

REALIGNING BULGARIA'S ENERGY AND CLIMATE STRATEGY

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The Russian invasion of Ukraine has exacerbated a global energy crisis that has severely affected the EU. Skyrocketing natural gas and electricity prices have triggered more than **EUR 1 trillion in government spending to prevent energy poverty and stopgap the process of deindustrialisation**.¹ The energy crisis stalked a public backlash against the European Green Deal, which was enabled by political parties across the aisle struggling to preserve or gain popular support amid the continuing political crisis. These tectonic shifts could derail the process of energy transition and industrial modernisation, in which Bulgaria is already lagging behind, threatening international competitiveness and private sector investment.

The government's window of opportunity to **realign Bulgaria's energy and climate security strategy**, decarbonise its economy and complete the strategic decoupling from Russia's technological and economic influence, is rapidly closing. Sofia can expect to receive a substantial additional public investment package from the EU until mid-2026, provided it meets certain reform milestones under the National Recovery and Resilience Plan (NRRP). The submission of the revised National Energy and Climate Plan (NECP)² in January 2025, represented an ideal opportunity to bring together decarbonisation, energy efficiency and energy security under **a common energy system integration planning**, whilst considering just transition and energy poverty implications, and reflecting the drastic change in Europe's energy landscape since 2022.

KEY POINTS

- The **public backlash** against the European Green Deal could derail the process of energy transition and industrial modernisation in Bulgaria.
- Despite setting ambitious emissions reduction targets, the NECP does not define **evidence-based policies** and concrete measures to meet these objectives.
- The revised NECP aims to **preserve coal power plants** in the power mix until at least 2038 and lock-in the country in the construction of **two new nuclear reactors** at the Kozloduy power plant.
- The ambitious RES targets are not matched with **concrete policy measures**, including removing legal and administrative hurdles, providing financial incentives for investors, and sufficiently **upgrading the grid** to accommodate the surge in new capacity.
- Bulgaria should prioritise the unlocking of the country's enormous **wind energy potential**, which will help balance the grid and ease the phaseout of fossil fuel use for power generation, allowing for new investment opportunities, and cleaner air.
- The government should define concrete policies for **speeding up electrification**, replacing natural gas in industry and increasing energy efficiency in buildings. The focus should be on **empowering citizens** to become active participants in the energy transition process.

¹ By early 2023, EU member states have spent around EUR 800 billion on subsidising the energy bills of household and industrial consumers. Many of these programmes have continued until at least mid-2023 when the EU removed the state aid clearance for such subsidy schemes. In: – Abnett, K., “[Europe's spend on energy crisis nears 800 billion euros](#)”, *Reuters*, February 13, 2023.

² EC, [National Energy and Climate Plan 2021 – 2030 – Bulgaria](#).

The political instability in Bulgaria since 2021 and the **strong influence of the coal and nuclear lobbies** have slowed down key energy transition reforms. Despite setting ambitious emissions reduction targets, **the NECP does not define evidence-based policies and concrete measures** to meet these objectives. Instead, the Plan attempts to square these goals with the preservation of the coal power plants, and justify the construction of **two new nuclear reactors** that would double Bulgaria’s installed nuclear capacity by 2040. This will divert public funds to fossil-fuels, instead of supporting low-carbon technologies, thus delaying decarbonisation.

The policy framework of the NECP rests on two ambitious, but not well-substantiated modelling scenarios:

- **WEM** (With Existing Measures) approximates the Bulgarian reference scenario in line with the European Environmental Agency (EEA) 2020 WEM scenario. It assumes a continuation of current trends and policies;
- **WAM** (With Additional Measures) steps on the main assumptions and proposed policies in Bulgaria’s revised NECP and expands the proposed government vision to evaluate its feasibility and address inherent contradictions.

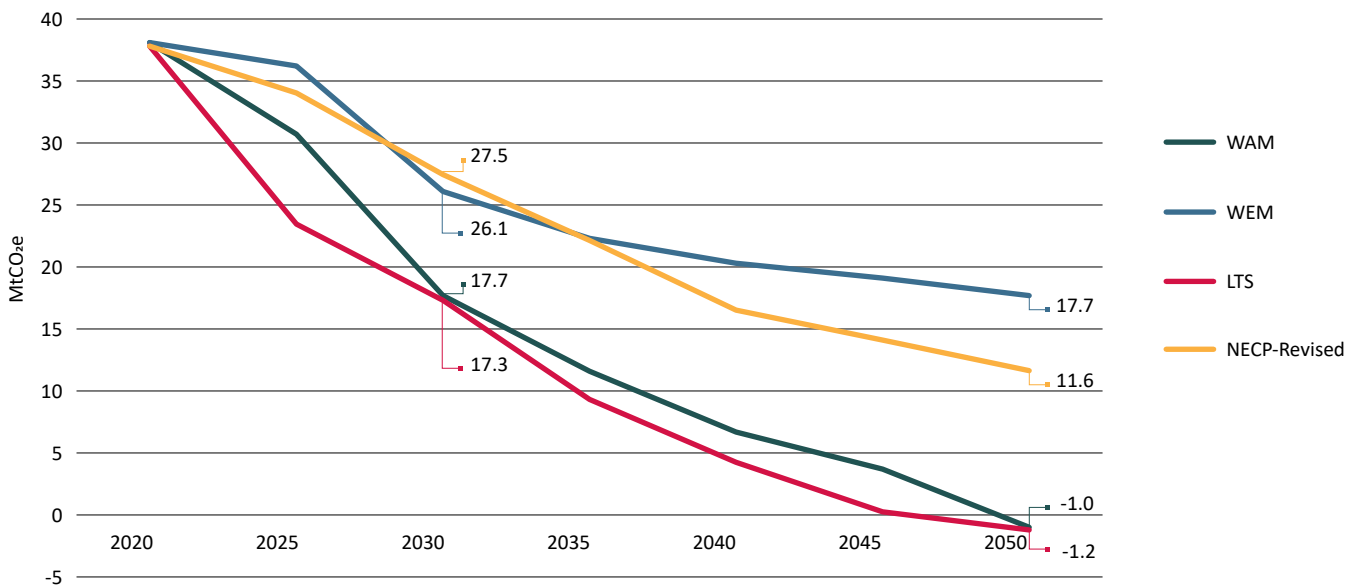
The data used to develop both scenarios is not publicly available, which means that it is impossible to recreate the models or review the assumptions, on which the pathways are based, **putting into question the objectivity of the proposed policies**.

There is a **lack of in-depth bottom-up analysis of the demand in each sector** to understand the key drivers of consumption and investment patterns. Instead, the **sectoral objectives appear to have been predetermined to fit a certain decarbonisation approach** that imposes artificial delays in the closing of coal power plants and the addition of new nuclear facilities.

CSD has leveraged the *Pathways Explorer* modelling tool to benchmark and test the official government models by drawing out two alternative scenarios for the future of decarbonisation³:

- **NECP-Revised** steps on the main assumptions and proposed policies in the revised NECP to evaluate its feasibility and address any contradictions. It largely corresponds to the WEM scenario.
- **LTS (Long-term Strategy for Decarbonisation)** sets out more ambitious long-term decarbonisation targets and a coherent framework leading to carbon neutrality by 2050. LTS follows similar decarbonisation trends to the WAM scenario.

Figure 1. Decarbonisation scenarios



Sources: Final NECP and CSD own calculations based on Pathways Explorer.

³ Vladimirov, M. et al., *Exiting the Vicious Cycle: Long-term Vision for Decarbonisation and Transformation of the Bulgarian Economy*, Sofia: Center for the Study of Democracy, 2024.

Stifled Decarbonisation

The NECP envisions that the reductions in greenhouse gas (GHG) emissions would likely come from the decarbonisation of the energy sector, as the share of renewable energy sources (RES) in the power demand rises, and, to a lesser extent, through the electrification of the transport and industry sectors. However, the main focus of the NECP, both in terms of investments and long-term impact on Bulgaria's energy mix and security of supply, is on the preservation and even expansion of fossil fuels use in the power sector.

Under the guise of safeguarding the country's security of electricity supply through the **continued use of "indigenous energy sources"**, the NECP is effectively **locking Bulgaria into long-term nuclear, coal and natural gas dependence**. This policy focus seems to be the result of the capture of the energy sector by coal and nuclear energy interests that have benefitted from direct state subsidies and public procurement contracts. The price of locking Bulgaria into the legacy fossil fuel industry and large-scale state capture-driven projects will be paid by Bulgarian taxpayers even when these public resources could be invested more efficiently in the transformation of the Bulgarian economy.

The Plan sets the national **decarbonisation target** for non-emissions trading sectors **at 10%** compared to 2005 levels, the minimum required by the EU in the 'Fit-for-55' policy framework. This is a clear sign that Bulgaria does not have the political will or the vision to extend the transition beyond the energy sector.⁴ The introduction of the **Emissions Trading System 2 (ETS2)**, under which the transport and industrial sectors will also be obliged to buy CO₂ emission allowances, **could unleash a strong backlash from stakeholders** against the new European regulations, if the lack of policy ambition in non-energy areas persists. On the other hand, exposing more sectors to ETS price signals can lead to a wave of private investment, but only if the government creates an enabling environment and designs an effective strategy to protect vulnerable consumers.

Nuclear Revival

In the WAM scenario, the revised NECP projects that **electricity consumption will reach 47.7 TWh in 2050, while power generation will grow to 80.3 TWh**. This increase is directly linked to the planned construction of **two new reactors at Kozloduy Nuclear Power**

Plant (NPP), which the government hopes will secure Bulgaria's role as a net electricity exporter. However, if the government commits to installing 4.4 GW of nuclear capacity before decommissioning the existing reactors, the anticipated 30 GW of new renewable capacity by 2050, as projected by CSD's LTS scenario, may be blocked due to insufficient grid capacity and a shrinking market share. Alternatively, nuclear investments may fail to materialize or require full state guarantees and loans to proceed.

According to CSD's modelling, **Bulgaria does not need new nuclear power generation capacity before 2050**, provided that renewable energy and storage investments – funded by private companies on market principles – receive policy support through an enabling regulatory environment.⁵ The construction of new nuclear units should not commence before the mid-2030s, ensuring they are ready by 2050 if still necessary. By then, advancements in renewable energy and storage technologies could further reduce the competitiveness of nuclear power, forcing a reassessment of Bulgaria's energy strategy. Alternatively, the country could explore low-carbon alternatives, such as small modular reactors (SMRs), which may revolutionise the industry.

Nuclear energy currently accounts for 35% of Bulgaria's power mix. Expanding nuclear capacity amid rapid growth in renewable power plants and battery storage is unlikely to be economically viable based on past performance. The construction of two new nuclear reactors would only make financial sense if they replace the existing Kozloduy units, which could continue operating safely until mid-century. **The planned nuclear expansion could also jeopardize grid stability**, as Bulgaria's average electricity load is around 4.5 GW, meaning nuclear alone could cover demand for most of the year if all units operate simultaneously. With considerable renewable energy investments already planned, excess generation will create major grid management challenges. **If Bulgaria cannot sell the surplus electricity, it may be forced to prematurely shut down Kozloduy Units 5 and 6**, severely impacting the financial viability of the state-owned power sector.

The Vicious Cycle of Coal Dependence

At the core of the government's insistence on **preserving coal until 2038** is the fear, incited by the coal industry itself, that an accelerated coal phaseout will lead to electricity shortages. Different modelling assessments have consistently shown that **Bulgaria will**

⁴ CSD expert assessment, based on interviews with sector stakeholders.

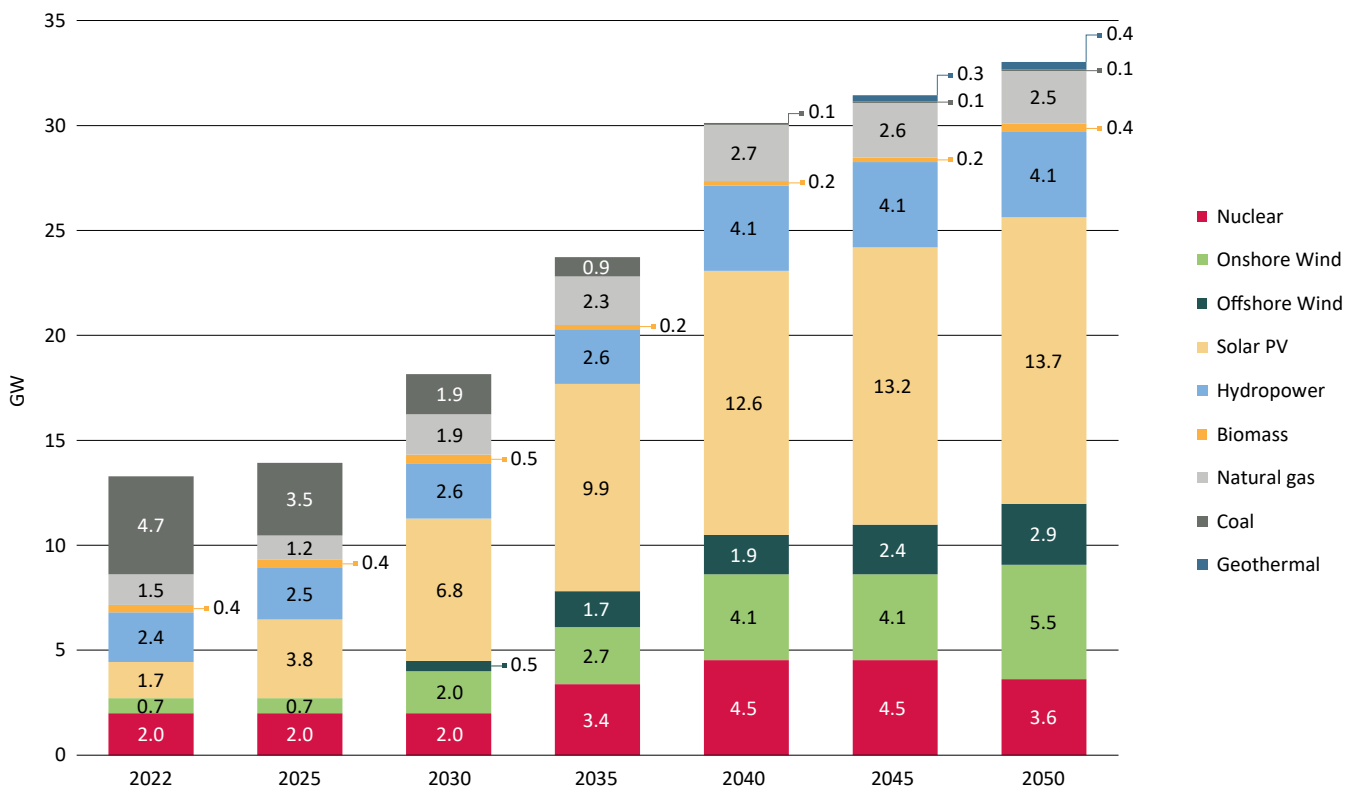
⁵ Vladimirov, *Exiting the Vicious Cycle*, Sofia: CSD, 2024.

be able to cover part of its consumption needs with imports from neighbouring countries, often at lower prices than the ones of the local coal-based electricity generators.⁶ This probably means that Bulgaria will become a net importer of electricity in the short run before the uptake of renewables, including onshore and offshore wind, and energy storage facilities by 2035.

The NECP maintains **1.5 GW of coal power until 2030, dropping to 1 GW in the form of a strategic reserve by 2038**, even though the final deadline to remove state subsidies for coal power plants with an emission factor above 550 g/kWh of electricity produced is 1 January, 2026.⁷ Without state support, coal power plants are not competitive and will soon be forced out of the market. Although the section on phasing out fossil fuel subsidies in the NECP is left empty, **for Bulgaria to maintain coal power, the government has delayed key reforms, including implementing the Territorial Just Transition Plans.**

As a result of the **delayed liberalisation of the electricity market**, under the current market model, household electricity prices are regulated and the state-owned National Electricity Company (NEK), the power supplier for the regulated market, is required to source electricity from the state-owned Maritsa East 2 and the AES Galabovo lignite facilities.⁸ The regulator sets the regulated price for the coal plants above their costs for purchasing coal and ETS quotas. The difference between the price of the regulated mix and the household tariffs is covered by the Electricity System Sustainability Fund, which collects state revenues from the sale of surplus ETS quotas and a 5% revenue tax paid by power producers, traders and transmission operators. The delay in market liberalisation is in direct contradiction with Bulgaria’s commitments under the NRRP, which **could cost the country up to EUR 5 billion in EU funds that should be directed at supporting decarbonisation efforts.**

Figure 2. Electricity mix in Bulgaria between 2022 and 2050, NECP, WAM scenario



Sources: Final NECP (combined data from Figures 8 and 114).

⁶ Vladimirov, M. et al., *Decarbonising the Bulgarian Power Sector: Resolving the Coal Phase-Out – Security of Supply Conundrum*, Sofia: Center for the Study of Democracy, 2023.

⁷ EU, Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast).

⁸ The Power Purchasing Agreement with AES Galabovo expires in January 2027. It is in contradiction with EU competition law, but the government can meet its contractual commitments through the regulated market.

As an example of why only state subsidies can keep coal power plants open, in February 2024, the ContourGlobal Maritsa East 3 lignite plant decided to shut down generation, when its long-term Power Purchasing Agreement (PPA) with NEK expired. To try to keep the plant running, in late 2024, the government announced **plans to increase its share in the plant, reopen it and continue buying its electricity at above-market prices**, following a targeted media campaign suggesting Bulgaria was due to face electricity shortages.

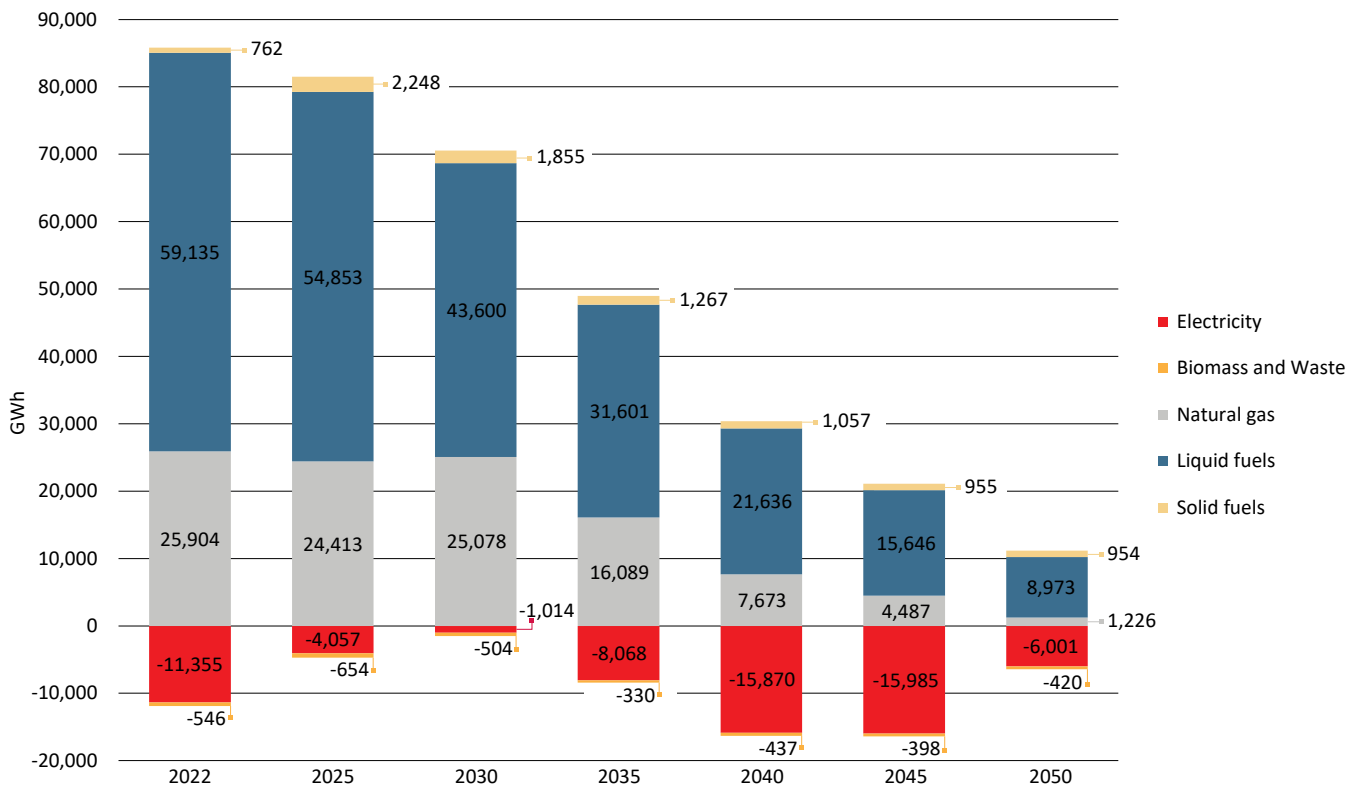
The NECP proposes **converting coal power plants into gas-fired generation units**. While they have a lower emission factor, such a transformation will be very costly due to the unfavourable gas market and investment conditions. Hence, it is likely that these investments may never be repaid, potentially resulting in long-term stranded assets. In addition, increasing gas use will also crowd out renewables investment, and extend Bulgaria's reliance on natural gas imports, at least half of which still come indirectly from Russia.

Natural Gas

The NECP emphasises the role of **natural gas as a transition fuel** not only in the power sector, but also by proposing an extensive list of concrete measures intended to diversify supply sources and expand transmission routes. Among them is the planned development of the internal gas transmission network, the increase of the available technical capacity at entry-exit cross-border interconnection points and the continued expansion of the gas supply network for residential consumers. The NECP also includes as a priority the expansion of the Chiren underground gas storage facility. In addition, the strategic document argues for the **acceleration of natural gas extraction projects**, the establishment of a strategic national natural gas reserve and the introduction of minimum storage levels and filling obligations.

These proposals fail to take into consideration that **currently gas does not play an important role for**

Figure 3. Net fuel imports, WAM scenario



Source: Final NECP (Figure 14).

the Bulgarian economy and such a costly structural transformation would not pay off. Currently, only around 3% of Bulgarian households are directly connected to the gas distribution grid. Between a third and half of the annual national gas consumption (around 3 billion cubic meters) comes from the Sofia district heating company, and the rest is utilised in the heavy industry including in petrochemical, fertiliser and glass businesses. The Bulgarian industry remains one of the most energy-intensive in the EU, and hence, the potential for energy savings, including the reduction of natural gas consumption is enormous. Similarly, Bulgarian households have been rapidly electrifying their heating demand on the back of low regulated power tariffs, which will gradually erode the share of district heating.

The proposed measures would certainly increase natural gas security in the short to medium term, but **the NECP lacks a long-term strategy for phasing out gas altogether**, which is the only sustainable solution to eliminating the risk of future supply disruptions.⁹ Cutting natural gas demand would reduce Bulgaria's import needs, enabling supply diversification without additional infrastructure investments or new supply agreements.

The Plan's modelling assessment does not back up higher gas use. High gas prices on European markets would deter the expansion of the gas sector in the country. Advancing gas projects will **likely lead not only to stranded assets, but also to the increase of Bulgaria's gas import dependence.**

In the modelling of the net fuel imports, gas imports remain unchanged until 2030, but then decline steeply after 2035, and nearly disappear in 2050. This points to either an increase in local production to cover the domestic gas demand or on the full repurposing of the gas transmission and cross-border transit grid to accommodate 100% hydrogen supply.

The Plan justifies the uptake of natural gas with the goal to **increase green hydrogen production** in the near future and the repurposing of the gas network for hydrogen use, but proposes **no concrete measures to complete this shift.**

The NECP also misses the opportunity to develop a plan to replace natural gas in district heating through the

introduction of solar thermal, industrial heat pumps, waste heat, biomass and geothermal technologies. EU funds are available to support this transformation while public funding for expanding gas distribution and transmission capacities has been made nearly impossible under the EU rules.

No Consistent Support for RES Investment

The NECP sets Bulgaria's target for **gross final energy consumption from RES at little below 35%** by 2030, with sectoral sub-targets of **around 50% in electricity, 44% in heating and cooling and circa 30% in transport**, as per the WAM scenario. The initially proposed target for the power sector was 55.6%, which meant 90% decarbonisation of electricity by 2030 considering the existing nuclear power plants. Whilst ambitious, these targets are linked to a patchwork of policy proposals, which are unlikely to overcome the **lack of a sound and transparent regulatory environment** supporting private investments and the low-carbon transformation of the Bulgarian economy.

The expansion of the RES share comes on the back of the growth of **solar power**, resulting from an exponential rise in new photovoltaic (PV) investment, expected to last at least until 2030. However, the **Plan does not propose clear measures to improve the regulatory framework and unleash an even stronger growth of the sector**, especially the uptake of power supply decentralisation and energy communities.

The most notable gap in the NECP is that it does not draw out a plan on **removing the bottlenecks before the development of both onshore and offshore wind energy projects**, including no plan for a special offshore wind energy regulatory framework. In effect, the NECP envisions that the energy transition will be driven entirely by solar PV, which is contributing to the entrenchment of deep sectoral imbalances. Under the WAM scenario, by 2050, solar capacity is expected to reach 13.7 GW, while the combined onshore and offshore wind capacity would amount to 8.3 GW (reduced from 9.3 GW in the previous version of the NECP, without any explanation).

⁹ Rangelova, K. and Vladimirov, M., *The Future of Natural Gas in Southeast Europe: Diversification and Phaseout after the Russian Invasion in Ukraine*, Sofia: Center for the Study of Democracy, 2023.

Bulgaria could have as much as 23 GW of installed wind capacity (10 GW onshore and 13 GW offshore) by mid-century.¹⁰ Yet, Bulgaria could miss the opportunity to harness its vast wind potential if the right market conditions are not set in place. Hence, Bulgaria would miss the opportunity to unlock billions in new investment in wind equipment manufacturing facilities and infrastructure logistics upgrades. Unlike Bulgaria, neighbouring Romania has accelerated investments in onshore wind and has passed a dedicated offshore wind energy law, positioning itself as a regional leader in the Black Sea.

Biomass

The **NECP lacks analysis and concrete targets on land use and forestry**. Furthermore, the strategic document **does not include any targets, criteria, policies or measures aimed at afforestation**, which is critical for maintaining Bulgaria's emission sequestration potential and meeting its climate neutrality goal by 2050.

Instead, the NECP envisages an **overall increase in the use of biomass**, reaching 24% or 1572 ktoe of final energy consumption in 2050 without providing a clear justification of what is driving this upward trend. Hence, it appears that the government has once again tried **to continue relying on the use of firewood to fulfil its RES targets in heating and cooling**, which is unrealistic given the rapidly declining firewood use by households, expected to fall below 6% in 2050.

The drop in biomass use in households is likely to be compensated by higher domestic **electrification rates reaching above 80%** by mid-century. Apart from having health and environmental benefits, the NECP does not provide a clear roadmap of how this switch will be achieved, especially by low-income households, which are often unable to access centralised forms of energy supply such as natural gas and electricity, or cover the higher costs of using power or gas.

The process of **energy poverty mitigation is closely linked with Bulgaria's plans to liberalise its electricity market**. Since there is a direct correlation between the use of solid biomass and the high levels of energy poverty, the gradual switch from firewood to electricity is seen as a significant risk for the potential surge in energy affordability risks. The NECP misses the opportunity to end this vicious cycle and ensure

that low-income households have access to energy efficiency services and receive support for the uptake of low-carbon, decentralised power generation solutions, as well as individual investment support schemes.

The NECP foresees the use of biomass for industrial scale application and energy production. However, it is worth noting that in the narrative biomass is often mentioned alongside the utilisation of poorly defined waste resources for energy use – including municipal waste. In such cases a clearer differentiation is necessary as many types of waste do not qualify as renewable sources.

Energy Storage and Grid Modernisation

Key for the sustainability of the energy transition is the expansion of the battery storage capacity and the upgrade of the power transmission and distribution grid. The NECP foresees the **installation of up to 3.7 GW of storage capacity by 2050** under the WAM scenario. The additions will come on the back of a combination of **new battery storage facilities (reaching 1.28 GW by 2050)**, through the NRRP-funded RESTORE scheme, launched in 2024, and the **expansion of Bulgaria's hydro pumped storage plants**, through the repair and upgrade of the currently-not-functioning Chaira generators, as well as the development of three new reservoirs at the Yadenitsa-Chaira, Batak and Dospat dams, each adding 0.8 GW of storage capacity. However, the hydropower sector faces uncertainty as NEK is struggling to repair the Chaira facility, while the construction of new hydropower plants has been met with strong opposition from local communities.

In addition, the NECP aims to **increase the flexibility of the electricity system**, a crucial prerequisite for the successful integration of renewables in the grid. However, the Plan does not propose measures for the introduction of other equally important technical solutions such as smart metering, sensors, and advanced communication networks that would facilitate real-time monitoring and automated grid management.

Transport and Industry

Compared to energy, the **transport and industry sectors** have not received much policy attention and are not mentioned in details by the NECP as there are no detailed policy strategies that aim at removing fossil fuels in the transport and industrial demand, or at increasing energy efficiency and supporting innovation. The lack of policy ideas and objectives is

¹⁰ Vladimirov, *Exiting the Vicious Cycle*, Sofia: CSD, 2024; Trifonova, M. and Vladimirov, M., *Wind Power Generation in Bulgaria: Assessment of the Black Sea Offshore Potential*, Sofia: Center for the Study of Democracy, 2021.

even more striking considering that the two sectors account for 22% and 20% of Bulgaria's GHG emissions, respectively.¹¹

Bulgaria aims to reach a 30% renewable energy share **in the transport sector by 2030** although the NECP does not propose any new sectoral decarbonisation measures. Instead, the Plan **only lists existing objectives**, such as increasing the use of public transport, speeding up the electrification of the vehicle fleet and significantly raising the modal share of rail services for both passengers and freight. However, these broad proposals are not linked to any responsible stakeholders, specific objectives or concrete measures. In fact, there has been no progress made towards reducing road transport emissions, as the number of registered passenger vehicles in Bulgaria keeps rising, reaching 3 million in 2023.¹²

Much greater policy focus is also needed for achieving **industrial decarbonisation**, especially in the heavy industry. While there are structural reasons for the limited uptake of new low-carbon technologies for large-scale use, the **NECP does not propose any substantial new policies** for the electrification of low-heat processes, on-site power generation and storage. Instead, the Plan **relies on individual actors to replace natural gas use with hydrogen, projecting that it will account for 42% of the renewable fuels mix** in industry by 2030, but without providing any detail on how this will be achieved or whether any government support will be provided to the private sector.

The NECP overlooks the importance of supporting local research and innovation efforts to speed up industrial decarbonisation and reduce Bulgaria's dependence on imported low-carbon technologies. The Plan does not include any **national objectives for the deployment of low-carbon technologies**. The only proposed strategic research project is a **pilot hydrogen scheme with a total installed capacity of 20 MW**, which will be used as a basis to assess the potential for further development of Bulgaria's hydrogen capacity after 2030. However, no further details are provided about the implementing institution, the timeframe and funding source for the project, even though hydrogen is mentioned throughout the Plan as key for the decarbonisation process in all sectors of the economy.

¹¹ National Statistical Institute, [Emissions of pollutants in the air, 2024](#).

¹² Bulgarian Ministry of Interior, [Open Data Portal](#).

Households Left Behind

Households play a key role in the decarbonisation process as their daily energy choices have a significant impact on consumption patterns. Changing their energy behavior requires both targeted support for the most vulnerable groups and incentives for the middle class. This means government action to reduce energy poverty, the introduction of efficient financial instruments for improving energy efficiency in buildings and developing decentralised energy solutions. While these issues are covered by the NECP, there are few new, concrete policy proposals, suggesting that households are once again left alone to deal with the consequences of the energy transition process.

Energy Poverty

Around 21% of Bulgarian households are unable to keep their homes adequately warm and close to 18% accumulate arrears on their utility bills.¹³ Energy poverty therefore remains a pressing issue requiring urgent action, but is not sufficiently addressed by the NECP. The 2023 amendments to the Energy Act that introduced a definition of "household in energy poverty" and "vulnerable customer for the supply of electricity", are an important first step in tackling the issue. However, **the NECP does not include a national objective for eradicating energy poverty** (e.g. reducing the share of vulnerable households to 10% by 2030).¹⁴

The NECP only suggests that energy poverty reduction policies will be developed within the scope of the **National Social Climate Plan (SCP)**, due to be submitted to the EC in June 2025. The NECP does not provide any indication of how the estimated EUR 939 million to be collected under the SCP, will be utilised. Furthermore, the Plan also does not propose specific incentives such as financial instruments and tax policies (i.e. reduced VAT or other tax breaks) for investments in energy efficiency or own RES-based power consumption. If the government fails to develop a coherent support system for vulnerable consumers, this could lead to a **social backlash that will undermine the energy transition process** and block the liberalisation of the power market.

¹³ Eurostat, [EU-SILC survey, 2025](#).

¹⁴ CSD expert assessment, based on interviews with sector stakeholders.

Energy Efficiency

The best long-term solution to energy poverty is the renovation of residential buildings, which would decrease energy costs, improve air pollution and reduce the need for energy subsidies. The NECP sets a national target of around **15% reduction in primary energy consumption and a 11.6% decrease in final energy consumption by 2030** (compared to 28% and 32% respectively in the 2019 NECP), achieved through building renovations and improved efficiency in the heating and cooling sector. The objectives are calculated based on the existing EU Directives and the Long-term Strategy for Building Renovations until 2050, but are neither substantiated with in-depth analysis of the state of the building stock in Bulgaria and the potential for energy savings, nor with the necessary measures to achieve these targets. The NECP also contends that only around 20% of the building stock in Bulgaria will be renovated.

As in other policy areas, the NECP refers to current, or even outdated national programmes and does not include any new measures, including promoting policies to **shift energy efficiency investments away from relying on 100% public grants**. It also does not provide a solution for the households' **lack of sufficient financial resources** to co-finance building

renovations, in effect ignoring the close connection between energy efficiency and energy poverty, and the need to focus public subsidies on the most vulnerable households.

Prosumers

The NECP fails to draw out a concrete plan to accelerate the interrelated process of decentralisation, energy poverty reduction and electricity grid flexibility through providing specific incentives for energy citizenship. There is, for example, no specific **target for the total electricity generated by prosumers (e.g. 5% by 2030¹⁵)**.

The Plan does not address the administrative bottlenecks before small-scale RES investment projects including the difficulties in grid connection and the sluggish bureaucratic processes. In addition, the NECP does not propose a legal definition of an energy community, plans to streamline administrative processes, and regulatory amendments to prevent discriminatory practices used by power distribution companies to block prosumerism. The Plan also fails to define measures to introduce smart metering, which would enable aggregation, or funding mechanisms to support the establishment of energy communities.

Box 1. Stakeholder engagement

Stakeholder consultations and policy co-creation are key tools that policymakers must employ to develop plans and strategies, which truly reflect the views and needs of the society they serve. Although the Bulgarian government did hold a series of high-level discussions with different stakeholders, **it did not carry out a true policy co-creation**. The **public consultation period only lasted two weeks** and municipal and regional authorities were not involved or even informed of the ongoing update of the NECP.

The Bulgarian government largely retains its historic approach of top-down, centralised and discretionary policymaking, and still **views stakeholder engagement as a formal requirement, rather than a useful tool to gather feedback and increase public support** for strategies and policies. The NECP reflects most clearly the financial interests of those stakeholders, who are benefitting the most from the preservation of the status-quo, which increases public dissatisfaction with state capture practices in the energy sector.

The **NECP revision timeline coincided with considerable political instability**, which led to the further delay of the power market liberalisation and the reluctance of successive governments to commit to a coal phaseout plan. The **populist political fixation only on the socio-economic effects of decarbonisation made the government reluctant to strengthen the public debate** around these topics, including the NECP update process. This has allowed decarbonisation myths around the energy transition process to prevail over evidence-based policymaking.

¹⁵ CSD expert assessment, based on interviews with sector stakeholders.

What's Next?

The adoption and implementation of the NECP is crucial for **unlocking EU investment opportunities** and ensuring Bulgaria benefits from available funding instruments. While the government should prioritise the implementation of the Plan and delivering on EU-funded commitments, the NECP in its current form falls short of stakeholder expectations. The lack of transparent modelling assumptions and proper stakeholder engagement has further eroded public trust in energy policy.

The NECP **mostly reiterates existing policies**, but does not define new initiatives and reforms to speed up electrification, replace natural gas in industry or increase the energy efficiency of buildings. At the same time, using assumptions not backed up by data-driven assessments, in particular about electricity demand, the NECP proposes the development of new nuclear reactors, the delay of the coal phaseout, and the further lock-in of the Bulgarian energy sector in a long-term gas dependence.

To ensure the competitive transformation of the economy, Bulgaria should take urgent policy action in a number of sectors:

- A national target should be set for reducing **energy poverty to 10% until 2030** and for eliminating it altogether by 2040.
- The construction of the new **nuclear reactors** at Kozloduy NPP should be postponed until after 2040 when they can gradually replace the existing units.
- Subsidies for **coal power plants** and mines should be phased out no later than 1 July 2025.
- A clear plan for the transformation of the **coal region** should be developed and enforced to unlock the vast EU funds available for just transition.
- Bulgaria should reduce its reliance on **natural gas**, to not only speed up the transition, but also reduce the country's dependence on gas imports, including indirectly from Russia.
- The government should establish an effective regulatory framework to promote **renewable energy investments** in cutting-edge technologies, including offshore wind, battery storage and hydrogen.
- The government should streamline and facilitate the legal and administrative processes for the establishment of **energy communities** to encourage power supply decentralisation.
- A variety of financial mechanisms should be established to stimulate private household investment in **energy efficiency** improvements in the residential sector, with the direct financial support in the form of grants limited only to the most vulnerable households.
- Authorities should introduce **deep renovation** standards to ensure high energy savings across all building categories.
- The **transport** sector can be decarbonised by increasing the use of urban and intercity public transport links, as well as by facilitating vehicle electrification and introducing low-emission zones in major cities.
- Despite the existing structural challenges, the decarbonisation of the **heavy industry** should become a strategic government priority, through the promotion of the electrification of low-heat processes, local renewable energy generation and the uptake of green hydrogen to replace natural gas.
- To enhance Bulgaria's **emission sequestration** potential and ensure proper land use and management, a National Strategy for the Development of the Forestry Sector in Bulgaria by 2030 should be urgently adopted.
- Supporting local **research and development** of new low-carbon technologies and solutions should be a key government priority, linked to a variety of funding sources.
- During the development or update of any strategic document, the government should build in longer periods for **public consultations**, covering a wider range of stakeholders, including local authorities, and more clearly state which recommendations have or have not been taken on board to increase public trust and accountability.
- All strategic documents should be based on sound and up-to-date **evidence-based research**. All assumptions and primary data should be made public to allow for independent analysis and cross-checking.