Project Application Form under the Recovery and Resilience Facility

1. Project name.
Energy efficient municipal outdoor artificial lighting systems.
2. Project description (goals, main activities).
The aim of the project is to realize energy savings in final energy consumption, which will contribute and accelerate the achievement of the national goal for energy efficiency and Art. 7 of Directive 2012/27 / EU on energy efficiency, as amended by EU Directive 2018/2002, noted as poor progress in the report on Bulgaria published on 26.02.2020 (SWD (2020) 501 final). At the same time, jobs will be maintained and created in the companies for production, supply and installation of electrical equipment and systems for RES and will reduce the costs of municipalities for energy and maintenance of outdoor artificial lighting systems. The Project envisages the provision of a grant for reconstruction and modernization of municipal outdoor artificial lighting systems. The goal of the Project is to increase energy efficiency, reduce the costs of outdoor artificial lighting and improve the living conditions of the population in the country through technological renewal and modernization of the outdoor artificial lighting systems in Bulgaria. The Project is a continuation of the procedure for "Rehabilitation and modernization of municipal infrastructure – municipal outdoor artificial lighting systems" under the Renewable Energy, Energy Efficiency, Energy Security Programme, funded by European Economic Area Grants 2014-2021, which ends in 2020. The main activities are related to: • Dismantling of existing lighting fixtures, wires and cables; • Supply and installation of new lighting fixtures, wires and cables; • Supply and installation of equipment/facilities for generation and storage of electricity from renewable sources for own consumption in outdoor artificial lighting systems; • Carrying out of civil and installation works directly related to reconstruction of outdoor artificial lighting systems; • Dismantling of existing control devices, supply and installation of new devices for monitoring, measurement and control, including introducing of a new system or connecting to an existing system for automation and control of the outdoor artificial lighting system; • Preparation of a detailed design; • Construction supervision; • Designer’s supervision; • Project management and publicity.

The main requirement is to achieve energy savings, energy consumption decrease and CO_2 emissions reduction in the municipalities in the country.

3. Beneficiary.

Municipal administrations (within the meaning of Article 14 of the Local Self-Government and Local Administration Act).

4. Time schedule for the Project implementation, including activities, stages[1].

1. Signing grant contracts for 84 projects according to p. 8.1 – III quarter of 2021
2. Organization and preparation of the applications procedure for new projects: III - IVquarter of 2021.
3. Application, selection of projects and contracts signing: until IVth quarter of 2022 -
4. Projects implementation- till the IIth quarter of 2024.

4.1. When is the earliest possible start of the Project implementation after its approval?

Due to the full project readiness of 84 projects for modernization of municipal outdoor artificial lighting systems (see item 8.1), the actual implementation of projects may start as early as the beginning of 2021 (contracts with beneficiaries can be concluded shortly after their approval). At the same time, a scheme will be announced for new projects applications. Its preparation and announcement will take a short time, due to the available documentation already prepared for a similar procedure under the Renewable Energy, Energy Efficiency and Energy Security Programme, financed by EEA Grants 2014-2021.

5. Indicative financial resources by activities, including funding sources (State Budget, European funding, private funding, IFIs).

Maximum total amount of investments for the period - BGN 352.3 million.
Support intensity - 50% grant + 50% interest-free loan*.
* Loans will be reimbursed by the Beneficiary for a period of 5 years after the Project completion and the amounts will go the the Decarbonisation fund.
Maximum amount of the Project proposal - will be determined based on the categories of the municipalities, according to order of the minister of regional development (There are 5 categories of municipalities in Bulgaria, 5 different values will be determined for the maximum amount of the grant).

5.1. Indicative allocation of the financial resources according to the type of expenditure:

- Construction /rehabilitation of infrastructure (civil and installation works) - 80%
- Human resources capital (skills development, re-qualification, etc.) - 5%
- Labour (expenses for remunerations, consulting services, etc.) - 10%
- Technology (expenses for acquiring of intangible long-term assets - patents, software, etc.) - 5%.

[1] The time schedule will be relevant for setting of intermediate targets under the Recovery and Resilience Plan and is directly related to the release of tranches under the financial support from the Recovery and Resilience Fund.

6. Indicators.

6.1. Indicator/s of results.

Number of supported projects: 200.

- Initial value – 0 projects [30.06.2021]
- Intermediate value – 80 projects (BGN 60 million) [31.12.2021]
- Intermediate value – 80 projects (BGN 60 million) [30.06.2022]
- Final value – 200 projects (BGN 352,3 million) [31.12.2022]

6.2. Indicator/s of effects

Annual energy savings
- Initial value – 0 MWh/r. [30.06.2021]
- Intermediate value - 0 MWh/r. [31.12.2022]
- Intermediate value - 0 MWh/r. [30.06.2022]
- Intermediate value - 34 286 MWh/r. [31.12.2022]*
- Final value - 201 314 MWh/r. [30.06.2024]

Additional indicators:
Annual reductions of CO_2 emissions - 237 550 t/y.
Annual funds savings - 13 765 060 EUR/y
Number of people who benefit from the improved energy efficiency - population and visitors to the municipalities in Bulgaria – 7 million.

*Project implementation term is 18 months.

The indicators are formed by analysis of the available energy efficiency audits in the Sustainable energy development agency database, including the exact data from the already evaluated project proposals under the procedure "Rehabilitation and modernization of municipal infrastructure - outdoor artificial lighting systems of municipalities" under the Program "Renewable Energy, Energy Efficiency, Energy Security ", funded by the EEA Grants 2014-2021 which are going to be financed in the current project.

7. Does the Project implementation require a procedure under the Public Procurement Act?

Yes. The procedures will be carried out by the Beneficiaries - municipalities.

7.1. If a procedure under the Public Procurement Act is required, what part of the activities and financial resources will be the subject of public procurement?

When applicable - 95%.

7.2. If a procedure under the Public Procurement Act is required, what is the indicative schedule for its implementation?

When applicable - in 2021-2023.

8. Demarcation and supplementation.

8.1. If similar projects have been implemented (regardless of their source of funding), describe how this Project upgrades/adds to what has been achieved by previous projects.

The Project is a continuation of the procedure for "Rehabilitation and modernization of municipal infrastructure – municipal outdoor artificial lighting systems" under the Renewable Energy, Energy Efficiency, Energy Security Programme, funded by the EEA Grants 2014-2021, which ends in 2020.

Within the procedure 104 projects have successfully passed the administrative inspection and have been admitted to technical evaluation. Given the available financial resources, 20 projects of them will be funded for municipal outdoor artificial lighting systems. 84 projects that have passed technical and financial evaluation remain without funding, they are in a mature degree of project readiness- energy efficiency audits of the outdoor artificial lighting system/s have been performed, some of the projects have detailed designs developed and approved in accordance with the regulatory requirements. Pursuant to the rules of procedure, the energy efficiency audit reports have passed preliminary reviews by the Sustainable Energy Development Agency for compliance with CEN/TR 13201 and some additional requirements under the European Union Criteria for Green Public Procurement for Street Lighting and Traffic Lights. In addition, the projects have undergone an eligibility assessment, as well as technical and financial evaluations under the procedure mentioned above, however after the exhaustion of the procedure resources, they would not receive grant. These projects (over 80) can be financed in practice without the need of additional administrative and other efforts and costs.

In the period till 2020 some of the municipal administrations in Bulgaria replaced their outdoor artificial lighting systems under other programmes by using the ESCO model for financing or with their own funds.

The current Project will upgrade and supplement the existing programme for financing of energy efficiency measures in street lighting, by using the funds for modernization of outdoor artificial lighting systems of municipal administrations, which projects are in full project readiness (80 projects). The experience gained will be used for preparation of projects for modernization of outdoor artificial lighting systems of another 120 municipalities in the country.

All this will ensure fast and successful multiplication of the effects achieved by the procedure for “Rehabilitation and modernization of municipal infrastructure – municipal outdoor artificial lighting systems under the Renewable Energy, Energy Efficiency, Energy Security Programme in all municipalities in Bulgaria.

8.2. If similar projects are envisaged for implementation under the Partnership Agreement programmes, or under centrally managed EU facilities or Fair Transition Fund facilities, please, outline the demarcation for this Project.

Not envisaged.

9. Does the Project directly contribute to the implementation of any of the Council Specific Recommendations addressed to Bulgaria in the framework of the European Semester in the period 2017-2020? Please, describe how.

Commission Recommendation 1 of the Council Recommendations on the National Reform Program 2020 explicitly calls on Bulgaria, "In accordance with the general derogation clause, to take all necessary measures to deal effectively with the pandemic, sustain the economy and support the subsequent recovery."

Commission Recommendation 3 on the Council Recommendations on the National Reform Programme for 2020 explicitly calls on Bulgaria to “Focus on investments in the field of green and digital transition, in particular in the field of clean and efficient generation and use of energy and resources, environmentally friendly infrastructure and sustainable transport, contributing to the gradual decarbonization of the economy, including in the coal mine regions.
This project is part of the measures taken by the Bulgarian government to effectively deal with the pandemic by maintaining economic activity and protecting jobs in Bulgarian enterprises related to the production, supply, distribution and construction of renewable energy systems and installations for the production of electricity from renewable energy sources (Priority 1).
During the implementation of the projects, new technological solutions will be introduced allowing efficient use of electricity and monitoring of consumption. In addition to achieving energy savings, an important aspect of the project implementation is the possibility of using environmentally friendly energy to reduce greenhouse gas emissions and other harmful emissions to the environment in the country.
The implementation of the measure will directly contribute to stimulating the green and digital transition and encourage the implementation of technological solutions for more efficient energy management and use that involve digital technologies.
This project gives priority to ready-to-implement projects in the public sector, which will be located throughout the country.
The implemented measures are infrastructural, investment, which is why they will create conditions for economic recovery in the regions of intervention. The activities are related to the introduction of energy efficiency and renewable energy measures in outdoor artificial lighting, which leads to significant energy and CO2 savings and creates a modern and environmentally friendly infrastructure.

10. Does the Project contribute to the implementation of a reform in a given sector? Please. describe how.

The Project is for financial support of measures to increase the efficiency and use of renewable energy by the end users, which will contribute to the implementation of the following objectives of the NATIONAL REFORM PROGRAMME, Update 2020, or in short "National Reform Programme 2020":

Item 3.3 of the National Targets under the Climate and Energy Package sets out specific policies and measures to achieve the goals that are also valid for the national climate and energy objectives under the Europe 2020 Strategy. The national decarbonization targets set in National Energy and Climate Plan (NECP) are as follows:

• Achieving of 27.09 % share of renewable energy in the gross end consumption of energy;
• Achieving of 27.89% reduction in primary energy consumption and 31.67% reduction in end consumption of energy by 2030, compared to the 2007 PRIMES reference scenario;

The project will stimulate the introduction of ICT technologies based on the Internet of Things (IoT) solutions to create an efficient and intelligent lighting system in terms of energy consumption, connectivity and reliable management of renewable energy systems, which are the basis of sustainable cities. The project is a step towards the digitalization of the energy sector through the introduction of technologies for the analysis of energy consumption data.

11. Does the Project contribute to the development of some aspects of sustainable economic development? Please, describe how.

Achieving the goal of the project for energy efficient municipal systems for outdoor artificial lighting will have a direct contribution to the achievement of the following UN Sustainable Development Goals:
Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

- 7.3. By 2030, double the global rate of improvement in energy efficiency.

Energy efficient lighting is a priority at both national and European level. Street lighting is one of the major energy consumers in the municipalities, which has influenced the growth of energy consumption in recent years. For Bulgarian municipalities, increasing the energy efficiency of renewable energy systems is both a long-term necessity and an opportunity. The current project is a significant opportunity to pay attention to the future energy consumption of the municipalities with a direct contribution to improving the country's energy efficiency and reducing greenhouse gas emissions.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

The implementation of projects for rehabilitation and modernization of street lighting will contribute in the first place to reduce greenhouse gas emissions and increase energy efficiency of cities, but no less important - will have a positive impact in terms of economic growth and the creation of new jobs and a significant incentive for investment, leading to the recovery of economic activity and growth of the Bulgarian economy.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

The implementation of projects to increase the energy efficiency of renewable energy systems in combination with digital solutions and those using renewable energy is crucial to achieve the ambitious goals of building sustainable infrastructure, promoting inclusive and sustainable industrialization and stimulating innovation. Digitalization offers the potential to increase energy efficiency through technologies that collect and analyze data before using it to make changes in the physical environment (automatically or through human intervention). The introduction of accompanying tools: implementation of energy management systems and use of information and communication technologies will ensure better management of municipal infrastructure.

Goal 12: Ensure sustainable consumption and production patterns.

Saving energy is one of the fastest and most cost-effective ways to: achieve the strategic goals of combating climate change, ensure energy security and achieve sustainable economic and social development. The implementation of projects to increase the energy efficiency of renewable energy systems in municipalities will have a stimulating role in finding new solutions for sustainable consumption, as the implementation of municipal projects have a high degree of visibility in public life. This leads to an increased understanding of the benefits of energy efficiency and a change in public attitudes in support of ensuring sustainable consumption patterns.

12. Does the Project contribute to the implementation of the objectives of the National Development Programme BULGARIA 2030? Please, describe how.

The main goal of the project is in full compliance with the strategic goal of the National Development Program BULGARIA 2030 to increase resource - and in particular energy - productivity, following the principles of the circular economy and stimulating the introduction of low-carbon, resource-efficient and waste-free technologies.
The Project contributes directly to the objectives of the National Development Programme BULGARIA 2030:Development Axis 2: Green and Sustainable Bulgaria, Priority 4 “Circular and Low Carbon Economy”.
Improving the energy efficiency of outdoor lighting systems provides a huge - and largely untapped opportunity to respond to the climate crisis, reduce energy costs for municipalities, create jobs, improve air quality, reduce greenhouse gas emissions and improve the quality of life of citizens. The modernization of outdoor lighting systems is not limited to increasing energy efficiency, but also includes a focus on the sustainable use of resources and the application of the principles of the circular economy, climate change and green infrastructure. The combination of ICT technologies based on the Internet of Things in projects to increase the energy efficiency of outdoor lighting systems is an important prerequisite for achieving carbon neutrality. Energy and cost savings will contribute to increasing the opportunities for investment in renewable sources and the development of energy monitoring and management systems for outdoor lighting systems.
The introduction of systems for monitoring and management of outdoor lighting systems, in addition to the improved operations for monitoring and maintenance of malfunctions, provides the municipal authorities with new opportunities for flexibility in the management of municipal lighting.

13. Does the Project contribute to the implementation of the objectives and priorities set out in the Integrated National Energy and Climate Plan? If yes, please, describe how.

The project contributes to the implementation of the objectives and priorities set in NECP in terms of decarbonisation and energy efficiency. The project will have a direct contribution to the implementation of the objectives under item 2.1.2. Dimension "Renewable energy" and item 2.2. Energy efficiency dimension. The implementation of energy efficiency measures in combination with the use of renewable energy is important for achieving the energy efficiency targets in primary and final energy consumption by 2030 and the related reduction of energy costs and GHG emissions, as well as and increasing the consumption of energy from renewable sources.

The project will contribute directly, as an alternative measure, to the achievement of the National Cumulative Goal of Bulgaria for energy efficiency, determined according to the requirements of Art. 7 of Directive 2012/27 / EU (amended by Directive (EU) 2018/2002).

Increasing the energy efficiency of renewable energy systems and reducing energy consumption will contribute to achieving NECP's goal of improving the country's energy security by reducing dependence on energy imports.