

Report on the progress achieved in the implementation of building stock renovation policies and measures in the Republic of Bulgaria

The policies and measures for building stock renovation in the Republic of Bulgaria are set out in the [National Energy Efficiency Action Plan \(NPDEE\) 2014-2020 \(updated in 2017\)](#):

List of available measures and instruments contributing to the achievement the aims of Directive 2012/27/EU

<i>Type of measure</i>	<i>Name</i>
Legislative measures	Energy efficiency improvement programmes of central and local government bodies and energy consumption management
	Mandatory renovation of 5 % of the total floor area (TFA) of all heated and/or cooled publicly-owned buildings used by central government institutions
	Provision of energy efficiency services
	Provision of services related to Energy Saving Performance Contracts (ESPCs)
Financial measures and instruments	Energy Efficiency and Renewable Sources Fund
	National programme for energy efficiency in multi-apartment buildings
	2014-2020 Regions in Growth Operational Programme
	Residential Energy Efficiency Credit Line programme
	National Trust EcoFund
	Programme BG04 Energy efficiency and renewable energy — upgrading energy efficiency and use of renewable energy in buildings owned by the central government and local authorities and local heating systems
Fiscal incentives	Project Demand Side Residential Energy Efficiency through Gas Distribution Companies in Bulgaria (DESIREE GAS)
	Exempting existing buildings on individual properties in such buildings from property tax (Local Taxes and Fees)

Some of the measures do not have a direct energy-saving effect but contribute to achieving the overall objectives for upgrading energy efficiency in buildings.

I. Non-residential buildings — legislative measures

I.1 Central government buildings	
Description	In accordance with Article 23 of the Energy Efficiency Act (ZEE), in order to facilitate the achievement of the national energy efficiency target, measures to improve energy performance are implemented on an annual basis on at least 5 % of the total floor area (TFA) in all heated and/or cooled buildings owned by the central government and used by its administrative services. The National Energy Performance Improvement Plan for Heated and/or Cooled Buildings Owned by the Central Government and Used by Public Administration for the period 2016-2020 was adopted by Council of Ministers Decision No 796 of 20 December 2017. The analysis of the national building stock owned or used by the central government was conducted on the basis of an inventory of all buildings drawn up by the AUER in accordance with the requirements laid down in Article 5(5) of Directive 2012/27/EU. The inventory includes all buildings with a total floor area (TFA) of more than 250 m ² owned by the central government and local authorities. The buildings within the scope of the requirement laid down in Article 5(5) of Directive 2012/27/EU are listed in Table 3.3.3-1 in the NEEAP and identified through a systematic analysis of the majority of State-owned buildings.
Measure implementation assessment method	As required by Article 11(6)(5) of the ZEE, by 31 March every year, the AUER publishes a list of the buildings owned or used by the central government administration which did not meet the minimum energy performance requirements as of 1 January of the same year. The information necessary to compile the list of buildings with a TFA that conforms, respectively does not conform, to the minimum energy performance requirements, is drawn up annually by the relevant Bulgarian institutions. The information about the buildings owned and used by government institutions has been compiled on the basis of the information received from the relevant administrations during the respective reporting years.
Relation to other measures	This measure is directly related to the implementation of: <ul style="list-style-type: none"> – the mandatory preparation of energy efficiency promotion programmes and annual reports on their implementation by the national authorities; – Mandatory energy audits on buildings with TFA of more than 250 m².
Assessment of cumulative benefits as at 2020	On the basis of the analysis set out in the National Energy Performance Improvement Plan for Heated and/or Cooled Buildings Owned by the Central Government and Used by the Public Administration for the period 2016-2020, Scenario A2 was adopted within the approved national budget, which is expected to lead to cumulative energy savings by 2020 of 119.35 GWh ,

I.1 Central government buildings	
	<p>provided all available financial mechanisms are applied.</p> <p>The impact assessment expressed in energy savings achieved is set out in the analysis of the implementation of energy efficiency measures by government bodies.</p>
Potential of the measure	TFA of buildings owned and used by the government administration that do not comply with the energy performance requirements laid down in Article 5(1) of Directive 2012/27/EU as at 1 January 2019: <i>849 081.41 m²</i>
Useful links	<p>Energy Efficiency Act</p> <p>National Energy Performance Improvement Plan for Heated and/or Cooled Buildings Owned by the Central Government and Used by Public Administration</p> <p>NEEAP Annual Implementation Report for 2018.</p>

I.2 Obligation of government and local government bodies to draw up their own energy efficiency improvement programmes and mandatory EE management in public buildings									
Description	<p>Pursuant to Article 12 of the ZEE central government bodies and local authorities in Bulgaria draw up and adopt energy efficiency programmes. Central government bodies and local authorities submit reports on the implementation of the programmes to the Executive Director of the AUER on an annual basis. This measure is directly related to the requirements of Article 63 of the AUER, which stipulates that the owners of buildings that are public state or municipal property are under an obligation to engage in energy efficiency management. Energy efficiency management involves arranging the implementation of EE programmes, along with other measures leading to energy savings. Energy efficiency management is reported to the AUER by 1 March every year and reports on EE programmes accompany the information. Reports are submitted in a template form drawn up and approved by the AUER.</p>								
Impact assessment method	<p>The impact is assessed by applying a bottom-up approach of aggregating and analysing the information received by 1 March concerning the implementation of the energy efficiency programmes, the energy efficiency management of buildings and other energy saving measures by all municipal, provincial and State administrative structures.</p>								
Relation to other measures	<p>This measure is directly related to the implementation of:</p> <ul style="list-style-type: none"> – Mandatory energy audits on buildings with TFA of more than 250 m². – Annual renovation of 5 % of the aggregate TFA of buildings used by the central government. 								
Impact assessment	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 33%; text-align: center;"><i>Year</i></th> <th style="width: 33%; text-align: center;"><i>Number of</i></th> <th style="width: 33%; text-align: center;"><i>Energy savings, GWh/year</i></th> </tr> </thead> <tbody> <tr> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;"></td> </tr> </tbody> </table>		<i>Year</i>	<i>Number of</i>	<i>Energy savings, GWh/year</i>				
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Expected contribution of the implementation of the National Energy Efficiency Strategy 2020	2014-2020 — 911.9 GWh/year																		
Useful references	<p>Energy Efficiency Act</p> <p>NEEAP Annual Implementation Report for 2018.</p> <p>Analysis of the implementation of municipal energy efficiency and regional programmes in 2018 by Economic Planning Region in Bulgaria</p>																		

II. Non-residential buildings — financial measures

II.1 Energy Efficiency and Renewable Sources Fund	
Description	<p>The Energy Efficiency and Renewable Sources Fund (FEEVI) was established under the Energy Efficiency Act and is the only institution in Bulgaria specialised in funding energy efficiency investment projects.</p> <p>The FEEVI functions as a financing/co-financing institution and provides the following services against remuneration:</p> <ul style="list-style-type: none"> • low-interest loans;

II.1 Energy Efficiency and Renewable Sources Fund

	<ul style="list-style-type: none"> • partial loan guarantees; • portfolio guarantees. <p>The FEEVI also provides free-of-charge consultancy services to municipalities, Bulgarian companies, hospitals, universities and individuals for the development of energy efficiency investment projects.</p>																																																																					
Impact assessment method	The impact of implementing the measure is assessed on the basis of the information provided by the FEEVI on the outcomes of the energy efficiency improvement projects financed by the Fund.																																																																					
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II.1 Energy Efficiency and Renewable Sources Fund				
	Total	9	2 884	1.69
	Total 2014-2018	39	28 858	14.92
	<p><i>Source: AUER, Annual reports on the implementation of the NPDEE</i></p> <p><i>In order to prevent duplication in reporting the achieved energy savings, the effect of the measures and projects financed under the FEEVI is excluded from the total amount of savings calculated by applying the bottom-up approach. These savings are reported under the relevant measures per type of client.</i></p>			
Expected contribution of the implementation of the National Energy Efficiency Strategy 2020	2014-2020 — 40.3 GWh/y			

II.2 Operational Programme Regional Development 2007-2013/Operational Programme Regions in Growth 2014-2020	
Description	<p>Operational Programme Regional Development 2007-2013 and its successor Operational Programme Regions in Growth 2014-2020 (OPRG) are co-financed by the European Union under the European Regional Development Fund. Funding under the operational programmes is available for energy efficiency and major renovation of existing buildings under priority axes that support the implementation of energy efficiency measures at educational institutions under the jurisdiction of local government. Sustainable and integrated urban development; supporting energy efficiency in focal points in peripheral regions. Support for the achievement of specific objectives includes exemplary eligible activities in residential buildings, student halls of residence, administrative buildings of the central and municipal governments and municipal public buildings belonging to the education, culture and social infrastructures. Only buildings designed prior to 1999 are eligible for support. Financial assistance is made available only to projects that lead to the achievement Energy Consumption Class C at minimum or energy savings of at least 60 % where the EE measures involve major renovation.</p>
Impact assessment method	<p>The impact is assessed by applying a bottom-up approach on the basis of the EE actions and measures implemented under the Programme and information about the progress achieved in programme implementation provided by the Ministry of Regional Development and Public Works (Managing Authority).</p>

II.2 Operational Programme Regional Development 2007-2013/Operational Programme Regions in Growth 2014-2020

Impact assessment	<i>Operational Programme Regional Development 2007- 2013</i>						
	Year	2014	2015	2016	2017	2018	Total
	Number of renovated buildings	127	34	5	-	-	166
	Energy savings, GWh/year	44.87	8.06	76	-	-	128.93
	<i>2014-2020 Regions in Growth Operational Programme</i>						
	Number of renovated buildings	-	-	227	19	31	277
	Energy savings, GWh/year	-	-	13.4	6.6	28.3	48.3
<p>Source: AUER, Annual reports on the implementation of the NPDEE</p> <p><i>In order to prevent duplication in the reporting of the energy savings achieved, the effect of the measures and projects financed under Operational Programme Regions in Growth is excluded from the total amount of savings calculated by applying the bottom-up approach. These savings are reported under measure Obligation of central and local government bodies to draw up their own energy efficiency improvement programmes and mandatory energy efficiency management in public buildings.</i></p>							
Expected contribution of the implementation of the National Energy Efficiency Strategy 2020	2014-2020 — 248.1 GWh/y						

II.3 The National Trust EcoFund – Climate Investment Programme

Description	<p>The National Trust EcoFund (NDEF) manages financial resources made available especially from the central budget, including through debt-for-environment and debt-for-nature swaps. The Fund contributes to the implementation of the Bulgarian government's policy and international commitments undertaken in the field of environmental protection.</p> <p>The Climate Investment Programme is the NDEF's latest programme contributing to climate change mitigation. The goal of the Programme is to promote initiatives mitigating climate change, i.e. reducing greenhouse gas emissions into the atmosphere. The NDEF has launched the implementation of pilot EE improvement projects by combining grants with other sources of funding. Funding is targeted at energy efficiency improvement projects for buildings and other items of public</p>
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II.3 The National Trust EcoFund – Climate Investment Programme			
	state property or public municipal property (street lighting, healthcare facilities and large state and municipal projects). The funding available to public institutions and NGOs may be up to 85 % of the investment costs.		
Impact assessment method	The impact of implementing the measure is assessed on the basis of the outcomes of the projects funded the NDEF, as reported by the Fund.		
Impact assessment	Year	Number of projects for the upgrade of energy efficiency in buildings	Energy savings GWh/y
	2017	32	17.7
	2018	14	3.5
	Total	46	21.2
<i>Source: AUER, Annual reports on the implementation of the NPDEE</i>			
Expected contribution of the implementation of the National Energy Efficiency Strategy 2020	2014-2020 — 42.4 GWh/y		

II.4 Kozloduy International Fund	
Description	<p>The Kozloduy <u>International Fund</u> (MFK) was established in 2001 to manage EU grants intended to mitigate the effects of the early decommissioning of Units 1 to 4 of the Kozloduy nuclear power plant. The fund finances and co-finances projects in two areas:</p> <ul style="list-style-type: none"> • activities for the decommissioning of Units 1 to 4 of the Kozloduy NPP (projects in the so-called ‘nuclear’ window), and • measures to mitigate the negative impact of the decision taken to close and decommission Units 1 to 4 in the energy sector, which support the necessary restructuring, rehabilitation and modernisation of the sectors of production, transmission and distribution of energy, as well as the improvement of energy efficiency (projects in the so-called ‘non-nuclear’ window). <p>The fund is administered by the European Bank for Reconstruction and Development (EBRD). The aid intensity under the Fund is 100%.</p>
Impact	The impact of implementing the measure is assessed on the basis of the expected outcomes of energy efficiency improvement projects that received assistance from the

II.4 Kozloduy International Fund

assessment method	Fund as reported by the Ministry of Energy.			
Impact assessment	Project	Year	Description	Energy savings GWh/y
	Energy efficiency in the Metropolitan Municipality		25 public buildings (23 kindergartens and 3 schools)	6.3
	Energy efficiency in Plovdiv Municipality		28 public buildings (22 kindergartens and 6 schools)	8.5
	Energy efficiency in Stara Zagora Municipality	2014	4 public buildings (2 kindergartens and 2 schools)	1.6
	Energy efficiency in Burgas Municipality		17 public buildings (1 kindergarten, 9 schools, 5 sports buildings and cultural centres and 2 healthcare establishments)	5.6
	Total for 2014		74 buildings	22.1
	Project Energy Efficiency in Public Buildings — Fifth tranche		68 buildings	37.3
	Project Energy efficiency in 8 public buildings	2015	3 administrative buildings and 5 buildings of educational institutions	4.6
	Total for 2015		76 buildings	41.8
	Energy Efficiency Projects in Public Buildings — Fifth tranche	2016	171 buildings	35
Total for MFK		321 buildings	98 920	

Source: AUER, Annual reports on the implementation of the NPDEE

II.5 Renewable Energy, Energy Efficiency and Energy Security Programme

<p>Description</p>	<p>The Renewable Energy, Energy Efficiency and Energy Security Programme is financed by the Financial Mechanism of the European Economic Area for the period 2014-2021 on the basis of a Memorandum of Understanding signed between the Republic of Bulgaria and the Kingdom of Norway, Iceland and the Principality of Liechtenstein. Project proposals for efficient utilisation of the hydro energy potential will be accepted under the programme. utilisation of geothermal energy for heating and cooling, and for industrial purposes; renovation and upgrade of municipal infrastructure; upgrading the energy efficiency of buildings training in energy management, etc.</p> <p>Programme operator: Ministry of Energy</p> <p>Programme partners of the Donor: Water Resources and Energy Directorate of the Ministry of Oil and Energy of the Kingdom of Norway and the National Energy Authority of Iceland</p> <p>The measures to upgrade the energy efficiency of buildings are implemented under call 'Improvement of the energy efficiency of buildings'. The beneficiaries under the call are central and local government bodies.</p>
<p>Impact assessment method</p>	<p>The effect of the implementation of the measures is assessed by using the 'bottom-up' approach traditionally applied to appraise the results of implemented projects to upgrade the energy efficiency of buildings owned by the central and local government.</p>
<p>Link to other measures</p>	<p>This measure is related to the implementation of:</p> <ul style="list-style-type: none"> – the obligation of central and local government bodies to draw up their own energy efficiency improvement programmes and mandatory EE management in public buildings; – the annual renovation of 5 % of the aggregate TFA of buildings used by the central government.
<p>Expected contribution of the implementation of the National Energy Efficiency Strategy 2020</p>	<p>2020 — 12.8 GWh/year</p> <p><i>The assessment has been made on the basis of:</i></p> <ul style="list-style-type: none"> - <i>the following indicators set out in the Programme: 8 buildings upgraded through the implementation of energy-efficiency measures maximum grant assistance per project in the amount of BGN 1.2 mln.</i> - <i>1 500 BGN/MWh of energy saved (estimate based on actual implemented measures to improve energy efficiency in buildings)</i>

III. Residential buildings — financial measures

III.1 National programme for energy efficiency in multi-family buildings													
Description	<p>National programme for the renovation of multi-family buildings (the Programme). The main goal of the Programme is to ensure better living conditions for citizens living in multi-family residential buildings, temperature comfort and a higher-quality living environment through the implementation of energy efficiency measures. The Programme corresponds to Alternative Measure 2 of the energy efficiency obligation scheme set up in accordance with the requirements of Article 7 of Directive 2012/27/EU.</p> <p>All 265 municipalities in Bulgaria are eligible to participate in the Programme and actions have been implemented in 143 municipalities. Owners' associations registered under the Condominium Ownership Management Act in eligible buildings can receive grants of up to 100 %.</p>												
Impact assessment method	<p>The impact is assessed by applying a bottom-up approach on the basis of the EE actions and measures implemented under the Programme and the information on the progress made in implementing the Programme submitted by the Managing Authority of the Ministry of Regional Development and Public Works.</p>												
Impact assessment	<p>Table 3.1.1-7 of the National Action Plan for Energy Efficiency (updated in 2017) <i>Comparison of the individual targets to be achieved by obligated parties by applying the generic or a combined approach to ensure the implementation of Article 7 of Directive 2012/27/EU</i> envisages the following energy savings to be achieved in the period 2016-2020:</p> <table border="1" data-bbox="395 1352 1098 1839"> <thead> <tr> <th data-bbox="395 1391 794 1491">Year</th> <th data-bbox="794 1352 1098 1491">Energy savings GWh/year</th> </tr> </thead> <tbody> <tr> <td data-bbox="395 1491 794 1547">2016</td> <td data-bbox="794 1491 1098 1547">88.4</td> </tr> <tr> <td data-bbox="395 1547 794 1603">2017</td> <td data-bbox="794 1547 1098 1603">272.6</td> </tr> <tr> <td data-bbox="395 1603 794 1659">2018</td> <td data-bbox="794 1603 1098 1659">191.9</td> </tr> <tr> <td data-bbox="395 1659 794 1715">2019</td> <td data-bbox="794 1659 1098 1715">191.9</td> </tr> <tr> <td data-bbox="395 1715 794 1771">2020</td> <td data-bbox="794 1715 1098 1771">191.9</td> </tr> </tbody> </table> <p>The actual energy savings achieved and reported under the Programme for the period 2016-2019 stood at 679.8 GWh/year.</p>	Year	Energy savings GWh/year	2016	88.4	2017	272.6	2018	191.9	2019	191.9	2020	191.9
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III.1 National programme for energy efficiency in multi-family buildings

Link to other measures	The measure offers an alternative for achieving compliance with the requirements laid down in Article 7 of Directive 2012/27/EU																		
Projected savings to be achieved by 2020	<p><i>Summary data at programme level:</i></p> <table border="1"> <tr> <td>Number of registered owners' associations</td> <td>6 819</td> </tr> <tr> <td>Number of expressions of interest and funding applications</td> <td>5 725</td> </tr> <tr> <td>Number of funding applications submitted to the Bulgarian Development Bank</td> <td>5 352</td> </tr> <tr> <td>Number of funding agreements concluded between municipalities, provincial governors and the Bulgarian Development Bank</td> <td>2 022</td> </tr> <tr> <td>Surface area of the residential building stock expected to be improved under the Programme, m² (for all 2 022 buildings)</td> <td>11 525 389</td> </tr> <tr> <td>Number of homes expected to be renovated under the Programme (for all 2 022 buildings)</td> <td>147 761</td> </tr> <tr> <td>Number of residents expected to benefit from the improved infrastructure (for 2 022 buildings)</td> <td>340 705</td> </tr> <tr> <td>Expected energy savings from residential buildings renovated under the Programme, MWh/year (for all 2 022 buildings)</td> <td>975 226</td> </tr> <tr> <td>Expected annual reduction in greenhouse emissions (CO₂ and equivalent) under the Programme, incl. savings in ktCO₂/year for all 2 022 buildings)</td> <td>319</td> </tr> </table> <p>Projected savings set out in Table 3.1.1-7 of the National Energy Efficiency Action Plan (updated in 2017) <i>Comparison of the individual targets to be achieved by obligated parties by applying the generic or a combined approach to ensure the implementation of Article 7 of Directive 2012/27/EU:</i></p> <p>2019 — 191.9 GWh/y</p> <p>2020 — 191.9 GWh/y</p> <p>Contribution to the achievement of the national target for 2020 — 975.23 GWh/y</p>	Number of registered owners' associations	6 819	Number of expressions of interest and funding applications	5 725	Number of funding applications submitted to the Bulgarian Development Bank	5 352	Number of funding agreements concluded between municipalities, provincial governors and the Bulgarian Development Bank	2 022	Surface area of the residential building stock expected to be improved under the Programme, m² (for all 2 022 buildings)	11 525 389	Number of homes expected to be renovated under the Programme (for all 2 022 buildings)	147 761	Number of residents expected to benefit from the improved infrastructure (for 2 022 buildings)	340 705	Expected energy savings from residential buildings renovated under the Programme, MWh/year (for all 2 022 buildings)	975 226	Expected annual reduction in greenhouse emissions (CO ₂ and equivalent) under the Programme, incl. savings in ktCO ₂ /year for all 2 022 buildings)	319
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III.1 National programme for energy efficiency in multi-family buildings

Useful references	Ministry of Regional Development and Public Works National programme for energy efficiency in multi-apartment buildings NEEAP Annual Implementation Report for 2018.
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III.2 Residential Energy Efficiency Credit Line programme

Description	<p>The Residential Energy Efficiency Credit Line Programme (REECL 3) is a lending facility with a budget of EUR 20 mln. implemented under the second extension of the EBRD's residential energy efficiency credit line, which supports energy efficiency measures in the residential sector. The funds are made available to approved Bulgarian banks to grant targeted ESM loans to Bulgarian households, owners' associations of residential buildings or private service companies (professional property management companies, ESCOs, entrepreneurs and civil engineering companies).</p> <p>The application of ESM in homes is further encouraged by 10-15 % in additional grants for eligible ESM in one- or two-family houses or in at least three self-contained residential units in multi-family residential buildings. The grant funding, amounting to EUR 4.4 million, has been made available by the Kozloduy International Fund.</p> <p>The eligible measures under the programme include:</p> <ul style="list-style-type: none">– energy-efficient windows;– wall and roof insulation;– efficient biomass stoves and boilers;– solar water heaters;– efficient gas boilers and gas supply systems;– heat-pump air conditioning systems;– photovoltaic systems integrated in buildings;– heating substations and installations in buildings for central heating and domestic hot water.
Impact assessment method	<p>The impact of the measure is assessed on the basis of the expected outcomes of the implemented projects to upgrade the energy efficiency of residential buildings as reported by the REECL 3 consultant.</p>

III.2 Residential Energy Efficiency Credit Line programme

Impact assessment	Year	Number of projects for the upgrade of energy efficiency in buildings	Energy savings GWh/year
	2014	2 892	14.14
2015	3 052	14.15	
2016	57	5.8	
2017	725	12.42	
2018	1 031	7.3	
Total	7 757	54	

Source: AUER, Annual reports on the implementation of the NPDEE

Estimated savings until 2020	2014-2020 — 75.6 GWh/year
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III.3 Project Demand-side Residential Energy Efficiency through Gas Distribution Companies in Bulgaria (DESIREE GAS)

Description	<p>In 2016, the Ministry of Energy signed a Memorandum of Understanding with gas distribution companies in Bulgaria for the gasification of residential buildings, which is intended to serve as an energy efficiency measure. The ME has received a grant for accelerated gasification from the International Kozloduy Fund administered by the European Bank for Reconstruction and Development for the purpose of connecting households to the gas distribution network. The grant will be disbursed in support of the gasification of the residential sector within the framework of the DESIREE GAS project. The project has a budget of BGN 20 mln. in the form of a grant from the MFK and will enable the replacement of the heating systems in dwellings using energy intensive sources of heat, such as electricity, coal, biomass or oil naphtha, with natural gas. The main objective of the project is to put in place a dedicated and effective mechanism for support of the gasification of Bulgarian households.</p> <p>According to project estimates the grant from the EBRD will cover the cost of gasifying 10 000 Bulgarian households. Applications will be submitted by the individual property owners and the call will remain open until the budget of the grant scheme is depleted.</p>
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III.3 Project Demand-side Residential Energy Efficiency through Gas Distribution Companies in Bulgaria (DESIREE GAS)

	<p>The MFK grant will cover 20 % of the cost of projects for replacing the heating systems of households with systems using natural gas. In order to be in a position to pay the 80 % component of the project cost to be covered by own funds, households will be able to apply for soft loans developed specifically for the project. This is not a mandatory measure but an additional opportunity to grant support to consumers.</p> <p>The benefits of the project will be assessed on the basis of the achievement of the following objectives:</p> <ul style="list-style-type: none"> – support for the gasification and installation of high efficiency boilers in approximately 10 000 households; – electricity savings equivalent to 142 000 MWh/year; – achieving additional savings of electricity of 70 000 MWh/y as a result of the replacement of coal, biomass and oil with natural gas, which as a higher combustion efficiency; – saving approximately 213 kWh per each BGN 2 of grant assistance over the average economic lifetime of 15 years of the installed equipment. – reducing greenhouse gas emissions by 70 kt CO₂/y or more 1 mln. tCO₂ over the economic lifetime of the installed equipment. <p>In broader terms, household gasification in Bulgaria will enhance the security of electricity supply by contributing to savings from direct electricity consumption and increasing energy efficiency in the heating and domestic hot water supply system.</p>
<p>Impact assessment method</p>	<p>The impact is assessed by applying a bottom-up approach on the basis of the energy efficiency actions implemented under the Programme and the information on the progress in implementing the Programme as reported by the Ministry of Regional Development and Public Works.</p>
<p>Estimated savings by 2020</p>	<p>2016-2020 — 70 GWh/year.</p>