

Project Fiche – IPA National programmes / Component I

1 IDENTIFICATION

Project Title	Optimal use of energy and natural resources and mitigating natural disaster effects
CRIS Decision number	2012/023-582
Project no.	06
MIPD Sector Code	3. Environment and Climate Change
ELARG Statistical code	3.15. Energy
DAC Sector code	23010
Total cost (VAT excluded)¹	EUR 3,195,000.00
EU contribution	EUR 2,750,000.00
Management mode	Centralised
EU Delegation in charge	The Delegation of the European Union to Montenegro
Implementation management	The Delegation of the European Union to Montenegro
Implementing modality	Stand-alone project
Project implementation type	C01 – project type interventions
Zone benefiting from the action(s)	Montenegro

¹ The total project cost should be net of VAT and/or of other taxes. Should this not be the case, clearly indicate the amount of VAT and the reasons why it is considered eligible.

2 RATIONALE

2.1 PROJECT CONTEXT: ISSUES TO BE TACKLED AND NEEDS ADDRESSED

In June 2012 Montenegro officially became candidate country for accession into European Union. This truly represents country's most important achievement and a milestone in its path towards standards and values shared by the European community. Next step in accession process calls for additional effort on every level in the country. Moreover, Montenegro has been a contracting party of the Energy Community Treaty since 2005, which obliged Montenegro to follow EU policy regarding energy and environment ever since. .

The Constitution has defined Montenegro as an ecological state. Due to that, Government of Montenegro has set sustainable development as one of its main priorities. Since, Montenegro is a country with significant natural resources and inefficient in both use of its own resources as well as use of imported goods, increased use of own natural resources in an environmentally friendly and efficient manner is a crucial goal. In order to contribute to this priority, Montenegro has to create an ambient for sustainable development of energy sector and cleaner and safer environment for citizens.

Development of sustainable energy sector implies optimal use of national natural resources, through both decentralized use and cross-border cooperation taking into account environmental protection. Optimal use of natural resources entails use of renewable energy technologies and implementation of energy efficiency measures that give ground to improvements in energy and road infrastructure. Since renewable energy sources are disbursed over the Montenegrin territory, their development will ensure redistribution of economic development, giving focus to less developed northern part of Montenegro.

On the other hand, Montenegro has been subject to recurrent natural disasters (floods, extreme snowfall, fires etc.), that is an effect of global weather changes. In light of such circumstances, the whole support system of a country is under a stress and the weakest points are accentuated. In the past few years, Montenegro has had a chance to test its system under such circumstances. In these situations, citizens are in urgent need of fast response and rescue crews, water, food and energy access as well as organized transportation. In order to assure safe environment for citizens in such situations, Montenegro needs to improve capacity of response and rescue health and safety crews as well as quality of their equipment.

Moreover, when discussing sustainable development of a country safe and clean surrounding as well as access to both water and energy are main goals. Therefore this project aims to help restructure energy sector through providing decentralized and ecologically acceptable solutions that will provide better quality of access to energy and cleaner environment and at the same time create a safer environment by strengthening the response system in cases of extreme weather conditions.

2.2 LINK WITH MIPD AND NATIONAL SECTOR STRATEGIES

MIPD 2011-2013 sets environment and climate change as one of the main sectors for financial support. In this sector MIPD defines that overall strategic objectives are "to protect, respect and improve Montenegrin environment and natural resources as a potential for future sustainable social and economic development, to mitigate and adapt to climate change, and to improve natural disaster risk management". Furthermore, MIPD in third priority regarding acquis asks

for additional efforts regarding energy and health protection and considerable effort regarding safety. Moreover, section on priorities regarding environment and climate change of MIPD defines four specific objectives that activities should be directed towards and among them are “to develop actions to mitigate and adapt to climate change” and “to manage natural disasters risks (floods prevention, fire fighting, emergency equipment)”. This project defines activities that represent steps towards meeting these priorities.

Montenegro has set sustainable development as one of its major goal through various strategic documents. **Strategy for Sustainable Development of Montenegro**² adopted in 2006 defines five general goals for achieving sustainable development, including sustainable management of natural resources, increasing economic growth and development and decrease regional development inequality. The strategy defines how different sectors can participate in creating sustainable growth, including energy sector through use of renewable energy sources and implementation of energy efficiency measures. Moreover, **Strategy for Regional Development of Montenegro**³ recognizes necessity for use of renewable natural resources for energy and efficient use of energy as one of the main activities towards sustainable growth of northern part of Montenegro.

In 2011 Government of Montenegro adopted **Energy Policy until 2030**⁴ that underlines the three key priorities which include security of supply and sustainable energy development. In order to meet these priorities, main activities include harmonization with EU policy and increased use of own natural resources through renewable energy technologies, following good practice regarding environmental protection, collaborating with neighbouring countries and implementation of energy efficiency measures.

The Initial National Communication of Montenegro to the United Nations Framework Convention on Climate Change⁵ is a document of special importance, both for the fulfilment of the assumed obligations following the ratification of the Convention and the Kyoto Protocol, and because of the contained information which will serve as the basis for future activities relating to climate change in Montenegro. Results and conclusions from this document are concerning identification of climate change mitigation actions as well as assessment of vulnerabilities and impacts of changing climate in Montenegro. This document clearly indicates energy production and consumption as activities with main mitigation potentials in country, since 92 % of CO₂ emissions, or ca 50 % of all GHG emissions, are generated in energy sector in Montenegro. Also by analyzing the vulnerability and adaptation to the effects of climate change, this communication concludes that Montenegro is country with high risk from the adverse impacts of climate change.

The **National Strategy for Emergency Situations**⁶ defines the potential impacts of extreme weather conditions on Montenegro, which include flooding, extreme cold and warm weather, that often cause fires and potential droughts, as well as strong storms. In Montenegro, the biggest natural hazards are earthquakes, large movements of rocky masses (land and rock slides), floods, long-lasting extreme meteorological phenomena, avalanches, regional fires and landslides. The strategy also defines the main factors that increase vulnerability of a community in case of natural disasters that include: unsustainable way of development, degradation of natural resources, increase dependence on energy sources and lack of quality risk management.

² Strategy for Sustainable Development of Montenegro (<http://www.kor.gov.me/files/1207655097.pdf>)

³ Strategy for Regional Development of Montenegro (<http://www.mek.gov.me/biblioteka/strategije?alphabet=lat>)

⁴ Energy Policy until 2030 Montenegro
(http://www.oie-cg.me/doc/E-Energetska%20politika_Usvojena%20od%20Vlade_030311.pdf)

⁵ The Initial National Communication of Montenegro to the United Nations Framework Convention on Climate Change
(<http://www.unfccc.me/doc/INC-ENG.pdf>)

⁶ National Strategy for Emergency Situations (<http://www.mup.gov.me/biblioteka/strategije>)

2.3 LINK WITH ACCESSION PARTNERSHIP (AP) / EUROPEAN PARTNERSHIP (EP) / STABILISATION AND ASSOCIATION AGREEMENT (SAA) / ANNUAL PROGRESS REPORT

The Stabilization and Association Agreement with Montenegro, [Council and Commission Decision of 29 March 2010 / OJ L 108, 29.4.2010] Article 88 on Cooperation policies states that “policies and other measures shall be designed to bring about sustainable economic and social development of Montenegro. These policies should ensure that environmental considerations are also fully incorporated from the outset and that they are linked to the requirements of harmonious social development.” This article also states that “cooperation policies shall be integrated into a regional framework of cooperation. Special attention will have to be devoted to measures that can foster cooperation between Montenegro and its neighbouring countries including Member States, thus contributing to regional stability.” Moreover, Article 109 on Energy, states that cooperation shall focus on priority areas related to the Community acquis in the field of energy and that it shall be based on the Energy Community Treaty and developed with a view to the gradual integration of Montenegro into Europe's energy markets, especially through the formulation and planning of energy policy, including, improvement and diversification of supply as well as through the promotion of energy saving, energy efficiency, renewable energy and studying the environmental impact of energy production and consumption.

Council Decision of 22 January 2007 on the principles, priorities and conditions contained in the **European Partnership with Montenegro** (2007/49/EC) defines cross-border cooperation in energy sector as both short and mid-term priority for regional cooperation as well as continuation of implementation of the commitments undertaken in the framework of the signed Energy Community Treaty as short-term priority and adoption and implementation of a long term strategy for an environmentally sustainable energy policy as long-term priority.

Commission Opinion on Montenegro's application for membership of the European Union states that regarding aligning with EU acquis, Montenegro still needs to undertake additional efforts in the field of energy, while in the field of environment, where climate change represents one of the most important issues, it states that further coordinated and significant efforts will be needed. This project addresses energy policy regarding security and quality of supply and optimal use of resources through renewable energy, energy efficiency and cross-border cooperation that are the overlapping areas with climate change mitigation, reduction of greenhouse gas (GHG) emission and health protection and safety in the aftermath and during natural disasters due to extreme weather conditions, especially floods.

Europe 2020 Strategy defines sustainable growth defined as promotion of a more resource efficient, greener and more competitive economy as one of the three main priorities. In order to meet set priorities, five main targets are defined to include climate change and energy target. This target is met through decrease of GHG emissions, increase of energy efficiency and use of renewable energy sources. This project focuses on sustainable development through development of energy sector in environmentally-friendly and decentralized manner and improvement of safety and disaster risk management in order to decrease negative effects of severe weather conditions that put a stress on gaps in past development.

2.4 PROBLEM ANALYSIS

Montenegro is rich in natural resources that can be used for further balanced economic development, through tourism and energy sectors. In order to have quality development of

both of these sectors in long-term prospective, Montenegro has set its goals on improving its planning and management practices as to enhance sustainable use of available natural resources as well as goods. This need is even more accented during the reoccurring extreme weather conditions that include severe snow falls, floods and fires.

Currently energy sector in Montenegro is characterized by dependence on import, of up to 50 % of energy consumption, high energy intensity, where intensity of total energy consumption in Montenegro amounts to 1.908 ktoe/US\$ 2000 (GDP), which is 5.6 times higher than the EU-15 average, centralized generation and radial infrastructure. Energy sector is one of the main sectors with environmental footprint in Montenegro, and therefore sustainable development of this sector can contribute significantly to the economic development of the country while at the same time reduce its pressure on the environment.

Energy sector has undergone major changes in past few years mainly on a national level such as energy stakeholders unbundling, creating legislative framework for new energy stakeholders including those that use renewable energy sources and raising awareness for efficient energy use. However, in order to meet expected goals, further coordinated actions, including decentralized government involvement, are needed to assure optimal use of natural resources and goods from energy and environmental point of view. Therefore, environmentally optimal economic development through energy sector is met by focusing on decentralised and efficient production of not only energy, and optimal use of regionally shared natural resources.

In addition international obligations Montenegro has as a contracting party of the Energy Community Treaty obliges Montenegro to further transform energy sector through harmonization with demanding renewable energy and energy efficiency directives, as well as the third Energy Package. This will represent a major challenge for the Montenegrin authorities and the necessary work to implement the changes to the national legislation and regulatory framework should become quicker and more aggressive.

While dealing with activities that help create safer, better quality and overall more sustainable environment for citizens in Montenegro, past development has already taken a toll and put a stress on the infrastructure and human capacity during events of severe weather conditions that have been affecting Montenegro in the past few years. Montenegro has been dealing with organization of human resources' capacity in emergency situations. However, past experiences showed that in order to decrease effects of such natural disasters, more dynamic changes are needed regarding risk management, especially in capacity building of national and local responsible search and rescue and health staff and acquiring of adequate equipment.

Therefore, IPA support is needed to help accelerate changes, transfer the know-how and help foster environment that is protected, used in sustainable way for economic development and therefore is less damaged in case of inevitable natural disasters, and system that is more prepared for reaction in those inevitable cases.

2.5 LINKED ACTIVITIES AND DONOR COORDINATION

Sustainable development is a multi sectoral concept that has been tackled in Montenegro mainly from various aspects separately. In order to create a more favourable energy sector from a point of view of environment and efficient use of national resources and goods many projects have been realized or are currently ongoing in order to help development of the system of sustainable energy use, through increased use of renewable energy sources and implementation

of energy efficiency measures. On the other hand, since Montenegro is subject to reoccurring natural disasters due to weather conditions some studies, mainly regional, have been completed regarding disaster risk management. However, concrete actions have been mainly financed by Government on Montenegro in this sector. Following is a list of past and ongoing project related to use of natural resources for energy generation, efficient use of energy and disaster risk management, all with a main goal to organize a more economically and environmentally sustainable system in Montenegro.

- IPA 2007 project (2010-2011) – aligning with EnCT regarding energy policy, especially for regulation of energy market, transmission system operator and energy efficiency- many regulation documents prepared including secondary legislation acts regarding energy efficiency;
- IPA 2011 project (2012-2014) – Sustainable use of energy – This project focuses on sustainable energy use in transport sector, including applying energy efficiency measures and renewable energy sources and meeting EU aquis in this sector. Currently there are no regulation and or actions regarding energy use in transport that presents 20 % of total energy consumption in Montenegro.
- IPA Adriatic POWERED project (2011-2014) Research and measurement of offshore wind potential on Adriatic sea – overview of current status of environmental and energy policy and preparation for locations for anemometers selected;
- The Project SHARE (Seismic Hazard Harmonization in Europe, 2009–2012), within the Seventh Framework Program of the European Commission, to provide an updated, living seismic hazard model for the Euro-Mediterranean region and NATO’s Science for Peace project „Harmonization of Seismic Hazard Maps for the Western Balkan Countries“, whose end product will be an integrated database organized in GIS applications for the whole region with a regional earthquake catalogue and seismic hazard maps;
- The Drought Monitoring Centre for South East Europe, the European Centre for Medium Range Weather Forecasts and the Accident Reporting Guidance Operational System (ARGOS) to upgrade its hydro-meteorological services, weather forecasting products and early warning system;
- EBRD project (2011-2012) - Registry of small rivers in Northern region of Montenegro – has been creating a map and researching hydro potential of small rivers in northern municipalities with potential for construction of sHPPs;
- EBRD project (2011) – Pre-feasibility studies for five northern municipalities for construction of sHPPs on local gravitational water systems completed.
- Technical help from EBRD (2010-2011) regarding regulatory framework for renewable energy sources helped develop national set of regulation for renewable energy;
- UNDP project (2009-2012) Reform of energy sector for development of small hydro power plants – various studies completed including measurements of hydro potential on 15 rivers, example of multipurpose use of locations for sHPPs, and ongoing important study of electricity grid regarding methodology for connection of distributed sources;
- UNEP Montesol project (2010-2012) interest rate subsidy for solar thermal systems for households- so far the project qualified number of companies to distribute and install SWH

systems, trained installers of solar systems and bank officials, disbursed number of interest-free loans and initiated technical inspection for quality control of installed systems. It is planned to have 500 SWH systems installed;

- Regional Disaster Risk Reduction in South East Europe, project implemented by UNDP and WMO and funded by the EC - provided support in development National Needs Assessment for Disaster Risk Reduction, capacity assessment of institutions with clear DRR-related mandate.
- UN system supported Ministry of Interior, Sector for Emergencies and the municipalities to develop 12 local flood risk assessments (these are the first flood risk assessments) in Montenegro based on which the flood preparedness plans will be conducted¹. The Disaster Preparedness and Prevention Initiative for South Eastern Europe and the EU-funded PPRD South Programme, to implement HFA objectives and priorities;
- UNDP GEF project (end of 2011-2012) on development of The Second National Communication to UNFCCC;
- UNDP GEF project (end of 2011-2012) Capacity building for integration of global environmental commitments in investment/development decisions;
- Montenegro Energy Efficiency Project financed from World Bank loan (2009-2012) supporting energy efficiency measures in schools and hospitals- specific funds were dedicated to civil and HVAC works that qualify as energy efficient refurbishment of educational and health institutions, coupled with technical and social monitoring of achieved positive effects. At the end of the project 9 educational and 6 health facilities will be refurbished;
- World Bank study (2009-2010) Possibilities for Public Private Partnership in Montenegrin energy generation sector – overview of current situation in energy sector, with suggestions for improvements in legislation and procedures and possible options for PPP in Montenegro;
- KfW project/credit line (2011-2012) Energy efficiency measures in educational buildings - aimed at civil and HVAC works that qualify as energy efficient refurbishment of more than 30 educational institutions will be refurbished. Currently the tendering process for refurbishment of first 5 schools is underway
- GIZ- ASE project (2008-2012) for regulatory framework for energy efficiency and capacity building in energy efficiency related to obligations from Law on energy efficiency - project assisted in development of Energy Efficiency Law, scheme and training for energy audits, as well as raising awareness of general public;
- GIZ project “Solar energy in Tourism sector” (2011-2012) – study of current use of solar energy in Montenegro completed and currently performing energy audits on chosen hotels over the whole territory of Montenegro;
- FODEMO project (Luxemburg) (2011-2013) – Forest Development in Montenegro – Part of this project is focused on creating a market for biomass use in Montenegro. Current activities are helping MONSTAT improve methodology for collection of data on biomass consumption, helping private sector develop for production of woody biomass and developing a biomass action plan;

- The Civil Military Emergency Planning for South Eastern Europe, in cooperation with the U.S. Army Engineering Corps, to improve of civil-military coordination of disaster preparedness and response.

Montenegro needs to have sustainable local governments and industry before Government could be seriously involved in funding environmentally friendly projects directly. Therefore this project is crucial in accelerating development of ambient for less import dependent energy, energy dependent industry and country more prepared for potential increase of reoccurrence of natural disasters due to weather conditions.

2.6 Lessons learned

Some of the main lessons from the past and currently ongoing projects, that are relevant for the smooth implementation of this project, include adequate and comprehensive coordination of all relevant stakeholders during the life-cycle of the project, making sure all the necessary data and surveys are conveyed at the beginning of the project in order to be able to statistically monitor the influence of project activities, make sure capacity building and awareness raising have specific and measurable purpose and ensuring sufficient administrative capacity and expertise in the development and implementation of sustainable, results-oriented projects in order to optimize the absorption of available pre-accession funds. Previous experience showed that having a technical assistance project on specific issue provides additional push to introduce changes in that area. However it is important to ensure political will and preparing and informing relevant institutions in order to ensure acceptable dynamic of processing of documents developed by the project. These aspects are taken into consideration when preparing this project and will be observed and taken into account during its implementation.

3 DESCRIPTION

3.1 OVERALL OBJECTIVE OF THE PROJECT

To improve sustainability of use of natural resources and goods on national and local level and create a system better prepared for disaster emergency response due to extreme weather conditions.

3.2 SPECIFIC OBJECTIVE(S) OF THE PROJECT

The specific objective of this project is to better satisfy national energy needs through environmentally optimal use of natural resources, while improving natural disaster risk management.

3.3 RESULTS

Result 1: Environmentally sustainable, secure and competitive market for electricity and gas developed through harmonization with 3rd package.

Result 2: Good investment environment for development of sustainable energy on local level created in order to assure environmentally friendly economic development

- Local energy regulatory and strategic framework that defines predictable, clear and simple procedures for sustainable use of natural resources and goods developed;
- Technical potentials for environmentally optimal energy projects measured and researched (hydro, taking into account both geology and hydrology specification of Montenegrin territory, biomass potential, etc.);
- Local and national administration trained regarding energy policy and obligations, organization and investment opportunities (approx. 30 persons trained)

Result 3: Strategic and regulatory framework for environmentally and technically optimal usage of regionally shared natural resources, especially regarding hydro energy potential, water management and crude-oil reserves, developed.

Result 4: Favourable legislative and market conditions created and concrete EE investments and measures in industrial and SMEs sectors implemented

- Detailed analysis of Montenegro's possibilities and potential for increase of energy efficiency in industrial and commercial sector, with special focus on Public-Private Partnership (PPP) : Screening document – sectoral market analysis and feasibility study developed , up to 3 PPPs formed in order to tackle specific sectoral issues, potential financing in forms of preferential loans and guarantee funds for implementation of EE measures identified and/or mobilized;
- Required legislation in regards to Energy Performance in Buildings Directive (EPBD) in terms of calculation of energy performance of commercial buildings and its certification, as well as industrial energy management implemented, with focus ESCo development implemented, and relevant pilot projects realized, market study for Energy Savings Company (ESCo) establishment as well as necessary founding documents developed for ESCo operation prepared;
- Pilot projects in industrial and SMEs sectors under the voluntary agreements scheme developed and implemented, with specific focus on capacity building, awareness raising and education in the fields of energy management, cleaner production and consumption on the field of industry and SMEs.

Result 5: Search and rescue and health staff trained for rescue skills for cases of natural disasters, especially floods and water related disasters, improved (approx. 420 trained: 80 drivers, 100 doctors and 240 nurses plus for search and rescue staff additional 25 persons trained)

Result 6: Adequate and properly functioning rescue equipment for flood, other water rescue activities, medical equipment for first aid, and ambulances with life-support unit and vehicles for urgent transport needed for natural disaster situations acquired (8-10 reanimobiles to be purchased).

3.4 MAIN ACTIVITIES

Activity 1: Align legislative and regulatory framework with 3rd Energy EU package:

- Define regulation regarding 2009/72 and 2009/73 EC directives regarding internal electricity and gas market

- Technical assistance to Regulatory Energy Agency and define regulation regarding quality of electricity supply.

Activity 2: Create good investment environment for development of sustainable energy on local level in order to assure environmentally friendly economic development:

- Develop necessary regulations and strategic local plans to define predictable, clear and simple procedures for sustainable use of natural resources and goods developed;
- Measure and research technical potentials for environmentally optimal energy projects (hydro, taking into account both geology and hydrology specification of Montenegrin territory, biomass potential, wind, etc.);
- Organize trainings for 30 local and national administration regarding energy policy and obligations, organization and investment opportunities.

Activity 3: Develop strategic and regulatory framework for environmentally and technically optimal usage of regionally shared natural resources:

- Develop strategy and regulation for shared hydro resources used for energy and water management;
- Develop regulation for meeting necessary crude-oil reserves.

Activity 4: Develop legislation and market documents for implementation of concrete EE investments and measures in industrial and SMEs sectors

- Conduct market studies and undertake measures to establish PPP and alternative financing in EE in industry and SMEs
- Develop necessary secondary legislation acts, operational documents and market studies for big energy consumers, certification of buildings, establishment of ESCo for implementation of EE measures in targeted companies within SMEs and industrial sector
- Develop capacities and pilot projects in industrial and SMEs sectors under including industrial energy auditing and management and concrete measures but not limited to utilization of solar energy or biomass, improvement of HVAC system, building envelope, lighting, operation of ESCo

Activity 5: Train 25 search and rescue and 420 health care staff through following

Search and rescue trainings

- Training of pilots for emergency procedures
- Training of mechanics for type rating
- Crew training for a helicopter water rescue
 - 7 days beginners' course
 - 7 days advanced course
- Advanced course for a helicopter mountain rescue - 7 days

- Trainings for water rescue 12 (one-day)
- Trainings for mountain rescue 12 (one-day)
- Training for maintenance of acquired equipment.
- Health care trainings (detailed in Annex 4)
 - Training of doctors
 - Training of medical technicians
 - Training of drivers

Activity 6: Acquire equipment for search and rescue and health care:

- Search and rescue equipment (detailed in Annex 4)
 - Additional equipment for helicopters
 - Medical Equipment and Appliances
 - Rescue equipment for swift waters and floods
 - Rescue equipment for winter conditions in the mountain
 - Equipment for helicopter water rescue
- Health care equipment (detailed in Annex 4)
 - 8 to 10 reanimobiles - the key aspects of vehicle: van vehicle with interior and exterior design that is adapted for ZHMP use, developed heating and cooling system for cabin space, oxygen supply, with supportive medical equipment.

3.5 ASSESSMENT OF PROJECT IMPACT, CATALYTIC EFFECT AND CROSS BORDER IMPACT (WHERE APPLICABLE)

This project answers the priorities of MIPD regarding developing sustainable system that will help social and economic development while protecting Montenegrin environment and natural resources and improve natural disaster risk management (floods prevention, fire fighting and emergency equipment). Therefore, sustainable use of natural resources and goods for satisfaction of national energy needs, training rescue and health care crews and acquiring necessary equipment directly impact the fulfilment of these priorities.

The activities focused on sustainable use of local resources and goods will influence economic developing from local to national level. On the other hand, defining possibilities for usage of natural resources shared across the border will help present optimal solutions that could foster cross-border cooperation. Moreover, having adequate equipment for search and rescue will improve already existing cross border collaboration in case of natural disasters.

3.6 SUSTAINABILITY

Sustainability is ensured through the adoption of legal and regulatory framework and establishment of the institutional capacity on national and local level and organizational mechanisms for the implementation of the reforms. One of main results of the present project is the transfer of the project results to all the main actors involved in a form of intense concerted action, from national authorities responsible for planning and programming, to local community

and individual, responsible for strengthening of capacity and concrete implementation of measures. This project strongly relies on development of sound regulatory framework, outlines efforts to implement it, and relies on strengthening capacities of Montenegrin decision-makers and ordinary citizens to be able to add to the long-term efforts of Montenegrin sustainable economic development.

Integrated actions in fields of environment, energy and disaster risk management aggregately build a strong foundation for Montenegrin green economy and create environment for the steps to be taken to ensure a low-carbon future, recognized in top strategic and legal documents (Strategy for Sustainable Development, Strategy for Regional Development, Montenegrin Constitution).

3.7 ASSUMPTIONS AND PRE-CONDITIONS⁷

Success of the project is preconditioned by:

- Collaboration of various sectors, institutions and governmental bodies;
- Necessary primary legislation in place
- Feasibility and market studies, policy and discussion papers targeted, with added-value and specific to Montenegrin conditions
- Business barriers identified and in process of reduction/removal
- Existence of necessary IT solutions (software, web-tools)
- Coordination with projects run by international organizations

4 IMPLEMENTATION ISSUES

In order to successfully meet the results planned collaboration with governmental bodies on both national and local level, as well as small and medium enterprises is necessary. This project is a collaboration of three ministries including Ministry of Economy, Ministry of Internal Affairs and Ministry of Health. All of these ministries already have good collaboration with local governments and other local bodies.

⁷ Assumptions are external factors that have the potential to influence (or even determine) the success of a project but lie outside the control of the implementation managers. Such factors are sometimes referred to as risks or assumptions but the Commission requires that all risks shall be expressed as assumptions. Pre-conditions are requirements that must be met before the sector support can start.

4.1 INDICATIVE BUDGET

Indicative Project budget (amounts in EUR) (for centralised management)

Optimal use of energy and natural resources and mitigating natural disaster effects			SOURCES OF FUNDING									
			TOTAL EXPENDITURE		IPA CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION
	IB (1)	INV (1)	EUR (a)=(b)+(c)+(d)	EUR (b)	% (2)	Total EUR (c)=(x)+(y)+(z)	% (2)	Central EUR (x)	Regional/Local EUR (y)	IFIs EUR (z)	EUR (d)	% (2)
EU Service contract 1 ⁸	X		1,000,000.00	1,000,000.00	100							
National Service contract 1	X		165,000.00			165,000.00	100	165,000.00				
EU Grant to MS contract 1 ⁹	X		450,000.00	450,000.00	100							
		X	1,300,000.00	1,300,000.00	100							
National Service contract 2	X		50,000.00			50,000.00	100	50,000.00				
National Supply contract 1		X	230,000.00			230,000.00	100	230,000.00				
TOTAL IB			1,665,000.00	1,450,000.00	87	215,000.00	13					
TOTAL INV			1,530,000.00	1,300,000.00	85	230,000.00	15					
TOTAL PROJECT			3,195,000.00	2,750,000.00	86	445,000.00	14					

Amounts net of VAT

(1) In the Activity row, use "X" to identify whether IB or INV (2) Expressed in % of the **Total** Expenditure (column (a))

⁸ Service contract 1 corresponds with Results 1 through 4 section 3.3.

⁹ Grant to Member States contract 1 (including Service and Supply) corresponds with Result 5 and 6 section 3.3.

4.2 INDICATIVE IMPLEMENTATION SCHEDULE (PERIODS BROKEN DOWN BY QUARTER)

Contracts	Start of Tendering/ Call for proposals	Signature of contract	Project Completion
EU service contract 1	Q1 2013	Q3 2013	Q3 2015
National service contract 1	Q1 2014	Q3 2014	Q3 2015
EU Grant to MS contract 1	Q1 2013	Q3 2013	Q3 2015
National service contract 2	Q3 2013	Q1 2014	Q3 2015
National supply contract 1	Q1 2013	Q3 2013	Q4 2013

4.3 CROSS CUTTING ISSUES

4.3.1 *Equal Opportunities and non discrimination*

The project will take into account gender equal opportunities when implementing the project and developing its activities. The project managers will ensure that there is no discrimination and equal opportunities are provided irrespectively of gender. The same applies for capacity building, awareness raising and monitoring actions foreseen in the project.

Equal opportunity principles and practices in ensuring equitable gender participation in the project will be guaranteed, particularly as regards to selection of trainers and trainees for the training programme, where a balanced distribution of positions/places will be sought.

4.3.2 *Environment and climate change*

This project contributes to environment protection and mitigation of natural disasters effects as well as optimal use of energy resources. Optimal use of energy resources with the emphasis on renewable energy sources and application of energy efficiency measures have direct positive impact on combating climate change effects. The overall objective is sustainable economic development and improvement of overall system in order to use natural resources in an environmentally, economical and energy optimal way and at the same time assure safe and clean environment for citizens regardless of weather effects.

4.3.3 *Minorities and vulnerable groups*

Through implementation of the project, in various activities such as involvement of public during studies and capacity building the project managers will make sure that equal opportunities are available for all involved regardless of their ethnic or other background.

4.3.4 *Civil Society/Stakeholders involvement*

The project includes participation of three ministries, including Ministry of Economy, Ministry of Internal Affairs and Ministry of Health, all responsible for various issues relevant to sustainable development of Montenegro. Aside from that, involved ministries have presented

the project to international organizations and have included their comments and suggestions in the project in order to harmonize various ongoing and past projects and future plans.

ANNEX 1: Logical framework matrix in standard format

LOGFRAME PLANNING MATRIX FOR Project Fiche		Project title and number		Optimal use of resources to mitigate climate change and natural disaster effects
		Contracting period expires	3 rd Quarter 2014	Execution period expires 1 st Quarter 2016
		Total budget EUR	3,195,000.00	
		IPA budget EUR	2,750,000.00	
Overall objective	Objectively verifiable indicators (OVI)	Sources of Verification		
To improve sustainability of use of natural resources and goods and create better prepared national and local systems that will minimize stress on environment and vulnerability to reoccurring extreme weather conditions.	<p>increase harmonization with relevant EU acquis by 2015</p> <p>reaching national target for reduction of CO2 by 2020</p> <p>reaching national target for share of RES</p> <p>9% increase in EE by 2018 in comparison to average final energy consumption from 2002-2006</p> <p>10% increase number of successful reanimation until 2020 in comparison to 2011</p>	<p>Annual sectoral reports submitted to Government</p> <p>MONSTAT</p>		
Specific objective	Objectively verifiable indicators (OVI)	Sources of Verification		Assumptions
The specific objective of this project is to better satisfy national energy needs through environmentally optimal use of natural resources, while improving natural disaster risk management	<p>27% of energy needs met through use of natural resources with RE technology by 2016</p> <p>5% increase of EE by 2016 in comparison to average energy</p>	MONSTAT		<p>Collaboration of various sectors, institutions and governmental bodies;</p> <p>Coordination with projects run by international organizations</p>

	consumption from 2002-2006. 445 members of staff ready to use acquired safety and rescue and health care equipment	Project reports Sectoral annual reports to the Government	
Results	Objectively verifiable indicators (OVI)	Sources of Verification	Assumptions
<p>Result 1: Environmentally sustainable, secure and competitive market for electricity and gas developed through harmonization with 3rd package.</p> <p>Result 2: Good investment environment for development of sustainable energy on local level created in order to assure environmentally friendly economic development</p> <p>Result 3: Strategic and regulatory framework for environmentally and technically optimal usage of regionally shared natural resources, especially regarding hydro energy potential, water management and crude-oil reserves, developed.</p> <p>Result 4: Favourable legislative and market conditions created and concrete EE investments and measures in industrial and SMEs sectors implemented</p> <p>Result 5: Search and rescue and health care staff trained for rescue skills for cases of natural disasters, especially floods and water related disasters, improved.</p> <p>Result 6: Adequate and properly</p>	<p>10 regulatory acts developed</p> <p>6 local sustainable energy projects started</p> <p>30 people trained regarding energy policy and practices</p> <p>10 regulatory acts developed</p> <p>Strategy for shared water resources developed</p> <p>30 people trained regarding EE in SMEs</p> <p>25 search and rescue and 420 health care staff trained</p> <p>Number of needed equipment acquired and functioning properly</p>	<p>Project activities and reports</p> <p>Local government reports /Ministry of Economy database</p> <p>Project reports</p> <p>Project reports</p> <p>Project activities and reports</p> <p>Project reports</p> <p>Project reports</p>	<p>Feasibility and market studies, policy and discussion papers targeted, with added-value and specific Montenegrin conditions</p> <p>Business barriers identified and in process of reduction/removal</p> <p>Existence of necessary IT solutions (software, web-tools)</p>

functioning rescue equipment for flood, other water rescue activities, medical equipment for first aid, ambulances with life-support unit and vehicles for urgent transport needed for natural disaster situations acquired.		Project reports	
Activities to achieve results	Means / contracts	Costs	Assumptions
<p>Activity 1: Align legislative and regulatory framework with 3rd Energy EU package</p> <p>Activity 2: Create good investment environment for development of sustainable energy on local level in order to assure environmentally friendly economic development</p> <p>Activity 3: Develop strategic and regulatory framework for environmentally and technically optimal usage of regionally shared natural resources</p> <p>Activity 4: Develop legislation and market documents for implementation of concrete EE investments and measures in industrial and SMEs sectors</p> <p>Activity 5: Train search and rescue and health care staff</p> <p>Activity 6: Acquire equipment for search and rescue and health care</p>	<p>EU Service Contract 1 – TA</p> <p>National Service Contract 1 - TA</p> <p>EU Grant to MS Contract 1 – TA and Supply</p> <p>National Service Contract 2</p> <p>National Supply Contract 1</p>	<p>EUR 1,165,000.00 EU: EUR 1,000,000.00</p> <p>NC: 165,000.00 €</p> <p>EUR 2,030,000.00 EU: 1,750,000.00</p> <p>NC: EUR 50,000.00</p> <p>NC: EUR 230,000.00</p> <p>Total: EUR 3,195,000.00 EU: EUR 2,750,000.00 NC: EUR 445,000.00</p>	<p>Necessary primary legislation in place</p> <p>National funds available for co-financing of the project</p>

ANNEX 2: Description of Institutional Framework

The project implementation will be overseen by two Steering committees to be established during the inception phase.

The first Steering committee (SC1) will be responsible for overseeing activities under EU Service contract and therefore will be comprised of representatives from EU Delegation to Montenegro, Ministry of Economy, Regulatory Energy Agency, relevant energy stakeholders, Association of Municipalities of Montenegro, Ministry for Foreign Affairs and European Integration, Ministry of Sustainable Energy Development and Tourism, Ministry of Agriculture and Rural Development and potential other relevant ministries.

The second Steering committee (SC2) will be responsible for overseeing activities under EU Grant to Member States contract and will be comprised of representatives from EU Delegation to Montenegro, Ministry for Health, Ministry for Internal Affairs, Institute for Emergency Medical Aid, Ministry for Foreign Affairs and European Integration, and other relevant institutions and ministries.

For successful implementation of the project, responsible ministries (Ministry of Economy, Ministry for Health and Ministry for Internal Affairs) will additionally, during implementation:

- Name key persons who will directly work with experts;
- Ensure the participation of all relevant stake holders and end beneficiaries in all activities;
- Provide all necessary information and materials to experts so as to ensure timely implementation of the project;
- Provide administrative, technical and organizational support for the implementation of activities of the project.

ANNEX 3: Reference list of relevant laws and regulations only where relevant

Laws:

Law on Energy (OG M NO. 28/2010)

Law on Energy Efficiency OG M No. 29/2010)

Law on Environment (OG RM No.48/2008)

Law on Nature protection (OG RM No.51/2008)

Law on Environmental Impact Assessment (OG RM No. 80/2005)

Law on Strategic Environmental Assessment (OG RM No. 80/2005)

Law on Public Procurement (OG RM No. 46/2006)

Law on Local Self-Government (OG RM No. 42/2003)

Law on Spatial Planning and Development (OG M No. 28/2005)

Law on Free Access to Information (OG RM No. 68/2005)

Law on Health Care (OG RM No. 39/04, 14/10)

Law on Security and Rescue (OG RM No. 13/07, 5/08, 32/11)

Law on Emergency Medical Aid (OG M No. 49/08, 40/11)

ANNEX 4: Details per EU funded contract where applicable

This project will be realized through:

- 1 EU Service contract for technical assistance for Results 1-4;
- 1 Grant to Member States contract that includes service and supply for Results 5 and 6;
- 3 national contracts:
 - 1st national service contract will use EUR 165,000.00 in order to complement activities needed for Result 2, specifically 2.3. and 4, specifically 4.3;
 - 2nd national service contract will use EUR 50,000.00 in order to complement activities foreseen for Result 5 and
 - 1st national supply contract will use EUR 230,000.00 in order to help acquire supply foreseen in Result 6.

The project implementation will be overseen by two Steering Committees (SC1 for EU Service contract and SC2 for Grant to Member States) to be established during the inception phase. SC1 and SC2 are explained in detail in Annex 2.

1. Service contract related Part 3.4. Activity 5 – Health care trainings

1.1. Trainings for doctors

No.	
1	Introduction
2	Organizational models of EMS in our country and in the world
3	Vehicles / equipment / staff in EMS
4	Knowledge of the use of communication systems in the field, dispatch center and basics of IT
5	Protection measures against infectious diseases and the use of protective equipment
6	Primary and secondary examination of sick and injured person
7	Triage
8	Thorough life support procedures for adults under the ERC (BLS) guidelines
9	Additional life support procedures for adults under the ERC (BLS) guidelines
10	Thorough and additional procedures used to revive children
11	Methods of using drugs
12	Emergency laboratory diagnosis
13	Types of bleeding and methods of stopping bleeding
14	Shock-main clinical differential diagnosis and treatment of shock
15	Types of injuries
16	Techniques of extraction

17	Removing the helmet from the injured
18	Accidental conditions or conditions caused by physical factors
19	Most common emergencies
20	Acute poisoning and treatment procedures
21	Drugs in outpatient conditions
22	Transportation means
23	Transport positions
24	Supervision of sick and injured person during transport
25	Mass accidents and chemical disasters
26	Communication skills in emergency situations
27	Doctor's documentation
28	Case reviews – Scenario

1.2. Trainings for medical technicians

No.	
1	Introduction
	Organizational models of EMS in our country and in the world
	Vehicles / equipment / staff in EMS
	Knowledge of the use of communication systems in the field, dispatch center and basics of IT
	Protection measures against infectious diseases and the use of protective equipment
	Primary and secondary examination of sick and injured person
	Triage
2	Thorough life support procedures for adults under the ERC (BLS) guidelines
	Additional life support procedures for adults under the ERC guidelines
3	Thorough procedures used to revive children
4	Methods of using drugs
5	Taking blood and urine sample for analysis
6	Types of bleeding and methods of stopping bleeding
7	Shock - path physiology, identification and principles of taking care
8	Types of injuries
9	Techniques of extraction
10	Removing the helmet from the injured
11	Accidental conditions or conditions caused by physical factors
12	Most common acute conditions
13	Acute poisoning and treatment procedures

14	Labour in outpatient conditions
15	Transportation means
16	Transport position
17	Supervision of sick and injured person during transport
18	Mass accidents and chemical disasters
19	Communication skills in emergency situations
20	Documentation of nurse - technician on performed intervention
21	Maintenance of vehicles and equipment
22	Case reviews - Scenario

1.3. Trainings for drivers

No.	
1	Vehicles / equipment / staff in EMS
2	Knowledge of the use of communication systems in the field
3	Protection measures against infectious diseases and the use of protective equipment
4	Thorough life support procedures for adults under the ERC (BLS) guidelines
5	Thorough procedures used to revive children
6	Types of bleeding and methods of stopping bleeding
7	Types of injuries
8	Types of immobilizations and assisting in setting
9	Techniques of extraction
10	Assisting in removing the helmet from the injured person
11	Transportation means and transport positions
12	Mass accidents and chemical disasters
13	Communication skills
14	Vehicle maintenance

2. Supply contract related Part 3.4. Activity 6

2.1. Search and rescue equipment

Additional equipment for helicopters	
	Installation of a cargo hook with additional equipment (cables, nets for the evacuation)

	of people, water buckets etc.)
	Installation of an external hoist for evacuation of people for Agusta Bell412
	Mirrors for helicopters
	Additional lights for rescue - Night Sun search lights
	Helicopter floats with lifeboats
	Cable cutters
	High land skids
Medical Equipment and Appliances	
	Mobile defibrillator with a battery source of power supply
	Mobile aspirator with a battery source of power supply
	Mobile transport fans with battery source of power supply
	Spinal Board with Head Block
	KED vest for immobilization
	Vacuum mattress
	Set of vacuum splints
	Cervical collars for immobilization
	Set for intubation with a laryngoscope
	Oxygen Cylinders
Rescue equipment for swift waters and floods	
	rubber boats with oars for swift waters - 5 pieces
	dry suits for swift waters rescue - 30 pieces
	rescue kits for swift waters rescue - 30 sets
Equipment for helicopter water rescue	
	Personal equipment – 2 sets (suits, masks, fins, life jackets, dive tanks and similar)
	Technical equipment for helicopter water rescue (means of transportation for the injured, water rescue stretcher, »hooks » and similar)
	Off-road motor vehicle equipped for rescue in difficult terrains (winch, additional lights and similar)

1.1. Health care equipment

8 to 10 reanimobiles - the key aspects of vehicle: van vehicle with interior and exterior design that is adapted for ZHMP use, developed heating and cooling system for cabin space, oxygen supply, with supportive medical equipment	
1	Defibrillator
2	12 –channelled EKG
3	Folding stretchers (in the shape of scissors)
4	Cardiac chair
5	Vacuum aspirator
6	Respirator
7	Set for prehospital hypothermia
8	Bag for resuscitation with intubation kit and related accessories
9	Set for immobilization
10	Set for measuring blood glucose

ANNEX 5: Project Visibility Activities

The goal of the project is to create a better ambient for the whole population through activities that include security and quality of supply of energy, sustainable energy development on local level, including small and medium enterprises, as well as through providing quality equipment and health and rescue support in case of natural disasters. Therefore promotion of activities of the project will only help make the project results more sustainable in the long term. All activities of the project will clearly state that the project is implemented through the 2012-2013 IPA EU funds.

The project visibility activities will include various information dissemination activities such as press releases, press conferences, leaflets, brochures and newsletters, web sites, photographs, audiovisual productions and trainings for national and local government staff. For all activities relating visibility measures the organizers will contact the Press and Information Officer at the EU Delegation in Montenegro. At every stage of these activities will be clearly noted.