

ANNEX 4/32nd PHLG/03-03-2014

SECOND ENERGY EFFICIENCY ACTION PLANS OF THE CONTRACTING PARTIES ASSESSMENT BY THE ENERGY COMMUNITY SECRETARIAT¹

INTRODUCTION

Based on three Ministerial Council decisions adopted in December 2009, September 2010 and October 2011 respectively, the following Directives became part of the Energy Community *acquis*:

- Directive 2006/32/EC on energy end-use efficiency and energy services,
- Directive 2010/31/EU on the energy performance of buildings,
- Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products, as well as a set of implementing directives/delegated acts.

The cornerstone directive is the Energy Services Directive 2006/32/EC (ESD). ESD aims at making the end-use of energy more economic and efficient by establishing indicative energy saving targets, incentives and the institutional, financial and legal frameworks needed to eliminate market barriers and imperfections which prevent efficient end - use of energy. It also aims at creating the conditions for the development and promotion of a market for energy services and for the delivery of energy-saving programmes and other measures aimed at improving end-use energy efficiency.

In accordance with Article 14(2) of the ESD, the Contracting Parties were required to prepare a Energy Efficiency Action Plans (EEAPs) and to notify these to the Energy Community Secretariat (ECS); hence, a first EEAP was to be prepared no later than 30 June 2010; a second EEAP no later than 30 June 2013 and a third EEAP no later than 30 June 2016. The EEAPs should provide the framework for strategic approach to energy efficiency improvement, in particular for end-use energy. The EEAPs also provide the platform for evaluation of energy savings resulting from the implementation of these strategies.

By the deadline of 30 June 2013, ECS received draft second EEAPs from four out of six "old" Contracting Parties². At the date of finalisation of this report (February 2014), the Secretariat received the approved by governments 'second EEAPs from Bosnia and Herzegovina's entity, Republika Srpska, Kosovo*³, Montenegro and Serbia, as well as final version (in the process of government approval) from former Yugoslav Republic of Macedonia. Albania sent only a first draft, while Federation of Bosnia and Herzegovina did not sent yet its first or the second EEAP; these are reported to be under preparation, and planned to be finalised in the first half of 2014.

¹ This assessment is required by the Energy Community Ministerial Council Decision D/2009/05/MC-EnC of 18 December 2009 on the implementation of certain Directives on Energy Efficiency, with respect to the Directive 2006/32/EC on energy end-use efficiency and energy services.

² These are Contracting Parties from the Western Balkans, whose 2nd EEAP was due by 30 June 2013. Following their later accession to the Treaty, Moldova adopted its 1st EEAP in 2013, and Ukraine developed final draft of its 1st EEAP in 2013, this report also includes the assessment of these two 1st EEAPs.

³ *Throughout this Report, this designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.



ESD further requires the ECS to assess EEAPs, as well as the extent to which Contracting Parties made progress towards achieving their national indicative energy saving targets (ESD, Article 14 (4-5)). The report shall also include information on related actions at Energy Community level, as for example, the legislation currently in force and future legislation (i.e. adoption of the new Directive 2012/27/EU on energy efficiency), identify best practices and cases where Contracting Parties are not making enough progress, and make relevant recommendations.

With this report, the Energy Community Secretariat provides a synthesis of its assessment of the strategies and measures presented in the second EEAPs, prepared by "old" Contracting Parties. The structure of the assessment report is similar to that used by the European Commission's services for the assessment of the second EEAPs of the Member States. This Report will be accompanied by a Secretariat Working Document, which will provide a detailed assessment of the EEAPs, evaluate progress in energy efficiency in energy supply and in end-use consumption. A detailed analysis of each Contracting Parties' EEAP will be also given in the Annex of the Working Document.

EEAPS: PURPOSE AND SCOPE

The EEAPs form an integral part of the ESD, as specified in Article 14 (2). The purpose of all EEAPs is to report on progress on energy end-use efficiency targets, energy efficiency improvement measures implemented to achieve the targets, as well as to report on complying with the provisions on the exemplary role of the public sector, and on the provision of information and advice to final customers⁴.

A key requirement for the 2nd EEAP is to include a thorough analysis and evaluation of the 1st EEAP, of the final results with regard to the fulfilment of energy savings targets, it should include plans for, and information on the anticipated effects of additional measures which address any existing or expected shortfall vis-à-vis the target, and gradually increase the use of harmonised efficiency indicators and benchmarks, both for the evaluation of past measures and ex-ante estimation of effects of planned future measures.

The ESD also requires Contracting Parties to put in place institutional and legal frameworks and measures needed to remove barriers to efficient end-use of energy.

EEAPs are expected, when implemented, to create the necessary conditions for the development and promotion of a market for energy services and the delivery of energy efficiency to end-users – the two main objectives of ESD.

Moreover, the EEAPs are expected to demonstrate in practice the commitments of Contracting Parties, and should be viewed as a monitoring tool of the Party's energy efficiency policy. The strategy is proposed in the EEAP are expected to create the market conditions necessary to make energy efficient technologies and solutions available and affordable.

Subsequent implementation, monitoring and evaluation of the strategies and measures identified should help the Contracting Parties to learn from the successes and mistakes of others and facilitate the diffusion of good practices throughout the Energy Community. The Secretariat, together with Donors Community, is playing an active role and bring added value in dissemination of good practices within, and between Contracting Parties.

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⁴ Art 5(1) and Art 7 of Directive 2006/32/EC.



EEAPs: PREPARATION PROCESS AND ASSESSMENT

The Energy Community Energy Efficiency Task Force (EETF), followed by the Energy Efficiency Coordination Group (EECG), played and continues to play an important role in the EEAPs development process in the Energy Community. The EETF/EECG Work Programmes 2012/2013 included tasks on monitoring the 1st EEAPs, and respectively, on the preparation and implementation of 2nd EEAPs.

With the view of having a harmonized approach to this Task, the template used by EU Member States for the 2nd EEAP, was adapted by the Task Force for the use in the Energy Community. This complies with all obligations of the ESD, while facilitating the preparation of an overall strategic document for all energy savings measures. Modules to help with reporting on savings from supply side measures, or improvements on the transformation and distribution side were integrated in the 2nd EEAP template. Following the recast of the Energy Performance of Buildings Directive (2010/31/EU, EPBD), reporting obligations related to this Directive have also been incorporated in the EEAP template. The use of template was not mandatory, but provided excellent reporting as well as planning guidelines with the final aim of EEAP to becoming a central energy efficiency policy tool.

The Secretariat organised in October 2012 a training workshop on the preparation of the 2nd EEAP. The use of a common template also made the comparison of the EEAPs easier in the evaluation process.

One of the most important steps in the development of the 2nd EEAPs was the monitoring, verification, and evaluation of savings achieved through the 1st EEAP measures. In this respect, GIZ Open Regional Fond - Energy Efficiency provided comprehensive assistance and capacity building targeted to Contracting Parties in Western Balkans (with an option for Moldova and Ukraine to benefit from the results) for developing relevant methodology, and reporting on energy savings achieved. Moreover, the measures in the 2nd EEAPs were designed to a great extent by using the bottom-up methodology as a tool for ex-ante estimation of energy savings.

Furthermore, the European Commission/DG Enlargement through the IFI Coordination Office funded a Study to identify sustainable financing options to implement EEAPs in order to support Contracting Parties in creating a proper regulatory and policy framework for the utilization of such financing mechanisms (2011-2012). The mapping and analysis of various EC/IFI funded financial mechanisms, as well as the presentations in the frame of in-country workshops, and in a regional workshop on EEAP financing for ministries of finance, were organised with the aim of assisting Contracting Parties to identify suitable financing options for different elements of their EEAPs.

The Secretariat's assessment of the EEAPs was carried out between June 2013 and January 2014. Previous to that, the Secretariat commented on the draft EEAPs and provided recommendations for proper use of the EEAP template and the implementation of requirements of the energy efficiency directives. This report is based on a single evaluation framework for all EEAPs, and it is the similar with the one used by the European Commission when assessing the EU Member States' 2nd EEAPs. It addresses the minimum reporting requirements as set out in the ESD, and covers developments in improving energy efficiency in energy supply, evaluation of efforts to improve energy efficiency in energy end-use, including in buildings, industry and SMEs, transport sectors, as well as horizontal, public sector and information and awareness raising measures. Final energy savings achieved up to 2012 and those targeted until 2018 are evaluated, as well as the overview of financing instruments supporting the implementation of energy efficiency measures.



In this report, all the analyses are based on the data provided in 2013 by Contracting Parties in their 2nd EEAPs. As Moldova adopted 1st EEAP, and Ukraine sent a final draft in 2013, this report also includes the assessment of these two 1st EEAPs.

DEVELOPMENTS IN THE 2nd EEAPs

The second reporting period indicated an overall progress in the quality of EEAPs submitted. More Contracting Parties than before presented a coherent and comprehensive 2nd EEAP. The strategies presented in the 2nd EEAP were typically backed by institutional and financial provisions, demonstrating a more holistic view with regard to the scope and to the actions of individual measures. This approach included the identification of priority end-use sectors and policy tools, adoption of a complex approach combining a mix of instruments and delivery mechanisms to achieve targets, conformity with obligations of the energy efficiency directives, while also developing overall strategic view including all energy savings measures (addressing also in some case supply side and transmission/distribution of energy).

In the second reporting period, the following Contracting Parties presented good 2nd EEAPs: the former Yugoslav Republic of Macedonia⁵, Kosovo*, Montenegro and Serbia. Generally, the 2nd EEAPs provided greater details on medium-term national energy savings strategies, on energy efficiency measures and on evaluation methodologies, than in the 1st EEAPs. All Contracting Parties maintained the 2018 energy savings target as reported in the 1st EEAPs.

On the other side, the draft 2nd EEAP of Albania did not provide a satisfactory description of energy efficiency improvement measures planned to reach the target, nor included a thorough analysis and evaluation of the 1st EEAP, or an analysis of fulfilment of intermediate energy savings target. Republika Srpska of Bosnia and Herzegovina adopted a "second" EEAP which covers both reporting periods (due to lack of adoption of the 1st EEAP); this 2nd EEAP doesn't provide an adequate reporting of achievements in the first reporting period (2010-2012). The Federation of Bosnia and Herzegovina still hasn't submitted its 1st or 2nd EEAP. Due to their later date of accession, Moldova adopted its1st EEAP in February 2013, while Ukraine still needs to adopt the 1st EEAP (the final draft was positively assessed by Secretariat).

FINAL ENERGY SAVINGS ACHIEVED UP TO 2012 AND TARGETED FOR 2018

The Energy Service Directive requires the Contracting Parties to adopt and aim to achieve the target of at least 9% energy savings for the ninth year of application of the Directive and establish, in the first EEAP, an intermediate national indicative savings target for the third year of application of the Directive. The target calculation methodology is set in Annex I of the Directive.

In the 2nd EEAPs submitted by the Contracting Parties, savings achieved in the intermediate period up to 2012 and targeted savings for 2018 were reported by Kosovo*, former Yugoslav Republic of Macedonia, Montenegro and Serbia. EEAPs of Albania and Republika Srpska of Bosnia and Herzegovina did not provide information on the achieved savings. In these two cases, for the scope of the present assessment report, the Secretariat used preliminary results of calculations developed with the support of GIZ Open Regional Fund. Moldova and Ukraine defined energy saving targets in their 1st EEAP, in line with the requirements.

The EEAP reports showed that the calculated levels of savings in the intermediate period vary between Contracting Parties, as presented in Table 1. Savings are expressed in both final energy units (Mtoe), and as a percentage of the Contracting Parties' reference energy consumption values.

⁵ The 2nd EEAP of the Former Yugoslav Republic of Macedonia still needs to be adopted by the Government.



The final energy savings for 2012 are approximately 0.259 Mtoe in 2nd EEAPs of six Western Balkans Contracting Parties. This figure is about 7% less than the cumulative intermediate energy savings targets, as set by the Contracting Parties in their 1st EEAPs (0.278 Mtoe). The intermediate savings levels range from 1.1% of reference consumption in Republika Srpska of Bosnia and Herzegovina, to 3% in Kosovo*, and 4% in Montenegro (where calculations were based mostly on top-down indicators, which may be not reflecting only the impact of energy efficiency measures).

Total final energy savings of around 1.527 Mtoe are targeted for 2018, 1% higher than the sum of 9% overall indicative energy savings target (1.512 Mtoe.

When evaluating the savings, the Contracting Parties used a harmonised model, with top-down and bottom-up methodologies, and a template for reporting of the first EEAP, jointly developed with the valuable support provided by GIZ Open Regional Fund - Energy Efficiency. However, due to the limited availability and quality of the required data in the large majority of Contracting Parties, the numbers presented can only serve as a rough indicator of the actual saving impact.

In most second EEAPs, the negative effects of the economic crisis were taken into consideration (e.g. negative effects on construction sector and industry, reduction of public budget financing), in the evaluation of measures and projections, as well as in planning the sources of financing and financing measures. For example, Serbia foresees in the 2nd EEAP that the energy saving rate will be steeper when Serbia achieves a stabile GDP growth in the future.

Table 1: EEAP final energy saving targets and forecasts for 2018 and declared savings for 2012

Contracting Party	2012 target final energy savings		2012 achieved/calculated final energy savings		2018 overall final energy savings target	
	Mtoe	% of reference consumption	Mtoe	% of reference consumption	Mtoe	% of reference consumption
Albania ⁶	0.027	1.5 %	0.023	1.3%	0.168	9.0%
Bosnia and Herzegovina ⁷	0.016	0.5%	0.035	1.1%	0.287	9.0%
former Yugoslav Republic of Macedonia	0.066	4.0%	0.042	2.6%	0.151	9.0%
Kosovo*	0.031	3.0%	0.032	3.1%	0.109	9.0%
Montenegro ⁸	0.013	2.0%	0.025	4.0%	0.059	9.0%
Serbia	0.125	1.5%	0.102	1.2%	0.752	9.0%

⁶ Albanian 2nd EEAP(first draft) presents only basic (descriptive) information and doesn't include information about energy savings achieved in 2012 and expected in 2018 from energy saving measures (these data are taken from the GIZ ORF-EE MVP project). 2018 figure shown represents the 9% ESD indicative target.

⁷ Based on the draft 1st EEAP of BIH and reporting on 1st EEAP achievement (BU approach) conducted under GIZ ORF-EE project in June 2013. 2018 figure represents the 9% ESD indicative target.

⁸ Montenegro EEAP has shown large differences between the results of top-down and bottom-up methods, due to the missing energy consumption data and underdeveloped statistics. This table presents the interim savings calculated with top-down methods.



Moldova ⁹	0.428 (2015)	4.4% (2015)	NA	NA	0.867 (2016)	9.0% (2016)
Ukraine ¹⁰	1.385 (2014)	2.0% (2014)	NA	NA	6.233 (2020)	9.0% (2020)

HARMONISED APPROACH FOR THE EVALUATION OF PAST MEASURES AND ESTIMATION OF PLANNED MEASURES EFFECTS

An important achievement was registered in the first reporting period, related to the gradual development of a harmonised approach for the evaluation of past measures, and estimated effects of planned measures in 2nd EEAPs.

The activities for systematic monitoring and verification of EEAPs impact, as well as that of a broader energy efficiency policy, in parallel with capacity building of relevant stakeholders, were strongly supported by GIZ Open Regional Fund - Energy Efficiency, in corporation with the Energy Efficiency Task Force (later Energy Efficiency Coordination Group) and the Energy Community Secretariat.

The Monitoring and Verification Project developed top-down and bottom-up methodologies, and a template for reporting on 1st EEAP. The relevant EC recommendations ¹¹ and the reporting template were the basis for this, but with adjustments according to the specific conditions in Contracting Parties. Finally, all EEAPs were reviewed, and the suitable approach for monitoring was recommended for each measure, which was used by all Contracting Parties for reporting on energy savings achieved by 1st EEAP. In addition, the measures in the 2nd EEAPs were to a large extent designed by using bottom-up methodology as a tool for ex-ante estimation of energy savings. This resulted in a much clearer and precise estimation of energy savings and the relevant financial resources, and it will enable adequate monitoring in future.

Contracting Parties are currently receiving support from GIZ ORF-EE for developing and implementing an integrated web-based system for monitoring and verification of savings, not only in primary energy consumption, but also in CO2-reduction from EEAPs, as well as other energy efficiency and climate action plans implemented at different administrative levels. This platform is planned to be finalized in 2014, followed by series of trainings for the beneficiaries responsible for implementation of the monitoring system and action plans.

SECTORAL COVERAGE IN EEAPS

The EEAP template recommends that 2nd EEAP is as comprehensive as possible putting together all key targets for energy efficiency and energy savings, all implemented and planned energy saving measures addressing all sectors. It suggested a separation of sectors targeting final energy savings in end-use sectors (buildings, industry and SMEs, energy sector, mobility, others) and horizontal measures (such as taxation schemes, financing schemes, awareness campaigns, etc.), as well as measures for primary energy savings (generation/transmission/distribution).

⁹ Moldovan 1st EEAP was adopted in 2013 and set up an intermediary energy savings target of 9%, reported to the baseline of 2009, to be reached by 2016.

¹⁰ Based on the final draft 1st EEAP of Ukraine (2012-2020)

¹¹ EC Recommendations on Measurement and Verification methods in the framework of Directive 2006/32/EC on energy end-use efficiency and energy services



Energy savings and measures in Residential sector and Public sector stand out in the majority of the EEAPs. In case of Ukraine, the focus is on Industry which has highest share in final energy consumption. With varying degrees of detail, almost all EEAPs also include measures aimed at Industry and SMEs, Transport, as well as horizontal measures. Only Kosovo* has measures that address energy efficiency in Agriculture. Detailed measures in energy supply/transmission/distribution are present in the EEAP of former Yugoslav Republic of Macedonia, Kosovo*, Moldova and Serbia.

Albania has energy saving measures as follows: 4 measures in Residential sector, 4 measures in Services, 2 measures in Industry, and 3 measures in Transport.

Republika Srpska of Bosnia and Herzegovina proposed 5 measures in Residential sector, 7 measures in Services, 4 measures in Industry, 3 measures in Transport, and 9 Horizontal measures (regulation, information and mandatory information measures).

Former Yugoslav Republic of Macedonia introduced following the measures: 2 measures in Building sector, 4 measures in Residential sector, 5 measures in Public sector, 3 measures in Commercial sector, 5 measures in Industry and SMEs, 2 measures in Energy sector, 4 measures in Transport, and 4 Horizontal measures.

Kosovo* introduced 24 primary energy saving measures, 4 measures in Household sector, 5 measures in Services sector, 2 measures in Industry, 3 measures in Transport, 1 measure in Agriculture Sector, and 3 Horizontal measures.

Moldova: 4 measures in Energy sector, 3 measures in Industry, 2 measures in Buildings, 3 measures in Public sector, 1 measure in Transport, 4 Horizontal and cross-sectoral measures.

Montenegro introduced measures as follows: 3 measures in Buildings, 3 measures in Residential sector, 4 measures in Public sector, 3 measures in Commercial sector, 1 measure in Industry, 5 measures in Transport, 1 measure for Energy companies, and 7 Horizontal and cross-sectoral measures.

Serbia presented 3 measures in Residential sector, 7 measures in Public and Commercial sectors, 5 measures in Industry, 5 measures in Transport, and 4 Horizontal measures.

Ukraine introduced 5 measures in Residential sector, 4 measures in Services sector (including Public sector), 15 measures in Industry, 15 measures in Transport, and 4 Horizontal and cross-sectoral measures.

The majority of Contracting Parties put an emphasis on measures in **buildings**. Almost all the Contracting Parties reported, in their EEAPs, measures covering both new and existing buildings as well as residential and tertiary buildings. The savings achieved by building regulations and actions make up a significant part of total national savings, with some including reporting on early savings (case of Serbia).

Most of Contracting Parties indicated as priority measures: building certification, stricter building codes for new public buildings, energy labelling for electric appliances, programmes for refurbishment of existing buildings etc.

All Contracting Parties focused on improvement of regulation to transpose the requirements of EPBD, which is the main driver for energy efficiency policies in buildings. On the other side, Contracting Parties have not used the possibility to develop in EEAPs targets and plans for increasing the number of nearly zero-energy buildings (except for Serbia which set energy performance requirements for nearly-zero energy buildings), although, all EEAPs provided a short description of the situation and general actions to support the construction of high energy efficient



new buildings and the achievement of a high level of energy performance in the refurbishment of existing buildings (former Yugoslav Republic of Macedonia, Kosovo*, Moldova, Montenegro and Serbia). Albanian 2nd EEAP does not have a clear link with the implementation of EPBD provisions and timeframe.

Information and mandatory information measures (labelling of household appliances), energy audits and financial instruments for retrofit of existing buildings (subsidies and loans, energy services) are common measures in most of Contracting Parties. In the Western Balkan region where significant solar potential exists, was interesting to see that all Contracting Parties planned different incentives and financial support schemes for installation of solar heating systems.

A focus on **Industry sector** was considered by Serbia and Ukraine, where this sector has the biggest share in final energy consumption. Serbia introduced a good package of measures, combining development of energy management system in large industrial energy consumers, energy efficiency improvement program in industry (financed by the public (budget) energy efficiency fund, and through IFIs credit lines), as well as incentive tariffs for highly efficient cogeneration, and mandatory, regular inspection of combustion process of boilers and other furnaces. Ukraine introduced the largest number of measures in industry sector (15) targeting high energy intensive branches (metallurgy, chemical and machine building industry). Other Contracting Parties introduced similar measures dealing with establishment of energy management system, improvement of regulation, obligatory energy audits, improvement of specific industrial processes, financial instruments, voluntary agreements and co-operative instruments, promotion of energy services in this sector, etc. Financial measures in form of state subsidies for development of energy management and energy audits, incentives through energy efficiency funds, IFI credit lines and loans or promotion of ESCOs are the most prevalent type of measures to encourage energy efficiency in industry.

Many EEAPs increased their emphasis on **transport sector**, as it was recognised as being with growing energy consumption and significant potential for energy savings. However, the number of action plans with a clear and consistent strategy towards more environmentally friendly and energy saving modes of transport remains modest. Many EEAPs measures in transport have missing monitoring or estimation of the savings and/or identification of the sources of financing. Montenegro is planning development of specific study and action plan for energy efficiency in transport sector to better tackle this issue.

Technological measures for improved vehicle efficiency and shift to public transport are common types of measures in transport sector. A number of Contracting Parties refer to infrastructure projects, which are expected to contribute to meeting the national saving targets. These include a number of urban public transport developments in Albania, Republika Srpska, former Yugoslav Republic of Macedonia, Kosovo* and Montenegro.

The EEAPs presented a large number of good **horizontal measures** (with the exception of Albanian 2nd EEAP). Good practices included further development of strategic and legislative framework for energy efficiency, awareness raising and training, energy performance contracting and other innovative financing schemes, metering and billing provisions, and the involvement of energy market actors in delivering energy efficiency services.

All EEAPs indicated further development of systems for monitoring of energy efficiency measures, and some Contracting Parties defined relevant horizontal measures in this area (Republika Srpska of Bosnia and Herzegovina, and Montenegro).

The EEAPs of Albania, Republika Srpska, former Yugoslav Republic of Macedonia, Kosovo* Moldova, Montenegro and Serbia foresaw setting up new, or increase significantly the use the



existing energy efficiency funds for the implementation of EEAP measures. All Contracting Parties mentioned performance contracting as an important financial mechanism. It appears that a lot of expectations are placed on the national energy efficiency funds and the ESCO financing, only that the set up of both measures are in most cases not yet legislated, and the implementation is already lagging behind for the 1st EEAP. Republika Srpska of Bosnia and Herzegovina, Montenegro, Serbia are expecting to develop the ESCO market with the assistance of the "Regional Energy Efficiency Programme", funded with the European funds and EBRD and managed by EBRD in cooperation with the Secretariat.

Republika Srpska, Kosovo*, Montenegro and Serbia specified in their EEAPs, new metering and/or informative billing initiatives. In Montenegro, a pilot project for smart metering was successfully implemented by the incumbent power company.

A number of promising financing tools have been identified across the EEAPs. "Traditional" financial tools range from grants and soft loans to tax rebates and other allowances. Most EEAPs rely on either foreign banks credit lines (already in place) or on public funds, but also on the development of ESCO type services.

THE EXEMPLARY ROLE OF THE PUBLIC SECTOR

The large majority of EEAPs introduced a range of measures to fulfil the ESD provisions on the exemplary role of the public sector.

Albanian 2nd EEAP included measures for public sector (although these are not satisfactory explained) like stricter standards for new public buildings, refurbishment programmes, promotion of public street lighting and solar systems, information and awareness rising campaign, energy labelling and minimum standards for electric appliances.

Republika Srpska also set measures for public sector under services, including measures dealing with EE in public procurement, improvement of HVAC systems, financing instruments for retrofit of existing public buildings, improvement of water-supply systems and public lighting, promotion of public private partnership for ESCO type of operations, implementation of energy management etc.

The focus of the 2nd EEAP of former Yugoslav Republic of Macedonia lays on public sector, in particular by reconstruction of the existing stock of public buildings and implementing the project Energy Efficiency in Public Buildings (EPUBIL) with the World Bank, in accordance to the Draft National Program for energy efficiency in Public Buildings, ESD and the Energy Law.

In Kosovo*'s 2nd EEAP, the exemplary role of public sector is elaborated under a separate chapter with specific measures. Kosovo* energy efficiency policy is focused on the public sector and it includes the implementation of the planned investment programmes in the central government and municipal buildings. As reported, a number of projects have been already implemented as planned by 1st EEAP.

In Moldova, the exemplary role and actions of the public sector are linked with the promotion of energy efficiency and implementation of Article 18 of the Energy Efficiency Law. Public sector authorities at all levels (national, regional, local) are obliged to develop programmes and plans for the improvement of energy efficiency, supported by the development of energy efficiency guidelines, monitoring system, employment of energy managers, stricter measures for buildings, public procurement decisions based on energy efficiency criteria, programmes aimed at improving street lighting, promotion of Covenant of Mayors etc.

The 2nd EEAP of Montenegro dedicates a separate chapter to explain the exemplary role of the public sector, and sets separate measures for public sector (energy management, public



procurement, investment projects in public buildings and communal services). Further improvement of cooperation and communication between public sector institutions is envisaged.

In the case of Serbia, statistical data were not available to separately analyse the public sector, hence some measures are targeted only for public sector, and some are also applicable in the commercial sector. These measures include energy management system, energy audits, financing through budgetary fund for energy efficiency, public procurement measures and involvement of ESCO companies, awareness raising activities and concrete investment projects. Some measures are reported as early measures: the first phase of the World Bank funded project in public buildings, lighting projects, procurement of efficient vehicles etc.

In case of Ukraine, EEAP does not provide a clear elaboration or clear focus on the exemplary role of the public sector: energy efficiency measures in public sector are reports in the more general category of "services sector".

A specific requirement for public procurement is given in Annex VI of the ESD, i.e. a six-item list of eligible measures for energy efficient public procurement is outlined. Contracting Parties must ensure that at least two measures from the list are applied in the public sector. A general legislative provision exists in legislation in all Contracting Parties (Albania and Ukraine still need to adopt the draft legislation). EEAPs of Republika Srpska, former Yugoslav Republic of Macedonia, Kosovo*, Montenegro and Serbia have indicated a separate measure to further implement energy efficiency criteria in public procurement. The public procurement measure also requires in most cases the adaptation of national procurement laws, and training for public servants and support in tendering; technical guidelines may be used when a government is making procurement decisions. A number of EEAPs contains provisions related to the purchase, replacement and retrofitting of equipment, buildings and vehicles, using criteria for energy efficiency.

DEVELOPMENTS IN IMPROVING EFFICIENCY IN ENERGY SUPPLY

The 2nd EEAP template included modules to help with reporting on savings from supply side measures, or improvement of energy distribution.

However, only four Contracting Parties decided to voluntarily report on sectors other than those covered by ESD, i.e. on strategies and measures in supply, transmission and distribution of energy.

Detailed measures in energy supply/transmission/distribution are present in the EEAPs of former Yugoslav Republic of Macedonia, Kosovo*, Moldova and Serbia.

The 2nd EEAP of former Yugoslav Republic of Macedonia included measures on supply side, transmission and distribution of energy, which should contribute to considerable savings of primary energy. These refer to modernisation and increasing efficiency of existing power plants, incentives for investments in RES, reduction losses in power transmission and distribution etc.

The 2nd EEAP of Kosovo* defines measures and strategies in a separate chapter, including primary energy saving measures in lignite sector, and in the electricity generation sector (rehabilitation and modernisation actions), measures in the power transmission sector for reduction of losses, measures in electricity distribution sector and in the municipal heating sector (including new cogeneration units).

Moldovan 1st EEAP describes national strategies, policies and measures for achievement of primary energy savings in a separate chapter, including the involvement system operators, promotion of high-efficient cogeneration, restructuring and upgrading the district heat supply systems and introducing relevant financing mechanisms.



Serbian 2nd EEAP does not have a separate chapter with detailed explanation situation and targets for primary energy savings, but certain measures in industry sector focus on supply side (promotion of cogeneration, minimum EE requirements for plants).

CONCLUSIONS AND PROPOSALS FOR ADDITIONAL MEASURES IN ENERGY COMMUNITY

The second reporting period indicated an overall progress in the quality of the EEAPs submitted. More Contracting Parties presented coherent and comprehensive EEAPs, than in the first EEAP period. Higher quality strategies presented in the EEAPs were typically backed by institutional and financial provisions, demonstrating a more holistic view with regard to the scope and the actions of individual measures.

In the second reporting period, the group of Contracting Parties presenting higher quality 2nd EEAPs included former Yugoslav Republic of Macedonia, Kosovo*, Montenegro and Serbia. Generally, EEAPs provide greater detail on medium-term national energy savings strategies, on energy efficiency measures and on evaluation methodologies that were provided in the first set of EEAPs.

With the technical assistance provided under the GIZ Open Regional Fund - Energy Efficiency, a very important tool for monitoring and verification of EEAPs, was developed; this is crucial for the evaluation of past measures, as well as the estimation of the effects of planned measures. This activity is complemented with capacity building of relevant stakeholders.

The reports indicated that the achievements with the initial levels of savings in the intermediate period vary between Contracting Parties, but nevertheless, the 9% indicative energy savings target remained as planned, by all Contracting Parties.

In order to be able to catch up and to foster energy efficiency improvements in Contracting Parties, certain barriers still need to be removed. Key recommendations are as following:

- Albania to finalise and adopt the 2nd EEAP; the Federation of Bosnia and Herzegovina to finalise and adopt both, the first and second EEAP, while Ukraine to adopt its 1st EEAP, following the requirements of the ESD and the EEAP template.
- Further strengthening the institutional capacity in most Contracting Parties, with clearly
 defined roles and responsibilities for the EEAP implementation is needed, as the existing
 structures were proved insufficient, during the realization of the 1st EEAP.
- For effective implementation of many measures, further legislative reforms are necessary, especially the adoption of draft legislative package for implementation of EPBD, that is already prepared in many Contracting Parties.
- Most Contracting Parties are lacking sufficient data and systems that are needed for the calculation of energy efficiency indicators and savings, as well as for the monitoring of EEAP implementation. Adequate resources (human and financial) should be dedicated to improve the situation in this area.
- Clear identification and allocation of necessary funds for the measures foreseen in the EEAPs is very important for timely and effective implementation. A more precise assessment of the necessary financial resources, as well as sources of financing should be further detailed, through clear programs and plans for the implementation of specific energy efficiency measures, as identified in 2nd EEAPs.

The main purpose of the EEAP is to report on progress on energy end-use efficiency targets, energy efficiency improvement measures implemented to achieve the targets, as well as to report



on how countries are complying with the provisions on the exemplary role of the public sector, and on the provision on information and advice to final customers. In their 2nd EEAPs, most Contracting Parties focused on these areas, while reports on supply side were limited to few countries, with different quality of reporting.

In order to strengthen the use of energy more efficiently throughout the entire energy chain – from the transformation of energy and its distribution to final consumption, it is important to mention the current work on legislative developments, particularly, with the impact assessment of EU Directive 2012/27/EU on energy efficiency (EED), when adopted in the Energy Community.

The Ministerial Council already adopted in 2013, a Recommendation for voluntary implementation of certain provisions of EED. An ongoing study launched by the Secretariat will further assess the impact of the implementation of EED in the Energy Community on the Contracting Parties' energy efficiency policies, implementation costs, additional administrative burden, etc.

EED includes important aspects of setting national targets, obligatory targets for renovation of buildings owned and occupied by the central governments, targets and energy efficiency obligations schemes for energy companies etc., which should be carefully analysed.

Based on the results of the Study and the discussions in the Energy Efficiency Coordination Group, the Secretariat would be able to propose to the PHLG and Ministerial Council adequate measures for the adoption of EED.