

**ANNUAL REPORT**  
**ON THE ACTIVITIES CARRIED OUT AND PROGRESS MADE**  
**BY THE REPUBLIC OF BULGARIA**  
**UNDER THE MODERNISATION FUND**  
**April 2023**

## **Introduction**

As pointed out in the previous Annual report Bulgaria identified general investment priorities under the Modernization Fund. These are:

- ✓ Production and consumption of electricity from renewable energy sources;
- ✓ Energy efficiency improvement excluding projects in energy efficiency 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.

## **I. Progress in 2022**

In order to speed up the process regarding the selection of the relevant investment proposals by 30<sup>th</sup> March 2023, i.e. before the meeting of the Investment Committee, and based on the current work on developing a sub-legislative Act (the Ordinance), the Ministry of Energy came up with a draft Program on the terms and conditions for the selection of projects for activities to be financed with funds from the Modernization Fund (the Program). Subsequently, pursuant to item 5.4 of the Program, the Ministry of Energy prepared an in-depth Analysis on the state of the electricity system in the country and the need to take urgent measures to guarantee the stability of electricity supplies to end customers. The Analysis of the electricity system has been based on a detailed modelling which subsequently resulted in the Strategic Vision for the Development of the Power Sector until 2053 approved by the Council of Ministers'.

According to the Analysis the final electricity demand in Bulgaria is expected to reach around 61 TWh by 2050, which is twice as high as in 2020. The increased electricity demand is mainly due to the electrification of the transport sector and the production of green hydrogen through electrolysis. In addition, green hydrogen is expected to be produced for export as well, adding about 10 TWh of energy demand by 2050. The expected doubling of electricity consumption in our country corresponds to increased consumption at the European level as well.

Taking account of the above, as well as in order to achieve accelerated decarbonization of electricity production and consumption, our electricity infrastructure must be transformed on a large scale. Operators of the transmission and distribution electricity networks should modernize and digitalize their hardware and software infrastructure at a faster rate and without a drastic increase in the costs of accessing and transmitting energy through their networks to the end customers. The implementation of the relevant measures will result in:

- Limiting the increase of transmission and distribution costs while increasing power supply security, improving the quality of existing and implementing new services for all end customers - households, small and medium enterprises and industrial customers;
- Increasing the capacity of the existing power transmission and power distribution networks with a view to connecting new RES capacities, charging infrastructure for electric vehicles, energy storage facilities, as well as digitalization and automation of the network for the successful integration of active customers and the future development of energy communities;
- Implementation of the necessary hardware and software solutions for the modernization and digitization of the processes of management and monitoring of the power transmission and power distribution networks, ensuring the compatibility of the functions of the networks with the future needs of electricity users, the growing connection of renewable energy sources and the increase in the types of active participants in the electricity system market. Achieving that goal requires the implementation of new systems and devices for visualization, control, analysis and management of facilities and data from the network.

Based on the above conclusions, needs and identified measures in the Analysis as well as considering the fact that there are no funds available under other programs and taking account of the direct benefits in achieving the goals set out in the Recovery and Resilience Plan, including the benefits for all the industrial and household consumers, the Ministry of Energy identified the priority projects covering all the electricity distribution operators in Bulgaria eligible for financing with funds from the Modernization Fund with a concrete budget of EURO 100 893 429 for 2023.

The above investment proposals are also in line with the objectives of Directive 2003/87/EC of the European Parliament and of the Council in relation to the work of the Modernization Fund, as well as with the objectives set out in the Union framework for climate and energy policies in the period up to 2030 and the long-term goals formulated in the Paris Agreement.

## **II. Next steps**

The Ministry of Energy took all the necessary steps in accelerating the adoption of the Program on the terms and conditions for the selection of projects for activities to be financed with funds from the Modernization Fund (the Program) by the Council of Ministers.

The Ministry of Energy did the necessary as to speed up the adoption of the list of priority investment proposals by the Council of Ministers upon adoption of the Program on the terms and conditions for the selection of projects for activities to be financed with funds from the Modernization Fund (the Program).

We are planning on putting forward other priority projects in 2023 covering the transmission network, the electrical mobility as well as schemes for decarbonization and

energy efficiency of industry, including large industrial users - support for generating capacities from renewable sources, for investments in reduction and systems for optimization and management of energy consumption, incl. storage systems, in support of achieving the objectives of Regulation 2022/1854.