

Application form

for a project under the Recovery and Resilience Facility

1. Name of the project
Energy efficiency in building stock
2. Description of the project (objectives, main activities)
<p>The European Union (EU) aims to be a world leader in the fight against climate change and in this regard seeks to achieve the objectives of the agreement of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 21) in Paris, by at the same time, it provides clean energy throughout the Union. To meet this commitment, the EU has set the following binding climate and energy targets for 2030 as follows:</p> <ul style="list-style-type: none">• Reduction of greenhouse gas (GHG) emissions by at least 40% compared to 1990;• Increasing energy efficiency (EE) to at least 32.5%;• Increasing the share of energy from renewable energy sources (RES) to at least 32% of gross final energy consumption in the EU;• Ensuring a minimum 15% level of interconnection between Member States. <p>In order to ensure a coordinated and coherent approach across the EU and implement the strategy of Energy Union each Member State (MS) develop integrated national plan on energy and climate (2018) and final Integrated Plan (2019) in an Integrated National Plan in the field of Energy and Climate of the Republic of Bulgaria (INPEC) includes developed an integrated model for forecasting in the field of energy and climate and development of a Long-term strategy in the field of climate.</p> <p>INPEC defines the main goals and measures for the implementation of national policies in the field of energy and climate, in the context of European legislation, principles and priorities for energy development. The main goals set in INPEC are:</p> <ul style="list-style-type: none">• stimulating low-carbon development of the economy;• development of competitive and secure energy;• reducing dependence on imports of fuels and energy;• guaranteeing energy at affordable prices for all consumers. <p>National energy priorities can be summarized as follows:</p> <ul style="list-style-type: none">• increasing energy security and diversifying the supply of energy resources;• development of an integrated and competitive energy market;• use and development of renewable energy, according to the available resource, network capacity and national specifics;• increasing energy efficiency through the development and application of new technologies to achieve modern and sustainable energy;• consumer protection by ensuring fair, transparent and non-discriminatory conditions for the use of energy services. <p>The main strategic objectives are related to the following main assumptions:</p> <ul style="list-style-type: none">• Macroeconomic growth and sectoral added value, projecting the corresponding growth of energy supply and demand.

- Appropriate energy efficiency measures to achieve a decreasing energy intensity curve of the economy.
- Integrated approach for modeling the used energy, development of the economy and the environment, based on historical data and forecasts, aimed at reflecting the most realistic development of the economy and society of the country.
- Incorporate applicable EU environmental policies and restrictions into energy and climate production modeling and planning.
- Development of the energy sector, in particular the electricity sector, with a focus on national and regional energy security, internal market integration and a balanced mix of different national and imported energy sources.
- Efficient use of local energy resources (coal) in compliance with environmental requirements.
- Maintaining a sustainable level of external dependence on energy imports below the EU average.
- Continuing the liberalization of energy markets at a rapid pace, while reflecting the care of vulnerable social groups and managing possible social risks and negative impacts.
- Sustainable development of renewable energy on a market basis and facilitation of price regulation and setting reasonable energy efficiency targets in line with the EC agenda and recommendations.
- Inclusion of nuclear power generation from new nuclear power in the national energy mix after 2030.

Current programme aims to manage the following challenges identified during the European semester:

- attainment of significant savings of energy by purposeful investments in industry, transport and building sector to be ensured. Increasing investments in infrastructure for clean energy (e.g. clean and low carbon electricity production, interconnections and smart grids) in compliance with priorities outlined in Bulgarian project of the National Plan in the Field of Climate and Energy, additionally will contribute to improving the general competitiveness of economy and the quality of life. In this regard is addressed to Bulgaria Specific Recommendation by The Council "Focus investment-related economic policy on research and innovation, transport, in particular on its sustainability, water, waste and energy infrastructure and energy efficiency, taking into account regional disparities, and improving the business environment".

- Bulgarian economy is with highest usage of resources and energy and with highest Greenhouse gases emissions in EU and needs of investments in the field of energy and decarbonization for facilitation of the transition to neutrality regarding the climate are substantial, as it is described in INPEC. The implementation of outlined measures for energy efficiency and the proposed approach and mechanism for their implementation is directly related to the Council Specific Recommendation addressed to Bulgaria in May 2020, in particular "Streamline and accelerate the procedures to provide effective support to small and medium-sized enterprises and self-employed, also ensuring their continued access to finance and flexible payment arrangements. Front-load mature public investment projects and promote private investment to foster the economic recovery. Focus investment on the green and digital transition, in particular on clean and efficient production and use of energy and resources, environmental infrastructure and sustainable transport, contributing to a progressive decarbonization of the economy, including in the coal regions"

The programme will contribute to implementation of Council Specific Recommendation addressed to Bulgaria in June 2021 and in May 2020 in regard to implementation of goals for energy efficiency in building stock, as the efforts will be focused on attaining energy savings by purposeful investments in building stock. This will lead to direct improvement of environment and living conditions of population and positive economic effects on productivity and competitiveness of enterprises in the country.

Energy efficiency in building sector will contribute to improving the business environment, which will have a positive reflection on economic development of regions and will contribute for progressive decarbonization of economy in the regions and in the country.

The chosen approach and mechanism for implementation of energy efficiency measures in housing and public buildings suggest priority to prepare for implementation of public investment projects that are already approved under other national or operational programmes but are not funded due to depletion of financial resources. Measures are addressed to the green transition and energy savings.

Bulgaria's efforts will be focused on increasing of the share of renewable energy in gross final energy consumption and reducing the GHG emissions. According to a European Commission Recommendation, Bulgaria increased the level of ambitions in regard to the share of energy from renewable energy resources in gross final energy consumption from 25% to 27,09%, as thus setting the achievement calculated goal in compliance with Annex II of Regulation EU 2012/1999. In support of this goal Bulgaria will set up additional capacity focusing on wind and sun energy. The envisaged changes in Transport sector will have significant impact on development of renewable energy, as well as reduction of GHG emissions. Bulgaria will stimulate introduction and usage of electric and hybrid vehicles both in public and private transport and in big cities establishing of low emission zones is provided.

Under the Energy Efficiency dimension, Bulgaria will focus its efforts on achieving energy savings in final energy consumption - focusing on improving the energy performance of buildings, as well as energy production, transmission and distribution. In line with the EU's priorities for increasing energy efficiency, Bulgaria puts energy efficiency in first priority, given its importance for improving the country's energy security by reducing dependence on energy imports, reducing energy costs for businesses and households, creating more jobs, to improve air quality and to reduce GHG emissions and improve the quality of life of citizens. The EC Recommendation to develop more policies and measures in this area were also taken into account in accordance with Art. 7 of Directive 2012/27 / EU of the European Parliament and of the Council of 25 October 2012 on Energy Efficiency for Energy Efficiency, Bulgaria focuses on alternative policies and measures to promote energy efficiency. Such measures include financial incentives for the implementation of energy efficiency projects, the promotion of guaranteed contracts (ESCOs) and the renovation of the existing building stock, with a view to increasing the number of buildings with close to zero energy consumption. Regarding the Energy Security dimension, Bulgaria's main priority is the diversification of natural gas sources and routes, the diversification of energy supplies, the efficient use of local energy resources and the development of energy infrastructure. To achieve these goals, efforts will be focused on the development of networks and ensuring the flexibility of the electricity system, incl. additional development of the 400 kV and 110 kV power transmission network.

A key element in the full liberalization process is the protection of vulnerable consumers. In accordance with the EC recommendation for the development of competitive wholesale and retail markets, by promoting competition in the country and

moving to fully market conditions, Bulgaria will gradually eliminate regulated electricity prices by the end of 2024. The unification of the market is expected "Day ahead" with Romania during third quarter of 2021 and with Greece by March 2021. Other policies and measures aimed at developing the internal energy market in line with the objectives of the Energy Union include the development of a market-oriented mechanism for capacity, optimization of consumption, stimulating the creation of energy communities for production and consumption of renewable energy and stimulating a more active role of consumers. Regarding the "Research, Innovation and Competitiveness" dimension, Bulgaria is committed to promoting scientific progress in innovative energy technologies, including clean energy production.

Bulgaria's contribution to achieving the Energy Targets of the European Union by 2030 is as follows:

Bulgaria's goals until 2030

Renewable energy sources	
National target for the share of energy from renewable sources in gross final energy consumption by 2030	27.09%
Share of electricity from renewable energy sources in gross final consumption of electricity	30.33%
Share of heat and cooling energy from renewable energy sources in gross final consumption of heat and cooling energy	42.60%
Share of renewable energy in final energy consumption in the transport sector	14.20%
Energy efficiency	
Reduction of primary energy consumption compared to the baseline forecast PRIMES 2007	27.89%
Reduction of final energy consumption compared to the baseline forecast PRIMES 2007	31.67%
Primary energy consumption	17 466 ktoe
Final energy consumption	10 318 ktoe
Greenhouse gas emissions	
National GHG emission reduction target by 2030 compared to 2005 for non-EU ETS (building stock, agriculture, waste and transport), according to Regulation (EU) № 2018/842 on mandatory annual reductions in greenhouse gas emissions for the Member States in the period 2021-2030	0%
National target in the sector Land use, land use change and forestry, according to Regulation (EU) № 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the climate and energy framework by 2030 r.	for the periods 2021-2025 and 2026-2030 GHG emissions shall not exceed the removals calculated as the sum of the total emissions and the

	total removals on its territory in total in all reporting categories of areas (No-debit commitment)
Level of interconnection electricity connection	15%
Source: (B) ESTmodel, E3-Modeling	

The country's energy policy aims to establish market principles in the energy sector, ensure energy independence, sustainable energy development of the country, efficient use of energy and energy resources, meet society's needs for electricity and heat, natural gas and fuels and is aimed at :

- maintaining a secure, stable and reliable energy system;
- diversification of the sources and routes of natural gas supplies;
- modernization and expansion of the gas transmission infrastructure;
- overcoming the dependence on imports of energy resources by using local resources (including coal);
- modernization and expansion of energy infrastructure;
- development of nuclear energy in accordance with modern requirements for reliability, safety and economy;
- improving energy efficiency and increasing the use of renewable energy in gross final energy consumption;
- active participation of the country in the construction of a single and stable European energy market;
- development of a competitive energy market and a policy aimed at meeting energy needs and protecting consumers' interests;
- ensuring equal access to the network for each user, with clear and non-discriminatory rules;
- achieving a balance of quantity, quality and price of energy for end users.

Energy efficiency (EE) policy is a very important element of national, European and climate change policy. The process of transition to low-emission energy requires increasing energy efficiency, increasing the use of energy from renewable sources in gross final energy consumption, improving energy management, developing energy infrastructure and building the internal market, as well as developing various concepts and implementation of new technologies and services. In line with EU priorities, energy efficiency is the first priority in energy policy and is essential for the implementation of the targets for the period 2020-2030. The legislation of Bulgaria in the field of EE is aligned with European legislation as the main document ensuring the implementation of the policy in this area is Energy Efficiency Act (EEA). In compliance with the requirements of the EEA and in accordance with the provisions of Directive 2012/27 / EU and Directive 2010/31 / EU on the energy performance of buildings (Directive 2010/31 / EU) the following strategic documents have been developed and are being implemented:

- National Action Plan for Energy Efficiency 2014-2020;
- National plan for buildings with close to zero energy consumption 2015 - 2020;

- National plan for improvement of the energy characteristics of the heated and/or cooled buildings - state property, used by the state administration;
- National long-term program for promotion of investments for implementation of measures for improvement of the energy performance of the buildings from the public and private national residential and commercial building fund.

The main priorities and goals in Bulgaria's energy efficiency policy are the following:

- achieving energy savings of 8,325 GWh by 2020;
- realization of annual energy savings in the amount of 1.5% of the volume of energy sales;
- taking measures to improve the energy performance of at least 5% of the total built-up area of all heated and / or cooled state-owned buildings used by the state administration;
- increasing the number of buildings with close to zero energy consumption;
- providing safe and affordable energy for all;
- minimising the undesirable effects of energy use on human health and the environment;
- raising the living standard of the population;
- increasing the competitiveness of the Bulgarian economy.

The envisaged policies and measures for the period after 2020 provide a correlation between the existing and planned policies and measures within the dimension "Decarbonization", as well as between the existing and planned policies and measures under the other dimensions of the Energy Union until 2030.

Due to the specificity and interdependence of the effect and the expected results, the measures and policies in the field of energy from renewable energy sources (RES) are integrated with those from the dimension "Energy efficiency". Efforts have been made to coordinate national climate and energy policies, using the opportunities for regional cooperation with other Member States, so as to attract the necessary investment to implement them. Policies and measures build on the scope and nature of those currently in place with a view to the wider deployment and better integration of renewable energy while achieving the key indicators of an affordable, secure, competitive, secure and sustainable energy system. With regard to the priority set in the Energy Strategy for the development and expansion of domestic gasification in the country, progress of 5% is reported. The use of electricity in final consumption leads to three times higher costs of primary energy compared to the ecological alternative - direct use of natural gas. Therefore, replacing electricity with natural gas for heating and domestic use in households will contribute to a threefold saving of primary energy and should therefore be considered as one of the ways to increase energy efficiency. In order to create incentives for increasing the level of household gasification in the country, the Ministry of Energy is implementing a project "Energy Efficiency Measures for Natural Gas End Users" (DESIREE) - a 10.9 million euro grant from the Kozloduy International Fund. Its aim is to stimulate domestic gasification by supporting the initial investment of about 10,000 households (a fixed fee of 30% of the value of the eligible investment and a 100% connection fee, but not more than EUR 1,000 per household for high-efficiency boiler systems and not more than EUR 1200 per household for condensing boiler systems) for connection to the existing gas distribution network. In this way, air pollution will be reduced

by replacing fuels with high levels of emissions of harmful substances in the air with natural gas.

The National Strategy for Climate Change Adaptation and the Action Plan to it, adopted by a decision of the Council of Ministers in 2019, outline the strategic framework and priorities for adaptation to climate change until 2030. The aim is to reduce the vulnerability of the effects of climate change and to improve the capacity to adapt ecological, social and economic systems to the effects of climate change.

To achieve the national target for the share of energy from renewable sources in the gross final energy consumption by 2030 (27.09%) the following distribution by sectors is forecasted:

- 30.33% share of energy from renewable sources in the electricity sector;
- 42.60% share of renewable energy in the heat and cooling sector;
- 14.2% share of renewable energy in the transport sector.

The development of a definition of vulnerable users and an identification criterion, as well as measures for their protection, are underway. At present, in Bulgaria a measure is applied to support persons meeting the defined criteria for income and property status, and during the heating period these persons are provided with targeted heating benefits from the social assistance system.

The electricity market in Bulgaria is partially liberalized, with the regulated share being 40%. The retail electricity market in Bulgaria is partially liberalized. In line with the EC's Third Liberalization Package, Bulgaria has taken steps towards full liberalization of the electricity market. Since 2007, all end customers, including household customers, have the right to buy electricity at agreed prices, freely choosing their electricity supplier. However, for a certain category of end customers, including household customers, there is an opportunity for them to buy electricity at prices regulated by the Energy and Water Regulatory Commission, from a final supplier for the respective territory. The phasing out of regulated prices for end-users will increase competition between electricity suppliers, but at the same time expose consumers to greater price volatility. To ensure the protection of energy-vulnerable customers, the state will introduce support measures that allow the market liberalization process to pass without social disruption. In this regard, the goals set by Bulgaria are:

- to provide adequate protection for the energy poor by providing targeted heating subsidies;
- to apply a mechanism for protection of vulnerable customers at the start of the process to full liberalization of electricity prices for end customers, including household ones;
- renovation of the building stock. When renovating multi-family residential buildings to classes "B", the average monthly costs required for adequate heating of homes are reduced. This may lead to the removal of households identified as at risk in terms of income from the group at risk of energy poverty;
- to apply measures to reduce air pollution from domestic heating - gradual replacement of solid fuel heating appliances (in addition to investments in energy efficiency for individual households, when this is justified by an energy audit); introduction of low-emission zones; promotion of district heating, including expansion of the distribution network for central heating¹; promoting the use of renewables, hydrogen, other innovative alternatives.

¹ Only for installations that do not use coal.

- increasing the energy efficiency through the introduction to the national goal under Art. 7 of Directive 2012/27 / EU, the requirement for priority implementation of energy efficiency measures for vulnerable customers, including households affected by energy poverty and, where appropriate, in social housing.

The provision of energy efficient services is regulated in the EEA. According to the EEA, energy efficiency services aim to combine the supply of energy with energy efficient technology and/or action that covers the operation, maintenance and management necessary to provide the service and lead to verifiable and measurable increases in EE and/or savings of primary energy resources. Energy efficient services are provided on the basis of written contracts concluded with energy end users. EEA also defines the persons who can provide energy efficient services - natural or legal persons - traders within the meaning of the Commercial Law or within the meaning of the legislation of a Member State of the European Union or another state party to the Agreement on the European Economic Area.

The implementation of guaranteed performance contracts (ESCOs) plays a significant role in stimulating the market for energy efficient services. Under these contracts, the reimbursement of the investments made and the payment of the due remuneration to the suppliers (ESCO companies) are made at the expense of the realized energy savings. They give a guarantee for their implementation, respectively for the savings that will be realized after the implementation of the project. For state and / or municipal property buildings, which are subject to contracts with guaranteed result, a special Ordinance has been developed on the terms and conditions for determining the amount and payment of the planned funds under contracts with guaranteed result, leading to energy savings in buildings - state and / or municipal property. The Sustainable Energy Development Agency (SEDA) participates in the review and approval of funds for the implementation of contracts with guaranteed results in state and / or municipal buildings, sends a reasoned proposal to the Ministry of Finance for financing and disbursement of funds and certifies that no certificate has been issued for the building performed activities under other programs. SEDA is the national administrator of the European Professional Code for ESCOs. The Code was created within the project "Increasing the transparency of energy services markets (Transparency)", funded by the EC under the "Intelligent Energy for Europe" Program. It is a set of values and principles necessary for the successful preparation and implementation of projects in the field of ESCO contract in European countries and defines the principles of conduct mainly of suppliers under ESCO contract.

According to the provisions of Directive 2010/31 / EU and Directive 2012/27 / EU, public authorities at national, regional and local level should set an example in terms of energy efficiency. In this regard, the Republic of Bulgaria has set a more ambitious goal for renovation of the buildings owned and used by the central administration as the legal requirement set in Art. 23, para. 1 of EEA, is in all heated and / or cooled buildings - state property, used by the state administration to take annual measures to improve the energy performance of at least 5% of the total unfolded built-up area. The reason for imposing a more ambitious goal is not only the need to reduce energy consumption in buildings due to its long-term impact, but also the stimulating role of buildings owned by public authorities, as they represent a significant share of the building stock and have a high degree of visibility in public life.

Pursuant to Directive (EU) 2018/844 of the European Parliament and of the Council, adopted on 30 May 2018, amending Directive 2010/31 / EU, Member States should

develop a long-term renovation strategy to support the renovation of the national building stock from residential and non-residential buildings, both public and private, to achieve a highly energy efficient and decarbonized building stock by 2050, facilitating the cost-effective transformation of existing buildings into buildings with close to zero net energy consumption. The provisions of the Directive should be transposed into national law by 10 March 2020. In this regard, a Long-Term National Strategy is being developed to support the renovation of the national building stock from residential and non-residential buildings by 2050, which will determine :

- indicative intermediate targets for 2030, 2040 and 2050;
- indicative description of financial resources to support the implementation of the strategy;
- effective mechanisms to encourage investment in the renovation of buildings.

The indicative intermediate targets for renovation of the residential and non-residential building stock in accordance with the project of the national strategy:

Indicator		2021-2030	2031-2040	2041-2050
Total energy savings	GWh / y	2 917	6 502	7 329
Residential buildings	GWh / y	2 477	5 694	6 294
Non-residential buildings	GWh / y	440	808	1 035
Renovated area	m2	22 203 509	49 570 668	55 823 015
Residential buildings	m2	19 026 656	43 735 175	48 343 297
Non-residential buildings	m2	3 176 852	5 835 493	7 479 718
Renovated area of the existing building stock for renovation at the moment	%	7.9%	17.5%	19.8%
Saving CO2 emissions	tone	1 306 435	2 891 610	3 274 453
Residential buildings	tone	1065 184	2 448 461	2 706 441
Non-residential buildings	tone	241 251	443 149	568 012

At present, only 4.2% of the multi-family residential buildings, 11% of the total area for residential buildings and 9.6% of the total area for non-residential buildings, 1,7% of the area of administrative buildings and only 2.1% of the buildings of cultural infrastructure have been renovated. The needs for renovation of residential and non-residential buildings are significant and far exceed what has been achieved so far. Analytical data of the renovated buildings so far, as well as the identified need for renovation of the building stock are presented in Table 1 and Table 2²:

Table 1 - Renovated buildings under contracts under operational and national programs:

² The data cover the Operational Program "Regional Development" 2007-2013, the Operational Program "Growing Regions" 2014-2020 and the National Program for Energy Efficiency in Multifamily Residential Buildings. The remaining implemented projects represent a negligible percentage of the renewed structure, which is why they are not included in the presented data.

Type of infrastructure / type of buildings	Total in the country	Renovated buildings under OPRD 2007-2013 and 2014-2020 and NPEEMRB ³	Renovated buildings under OPRD 2007-2013 and 2014-2020 and NPEEMRB (%)	Remaining for renewal	Remaining buildings for renovation %
Multi-family housing buildings / blocks	66 865	2 809	4,2%	64 056	95,8%
Residential buildings (resource in BGN)	23 143 499 485	2 111 856 434	9,1%	21 031 643 051	90,9%
Non-residential buildings (resource in BGN)	3 652 906 130	286 940 974	7,9%	3 365 965 156	92,1%
residential buildings (m2)	264 676 000*	12 188 645 (renovated) 7 900 000** (built after 2010)	7,6%	244 587 355	92,4%
non-residential buildings (m2)	16 492 063	1 579 290	9,6%	14 912 773	90,4%
Type of infrastructure	Total in the country (built-up area, m2)	Renovated buildings under OPRD 2007-2013 и 2014-2020	Area of renovated buildings (%)	Area of buildings for renovation (m2)	Area of buildings for renovation (%)
Administrative service buildings	14 878 947	247 758	1,7%	14 631 189	98,3%
Buildings for culture and art	2 296 810	47 482	2,1%	2 249 328	97,9%

Table 2 - Renovated buildings under implemented projects under operational and national programs:

Type of infrastructure	Total in the country	Renovated buildings under OPRD 2007-2013 and 2014-2020 and NPEEMRB	(%)
Multi-family housing buildings / blocks	66 865	2 514	3,8%
Residential buildings (BGN)	23 143 499 485	2 025 411 049,1	8,8%
Non-residential buildings (BGN)	3 652 906 130	248 450 574,8	6,8%
residential buildings (m2)	264 676 000*	11 617 261,7 (renovated) 7 900 000** (built after 2010)	7,4%
non-residential buildings (m2)	16 492 063	1 457 181,6	8,8%

³ National program for energy efficiency of multifamily residential buildings

non-residential buildings (GWh)	2 283	192,6	8,4%
Type of infrastructure	Total in the country (built-up area, m2)	Renovated buildings under OPRD 2007-2013 и 2014-2020	(%)
Administrative service buildings	14 878 947	167 665	1,1%
Buildings for culture and art	2 296 810	42 831	1,9%

*According to “Review and Analysis of national housing stock in Republic of Bulgaria” the useful floor space of dwelled year round residential buildings is 240 614 647 m². The built-up area, calculated as the useful floor space is increased around 10%, is recorded in the table.

** Approximately the built up area of new residential buildings built in the period 2010-2019. They are built according to present-day regulatory requirements for energy efficiency.

The available resources and concentration of funds in different types of building stock for the implementation of measures to increase energy efficiency under the Recovery and Resilience Facility are insufficient to cover the needs in their entirety. In this regard a reform through the programme and an appropriate mechanism for sustainable financing of this type of measures even after the implementation of the program. It should serve as a transitional option for creating a sustainable model for ensuring decarbonization policy until 2050.

The goals thus set in the building sector are expected to contribute to the fulfillment of the obligations under Art. 7 of Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27 / EU. The analysis of the available information from actually certified buildings shows that in order to achieve the quantitative dimensions of the indicators, the renewal policies must be focused primarily on buildings with an indicator of current energy consumption with classes E, F and G for all categories of buildings.

Achieving the goals for increasing energy efficiency is strategically related to the renovation of the building stock, as priority will be given to energy efficiency in combination with the use of renewable energy sources in the building sector. Priority will be given to the introduction of high-efficiency cooling and heating installations, the introduction of innovative technologies using geothermal, hydrothermal and solar energy, and the use of waste heat and cold.

In addition, the use of efficient central heating and central cooling will be encouraged, which will reduce losses in the transmission and distribution of heat and will lead to a reduction in CO₂ emissions.

Investments in circular economy, green investments and technology transfer cause the need of increasing the capacity in the building industry – need of tuition and improvement of capacity.

The capacity of building industry needs additional attention in regard of

- staff tuitions
- optimization of preparatory activities and deadlines – projects for optimization of

implementation so administrative processes before the construction process

- Improvement of projects - integration of BIM system and further digitalization is needed.

Pursuant to Art. 5, paragraph 2 of Directive 2010/31 / EU on the energy performance of buildings and Art. 6 of Commission Delegated Regulation (EU) № 244 supplementing Directive 2010/31 / EU of the European Parliament and of the Council on the energy performance of buildings by establishing a comparative methodological framework for calculating cost-optimal levels of minimum requirements for Energy performance of buildings and building components a report has been developed to calculate cost-optimal levels of minimum requirements for energy performance of buildings in the Republic of Bulgaria. The report identifies reference buildings for different categories of existing buildings. Bulgarian legislation defines the types of public service buildings in Ordinance № 1 of 2003 of the Ministry of Regional Development and Public Works on the nomenclature for the types of constructions. The public service buildings are systematized in nine groups:

1. buildings for education and science;
2. buildings in the field of healthcare and veterinary medicine;
3. buildings in the field of social services;
4. buildings in the field of culture and arts;
5. buildings in the field of religions;
6. buildings for administrative service;
7. buildings in the field of trade, catering, services and gambling;
8. buildings in the field of transport and electronic communications
9. and buildings and facilities for sports.

The group of buildings for administrative services includes administrative buildings, banking and non-bank financial institutes, service buildings to production sites, representative buildings, post offices, buildings of central and territorial administrations, government buildings, conference and congress centers, court buildings, the prosecution, etc. Directive 2010/31 / EU, Art. 4, para. 1 entitles Member States to decide whether to distinguish between new and existing buildings as well as between different categories of buildings. In Bulgaria this distinction has not been made. Nor are reference buildings defined for new buildings, as required by Delegated Regulation (EU) № 244/2012 and its guidelines. The reason for this is that according to national legislation, the only difference between new and existing buildings is the class of energy consumption to which the buildings must correspond. The defined criteria for selection of each reference building are: type of construction system, number of storeys, age of the buildings and type of heating system. The approach used for determining reference buildings is by combining a virtual model with representative parameters of existing buildings of the given category. Energy efficiency measures have been defined for the reference buildings. Packages of measures are proposed, and a combinatorial methodology is applied, based on a matrix model of the possible measures for a given reference building. The required primary energy determined by the application of measures and / or packages of measures for the reference buildings is calculated. The report states that the method used in Bulgaria to calculate the energy performance of buildings is based on a European model, introduced as a Bulgarian standard and supplemented with models that take into account moisture exchange, as the European treats only apparent heat, which

does not allow to estimate the energy required for cooling in the presence of air exchange in the cooled area. For the purposes of calculating the cost-optimal energy performance of buildings and for developing a national definition for buildings with close to zero energy consumption in Bulgaria, the technical norms from 1999 have been set as basic.

The report presents global cost calculations based on a life-cycle cost analysis for each reference building at financial level only. The input parameters used to calculate the global costs and the included types of costs (initial investment costs, operating costs and waste disposal costs) are defined. The optimal levels of energy indicators are calculated for all defined reference buildings, following the approach at the system level - in this case based on the analysis of the influence of heat transfer coefficients through the building structures and elements on the required energy. The determination of minimum requirements for energy consumption in buildings with generalized scales with numerical values of energy consumption classes is introduced in the national legislation in 2016 with Ordinance № E-РД-04-2 of 22.01.2016 on energy consumption indicators and energy performance of buildings. The ordinance determines the conditions for determining and the uniform methodology for formation of indicators for energy consumption and energy characteristics of buildings, the parameters of the scale of energy consumption classes for different categories of buildings and the limit values of the integrated energy indicator "specific annual consumption of primary energy " in kWh / m², determined by the scale of energy consumption classes for different categories of buildings.

The requirements of Directive 2010/31/EU have been introduced in the Republic of Bulgaria, the introduction of the amendments defined by Directive (EU) 2018/844 is forthcoming. A separate Renewable Energy Act (REA) has transposed European legislation related to the promotion of the use of energy from renewable sources and regulates public relations related to the production and consumption of electricity, heat and cooling energy from renewable sources; gas from renewable sources; biofuels and energy from renewable sources in transport. In connection with the transposition of the requirements of Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 to promote the use of energy from renewable sources, changes are to be made in REA and its regulations. Although as a result of the implementation of the existing provisions of the current Bulgarian legislation by 2020 good results have been achieved, comparing them with the new requirements in Directive (EU) 2018/844 there is a potential for improving the current legislation on energy efficiency for buildings in the direction of its better application. The established comprehensive EU regulatory framework for achieving climate neutrality by 2050 is the basis on which in the short and long term the upgrades of the Bulgarian energy efficiency regulations will be carried out, as part of the national regulations in the field of energy and climate in the five dimensions of the Energy Union.

Improving the energy efficiency of buildings has numerous positive effects, one of which is undoubtedly the reduction of energy poverty. To achieve these effects, the building stock needs to be renovated in order to get as close as possible to the standard for almost zero-energy buildings. With the "Clean Energy for All Europeans" legislative package, the European Commission is proposing a set of measures to tackle energy poverty through energy efficiency, safeguards against supply disruptions and better definition and monitoring through integrated national energy and climate plans. Energy poverty policy is covered by the new Energy Efficiency Directive (2018/2002), the Energy Performance of Buildings Directive (2018/844) and the Energy Union Management Regulation

(2018/1999). Directive 2018/2002 states that the current levels of renovation of buildings are insufficient to achieve the objectives of the Paris Agreement, which requires Member States to take into account the need to alleviate energy poverty when designing energy efficiency measures, as effective actions to reduce energy poverty must include measures to improve energy efficiency in the building stock at the same time as social policy measures.

The mechanism for protection of vulnerable from energy poverty groups will include criteria for identifying, financial and non-financial measurements for protection. This mechanism for support of vulnerable customers beyond their needs for heating, which are provided a social assistance for. In addition to the above measures, also measures for improvement of energy efficiency in homes of energy poor customers aiming reduction of energy costs and increasing their living comfort will be implemented.

Decreasing of energy poverty will have an economic effect for households and will increase the standard of living and quality of life, due to the energy renovation of buildings contributes to reducing of electricity costs.

Bulgaria envisages an amendment of Energy Efficiency Act, which will introduce a definition for the term “energy poverty”. The mechanism for implementation of measures for energy efficiency of housing stock provides prioritization of buildings, by developing definite criteria. Aiming mitigation of energy poverty indicators, some of criteria will be indicators that contribute to abolish the factors of energy poverty.

The measures’ aim is to offer opportunities for the cost-effective transformation of existing buildings into buildings with close to zero net energy consumption (nZEB), which is in line with the requirement of Art. 2a of the Energy performance of buildings Directive for the cost-effective transformation of the existing buildings into buildings with close to zero net energy consumption.

The main measures for state and municipal property cover the following categories of non-residential buildings: administrative buildings, cultural infrastructure and sports infrastructure. These buildings require an individual approach at the project level, taking into account the main goal - to achieve a high class of energy consumption "A".

Based on the general finding of the inspection of residential buildings and energy consumption, it is established that the housing stock is inefficient, with poor energy performance. Energy efficiency approaches for residential buildings, in addition to being in line with the concept of Delegated Regulation (EU) № 244/2012, must be reconciled with a number of social and economic factors, as well as the need to improve the overall technical condition of buildings. In this sense, investments in energy efficiency must ensure the sustainability of the implementation of the ESM and therefore include all necessary construction and installation works to ensure the quality of this implementation. The programme provides eligibility for funding of all energy efficiency measures prescribed in energy efficiency surveys of each building

The technical measures related to strengthening and ensuring the mechanical stability of the building structure require essentially another type of investigation (other than the energy one), which is carried out in accordance with Ordinance № 5 of 2006 on the technical passports of the constructions. The implementation of such measures also requires an individual structural design for each building. Therefore, the costs of construction activities, construction and installation works on the plumbing installation, the removal of existing barriers to accessibility for people with disabilities, as well as the costs of installing pipeline infrastructure for the later installation of charging points for electric

vehicles. eg, require additional evaluation.

Analyses show that:

- In most of the multi-family residential buildings, the heating and domestic hot water supply are provided by separate local heat sources for each home, there are no building heating systems. Only in 16% of the inhabited dwellings the heating and domestic hot water supply are provided by a central heat source.

- A decision to implement measures on building installations (including replacement / construction of a new heat generator) is taken with the consent of 100% of the owners of the individual sites.

- The applicable measures depend on each of the categories of residential buildings. Energy saving measures are grouped according to the technical possibilities for achieving different levels of renovation for single-family residential buildings, which may include multi-family buildings "low-rise" and for multi-family residential buildings "medium" and "high" construction. The measures that will be applied in single-family and multi-family residential buildings depend on the results of energy audits and technical design. The renovation measures are energy-saving and include only construction and installation works that directly contribute to energy savings. In fact, in a large number of residential buildings (single-family and multi-family residential buildings), as a result of lack of maintenance and regular repairs, building elements and common areas are depreciated and in poor condition, resulting in a potential threat to both construction , as well as the effectiveness and sustainability of future EE measures. On the other hand, the changes in the time in the normative regulation require in case of major renovation of the buildings to be taken measures to bring some building elements and systems related to safety of living and operation, fire resistance, etc., to the current technical requirements (restoration/ construction of lightning protection installation, fire safety, upgrading of balcony railings, safety railings, etc.).

In this regard, improving the energy efficiency of the building stock will have a positive impact in terms of economic growth and job creation, and saving energy will also save financial resources. Energy saving is one of the fastest and most cost-effective ways to achieve the strategic goals of combating climate change, ensuring energy security and achieving sustainable economic and social development.

In response to the COVID-19 pandemic and mitigating the enormous economic consequences, action is needed to achieve a rapid and stable economic recovery in Bulgaria and the EU, through investment and reforms focused on the challenges and investment needs linked to green and digital transitions, thus ensuring a sustainable recovery for Member States.

In 2015, the Bulgarian Government adopted a National programme for energy efficiency of multifamily residential buildings, aimed at renovating multifamily residential buildings through the implementation of EE measures. The main goal of the Programme is to provide better living conditions for the citizens in multi-family residential buildings, thermal comfort and higher quality of the living environment, through the implementation of EE measures. The Programme provides financial and organizational assistance to owners' associations registered under the Condominium Ownership Management Act in multi-family residential buildings to improve the EE of the buildings in which they live. Owners' associations, whose buildings comply with the defined eligibility criteria, receive an assistance and support. They apply for a financial support to the local authorities. The selection criteria stipulate that all those applicants, who meet the requirements, in the

order of submission and approval of applications, will receive 100% grant and organizational support for the implementation of the renovation until the financial resources determined under the Programme are exhausted. The local authorities accept documents for application, assessment, approval, monitoring of the implementation of the EE measures for the buildings. The mayor of each municipality is responsible for the implementation of the entire process of renovation of residential buildings on its territory and for the selection of contractors under the Public Procurement Act for the implementation of individual activities on the buildings. All 265 municipalities on the territory of the Republic of Bulgaria are eligible for participation in the Program, as activities have been carried out within 143 municipalities. The program is implemented with a financial resource of BGN 2 billion - national funds, part of which are received from loans of the Bulgarian Development Bank with state guarantees. By providing additional funds, the financial resources under the national programme may be increased.

Within the Operational Programme "Innovation and Competitiveness" 2014-2020 (OPIC) are funded projects for the introduction of energy saving technologies and energy recovery from renewable energy by enterprises. The programme is co-financed by the EU through the European Regional Development Fund (ERDF). Projects for implementation of EE measures under OPIC are financed under alternative measure 3 - Procedure BGI6RFOP002 - 3.002 "Improving energy efficiency in large enterprises". The alternative measure is valid for the period 2019-2020. Investment Priority 3.1 "Energy Technologies and Energy Efficiency", under Priority Axis 3 "Energy and Resource Efficiency". Beneficiaries are existing enterprises, outside the trade and services sectors. Procedure BGI6RFOP002-3.002 started in 2019 with 68 grant agreements totaling BGN 253,791,859.90, of which grants amounting to BGN 122,614,711.56 (48.3%) grant intensity). The planned energy savings in the enterprises under the concluded contracts are 553,505.51 MWh/y, and the expected reduction of greenhouse gas emissions are 330,006.61 tons/year CO₂. For the purposes of Art. 15, para 2 and for the needs of the determination of the National cumulative goal for energy efficiency under art. 14, para. 1 of Energy Efficiency Act as an alternative measure under Art. 14, para 7, item 2 only energy savings corresponding to the amount of the grant under Procedure BGI6RFOP002-3.002 are used, which are equal to 267 737.7 MWh (22.99 ktoe). The achieved energy savings will be assessed by the "bottom-up" method on the basis of actually implemented projects to increase energy efficiency in enterprises.

Evaluations carried out at European and national level show the need for the significant investments needed to increase energy efficiency and renovation of the building stock.

The necessary investments for increasing the energy efficiency and the renovation of the building stock according to the Long-Term National Strategy for Renovation of the National Housing and Non-housing Stock, are:

	2021-2025	2026-2030	2031-2040	2041-2050
Investments	BGN/year	BGN/year	BGN/year	BGN/year
Residential buildings	257 180 671	535 480 142	911 015 558	1 007 003 984
Non-residential buildings	59 899 456	80 831 802	129 253 125	165 671 859
Total per year	317 081 000	616 312 000	1 040 269 000	1 172 676 000
Total for the period	1 585 405 000	3 081 560 000	10 402 690 000	11 726 760 000

Within the implementation of OPRD 2007-2013 and OPRG 2014-2020 the resource which has been invested, is estimated at 7.9% of the total required for the country. The required additional resource for renovation of non-residential buildings is 92.1%.

In pursuance of the above priorities and analyzes, the main goal of the Energy Efficiency in Building Stock under the Recovery and Resilience Facility is to create a sustainable model for financial provision of energy efficiency measures in their comprehensiveness, by defining, creating, situating and structuring Single National Decarbonization Fund⁴, as a main financial scheme in support of the Bulgarian strategy for long-term renovation of the building stock on the territory of the country. This will create a sustainable model of long-term financial provision, by applying and using different sources of income and return on investment in a period of 5 to 15 years. The established decarbonization fund will be able to finance energy efficiency measures after the end of the program, and it is expected that by 2050 about 60% of residential buildings and 50% of all buildings in the country will be rehabilitated.

Establishing a Single National Decarbonization Fund is part of the National Recovery and Resilience Plan and in this relation is part of the entire reform Energy Sector in the country. The Energy Efficiency in Building Stock Programme is closely related to the Single National Decarbonization Fund as it will contribute to its functioning. It is provided the costs savings of the reduced energy consumption after the implementation of the projects within The Energy Efficiency in Building Stock programme to be deposited in the Single National Decarbonization Fund. The requirement for return of saved energy will be regulated in the contracts for grants with the beneficiaries. Thus an initial own resource for implementation of the projects will not be needed, but financial resource for further development of other projects for energy efficiency in building stock will be ensured, after the termination of implementation of the programme.

Following the implementation of EE measures through the implementation of the programme, it is expected to achieve **4.5% energy savings in annual primary energy consumption as a result of energy saving measures (kWh / year), and the expected annual reduction of GHG (tones CO₂ equivalent) is 3.8%.**

Expectations related to implementation of the programme in relation the goals determined in the Long-term National Strategy for Renovation of the National Housing and Non-housing Stock 2021-2050 are an indicative energy saving of 131 GWh/y to be achieved by 2026.

Specific objectives of the programme are:

- Improving the energy performance of the national building stock of residential and non-residential buildings by implementing integrated energy measures;
- Achieving energy consumption class "A" and exceptionally class "B" after application of energy saving measures in public buildings and reaching energy consumption class "A", "B" and exceptionally "C" after application of energy saving measures in residential buildings;
 - Reducing "energy poverty" by reducing energy costs;
 - Improving the conditions and quality of life of the population in the country through technological renovation and modernization of the building.

The activities laid in the programme are in compliance with the priority areas defined by European Commission (in particular "Renovate", "Modernise" and "Reskill and Upskill") of the Mechanism of Recovery and Resilience for handling the crisis result of Covid-19. The programme is in line with Priority 4 "Circular and Low-Carbon Economy" of the National

⁴ A single national decarbonization fund is defined in a draft Long-Term National Strategy to support the renovation of the national building stock of residential and non-residential buildings until 2050.

Developments Programme Bulgaria 2030.

The Energy Efficiency in Building Stock Programme will adhere Do No Significant Harm /DNSH/ principle and will provide effective applying of it as it possible taking into account the Taxonomy Regulation.

The following ecological goals are unlikely to be negatively affected of the implementation of the measures provided within the programme taking into account its life cycle:

- Mitigation of the climate change – Implementation of the programme will not lead to significant GHG emissions.
- Adaption to climate change - Implementation of the programme will not lead to increased unfavourable impact of the current climate and expected future climate on implemented measures or on people, nature or assets.
- Sustainable use and protection of water and marine resources Implementation of the programme is not expected to be harmful towards will i) good status or good ecological potential of waterbodies, including surface waters and ground waters or ii) good ecological status of sea waters.
- Circular Economy including prevention and recycling of waste - Implementation of the programme will not: i) lead to significant increase of waste generation, burning or disposal, except the burning of non-recyclable hazardous waste, ii) lead to significant inefficiency in direct or indirect use of any natural resource at each stage of its living cycle, which are not minimized through adequate measures; iii) cause significantly and long-term damage to the environment in relation to circular economy.
- Prevention and control of air, water or land pollution - Implementation of the programme will not lead to significant increase of pollutant emissions in air, water or land.
- Protection and recovery of biological diversity and ecosystems - Implementation of the provided measures in the programme will not be: (i) significantly harmful for good status and resilience of ecosystems; or (ii) harmful for the status of conservation of habitats and species, including these of EU interest.

Accountability of the set goals of the programme:

According to Art. 76 (1), item 1 of the Energy Efficiency Act “The energy savings of the end customers, achieved after the introduction of measures for increasing the energy efficiency, shall be proved by an assessment of the achieved energy savings after an energy efficiency audit of a building, enterprise, industrial system or system for external artificial lighting or after inspection of a heating installation with a hot water boiler or an air-conditioning installation, so the audit or inspection shall be carried out not earlier than one year after the introduction of the measures”.

In this regard, new certificates should be prepared within the period provided for in Ordinance № E-ПД-04-1 of 22.01.2016 for inspection for energy efficiency, certification and assessment of energy savings of buildings, i.e. a new certificate shall be issued not earlier than one calendar year after the implementation of energy saving measures or the performance of the construction and installation works for which there is a registered energy consumption by types of fuels and energies used in the building.

The energy efficiency in the building stock matter is key for the decarbonization of the Bulgarian economy, economic and social life. Therefore, it is necessary to look for solutions to reduce energy consumption, which has the effect of improving the environment and reducing costs. Therefore it is important to promote the various options for implementing energy efficiency measures that have the potential to return on investment in order to reach all stakeholders (homeowners, public buildings, production,

trade and services buildings).

In view of the identified needs, the integrated program for the implementation of EE measures covers the following main components:

1. Increasing energy efficiency in residential buildings;
2. Increasing energy efficiency in public buildings;
3. Increasing energy efficiency in production, trade and services buildings.

COMPONENT 1 - SUPPORT FOR ENERGY EFFICIENCY IN THE RESIDENTIAL BUILDING STOCK

➤ GENERALIZED CHARACTERISTICS

Area of impact/policy:

Energy efficiency, social policy, housing policy, resource efficiency, environmental protection and air quality, construction and the circular economy

Objectives:

A) Creating new jobs and stimulating economic growth

The project aims to create new jobs at the local level, to stimulate investment in the regions, to improve the condition of the building stock and to support small and medium-sized enterprises.

B) Supporting the green transition

The project aims to reduce energy consumption by 683 GWh/year, to increase energy efficiency by transforming residential buildings with energy consumption classes of E, F, G into buildings of minimum class B, as well as to reduce greenhouse gas emissions by 225 ktCO₂/year for the period 2021-2026, while seeking to improve the environmental and health indicators of housing in the renovated buildings.

The implementation of the project aims to implement reforms leading to accelerating the pace of renewal for energy efficiency in the housing sector.

C) Social stability

By providing financial support for the renovation of the existing residential building stock, the project will support low-income owners of individual sites in residential buildings (single-family and multi-family).

Investments and reforms:

Investment 1: "Support for energy efficiency in the residential building stock" to provide financial and technical assistance to improve the energy efficiency of residential buildings and with priority of those with poor energy performance.

Reform 1: One-stop shops

Reform 2: Establishment of an information system for digitization of data on administration and control of the renewal process

Indicative financial resource: BGN 1 426 960 000,00 (The financial estimates for the individual work packages are shown in Appendix 1 to the Application form)

➤ SHORT DESCRIPTION

This project is aimed at providing financial, organizational and technical assistance to improve the energy characteristics of the residential building stock in the Republic of Bulgaria.

In addition to the direct environmental benefits, the implementation of the project will have a positive impact on economic growth in the Republic of Bulgaria, innovation, competitiveness and dependence on energy imports, will create new jobs, will contribute to reducing energy poverty and improving public health.

Considering that currently only 7% of the area of inhabited residential buildings (built after 2010 and the renovated ones) is in accordance with the modern requirements for energy efficiency (according to an analysis of the residential stock, published: <https://www.mrrb.bg/bg/pregled-i-analiz-na-nacionalniya-jilisten-sgraden-fond-v-republika-bulgariya/>), the focus of the project is residential buildings (single-family⁵ and multi-family⁶) throughout the country in the remaining 93%, which have the worst energy characteristics.

In line with the objectives of the Long-Term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-residential Buildings by 2050, developed under EU Directive 844/2018, the objectives set in the project follow the objectives in the strategy and recommendations of the Directive for approach aimed renovation of the buildings with the worst energy characteristics. The goal set in the strategy is to achieve renovation of over 19 million sq.m. living area by 2030 and in this regard the project is aimed at economically feasible renovation of buildings, which achieves a minimum class B of energy consumption.

Two work packages are structured depending on the type of residential buildings (single-family / multi-family), subject to renovation, respectively:

- **Work package 1** - multi-family residential buildings with energy consumption E, F, G
- **Work package 2** - single-family residential buildings with energy consumption E, F, G

Work Package 2 will finance under the project only part of the renovation activities – construction and installation works for energy saving measures. The rest activities (technical audit, energy efficiency audit, investment project and project supervision, accompanying construction works, conformity assessment and construction supervision, investor control) will be financed by the building owners and the use of a financial mechanism is envisaged for them.

➤ **CONTEXT - CONDITION OF THE RESIDENTIAL BUILDING STOCK**

Over 97% of the country's residential stock is private property of individuals, and so far the implemented programs have been aimed mainly at multi-family residential buildings, which, given the nature of ownership in the country, are managed through a condominium regime. In this regard, the project addresses undeveloped potential so far - single-family buildings (and largely multi-family with low and medium construction), as far as from a technical and organizational point of view, they have great opportunities.

Support for single-family buildings will ensure the scale of the project due to the fact that the decision-making process is easier and renovation can be done at a faster pace. Given that the initiative for assignment and selection of part of the activities for renovation of single-family residential buildings belongs to their owners, as well as the volume of construction and installation works, the project is expected to engage local small and

⁵ Single-family residential buildings are considered to be buildings that are not managed under the Condominium Management Act and the relations between the co-owners are regulated under the Ownership Act

⁶ Multi-family residential buildings are considered to be buildings with more than 3 individual residential sites and with more than one owner, managed under the Condominium Ownership Management Act.

medium-sized companies. On the other hand, the informed choice and decision-making by the owners of single-family residential buildings will be supported by established centers such as “One-Stop Shops” (Reform 1).

At the same time, by providing support for multi-family residential buildings, many more homeowners as well as people from socially vulnerable groups will be covered. Difficulties in the maintenance and complex complete repairs of multi-family residential buildings in condominium regime are due to the more complex structures (storeys, construction of the building), installations in the buildings (elevators, electrical), requirements and fire protection measures. In this context, the renovation aid for buildings under the project aims not only to improve their energy characteristics, but also to build an attitude (and a corresponding demand for services) towards the maintenance of common private property, opening up future market opportunities. The implementation of construction and installation works for the renovation of multi-family residential buildings will provide significant opportunities for the construction sector.

The financial resource of the project, allocated for the renovation of multi-family residential buildings, follows the analysis of the existing information from actually renovated buildings, which shows that in order to achieve significant quantitative measures of energy savings and greenhouse gas emissions (impact indicators), renovation policies should focus primarily on the buildings with the worst energy characteristics - with energy consumption classes E, F and G. The latter represent about 90% of non-renovated residential buildings in Bulgaria⁷.

➤ **CHALLENGES AND OBJECTIVES**

The project is aimed at overcoming the challenges of high initial costs for renovation for energy efficiency of buildings, reducing carbon emissions generated by residential buildings that do not meet the requirements for energy efficiency - 93% of the residential stock in the country. The focus will be on energy renovation with priority given to the buildings with the worst energy characteristics. This will have significant positive social consequences, including addressing the problems of energy poverty.

Based on a thorough analysis of the energy efficiency programs implemented so far in the Long-Term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-Residential Buildings by 2050, the following specific barriers and challenges have been identified to the large-scale housing renovation process in Republic of Bulgaria:

- large share of private property in residential buildings (over 97%);
- the heterogeneous ownership structure in multi-family residential buildings;
- different social and financial profile of the occupants in one building;
- time-established practices for unprofessional and inefficient management of multi-family residential buildings in condominium regime; lack of capacity to organize the management of the renewal process;
- lack of systematic maintenance of the buildings leading to more expensive renovation for energy efficiency;
- a large share of unoccupied dwellings in buildings;
- low creditworthiness of some owners;

⁷ According to the Long-Term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-residential Buildings by 2050 - Review of non-renovated residential buildings by energy performance and energy consumption

- limited access to information and financing, insufficient market mechanisms for financing energy efficiency measures;
- difficulties to agree on renovation between condominiums.

An integrated approach will be used to overcome the listed challenges - a combination of investments, reforms and legal changes.

Regarding the legal changes, it is important to note that a draft amendment to the Condominium Ownership Management Act is currently being drafted, which regulates the relations in the multi-family residential buildings in condominium regime on the territory of the Republic of Bulgaria. The amendment of the law aims to facilitate the decision-making of the owners of individual sites in multi-family residential buildings and to achieve indirect support for the renovation process. Encouraging professional management by creating preconditions for improving its quality.

The following specific project objectives have been identified:

- to increase the pace of renovation of residential buildings in the country;
- to encourage owners to participate more actively in the organization and control of renovation activities;
- to encourage the demand for services for local small and medium enterprises, the construction sector.

Residential buildings have significant potential for implementing energy security policies and commitments in the field of energy security, maintaining clean air, reducing greenhouse gas emissions (CO₂ and equivalent), introducing renewable energy, overcoming "energy poverty" and as a catalyst of a targeted long-term housing policy (including in terms of the responsibility of the owners for the maintenance of the residential building stock).

Energy renovation activities will extend the life of buildings, reduce maintenance costs and encourage people to stay and live in them, incl. and in small settlements. As a result of the implementation of energy saving measures, more households will improve the thermal comfort in their homes and will realize savings both in the energy consumed and in the price paid for it.

➤ **IMPLEMENTATION**

The project activities are divided into two work packages.

Work Package 1 (WP1) aims to increase energy efficiency in multi-family residential buildings. This type of buildings are in condominium regime and are managed under the Condominium Ownership Management Act.

WP1 will be implemented in accordance with the experience gained from the implementation of previous initiatives in the country - Demonstration project for renovation of multi-family residential buildings 2007-2011, project "Energy renovation of Bulgarian homes" 2012-2015, National Program for Energy Efficiency of Multi-family Residential Buildings.

Work Package 2 (WP2) aims to increase energy efficiency in single-family residential buildings. In this type of buildings the relations between the co-owners are settled under the Ownership Act. Currently, single-family residential buildings are an undeveloped share of the residential building stock in terms of improving energy characteristics and the realization of energy savings. The aim of this work package is in line with the implementation of the Long-Term National Strategy to Support the Renovation of the National Building Stock of Residential and Non-residential Buildings by 2050 and it is to prepare and launch a large-scale process for renovation of single-family residential

buildings by overcoming the existing obstacles related to the insufficient number and scale of appropriate measures and mechanisms, respectively little accumulated experience.

Work package 1: Increasing the energy efficiency of multi-family residential buildings with energy consumption classes E, F, G

Eligible buildings: Eligible for financing are multi-family residential buildings with energy consumption class E, F and G.

Financing: 100% of all project activities (technical audit, energy efficiency audit, construction and installation works, investment project and author's supervision, conformity assessment and construction supervision, investor control);

Reference (maximum allowable) prices will be set for all activities.

Method of implementation: The buildings will be renovated on the basis of the prescriptions from the performed energy efficiency audit to reach the minimum class B of energy consumption.

Work package 2: Increasing the energy efficiency of single-family residential buildings

Eligible buildings: Eligible are buildings with up to three individual sites that belong to one or more than one owner (not managed under the Condominium Ownership Management Act) and have class of energy consumption E, F, G .

Conditions for application: The application will be made with pre-prepared technical audit, technical passport, architectural survey and energy efficiency audit.

Financing: 100% construction and installation works for energy saving measures - up to reference value for the relevant activities;

The accompanying construction and installation works (repair of roofs, stairwells, etc.), as well as the investment project, project supervision, conformity assessment, construction supervision and investor control will be paid by the owners.

Method of implementation: In this case the buildings will be renovated on the basis of the prescriptions from the performed energy efficiency audit for reaching the minimum class B of energy consumption.

➤ **REFORM 1**

ONE-STOP SHOP SERVICE

The reform is presented in a separate application form.

➤ **REFORM 2**

ESTABLISHMENT OF AN INFORMATION SYSTEM FOR DIGITALIZATION OF THE DATA FOR ADMINISTRATION AND CONTROL OF THE RENEWAL PROCESS

Handling with the challenge: The Information System (IS) aims at handling the challenges of the communication process between the various participants in the renewal process under COVID 19, to overcome the delays in the submission of information by municipal and district administrations, and as well as non-fulfillment of obligations on their part (e.g. non-submission of contracts with selected contractors) .

Objective: IS will provide an opportunity to build and maintain a database for monitoring and reporting on the implementation of the renewal process.

Other main goals in the development and implementation of IS are:

- coordinating the efforts of the experts on the part of the Contractor/Assignee and the Assignor and ensuring a high degree of interaction between them;

- optimal use of resources;
- current control over the implementation of the project activities;
- dissemination in time of the necessary information to all participants in the project;
- identifying changes and ensuring their analysis and coordination;
- quality assurance and efforts to continuously improve the work to meet the requirements of project participants.

IS will provide integrated management and monitoring of processes and related documentation in connection with the implementation of the process of renovation of residential buildings, which in turn will support all participants in the process, even potential ones, will facilitate the communication process, will prevent delays in the process of administering the application documentation and the renewal process. Unified information environment for entering information, tracking the stages of development, maintaining all the documentations to the respective buildings in a geographical context, as well as integrated maintenance of the public registers of the concluded contracts, owners' associations, applications submitted, implementation progress of the renovation of residential buildings. The system will provide an opportunity to build and maintain a database for monitoring and reporting on the implementation of the renovation of residential buildings, thus ensuring publicity and transparency.

Implementation: The implementation will be managed by the Ministry of Regional Development and Public Works.

Target group: households, businesses and administration will be supported with the establishment of IS.

Implementation period: is estimated at 24 months to build the information system.

COMPONENT 2 – PUBLIC BUILDINGS

Under Component 2 it is envisaged to finance energy efficiency measures of state and municipal buildings⁸ (including administrative service buildings, public service buildings in the field of culture and arts and sports buildings).

According to data from the Long-Term National Strategy for Supporting the Renovation of the National Building Stock of Residential and Non-Residential Buildings by 2050, the certified buildings for administrative services are over 20%. The analysis showed that 52.2% of the existing administrative buildings were built and put into operation in the period 1959 - 1977, therefore their design was carried out according to the oldest construction and technical norms from 1959, and the remaining 32% of the buildings were designed and built according to norms from 1974 to 1986. Only 15% of the administrative buildings of the central administration were designed and built after 2005, during which period the Bulgarian legislation went through a process of harmonization in accordance with the European legislation on energy efficiency.

The review and analysis show that within implemented projects and projects in the process of implementation under the OPRD 2007-2013 and OPRG 2014-2020 only 1.7% sq.m. of the needs for renovation of administrative buildings and only 2.1% sq.m. of the needs for renovation of buildings of cultural infrastructure are covered.

⁸ State and municipal buildings listed in Annex 2 - Nomenclature of buildings and facilities for public service and of the separate sites for public service in buildings from ORDINANCE № 1 OF 30 July 2003 on the nomenclature of types of constructions

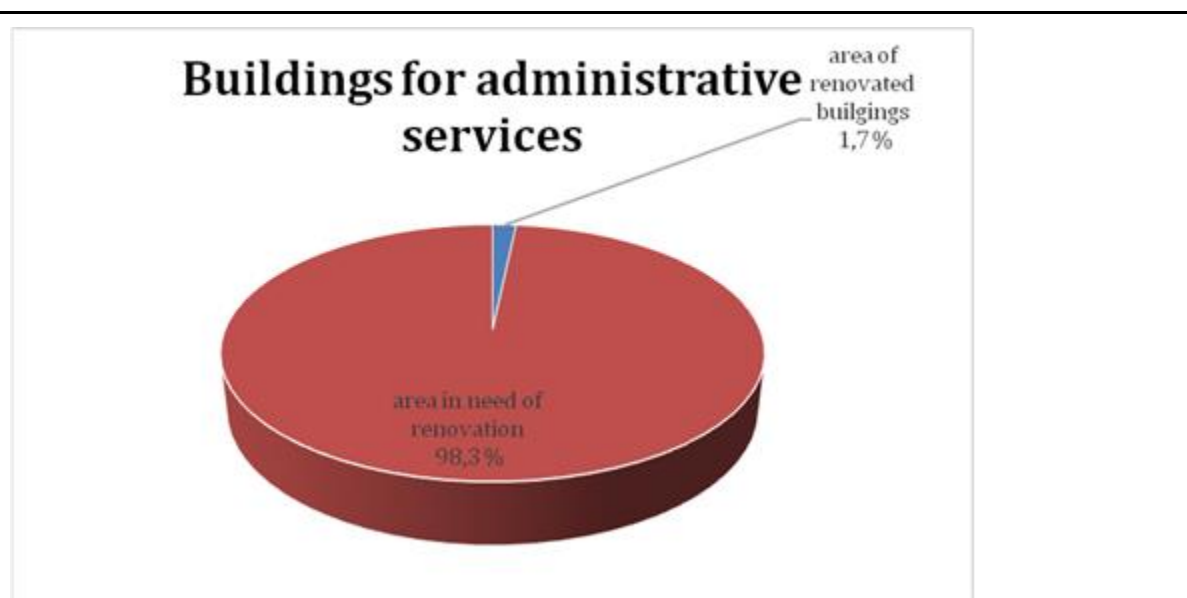


Figure 4. Share of the renovated buildings for administrative services (area) in the country under OPRD 2007-2013, OPRG 2014-2020.

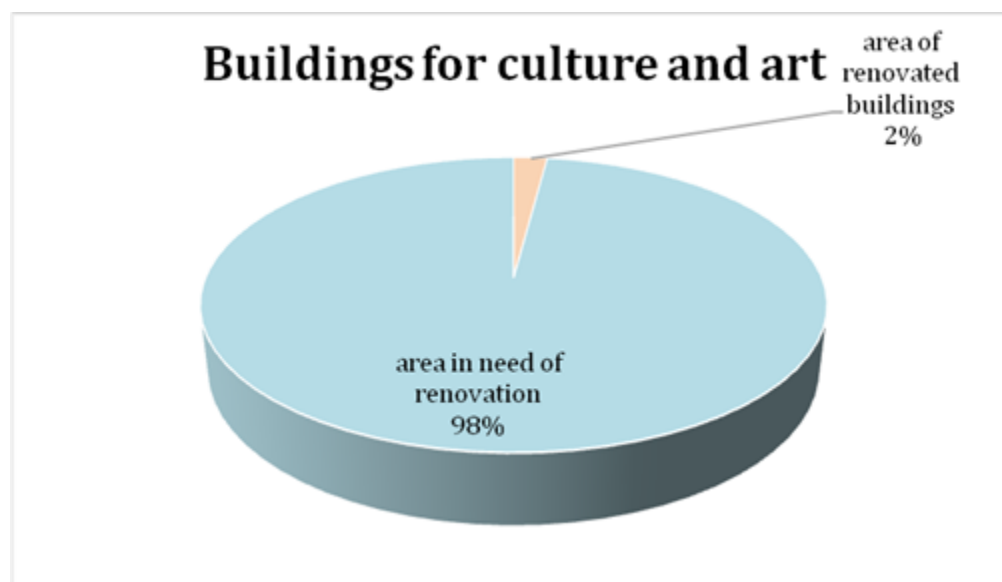


Figure 5. Share of the renovated buildings for culture and art (area) in the country under OPRD 2007-2013, OPRG 2014-2020.

The implementation of EE measures in public buildings under the program aims to reduce the identified high percentage of need for renovation.

Eligible activities under Component 2 are:

- Carrying out energy efficiency audits and EE certification;
- Preparation of technical passport of the building;
- Development of an investment project;
- Author's, construction supervision and investor control;
- Construction works for implementation of EE measures for EE and RES

(constructive measures, energy saving measures to reach energy efficiency class A, or achievement the requirement for buildings with close to zero net energy consumption (nZEB), exceptionally class B, with utilization of energy from renewable sources, introduction of energy monitoring systems, etc.)

Requirements for achieved energy parameters of the applied measures: After the implementation of energy saving measures (ESM), the buildings should achieve energy consumption class "A". Exceptionally, and after the submission of an appropriate justification, a project may be supported, which envisages the achievement of energy consumption class "B" after the implementation of the ESM.

The achieved energy parameters are assessed by comparing the achieved parameters before the application of the ESM (i.e. before the energy renovation of the buildings) with those after the application of the ESM. The existence of an energy audit is a precondition for public support for renewal.

The implementation mechanism of Component 2 envisages priority of the sites at local level with a leading role of the municipalities.

Based on the analysis, a methodology will be developed with criteria for territorial distribution of funding between municipalities, within the defined budget for Component 2, taking into account the specifics of the respective territories and the state of the public building stock.

The distribution of funds will be balanced on the territory of the country in order to ensure possible access to financing of sites throughout the whole country. The aim is to create synchrony with the regional policy and the instruments for its implementation in the next programming period, which is focused on the balanced territorial development and reduction of the territorial imbalances in the country.

The following criteria with the respective weight in% are envisaged to be used in the territorial distribution of funds by municipalities:

A) Administrative service buildings

Criterion	Weight in%
1. Population in the municipality	30 %
2. Total built-up area of the buildings for administrative services⁹ on the territory of the municipality (<i>note: the use of criterion 2 at the time of distribution of funds requires the presence of an analysis/ database with the extended build-up area of all such buildings in the municipality</i>)	20%
3. Number of buildings for administrative services¹⁰ on the territory of the municipality (<i>note: the use of criterion 3 at the time of distribution of funds requires the presence of</i>	20%

⁹State and municipal buildings, specified in Annex 2 - Nomenclature of buildings and facilities for public service and of the separate objects for public service in buildings from ORDINANCE № 1 OF 30 July 2003 on the nomenclature of the types of constructions

¹⁰ Buildings state and municipal property listed in Appendix 2 - Nomenclature of buildings and facilities for public service and self-service sites for public buildings from Ordinance № 1 of 30 July 2003 on the nomenclature of types of construction

<i>an analysis/database on the number of such buildings in the municipality)</i>	
4. Existence of approved but not financed sites under OPRG 2014-2020	10%
5. Number of administrative services¹¹, which are provided by all administrations on the territory of the municipality (<i>note: for the use of criterion 5 at the time of distribution of funds requires the presence of analysis/database by the municipality on the number of administrative services on its territory</i>)	20%
B) Buildings for public service in the field of culture and art	
Criterion	Weight in%
1. Number of population in the municipality	30 %
2. Total built-up area of public service buildings in the field of culture and art¹² on the territory of the municipality (<i>note: for the application of criterion 2 at the moment of distribution of the funds the presence of an analysis / database with area of all such buildings on the territory of the municipality is required</i>)	20%
3. Number of public service buildings in the field of culture and art on the territory of the municipality¹³ (<i>note: the application of criterion 3 at the time of distribution of funds requires the presence of an analysis/database on the number of such buildings in the municipality</i>)	20%
4. Existence of approved but not financed cultural sites under OPRG 2014-2020	10%
5. Number of cultural organizations¹⁴, with a seat on the territory of the municipality (<i>note: for the application of criterion 5 at the moment of distribution of the funds the presence of analysis/database of the municipality from the updated information register of the cultural organizations and institutes under art. 14, para. 4 of the Protection and Development of Culture Act, available on the official website of the Ministry of Culture</i>)	20%

¹¹ Administrative services subject to entry in the Administrative Register, according to the Ordinance on the Administrative Register

¹² Buildings state and municipal property listed in Appendix 2 - Nomenclature of buildings and facilities for public service and self-service sites for public buildings from Ordinance № 1 of 30 July 2003 on the nomenclature of types of construction

¹³ State and municipal buildings, specified in Annex 2 - Nomenclature of buildings and facilities for public service and of the separate objects for public service in buildings from ORDINANCE № 1 OF 30 July 2003 on the nomenclature of the types of constructions

¹⁴ Cultural organizations, entered in the information register of the cultural organizations by the order of ORDINANCE № H-1 OF 14 March 2007 for the information register of the cultural organizations.

C) Sports buildings

Criterion	Weight in%
1. Number of population in the municipality	30%
2. Total built-up area of the sports buildings on the territory of the municipality ¹⁵ (note: for the application of criterion 2 at the moment of distribution of the funds the presence of analysis/database with area of all such buildings on the territory of the municipality is required)	25%
3. Number of sports buildings on the territory of the municipality ¹⁶ (note: the application of criterion 3 at the time of distribution of funds requires the presence of an analysis/database for the number of such buildings in the municipality)	25%
4. Number of sports organizations on the territory of the municipality ¹⁷ (note: for the application of criterion 4 at the time of distribution of funds requires the presence of analysis/database by the municipality from the current register of sports organizations under Article 9, paragraph 1, item 1 and item 2 of the Physical Education and Sports Act (PESA), available on the official website of the Ministry of Youth and Sports)	20%

At the next stage municipalities, in coordination with the relevant leading bodies, owners of state public buildings should prepare a prioritized list of public buildings in need of energy renovation in the respective municipality, based on a preliminary prepared methodology with criteria for prioritizing the public building stock. The methodology and criteria for prioritization of the public building stock will be developed by the Ministry of Regional Development and Public Works.

Exemplary criteria for prioritization of the public building stock are:

- Achieving a higher class of energy consumption;
- Contribution to the implementation of the indicators under the program;
- Existence of energy audit;
- Use of innovative green technologies.

Eligible beneficiaries under Component 2 are all municipalities on the territory of the Republic of Bulgaria **in partnership** with a competent national body (district administrations, ministries, etc.) or another partner (owner of the building), according to the specifics and ownership of the site. It is eligible an independent beneficiary is also to be the owner of the respective building (e.g. ministry, regional governor - for state-owned sites).

Financial resource: Indicative resource for Component 2: **354 366 080,00.**

Financial distribution within Component 2 by types of buildings - **70%** public buildings

¹⁵ State and municipal buildings, specified in Annex 2 - Nomenclature of buildings and facilities for public service and of the separate objects for public service in buildings from ORDINANCE № 1 OF 30 July 2003 on the nomenclature of the types of constructions

¹⁶ State and municipal buildings, specified in Annex 2 - Nomenclature of buildings and facilities for public service and of the separate objects for public service in buildings from ORDINANCE № 1 OF 30 July 2003 on the nomenclature of the types of constructions

¹⁷ Sports organizations (sports clubs and sports federations) within the meaning of Art. 11, para 2 of the Physical Education and Sports Act (PESA)

and administrations, **15%** culture infrastructure, **15%** sports infrastructure.

The analyzes performed after the implementation of EE measures in cultural infrastructure under OPRG 2014-2020, 2,1% of the area of the buildings for culture and art in the country have been renovated (with increased energy efficiency). The area of buildings for culture and art which needs to be renovated is 97,9%. Under the same program, 1.7% of the area of administrative service buildings in the country will be renovated. The area of the buildings for administrative services for which a need for renovation and increase of the energy efficiency has been identified is 98.3%. The need for renovation exceeds many times what has been achieved so far in the implementation of projects.

Source of funding - grant, with the participation of the National Decarbonization Fund for Bulgaria. It is envisaged that the saved costs from the reduced energy consumption after the implementation of the projects will be paid into the Decarbonization Fund. In this way, initial own resources will not be needed for the implementation of the projects, but financial resources will be guaranteed for the subsequent implementation of other energy efficiency projects in the building stock.

Funding method:

- Grant financing with a mechanism for recovery from future revenues from saved energy to the Decarbonization Fund for a period of 5-15 years (this means that, as it is expected ,after the implementation of EE measures, energy savings will be generated for each building and a corresponding reduction in energy consumption costs. These cost savings, in monetary terms, will be invested for a certain period of time. In this way, the fund will be able to function after the end of the implementation of the Mechanism for Recovery and Resilience and will be able to finance EE measures after the end of the implementation of the energy efficiency program. The financial investments for the initial capitalization of the fund will be different from RRF).

or

- Combined financing (grant + financial instruments).

Payments to beneficiaries are planned to be in two stages - advance payment and final payment (upon completion of the project). No interim payment and additional inspections will be executed, except at the completion of the site, ie. when a result is achieved.

It is envisaged to use simplified costs (as % of the project budget) - for EE survey activities, investment project, construction and author's supervision, publicity of the project.

Applicable state aid/de minimis regime:

1. In case of interventions on state and municipal administrative buildings - “non-aid” regime (assistance outside the scope of Article 107, paragraph 1 of the TFEU) or “de minimis” regime, according to Regulation 1407/2013).

The provision of grants to the beneficiaries for state and municipal administrative buildings under the program in the majority of cases does not constitute state aid, as resources are transferred from one public body to another. This is the case if the buildings are public property and are used by the specified bodies (administrations) for their usual management /regulatory activity.

In the case of interventions on public state and municipal administrative buildings, only two hypotheses of compliance with the applicable regime are possible: **the grant may be provided either in the “non-aid” regime or in the “de minimis” regime.** With regard to energy efficiency interventions in administrative buildings, given the fact that they are not used for economic activity, municipalities and their partners (state institutions) act in their capacity as public authorities and do not represent enterprises within the meaning of Art.

107 of the TFEU. In these cases, the grant does not constitute state aid, as it serves to fulfill the public powers of the relevant authorities.

In case the requirements for establishing the absence of state aid are not covered, the project proposals can be financed only in the form of de minimis aid in accordance with the requirements of Regulation 1407/2013. It is applied in cases when part of the financed infrastructure is used for carrying out economic activity (including renting).

2. In cases of interventions on culture infrastructure (state and municipal) - "non-aid" regime (aid outside the scope of Article 107 (1) TFEU), "de minimis aid" scheme under Regulation 1407/2013 or in accordance with the requirements of Regulation (EU) 651/2014 declaring certain categories aid compatible with the internal market pursuant to Articles 107 and 108 of the Treaty (General Block Exemption Regulation - GBER).

A) "Non-aid" regime - Regarding the energy efficiency measures of cultural infrastructure sites, there is generally no state aid, as the buildings are owned by the municipality and are used to perform its inherent public functions. According to the provisions of Art. 17 of the Cultural Heritage Act, the mayors of municipalities organize and coordinate the implementation of the policy for protection of cultural heritage on the territory of the respective municipality, and the municipal councils adopt municipal strategies in accordance with the national strategy for protection of cultural heritage.

B) "De minimis" regime - In cases where the municipality provides the use of a building to a cultural organization for rent, renting is an economic activity and the municipality is treated an enterprise. In this case, the measures may be financed in the form of de minimis in accordance with the requirements of Regulation 1407/2013, according to which the maximum amount of aid granted for a period of 3 years to the same undertaking (according to Article 2, paragraph 2. of the Regulation) may not exceed EUR 200.000.

C) Block exemption from state aid rules regime - Another option is to apply the requirements of Regulation (EU) № 651/2014 declaring certain categories of aid compatible with the internal market pursuant to Articles 107 and 108 of the Treaty (General Block Exemption Regulation (GBER)).

The measures do not constitute state aid if the municipalities do not generate revenues from the buildings subject to intervention and if the cultural organizations housed in the buildings are of a local nature (community centers, libraries). The following requirements must also be met cumulatively:

- The total amount of the annual revenues from fees and other economic activities of the cultural organization does not exceed 20% of the annual expenses for the activity of the organization;
- All premises of the building are used by the cultural organization for its usual cultural activity, and in case some premises are used for other type of economic activity, in these premises are located usual facilities (small-scale economic sites), which cannot have an effect on trade and do not occupy more than 20% of the building area, eg restaurant, shop;
- The cultural organization housed in the intervention building carries out activities entirely at local level, so that trade between Member States is not affected.

If the hypothesis of no state aid is excluded, the project proposal can be financed only in the form of de minimis aid in accordance with the requirements of Regulation 1407/2013 or the "Block Exemption from State Aid" regime under Regulation 651/2014 subject to the notification thresholds in Art. 4 (GBER).

3. In case of interventions on sport infrastructure (state and municipal). - "non-aid"

regime (aid outside the scope of Article 107, para. 1 of TFEU), "minimum aid" regime under Regulation 1407/2013 and the "block exemption from State aid rules" regime under Regulation 651/2014 (ORGO) in compliance with the notification thresholds in Art. 4 of the Regulation.

A) Non-aid regime - in cases where the infrastructure for which the grant is provided, is with open access, local nature, does not threaten to affect trade between member states, and will not be exploited economically.

B) In cases where the municipality provides a building for use by commercial companies for rent, the lease is an economic activity and the municipality is an enterprise. In this case, the measures may be funded under the form of minimum aid in compliance with the requirements of Regulation 1407/2013, according to which the maximum amount of aid granted for a period of 3 years to the same enterprise (according to Article 2, para 2 of the Regulation) may not exceed EUR 200 thousand.

B) Regime "block exemption from state aid rules" - Aid for sports infrastructure and multifunctional leisure infrastructures according to Art. 55 of Regulation (EU) № 651/2014 of 17 June 2014 (GBER), subject to the notification thresholds in Art. 4 of the Regulation.

D) The subject of additional research are other possibilities for an applicable state aid procedure according to the new mechanisms established at the EU level, in order to implement an optimal version of the regime.

Stages of implementation:

1. Publication of a package of application documents (Guidelines for applications, Instructions to the beneficiaries, sample documents, etc.) - second quarter of 2021
2. Preparation for application with project proposals - third and fourth quarter of 2022
3. Process of evaluation of project proposals and conclusion of contracts - from the first quarter of 2022 to the fourth quarter of 2023.
4. Executed contracts (interim reporting in 2023) - from the second quarter of 2022 to the first quarter of 2026.
5. Executed contracts/report on the implementation of the program - first and second quarter of 2026.

COMPONENT 3 - buildings in the field of production, trade and services¹⁸

Component 3 provides for the financing of measures for energy renovation of buildings in the field of production, trade and services

Eligible activities under Component 3 are:

- Performing energy audit for energy efficiency (EE);
- Constructive design;
- Replacement of existing windows with more efficient ones;
- Improving the thermal insulation of external enclosing elements;
- Replacement of existing heating appliances with more energy efficient ones or the use of waste heat from technological processes;
- Use of renewable energy sources in buildings;
- Replacement of lighting systems with more energy efficient ones;
- Increasing the efficiency of ventilation, air conditioning and DHW (domestic hot water) systems.

¹⁸ According to Ordinance № 1 of July 30, 2003 on the nomenclature of types of constructions of the Ministry of Regional Development and Public Works

Implementation mechanism: Competitive selection of project proposals through announcing Guidelines for application and evaluation in accordance with certain selection criteria in order to achieve the most effective investments and in compliance with the requirements of state aid rules. The criteria will be defined on a principle that guarantees the achievement of the most efficient investments, energy savings, green energy, green infrastructure, renewable sources, circular economy.

The main criteria will be the availability of energy audit and prepared financial analysis.

Eligible beneficiaries under Component 3 are micro/small, medium and large enterprises on the territory of the country.

Financial Resources: Indicative resource of Component 3: **282 240 000 BNG.**

Financial allocation of Component 3 - 40% - large enterprises, 35% - medium enterprises, 25% - micro/small enterprises.

The largest share of resource is allocated to large enterprises, as they are also the largest source of pollution of the environment. The enterprises that will receive financing will be determined through competitive selection in order to achieve equal access to the resource and stimulate the development of greener business.

Method of financing:

- Grants and Financial Instruments (with maximum intensity of 50%) on a base of financial analysis and energy audit prepared

or

- Grants and Financial Instruments/ESCO model.

The use of co-financing or ESCO models will be encouraged through specific criteria, and the maximum amount of the grant may be limited.

Payments to beneficiaries are planned to be carried out in two stages - advance payment and final payment (upon completion of the site). No interim payment and additional verifications are provided, except at the completion of the site, i.e. when a result is achieved.

Applicable state/minimum aid regime -

A) Regime "block exemption from the state aid rules" under Regulation 651/2014.

1) Regional investment aid according to art. 13 and Art. 14 of the Commission Regulation (EU) № 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market pursuant to Articles 107 and 108 of the Treaty (OB L 187/26.06.2014).

or

2) Investment aid for measures aimed at increasing the energy efficiency according to art. 38 of Commission Regulation (EU) № 651/2014 of 17 June 2014

The applicable state aid procedure in the current component for buildings in the field of production, trade and services will be explored in depth in order to provide the widest possible range of possibilities according to the state aid requirements.

Subject of additional research is also the possibilities for group exemption from the state aid rules in accordance with the new mechanisms established at the EC level, in order to implement an optimal version of the regime.

Stages of implementation:

1. Publication of a package of application documents (Guidelines for applications, instructions to beneficiaries, sample documents, etc.) - second quarter of 2021
2. Preparation for application with project proposals - third and fourth quarter of 2022
3. Process of evaluation of project proposals and conclusion of contracts - from the first quarter of 2022 to the fourth quarter of 2023.

4. Executed contracts (interim reporting in 2023) - from the second quarter of 2022 to the first quarter of 2026

5. Executed contracts /report on the implementation of the program - first and second quarter of 2026.

Using of the grants during the period of implementation of the National Recovery and Resilience Plan will stimulate the development of a financial model for subsequent financing of EE measures in combination with loans and/or financial instruments. It is envisaged that the saved costs from the reduced energy consumption after the implementation of the projects under the EE program will be invested into the Decarbonization Fund. The requirement for return on energy savings will be regulated in the grant agreements with the beneficiaries. In this way, no significant initial own resource will be needed for the implementation of the projects, but financial resources will be guaranteed for the subsequent implementation of other energy efficiency projects in the building stock, after the completion of the program and the Recovery and Resilience Plan.

ORGANIZATION, MANAGEMENT, ASSESSMENT, MONITORING AND REPORTING of THE PROGRAM - amounting to **102 000 000 BGN** - Within the Program costs for organization, management, assessment, control and monitoring of the program and projects will be eligible.

The organization and management activities will be carried out continuously throughout the implementation of the program (from the second quarter of 2021 to the second quarter of 2026).

IMPORTANT! The Programme envisages the use of a mechanism for simplified costs in achieving concrete results. (as % of the project total value - for EE audit activities, investment project, construction and author's supervision, publicity of the project).

Demarcation: Within the scope of the Program are not included: educational, health and social infrastructure sites, as well as sites of the Program for Development of the Regions for the period 2021-2027¹⁹

Responsible institutions for the implementation of the Program - Ministry of Regional Development and Public Works, Ministry of Finance, Ministry of Economy, Ministry of Energy, Council of Ministers - Central Coordination Unit.

Leading Department for Implementation and Managing authority of the programme (MA) - Ministry of Regional Development and Public Works and in particular the following responsible directorates:

- Directorate General "Strategic Planning and programmes for regional development" (DG SPPRD) - directorate responsible for the overall implementation of Component 2 (*Public buildings*) and Component 3 (Buildings in the field of production, trade and services), including publishing guidelines for application, concluding contracts, monitoring and

¹⁹ Demarcation of the Program for development of the regions 2021-2027 is indicated in item 8.2.

control of the implementation, making payments to the beneficiaries, reporting the degree of implementation of the components to the Ministry of Finance;

- Housing Policy Directorate - responsible directorate for implementation of Component 1 (residential buildings) including: publishing guidelines for application, concluding contracts, monitoring and control of the implementation, making payments to the beneficiaries, reporting the degree of implementation of the component to the Ministry of Finance;

According to Art. 28, para. 1 of the Structural Rules of the Ministry of Regional Development and Public Works, adopted by Council of Ministers № 171 of 16.08.2017, DG SPPRD is the Managing Authority of the Operational Program "Regions in Growth" 2014-2020 with all resulting obligations and responsibilities, according to the regulations of the European Union (EU) and the Structural and Investment Funds.

DG SPPRD is part of the specialized administration of the Ministry of Regional Development and Public Works, which performs the functions of the Managing Authority of the Operational Program "Regional Development" 2007-2013 and the Managing Authority of the Operational Program "Regions in Growth" 2014-2020. The Managing Authority is responsible for the management of the operational program in accordance with the principle of good financial management and in accordance with Art. 125 of Regulation (EU) № 1303/2013.

The Housing Policy Directorate is part of the specialized administration of the Ministry of Regional Development and Public Works. According to Art. 36 of the Structural Rules of the Ministry of Regional Development and Public Works Housing Policy Directorate:

- assists the Minister in the development and implementation of the state housing policy;

- develops strategic and program documents of the state housing policy, including for the conditions and development of the housing sector and for the maintenance and renovation of the housing building stock;

- develops a National Housing Strategy and related concepts, national programs and action plans for the development of the housing sector; implements and coordinates the implementation of the measures set out in them and monitors their implementation;

- develops drafts of normative acts, which are related to the housing policy and renovation of the housing building fund, gives opinions and participates in the development of normative acts, related to the improvement of the energy efficiency in the residential buildings;

- develops samples of documents, which are provided in the normative acts, related to the housing policy;

- develops methodological guidelines, assists, coordinates, controls and monitors the implementation of programs and projects related to housing policy.

- etc.

The responsible directorates have the necessary administrative capacity and experience in managing programs (operational and national) in previous and current programming periods.

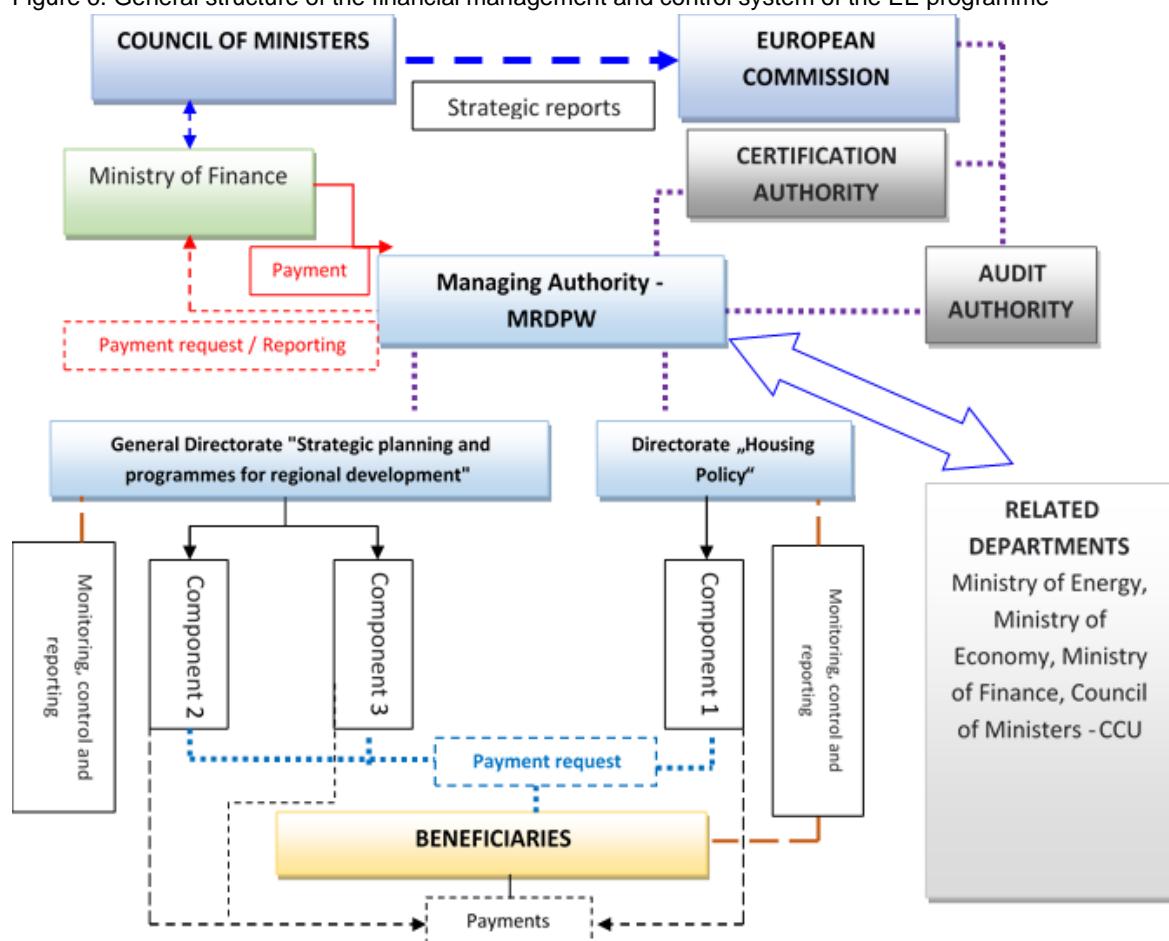
The Managing Authority will be responsible for managing of the programme so in accordance with the principle of good financial management. Each component will be implemented independently by the responsible directorates in the Ministry of Regional Development and Public Works.

Financial Management and Control System of the Programme (FMCS).

Regarding the financial management and control of the program, the Managing Authority:

- a) verify that the co-financed products and services are delivered and that the expenditure declared by the beneficiaries has been paid and whether they meet the applicable legislation, the program and the conditions for support for the respective components ;
 - (b) ensure that beneficiaries involved in the implementation of the component for which the reimbursement is based on actual eligible costs incurred; maintain either a separate accounting system or an adequate accounting code for all transactions relating to the operation;
 - (c) establish effective and proportionate anti-fraud measures, taking into account the risks identified;
 - d) establish procedures to provide that all documents regarding expenditure and audits required to ensure an adequate audit trail be treated in accordance with the requirements of the draft Regulation establishing a Mechanism for the recovery and resilience of the EU.
- DG SPPRD will maintain close contact and will carry out continuous interaction on the components for public buildings and buildings in the field of production, trade and services with the relevant departments - Ministry of Economy, Ministry of Energy, Ministry of Finance, Council of Ministers - Central Coordination Unit.

Figure 6. General structure of the financial management and control system of the EE programme



3. Beneficiary

Beneficiaries of the program are municipalities and a competent national authority (district administrations, ministries), public-private partnerships for buildings in the field of

production, trade and services, associations of owners in multifamily residential buildings, non-profit legal entities, municipal enterprises, companies and others.

4. Time schedule for project implementation, incl. activities, stages²⁰.

Deadline for implementation - 2021-2026

Term of negotiation - 2021-2022 - 70%, 2023 - 100%.

Component 1 - Residential buildings:

Period of implementation of the component - 63 months (2021-2026)

Component - residential buildings	year	2021				2022				2023				2024				2025				2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Activities																									
1. Starting the implementation of the program and publishing a package of application documents (Guidelines for application, instructions to the beneficiaries, sample documents, etc.)			X																						
2. Preparation for application with project proposals			X	X																					
3. Process of evaluation of project proposals and conclusion of contracts					X	X	X	X	X	X	X	X													
4. Execution of contracts. Executed contracts (interim reporting) - 2023						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
5. Executed contracts / Program implementation report.																					X	X			

Component 2 - public buildings:

Period of implementation of the component - 63 months (2021-2026)

Component - public buildings	year	2021				2022				2023				2024				2025				2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Activities																									
1. Starting the implementation of the program and publishing a package of application documents (Guidelines for application, instructions to the beneficiaries, sample documents, etc.)			X																						
2. Preparation for application with project proposals				X	X																				
3. Process of evaluation of project proposals and conclusion of contracts						X	X	X	X	X	X	X													
4. Execution of contracts. Executed contracts (interim reporting) - 2023							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
5. Executed contracts / Program implementation report.																					X	X			

Component 3 - buildings in the field of production, trade and services:

Period of implementation of the component - 63 months (2021-2026)

²⁰ The timetable will be relevant for setting intermediate targets under the Recovery and Resilience Plan and it is directly relevant to the release of tranches of financial support from the Recovery and Resilience Fund.

Component - buildings in the field of production, trade and services	year	2021				2022				2023				2024				2025				2026			
	Q	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Activities																									
1. Starting the implementation of the program and publishing a package of application documents (Guidelines for application, instructions to the beneficiaries, sample documents, etc.)		X																							
2. Preparation for application with project proposals			X	X																					
3. Process of evaluation of project proposals and conclusion of contracts						X	X	X	X	X	X	X	X												
4. Execution of contracts. Executed contracts (interim reporting) - 2023							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
5. Executed contracts / Program implementation report.																						X	X		

Organization, management, evaluation, control and reporting of the program - implementation period 63 months (2021-2026)

Activities	year	2021				2022				2023				2024				2025				2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Organization, management, evaluation, control and reporting of the program		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

4.1. When can the project implementation start at the earliest after its approval?

The first half of 2021

5. Indicative financial resource by activities, including sources of funding (State budget, European funding, private funding, International financial institutions).

Indicative financial resource under the program in the amount of BGN 2 165 566 080,00 European funding with funds from the Mechanism for Recovery and Resilience

5.1. Allocate Indicatively the financial resource according to the type of expenditure:

No	Type of expense	resource allocation (BGN)
1.	Residential buildings (the financial statements are shown in Annex 1)	1 426 960 000,00
2.	Public buildings	354 366 080,00
3.	Production, trade and services buildings.	282 240 000,00
4.	Program organization, management, assessment, control and reporting	102 000 000,00

Total		2 165 566 080,00
6. Indicators		
6.1. Indicator/s for product		
<p>Component 1:</p> <p>Number of households achieved a higher class of energy consumption - number</p> <ul style="list-style-type: none"> - initial value - 0 pcs. (June 30, 2021) - intermediate value - 3 460 pcs. (31.12.2022) - intermediate value – 6 920 pcs. (31.12.2023) - intermediate value – 27 680 pcs. (31.12.2024) - intermediate value – 51 900 pcs. (31.12.2025) - final value (2026) – 69 200 pcs. (June 30, 2026) <ul style="list-style-type: none"> ▪ Improved housing infrastructure - unfolded built-up area sq.m. <ul style="list-style-type: none"> - initial value - 0 sq.m. (June 30, 2021) - intermediate value (2023) - 682 634 sq. m (31.12.2023) - final value – 6 826 343 sq.m. (June 30, 2026) <p>Component 2:</p> <ul style="list-style-type: none"> ▪ Renovated buildings - number <ul style="list-style-type: none"> - initial value - 0 pcs. (June 30, 2021) - intermediate value - 29 pcs. (31.12.2022) - intermediate value - 59 pcs. (31.12.2023) - intermediate value - 236 pcs. (31.12.2024) - intermediate value - 413 pcs. (31.12.2025) - final value - 590 pcs. (June 30, 2026) ▪ Improved public infrastructure - total area sq.m. <ul style="list-style-type: none"> - initial value - 0 sq.m. (June 30, 2021) - intermediate value - 136 527 sq.m. (31.12.2023) - final value – 1 365 273 sq. m. (June 30, 2026) <p>Component 3:</p> <ul style="list-style-type: none"> ▪ Renovated buildings - number <ul style="list-style-type: none"> - initial value - 0 pcs. (June 30, 2021) - intermediate value - 15 pcs. (31.12.2022) - intermediate value - 30 pcs. (31.12.2023) - intermediate value - 120 pcs. (31.12.2024) - intermediate value - 210 pcs. (31.12.2025) - final value - 300 pcs. (June 30, 2026) 		
6.2. Indicator for result		
<ul style="list-style-type: none"> ▪ Decrease in annual primary energy consumption and (kWh / year) <ul style="list-style-type: none"> - base value - 0% (2021) - final goal - 4.5% (June 30, 2026) <p>Expected energy savings from renovated residential buildings - 683 GWh / year.</p> 		

<ul style="list-style-type: none"> Reduction of greenhouse gas emissions (tons of CO2 eq.) <ul style="list-style-type: none"> - base value - 0% (2021) - final goal - 3.8% (June 30, 2026) <p>Expected reduction of greenhouse gas emissions from the renovation of residential buildings - 225 ktCO2 / year;</p>
<ul style="list-style-type: none"> Level of negotiation (agreed funds) <ul style="list-style-type: none"> - Initial value - 0% (June 30, 2021) - BGN 0.00. - Intermediate value - 10% (31.12.2021) - BGN 206 356 608,00. - Intermediate value - 40% (June 30, 2022) - BGN 825 426 432,00. - Intermediate value - 70% (31.12.2022) - BGN 1 444 496 256,00. - Intermediate value - 85% (June 30, 2023) - BGN 1 754 031 168,00. - Final value - 100% (31.12.2023) - BGN 2 063 566 080,00.
<p>The indicators for residential and public buildings are valued on the basis of unit costs from experience in implemented similar projects to improve the energy efficiency of residential and public buildings under OPRD 2007-2013 and OPRG 2014-2020.</p>
<p>7. Does the project implementation require a procedure under the Public Procurement Act?</p>
<p>Yes. The procedures are carried out by the beneficiaries, who will implement the projects in all cases, where applicable, in compliance with the regulatory requirements (Public Procurement Act and the Regulations for its implementation). Beneficiaries are contracting authorities and, when preparing the relevant public procurement documents, they should provide for the use of EU criteria for "green public procurement".</p>
<p>7.1. If a procedure under the Public Procurement Act is required, what part of the activities and financial resources will be a subject of the public procurement?</p>
<p>All activities and the financial resources that will be provided to the beneficiaries require procedures under the Public Procurement Act. Beneficiaries have the right to conclude contracts with contractors for the implementation of project activities, and when selecting a contractor, the beneficiary applies the Public Procurement Act and the relevant regulations on its implementation.</p>
<p>7.2. If a procedure under the Public Procurement Act is required, what is the indicative schedule for its implementation?</p>
<p>According to the schedule for implementation of the National Plan for Recovery and Resilience, by 2022 year - 70% of the resource should be agreed, by 2023 year. 100% of the resource should be negotiated and respectively until 2026 year should be implemented and reported to EC. This Program sets the following deadlines for components for concluding contracts with beneficiaries and conducting public procurement:</p> <p>1. Component 1: multi-family residential buildings – 2021 (conclusion of contracts) and 2021-2022 conducting public procurement by the beneficiaries; single-family residential buildings - 2022 (conclusion of contracts) and 2022-2023 - conducting public procurement by the beneficiaries.</p>

2. **Component 2** - public buildings - 2022-2023 (conclusion of contracts) and 2022-2024 conducting public procurement by the beneficiaries.

3. **Component 3** - buildings in the field of production, trade and services - 2022-2023 (conclusion of contracts) and 2022-2024 - conducting public procurement by the beneficiaries.

8. Demarcation and complementarity.

8.1. If similar projects have been implemented (regardless the source of funding), please describe how this project upgrades previous projects.

Regarding residential buildings: In 2015, the National Program for Energy Efficiency of Multifamily Residential Buildings (NPEEMRB) was launched, which is implemented decentralized and with 100% administrative management of the process and public resources. The financial resources for the implementation of the NPEEMRB are almost exhausted and it is necessary to continue the renovation process, has to be continued as far as it is essential for attaining the vision of developing the housing sector in Bulgaria and the aims pledged in Long-term National Strategy for Renovation of the National Housing and non-housing stock (till 2050). It is crucial the good experience and inertia of this large scale process to proceed further on.

To overcome the challenges in the current Program the experience gained from the "Energy Renovation of Bulgarian Homes" Project (2012-2015) project will be used.

The use of exciting financial mechanisms and mechanisms being currently under development as follow: Energy Efficiency and Renewable Sources Fund, Fund Manager of Financial Instruments in Bulgaria – manages European funds by financial instruments, including financing for risk sharing and warranty schemes. Fund Manager of Financial Instruments in Bulgaria provides portfolio guarantees to financial intermediaries for covering the losses due to non-payment by defined target groups of final recipients during programming period 2014-2020, Bulgarian Development Bank – BDB is a financial institution focused on supporting development of small and medium-sized business. BDB provides direct loans and warranties to Commercial banks. BDB is the paying authority for the NPEEMRB. Bulgarian Development Bank manages financial resources from the governmental programmes related to COVID-19 crisis.

- Complementing the National Program for Energy Efficiency of Multifamily Residential Buildings. The support for residential buildings within the program for energy efficiency in building stock is a kind of continuation of NPEEMRB.

- Complementarity of the Operational Program "Growing Regions" 2014-2020 (OPRD). Under OPRD 2014-2020, activities for increasing energy efficiency in residential and administrative buildings are financed. The EE program in the building stock with the implementation of component 1 and component 2 will reward the achievements of the operational program. Complementing the requirements of the existing financial mechanisms for renovation of the existing building stock and ensuring higher indicators of the achieved effect. The activity complements the National Nearly Zero-Energy Buildings Plan 2015-2020.

- Complementarity of the Operational Program "Innovation and Competitiveness" 2014-2020 (OPIC). This program finances activities to increase energy efficiency in technological processes in enterprises. The program for EE in building stock with the

implementation of component 3 will reward the achievements of OPIC.

- In relation with sports infrastructure in 2019 energy efficiency reconstruction of the training hall of the Winter Sports Palace in Sofia was completed. It is implemented with an ESCO (ESP) contract. Renovation project with an ESCO contract for Sports Festival Hall in Sofia was implemented in 2017. Energy efficiency renovation with an ESCO contract was implemented also in Academica Sports Complex – IV km and Academic 2011 Students Dormitory in 2017.
- The EE program contributes to the National Decarbonization Fund, which is also part of the National Recovery and Resilience Plan, as it envisages that the saved costs from the reduced energy consumption after the implementation of the projects under the EE program will be contributed to the Fund. For decarbonization and thus will contribute to its functioning.
- Complementarity of the Operational Program “Environment” 2014-2020 and in particular of Procedure № BG16M1OP002-5.003 under priority axis 5 “Improvement of the ambient air quality”, for financing activities under:
 - replacement of stoves and boilers running on solid fuel with other types of heating devices: gas; using only electricity (except electric resistance heating devices and systems); of pellets or other wood biomass / fossil solid fuel;
 - replacement of stationary individual and multi-family household solid fuel combustion devices with alternative heat sources - connection or reconnection of the connection to the district heating system or gas distribution network.

8.2. If any similar projects are provided for implementation according to Partnership Agreement Programmes, Central managed instruments of EU or Just Transition Fund, please outline demarcation with this project.

The implementation of energy efficiency measures in the program will be carried out in compliance with the demarcation between the various funds and instruments supporting similar types of measures at national level - the Mechanism for Recovery and Resilience based on the National Recovery and Resilience Plan (NRRP) and ERDF. The NRRP is horizontal in nature and focuses on energy reform and achieving the global goals of the Green Deal. The energy efficiency measures that will be implemented under the JTF are based entirely on a territorial approach, based on local specifics and needs and reflected in the relevant territorial plans for a just transition, and the measures will focus on renewable sources, upgrading existing investments to achieve of high energy class and use of green technologies. The energy efficiency measures financed under the Regional Development Program 2021-2027 through the ERDF will include projects identified on the basis of a bottom-up approach and reflected in the relevant territorial strategies at municipal and regional level - Integrated Plans Municipal Development and Integrated Territorial Strategies for development of the regions for planning from level 2.

Within Policy Objective 5 "A Europe Closer to the Citizens": Regional Development Program 2021-2027 (PDR) will fund energy efficiency measures and the renovation of residential and public buildings. The renovation of residential and public buildings will be implemented in accordance with the Long-term strategy for renovation of the building stock in the Republic of Bulgaria with a horizon of 2050, and will finance all types of energy efficiency measures in buildings, subject to demarcation with this Program of

project level.

Policy Objective 2 "A greener, lower-carbon Europe" will support measures aimed at improving energy efficiency in enterprises and encouraging an increase in the share of energy from renewable sources. The interventions will be consistent and will contribute to the implementation of the strategic goals and priorities according to the Integrated Plan in the field of energy and climate of Bulgaria for 2021-2030.

In addition, for the programming period 2021-2027, Bulgaria plans to use European funds to strengthen the focus of investment through the implementation of instruments for an integrated territorial approach throughout the country, including integrated territorial investment, to achieve synergies. It is envisaged that the RDP interventions will be exclusively territorial, with an emphasis on the utilization and capitalization of local resources and opportunities in addressing the specific needs of the respective territories and helping to overcome intra-regional differences. The application of an integrated territorial approach is related to focusing on the complex implementation of a set of measures depending on the local needs and specifics, which are leading in investment planning, and not on the sectoral type of investments. The implementation of integrated territorial investments will enable a wide range of local stakeholders, who, guided by the common interest, will be able to prepare and implement in partnership interconnected and complementary projects addressing a specific problem, for which purpose it is necessary to identify how the individual sectoral elements interact with each other on the defined territory and what is the most appropriate combination of infrastructural and soft measures to achieve the goals.

The integrated territorial approach in Bulgaria will be applied on the basis of integrated territorial strategies, in accordance with Art. 23 of the draft CPR and national legislation related to regional development policy:

- for urban development: Plans for integrated development of the municipality (PIDM) - are currently being developed;
- for the territorial development of the NUTS 2 regions: Integrated Territorial Strategies (ITS) for development of the six NUTS 2 regions.

The scope of RDP 2021-2027 includes all urban municipalities on the territory of Bulgaria - a total of 50 municipalities. Ten urban municipalities (the main growth centers in Bulgaria) will be supported under Priority 1, and the rest - under Priority 2. RDP 2021-2027 will mainly support infrastructure investments, which will focus on improving and developing health and social services, education, professional training, culture, sports, tourism, sustainable urban mobility, digital and safe transport connectivity, circular economy, energy efficiency, access to adequate housing, measures to improve the quality of the environment, measures to promote economic activity. Special emphasis will be on measures to improve the business environment as an infrastructure for revitalization and economic development of industrial zones.

Efforts will be focused on strengthening the economic development of the Bulgarian regions, increasing their economic potential and using local resources and opportunities. The Energy Efficiency Program under the Mechanism for Reconstruction and Resilience will be implemented on the territory of all 265 municipalities on the territory of Bulgaria. The National Recovery and Resilience Plan is a horizontal support at national level for EE measures in the energy sector, while the RDP 2021-2027 is essentially an integrated approach based on the principle of identifying bottom-up needs and combining different measures / projects of regional / local importance. The Just Transition Fund (JTF) will fund

NUTS 3 regions or parts thereof on the basis of territorial just transition plans. At the moment, 3 coal regions have been identified for support under the JTF - Pernik, Kyustendil and Stara Zagora.

Bulgaria's energy efficiency needs are extremely high and in this regard, if it is possible to implement EE measures under the JTF, the measures will be focused on renewable sources or on the complementarity of the approved measures under the RRM.

9. Does this project contribute directly for implementation any of European Union Council Specific Recommendations addressed to Bulgaria within European Semester 2017-2020? Please outline:

The present programme aims to address the following challenges identified in the European Semester:

- to ensure significant energy savings through targeted investment in industry, transport and the building sector. Increasing investment in clean energy infrastructure (eg clean and low-carbon electricity generation, interconnections and smart grids), in line with the priorities outlined in the Bulgarian draft National climate and energy plan, will further help to improve the overall competitiveness of the economy and the quality of people's lives. In this regard, the Specific Recommendation of the Council of the European Union to Bulgaria was issued in June 2019, namely "To direct the economic policy related to investments to research and innovation, transport, in particular to its sustainability, water, waste and energy infrastructure and energy efficiency, taking into account regional disparities and improving the business environment. ".

- Bulgaria's economy has the most resource and energy-intensive use and the highest greenhouse gas emissions in the EU, and energy and decarbonization investment needs to facilitate the transition to climate neutrality are significant, as well as is described in the Integrated Plan of Bulgaria in the field of energy and climate. The implementation of the set energy efficiency measures and the proposed approach and mechanism for their implementation are directly related to the Specific Recommendation of the Council addressed to Bulgaria in May 2020, namely "To streamline and speed up the procedures for providing effective support for small and medium-sized enterprises and the self-employed, while also ensuring that they have continuous access to finance and flexible payment terms. -To give priority to ready-to-implement public investment projects and stimulate private investment to accelerate economic recovery. - To focus investment in the green and digital transition, in particular in the areas of clean and efficient production and use of energy and resources, environmental infrastructure and sustainable transport, contributing to the gradual decarbonisation of the economy, including in the coal regions.".

The programme will contribute to the implementation of the Specific Recommendations of the Council of the European Union addressed to Bulgaria from June 9, 2019 and from 20.05.2020 regarding the implementation of energy efficiency targets in the building sector, and efforts will be aimed at achieving savings of energy, through targeted investments in building stock. This has led directly to the improvement of the environment and living conditions of the population and will have positive economic effects on the productivity and competitiveness of enterprises in the country.

Energy efficiency in the building sector will contribute to the improvement of the business environment, which will have a positive impact on the economic development of the regions and will contribute to the gradual decarbonization of the economy in the regions

and the country.

The chosen approach and mechanism for implementation of EE measures in residential and public buildings presuppose priority of ready-to-implement public investment projects, which have already been approved under other national and operational programs, but due to exhaustion of financial resources are not funded. The measures are aimed at the green transition and energy savings.

The implementation of the Programme will create conditions for the construction of green infrastructure, both in highly urbanized territories and in territories with socio-economic development affected by demographic processes by: Encouraging investments in green infrastructure and energy efficiency; Carbon footprint reduction; More efficient utilization and protection of natural resources. Implement measures related to Policy Objective 2 and the strategy for building a greener, low-carbon Europe by promoting a clean and fair energy transition, green and blue investments, a circular economy, adaptation to climate change and prevention in risk management. The measures will contribute to sustainable management and use of natural resources, allowing to meet the needs of the economy and society.

The programme contributes to the achievement of specific recommendations of the Council addressed to Bulgaria in the framework of the European Semester in the period 2017-2020. The programme includes investments in the field of infrastructure of sports facilities, investments in innovations related to the implementation of modern energy efficient solutions for electrical, lighting, heating, plumbing and ventilation systems. In addition, the programme contributes both directly and indirectly to the achievement of the goals set in the "Clean Energy for All Europeans" Package, related to energy efficiency, integration of RES, security and flexibility of the power system EES, efficient and transparent functioning of the Internal Energy market, especially in the context of the economic and social crisis caused by COVID-19.

Activities in improving of conditions in cultural infrastructure are directly related to Recommendations addressed to Bulgaria , especially taking into account essential cultural, educational, social and communicational functions of community centers and cultural institutes as public centers. Their role in life of people, especially in small settlements, is crucial for implementation of Recommendations for increasing suitability for employment of disadvantaged groups and amplification of measurements for activation and improvement of digital skills.

**10. Does the Project contribute for implementation of reform in certain sector?
Please outline**

Establishing a sustainable model for financial provision of energy efficiency measures in their comprehensiveness, by defining, creating, situating and structuring a Single National Decarbonization Fund²¹, as a main financial scheme in support of the Bulgarian strategy for long-term renovation of the building stock on the territory of the country. This will create a sustainable model of long-term financial security, by applying and using different sources of income and return on investment in a period of 5 to 15 years. The established decarbonization fund will be able to finance energy efficiency measures after the end of the program, and it is expected that by 2050 about 60% of residential buildings and 50% of

²¹ National Decarboization Fund is defined in the project of Long-term National Strategy for Renovation of the National Housing and Non-housing Stock to 2050 r.

all buildings in the country will be rehabilitated. The establishment of the Unified National Decarbonization Fund is part of the National Recovery and Resilience Plan and in this regard is part of the overall reform of the energy sector in the country. The EE program in building stock is closely linked to the decarbonization fund, as it will contribute to its functioning.

Measures to increase the efficiency and use of renewable energy by end users, which contributes to the implementation of the following objectives of the NATIONAL REFORM PROGRAM, Update for 2020 or in short "National Reform Program 2020": point 3.3 National targets under the package "Climate-Energy" sets out specific policies and measures to achieve the objectives that are also valid with regard to the national climate and energy objectives under the Europe 2020 strategy and the National Decarbonisation Objectives set out in Integrated national plan in the field of energy and climate (INPEC).

The measures will also contribute to the implementation of the reform of the state policy for regional development, the main goal of which is to create viable, economically strong and sustainable regions in response to unfavorable demographic trends and deepening inter- and intra-regional disparities. The implementation of the programme will lead to an increase in the quality of life of the citizens, which will contribute to the economic growth of the Bulgarian regions and the achievement of the required efficiency in the implementation of the reform in the field of regional development. Reducing the energy costs of businesses, households and administrations, creating more jobs, improving air quality, reducing greenhouse gas emissions are among the activities that should be considered as part of the prerequisites for creating conditions for a more balanced and sustainable development of the territory.

The existence of a commitment of the state for financial support of energy storage measures will contribute additionally to the refinement of the regulations regarding this activity. At present, there is no definition of storage activity in the Energy Act, and the by-laws are partial, mainly considering the case of Pump rechargeable hydroelectric power plants (PRHPP). Directive 2019/944 on the internal market in electricity is to be transposed. The introduction of the requirements of the directive will ensure the participation of energy storage facilities on a par with the production and optimization of energy market consumption and the supply of services, but this may not be enough for the dissemination of modern technological solutions in this field even their higher price. Creating the possibility to support such additional investment only in combination with the implementation of a renewable energy project on a market basis will support the development of a flexible and decentralized electricity market and increase the share of renewable energy sources in it without causing new market distortions. The reform will contribute to expanding the opportunities for consumer participation in the market.

The programme will contribute to the achievement of strategic goals and the reform of the field of culture. Due to the educational nature of the activities carried out by the community centers in the country, the improvement of the conditions and accessibility to their services is directly related to the National Educational Goal defined in the National Reform Programme for 2020, namely to reduce the share of early school leavers of education system. The community centers, especially in small communities, are the main centers for Internet access, for training courses for retraining and improving the qualification of people of all ages. With this auxiliary educational role, this institution is of key importance for equalizing the educational and social differences between the urban and rural regions of the country. In turn, providing online access through new technologies to the values of

cultural and literary heritage stored in museums and libraries in the country will mitigate the economic and social impact of the crisis and support the social cohesion and reduction of territorial and demographic inequality.

The programme contributes to the implementation of reforms in the energy sector under the "Energy Efficiency" Dimension through activities to improve the energy performance of sports facilities. The planned interventions under the project are in accordance with the National Action Plan for Energy Efficiency 2014-2020 and the National Long-Term Investment Promotion Program for the implementation of measures to improve the energy performance of buildings from public and private national housing and commercial buildings.

11. Does this project contribute to development of any aspects of sustainable economic development? Please outline:

The state policy in the field of energy efficiency is part of policy of sustainable development of the country. Planned activities will contribute for increasing energy and exploitation performance of housing stock, for improving ecological indicators as a result of saved harmful emissions into the atmosphere, and improve directly and tangibly quality of life and dwelling conditions. New jobs will be opened and economic development will be hastened.

Contribution to United Nations Sustainable Development Goals:

- Goal № 7 Ensure access to affordable, reliable, sustainable and modern energy.
- Sub-goal 7.3 Increase reliable, uninterrupted, and sufficient energy production in preparation for a more sustainable economic recovery.
- Goal № 8 Promote inclusive and sustainable economic growth, employment and decent work for all.
- Goal № 9 Build resilient infrastructure, promote sustainable industrialization and foster innovation
- Goal № 12 Ensure sustainable consumption and production patterns.

Improving the energy efficiency and modernization of our unique cultural and educational centers is a continuation of the efforts for development and preservation of our cultural wealth and utilization of its potential as instrument for a social cohesion, promotion of creativity, and generating economic benefits as well. These measurements will rouse interest to Activities of Community centers, museums, libraries, which will increase interest towards cultural heritage, education and digital technologies eventually, and will reduce share of early leavers from education and training and will increase employment in these regions. Such a tendency will inevitably contribute to sustainable development especially in regions with poor economic circumstances, where unemployment rates are high, and the access to cultural and educational activities is not easy.

The Programme contributes to development of economic, health and ecological aspects of sustainable economic development. The Programme contributes for increasing quality of life and overall competitiveness of economy, in the sector related to increase of economic benefits of functioning of sports facilities. Providing appropriate environment for sport activities contributes for promotion of physical activity of population and improving the general health of different social groups. At the same time, adoption of sustainable solutions for energy efficiency by implementation of measurements for reducing energy costs, maintenance and exploitation costs of sport facilities will lead to benefits both for

people and environment and economic benefits as well due to reduced exploitation costs. Renovation of facilities, energy efficiency, adoption of smart systems for management, will contribute for efficient functioning of sport facilities by their usage not only for sport events, but also for cultural and social events and thereby sustainability of effects and long-term benefits of adopting energy efficient solutions in sport facilities are vouched.

The Programme contributes to development of two out of three pillars of sustainable development: Environment and Economic growth. As realization of the Programme will contribute to opening new jobs, this is also a premise for attracting additional private financial recourses.

12. Does this project contribute to implementation of goals in Bulgaria 2030 National Development Program? Please outline:

The Programme contributes for implementation of the goals defined in Bulgaria 2030 National Development Programme, in particular:

Development axis 2 „Green and Sustainable Bulgaria“ – Priority 4 „Circular and Low-Carbon Economy“ – The Programme contributes for implementation of one of fundamental aims of the priority, in particular increasing of resource – particularly energy productivity, adhering circular economy principles and promotion of adoption of low-carbon, resource efficient and waste-free technologies. This Programme is in conformity with the aims of Priority for adoption of market stimulus in order of reduction of spend energy by business, including support in investments of energy efficient construction and facilities. Sustainable management of natural resources allows meeting current needs of economy and society preserving ecological sustainability so these needs can be met in long-term. Thirteen national priorities have been defined, one of them is P4: Circular and Low-Carbon Economy, including reduction of energy consumption intensity. It also supports more energy efficiency both of electricity producing companies and consumers, reduction of spend energy by business and formation of premises for distribution and efficient management of micro networks for renewable energy.

Priority 5 „Clean Air and Biodiversity“ – This Programme is in conformity with main policy in the field of natural environment preservation, in particular improving quality of air – reducing concentration of particulates. Promotion of reduction of energy consumption intensity in building stock including households will continue.

Complex effect of improving conditions in cultural institutes is related to the Goal for sustainable cities and communities, and also contributes for implementation of the three goals in National Development Programme, in particular:

Accelerated Economic Development – by providing resources and circumstances for contemporary educational approaches and computer tuitions both in big cities and in small (which is essential) and medium settlements, which will contribute to fulfilling The Digital Economy and Society Index (DESI) outlined in The Programme.

Demographic Upswing – Activities in community centers, National Art Schools and cultural institutes will contribute for strengthening cultural learning and development of lifelong learning, re-qualification and improving digital skills of people of all ages, which will increase their competitiveness at labor market, reduce migration due to unemployment or due to age discrimination.

Reduction of Inequalities – culture institutes and community centers in small and medium settlements are important center for access to culture, education, digital services

and social contacts. The support for their activities will lead to fulfillment of Programme Goal III: “more inclusive and more sustainable growth by reducing social and territorial inequalities and promoting shared prosperity”.

13. Does this project contribute to implementation of National Objectives and Targets determined in Integrated Energy and Climate Plan of Republic of Bulgaria 2021-2030? If it is so, please outline:

- The Programme contributes to implementation of the objectives defined in Integrated Energy and Climate Plan of Republic of Bulgaria - Energy Efficiency Dimension – realization of energy savings in final consumption, energy production, distribution and allocation, and improving energy performance of buildings as well. Attainment of objectives for increasing energy efficiency is strategically related to renovation of building stock, as energy efficiency in combination with implementation of renewable energy resources in buildings.
- The Programme will contribute directly, as an alternative measure, for attainment of National cumulative end-use energy savings target for energy efficiency, defined according to requirements of Article 7 from Directive 2012/27/EU on energy efficiency, (amended by Directive EU 2018/2002, as well implementation of Long-term National Strategy for Renovation of the National Housing and Non-housing Stock to 2050. The Programme is related directly to national obligations, according to Article 5 and Article 8 - Directive 2012/27/EU.
- Provided measurements for improving energy performance of cultural institutions in the whole country will contribute to attainment of Energy Efficiency Objectives of buildings outlined in “Integrated Energy and Climate Plan of Republic of Bulgaria 2021-2030“. Last but not least, renovation activities and building of contemporary heating systems in these edifices buildings will vastly contribute for attainment of EU Green Transition Aims.
- The Programme will contribute to attainment of the goals, which Bulgaria aims in regard to energy efficiency, related to attainment of high energy efficiency and decarbonized building stock until 2050. The Programme is in conformity to measurements for renovation of building stock by energy efficiency in combination with usage of renewable energy resources, adoption of high efficient cooling and heating installations, and introduction of innovative technologies.
- Regarding to Research, Innovation and Competitiveness Dimension of Integrated Energy and Climate Plan of Republic of Bulgaria, the Programme is in conformity with the outlined objectives in the field of Research, innovation and competitiveness, in particular:
 - Adoption of new energy saving technologies, which will improve quality of life and working conditions of Bulgarian citizens;
 - Improving air quality
- Increasing capacity of energy and gas storage by development of existing and building new storage facilities is explicitly pointed out in “Integrated Energy and Climate Plan of Republic of Bulgaria 2021-2030“, 2.3 Energy Security Dimension, section iv, as one of the aims regarding increasing flexibility of national electricity system.
- Adoption of measurements related to development of energy infrastructure, support for integrating in electricity networks for energy produced by renewable energy resources, as well wider usage smart energy-storing systems are provided during 2021-2030 period.

Implementation of such measures will lead to more comprehensive usage of renewable electricity, due to its easier integration in electricity system.

- The Programme will contribute for 2.4 Internal Energy Market Dimension, promoting customers to use, storage and sell produced by them electricity.

- Bulgaria plans to develop some electricity projects, aiming providing balance and flexibility of the system, strengthening position of Bulgaria of exporter and providing cross-border flexibility of the system. These projects will facilitate further development of renewable energy resources and their integration in the national electricity system, taking into account changeability of such energy resources. Following investments are provided:

- increasing of the operational potential of Chaira Pumped Storage Hydro Power Plant by construction of Yadenitsa Dam, which will give an opportunity for optimization of structure of generation capacities.

- investments in batteries for regulation of frequency, with joint capacity around 180 MW;

- investments in promotion of combination of new renewable energy resources with local facilities for electricity storage, depending on the appropriate technological solution for the relevant projects (joint capacity around 200 MW).

- The programme contributes to implementation of all objectives and targets defined in Integrated Energy and Climate Plan of Republic of Bulgaria 2021-2030, in particular:

- Renewable Energy Resources;
 - Energy Efficiency;
 - Greenhouse Gas Emissions.