

Report of the Secretariat to the Ministerial Council on the Progress in the Promotion of Renewable Energy in the Energy Community

1. Introduction

The Renewable Energy Directive 2009/28/EC ("Renewable Energy Directive") was adopted and adapted for the Energy Community with the Decision 2012/04/EnC-MC of the Ministerial Council on 18 October 2012¹. The Contracting Parties of the Energy Community committed to binding renewable energy targets to 2020 and to implement the Renewable Energy Directive by 1 January 2014, thus converging with the European climate and energy objectives. The Renewable Energy Directive establishes a framework for the promotion of renewable energy, setting national renewable energy targets for achieving binding shares of renewable energy in the final energy consumption and a 10% share of energy from renewable sources in transport by 2020. The Contracting Parties have committed to individual national targets calculated based on the same methodology as for EU Member States, taking into account revised biomass data based on consumption surveys². However, an overall renewable energy target by 2020 at the Energy Community level is not in place.

The Renewable Energy Directive requires the submission of National Renewable Action Plans ("NREAP") outlining the measures to achieve the binding 2020 renewable energy targets. It also calls for the simplification of the administrative regimes faced by renewable energy, together with improvements for the connections and access to the electricity grids. It introduces a comprehensive sustainability scheme for biofuels and bioliquids with compulsory monitoring and reporting requirements. All biofuels used for compliance with the 10% target that benefit from national support are required to comply with the scheme, otherwise they cannot be counted toward fulfilling the renewable energy targets.

The purpose of this Report is to comply with the reporting requirements of Decision 2012/04/MC-EnC of the Ministerial Council³. The Report assesses the Contracting Parties' progress in the promotion and use of renewable energy against the trajectory towards the 2020 targets set in the NREAPs and reports on the sustainability of biofuels and bioliquids consumed in the Energy Community and the impacts of their consumption.

The assessment is based on national developments, the NREAPs adopted and submitted to the Secretariat (draft NREAPs for Albania and former Yugoslav Republic of Macedonia), the latest energy statistical data on renewable energy compiled in accordance with EUROSTAT methodology (for 2012 and 2013), Contracting Parties' renewable energy progress reports⁴ submitted to the Secretariat in 2014, the Secretariat's own research and research carried out by

¹ Consolidated renewable energy acquis, https://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Legal/EU_Legislation/Consolidated_acts#RES

² Study on the Biomass Consumption for energy purposes in the Energy Community and Study on the calculation of revised 2020 renewable energy targets for the Energy Community, https://www.energy-community.org/portal/page/portal/ENC_HOME/DOCUMENTS/Studies/Sustainable

³ Article 15, Decision 2012/04/MC-EnC of 18 October 2012, https://www.energy-community.org/portal/page/portal/ENC_HOME/INST_AND_MEETINGS?event_req.category=E12820

⁴ Contracting Parties biennial Progress Reports (2014): https://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Instruments/Renewable_Energy/Progress_Reports

experts contracted by the Energy Community Secretariat⁵. The projections to 2020 are based on Green-X modelling carried out for the Secretariat in 2015.

The commitments taken by the Energy Community Contracting Parties in the area of renewable energy require the implementation of sound, reliable, comparable and consistent energy statistics as a basic tool for monitoring the effectiveness of the energy policies. Therefore, with decision 2012/02/MC-EnC of the Ministerial Council, the Contracting Parties committed to the implementation of rules of energy statistics in the Energy Community⁶ by 31 December 2013. The most critical issue has been identified in relation to biomass used for heating. The statistical offices are required to conduct adequate energy consumption surveys and determine the real consumption of biomass used for heating which is key in ensuring the reliability of data on energy supply and consumption.

2. National Renewable Energy Action Plans

The overall deadline for the implementation of Directive 2009/28/EC as adapted for the Contracting Parties expired on 1 January 2014.⁷

By the date of finalisation of this Progress Report on the promotion of renewable energy sources in the Energy Community Contracting Parties, none of the Contracting Parties fully transposed the provisions of the Renewable Energy Directive as adapted by the Ministerial Council let alone implemented it.

Overall progress in the transposition and, to some extent, in the implementation of several articles of the Renewable Energy Directive through Energy Laws, Governmental Decision, rules and regulations has been achieved in all Contracting Parties. However, a comprehensive approach to transpose the entire Renewable Energy Directive in national legislation is missing in all Contracting Parties.

Article 4 of the Directive, as adapted, requires the adoption of NREAPs by 30 June 2013 to ensure that the mandatory national targets are achieved. On the basis of the NREAPs, the Contracting Parties are to work towards an indicative trajectory for the achievement of their final mandatory targets. The NREAP requires information on sectoral targets (electricity, heating and cooling and transport), measures to support their achievement and the overall implementation of the Renewable Energy Directive. The NREAP must be presented in the form of a template adopted by the European Commission⁸ and submitted to the Secretariat. On this basis, the Secretariat evaluates the NREAPs and issues recommendations.

By the date of submission of this Progress Report, the Secretariat has not been notified on the adoption of NREAPs by Albania, Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia. Legal cases have thus been initiated against these Contracting Parties on 11 February 2014 for failure to adopt the NREAP. On 12 May, the Energy Community Secretariat submitted three Reasoned Requests to the Ministerial Council as the next step in the respective dispute settlement cases. These Contracting Parties should prioritise the adoption of the NREAPs.

It has to be noted that renewable energy action plans were adopted by the two entities of Bosnia and Herzegovina (Federation of Bosnia and Herzegovina and Republika Srpska) in 2014. However, an NREAP has not been drafted at the national level or for the Brcko District.

⁵ Study on the Assessment of the National Renewable Energy Action Plans and the Progress in promotion of renewable energy in the Energy Community, *ECN et al*, 2015,

https://www.energy-community.org/portal/page/portal/ENC_HOME/DOCUMENTS/Studies/Sustainable

⁶ https://www.energy-community.org/portal/page/portal/ENC_HOME/INST_AND_MEETINGS?event_req.category=E12820

⁷ Article 3(1)(i) of Decision 2012/04/EnC of Ministerial Council of 18 October 2012.

⁸ OJ L 182, 15.7.2009, p. 33–62.

Article 15 of the Decision 2012/04/MC-EnC requires the Contracting Parties to submit reports on the progress in the promotion and use of energy from renewable sources by 31 December 2014 and every two years thereafter. The first progress report of the Contracting Parties covers years 2012 and 2013. By the date of submission of this Report, Bosnia and Herzegovina has not provided any progress report to the Secretariat. This limits the Report's assessment of the progress achieved in this Contracting Party. Significant delays are observed in meeting the timetables provided in the NREAPs for adoption of renewables supporting measures in the vast majority of the Contracting Parties. In most cases, the main legislative and regulatory measures announced in the NREAPs are currently still in draft form. On the other hand, there have been also cases where Contracting Parties have made some significant progress in the time following the submission of the NREAPs, having adopted a series of measures within a relatively short time period, like in Kosovo*, Montenegro and Serbia. In a few cases, measures which were not mentioned in the NREAPs were implemented.

	NREAP adopted	Progress Report
Albania	✗	✓
Bosnia and Herzegovina	✗ ⁹	✗
Kosovo* ¹⁰	✓	✓
Former Yugoslav Republic of Macedonia	✗	✓
Moldova	✓	✓
Montenegro	✓	✓
Serbia	✓	✓
Ukraine	✓	✓

Table 1: Status of the adoption of NREAPs and the submission of the first Progress Reports

⁹ Renewable Energy Action Plans were adopted by the Federation of Bosnia and Herzegovina and Republika Srpska in 2014

¹⁰ 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.

3. Progress in Renewable Energy Development

The assessment of the progress in the promotion and uptake of energy from renewable sources in the Contracting Parties revealed several challenges with respect to the years 2012 and 2013, which are the latest years with finalized energy balances:

- Existing inconsistencies in the data reported in the energy balances 2012 and 2013 with the data submitted in the Progress Reports. The Progress Report for Bosnia and Herzegovina is missing.
- Biomass consumption (mostly used for heating) is still not properly reflected in the energy balances of some Contracting Parties, namely Bosnia and Herzegovina, former Yugoslav Republic of Macedonia and, to a certain extent, Ukraine, despite the obligation to do so by 31 December 2013¹¹ as required by the energy statistics acquis. The relevant biomass data is thus still to be compiled and included in the official statistics of these three Contracting Parties.
- In Montenegro, the energy consumption constantly decreased since 2009 due to reduced activity of the largest industrial plant in the country. Moreover, statistical office retrospectively changed its biomass data in the heating sector based on a survey conducted in 2011, which is more than three times higher than the baseline data of 2009 used for calculating the 2020 renewable energy target. In the current circumstances, the relevance of the 33% renewable energy target for Montenegro in 2020 is questionable.

Therefore, to deliver a complete picture of the historic development of renewable energy in all Contracting Parties, the original and modified data with reviewed biomass is presented in this Report. Except for Montenegro that overachieved its 2020 renewable energy target in 2012 by almost 14 percentage points, none of the Contracting Parties have met their first interim trajectory, if revised biomass data is not considered. However, with the modified biomass data to correspond to the 2009 baseline calculation, most of the Contracting Parties have come close to reaching their interim trajectories as illustrated in Chart 1 and Table 2. Only Kosovo*, Moldova and Serbia have missed the interim trajectories with more than 1 percentage point.

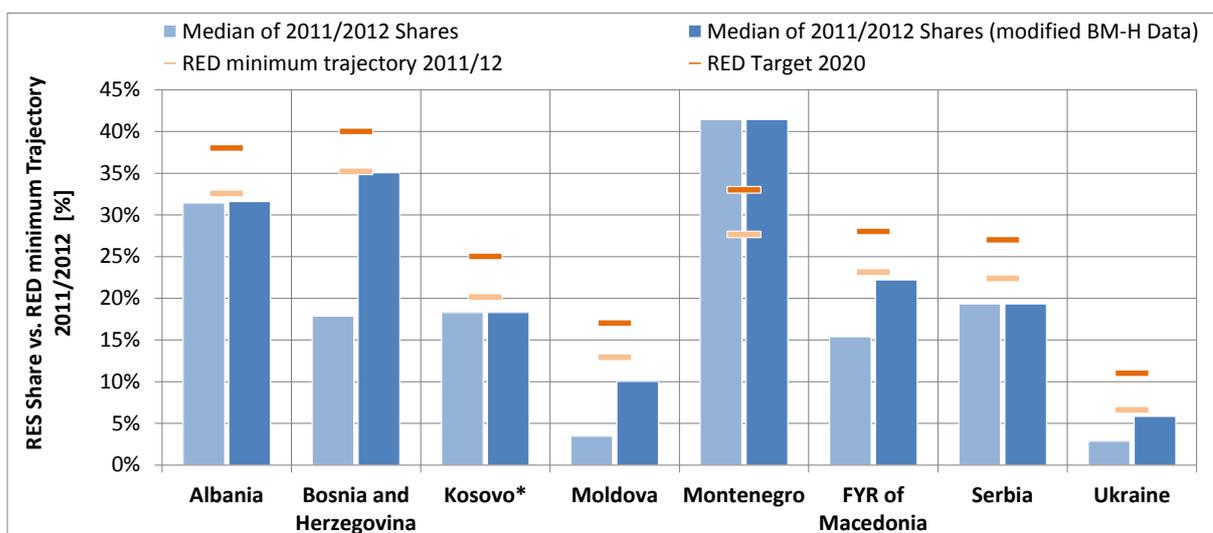


Chart1: The median RES shares in 2011/2012 with and without the modified biomass data of the gross final energy consumption for all Contracting Parties compared to the 2011/2012 indicative trajectory in the Renewable Energy Directive and the 2020 renewables target. (EUROSTAT, 2015; IEA 2015; EIA, 2015; Renewable Energy Directive 2009/28/EC, as adapted)

¹¹ Decision 2012/02/MC-EnC on implementation of rules of energy statistics in the Energy Community, https://www.energy-community.org/portal/page/portal/ENC_HOME/INST_AND_MEETINGS?event_reg.category=E12820

The median RES share in gross final energy demand by 2011/2012	RES share as of EIA, EUROSTAT and IEA data		RED minimum trajectory	Percentage points deviation of RED minimum trajectory	
	Median 2011/2012	Median 11/12 modified	Median 2011/2012	Median 2011/2012	Median 11/12 modified
Contracting Party	[%]	[%]	[%]	[%]	[%]
Albania	31.5%	31.6%	32.6%	-1.1%	-0.9%
Bosnia and Herzegovina	17.9%	35.1%	35.2%	-17.3%	-0.1%
Kosovo*	18.3%	18.3%	20.1%	-1.8%	-1.8%
Moldova	3.5%	10.1%	12.9%	-9.4%	-2.9%
Montenegro	41.4%	41.4%	27.6%	13.8%	13.8%
FYR of Macedonia	15.4%	22.2%	23.1%	-7.7%	-0.9%
Serbia	19.3%	19.3%	22.4%	-3.0%	-3.0%
Ukraine	2.9%	5.8%	6.6%	-3.7%	-0.8%

Table 2: The median RES share in gross final energy consumption in 2011/2012 compared with the Renewable Energy Directive minimum trajectory. (EUROSTAT, 2015; IEA, 2015; EIA, 2015; Directive 2009/28/EC, as adapted)

With the corrected biomass data for heating, five Contracting Parties have met the NREAP planned trajectory, while Montenegro has overachieved the trajectory. Only Moldova has missed narrowly the target. For Bosnia and Herzegovina no comparison can be made in the absence of an adopted NREAP. The revision of the energy statistics for biomass as well as a significant decrease of energy consumption due to reduced energy consumption of the largest industrial plant in Montenegro have been instrumental in the country having exceeded its NREAP targets for 2012 and 2013. However, the Progress Report of Montenegro included only half of the biomass consumption in 2012 and 2013, i.e. 89 ktoe compared with 167 ktoe in 2013 official statistics.

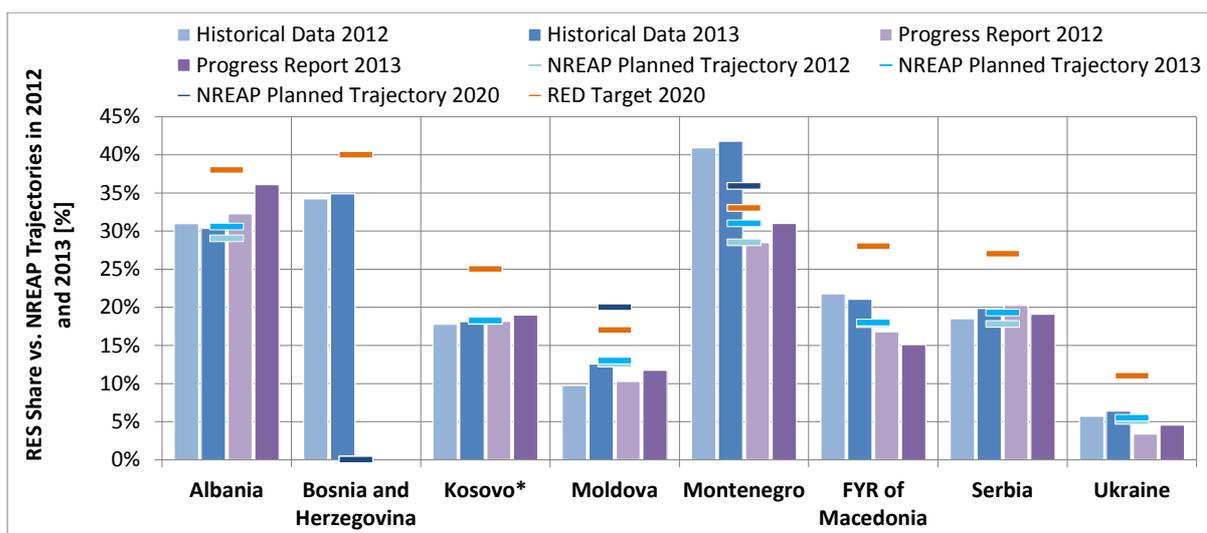


Chart 2 - RES shares calculated for 2012 and 2013 including the modified solid biomass data of the gross final energy consumption compared with the reported shares in all available Progress Reports and the indicative trajectories in the NREAPs for 2012 and 2013. (EUROSTAT, 2015; IEA, 2015; EIA, 2015; adopted and draft NREAPs and Progress Reports)

a. Electricity from renewable sources

In the last two to three years, the main progress made by the Contracting Parties in adopting legislative measures in compliance with the Renewable Energy Directive has been made in the electricity sector. Limited efforts to improve the legislative framework for renewable energy deployment have been made in the heating and cooling sector, while the transport sector seems to have been forgotten in all Contracting Parties.

With respect to the deployment of **electricity from renewable sources**, it can be seen that most Contracting Parties are on track with respect to the planned sectoral targets in the NREAPs for 2012 and 2013 with the data in the energy balances or in the progress reports as presented in Chart 3. Albania and the former Yugoslav Republic of Macedonia missed their targets for electricity from renewable sources in 2012 and 2013. Only Montenegro and Serbia had a slight surplus in 2012 but a deficit in 2013.

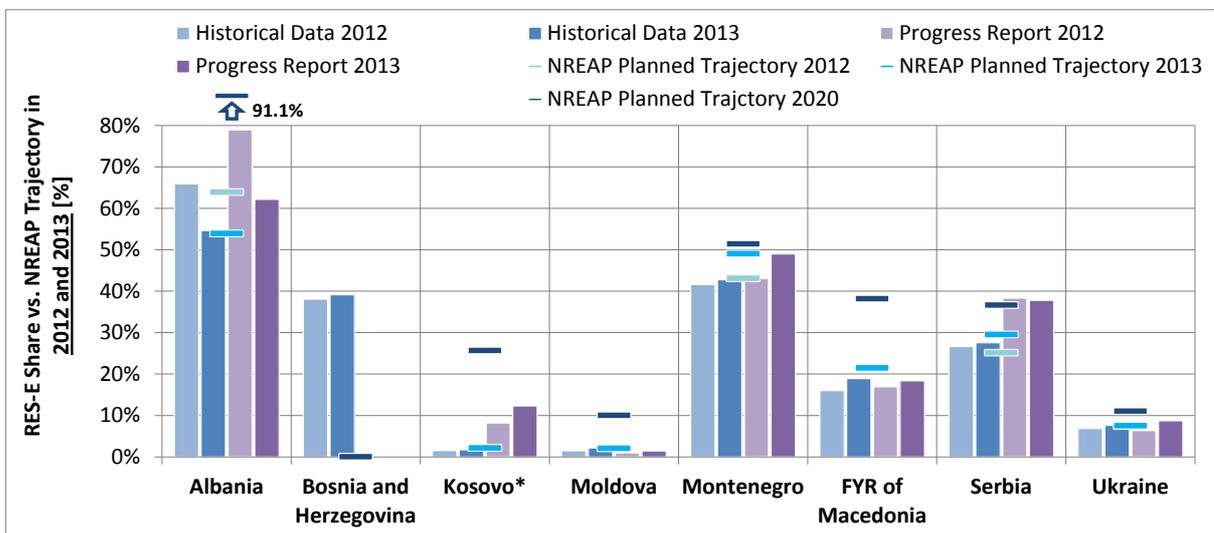


Chart 3: Share of electricity from renewable sources in 2012 and 2013 of the gross electricity demand compared with the sectoral electricity targets in the NREAPs. (EIA, 2015; EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

According to the NREAPs, energy statistics and the Progress Reports, the planned and actual electricity generated using various renewable energy technologies is presented below.

Chart 4 shows actual and planned electricity generation by **hydropower**. The data included in the Progress Reports of Albania was not normalised as requested by the Directive, relatively high differences for the reported data for 2012 and 2013 can be identified in Chart 3. As a result, the comparison of the data in the Progress Report with the planned trajectories for hydropower in the NREAPs is not entirely accurate for all Contracting Parties, normalisation for hydropower was requested to correct for fluctuations in the yearly hydrology.

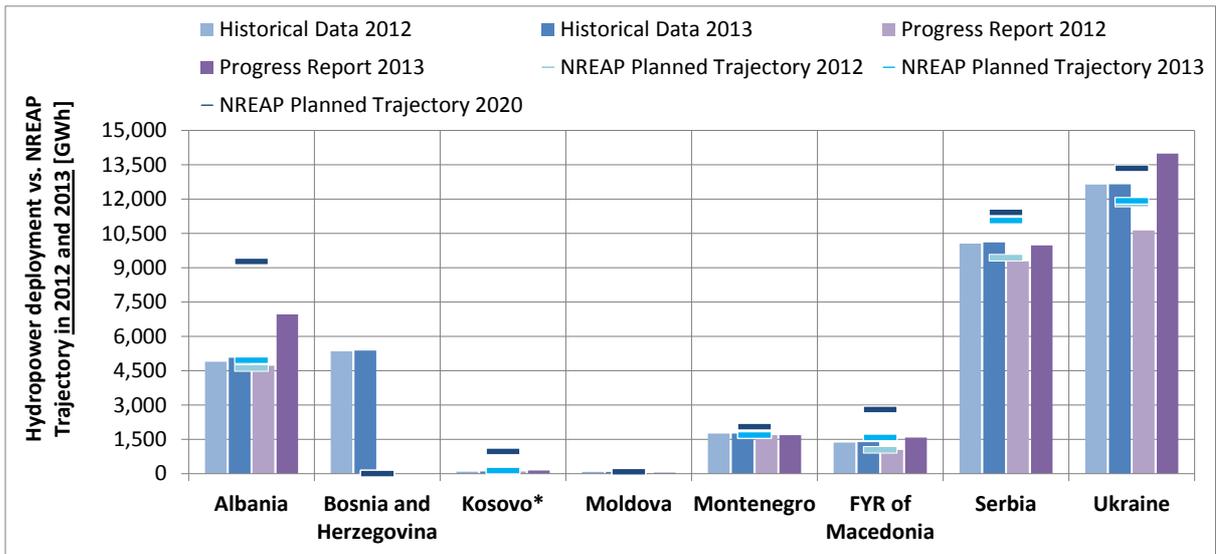


Chart 4: Electricity generated by hydropower in 2012 and 2013 compared with the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; EIA, 2015; adopted and draft NREAPs and Progress Reports)

Chart 5 shows the actual and planned **biomass** deployment in the electricity sector as reported in the energy balances. With exception of Ukraine, there is no reported use of biomass to produce electricity despite targets included in their NREAPs for 2012 and 2013. For Ukraine, the situation is opposite. The NREAP does not envisaged any deployment for 2012 and 2013, while statistical data and progress report indicate electricity consumption based on biomass but data reported in Progress Report is not consistent with energy statistics.

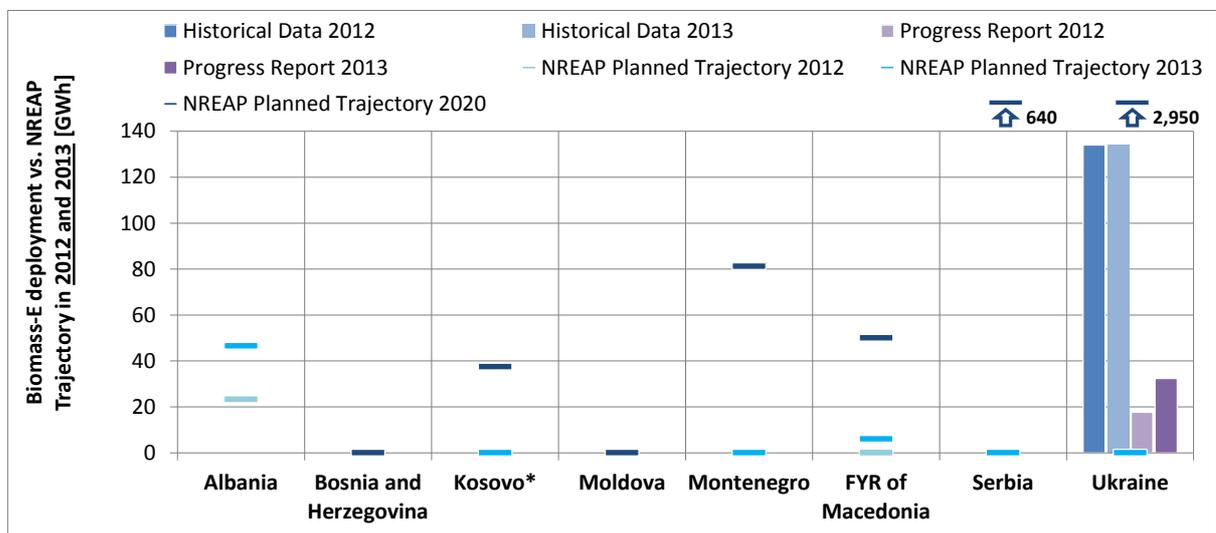


Chart 5: Biomass deployment in the electricity sector in 2012 and 2013 compared with the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

Only Ukraine planned to generate 1024 GWh of electricity in 2012 and 1352 GWh in 2013 by the use of **onshore wind** technology. For 2012 the energy statistics reported a generation of only 288 GWh of electricity from wind. For 2013 the Ukrainian Progress Report cited a generation of 637 GWh. All other Contracting Parties have neither planned nor reported any generation by wind technology for 2012 and 2013 as can be seen in Chart 6. No **offshore wind** is planned by any Contracting Party by 2020.

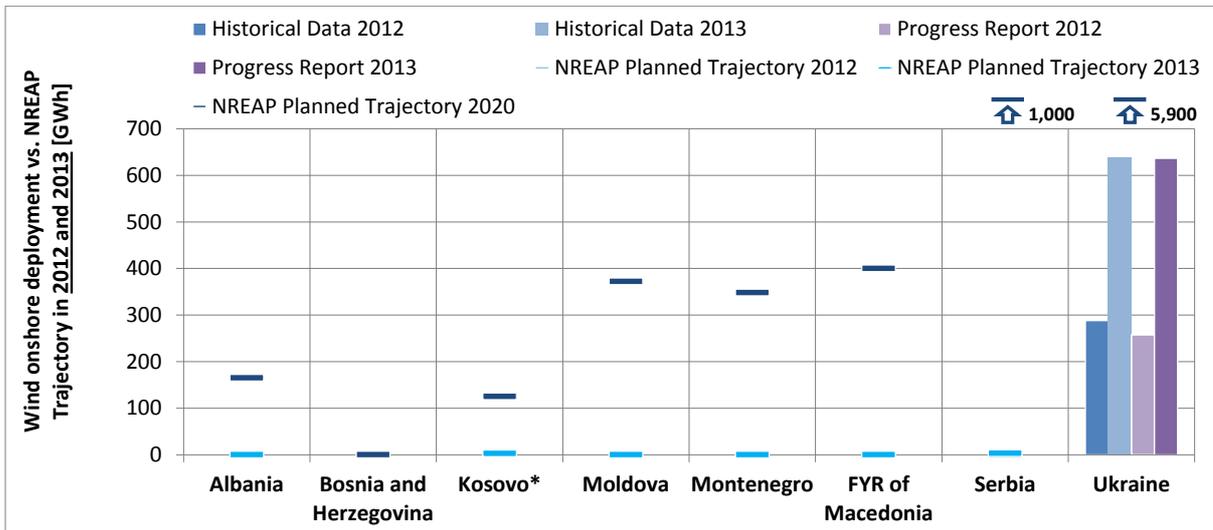


Chart 6: Wind (onshore) deployment in 2012 and 2013 compared with the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

For the years 2012 and 2013, deployment of **solar photovoltaic** (PV) technology was planned only in the draft NREAP of the former Yugoslav Republic of Macedonia. The forecast indicated the generation of 10 GWh of electricity by 2013 and this target was achieved. Moreover, Ukraine deployed PV technology and generated 333 GWh in 2012 and 570 GWh in 2013. Its Progress Report shows the generation of 563 GWh for 2013, as illustrated in Chart 7.

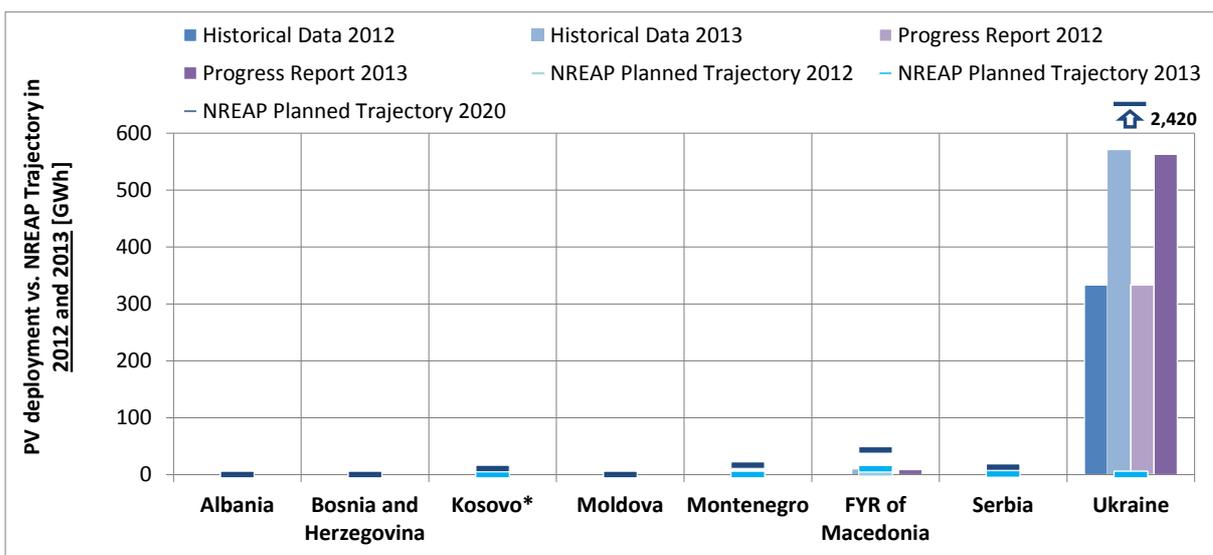


Chart 7: Solar PV deployment in 2012 and 2013 compared with the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

Biogas utilisation in the electricity sector is represented in Chart 8. The former Yugoslav Republic of Macedonia tentatively planned to generate 5 GWh of electricity with the use of biogas technologies in 2013 in the draft NREAP but energy statistics show zero production. Actual electricity production with the use of biogas technologies was only reported in the energy statistics of Serbia in the amount of 1 GWh for 2012 and 4 GWh for 2013, (despite having reported 6 GWh in 2012 and 22 GWh in 2013 in its Progress Report). Also, Moldova and Ukraine reported some generation of electricity using biogas. However, this was not confirmed by the country's energy statistics.

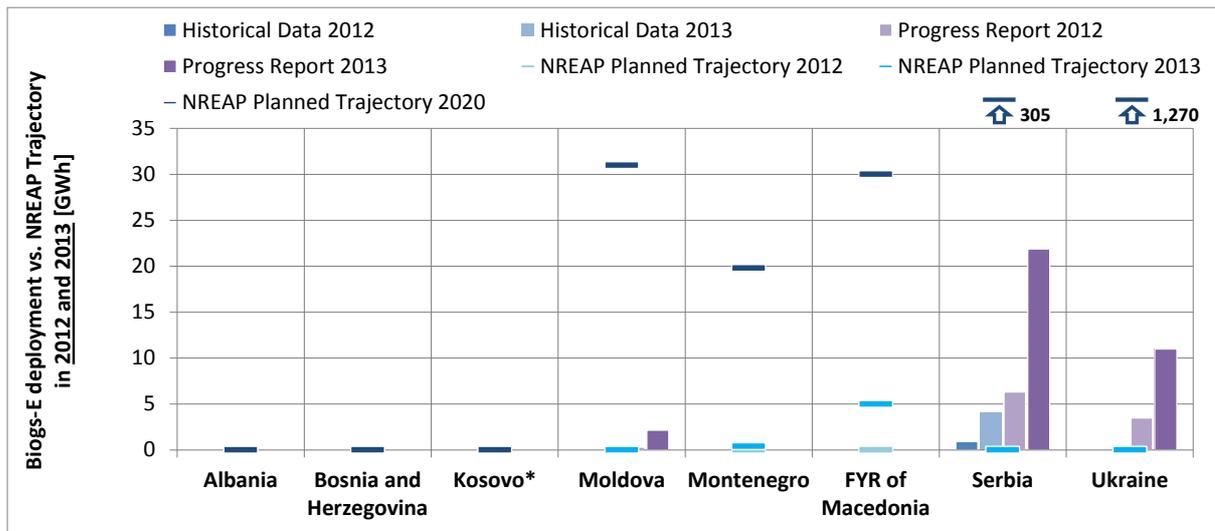


Chart 8: Biogas deployment in the electricity sector in 2012 and 2013 compared with the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

There was no planned or actual use of **geothermal** technologies in the electricity sector by any Contracting Party during 2012 and 2013. Ukraine plans to include geothermal technologies in the year 2014, as reported in their NREAP.

b. Energy from renewable sources in heating and cooling

The status of renewable energies in the **heating and cooling** sector depends very much on the statistical records of solid biomass use for every Contracting Party. As such, the picture for the absolute deployment of energy from renewable sources in heating and the NREAP trajectory fulfilment depends significantly on the necessary correction of national biomass records as depicted in Chart 9.

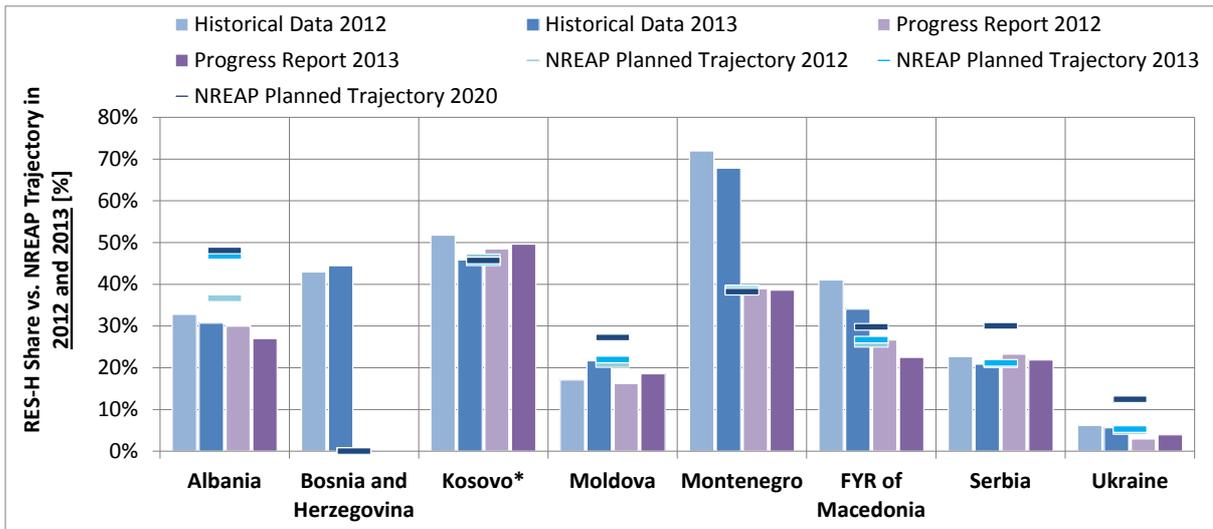


Chart 9: The share of energy from renewable sources in heating in the gross heating and cooling consumption 2012 and 2013 compared to the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

The assessment of these corrections dates back to the renewable energy target setting process in the Energy Community during 2010-2012. If these corrections are applied, Kosovo*, Montenegro, the former Yugoslav Republic of Macedonia, Serbia and Ukraine managed to meet their target shares of energy from renewable sources in heating in 2012 and 2013. Moldova showed a deficit in 2012 but met its target in 2013. Finally, Albania is the only Contracting Party that missed its projected share of energy from renewable sources in the heating sector in both years.

Chart 10 presents the biomass used for heating in 2012 and 2013 compared with planned deployment in the NREAPs trajectory to 2020.

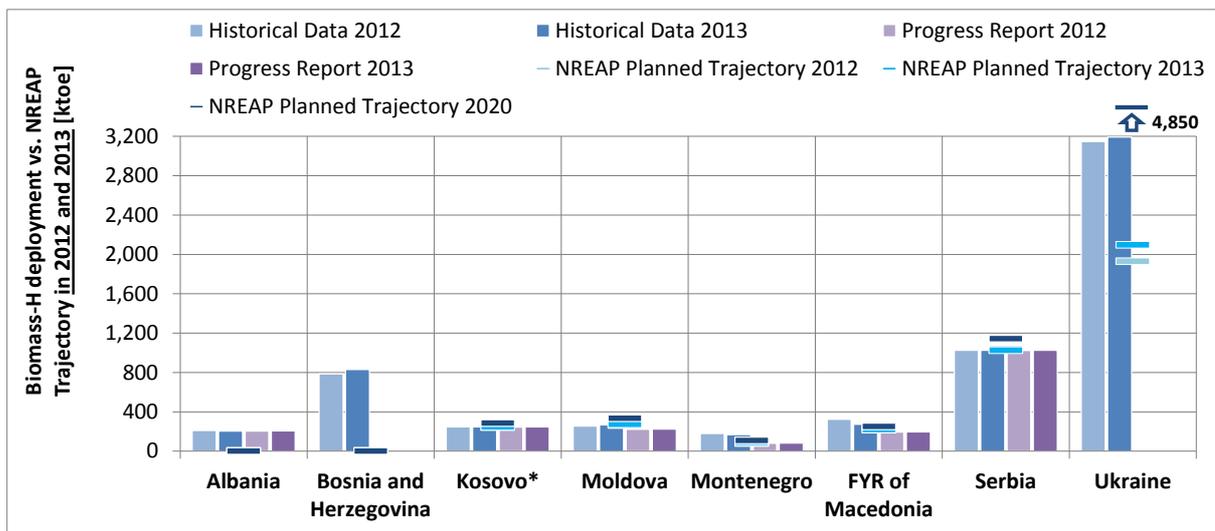


Chart 110: The biomass deployment in the heating and cooling sector for the years 2012 and 2013 compared to the NREAP trajectory. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

Plans for **geothermal** deployment were made only by Serbia and former Yugoslav Republic of Macedonia. Serbia planned to generate 6 ktOE of thermal energy each year by the use of geothermal technology and reported that these targets have been achieved in its Progress Report during 2012 and 2013. The energy balances however stated 6 ktOE in 2012 and 4 ktOE for 2013.

In its draft NREAP, the former Yugoslav Republic of Macedonia planned to generate 15 ktoe of heat by the use of geothermal technologies in 2012 and 21 ktoe in 2013. The energy balances for these years reported 9.5 ktoe for 2012 and 7.8 ktoe for 2013, while 8.9 ktoe for each year was cited in the Progress Report. These results are depicted in Chart 11.

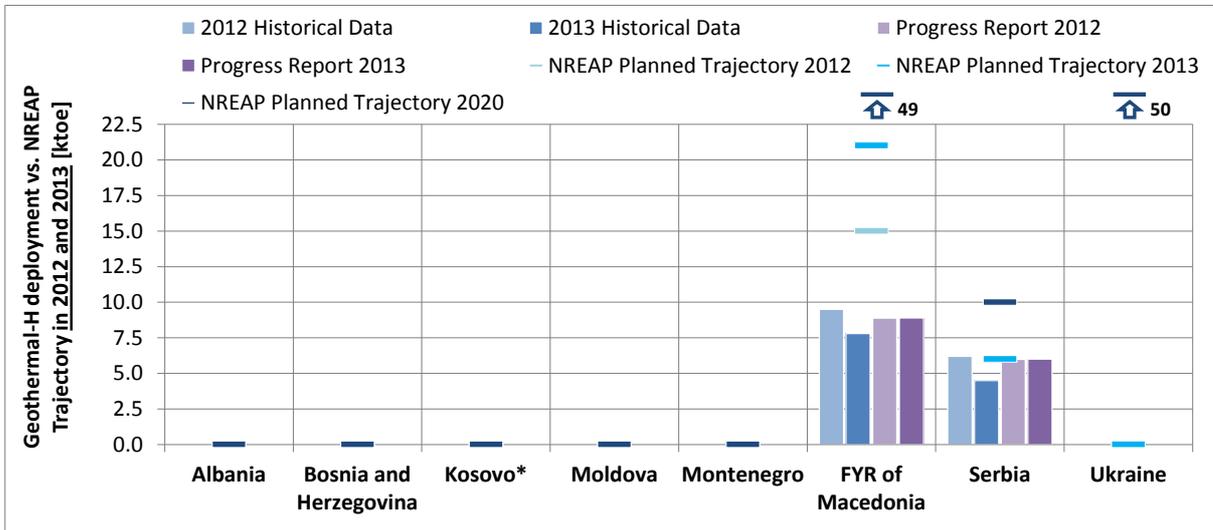


Chart 11: Geothermal deployment in the heating and cooling sector in 2012 and 2013 compared to the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

The deployment of **solar thermal** for heat generation is illustrated in Chart 12. Kosovo*, Montenegro and the former Yugoslav Republic of Macedonia have planned the use of this technology in their NREAPs. Kosovo* and Montenegro reported that they produced 0.7 ktoe in 2012 and 2013, however this fact cannot be confirmed by official statistics. Albania reported to make use of 11.8 ktoe thermal energy by the use of solar thermal technology, which is included in the energy balances for 2012 and 2013.

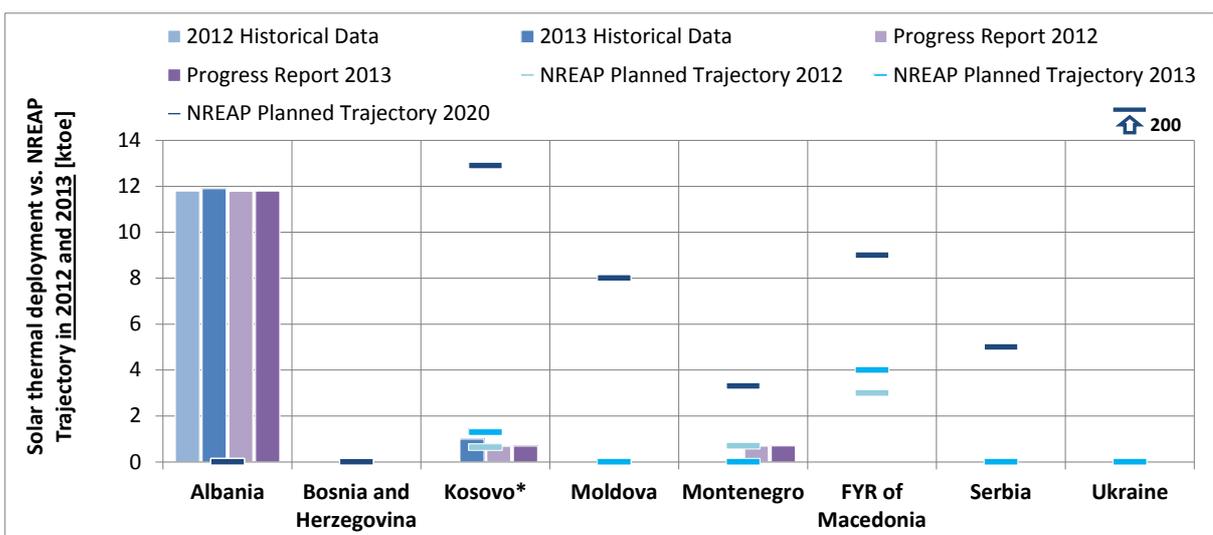


Chart 122: Solar thermal deployment in the heating and cooling sector in 2012 and 2013 compared to the indicative NREAP targets. (EUROSTAT, 2015; IEA, 2015; CPs NREAPs, draft NEAPs and Progress Reports)

c. Energy from renewable sources in transport

Biofuels played a minor role in the Contracting Parties' NREAPs in 2012 and 2013. Only Albania, Ukraine and, marginally, the former Yugoslav Republic of Macedonia report some biofuels deployment in the transport sector for the year 2013 in their Progress Reports. The planned deployment in Montenegro as reported in its NREAP for 2012 and 2013 were not fulfilled at all and, in the case of the former Yugoslav Republic of Macedonia, only a very small amount. Available energy balances for 2012 and 2013 indicate a very small production of biofuels in the former Yugoslav Republic of Macedonia and a more significant volume in Ukraine in 2013 as shown in Chart 13.

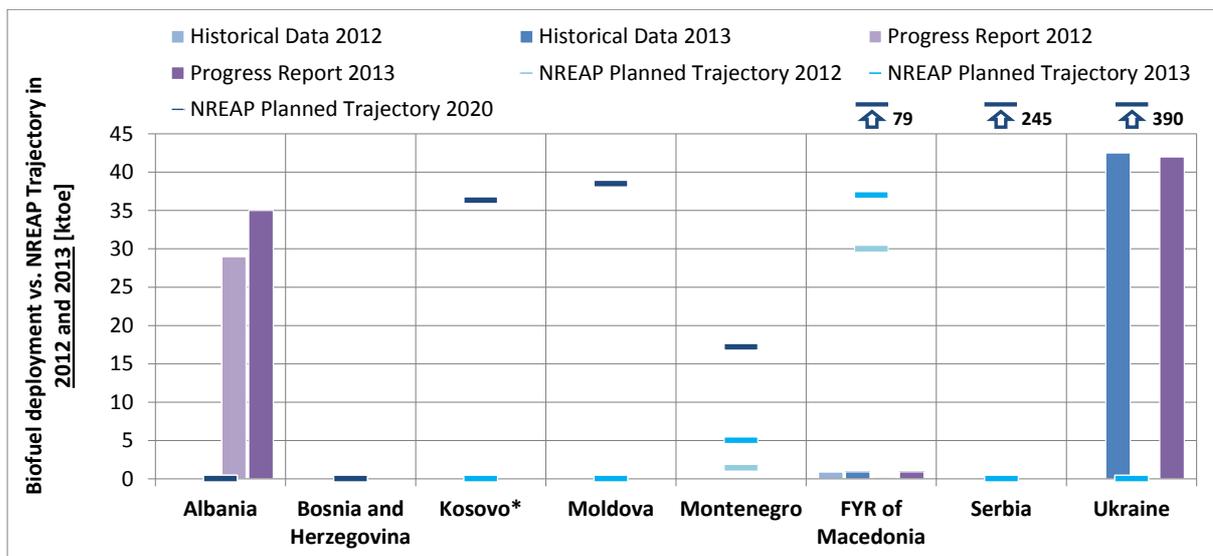


Chart 13: Biofuels share in 2012 and 2013 of the gross energy consumption in the transport sector compared to the 2012 and 2013 targets in the NREAP (EUROSTAT, 2015; IEA, 2015; adopted and draft NREAPs and Progress Reports)

4. Policy Measures

Legal, regulatory, administrative and financial measures are needed to support renewable energy uptake in all Contracting Parties to ensure that the 2020 renewable energy targets are met. This is due to the fact that almost no renewable electricity technology is currently competitive in a market mostly dominated by fossil fuel power plants and large hydro. Moreover, the environmental costs are not appropriately reflected in the electricity price and are not envisaged to be internalised before 2020¹² in order to become a key driver for investments in renewable energy.

Despite commitments taken by the Contracting Parties to open their energy markets by 1 January 2015, the energy markets are currently neither fully open nor competitive. The wholesale electricity market price is not entirely transferred to all end-users requiring significant cross-subsidies between non-household and household customers. Therefore, to compensate for market failures, renewable energy needs a set of support measures and regulatory and administrative rules to ensure their proper development in order to reach the 2020 policy objectives.

¹² Environmental acquis of the Energy Community:
https://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Obligations/Environment

a. Support schemes

Technology specific feed-in tariffs combined with industrial policies have proven to be the most suitable way to ensure investor confidence and to tap renewable energy potential in European Union Member States. When this support was not appropriately designed, it led to “stop-and-go” policies for renewable energy, eroding investor confidence and created unnecessary burden for end-consumers.

At the end of 2013, the European Commission issued the Communication “*Delivering the internal market in electricity and making the most of public interventions*”¹³ that includes specific guidance for the design of renewable energy support schemes. The guidance calls for flexible and market-based solutions in order to avoid market distortions through overcompensation. Therefore, the support for renewable energy shall be provided in such a way as to ensure more exposure to market signals for renewable energy producers and be flexible enough to respond to falling production costs. In this way the feed-in tariffs shall be replaced by feed-in premiums, tendering or quota systems that incentivise investors to respond to market developments.

Learning from European experience and benefiting from reduction in technology costs in the last years, the Contracting Parties adopted rather conservative feed-in tariffs as the main operational support to promote renewable energy. This is supplemented by investment support like tax incentives or tax reductions in some Contracting Parties.

Nevertheless, the feed-in tariff models adopted by the Contracting Parties, as the preferred support option, are not used in the traditional way and are not applicable to all technologies in the Energy Community.

Currently Albania has support schemes only for small hydro producers, up to 15 MW. In the other Contracting Parties, the limit of support for hydro is 10 MW, except for Serbia where the limit is 30 MW. All other Contracting Parties (except Albania) have adopted feed-in tariffs for technologies like wind, solar PV, biomass, biogas and most of them also for geothermal. Only Montenegro and Serbia have adopted feed-in tariffs for energy produced from waste and landfill gas. In Moldova, the support scheme, which is currently in force, differs from the usually applicable support schemes: a generally applicable tariff calculation methodology is in place, based on which producers calculate annually their own tariffs and submit them to the national energy regulator, ANRE, for approval.

Non-hydro technologies often have strict budgetary limits in the form of capacity caps. This system restricts the diversity of the renewable energy technology mix despite existing potential or sufficient transmission and distribution capacities to integrate more renewable energy into the grids. This approach is taken mainly to limit the impact of renewable energy on electricity end-user prices. Yet at the same time, it has to be taken into account to what extent this approach is contributing to the achievement of the 2020 renewable energy targets. While the capital costs are higher in the Contracting Parties than in the European Union, the labour and other operational costs are lower for renewable energy projects in the Energy Community. Implementation of measures that reduce capital costs in the Energy Community combined with policies to promote renewable energy with the lowest impact on end-user consumer prices is the only way to ensure that the renewable energy targets will be reached in the most cost effective way.

Moreover, few steps towards increased market exposure of renewable energy investors have been taken in the Energy Community. Feed-in premiums were adopted in one entity of Bosnia and Herzegovina (Republika Srpska) as an alternative to feed-in tariffs. Moldova is the only Contracting Party which is considering introducing a tendering scheme to promote renewable energy.

¹³ SWD(439) European Commission guidance for the design of renewables support schemes
<http://ec.europa.eu/energy/en/topics/renewable-energy/support-schemes>

Despite the fact that most progress has been registered in electricity produced from renewable sources, the support schemes show mixed success in the Contracting Parties. Up till now an expansion of non-hydro technologies has taken place only in a few Contracting Parties. In most Contracting Parties, for example, there are no wind parks or only the first wind parks are beginning to be realised, although feed-in tariffs have been in place for several years like in Bosnia and Herzegovina, former Yugoslav Republic of Macedonia and Montenegro. Only Ukraine succeeded to reach significant levels of investments in wind and solar photovoltaic. However the crisis in the eastern part of the country and the temporary reduction of renewables support in 2014 and 2015 increased investment risks and the plans for new investments were halted.

This confirms that the level of feed-in tariffs is not the major bottleneck in renewable energy investment. The major obstacle rather consists of the administrative measures which increase the risks for the potential investors willing to operate in the respective Contracting Parties. In majority of Contracting Parties these support measures are subject to changes and uncertainties. The feed-in tariffs are frequently revised after their adoption, sometimes decreased as a result of administrative measures (e.g. Ukraine in 2015) or calculated on an annual basis leading to increased uncertainty for investors. There is a clear need in all Contracting Parties to provide more investor confidence, particularly through stable and predictable support schemes.

The duration of the support for renewable energy is offered for:

- 10 years in Kosovo* (small hydro, wind, biomass and biogas);
- 12 years in one entity of Bosnia and Herzegovina (Federation of Bosnia and Herzegovina), Kosovo* (solar PV), Montenegro and Serbia;
- 15 years in Albania, one entity of Bosnia and Herzegovina (Republika Srpska), former Yugoslav Republic of Macedonia (solar PV, biomass, biogas) and Moldova;
- 20 years in former Yugoslav Republic of Macedonia (hydro and wind);
- until 2030 in Ukraine.

Power purchase agreements (PPA) are instrumental in financing renewable energy projects. The minimum terms included in the template of a PPA are provided either by legislation (in Bosnia and Herzegovina, Montenegro, Serbia, Ukraine) or by the national energy regulator, which is mandated to approve a PPA template (in Albania, former Yugoslav Republic of Macedonia and Moldova).

The PPA has to be signed in different stages of development of a renewable energy project in the Contracting Parties. This approach does not always provide sufficient security to investors. In Bosnia and Herzegovina, there are two PPA agreements, one preliminary and one final in both entities. For example, Republika Srpska requires an agreement on the applicable support scheme and a different PPA agreement based on feed-in premiums to be signed. In Moldova and Kosovo*, a template PPA is not yet adopted. In Kosovo*, the rules have been recently amended in order to increase security for investors by allowing for the possibility to sign a PPA agreement at the moment of obtaining the preliminary authorisation for the renewable energy project.

Securing the support scheme valid at the time of signature of a PPA is key to ensure investor confidence and to finance the renewable energy projects. In Serbia, the adoption of the new PPA template, in accordance with the Energy Law adopted in 2014, is pending. It is expected that the new PPA template will secure the feed-in tariff applicable at the time of the PPA's signature for the investor, which was not the case so far. In Ukraine, the PPA is signed only after the construction of the renewable energy project has been completed. This approach has not deterred investors so far due to the predictability of the support scheme in place.

Compulsory jurisdiction of domestic courts of justice is provided in both entities of Bosnia and Herzegovina, Montenegro and Ukraine. Montenegro provides the possibility to resolve disputes in arbitration while the local courts will have jurisdiction in the case an agreement is not reached.

For renewable energy used for heating and cooling, only few Contracting Parties have support schemes in place and in most cases this support is rather limited. The status for renewable energy

in transport is also non-compliant as only a few Contracting Parties have in place legal provisions covering the blending obligation, which has however not been implemented in practice so far. No Contracting Party with the exception of Moldova has legal provisions for other support mechanisms in place.

b. Cooperation mechanisms

Directive 2009/28/EC introduces the possibility for optional use of cooperation mechanisms between Contracting Parties to facilitate cross-border support for renewable energy and to reach their 2020 renewable energy targets in the most cost-effective way. The creation of the regional electricity market with the implementation of the Third Energy Package generates opportunities for developing and supplying energy, including renewable energy, more efficiently and cheaply.

The Contracting Parties may enter into cooperation mechanisms between themselves to lower the cost of meeting the targets using only domestic renewable energy resources. As long as the cheaper form of renewable energy are exploited, it becomes necessary to turn to more expensive sources, therefore the annual cost of meeting the 2020 target will rise. The possibility to enter into cooperation mechanisms it is therefore very important since the 2020 renewable energy targets were set on the basis of ability to pay rather than domestic resource potential¹⁴.

Despite the possible synergies and benefits in entering into cooperation through statistical transfers, joint projects or joint support schemes, no such cooperation is planned by the Contracting Parties in any of the adopted NREAPs.

Moreover, the adaptation of the Renewable Energy Directive by the Ministerial Council introduced possibilities to establish cooperation mechanisms with EU Member States under certain conditions. Besides the benefits of further income from selling the renewable energy, cooperation with EU Member States could be beneficial in terms of know-how transfer, jobs creation, increased security of supply and technological innovation.

With the exception of Serbia which planned in its NREAP to enter into a cooperation mechanism based on joint projects with Italy, no Contracting Party envisaged to make use of these measures.

Kosovo* and Moldova have adopted NREAPs which plan for their binding 2020 targets of 25% and 17% respectively to be exceeded. However, the achievement of these projections is questionable. Montenegro also planned in the NREAP to exceed the 33% renewable energy target in 2020, however the plan does not made the surplus of 29 ktoe available for cooperation mechanisms.

c. Administrative procedures

Since the adoption of the NREAPs, limited progress has been made in improving the administrative procedures in the Contracting Parties. Lengthy and not clearly defined procedures remain a key barrier for renewable energy development in all three sectors. A lack of coordination between different administrative levels, agencies and institutions is a major problem in most Contracting Parties. Often numerous State and local level authorities are involved in the licensing and administrative procedures for renewable energy projects.

The provision of information is not coordinated and in some cases it is neither transparent nor comprehensive. Serbia is a notable exception and provides a good model for the other Contracting Parties. However, the recently adopted measures in Serbia have yet to be translated in a significant increase in installed generation capacities, which so far remain minimal. In 2013, Serbia updated guides for investors in renewable energy projects on wind, solar, hydro and biomass, which replaced the ones issued in 2010. An investor guide for solar thermal was developed for the first time also in 2013. In the former Yugoslav Republic of Macedonia and Kosovo* measures to simplify and streamline the procedures taken in the last years have yielded good results. In the rest of the Contracting Parties, at least some attempts to simplify administrative procedures can be

¹⁴ A factor based on GDP per capita was used to determine the 2020 renewable energy targets.

observed. Nevertheless additional simplification of administrative measures for smaller, distributed generation or decentralised projects is required.

Very little progress can be seen in the Contracting Parties on the establishment of a one-stop shop. A one-stop shop only for construction licenses was implemented in Serbia and for the majority of licenses and permits in Albania.

For the renewables in transport sector, there is little to report as nearly no efforts have been made to improve the licensing or authorisation procedures. This is largely linked to the fact that there is no biofuels production and consumption taking place in most Contracting Parties.

d. Information on renewable energy support measures, benefits and use

Information on support schemes, benefits, cost of renewable energy or optimal use of renewable energy technologies is not always adequately made available by the institutions in charge in most of the Contracting Parties. In general, dissemination of information to applicants is not clearly regulated in the legislation as a legal obligation of a certain body. Relevant institutions involved in renewable energy have published information on their websites but this information is mostly in local language and an English translation is not always available. Awareness raising campaigns and trainings for various stakeholders are usually not organised. In most Contracting Parties, the local and regional administrative bodies involved in authorisation or permitting procedures lack official guidance or training from national authorities.

e. Electricity grid – connection, access to and operation of the systems with renewable energy

Overall, slow progress has been made by the Contracting Parties in facilitating and improving the integration of electricity from renewable sources into the grids. While the NREAPs provide a fairly positive picture of measures that will be undertaken, in many cases the implementation of these measures is still pending. The adopted or drafted primary legislation of the Contracting Parties requires the transmission and distribution system operators to prepare development plans that include renewable energy integration. Ten-year network development plans of the transmission networks are required to take into account the uptake of renewable energy.

Priority or guaranteed access to the grid for renewable energy is included in the adopted or draft primary legislation of all Contracting Parties with the exception of Bosnia and Herzegovina in the case of access to the transmission network. Priority dispatch of renewable energy is implemented in all Contracting Parties. However, requirements for minimizing curtailment of energy from renewable sources are not properly addressed in most Contracting Parties.

In relation to connection to the grids, the picture is quite mixed among the Contracting Parties. There are good examples where connection of renewable energy producers to the transmission and distribution grids has been facilitated in the last years. In former Yugoslav Republic of Macedonia, the connection rules have been simplified through amendments to both network codes resulting in several wind (37 MW) and solar photovoltaic projects (15 MW) to be connected to the grids in the last two years. In Bosnia and Herzegovina and Serbia, transmission and distribution system operators have published rules and methodologies for calculation of the cost for connection to the networks. The rules also include costs estimates and the timetable for processing the applications after the preliminary approval from the system operator. In Kosovo*, at the proposal of the transmission system operator, procedures for connection to the transmission network have been adopted by the regulator at the end of 2014.

In Albania, the draft Law on Renewable Energy lays down extensive obligations on grid operators. The draft law requires a specific regulation regarding connection of renewable energy producers, which is currently not in place. Currently, the connection procedures are stipulated in the network codes. In Moldova, the Electricity Law assigns the regulator the task to set up conditions for grid

connection in an objective and transparent way. The technical conditions for connection to the grids have been issued only by the transmission system operator. In Montenegro, calculation of costs of connection to the distribution grids for small renewable energy installations of up to 10 MW are provided in the Distribution Grid Code, while for the power plants exceeding this capacity the conditions are determined based on project specific analyses and calculations. In Ukraine, connection to the grids is decided on a case-by-case basis using methodology approved by the regulator. The technical specifications for grid connections are expected to be clarified with the adoption of the grid codes.

In general, connection costs are paid by the renewable energy producers. Only in Bosnia and Herzegovina, Kosovo* and former Yugoslav Republic of Macedonia (only for connection to the distribution grid), there are rules for bearing and sharing the connection costs between initially and subsequently connected renewable energy producers.

With few exceptions, renewable energy producers are not paying balancing costs. In former Yugoslav Republic of Macedonia, large renewable energy producers (capacities above 10 MW) with preferential status are required to take balance responsibility since beginning of 2015. In Bosnia and Herzegovina (Republika Srpska), renewable energy producers supported through feed-in tariffs are required to pay 25% of the balancing costs while the ones supported through feed-in premiums pay 100% of the balancing costs.

f. Guarantees of origin

The implementation of a system to issue, transfer and cancel guarantees of origin for energy produced from renewable sources is in a very early stage of development in most of the Contracting Parties.

Only in Montenegro the first guarantees of origin have been issued and the legislative and regulatory framework has been completed. In Bosnia and Herzegovina, Kosovo*, former Yugoslav Republic of Macedonia and Serbia there is yet no practical implementation despite the transposed requirements in laws and regulations. In Albania and Moldova, the adoption of an adequate legislative framework is still pending. A guarantee of origin has to be issued in response to a request from a producer of electricity from renewable sources. However, only Albania, Moldova, Serbia and Ukraine issue guarantees of origin to all renewable energy producers regardless of the support scheme. In Republika Srpska (Bosnia and Herzegovina) and former Yugoslav Republic of Macedonia, the guarantees of origin are not issued to renewable energy producers under a support scheme, while in Federation of Bosnia and Herzegovina (Bosnia and Herzegovina) and Montenegro guarantees of origin are issued only to producers under a support scheme.

The appointed body for issue, transfer and cancellation of guarantees of origin varies among the Contracting Parties and the schemes in place are not always regulated. In Albania and Kosovo*, the energy regulator is the authority responsible for issuing and supervising the guarantees of origin. In Bosnia and Herzegovina, in Republika Srpska the energy regulator is the issuing body while in Federation of Bosnia and Herzegovina the renewable energy operator issues guarantees of origin. The supervision is not assigned to either entity of Bosnia and Herzegovina. In former Yugoslav Republic of Macedonia, the Energy Agency is the issuing body, while the supervision is not regulated. In Montenegro, guarantees of origin are issued by the energy regulator and the supervision is entrusted to the market operator. In Moldova, according to the draft Renewable Energy Law, the network operator shall issue guarantees of origin, while the supervision is not assigned. In Serbia, the guarantees of origin are issued by the transmission system operator and supervised by the Ministry of Energy. In Ukraine, the issuing body is not clearly appointed yet.

In relation to recognition of guarantees of origin issued by other Contracting Parties of the Energy Community and by EU Member States, the approach is very different. Albania and Moldova recognise guarantees of origin issued by other Contracting Parties and EU Member States without the condition of reciprocity. Bosnia and Herzegovina, Montenegro and Serbia recognise

guarantees of origin issued by other Contracting Parties only under the condition of reciprocity. In addition, Serbia will recognise the guarantees of origin issued by other members of the European Association of the Issuing Bodies for issuing of guarantees of origin only once it becomes a member. In Ukraine, the recognition of guarantees of origin is not regulated.

g. Sustainability of Biofuels

The deadline for implementation of sustainability criteria and establishment of the relevant verification systems expired on 1 January 2014. However none of the Contracting Parties transposed Articles 17 to 21 of Directive 2009/28/EC into their national legislation to date. This is in spite of extensive preparatory activities including technical support in legislative drafting to some Contracting Parties.

The Contracting Parties are thus lagging behind in achieving their indicative targets, despite having defined them in their respective NREAPs. The production and consumption of biofuels in the transport sector is depicted in Table 3.

Contracting Party	In tons	2009		2010		2011		2012		2013	
		Prod.	Cons.	Prod.	Cons.	Prod.	Cons.	Prod.	Cons.	Prod.	Cons.
Albania	Biodiesel	0	0	0	0	0	0	0	29 ¹⁵		35
	Bioethanol	0	0	0	0	0	0	0	0	0	0
BiH	Biodiesel	0	0	0	0	0	0	0	0	0	0
	Bioethanol	0	0	0	0	0	0	0	0	0	0
former Yugoslav Republic of Macedonia	Biodiesel	0	137	1,502	557	4,198	329	884	678/267	74	678/1,047
	Bioethanol	0	0	0	0	0	0	0	0	0	0
Kosovo*	Biodiesel	0	0	0	0	0	0	0	0	0	0
	Bioethanol	0	0	0	0	0	0	0	0	0	0
Moldova	Biodiesel	0	0	0	0	0	0	0	0	0	0
	Bioethanol	0	0	0	0	0	0	0	0	0	0
Montenegro	Biodiesel	0	0	0	0	0	0	0	1,628	0	5,814
	Bioethanol	0	0	0	0	0	0	0	0	0	0
Serbia	Biodiesel	0	0	0	0	0	0	0	1,990	8,371	0
	Bioethanol	0	0	0	0	0	0	0	0	0	0
Ukraine	Biodiesel	0	0	0	0	0	0	0	0	0	0
	Bioethanol	0	0	0	0	0	0	384	0	0	0

Table 3: Biodiesel and bioethanol production and consumption in transport sector in the Contracting Parties 2009-2012 expressed as absolute volumes (tons) (rounded up to nearest whole value)

It has to be noted that despite very limited consumption and production of biofuels, installed production capacities are higher than 500 kt/y. Lack of proper support schemes and mandatory targets push existing producers either to terminate production (a case in Moldova) or to switch production to other sectors (in Serbia) or to export to other markets (like producers in the former Yugoslav Republic of Macedonia and Albania). Even in countries where some small-scale biofuels production is taking place, most of the raw materials are imported. However, Serbia and especially

¹⁵ This value has been presented as ktoe in the progress report. Based on the contacts with the relevant stakeholders we concluded that there has been confusion with the unit and it should read tons.

Ukraine have significant levels of production of energy crops, which they export to the EU Member States for biofuels production. There is no evidence for this by relevant national authorities, but those crop producers have to be included in voluntary verification schemes recognised in the EU, otherwise they would not be attractive for EU biofuels producers.

Currently, there is no double counting of biofuels produced from waste, residues, non-food cellulosic material and ligno-cellulosic material in the Contracting Parties. However, there are two initiatives to develop advanced biofuels: a refinery under development in Serbia for cellulose based bioethanol production and a recently signed Memorandum of Understanding to facilitate the development of the cellulosic ethanol market in former Yugoslav Republic of Macedonia.

h. Measures taken for soil, water and air protection

Similarly to the sustainability criteria, there are not so many measures in regards to soil, water and air protection already in place, but rather in the initial stages of development. Serbia launched the project “Elaboration of the Land Cadastre”. Albania is developing a national strategy for air quality, the Law on Ambient Air Quality and legislation on air quality assessment. In Bosnia and Herzegovina, steps were taken towards preparing the implementation plan for the Convention on Environmental Impact Assessment (EIA) and the Protocol on Strategic Environmental Assessment. Kosovo* has in force the Law on the Inspectorate of Environment, Waters, Nature, Spatial Planning and Construction and the Air Quality Monitoring System, but the water resource monitoring system is incomplete. The former Yugoslav Republic of Macedonia is implementing the national plan for the protection of air quality.

Greenhouse gas emission savings resulting from the domestic consumption of biofuels reported by the Contracting Parties are presented in Table 4.

Contracting Party	2012	2013	Methodology
Albania	232,523	280,631	
Bosnia and Herzegovina	-	-	
Former Yugoslav Republic of Macedonia	357	1,424	<i>Methodology in line with Directive 2009/28/EC</i>
Kosovo*	0	0	
Moldova	-	-	
Montenegro	10,429	19,624	<i>Avoided CO₂ emissions from transport are determined by the difference of emissions from diesel fuel and biodiesel.</i>
Serbia	-	-	
Ukraine	-	-	

Table 4: Estimated GHG emission reductions of RES in transport sector (in ton CO₂-equivalents) as indicated in Progress Reports

The current production and consumption of biofuels in each Contracting Party is either non-existent or very small. In this respect, it can be concluded that the current deployment **impacts on biodiversity** are negligible. It is, however, important to highlight that the sustainability criteria focusing on the biodiversity aspects of the Renewable Energy Directive (Article 17.3 and 17.4) shall be adopted to avoid any possible negative impacts of increased biofuel production and consumption to biodiversity in the future.

The Contracting Parties provide no evidence about the impact of biofuel production on the **national land use patterns** as there has been very little or no biofuel production.

Explicit case studies on **land grabbing** in Serbia and Ukraine were presented in a 2013 study.¹⁶ The first privatisation of formerly socially owned land led to large amounts of land being in the hands of a few landowners and although foreign land ownership is not allowed, it seems foreign investors have found a way around this using domestic companies. Also in Ukraine privatisation allowed a few foreign and national agri-businesses to obtain control over domestic agriculture. It is not unlikely that this situation is similar in the other Energy Community Contracting Parties.

i. Possible future land use impacts based on the 2020 biofuel demand

According to the adopted NREAPs¹⁷, the biofuel demand for 2020 in the five Contracting Parties is approximately 727 ktOE. When compared with the EU27, it is only 7.5% of the EU's 2010 biofuel consumption. As such, any possible future land use impacts of the biofuel demand in the Contracting Parties will be well below the EU's current/recent land use impacts. Nevertheless, it is important to highlight that any increase in demand, regardless where it comes from, will increase the direct and indirect land use effects of biofuel consumption.

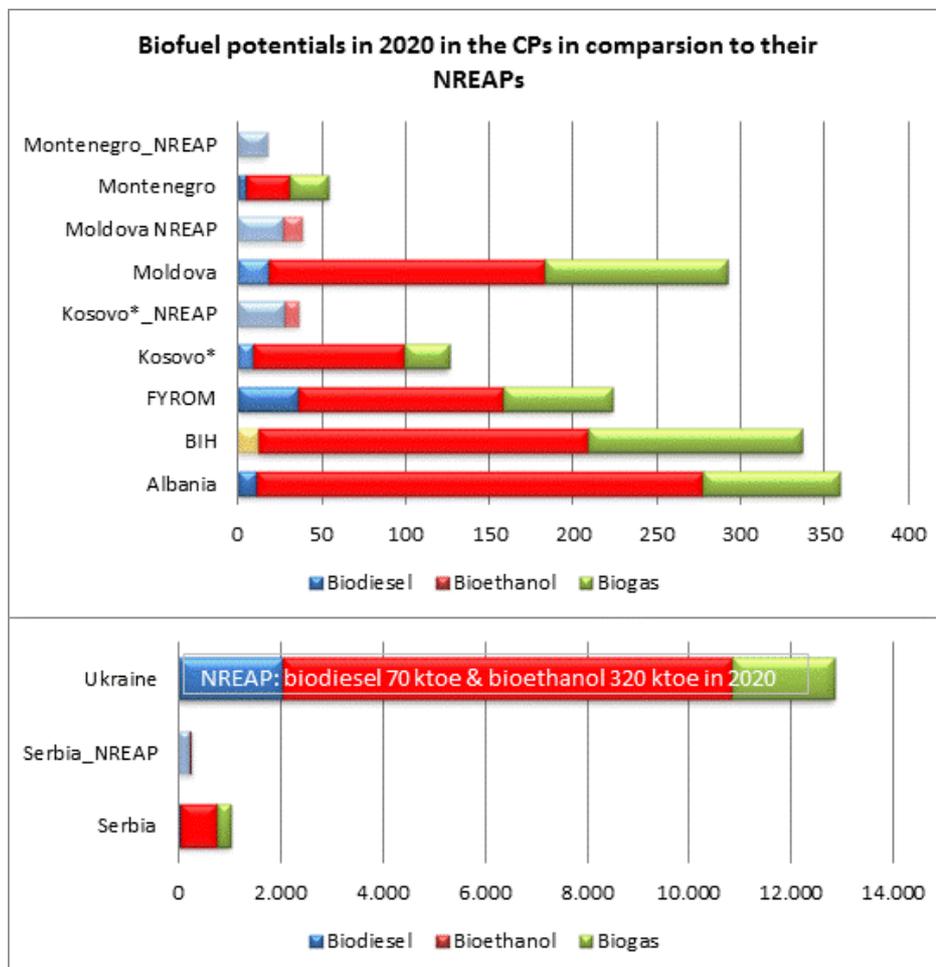


Table 5: Biofuel potentials of the Contracting Parties in 2020 in comparison to the NREAP demand (ktOE)

¹⁶ Franco and Borrás (2013).

¹⁷ Draft NREAPs of Albania, Bosnia and Herzegovina and former Yugoslav Republic of Macedonia are excluded

5. Effectiveness of currently implemented and planned policy initiatives

A quantitative analysis using the Green-X modelling tool was used to evaluate the past developments and estimate future progress considering the renewable energy deployment plans of each Contracting Party, as depicted in Chart 14. The scenarios of future renewable energy deployment under currently implemented and planned policy initiatives (CPI+PPI) on renewable energy provide the quantitative basis to identify the need for cooperation in renewable energy to reach the renewable energy policy targets. Therefore, another alternative policy scenario aiming to achieve 2020 renewable energy targets across the whole region was derived.

The “non-cost barriers” scenario indicates that feasible progress can be achieved with implemented and currently planned policy initiatives if these hurdles are mitigated in all Contracting Parties. This indicates that despite adequate financial support to promote renewable energy technologies, in practice the actual deployment is below potential due to administrative deficiencies in the form of a high level of bureaucracy, missing rules, problems with grid access and even the lack of proper market structures.

The results depicted in Chart 14 indicate that only Montenegro is expected to reach its binding 2020 renewable energy target with the currently implemented and planned policy measures. Two other Contracting Parties, Moldova and Serbia, can be added to the list if the measures to remove non-cost barriers are implemented. The other Contracting Parties would fail to meet the 2020 targets if no alternative policies are implemented in the coming years. The surprising decrease of renewable energy shares in 2020 of Moldova and Montenegro in the alternative policy initiatives scenario is the effect of increased demand for biomass in other Contracting Parties, which reduces the availability and use of biomass feedstock in these two Contracting Parties. However, both of them will remain on track to achieve their targets.

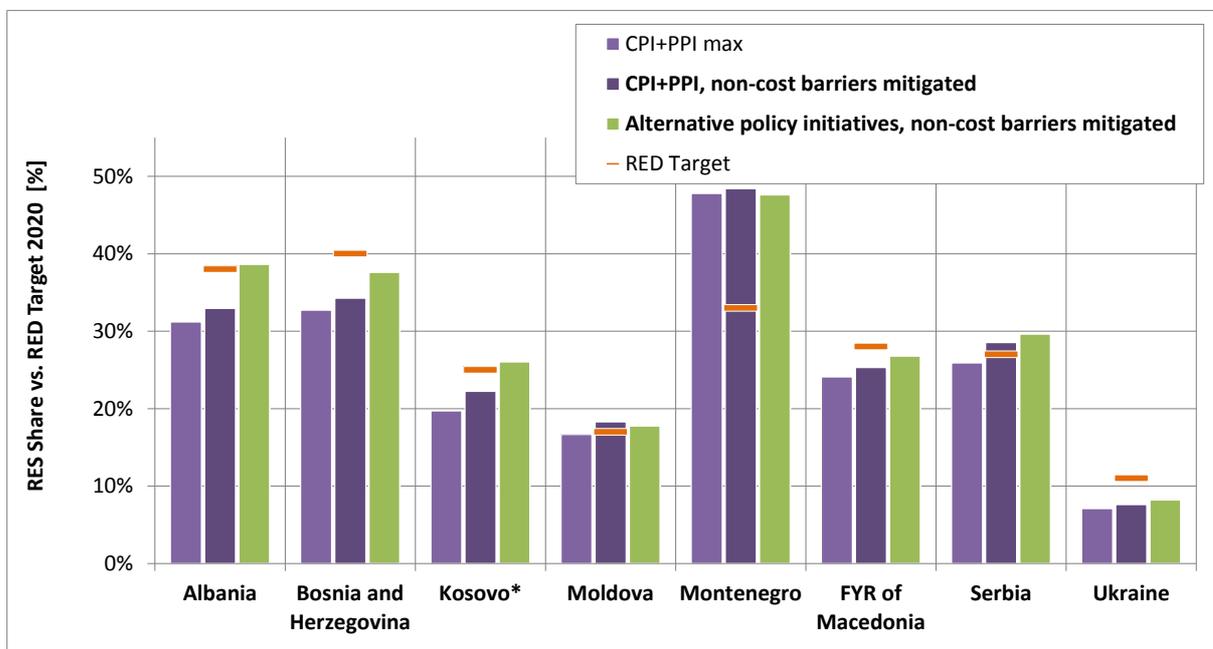


Chart 14: Expected renewable energy share in 2020 according to distinct policy pathways (Green-X scenarios) vs. 2020 renewable energy binding target (%).

6. Viability of national legislative measures

The assessment of the economic viability of the renewable energy policies, or in other words the cost-effectiveness, revealed, where applicable, the need for changes to ensure consumer and public acceptance to finance the required renewable energy expansion to meet the 2020 targets.

Therefore, the assessment of policy costs, expressed by the need for financial support to trigger renewable energy development seems adequate to reach the 2020 objectives. Chart 14 indicates the energy output from newly installed renewable energy capacities between 2015 and 2020 for all three scenarios.

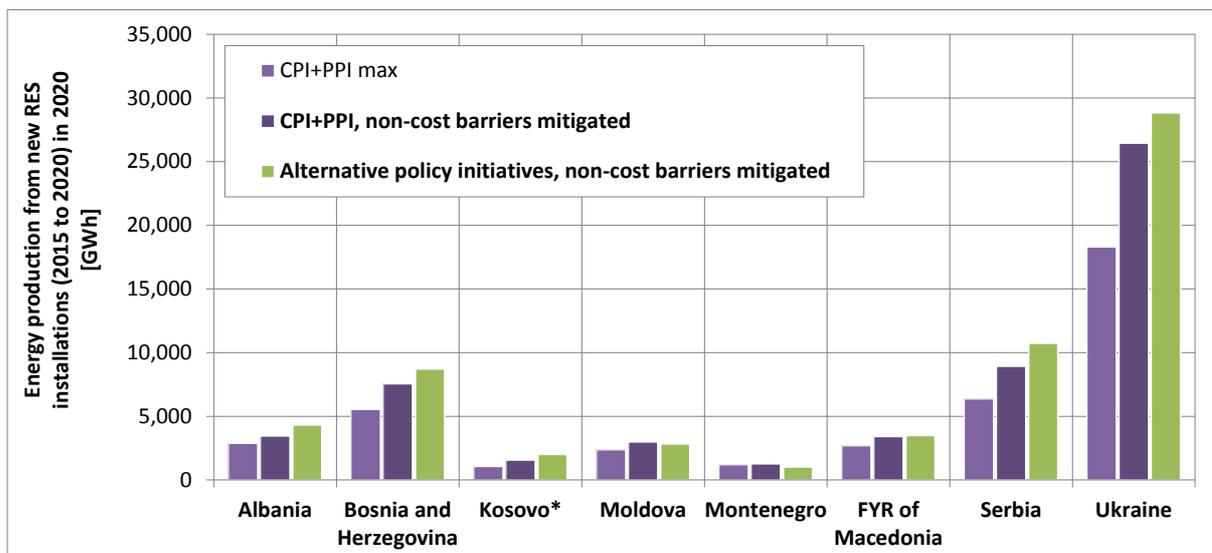


Chart 14: Comparison of the required energy output to 2020 from new renewable energy installed during 2015-2020.

Chart 15 depicts the required support for renewable energy expressed as yearly support expenditures for new renewable energy installations. The results revealed that only Moldova is showing deficits with respect to the viability of implemented and planned support for renewable energy. It is the only Contracting Party which planned the introduction of a tendering scheme for electricity produced from renewable sources. In the absence of a price cap introduced in the tendering process, the envisaged technology-neutral tenders and ambitious deployment targets might lead to an overheating of the renewable energy market due to strategic investor behaviour and the entire scheme could be burdensome for end-consumers.

For the other Contracting Parties, the currently implemented and planned policy initiatives seem cost-effective. However they are insufficient to achieve the targeted renewable energy volumes. Targeted incentives tailored to the existing renewable energy potential of each Contracting Party with the lowest impact on the end-user consumer price combined with the rapid removal of existing non-cost barriers will enable a viable path towards 2020.

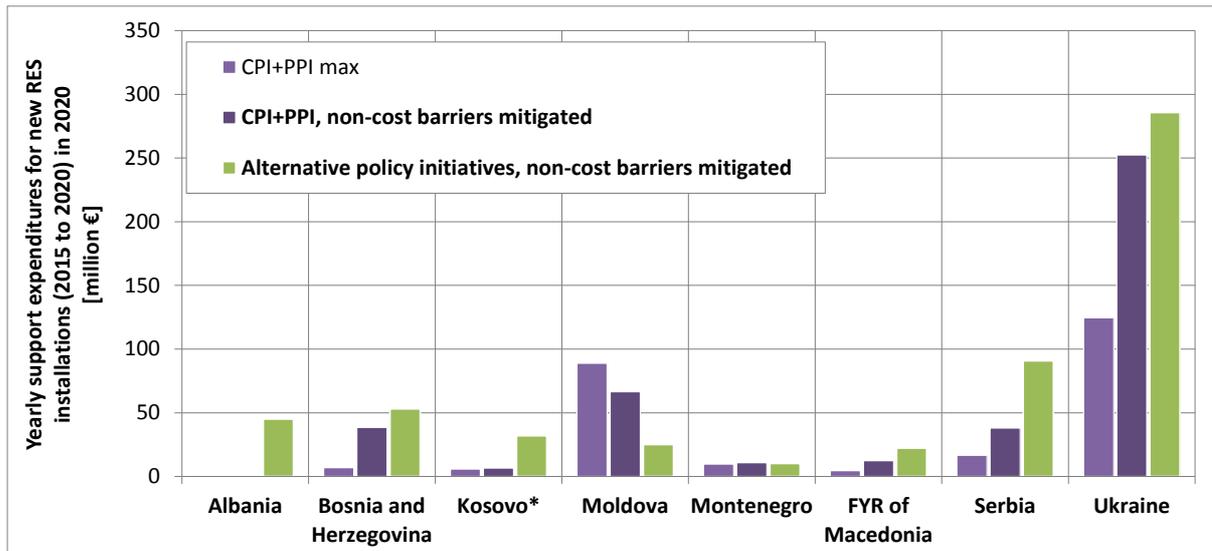


Chart 15: Comparison of the required support for new RES installations (2015 to 2020) by 2020.

7. Implications to end-user consumer prices

In the past, renewable energy came at a much higher price compared with energy from traditional fossil fuels. Moreover, environmental costs were not internalised into the energy price and the environmental benefits derived were not accounted for.

However, due to sustained technological progress, the electricity generation costs of energy from wind and especially from solar photovoltaic declined significantly in the last years, leading to electricity from renewable sources to be produced at the same cost or even below the cost of new fossil fuels power stations¹⁸.

A brief assessment of how support for renewable energy translates into energy-related expenditures from a societal perspective for the Contracting Parties of the Energy Community is presented in Charts 16 and 17.

The analysis of the electricity sector determined the support for renewable electricity to be reflected in the end-user price and the results indicate the burden on end-consumers is expected to remain comparatively low.

Support expenditure for energy produced from all renewable sources in the power sector is derived as a premium per unit of electricity consumed and is representing on average, around a level of 0.5 to 1.6 €/MWh. However, this low level of support expenditure can only be expected if wholesale prices are transparently transferred to end-users, meaning that actual market price in the region estimated at 65 €/MWh is passed entirely on to consumers, which is not the case in most of the Contracting Parties currently.

An exception to the general conclusion is Moldova where comparatively high support for renewable energy can be expected according to the currently and planned policy initiatives scenario. The planned tendering schemes need to be carefully designed to achieve the renewable policies objectives in 2020 with the lowest impact on end-consumer electricity prices.

¹⁸ Projected Costs of Generating Electricity, IEA 2015 Edition

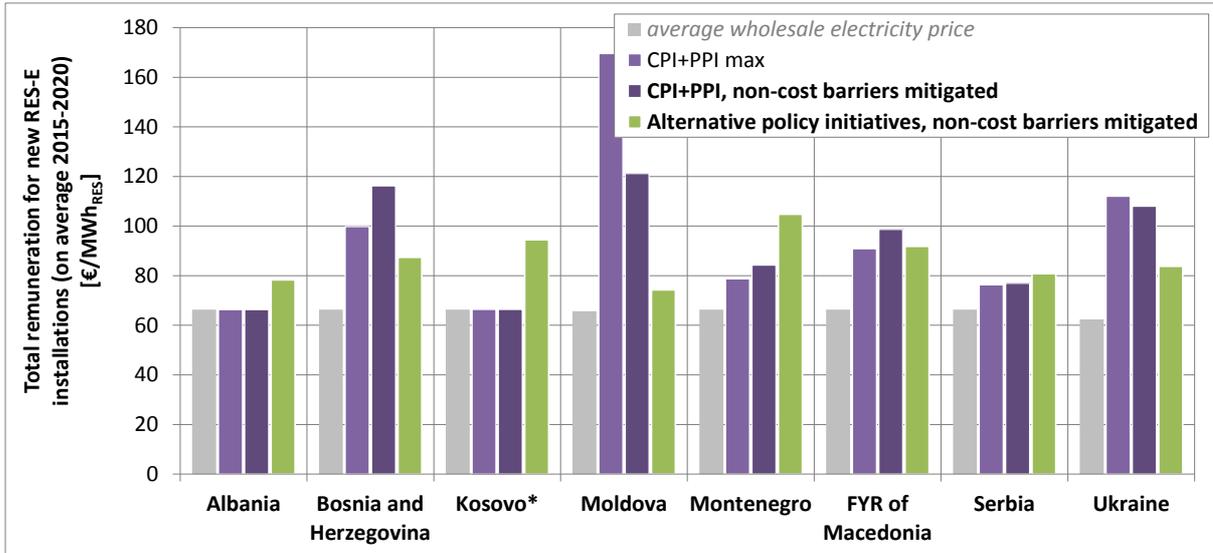


Chart 16: Total remuneration for new renewable energy power plants on average in the period 2015 to 2020, compared to estimated average wholesale electricity prices.

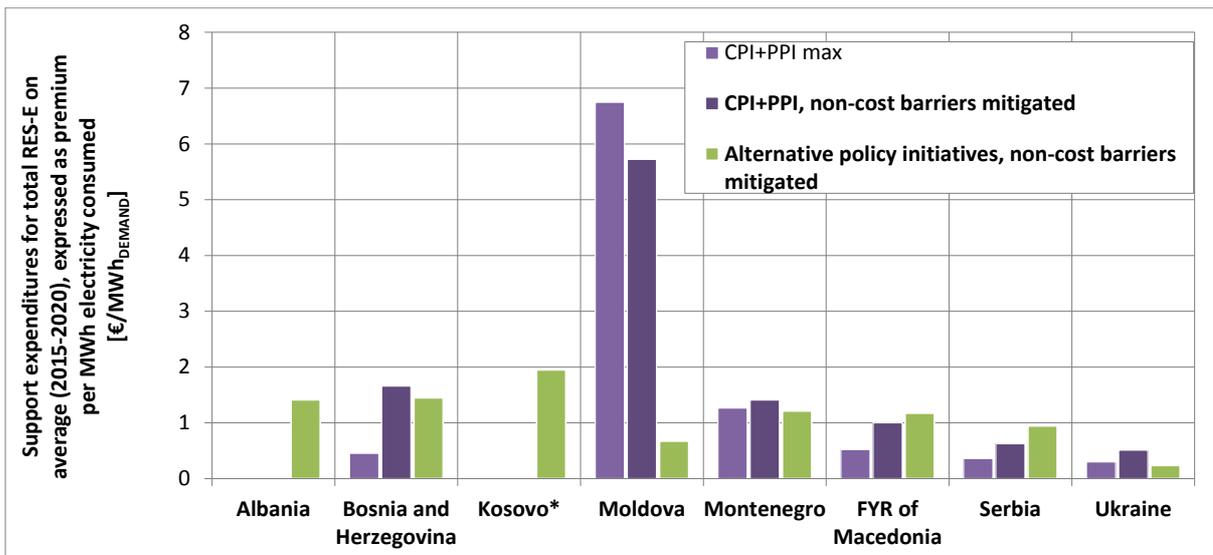


Chart 17: Support expenditures for total RES-E on average in the period 2015 to 2020, expressed as premium per unit of electricity consumed.

8. Conclusions and Recommendations

All Contracting Parties of the Energy Community have missed the deadline of 1 January 2014 to fully transpose Directive 2009/28/EC, as amended by the Ministerial Council, in their national legislation.

Adoption and submission of NREAP is not only a legal obligation but a tool that ensures transparency towards the investors in renewable energy on the policy objectives to reach the 2020 renewable energy targets. The National Renewable Energy Action Plans are not yet adopted in Albania, Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia. The Secretariat is urging them to finalise and adopt the NREAPs as soon as possible. The NREAP of Ukraine is not complete and the Secretariat has recommended for the Plan to be revised to address properly all the chapters in the template of the NREAP and to reflect the past developments. Bosnia and Herzegovina is the only Contracting Party which has not submitted a Progress Report on the promotion of renewable energy for 2012-2013.

Despite the commitments taken, the significant renewable energy potential in the region and the overall benefits for the environment and security of supply, the Contracting Parties are very hesitant in opening the energy markets and removing non-cost barriers to attract investments in small, distributed renewable energy projects. The progress in adoption of new legislation or amending the existing frameworks is very slow and often delayed by the institutions in charge. Therefore important compliance gaps remain in all three sectors: electricity, heating and cooling and transport.

Non-discriminatory treatment of investors is not fully ensured and transparency needs to be improved further. Administrative procedures for permitting, authorisation and connection to the grids have to be simplified, coordinated and streamlined to a greater degree. Regardless of the decrease in the cost of technologies and fairly adequate feed-in tariffs in place, access to finance remains challenging due to the relatively high political risk in the region and incomplete regulatory frameworks.

So far most Contracting Parties failed to properly address renewable energy in the heating and cooling sector, to regulate the minimum use of renewable energy in the building sector as well as the exemplary role of the public sector in the development of renewable energy in heating and cooling. These policies need to be prioritised considering the future demand for heating in the region and the potential of renewable energy resources like biomass, solar thermal and geothermal to contribute to the targets.

The assessment of the submitted NREAPs and the progress reports for 2012-2013 shows that the Contracting Parties are, in general, not on track to meet their 2020 targets if no enhanced policy initiatives are put in place as the trajectories become steeper closer to 2020. No Contracting Party foresees using the opportunities offered by the cooperation mechanisms in the Renewable Energy Directive. The only cooperation agreement of this kind between Serbia and Italy seems not to be effective.

With the exception of Montenegro, all Contracting Parties do not meet their first interim trajectories.

Except for Moldova and Montenegro, some Contracting Parties still have to finalise the biomass consumption surveys in order to revise the official energy statistics. Therefore, Bosnia and Herzegovina, former Yugoslav Republic of Macedonia and Ukraine have not only missed their interim trajectories but risk falling behind even further if biomass consumption is not revised and included in the energy statistics.

Policy initiatives offering market-based support for technologies that generate energy from renewable sources with the lowest impact on the electricity price to end-customers have to be strengthened and fine-tuned during the upcoming period.

Since at this stage, the Contracting Parties have not established electricity trading platforms and the wholesale markets are not transparent, the introduction of more market based support schemes, such as the feed-in premiums, will have to wait. An intermediary step towards the introduction of a more market-based support mechanism for renewable energy development could be to consider technology neutral tendering schemes, providing they are carefully designed to limit the impacts on consumer prices.

The removal of non-cost barriers that hinder the uptake of energy from renewable sources appears indispensable to achieve the technology objectives included in the NREAPs and, therefore, to meet the binding renewable energy targets in 2020. Simplification and streamlining of administrative procedures and grid integration of renewable energy are key aspects in this respect.

The target of 10% share of renewable energy in transport will most probably not be met due to the severe delay in adoption and implementation of the legal framework for sustainability of biofuels and bioliquids. Without adequate transposition and implementation, the Contracting Parties are not able to count the biofuels consumption towards the target.

As the Contracting Parties are not on track to meet the 2020 binding targets, the Secretariat, based on the endorsement of the representatives of the Contracting Parties in April 2015, proposes to establish a Renewable Energy Coordination Group. The Group would engage the relevant stakeholders with the mandate to work towards ensuring that the deployment and integration of renewable energy will meet the commitments taken to 2020. Moreover, the Renewable Energy Coordination Group shall be created as a technical group to discuss and propose to the Ministerial Council the post-2020 policy objectives in promotion of renewable energy in the Energy Community, enabling convergence with the climate change framework adopted in the European Union.

Annex 1 – Overview of the Contracting Parties progress in meeting the interim targets¹⁹

Contracting Party	2009 RES share	2011 RES share	2012 RES share	Median share (2011-2012)	1 st interim target (2011-2012)	2013 RES share	2 nd interim target (2013-2014)	2020 RES target
Albania	31,2%	30,8%	32,1%	31,5%	32,6%	30,2%	33,2%	38%
Bosnia and Herzegovina	34,0%	17,4%	18,3%	17,9%	35,2%	34,8% ²⁰	35,8%	40%
Kosovo*	18,9%	17,8%	18,8%	18,3%	20,1%	18,1%	20,7%	25%
former Yugoslav Republic of Macedonia	21,9%	15,1%	15,7%	15,4%	23,1%	14,4%	23,7%	28%
Moldova	11,9%	3,3%	3,7%	3,5%	12,9%	12,6%	13,4%	17%
Montenegro	26,3%	40,9%	42%	41,4%	27,6%	41,8%	28,3%	33%
Serbia	21,2%	18,5%	20,1%	19,3%	22,4%	19,8%	22,9%	27%
Ukraine	5,5%	3,2%	3,4%	3,3%	6,6%	3,2%	7,2%	11%

¹⁹ In accordance with energy balances (Eurostat , IEA, Energy Statistics reported to ECS)

²⁰ With revised biomass data, not included in the official statistics