity production from solar, wind and geothermia, increased penetration of heat pumps and reduced demand for heat produced by district heating plants. The ESC draws attention to the financial resources needed to implement the measures.

4.7. The ESC supports the implementation of a strategic plan for agriculture and rural development to mitigate and adapt to climate change, promote environmental schemes for the climate, the environment and animal welfare.

4.8. The heating and cooling sector has a share of 43.66% of renewable energy in gross final consumption of heating and cooling in 2030. This should take into account the requirements of the Directive for new or substantially refurbished cogeneration installations, where the direct emissions of carbon dioxide from cogeneration using fossil fuels are below 270 g CO<sub>2</sub> per 1 kWh of energy. Cogeneration plants in operation before 10 October 2023 may derogate from this requirement until 1 January 2034, provided that they have a phase-down plan to reach the threshold of less than 270 g CO<sub>2</sub> per 1 kWh by 1 January 2034. The ESC points out that even for combined natural gas installations, these emission levels are difficult to achieve without blending with hydrogen. On the other hand, the INECPs do not cite plans of the main district heating companies that would indicate preparation for achieving such goals, taking into account the limitative requirements. This shows that the forecasts for the development of district heating are too optimistic.

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