



Montenegro
Ministry of Economy



ENERGETSKA
EFIKASNOST
U CRNOJ GORI

Montenegro

Energy Efficiency Action Plan for 2016-2018

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Adoption of the 3rd EEAP

- 3rd EEAP for 2016-2018 is prepared based on requirements of the Law on Efficient Use of Energy (Law on EUE) and EU Directive 2012/27/EU on energy efficiency (EED)
 - Law on EUE defines EEAP as main planning document for achievement of the energy saving target by 2018
 - 3rd EEAP is prepared by Ministry of Economy and adopted by Government of Montenegro at session from **30 June 2016**
 - Preparation is supported by GIZ (calculation of savings and Chapter 4)
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Praparation of the 3rd EEAP

- 3rd EEAP:
 - is prepared according to the template which was agreed at the level of EnC;
 - is mainly a continuation of implementation of activities from the 2nd EEAP;
 - significantly amends the 2nd EEAP based on new and stringent requirements of EU presented through adoption of updated directives in the field of energy efficiency.
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3rd EEAP double significance

- The 3rd EEAP has a double significance:
 - is a comprehensive document for implementation of the energy efficiency policy on the side of final consumption of energy for the next three-year period;
 - is a report with detailed review of activities implemented in the previous period and an evaluation related to achieved energy savings compared to the objectives set in the 2nd EEAP.
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3rd EEAP objectives

- Main objectives of the 3rd EEAP are based on the priorities of the Law on EUE, as follows:
 - Implementation of the Law on EUE by completing and improving the regulatory framework and a significant improvement of the institutional framework;
 - Raising public awareness and improving understanding, knowledge and capacities in terms of new legal requirements and good practices in the field of energy efficiency in institutions of the public sector, local self-governments, big consumers, professional organizations and other stakeholders;
 - Significant improvement of statistical and monitoring system in the field of energy efficiency;
 - Implementation of energy saving measures with noticeable results.

2nd EEAP – EE measures

- 2nd EEAP has contained 27 measures: buildings (3), households (3), services (7), industry (1), transport (5), energy entities (1), horizontal (7)
- From 27 EE measures in 2nd EEAP:
 - 17 is evaluated as implemented (6 as planned, 11 partially)
 - 10 is evaluated as not implemented.
- Reason for such percentage of not implemented measures are actual barriers but also “structure” of the measures in the EEAP (e.g. “introduction of energy management” is planed separately for 3 different sectors)

Problems related to implementation of 2nd EEAP

- Major problems in Montenegro in implementing the energy efficiency policy are the following:
 - insufficient administrative and professional capacities on national and local level;
 - insufficient cooperation of competent bodies and coordination of activities;
 - obvious lack of integration and understanding of energy efficiency in certain areas under the competence of other institutions (on national and local level);
 - insufficient financial support from the state for implementation of the EEAP.

Energy saving targets

	TARGETS (primary energy equivalent)	in percen. %	in ktoe	in GWh
7	Intermediate indicative energy savings target indicative energy savings target by the end of 2012	2 %	13,4	155,8
8	Intermediate indicative energy savings target by the end of 2015	2+3=5 %	13,4+19,6= 33,0	155,8+228= 383,8
9	Overall indicative energy efficiency target indicative energy savings target by the end of 2018	5+4=9 %	33,0+25,9= 58,9	383,8+301,3= 685,1

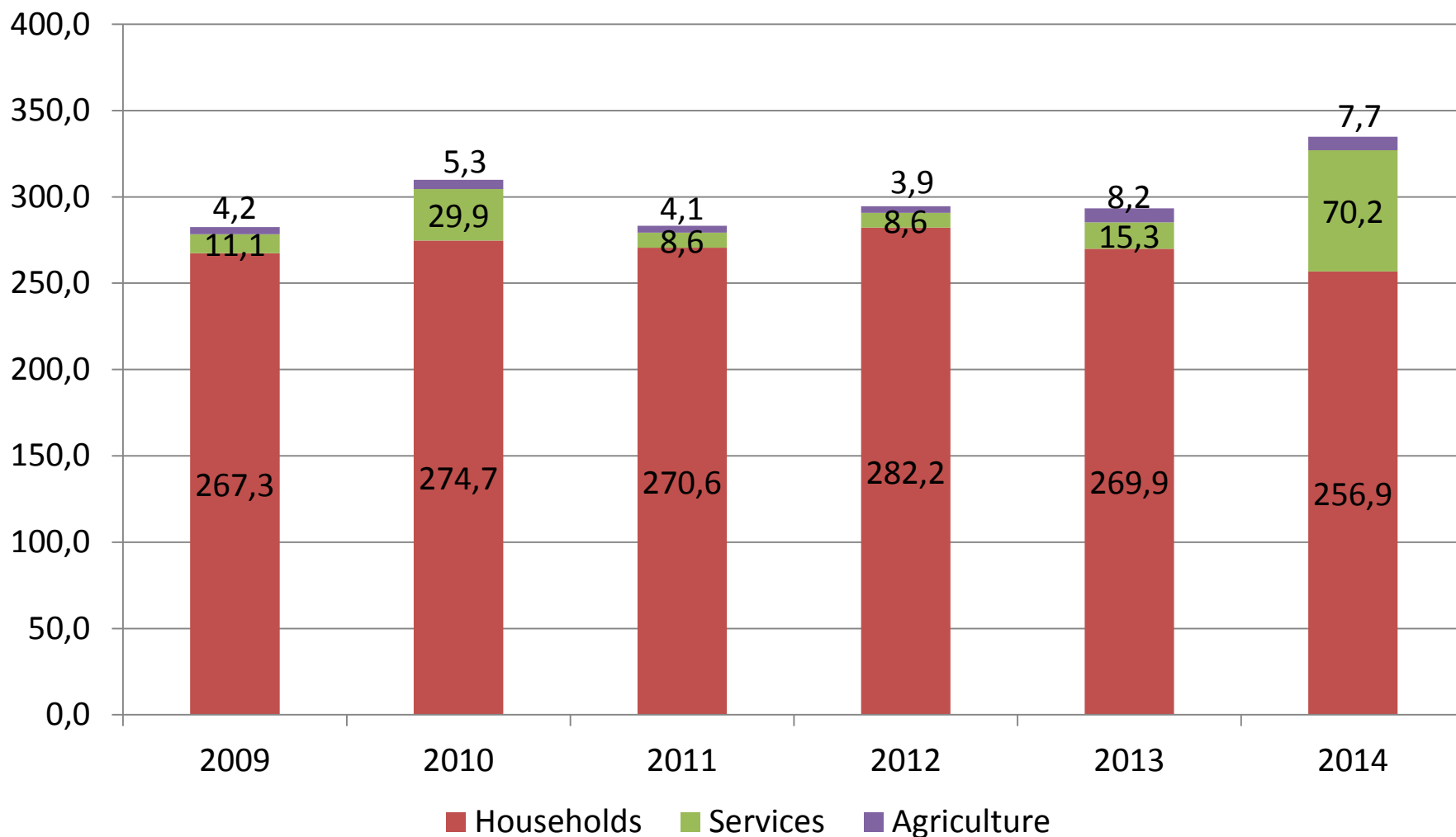
Calculation of energy savings

- Achieved energy savings in 2015 were estimated by using BU methods for individual measures – Rulebook on methodology for determining energy savings ("O.G. of Montenegro", No 22/16)
- Application of TD indicators was not possible due to the unreliability of data from energy balances. Process of reviewing of energy balances was not performed by MONSTAT by the end of 2016 (as it was originally planned).
- **Issue:** significant differences in consumption of service sector in energy balance for 2014 in comparison to previous years.

Final energy consumption by sectors, 2009-2014 (ktoe)



Final energy consumption – households, services, agriculture (ktoe)



Realization of targets by the end of 2015 and estimation of savings for 3rd EEAP

Year	Indicative target [ktoe]	Achieved/estimated total energy savings [ktoe]	Achieved/estimated energy savings based on implementation of measures [ktoe]
2012	13,4	25	0,58
2015	33,0	N/D	14,78
2018	58,9	N/D	33,71

Note: Estimation of energy savings (33,71) is based only on EE measures of 3rd EEAP by the end of 2018

Achieved and estimated energy savings by sectors

	Achieved energy savings in 2015 [ktoe]		Estimated energy savings in 2018 [ktoe]	
	Total	From measures	Total	From measures
Buildings	N/D	12,8	N/D	28,1
Households	N/D	0,53	N/D	1,13
Services	N/D	1,45	N/D	4,48
Industry	N/D	N/D	N/D	N/D
Transport	N/D	N/D	N/D	N/D
TOTAL	N/D	14,78	N/D	33,71

Observations regarding energy savings

- Achieved decrease of final consumption of energy in 2015 is attributed only to measures planned in the 2nd EEAP, for which Ministry obtained the data.
- Evaluation of implementation of EE measures indicate the fact that additional efforts are required in order to achieve planned energy savings.
- Applied approach for calculation of energy savings didn't take into account savings which will be achieved by technological improvement (on market), as well as by the actions of other energy users initiated by awareness raising, energy management etc.

3rd EEAP – EE improvement measures

- 3rd EEAP contains 19 EE measures: buildings (3), households (2), services (4), transport (2), energy entities (1), horizontal (7)
 - Reduction of measures in comparison to 2nd EEAP is achieved by merging similar activities into single measure (energy management, promotional activities, EE in public procurement etc.)
 - Only two measures from 2nd EEAP are canceled: T2: *Introduction of the chapter "Energy efficiency in transport" in EE improvement programs and plans of LSGs* and H7: *Introduction of requirements and criteria for energy efficiency in spatial planning and the development of infrastructural investments*
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3rd EEAP – EE measures

EE IMPROVEMENT MEASURES (19)

Buildings (3)	Households(2)	Services(4)	Transport (2)	Energy entities (1)
<ol style="list-style-type: none"> 1. Development and preparation of a regulatory framework for energy efficiency of buildings 2. Performing regular energy audits of heating systems and air conditioning systems 3. Energy performance certification of buildings 	<ol style="list-style-type: none"> 1. Energy labelling of household appliances 2. Financial support for citizens for EE investments 	<ol style="list-style-type: none"> 1. Establishment and implementation of EE criteria in public procurement 2. Improvement of energy performance of buildings in the public sector 3. Implementation of energy efficiency improvement measures in public utility companies of LSGs 4. Establishment of the mechanisms of financial support to SME for EE investments 	<ol style="list-style-type: none"> 1. Preparation of EE Action Plan in transport and implementation of pilot projects 2. Infrastructural measures in the transport sector with the energy savings effects 	<ol style="list-style-type: none"> 1. Individual metering and informative billing

3rd EEAP – EE measures (cont.)

EE IMPROVEMENT MEASURES (19)

Horizontal measures (7)

1. Development of basic legislative, regulatory and institutional framework for energy efficiency in Montenegro
2. Adoption of planning documents for energy efficiency
3. Establishment of statistical and monitoring system for EE
4. Establishment and development of energy management in the public sector, commercial services sector and industry sector
5. Information campaign for EE improvement
6. Improvement of education and application of professional trainings in energy efficiency field
7. Introduction of a regulatory framework for eco-design of energy related products

Conclusions/Lessons learned

- EEAPs should be prepared to be simple and understandable to each entity which should contribute to its implementation;
 - EE measures for each sector should be defined as concrete actions which result with concrete energy savings;
 - Successful implementation of EEAP requires:
 - Adequate (reliable) energy statistic,
 - Established tools for monitoring and verification of implemented measures,
 - Strong cooperation between all involved entities,
 - Regular reporting of all entities to central institution.
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THANK YOU FOR YOUR ATTENTION!!!

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