



# **Retail Market Development in the Energy Community Status Review**

December 2014

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# I. INTRODUCTION

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## 1. About the ECRB

The Energy Community Regulatory Board (ECRB) operates based on the Energy Community Treaty. As an institution of the Energy Community<sup>1</sup> the ECRB advises the Energy Community Ministerial Council and Permanent High Level Group on details of statutory, technical and regulatory rules and makes recommendations in the case of cross-border disputes between regulators<sup>2</sup>.

ECRB is the independent regional voice of energy regulators in the Energy Community. ECRB's mission builds on three pillars: providing coordinated regulatory positions to energy policy debates, harmonizing regulatory rules across borders and sharing regulatory knowledge and experience.

## 2. Background

Knowledge about market performance and stakeholder needs is a pre-condition for well designed and targeted regulatory regimes. In the light of the upcoming opening of retail markets for household customers in the Energy Community Contracting Parties as of 1 January 2015<sup>3</sup> (in most cases), ECRB decided to execute an in-depth analysis of the end-customer markets with a view to:

- Assess the electricity and gas retail markets in the Energy Community, with a special emphasis on barriers to their effective operation;
- Discuss the retail markets development status and provide recommendations on potential improvements.

The present report also aims at building a basis for future ECRB market monitoring activities as foreseen in the ECRB Work Program 2015.

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<sup>1</sup> [www.energy-community.org](http://www.energy-community.org). The Energy Community comprises the EU and Albania, Bosnia and Herzegovina, Macedonia, Kosovo\*, Moldova, Montenegro, Serbia and Ukraine. Armenia, Georgia, Turkey and Norway are Observer Countries. [*\*Throughout this document the symbol \* refers to the following statement: 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.*]

<sup>2</sup> The work of the ECRB is supported by the ECRB Section at the Energy Community Secretariat.

<sup>3</sup> Decision of the Ministerial Council of the Energy Community D/2011/02/MC-EnC incorporating the Third Package in the Energy Community acquis (ref. Article 33 Directive 2009/72/EC and Article 37 Directive 2009/73/EC requiring opening of market for non- household customers as of 1<sup>st</sup> January 2008 and for all customers as of 1<sup>st</sup> January 2015).

### 3. Scope of the report

The present report covers **Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Georgia, Greece, Kosovo\***, **Moldova, Montenegro, Serbia** and **Ukraine**.

### 4. Methodology

Data and analysis provided in this report are based on information provided by the regulatory authorities of the analyzed markets as well as on EUROSTAT database on energy prices. Where information on market opening and eligibility origins from the 2014 Annual Implementation Report of the Energy Community Secretariat<sup>4</sup>, this is explicitly mention in the text. Data underlying the presented assessments orientated on the 2012 ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in<sup>5</sup>.

Data presented in this report mostly refers to the year 2013. Where important developments took place in 2014, also 2014 data is provided. Information on electricity and gas prices refers to 2013 only.

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<sup>4</sup> <http://www.energy-community.org/pls/portal/docs/3356393.PDF>.

<sup>5</sup> [http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ACER%20Market%20Monitoring%20Report%202013.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202013.pdf) .

## II. ELECTRICITY MARKETS

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This chapter provides a status review of the analyzed markets' retail electricity markets, namely demand data, the supply market structure, switching behavior of end-customers as well as end-user electricity prices and their regulation.

### 1. Retail market characteristics

Total sale of electricity to final customers in the Energy Community Contracting Parties, one Observer (Georgia) and two analyzed neighboring EU Member States (Croatia and Greece) decreased in the period 2012-2013 by 3,17%, mainly because of drops in electricity consumption in the two biggest analyzed markets, Greece and Ukraine<sup>6</sup>. Other markets had either small increases or declines in consumption over the same period. The main reasons for the observed **decrease in electricity consumption** laid in a combination of the economic crisis leading to decline in industry consumption and warm winter temperatures in 2013 allowing households to use less electricity for heating. The figures below show the total electricity sales to final customers in the period 2011-2013, presented with and without data for Ukraine.

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<sup>6</sup> It has to be noted that the relative decrease is much higher in Greece; however the influence of any change in Ukrainian consumption on the overall consumption is substantial having in mind the size of the Ukraine market: the electricity consumption in Ukraine in 2013 amounted to 144.773 GWh and the sum of consumption in all other markets was 129.656 GWh, i.e. 15.117 GWh less.

Figure 1 Total sale to final customers in GWh 2011-2013

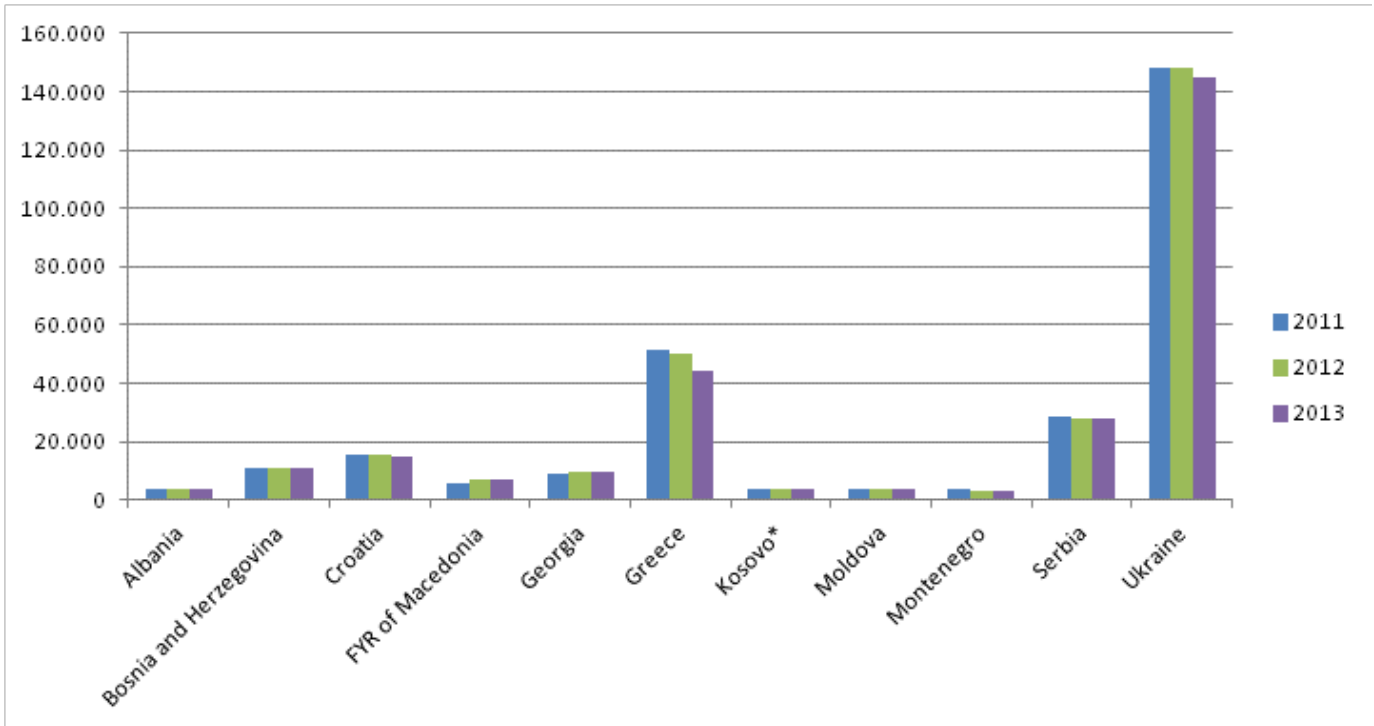


Figure 2 Total sale to final customers in GWh 2011-2013 (excluding Ukraine)

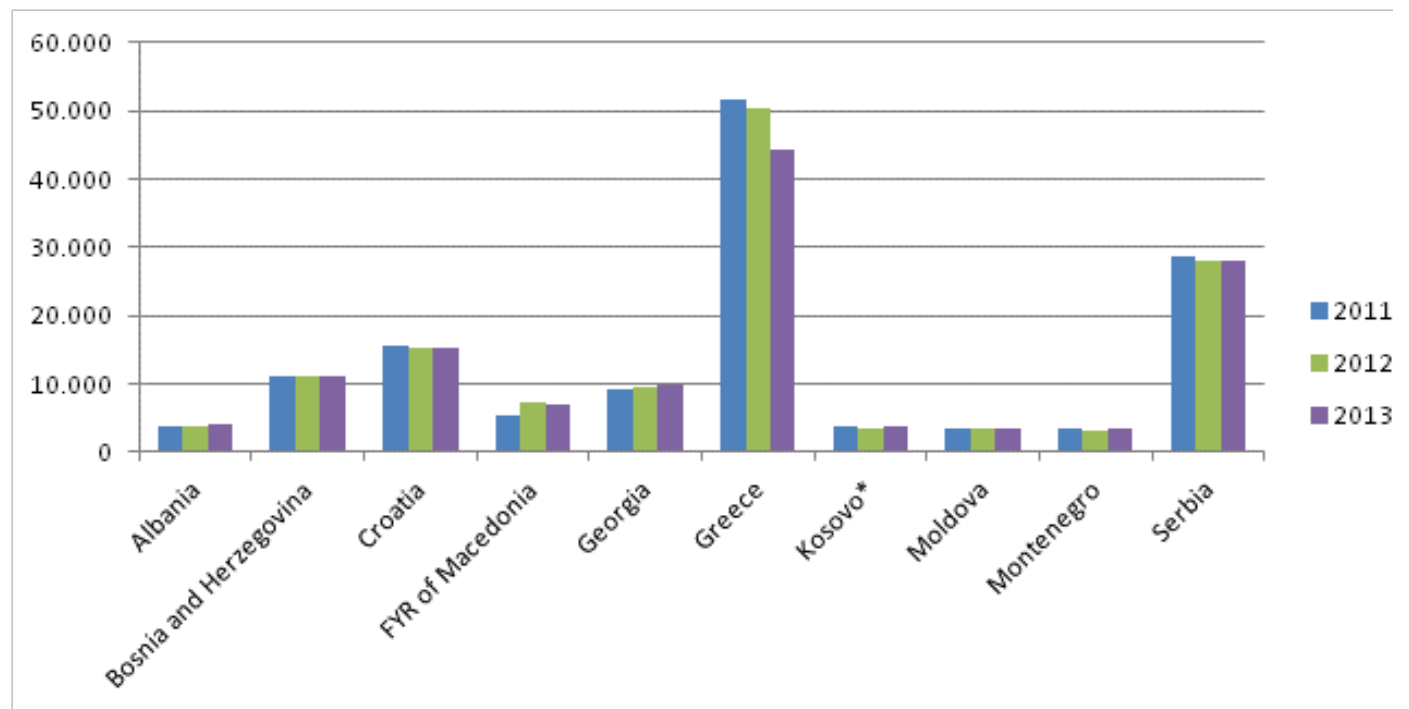
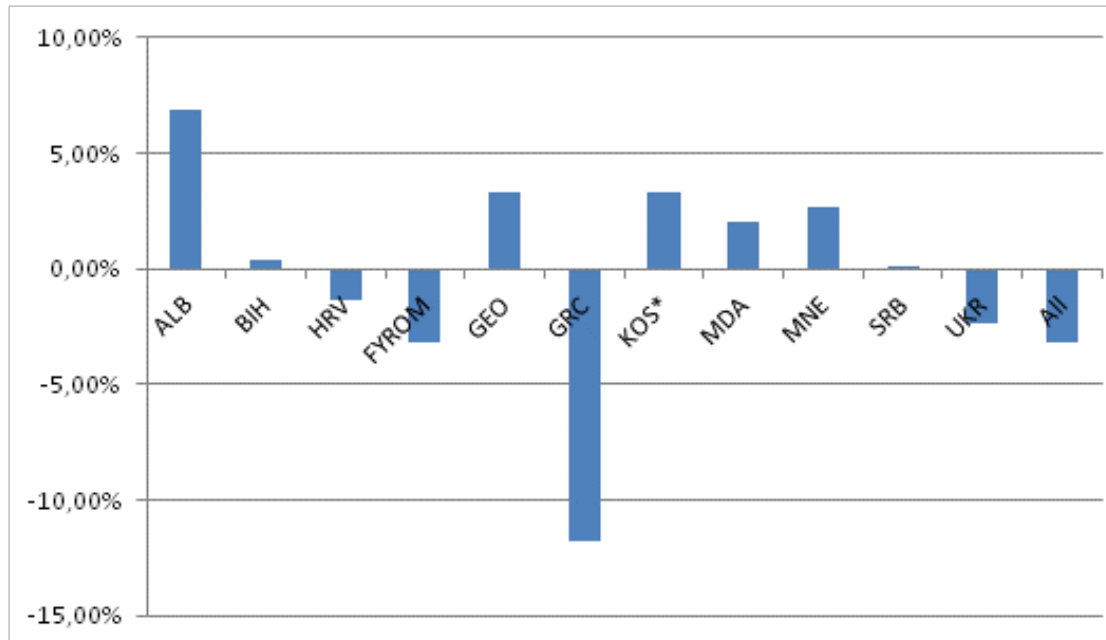


Figure 3 Electricity demand growth rate 2012 to 2013



Supply to electricity end-users in the Energy Community Contracting Parties and Georgia was offered by **one or several suppliers** in 2013, whereby **usually only one or two nationwide suppliers**<sup>7</sup> were present in those markets.

- 28 licensed nationwide suppliers<sup>8</sup> in Bosnia and Herzegovina were registered in 2013, out of which 16 were active as nationwide wholesale traders; five licensees were active in retail supply. In 2014 there were 25 licensed nationwide suppliers in Bosnia and Herzegovina, 17 of them being active in a wholesale market – out of the licensed only two are active as nationwide suppliers. Three dominant electricity retail suppliers act as regional suppliers<sup>9</sup>, offer electricity only to a restricted area.
- In Ukraine, a large number of both local and nationwide suppliers are active in the retail market.
- The analyzed EU retail markets (Croatia and Greece) were characterized by more suppliers, all of them nationwide in Croatia and one third of them nationwide in Greece.

As of 1<sup>st</sup> January 2014 (Serbia) and 1<sup>st</sup> April 2014 (FYR of Macedonia) electricity customers, except households and small non- household customers, in Serbia and FYR of Macedonia are not entitled any longer to be supplied by the incumbent supplier at regulated prices. As a consequence new suppliers entered the market. However some of the customers obliged to follow public procurement procedures for buying electricity failed to complete the process by

<sup>7</sup> Nationwide supplier means suppliers offering their products on the whole territory of a country.

<sup>8</sup> The supply license entitles the licensees to perform both wholesale trade and retail supply.

<sup>9</sup> Although holding a license for nationwide supply.



prescribed deadline and therefore had to be supplied by the supplier of last resort (back-up supplier)<sup>10</sup>. This shows that all **rules** regulating the functioning of the energy sector **need be prepared in a coordinated way** to allow measures to exploit the expected effects. It is worth noting that all new suppliers active the market indeed operate as nationwide suppliers; this proves that **distribution networks were effectively opened** for suppliers other than incumbent and the first steps towards creating level playing field in the retail markets have proven success. The table below shows detailed information on distribution network use by more number of suppliers (both for 2013 and 2014).

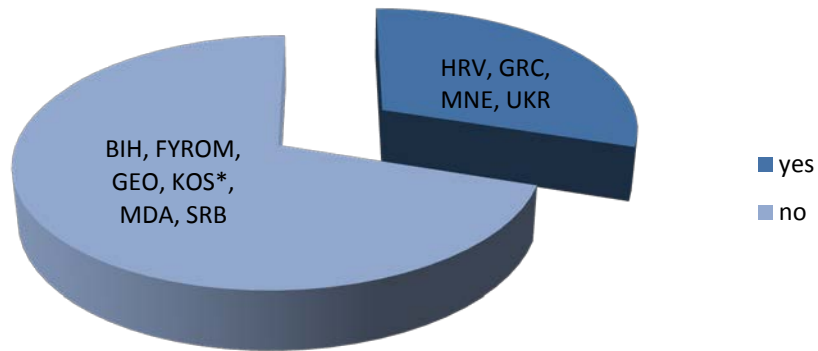
Table 1 Number of active suppliers in retail electricity markets in 2013 and 2014

	Number of active electricity suppliers		Number of active nationwide suppliers	
	2013	2014	2013	2014
Albania	1	1	1	1
Bosnia and Herzegovina	5	6	1	2
Croatia	8	11	8	11
FYR of Macedonia	2	8	1	7
Georgia	3	3	1	1
Greece	24	not available	8	not available
Kosovo*	1	1	1	1
Moldova	4	not available	1	not available
Montenegro	2	2	2	2
Serbia	2	4	2	4
Ukraine	120	120	80	80

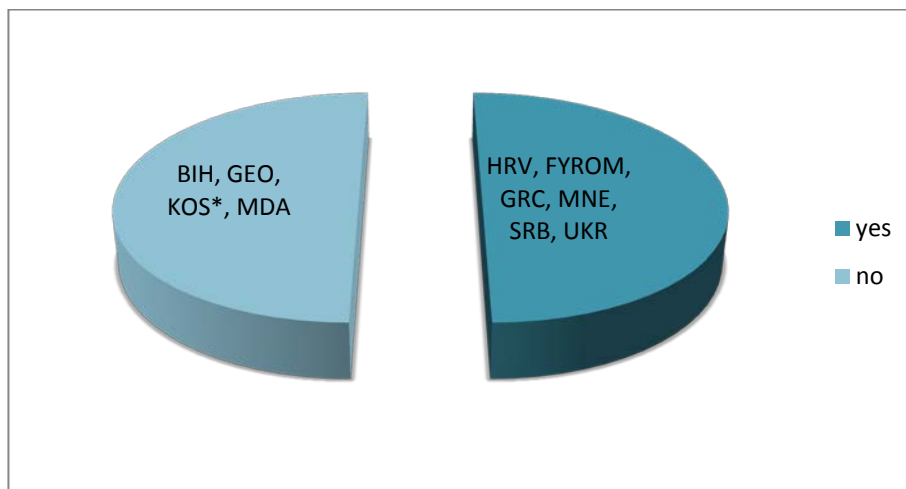
<sup>10</sup> Source: Annual Implementation Report of the Energy Community Secretariat, August 2014.

Figure 4 Are DSO networks used by more than one supplier?

2013



2014



In order to accomplish the picture of retail electricity markets from supply side, **concentration and openness of markets** have been investigated. Results are presented in the table below. The analyzed markets may be grouped in the following way:

- In Albania and Kosovo\* there is only one retail public supplier of electricity, namely the incumbent with a **100% market share**;
- In Georgia and Moldova the electricity retailers are regional and incumbent suppliers with the market share of **three largest companies being equal or close to 100%**. Similarly, in Bosnia and Herzegovina three dominant electricity suppliers with market shares adding up to 90% act as a regional suppliers, although having nationwide licenses;

- In Montenegro there are **two retail electricity suppliers** in the market: one of them supplies only one industrial customer accounting for around 22% of total consumption. All other customers are with the incumbent supplier;
- In FYR of Macedonia and Serbia, the great majority of customers are supplied by an incumbent supplier with a market share close to 100%. Although market shares of the largest companies are still extremely high in the first half of 2014, the situation of **new market entrants improved** slightly the competitiveness of retail markets;
- The large number of electricity retailers in **Ukraine** and their low market shares<sup>11</sup> might indicate a competitive and open market. However, household customers are still supplied by local public utilities<sup>12</sup> at regulated prices, like in all other Energy Community Contracting Parties and non-household customers are eligible as of 1<sup>st</sup> January 2014<sup>13</sup>;
- Although the legislative and regulatory provisions on market opening provide preconditions for functioning retail markets in Croatia and Greece, the available indicators show **slow progress towards decreased market concentration**, especially in Greece. The market shares of the two largest suppliers in Croatia are 50% and 45%, the remaining companies have shares of less than 5%. In Greece one supply company accumulates a market share of 98% in terms of consumption; other retailers' shares add up to less than 1%.

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<sup>11</sup> The market share of the largest supplier in the whole market was 15,6% in 2013, while the market share of the three largest players active in the household segment was only 7,18%.

<sup>12</sup> There are 40 DSOs in Ukraine performing also retail supply function.

<sup>13</sup> Non- household customers had the right to choose supplier also before 2014 but without using the term "eligible".

Table 2 Market concentration and market opening in 2013 and first half of 2014

	Number of electricity retailers selling at least 5% of total electricity consumed by final customers		Market share of the 3 largest companies in the retail market (aggregated) in %		Estimated incumbent market share in the household market, in % of number of customers and in % of annual consumption	
	2013	2014	2013	2014	2013	2014
<b>Albania</b>	1	1	100%	100%	100%	100%
<b>Bosnia and Herzegovina</b>	4	4	90%	90%	100%	100%
<b>Croatia</b>	2	3	97,81%	94%	99,5%	96%/ 95,2%
<b>FYR of Macedonia</b>	1	3	100%	99%	100%	100%
<b>Georgia</b>	2	2	100%	100%	100%	62,5%/ 60%
<b>Greece</b>	1	not available	99%	not available	98%/99,7%	not available
<b>Kosovo*</b>	1	1	100%	100%	100%	100%
<b>Moldova</b>	3	not available	97%	not available	98%	not available
<b>Montenegro</b>	2	2	100%	100%	100%	100%
<b>Serbia</b>	1	1	100%	100%	100%	100%
<b>Ukraine</b>	5	4	29,54%	33,69%	100%	100%

## 2. Switching behavior

The switching rate is one of the commonly used indicators for measuring market competitiveness. However, its interpretation has to be done carefully and by taking into consideration relevant legislative and regulatory provisions as well as the structures of the markets.

In the monitoring period not all customers in the Energy Community Contracting Parties had the right to choose their supplier:

- Household customers in none of the markets were eligible in 2013 and 2014. Nevertheless national legislation in all cases provides for complete market opening as of January 2015. The exemption is FYR of Macedonia where the Government in October 2014 by an amendment to the Law postponed market opening for all SME and HH customers until 2020.
- Non-household customers were eligible to switch their suppliers in more than half of the Energy Community Contracting Parties, namely in Kosovo\*, FYR of Macedonia, Montenegro, Serbia and Ukraine. However, effective market opening in Kosovo\* is subject to the assessment of market conditions by the regulatory authority who decided that regulated supply prices remain applicable to all customers. In some other countries granting the eligibility status was limited to consumption or voltage level thresholds<sup>14</sup>.

In order to better understand switching rates in the analyzed markets, it is worth mentioning that in FYR of Macedonia in 2009 and in Montenegro and Serbia in 2013, customers connected to the transmission system were **obliged to leave the regulated market** and choose “new” supplier<sup>15</sup>. Furthermore in Serbia as of 1<sup>st</sup> January 2014 and FYR of Macedonia as of 1<sup>st</sup> April 2014 all customers except households and small customers were forced to choose their suppliers. However, some legal obstacles stemming from non-energy related requirements - mainly public procurement procedures - slowed down the process of market opening.

The table below shows the switching rates in the analyzed markets in 2013. Data refers to the definition of switching as the free move of a customer from one to another supplier. Where displayed data deviates from this definition, specific reference is made in the table.

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<sup>14</sup> In Bosnia and Herzegovina the eligibility is being dealt with exclusively on entity level and different rules apply. For example, in Federation of Bosnia and Herzegovina the secondary legislation envisaged gradual implementation of eligibility rights according to voltage levels by end of 2014. Secondary legislation of Republika Srpska granted eligibility status to all customers except households. For more details, please see Annual Implementation Report of the Energy Community Secretariat, August 2014.

<sup>15</sup> This new supplier may also be the incumbent company, i.e. the customer's previous supplier, if holding a separate license for supplying under non-regulated conditions.

Table 3 Annual switching rates in electricity markets in 2013 (in %) <sup>16</sup>

	Number of eligible customers under national legislation <sup>17</sup>	Annual switching rate in the <u>whole retail market</u> (by number of meter points)	Annual switching rate of <u>household</u> customers (by number of meter points)	Annual switching rate of <u>non-household</u> customers (by number of meter points)	Annual switching rate in the <u>whole retail market</u> (by volume)	Annual switching rate of <u>household</u> customers (by volume)	Annual switching rate of <u>non-household</u> customers (by volume)
<b>Albania</b>	7 <sup>18</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Bosnia and Herzegovina</b>	122.234	0 (1 customer changed supplier)	n.a.	0 (1 customer changed supplier)	7,98	n.a.	13,69
<b>Croatia</b>	all	not available					
<b>FYR of Macedonia</b>	9	0	n.a.	0	0	n.a.	0
<b>Georgia</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Greece</b>	all	0,14	0,06	0,51	0,27	0,01	0,33
<b>Kosovo*</b>	69.988	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Moldova</b>	4	0	n.a.	0	0	n.a.	0
<b>Montenegro</b>	3	0 (3 <sup>19</sup> customers changed supplier)	n.a.	0 (3 customers changed supplier)	23,59	n.a.	37,22
<b>Serbia</b>	396.057	0,0007(26 <sup>20</sup> customers changed supplier)	n.a.	0,0066	8	n.a.	16,15
<b>Ukraine</b> <sup>21</sup>	570.847	0,0092%	n.a.	0,0259%	0,01142%	n.a.	0,0133%

<sup>16</sup> "n.a." in this and all other tables stands for "not applicable". For the case of Table 3 it means that the market has not been opened to relevant group of customers.

<sup>17</sup> Source: Annual Implementation Report of the Energy Community Secretariat, August 2014.

<sup>18</sup> In Albania eligible customers are those connected to the 110 kV grid as well as any other customer connected to the grid that consume more than 50million kWh of energy despite of the voltage level.

<sup>19</sup> 3 customers connected to the transmission network were forced as of 1st January 2013 to leave the regulated market, two of them chose to stay with the incumbent supplier under non-regulated supply price conditions and one of them selected another supplier.

<sup>20</sup> 26 customers connected to the transmission network were forced as of 1st January 2013 to leave the regulated market - 25 remained with incumbent supplier under non-regulated supply price conditions, one selected another supplier.

<sup>21</sup> Switching rates are based on data from 27 regulated suppliers.

During 2013 only a limited number of eligible customers freely changed their suppliers, also in Greece where no formal i.e. legislative or regulatory obstacles existed. There is no information available for Croatia, because the regulator did not collect data on regular basis for the monitored period. It is obvious from Table 3 that those customers that switched supplier are large consumers of electricity; therefore switching rates in terms of volume were high.

Table 4 Switching rates in electricity markets in the first half of 2014<sup>22</sup> (in %)

	Number of eligible customers under national legislation <sup>23</sup>	Annual switching rate in the <u>whole retail market</u> (by number of meter points)	Annual switching rate of <u>household</u> customers (by number of meter points)	Annual switching rate of <u>non-household</u> customers (by number of meter points)	Annual switching rate in the <u>whole retail market</u> (by volume)	Annual switching rate of <u>household</u> customers (by volume)	Annual switching rate of <u>non-household</u> customers (by volume)
<b>Albania</b>	9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Bosnia and Herzegovina</b>	122.663	0 (2 customers changed supplier)	n.a.	0 (2 customers changed supplier)	6,45	n.a.	12,66
<b>Croatia</b>	all	4,1	3,4	11,6	4,3	4,4	4,2
<b>FYR of Macedonia</b>	All except households and small non-households, but 239 were obliged to change supplier	0,03 (229 customers)	n.a.	0,29	35,77	n.a.	63,58
<b>Georgia</b>	7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Greece</b>	all	not available					
<b>Kosovo*</b>	71.140	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Moldova</b>	not available						
<b>Montenegro</b>	3	0	n.a.	0	0	n.a.	0
<b>Serbia</b>	396.057	not available	0	not available	not available	0	not available
<b>Ukraine</b>	Not available <sup>24</sup>						

<sup>22</sup> Estimations for period January- August 2014.

<sup>23</sup> Source: Annual Implementation Report of the Energy Community Secretariat, August 2014.

<sup>24</sup> At the time of the preparation of the report.

Due to the fact that the all customers except households and small customers were forced to choose their suppliers in 2014 in FYR of Macedonia and Serbia, **switching activities increased** in these countries. However, it should be noted that these changes of suppliers were not done on the own decisions of customers but a result of regulation forcing them to choose their supplier. While most of the customers chose their previous (incumbent) supplier, i.e. did not effectively switch to another company, still the process has to be seen positively both in terms of raising customers' awareness of their rights in the open market and abolishment of regulated supply prices.

Estimated switching rates in Croatia for the period January to August 2014 are substantially higher than in the Energy Community Contracting Parties, but still not yet catching up with other EU countries<sup>25</sup>.

### 3. End- user electricity prices

The following chapter presents the **levels and structures of end-user electricity prices** for both household and industry customers in the Energy Community Contracting Parties and other analyzed markets, in the second semester of 2013.

End-user electricity prices for household customers in the Energy Community Contracting Parties and other investigated markets **vary substantially** from around 2 EUR cent/kWh in Georgia and Ukraine to almost 17 EUR cent/kWh in Greece, which is still lower than the EU 28 average<sup>26</sup> price for households in the second semester of 2013. In only three Energy Community Contracting Parties, namely Albania, Moldova and Montenegro, where privatization of incumbent distribution and supply companies took place, the household prices were close to or even higher than 10 EUR cent/kWh<sup>27</sup>. In other Energy Community Contracting Parties these prices were lower. Without proper investigation of wholesale market structures and their functioning it is not possible to estimate precisely the reasons for such differences between end-user prices. Generation costs that are typically lower in the Contracting Parties compared to EU level<sup>28</sup> certainly play an important role. However, the regulation of final prices for households, still applied in all Energy Community Contracting Parties<sup>29</sup>, clearly influences their cost reflectivity, in particular if set at non-cost reflective level.

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<sup>25</sup> According to the latest ACER Market Monitoring Report for the year 2013 ([http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ACER\\_Market\\_Monitoring\\_Report\\_2014.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER_Market_Monitoring_Report_2014.pdf), page 69) eight EU countries had switching rates higher than 10%, eight countries between 4% and 10% and others below 4%. Still, very often there was no switching at all.

<sup>26</sup> Source: EUROSTAT.

<sup>27</sup> In FYR of Macedonia, the incumbent DSO and supplier had been also privatized, however, the prices were rather lower than in other mentioned countries.

<sup>28</sup> Due to lower salary levels and similar. The effect is increased in case of generation regulated at a level not covering costs which is still the case in some Contracting Parties.

<sup>29</sup> Details on end- user price regulation are described in the following chapter.



Table 5 Electricity prices for households, EUROSTAT Band DC: 2500kWh < consumption < 5000 kWh (EUR cent/kWh)

	Electrical energy, network and non-recoverable levies	VAT and other recoverable taxes	Price with all taxes and levies included
Albania	9,62	1,92	11,54
Bosnia and Herzegovina	6,80	1,16	7,96
Croatia	10,80	2,70	13,50
FYR of Macedonia	6,61	1,19	7,80
Georgia	1,73 <sup>30</sup>	0,31 <sup>31</sup>	2,04
Greece	15,01	1,96	16,97
Kosovo*	4,81	0,77	5,58
Moldova <sup>32</sup>	9,30	0 <sup>33</sup>	9,30
Montenegro	8,91	1,63	10,54
Serbia	5,07	1,01	6,08
Ukraine <sup>34</sup>		2,42	
EU-28	17,20	2,89	20,09

Source: EUROSTAT and NRAs

<sup>30</sup> Not including non-recoverable levies for market operator and regulator.

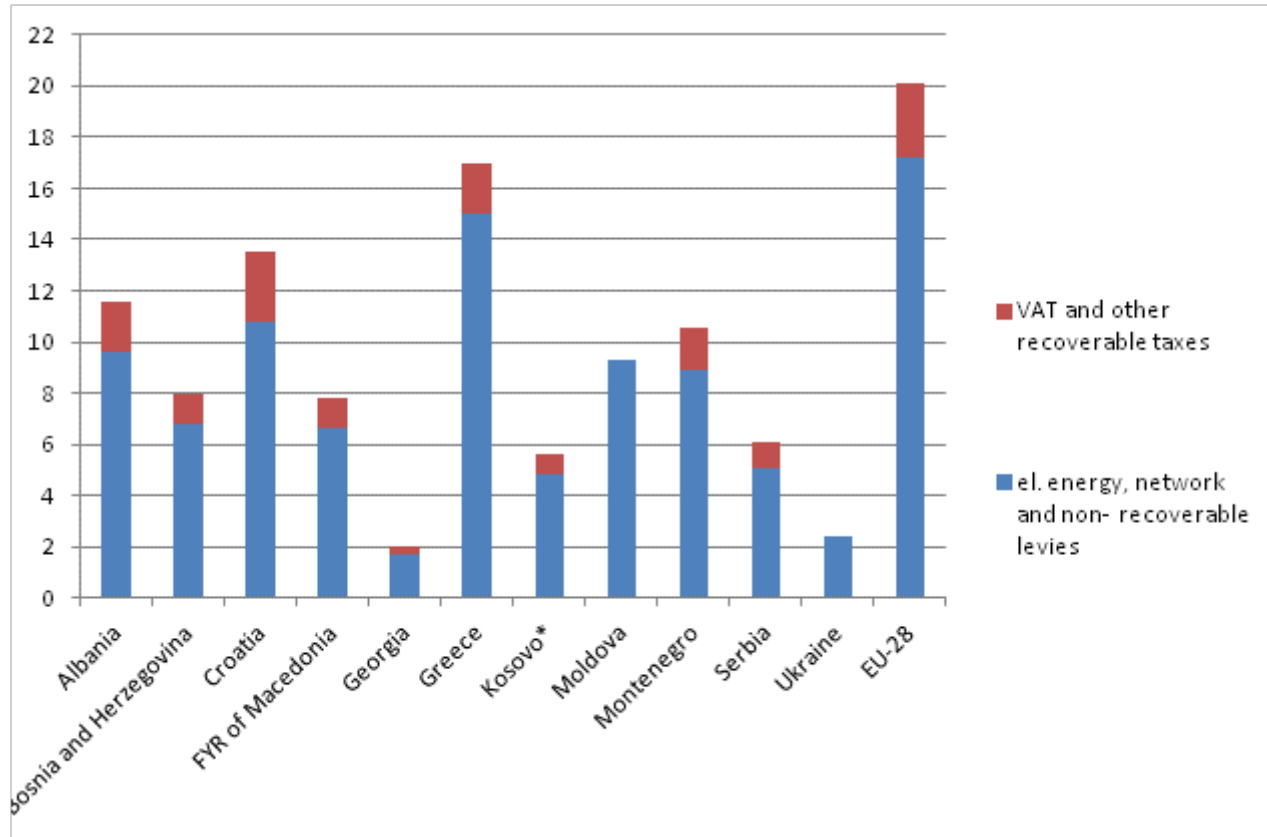
<sup>31</sup> VAT, recoverable and non-recoverable levies.

<sup>32</sup> Actual average electricity tariff of all households. Exchange rate average for the second half of 2013, source: National Bank of Moldova.

<sup>33</sup> According to the Tax Code, there is no VAT charged to electricity for household customers.

<sup>34</sup> Actual average electricity tariff of all households, without VAT. Exchange rate average for the whole 2013, source: National Bank of Ukraine.

Figure 5 Electricity prices for households, EUROSTAT Band DC: 2500kWh < consumption < 5000 kWh (EUR cent/kWh)



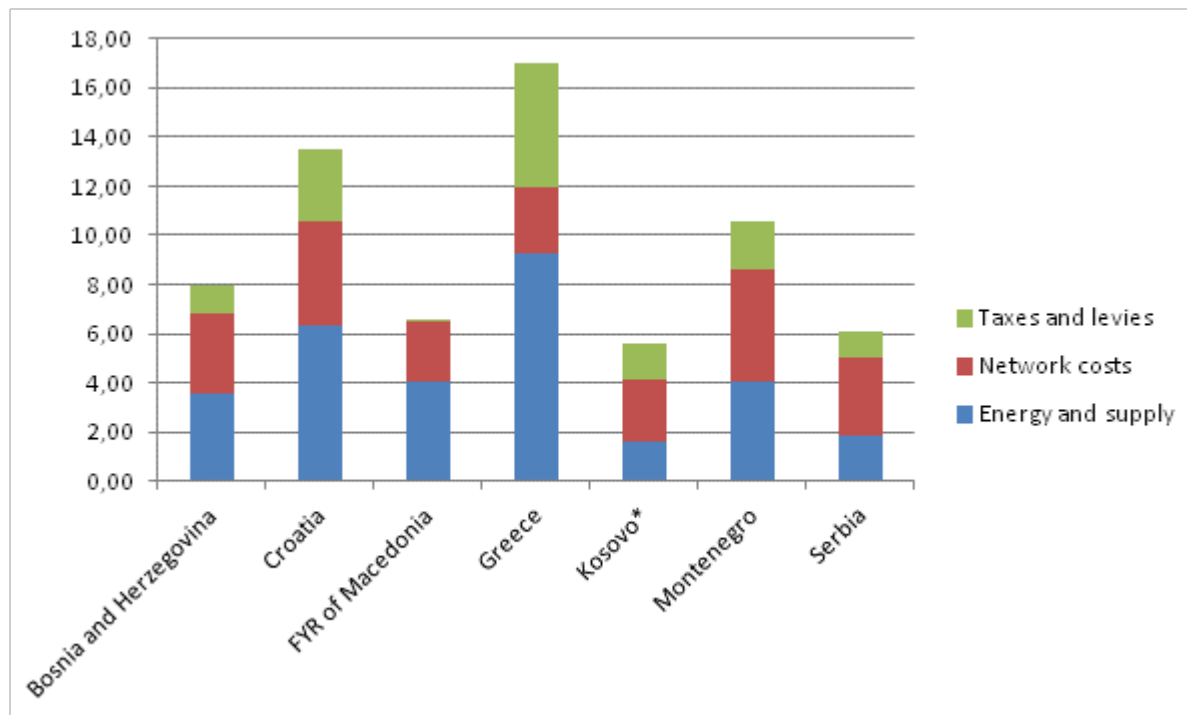
The structure of end- user prices for household customers, to the extent available (Table 6 and Figure 7), sheds more light on the competition possibilities in those markets. While in the EU taxes and levies represent a substantial portion of final prices and therefore leave less space for savings potentially coming from changing supplier, in the Energy Community Contracting Parties the **network costs have larger shares, thus leaving contestable portions of end-user prices on a very low level.**

Table 6 Breakdown of household electricity prices into their main components (Band DC: 2500kWh < consumption < 5000 kWh (EUR cent/kWh)

	Energy and supply	Network costs	Taxes and levies
Bosnia and Herzegovina	3,53	3,27	1,16
Croatia	6,31	4,29	2,90
FYR of Macedonia <sup>35</sup>	4,08	2,45	0,05
Greece	9,28	2,65	5,04
Kosovo*	1,62	2,53	1,43
Montenegro	4,02	4,56	1,96
Serbia	1,82	3,21	1,05

Source: EUROSTAT and NRAs

Figure 6 Structure of household electricity prices (Band DC: 2500kWh < consumption < 5000 kWh (EUR cent/kWh)



<sup>35</sup> Structure recalculated in EUR according to average exchange rate for second half of 2013 (source: National Bank of Macedonia); slight difference in comparison to the previous table (6,61 to 6,58) are due due to rounding.

**Electricity prices for industrial customer are more harmonized** among Contracting Parties and Georgia, but still **lagging behind EU levels**. However it has to be noted that in the majority of the analyzed markets (5 out of 8 Contracting Parties and in Georgia; ref. Figure 8) **industry prices are higher than prices for households**, in cases of Ukraine and Georgia even substantially higher. Having in mind that the great majority of customers, both household and industry<sup>36</sup>, were supplied under regulated prices, it may be concluded that some kind of **cross-subsidization** between these customer categories applied. On the other side, the fact that industry prices had been partially deregulated has already led to certain price harmonization across borders. If forthcoming market liberalization is to bring benefits to customers, not only by allowing choice of suppliers, but also by offering lower prices, **end-user price regulation has to be abandoned**. Abandoning of end-user price regulation in countries where prices are regulated at levels below costs will, most evidently, not lead to lower prices in the first step. Only once all suppliers offer electricity at market prices, market liberalization and competition can bring benefits to customers in terms of lower prices. Cost-reflectivity of energy prices remains the only means for entry of new suppliers but also economic viability of the incumbent suppliers.

Table 7 Electricity prices for industry, EUROSTAT Band IC: 500MWh < consumption < 2000 MWh (EUR cent/kWh)

	Electrical energy, network and non-recoverable levies	VAT and other recoverable taxes	Price with all taxes and levies included
Albania	6,76	1,36	8,12
Bosnia and Herzegovina	6,55	1,11	7,66
Croatia	9,44	2,36	11,80
FYR of Macedonia	7,51	1,35	8,86
Georgia <sup>37</sup>		5,30	
Greece	12,39	1,61	14,00
Kosovo*	7,26	1,16	8,42
Moldova <sup>38</sup>	8,78	1,79	10,57
Montenegro	7,26	1,38	8,64
Serbia	6,62	1,32	7,94

<sup>36</sup> For more details on end-user price regulation see the next chapter.

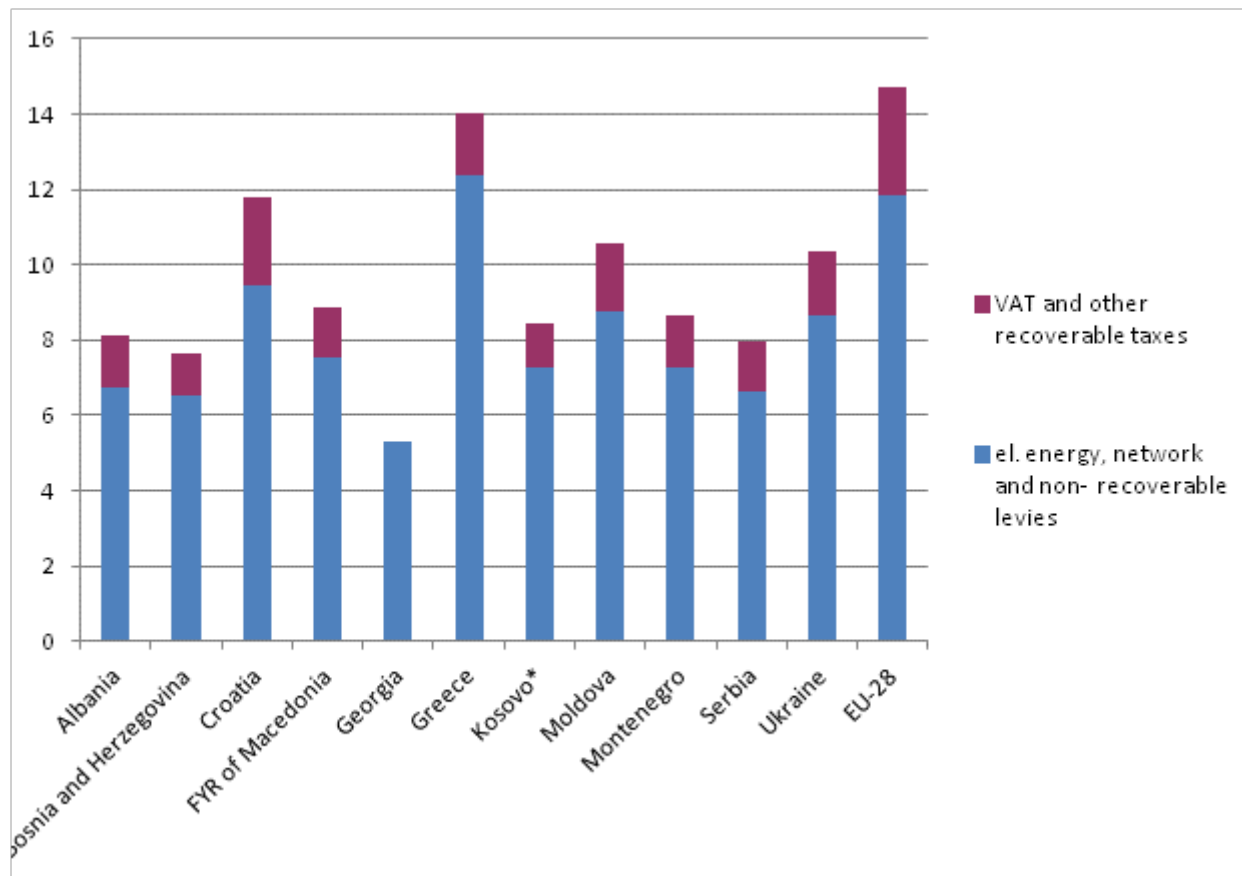
<sup>37</sup> Only final end-user price for industry available

<sup>38</sup> Exchange rate average for the second half of 2013, source: National Bank of Moldova.

	Electrical energy, network and non-recoverable levies	VAT and other recoverable taxes	Price with all taxes and levies included
Ukraine <sup>39</sup>	8,63	1,72	10,35
EU-28	11,85	2,86	14,71

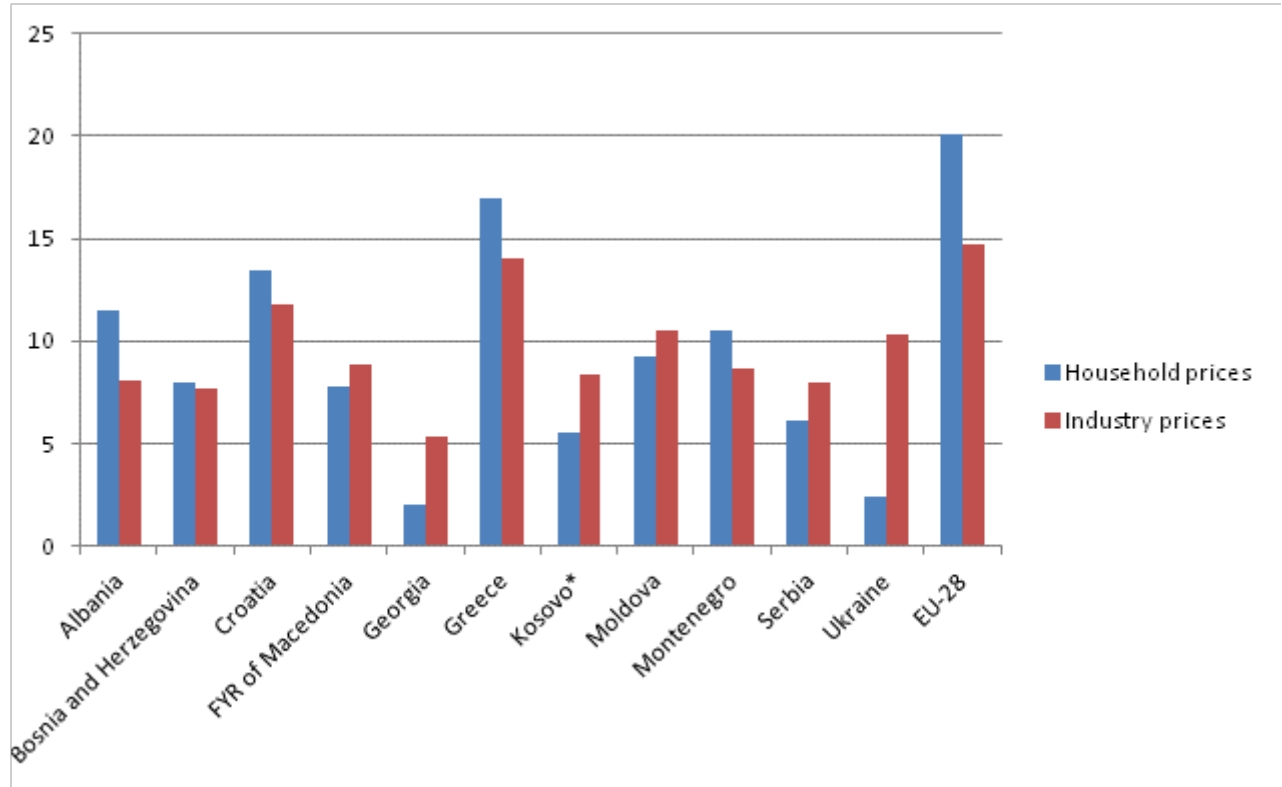
Source: EUROSTAT and NRAs, for Albania: [http://www.energy-community.org/portal/page/portal/ENC\\_HOME/DOCS/3164026/ECS\\_Performance\\_Report%20%2B%20cover.pdf](http://www.energy-community.org/portal/page/portal/ENC_HOME/DOCS/3164026/ECS_Performance_Report%20%2B%20cover.pdf)

Figure 7 Electricity prices for industry, EUROSTAT Band IC: 500MWh < consumption < 2000 MWh (EUR cent/kWh)



<sup>39</sup> Average electricity price for all non- households. Exchange rate average for 2013, source: National Bank of Ukraine.

Figure 8 Comparison of end- user electricity prices for households (Band DC) and industry (Band IC)- second semester of 2013 (EUR cent/kWh)



The table below shows the structure of electricity prices for industrial customers.

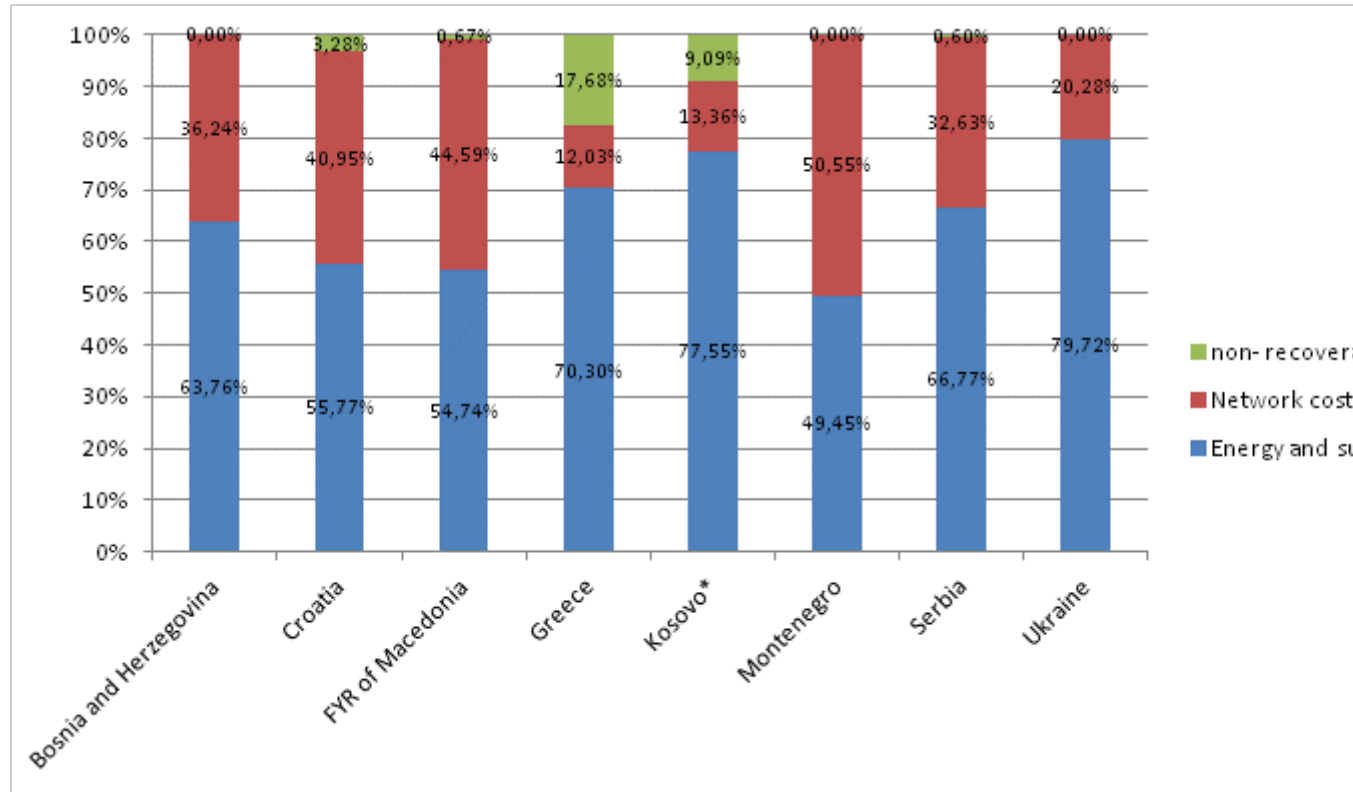
Table 8 Breakdown of industry electricity prices into their main components (Band IC: 500MWh < consumption < 2000 MWh (EUR cent/kWh))

	Energy and supply	Network costs	Non- recoverable taxes and levies
Bosnia and Herzegovina	4,17	2,37	0,00
Croatia	5,27	3,87	0,31
FYR of Macedonia <sup>40</sup>	4,10	3,34	0,05
Greece	8,71	1,49	2,19
Kosovo*	5,63	0,97	0,66
Montenegro	3,59	3,67	0,00
Serbia	4,42	2,16	0,04
Ukraine	6,88	1,75	0

Source: EUROSTAT and NRAs

<sup>40</sup> Structure recalculated in EUR according to average exchange rate for second half of 2013, source National Bank of Macedonia, slight difference in comparison to the previous table (6,61 to 6,58) due to rounding

Figure 9 Structure of industry electricity prices (Band IC: 500MWh < consumption < 2000 MWh (EUR cent/kWh))



An important element of all end- user prices that might show an increasing trend in the following years and thereby decrease the contestable part of electricity prices<sup>41</sup> is related to the **support of energy from renewable sources (RES)**. Currently, the percentages of end-user prices for both households and industry in the Energy Community Contracting Parties devoted to supporting renewable energy production are **rather low**. Only in Croatia shares are substantially higher. However, it has to be noted that RES support may not be expressed as share of end-user price where it represents a part of the wholesale price (in Albania and Ukraine) or the network charge and therefore would require recalculation of price components. The table below presents the shares of end- user prices for households and industry dedicated to RES support for the markets where such information is available.

<sup>41</sup> Energy and supply service costs.



Table 9 Share of RES support in the end- user prices for households and industry (in %)

	Household price	Industry price
Bosnia and Herzegovina	0,74	0,63
Croatia	8,6	5,5
FYR of Macedonia	1,41	1,01
Kosovo*	1,7	1,7
Montenegro	0,06	0,07
Serbia <sup>42</sup>	0,63	0,48

#### 4. Regulation of end-user prices

Regulation of end- user energy prices is generally recognized as one of the main **obstacles to creating competitive and well-functioning retail markets**. This is especially the case when regulated prices are determined at levels below costs and/or when cross-subsidization between groups of customers applies.

End-user electricity prices for **household customers** were regulated in all Energy Community Contracting Parties and Georgia in 2013. In Croatia household customers have the right to choose their supplier but they may also choose to stay with incumbent supplier and purchase electricity at regulated prices (in 2013 99, 5% household customers were supplied at regulated prices). In Greece electricity prices for households and small enterprises are no longer regulated since June 2013. However, there are specific supply prices for vulnerable customers<sup>43</sup>.

Also the great majority of **non-household customers** were still supplied at regulated prices in 2013. Although the relevant national laws proclaimed eligibility status for non-household customers in most<sup>44</sup> of the Energy Community Contracting Parties, in some of the markets the possibility to change supplier was limited by secondary legislation<sup>45</sup>, namely in Bosnia and Herzegovina, Moldova, Kosovo\*, Albania. On the other side and as described earlier, in some countries, namely FYR of Macedonia, Montenegro and Serbia, final customers connected to the transmission network were *forced* to leave the regulated market and choose a new supplier and all non-household customers were *allowed* to choose their suppliers<sup>46</sup>.

<sup>42</sup> Shares in end- user prices including VAT.

<sup>43</sup> In 2013 around 8% of household customers were supplied at special tariff for vulnerable customers.

<sup>44</sup> Ref. chapter II.2.

<sup>45</sup> Source: Annual Implementation Report of the Energy Community Secretariat, August 2014.

<sup>46</sup> In FYR of Macedonia as of April 2014 and in Serbia as of January 2014; ref. chapter II.2 on switching.

The table below shows the number / percentage of non-household customers were supplied at non-regulated prices in 2013 and 2014.

Table 10 Number of non- households supplied at non- regulated prices

	2013	2014- first semester
Albania	7	9
Bosnia and Herzegovina	1	2
Croatia	53% of all non-households	not available
FYR of Macedonia	9	not available
Georgia	0	0
Greece	2% of all non-households	not available
Kosovo*	0	0
Moldova	1	1
Montenegro	3	3
Serbia	26	not available
Ukraine	More than 1161	more than 1168

End- user electricity prices are regulated by using the following **methodologies**<sup>47</sup>:

- Rate of return/cost plus in Bosnia and Herzegovina, Croatia, Georgia, Serbia and Ukraine
- Revenue cap in FYR of Macedonia, Kosovo\* and Montenegro
- Price cap in Albania

In the process of **phasing out** end-user price regulation it is important to prove to customers that the electricity price is a market-based commodity price that varies according to the wholesale market developments. One of the most efficient tools for doing so is frequent updating of the energy component, so to allow the final price to reflect changes in the

<sup>47</sup> More details on types of price regulation implemented in the Energy Community can be found in the 2013 ECRB report "Status Review of Main Criteria for Allowed Revenue Determination for transmission, distribution and regulated supply of electricity and gas", [http://www.energy-community.org/portal/page/portal/ENC\\_HOME/DOCS/2768183/Criteria%20for%20Allowed%20Revenue%20Determination\\_approved%20by%20the%20ECRB.fin.pdf](http://www.energy-community.org/portal/page/portal/ENC_HOME/DOCS/2768183/Criteria%20for%20Allowed%20Revenue%20Determination_approved%20by%20the%20ECRB.fin.pdf).

wholesale market. This will also offer customers the possibility to estimate if retail companies, other than incumbent suppliers, provide cheaper energy. The energy component in the analyzed markets receives update as follows:

- Every 6 months in Croatia,
- Within up to 12 months in Montenegro,
- on annual basis in Albania and Kosovo\*,
- Ukraine: monthly for customers other than households,
- Serbia: no automatic mechanism, NRA decides upon request of a supplier;
- FYR of Macedonia: no automatic mechanism, the final prices are changed by new price setting proceedings; the need for a related price review is considered on annual basis;
- Moldova: the change in commodity price is treated as pass-through cost and the final price is changed if this commodity-related cost influences the total level of allowed costs by more than 1%;
- Bosnia and Herzegovina: no automatic mechanism, the final prices are changed in case of new price setting by the regulated initiated upon request of a supplier.

Finally, another precondition for successful transition towards complete deregulation of end-user prices is allowing customers to **switch from and to regulated prices**. Customers, especially households, typically consider regulated energy prices as more stable. If customers are allowed to return to regulated supply, they will most likely not be willing to change supplier at all. This tendency increases where regulated prices are set at levels below costs. Obviously such approach does not contribute to liquid and effective retail market development. Also the ACER/CEER Market Monitoring Report 201<sup>48</sup> investigated the influence of the possibility to switch in and out of regulated prices on switching behavior and the results showed that in countries with regulated electricity prices where both<sup>49</sup> preconditions for efficient transition to deregulation are met, the switching rates were much higher.

In all Energy Community Contracting Parties, except Albania, switching from and to regulated prices is allowed, in some cases only for households and small enterprises<sup>50</sup> or with limited frequency<sup>51</sup>. Switching in and out of regulated prices is also possible in Croatia. In Greece regulation of electricity end-user prices has been abolished in June 2013; before June 2013 switching in and out of regulated prices was possible.

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<sup>48</sup>

[http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ACER%20Market%20Monitoring%20Report%202013.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202013.pdf) , pages 53-55.

<sup>49</sup> Namely frequent review of the energy component and the possibility of switching in and out of regulated prices.

<sup>50</sup> Serbia.

<sup>51</sup> FYR of Macedonia.

## III. GAS MARKETS

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Having in mind that Albania, Kosovo\* and Montenegro do not have gas markets, this part of the report does not include information on these three markets. For Bosnia and Herzegovina only the information on end- user gas prices has been provided by the regulatory authorities, therefore the rest of analysis will rely on the information from the 2013 and 2014 Annual Implementation Reports of the Energy Community.

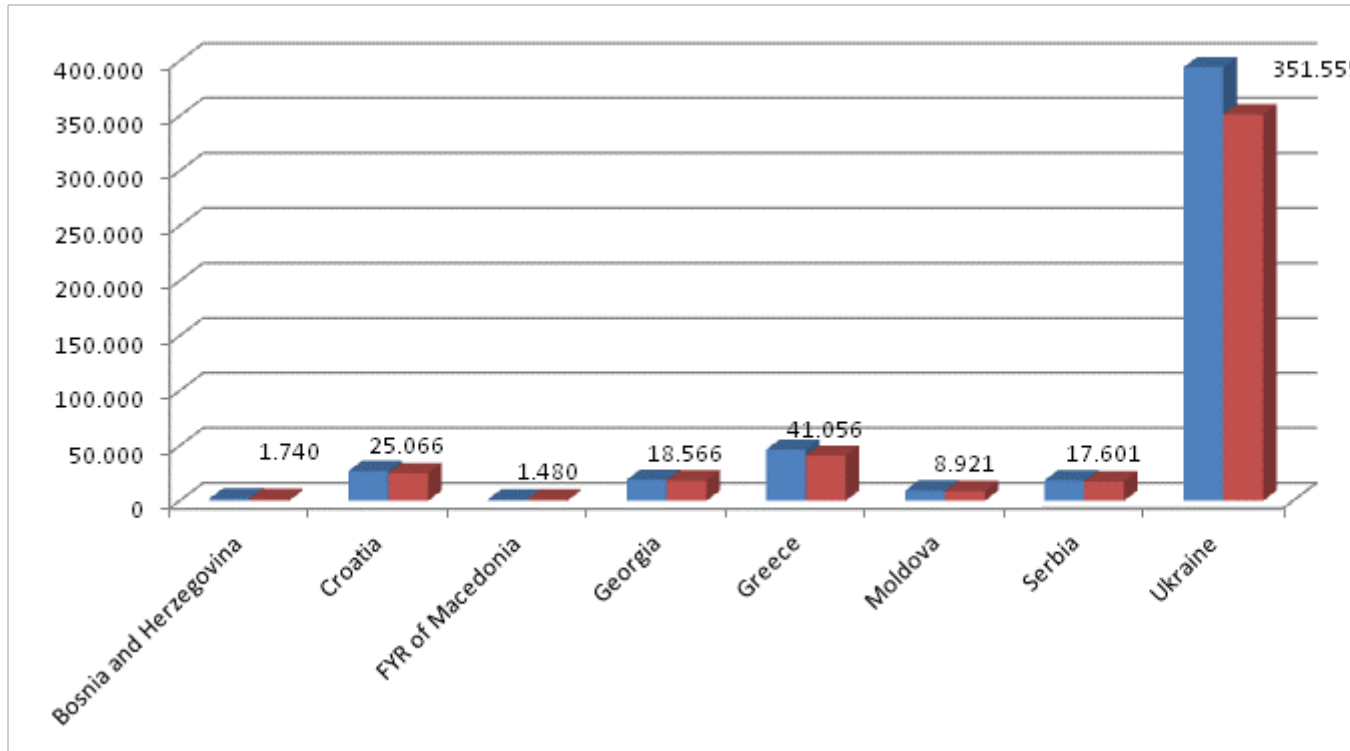
### 1. Retail market characteristics

The total sale of gas to final customers in the Energy Community Contracting Parties, one Observer (Georgia) and two analyzed neighboring EU Member States (Croatia and Greece) decreased from 2012-2013 by 10,15%. The gas **consumption decreased** in all countries. The only exception is FYR of Macedonia where new gas-fired power plant started operation. Decrease was mainly triggered by warm winter temperatures in 2013 and a decline of industry consumption. The figures below present the total gas sales to final customers in 2012 and 2013, expressed including and excluding Ukraine<sup>52</sup>, as well as consumption growth rates by country.

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<sup>52</sup> With a view to provide comparability having in mind the size of the Ukraine gas market compared to those of the other analyzed markets.

Figure 10 Total sale to final customer) in GWh<sup>53</sup>



<sup>53</sup> Numerical data displayed in the graph refers to 2013. Information on gas consumption in 2012 and the growth rate 2012-2013 for Greece was taken from EUROSTAT ([http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Natural\\_gas\\_consumption\\_statistics#Consumption\\_trends](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Natural_gas_consumption_statistics#Consumption_trends)).

Figure 11 Total sale to final customers in GWh (excluding Ukraine)

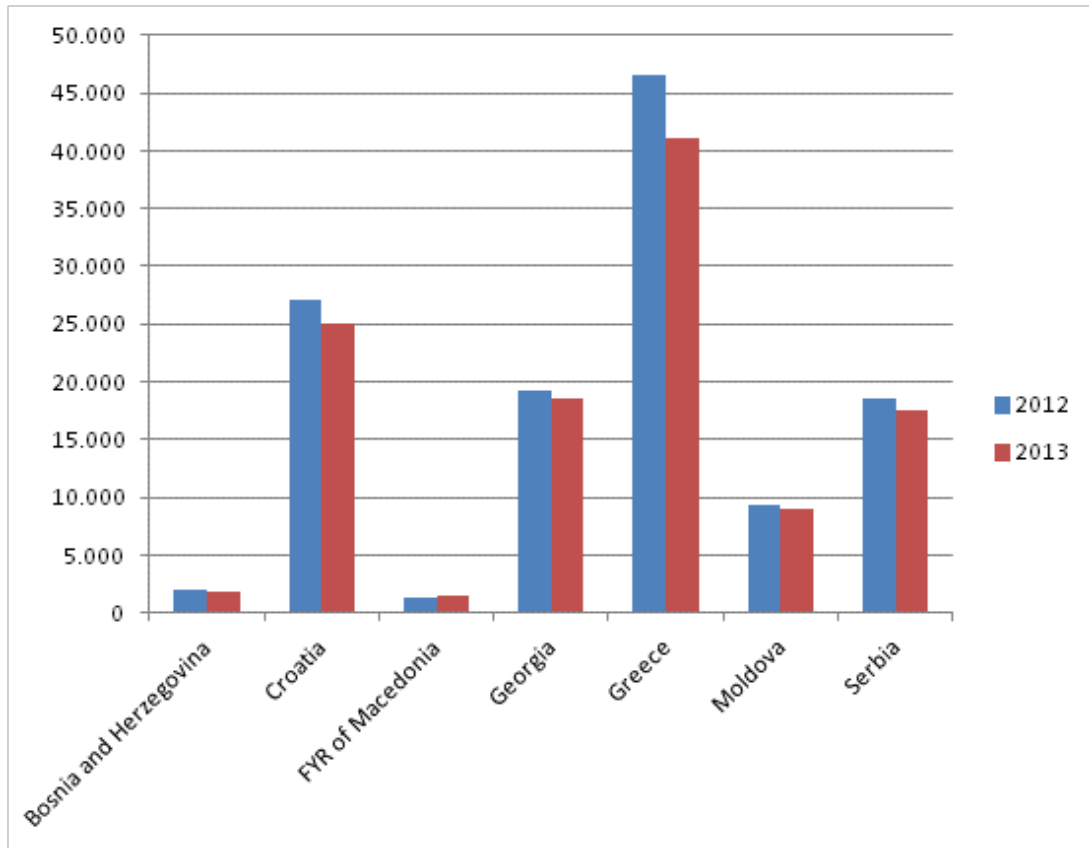
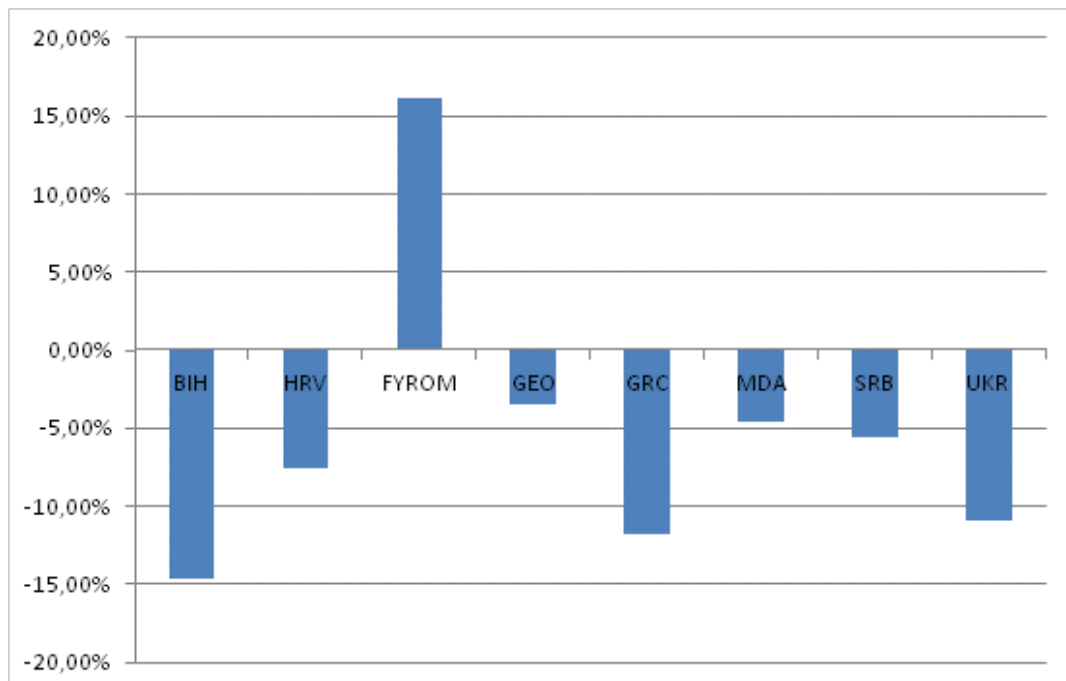


Figure 12 Growth rates of gas demand 2012 to 2013

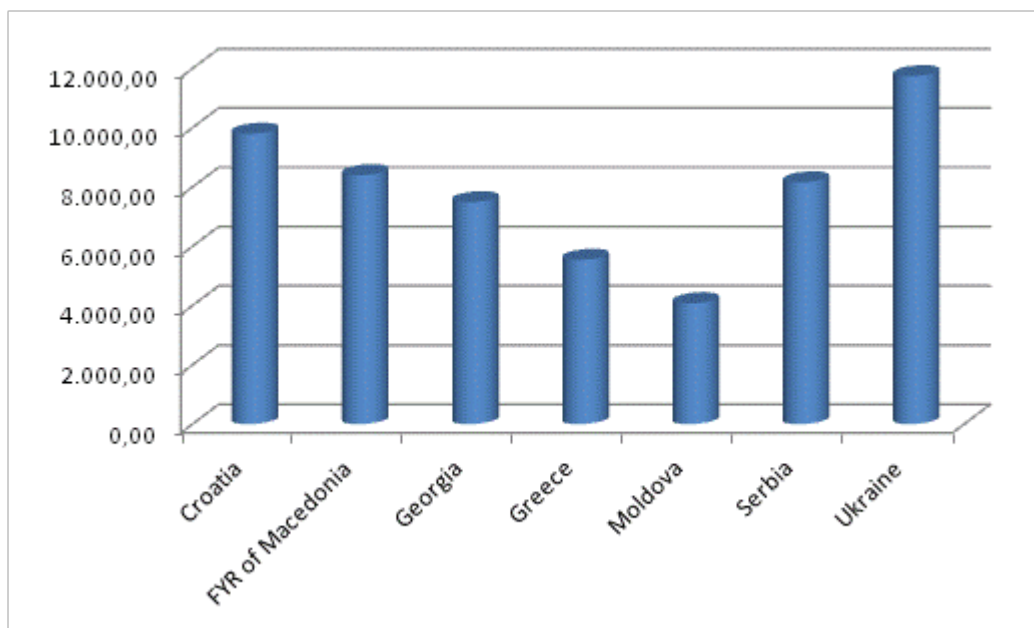


The **consumption of natural gas at household level differs** between the analyzed markets:

- More than 50% of households use gas in Moldova (53%), Georgia and Ukraine (70%);
- Less than 50% of households consume gas in Croatia (39%), Greece (14,5%), Serbia (10%) and FYR of Macedonia (only 0,01%).

Also the **average consumption of gas per household varies** among countries. Relevant quantities are displayed in the figure below.

Figure 13 Average annual gas consumption per household in kWh



End-users of gas in the Energy Community Contracting Parties, Georgia, Greece and Croatia were supplied mainly by regional retail suppliers, i.e. suppliers offering gas only to a restricted area defined by their license and usually performing also DSO function. The number of suppliers ranged from 4 in Bosnia and Herzegovina and Greece to between 20 and 50 in all other countries (see Table 11 below). The number of nationwide suppliers<sup>54</sup> was very low - mostly only one, in cases of Serbia and Georgia, three and six respectively. A specific supply side market structure applies in Greece: three out of four suppliers are so called EPAs that, based on a specific derogation<sup>55</sup>, hold an exclusive license for supply in their area of license until 2030. Thus they have a 100% market share in their areas - Attiki, Thessaloniki and Thessalia.

In only two countries, Ukraine and Croatia, there were distribution networks with more than one supplier. For the purpose of facilitating the forthcoming market opening, it is of utmost

<sup>54</sup> Nationwide supplier means suppliers offering their products on the whole territory of a country..

<sup>55</sup> Pursuant to Article 49 (8) of Gas Directive 2009/73/EC.

importance to enable efficient separation of supply and distribution activities, i.e. to allow gas retailers to supply customers on the whole territory of a country.

Table 11 Number of active suppliers in 2013

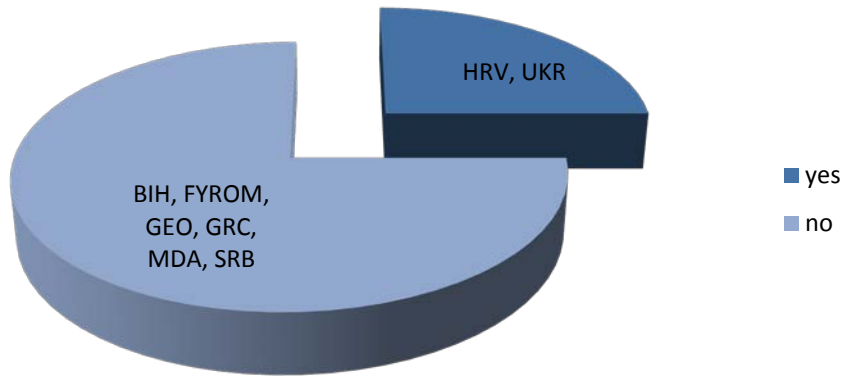
	Number of active gas suppliers	Number of active nationwide suppliers
Bosnia and Herzegovina	4 <sup>56</sup>	Not available
Croatia	42	1
FYR of Macedonia	6	1
Georgia	6	6
Greece	4	1
Moldova	21	not available
Serbia	35	3
Ukraine <sup>57</sup>	209	160 non- regulated suppliers, licensed to supply nationwide, but only one actually supplies nationwide

<sup>56</sup> Source: Annual Implementation Report of the Energy Community Secretariat, 1 August 2014.

<sup>57</sup> Information for 2014.



Figure 14 Are there gas DSO networks with more than one supplier?



In order to accomplish the picture of retail gas markets from supply side, concentration and openness of markets have been investigated. The results are presented in the table below. The following conclusions can be drawn

- Although most of the analyzed markets have a substantial number of retailers, only a very limited number of them have a market share higher than 5%. This, however, does not prove immediately absence of monopolies, but, taking into consideration other relevant information provided in this report<sup>58</sup>, rather points out to the existence of regional or local monopolies;
- In the same context, information on the aggregated market share of the three largest retailers in the market shows only that there are several dominant incumbent suppliers. The shares for Georgia and Ukraine are much lower reflecting also the level of gasification in these countries.
- There is mostly no alternative to the incumbent gas suppliers in the analyzed markets. Nevertheless, entry of new market participants is heavily limited by scarce infrastructure and the status wholesale market development (e.g. single source of gas, poor access to liquid wholesale markets, long-term contracts).

<sup>58</sup> Ref. Table 12.

Table 12 Market concentration in 2013

	Number of gas retailers selling at least 5% of total gas consumed by final customers	Market share of the 3 largest companies in the retail market (aggregated) in %	Estimated incumbent market share in the household market, in % of number of customers and in % of annual consumption
Bosnia and Herzegovina	1	not available	100%
Croatia	3	72,55%	100%
FYR of Macedonia	3	100%	100%
Georgia	3	54%	100%
Greece	3	100%	100%
Moldova	3	76,28%	98,2% of customers and 30, 1% of consumption
Serbia	2	82%	100%
Ukraine	3 <sup>59</sup>	18,90% <sup>60</sup>	100%

<sup>59</sup> In 2014: four.

<sup>60</sup> In 2014: 19,68.

## 2. Switching behavior

The switching rate is one of the commonly used indicators for measuring market competitiveness. However, its interpretation has to be done carefully and by taking into consideration relevant legislative and regulatory provisions as well as the market structures.

Not all customers in the Energy Community Contracting Parties were eligible to choose their supplier:

- **Household customers** in none of the investigated markets were eligible in 2013. National legislation in all cases provides for complete market opening as of January 2015<sup>61</sup>.
- All **non-household customers** were eligible to switch their suppliers in 2013 only in Serbia. However, only one customer used this possibility. On the other side, customers connected to the transmission system were obliged to leave the regulated market, i.e. to select a new supplier that would sell gas at non-regulated prices<sup>62</sup>; the number of relevant customers added up to 54 accounting for 29,6% of the total gas consumption. In Ukraine most of the non-household customers were eligible since 2013, all finally became eligible as of 1 January 2014. In Ukraine the annual switching rate for 2013<sup>63</sup> in the whole retail market was 0,094% measured by number of metering points which equals to 29,4% measured by volume; the switching rate of non-household customers added up to 6,20% or 63,48% measured by volume. In Bosnia and Herzegovina-Federation BIH, FYR of Macedonia and Moldova eligibility status was limited by primary or secondary legislation.
- The customers in Georgia were not eligible to choose their suppliers in the monitoring period.

In the monitoring period only in Croatia the retail gas market was **open for all customer categories**. However, household customers did not use eligibility status to change supplier in 2013; the switching rates for non-households were 1,46% of non-households (740 customers), measured by number of metering points which is equal to 2,09% measured by volume or 0,11% of the whole market measured by number of metering points. In Greece 50 non-household customers were eligible to switch their supplier; however no alternative supplier was active in the market.

Beside legal obstacles for changing the gas retail supplier, application of end-user price regulation, as it will be described in the following two chapters, may be seen as the main reason for low switching rates.

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<sup>61</sup> The exception is Bosnia and Herzegovina, where gas related state level legislation as well as legislation of Federation BIH has not been finalized yet.

<sup>62</sup> This new supplier may also be the incumbent company, i.e. the customer's previous supplier, if holding a separate license for supplying under non-regulated conditions.

<sup>63</sup> Based on data from 31 regulated gas suppliers.

### 3. End-user gas prices

This chapter presents the **levels and structures of end-user gas prices** for both household and industry customers in the Energy Community Contracting Parties and other analyzed markets in the second semester of 2013.

End-user gas prices for **household** customers in the Energy Community Contracting Parties and other investigated markets **vary substantially**, from less than 1 EUR cent/kWh in Ukraine to almost 9 EUR cent/kWh in Greece. The EU-28 average<sup>64</sup> gas price for households in the second semester of 2013 was 7,07 EUR cent/kWh. The household prices in Bosnia and Herzegovina, Croatia, Serbia and Moldova were similar, with a slightly lower level of energy and network charges in Croatia reflecting more diversified sources of gas in this country. Without proper investigation of wholesale market structures and their functioning it is not possible to estimate precisely the reasons for the monitored differences between end-user price levels in the analyzed markets. Lower costs of domestically produced gas in Ukraine, a low import price in Georgia in comparison to higher import prices in Bosnia and Herzegovina, Serbia and Moldova certainly play an important role. Also the regulation of final prices for households, still applied in all Energy Community Contracting Parties<sup>65</sup>, clearly influences their cost reflectivity.

Table 13 Gas prices for households, EUROSTAT Band D2: 20GJ < consumption < 200 GJ (EUR cent/kWh)

	Gas, network and non-recoverable levies	VAT and other recoverable taxes	Price with all taxes and levies included
Bosnia and Herzegovina	4,43	0,75	5,18
Croatia	3,74	0,94	4,68
Georgia <sup>66</sup>	1,78	0,32	2,10
Greece	7,86	1,02	8,88
Moldova <sup>67</sup>	3,81	0,31	4,12
Serbia	4,06	0,33	4,39
Ukraine <sup>68</sup>	0,70	0,14	0,84
EU-28	6,08	0,99	7,07

Source: EUROSTAT and NRAs

<sup>64</sup> Source: EUROSTAT.

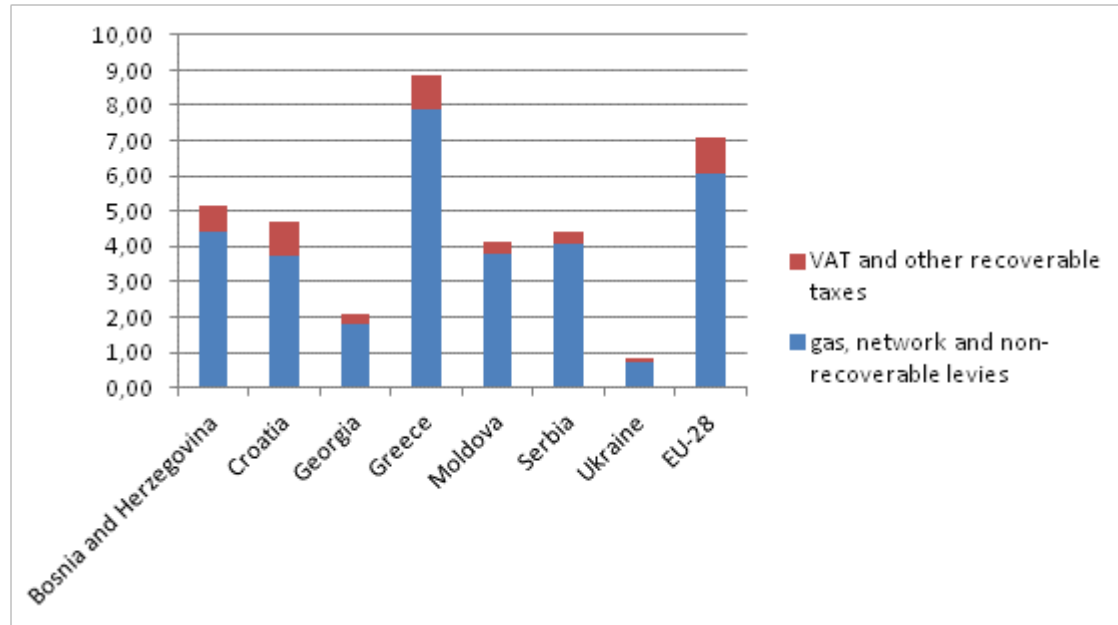
<sup>65</sup> Details on end-user price regulation are described in the following chapter.

<sup>66</sup> Weighted average price for all households.

<sup>67</sup> According to Moldavian legislation only two price categories for households exist, namely for consumption up to approximately 1 GJ and for more than 1 GJ. The price in the table is for consumption more than 1GJ. Exchange rate average for the second half of 2013, source: National Bank of Moldova.

<sup>68</sup> Weighted average price for all households; exchange rate average for whole 2013, source National Bank of Ukraine.

Figure 15 Gas prices for households, EUROSTAT Band D2: 20GJ < consumption < 200 GJ (EUR cent/kWh)



The **structure of end-user prices for household customers** is available only for Serbia and Ukraine. The share of network costs in the end-user price for households is only 5% in Serbia and 32% in Ukraine, although the absolute figures related to covering network costs are similar, namely 0,23 EUR cent/kWh in Serbia and 0,27 EUR cent/kWh in Ukraine. This only emphasizes that the energy and supply part of gas price in Ukraine is very low.

Gas prices for industry were more harmonized among Contracting Parties and other analyzed markets, in some cases higher than EU average gas price. However it has to be noted that in half of the analyzed markets (Bosnia and Herzegovina, Croatia, Georgia and Ukraine, see Figure 17) industry prices were higher than prices for households, in cases of Ukraine and Georgia even substantially higher. Having in mind that the great majority of customers, both household and industry<sup>69</sup>, were supplied under regulated prices, it can be consequently concluded that a certain level of **cross-subsidization** between these customer categories applied. On the other side, the fact that industry prices had been partially deregulated has already led to certain price harmonization. If forthcoming market liberalization is to bring benefits to customers, not only by allowing choice of suppliers, but also offering the lower prices, **end-user price regulation has to be abandoned**. Abandoning of end-user price regulation in countries where prices are regulated at levels below costs will, most evidently, not lead to lower prices in the first step. Only once all suppliers offer electricity at market prices, market liberalization and competition can bring benefits to customers in terms of lower prices. Cost-reflectivity of energy prices remains the only means for entry of new suppliers but also economic viability of the incumbent suppliers.

<sup>69</sup> For more details on end-user price regulation see the next chapter.

Table 14 Gas prices for industry, EUROSTAT Band I3: 10 000 GJ < consumption < 100 000 GJ (EUR cent/kWh)

	Gas, network and non-recoverable levies	VAT and other recoverable taxes	Price with all taxes and levies included
Bosnia and Herzegovina	5,34	0,92	6,26
Croatia	4,25	1,06	5,31
FYR of Macedonia	3,86	0,69	4,55
Georgia <sup>70</sup>	2,87	0,51	3,38
Greece	5,08	0,61	5,69
Moldova <sup>71</sup>	3,45	0,28	3,73
Serbia	3,83	0,31	4,14
Ukraine	3,88	0,78	4,66
EU-28	4,0	0,81	4,81

Source: EUROSTAT and NRAs

<sup>70</sup> Weighted average for all commercial customers excluding large industry and TPP consumption i.e. those consuming more than 100 000GJ per year.

<sup>71</sup> Exchange rate average for the second half of 2013, source: National Bank of Moldova.

Figure 16 Gas prices for industry, EUROSTAT Band I3: 10 000 GJ < consumption < 100 000 GJ (EUR cent/kWh)

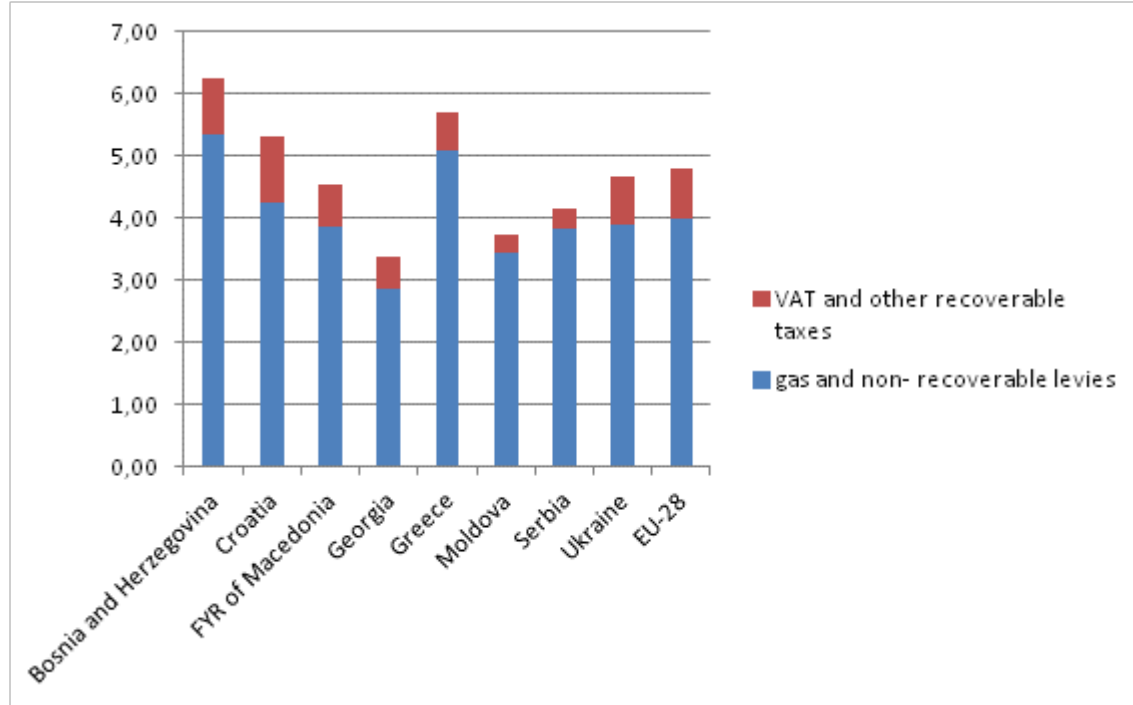
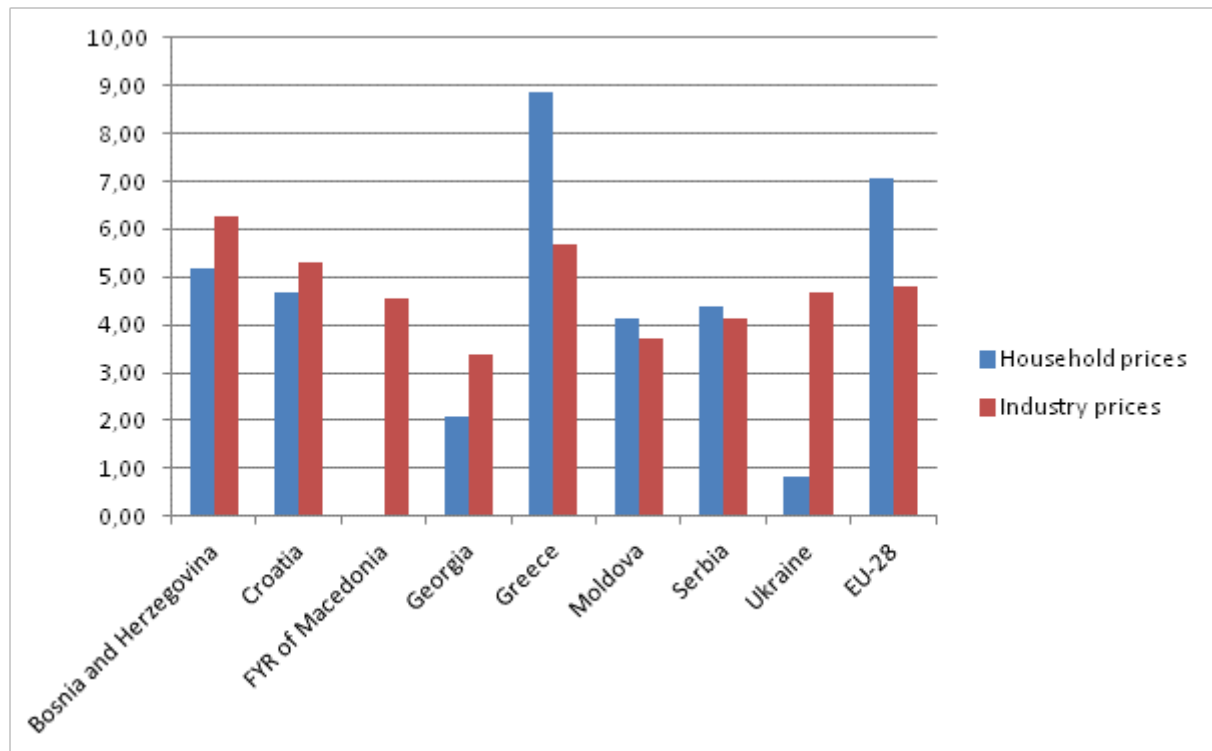


Figure 17 Comparison of end-user gas prices for households (Band D2) and industry (Band I3)- second semester of 2013 (EUR cent/kWh)



The **structure of end-user prices for industry** is available only for FYR of Macedonia and Serbia. The share of network costs in the end- user price for industry is very similar- 4,7% in Serbia and 4,6% in FYR of Macedonia.

#### 4. End- user price regulation

Regulation of end- user energy prices is generally recognized as one of the main **obstacles to creating competitive and well-functioning retail markets**. This is especially the case when regulated prices are determined at levels below costs and/or when cross-subsidization between groups of customers exists.

End-user gas prices for household customers were regulated in all Energy Community Contracting Parties in 2013, with the exception of FYR of Macedonia, where only limited number of households<sup>72</sup> was supplied at non-regulated prices. In Georgia household customers connected to the grid after 2007 are supplied under non-regulated prices, the remaining 53% of household customers are supplied at regulated prices, corresponding to 91% measured by volume. In the analyzed EU Member States, Croatia and Greece, end-user gas prices for households are also regulated, though only for a transitional period<sup>73</sup> in Croatia.

Also the great majority of **non-household customers** were still supplied at regulated prices in all investigated markets, except in Croatia and Georgia, in 2013. Although the relevant national law in FYR of Macedonia proclaimed eligibility status for non- household customers, the possibility to change supplier was limited by a secondary legislation. This situation was resolved in FYR of Macedonia at the beginning of 2014 with the introduction of the Natural Gas Market Rules, by which all non-household customers received the status of eligible customers. In Moldova the gas related legislation does not envisage eligibility status at all, therefore all customers are supplied at regulated tariffs. On the other side, in Serbia, customer connected to the transmission system were forced to exit the regulated market and choose a new supplier, while all non- household customers were allowed to choose their suppliers, but did not use the possibility in 2013. The table below shows how many non-household customers were supplied at non-regulated prices in 2013.

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<sup>72</sup> 50 household customers in 2013.

<sup>73</sup> Typically reviewed on annual basis.



Table 15 Number of non- households supplied at non- regulated prices

	2013
Bosnia and Herzegovina	not available
Croatia	all
FYR of Macedonia	3
Georgia	all
Greece	50
Moldova	not applicable
Serbia	55
Ukraine	not available <sup>74</sup>

End- user gas prices are regulated by using the following methodologies<sup>75</sup>:

- Rate of return/cost plus in Georgia, Serbia and Ukraine;
- Revenue cap in Greece;
- Price cap in Croatia and FYR of Macedonia.

In the process of **phasing out** end-user price regulation it is important to prove to customers that the gas price is a market-based commodity price that varies according to the wholesale market developments. One of the most efficient tools for doing so is frequent updating of the energy component, so to allow the final price to reflect changes in the wholesale market. This will also offer customers the possibility to estimate if retail companies, other than incumbent suppliers, provide cheaper energy. The energy component in the analyzed markets receives update as follows:<sup>76</sup>

- Monthly in FYR of Macedonia,
- Every 9-12 months in Croatia,
- Serbia: no automatic mechanism, but suppliers are obliged to submit to the regulator price proposals in case of a more than 3% change in gas purchase price.

<sup>74</sup> Around 84.692 customers were eligible to switch, however currently there is no information on how many of them used the eligibility status.

<sup>75</sup> More details on types of price regulation implemented in the Energy Community may be found in the 2013 ECRB report "Status Review of Main Criteria for Allowed Revenue Determination for transmission, distribution and regulated supply of electricity and gas", [http://www.energy-community.org/portal/page/portal/ENC\\_HOME/DOCS/2768183/Criteria%20for%20Allowed%20Revenue%20Determination%20approved%20by%20the%20ECRB.fin.pdf](http://www.energy-community.org/portal/page/portal/ENC_HOME/DOCS/2768183/Criteria%20for%20Allowed%20Revenue%20Determination%20approved%20by%20the%20ECRB.fin.pdf)

<sup>76</sup> Information not available for all relevant markets.

Finally, another precondition for successful transition towards complete deregulation of end-user prices is allowing customers to **switch from and to regulated prices**. Customers, especially households, typically consider regulated energy prices as more stable. If customers are allowed to return to regulated supply, they will most likely not be willing to change supplier at all. This tendency increases where regulated prices are set at levels below costs. Obviously such approach does not contribute to liquid and effective retail market development. Also the ACER/CEER Market Monitoring Report 2012<sup>77</sup> investigated the influence of the possibility to switch in and out of regulated prices on switching behavior and the results showed that in countries with regulated electricity prices where both<sup>78</sup> preconditions for efficient transition to deregulation are met, the switching rates were much higher.

Among the markets analyzed in this report, only in Croatia, Serbia and Ukraine switching in and out of regulated prices was allowed.

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[http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ACER%20Market%20Monitoring%20Report%202013.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202013.pdf) , pages 53-55.

<sup>78</sup> Namely frequent review of the energy component and the possibility of switching in and out of regulated prices.

## IV. SUMMARY AND CONCLUSIONS

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**The total sale of electricity and gas to final customers** in the Energy Community Contracting Parties, one Observer (Georgia) and two analyzed neighboring EU Member States (Croatia and Greece) **decreased** in period 2012-2013 by 3,17% for electricity and 10,15% for gas. The main reasons can be found in warm winter 2013 temperatures and a decline in industry consumption. For better understanding of gas consumption patterns in the Energy Community, it is worth noting that the markets of Georgia, Moldova and Ukraine have large percentages of households supplied by natural gas, while in the Western Balkans household gas market penetration only adds up to 39% in Croatia being the most developed market; in other countries penetration levels reach less than 15%.

**End-users of electricity** in the Energy Community Contracting Parties and Georgia were **supplied by one or several suppliers**, whereby typically only one nationwide supplier was present in those markets in 2013. The exceptions are Bosnia and Herzegovina, where three dominant electricity retail suppliers (although holding a license for nationwide supply) act as regional, i.e. offer electricity only within a restricted licensed area, and Ukraine, where a large number of both total and nationwide suppliers is active in the retail market. On the other side, the analyzed EU retail markets were characterized by more suppliers, many of them also nationwide. As of 2014 all electricity customers except households and small non-household customers in Serbia and FYR of Macedonia are not entitled any longer to be supplied by the public supplier at regulated prices. Therefore **new nationwide suppliers entered the market**, which proves that **distribution networks have become opened for suppliers other than incumbent** and the first steps towards creating a level playing field in the retail markets has shown success.

**End-users of gas**, on the other side, were **supplied mainly by regional retail suppliers**, i.e. suppliers offering gas only within a restricted area, usually performing also DSO functions. The number of nationwide suppliers was very low. Only in two countries, namely Ukraine and Croatia, more than one supplier was active on distribution level. For the purpose of facilitating the forthcoming market opening, it is of utmost **importance to enable efficient separation of supply and distribution activities**, i.e. to allow electricity and gas retailers to supply customers on the whole territory of a country.

**Retail electricity markets are highly concentrated** - with only one or few retailers selling more than 5% of total electricity and with an aggregated market share of the three largest companies close to 100% (the exception is Ukraine). In addition to this, markets are **dominated by incumbent retail suppliers**. This applies also for the analyzed EU Member States, Croatia and Greece, where legislative and regulatory provisions on market opening provide preconditions for functioning retail markets.

Although most of the analyzed **gas markets** have a substantial number of retailers, only a very limited number of them have market shares higher than 5%. Taking into consideration other relevant indicators, such as the number of nationwide suppliers or the number of DSO

networks with more than one supplier, this points out to the existence of **regional or local monopolies**. There are usually several dominant incumbent suppliers. The shares for Georgia and Ukraine are much lower but also correlate with the level of gasification in these countries. There are almost no alternatives to the incumbent supplier in the analyzed markets. Entry of new market participants is heavily limited by scarce infrastructure, single source of gas, poor access to liquid wholesale markets and long-term contracts.

Not all customers in the Energy Community Contracting Parties had a **right to choose their supplier**:

- *Household customers* in none of the electricity and gas markets were eligible in 2013 and 2014. National legislation in all cases provides for complete market opening as of January 2015.
- *Non-household electricity customers* were eligible to switch their suppliers in more than half of the Energy Community Contracting Parties (Kosovo\*, FYR of Macedonia, Montenegro, Serbia and Ukraine). However, the eligibility status in some of them, namely Bosnia and Herzegovina and Kosovo\*, was limited by secondary legislation<sup>79</sup>. It is worth mentioning that in FYR of Macedonia, Montenegro and Serbia in 2013 customers connected to the transmission system were **obliged to leave the regulated market**, i.e. to choose a “new” supplier. Furthermore in Serbia and FYR of Macedonia, as of 1st January 2014 and 1st April 2014 respectively, all customers except households and small customers were forced to choose their suppliers. This certainly increased activity of relevant market players but also pointed out to **necessary legal adjustments and harmonization**.
- All *non-household gas customers* were eligible to switch their suppliers in 2013 only in Serbia.

During 2013 **only a limited number of eligible electricity and gas customers freely changed their suppliers**. The customers that switched supplier are large consumers of electricity and gas; therefore switching rates in terms of volume were high.

Besides legal obstacles for changing the electricity and gas retail supplier, application of **end-user price regulation**, whereby the prices are usually set at levels below costs, may be seen as the main reason for low switching rates.

**End-user electricity prices for household customers** in the Energy Community Contracting Parties and other investigated markets vary substantially, from around 2 EUR cent/kWh in Georgia and Ukraine to almost 17 EUR cent/kWh in Greece, which is still lower than the EU-28 average price for households in the second semester of 2013<sup>80</sup>.

**End-user gas prices for household customers** in the investigated markets varied from less than 1 EUR cent/kWh in Ukraine to almost 9 EUR cent/kWh in Greece. The EU-28 average gas price for households in the second semester of 2013 amounted 7,07 EUR cent/kWh. The household prices in Bosnia and Herzegovina, Croatia, Serbia and Moldova were similar, with

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<sup>79</sup> Ref. Annual Implementation Report of the Energy Community Secretariat, 1 August 2014.

<sup>80</sup> 20 EUR cent/kWh.

al lower level of energy and network charges in Croatia reflecting more diversified sources of gas in this country.

Without proper investigation of wholesale market structures and their functioning it is not possible to precisely estimate the reasons for the monitored differences of end-user prices. For electricity, generation costs that are typically lower in the Contracting Parties compared to EU level<sup>81</sup> certainly play an important role. For gas, lower costs of domestically produced gas in Ukraine, the low import price in Georgia in comparison to higher import prices in Bosnia and Herzegovina, Serbia and Moldova surely explains the monitored differences. However, the regulation of final prices for households, still applied in all Energy Community Contracting Parties, clearly influences their cost reflectivity.

The structure of **electricity end- user prices for household customers** sheds more light on the competition possibilities in those markets. While in the EU taxes and levies represent a substantial portion of final prices and therefore leave less space for savings potentially by changing supplier, in the Energy Community Contracting Parties the network costs have larger shares, thus leaving contestable portions of end- user prices on a very low level.

**Electricity and gas prices for industry** were more harmonized among Contracting Parties and Georgia; price levels were lagging behind EU levels for electricity, but for gas in some cases exceeded the EU average. However, it has to be noted that in the majority of cases industry prices were higher than prices for households, in the case of Ukraine and Georgia even substantially higher. Having in mind that the great majority of customers, both household and industry, were supplied under regulated prices, it can be concluded that some kind of **cross-subsidization** between these customer categories exists.

On the other side, the fact that industry prices had been partially deregulated has already led to **certain price harmonization**.

If forthcoming market liberalization is to bring benefits to customers, not only by allowing choice of suppliers, but also offering the lower prices, **end-user price regulation has to be abandoned**. Abandoning of end- user price regulation in countries where prices are regulated at levels below costs will, most evidently, not lead to lower prices in the first step. Only once all suppliers offer electricity at market prices, market liberalization and competition can bring benefits to customers in terms of lower prices. Cost-reflectivity of energy prices remains the only means for entry of new suppliers but also economic viability of the incumbent suppliers.

**End-user electricity and gas prices for household customers were regulated** in all Energy Community Contracting Parties and Georgia in 2013, with the exception of FYR of Macedonia a limited number of 50 households were supplied at non-regulated prices. In the analyzed EU Member States, Croatia and Greece, end- user gas prices for households were also regulated, though only for a transitional period in Croatia.

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<sup>81</sup> Due to lower salary levels and similar. The effect is increased in case of generation regulated at a level not covering costs which is still the case in some Contracting Parties.

Also the great majority of **non-household customers** were supplied at regulated prices. End-user prices are regulated by using different methodologies, namely rate of return, revenue or price cap.

In the process of phasing out the end- user regulated prices, it is important to prove to the customers that the input electricity/gas price is market- based commodity price which's level varies according to the wholesale market developments. One of the most efficient tools for doing so is **frequent updating of the energy component**, so to allow the final price to reflect changes in the wholesale market. This will also offer customers the possibility to estimate if retail companies, other than incumbent suppliers, offer cheaper energy.

Finally, another precondition for successful transition towards complete deregulation of end-user prices is allowing customers **to switch in and out of regulated prices** as often as possible. Customers, especially households, typically consider regulated energy prices as more stable. If customers are allowed to return to regulated supply, they will most likely not be willing to change supplier at all. This tendency increases where regulated prices are set at levels below costs.