

ANNUAL REPORT
ON THE ACTIVITIES CARRIED OUT AND PROGRESS MADE
BY THE REPUBLIC OF BULGARIA
UNDER THE MODERNISATION FUND

April 2022

I. Introduction

The Republic of Bulgaria is one of the ten Member States of the European Union that are beneficiaries of the Modernisation Fund established by Article 10d of Directive 2003/87/EC of the European Parliament and of the Council and Commission Implementing Regulation /EU/2020/1001 laying down detailed rules for the implementation of the Directive.

By Decision № 546 from 26.07.2021 the Council of Ministers of Bulgaria designated the Ministry of Energy as the responsible entity in Bulgaria for project selection and as a contact point with the Investment Committee of the Modernization Fund, the European Investment Bank (EIB) and the European Commission (EC). This was an important step, as until then there was no public institution to identify the priority areas that could receive funding and to organize the activities related to the Fund.

Subsequently, Deputy Minister of Energy [at present Mrs. Iva Petrova], was appointed as a representative of Bulgaria in the Investment Committee of the Modernization Fund.

The mission of the Ministry of Energy is to pursue a transparent energy policy while protecting the state and public interest. Economic logic and market rules, sustainable development and protection of public interests are among the main factors that drive policies in the energy sector. Based on these principles, the team of the Ministry of Energy is actively working to establish a competitive and efficient energy sector. Efforts are also aimed at ensuring the country's energy independence by developing its own deposits of energy resources and accelerating the diversification of sources and routes of supplies.

Energy production accounts for some 70% of greenhouse gas emissions. Therefore, the decarbonisation of the energy system is crucial for achieving the energy and climate goals by 2030 and for achieving carbon neutrality by 2050. That is why our efforts are focused on 3 basic principles for the transition to clean energy, which will help reduce greenhouse gas emissions and improve the quality of life of citizens:

- guaranteeing the energy security of our country;

- giving priority to energy efficiency, improving the energy performance of buildings and developing an energy sector largely based on energy from renewable sources;
- building a fully integrated, interconnected and digitalized energy market.

Following these priorities, the Ministry of Energy drafted a set of crucial reforms and investments under the “Green Bulgaria”, priority “Low carbon economy” of the Bulgarian Recovery and Resilience Plan. Currently the work continues in developing the Territorial just transition plans to further support areas facing serious socio-economic challenges arising from the transition to a climate-neutral economy by 2050. To date, together with the European Commission have been identified as most affected three regions in Bulgaria - Stara Zagora, Bobov dol (Kyustendil district) and Pernik.

With Council of Ministers’ Decision № 211 of 26 March 2020, the Ministry of Energy was designated as the responsible authority for the implementation of activities related to the preparation of Territorial just transition plans for the affected regions. The Decision was supplemented by Decision № 634 of 8 September 2020, according to which the Ministry of Regional Development and Public Works was designated as the responsible authority for the implementation of the Plans through the Just Transition Fund under the "Regional Development Program" for the period 2021-2027.

Given the areas of commitment of the Ministry of Energy in terms of our country's contribution to achieving EU decarbonisation targets, the priorities and measures set in the Modernization Fund (MoF), follow the logic and build on the reforms and measures set in the Recovery and Resilience Plan (RRP) of Bulgaria. Under the new market conditions in the sector, ensuring a balance between achieving the goals of the European Green Deal and the country's energy security is a leading goal set in the selection of priority projects for implementation with financial support from the RRF and the MoF. The reduction of gas demand, through fuel/energy switch, energy efficiency, increased use of RES and behavioural measures, is an immediate lever to mitigate gas supply risks and challenges. They can also represent a significant economic opportunity, in particular that the extremely high level of gas prices created a completely different situation for the economic viability of alternative solutions/projects.

II. Progress in 2021

The energy sector is the largest source of greenhouse gas emissions in Bulgaria, with over 70% of total emissions in the country. Coal-fired thermal power plants account for almost half of the sector's emissions. The desire to decarbonize the economy necessitates large-scale reform of our energy sector, which in turn involves significant investment. The EC country-specific recommendations in the recent years focus on decarbonisation including targeting investments in clean and efficient production and use of energy and resources, contributing to the gradual decarbonisation of the economy. Further, main specific recommendation towards Bulgaria as put in the 2022 “European semester country report for Bulgaria” is a mitigation of the dependency of Bulgaria on Russian gas. For

this purpose Bulgaria could accelerate the diversification of gas routes by swiftly completing investments in interconnectors with neighbouring countries, new LNG capacities in the Region, increasing capacities of existing infrastructures and gas storage as well as implement necessary regulatory changes. Investments in new infrastructure should be future-proof where possible and avoid lock-in effects. Energy efficiency should also remain a priority for rapidly lowering energy demand.

Acceleration of the deep energy renovation of public and residential buildings and support for the installation of solar heating systems and heat pumps for own use can lead to further energy consumption savings, benefiting both citizens and companies. In addition, efforts could be made to increase the energy efficiency in industry, as it remains a large gas consumer with a share of some 40% in national demand. Expanding renewable energy and other low-carbon sources such as geothermal will also reduce import dependency and contribute to decarbonisation.

In 2021 efforts were focused on finalization of the Bulgarian Recovery and Resilience Plan (RRP). The draft Plan was submitted to the EC in October 2021, by the Caretaker Government. Subsequently, the Government elect (December 2021) revised the Plan and final RRP was submitted in April 2022. Finalization of the RRP was a crucial step to proceed with work on planning of investment priorities under the Modernization Fund, considering the reforms and investment framework up to 2026 in the RRP as well as the demarcation and complementarity of the investments under both financial frameworks as well as considering the JTPs (under drafting at present).

Bulgaria has taken a national commitment through the Integrated Energy and Climate Plan of the Republic of Bulgaria (IECPRB) 2021-2030, prepared in accordance with Regulation (EU) 2018/1999 for the achievement of the following objectives by 2030:

- reduction in primary energy consumption by 27.89%;
- reduction in final energy consumption by 31.67%;
- reaching 27.09% share of renewable energy in gross final energy consumption;
- reduction of greenhouse gas emissions by 49% compared to 1990.

The measures envisaged in the RRP exceed the commitments under the IECPRB and the achievement of the indicative targets of the “Fit for 55” package by 2030 and with a 2050 perspective, targeting Bulgaria’s ambition to reduce carbon emissions of the electricity sector by 40 % by 2026. The specific commitments of the country for overall decarbonisation should be confirmed in the process of revision of the IECPRB in 2023 and be justified on the basis of scenarios and analyses of the sensitivity of the key options for low carbon technologies available to replace coal, in combination with a mix of energy efficiency measures, demand management and energy storage capacities.

Separately, our goal is to reduce the carbon footprint and energy intensity of the economy and achieve a green transition by undertaking measures in order to increase the energy efficiency of residential,

public and commercial buildings, as well as by promoting the production of energy from renewable sources.

The modernization of the activities relative to planning, management and maintenance of the country's electricity transmission network, as well as the completion of the ongoing reform of the electricity market in the direction of full liberalization will be of key importance. The study and construction of geothermal energy sources, as well as storage facilities, in turn, will make possible the smooth decarbonisation of the Bulgarian energy sector by reducing emissions rather than closing down coal capacities in the coming years. In this regard, it is envisaged to develop and adopt a decarbonisation legislation, including a timetable for the gradual limitation of coal-fired power plants up to 2038. An Energy Transition Commission will be set up to prepare scenarios and recommendations for a climate neutrality roadmap, as well as prepare the adoption of a parliamentary resolution. Also a National Decarbonisation Fund will be established to be used to provide grants and technical assistance combined with financial instruments, including credit lines and guarantees and / or a combination thereof.

The Bulgarian side believes that as a special instrument, the Modernization Fund, which aims to support the 10 lower-income member states, incl. Bulgaria, will highly support the implementation of specific policies and projects aimed at modernizing our energy system, increasing energy efficiency and significantly increasing the generation of electricity from renewable sources further leveraging and complementing the RRP efforts in increasing the sustainability and resilience of our energy system in synergy with the mitigation of the socio-economic consequences through measures to support enterprises and employment with a view to ensuring the recovery of the economic activities in the country following COVID-19.

For the implementation of the Modernization Fund in 2021 a working group was established at the Ministry of Energy in order to prepare a draft of a legislative act of the Council of Ministers of the Republic of Bulgaria on the terms and conditions for selection of projects for financing by the Modernization Fund.

Significant progress has been made in drafting the relevant legislative act (draft act), as its finalization is scheduled for the end of June 2022. That respective act (ordinance) will provide the basis for the selection of priority and non-priority investment proposals to be submitted for approval by the Modernization Fund Investment Committee as well as the institutional set up and liaison with key stakeholders in this process. In the meantime, we conducted an open dialogue with various stakeholders to review their views and opinions on the investment priorities of the Modernization Fund, so that they build on the measures set out in the Recovery and Resilience Plan of Bulgaria until 2026 and the draft Territorial Just Transition Plans until 2030.

III. Next steps

Upon finalizing the respective draft legislative act (the ordinance), the latter will have to undergo an internal approval procedure following which it will be submitted for interinstitutional approval and subsequently for formal approval by the Council of Ministers tentatively by 30.06.2022, as in this regard we envisage the following indicative schedule for the implementation of the forthcoming actions under the Modernization Fund in the short term / until 01.10.2022 /:

- adoption of the Ordinance on the organization and control of management of funds from the Modernization Fund under Art. 10 of Directive (EU) 2003/87 / EC of the European Parliament and of the Council of 13 October 2003 for the period 2021 to 2030
 - tentatively by 10.08.2022 setting up a Consultative Committee envisaged to support the activity of selection of investment projects, to be financed by the Modernization Fund
 - tentatively by 18.08.2022 publishing the call for interest on the website of the Ministry of Energy
 - tentatively by 30.08.2022 the Minister of Energy will appoint the managing unit which will be in charge of assessing and preselecting the investment proposals
 - tentatively by 30.09.2022 submission of the preselected investment proposals to the EIB.

IV. Investment priorities

Bulgaria has already identified general investment priorities under the Modernization Fund. These are:

- ✓ Production and consumption of electricity from renewable energy sources;
- ✓ Energy efficiency improvement excluding energy efficiency projects in energy production using solid fossil fuels;
- ✓ Energy storage;
- ✓ Modernization of energy networks (including transmission system operators and distribution system operators);
- ✓ Support for a fair transition in carbon-dependent regions (including support for redeployment, retraining and reskilling of workers, education, job search initiatives and start-ups, in dialogue with the social partners);
- ✓ Implementation of demonstration hybrid projects using different renewable energy sources in combination with facilities for storage of the produced energy.

Under the above general priority areas identified, specific project proposals will be selected on the basis of the terms and conditions laid down in the relevant act of the Council of Ministers, which is currently being worked on.

Meanwhile the Ministry of Energy, after having discussions with relevant stakeholders and based on demarcation with other funding instruments, has identified at present the following list of indicative investments (nonexclusive):

- modernization of electricity grids (transmission and distribution): measures to reduce electricity transmission losses; measures to reduce the "corona effect" on overhead power lines; smart meters; digitalization of distribution networks; development of the network to integrate distributed generation; "power regulators" i.e. compensation of inductive reactive power and preservation of grid parameters;
- modernization and digitalization of the gas transmission network management system;
- H2 infrastructure - retrofitting of the Bulgarian transmission system; new H2 dedicated infrastructures; equipment for H2 injection in the gas transmission grid;
- innovation centre for training, vocational qualification and retraining and ensuring the competitiveness on the labour market of future and current energy workers in a real business environment;
- RES for heating and cooling and year-round hot water supply;
- production of green hydrogen and bio-gas and its utilization in various processes;
- innovative carbon capture and utilisation (CCU) technologies;
- national network of charging stations for electric vehicles;
- storage applications for RES capacities;
- hybrid projects - demonstration projects with combination of [different] renewable energy sources and [different] energy storage facilities for industrial applications;
- Energy communities – small applications for decentralized independent energy generation for small consumer communities [industrial/ administrative / households].