

EXEMPLARY ENERGY EFFICIENCY PROJECTS AND GOOD IMPLEMENTING PRACTICES

MONTENEGRO

June 2016

No.	EE PROJECT/ PROGRAMME TITLE	IMPLEMENTING BODY/ BENEFICIARY/ TARGET GROUP(S)	IMPLEMENTATION PERIOD	SOURCE OF FINANCING/AMOUNT	BRIEF DESCRIPTION OF PROJECT/PROGRAMME AND GOOD IMPLEMENTING PRACTICES	EARLY RESULTS /IMPACT EVALUATION (IF EXIST)
1.	Montenegrin Energy Efficiency Project - MEEP	Ministry of Economy/Directorate for energy efficiency, Ministry of Health, World Bank Users of health facilities	First phase: 2008-2014 Additional financing: 2013-2017	Loan (IBRD) First phase: 6,5 mill € Additional financing: 5 mill €	The Government of Montenegro has signed an agreement with the World Bank in December 2013 in order to continue the implementation of MEEP (additional financing). The Government of Montenegro has received a loan in the amount of 5 million € from the International Bank for Reconstruction and Development (IBRD). The project aims to improve energy efficiency in healthcare facilities and to increase the public awareness related to energy efficiency measures. Funds from the loan will be spent on implementation of energy efficiency measures in 12 up to 14 healthcare buildings. Implementation of the project will last until 30 March 2017. Under this phase of project 5 health facilities have been refurbished by the end of 2015. Under first phase of MEEP 6.5 mill. € was spent for reconstruction of 15 facilities (health and educational).	First phase: 14 facilities reconstructed (estimated annual energy savings 4.328.949 kWh, estimated annual costs savings 341.892 €, annual reduction of CO2 emissions 1.493.814 kg, average simple payback period 14,8 years. Additional financing: 5 facilities reconstructed by the end of 2015. Results will be calculated for second phase separately.
2.	Energy Efficiency Program in Public Buildings - EEPB	Ministry of Economy/Directorate for energy efficiency, Ministry of Education, Ministry of Social Welfare, Property Administration, KfW bank Users of facilities/buildings	First phase: 2012-2015 Second phase: 2016-2020	Loan + Grant (KfW bank) First phase: 13,44 mill € Second phase: 22,093 mill. €	Ministry of Economy in cooperation with the German KfW Bank continued implementation of the Energy Efficiency Program in Public Buildings (second phase) with additional funds in amount of 22,093 mill. €. The implementation of the second phase of the project has started in 2015 and finalization is planned for the end of 2020. Objective of the program is to improve energy efficiency and comfort conditions about 25 educational facilities, 5 social-care facilities and 6 administrative facilities. Under first phase of the project which has been implemented in the period 2012-2015, 21 educational facilities have been refurbished.	First phase: 21 educational facility reconstructed – 20 schools and one student dormitory Results will be calculated for overall project

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3.	MONTESOL - Interest-free credit line for installation of solar-thermal systems for households	Ministry of Economy/Directorate for energy efficiency, UNEP Households	2011-2015	Grant (IMELS) Interest-free loans through local commercial banks	<p>Ministry of Economy of Montenegro, in cooperation with United Nations Environment Programme (UNEP) and Italian Ministry for Environment, Land and Sea (IMELS), implemented project MONTESOL, aimed at offering an attractive and sustainable financial mechanism for obtaining a retail loan to install Solar Water Heating (SWH) systems in Montenegrin households. For the MONTESOL project, funds in the amount of 1 million USD were envisaged for project implementation and management and specifically to subsidize the interest rate of commercial banks.</p> <p>Possible individual loans range up to 5000€, with a repayment period of 7 years, with a 0% interest rate. The eligible dealers/installers are responsible for maintenance services of the installed system during the warranty and after warranty period.</p> <p>By the end of the April 2015, 135 solar heating systems have been installed. Project is canceled in April 2015 from the side of donor.</p>	<p>Estimated savings for 135 installed systems (yearly):</p> <ul style="list-style-type: none"> - 439448 kWh of energy savings - 2711 t of CO₂ reduction
4.	ENERGY WOOD - Interest-free credit line for installation of heating systems on modern biomass fuels (pellets, briquettes) for households	Ministry of Economy/Directorate for energy efficiency, Lux-Dev Households	First phase: 2013-2015 Second phase: 2015-2016	First phase: Grant (Government of Great Duchy of Luxembourg)/ 130.000 € Second phase: Grant (Norway Government)/ 240.000 € Interest-free loans through local commercial banks	<p>Ministry of Economy of Montenegro, in cooperation with Luxembourg Agency For Development Cooperation (Lux-Dev), implemented project ENERGY WOOD, aimed at offering an attractive and sustainable financial mechanism for obtaining a retail loan to install heating systems (stoves and boilers) on modern biomass fuels (pellet, briquette) in households. For the ENERGY WOOD project, funds in the amount of 130.000 € were provided through FODEMO project (Forestry Development in Montenegro), financed by the Government of Great Duchy of Luxembourg.</p> <p>Possible individual loans range up to 3500€, with a repayment period of 5 years, with a 0% interest rate. The eligible dealers/installers are responsible for maintenance services of the installed system during the warranty and after warranty period.</p> <p>Under the project 243 systems were installed and all funds are spent. Project is finalized in October 2015.</p>	<p>First phase: 243 heating systems were installed (Total amount of the investment - 685,312.43 € Total energy savings - 4.061,122 MWh; Total cost savings - 78.482,93 €, Total CO₂ emission reduction - 244.172,17 t CO₂.</p> <p>Second phase: around 500 heating systems were installed until May 2016</p>

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					<p>Second phase of the ENERGY WOOD project have started in October 2015 support of Government of Norway. Five commercial banks and 10 dealers/installers of the heating systems are included in project implementation. By May 2016 around 500 heating systems have been installed under the second phase of project.</p>	
5.	<p>SOLARNI KATUNI - Project related to installation of photovoltaic solar systems in summer pasture lands</p>	<p>Ministry of Economy/Directorate for energy efficiency, Ministry of Agriculture and Rural Development</p> <p>Households</p>	2011-ongoing	<p>State Budget</p> <p>Subsidies for installation of solar photovoltaic system – 70-80% of investment</p>	<p>The Ministry of Economy and the Ministry of Agriculture and Rural Development in cooperation with local governments implement the project "Solarni katuni". The project is launched in order to improve living and working conditions for households residing on summer pasture lands and to create conditions for increasing the number of farmers in summer pasture lands.</p> <p>Problems related to power supply are resolved by installing photovoltaic solar systems which decreases the need for electrification of certain areas and energy obtained in this way is free of charge for the people who reside in summer pasture lands.</p> <p>189 photovoltaic systems were installed in summer pasture lands under this project under two calls (2012, 2013).</p> <p>Third call (phase) of project will be implemented in 2016. 54 photovoltaic systems is planned to be installed.</p>	<p>189 photovoltaic systems were installed in summer pasture lands under first and second call (phase)</p>

- PHOTOS AND LINKS TO PROJECT WEB SITE, BROCHURES AND OTHER USEFUL INFO-MATERIAL

More information on all projects can be found at: <http://energetska-efikasnost.me/ee.php?id=24&l=en>.

Photo galleries can be found at: <http://www.energetska-efikasnost.me/galerije.php?id=54&l=en>.

Examples of implemented measures under specified projects:

1. MEEP: Elementary school Bosko Buha, Pljevlja (first row) and Special Hospital Brezovik, Niksic (second row) – before and after



2. EEPPB: Elementary School Njegos, Spuz (first row) and Elementary School Oktoih, Podgorica (second row) – before and after



3. MONTESOL: Examples of installed solar water heating systems



4. ENERGY WOOD: Examples of installed heating systems on modern biomass



5. SOLARNI KATUNI: Examples of installed photovoltaic systems



- EXAMPLES/PHOTOS OF EP CERTIFICATES

Note: *Process of EP certification of buildings has not started yet in Montenegro due to the lack of national software for building EP calculation. Activities on development of the national software will be supported by KfW under EEPPB project and it is expected to be finalized by the end of 2017.*