



ECRB Market Monitoring Report 2016

Electricity and Gas Retail Markets in the Energy Community Contracting Parties

Reporting Period 2016

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A. INTRODUCTION

Market monitoring is a core element of regulatory responsibilities. Only in-depth knowledge of market performance, stakeholder activities and development trends allow regulators to create an effective market framework that balances the needs of market players and is able to promote competition, customer protection, energy efficiency, investments and security of supply at the same time. The relevance of regulatory market monitoring is not only recognized by the Energy Community *acquis communautaire* but is also since years a central activity of the Energy Community Regulatory Board (ECRB).¹

The present report covers the Energy Community Contracting Parties (CP) **Albania, Bosnia and Herzegovina, fYR of Macedonia, Georgia, Kosovo*, Moldova, Montenegro, Serbia and Ukraine**. It describes the status quo of electricity and gas markets on retail level with the aim to identify potential barriers and discuss recommendations on potential improvements.

Data presented in this report refers to the year **2016**.

¹ ECRB operates based on the Treaty establishing the Energy Community (Energy Community Treaty). As an institution of the Energy Community¹ 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. For more information about ECRB consult www.energy-community.org – about us – institutions – regulatory board.

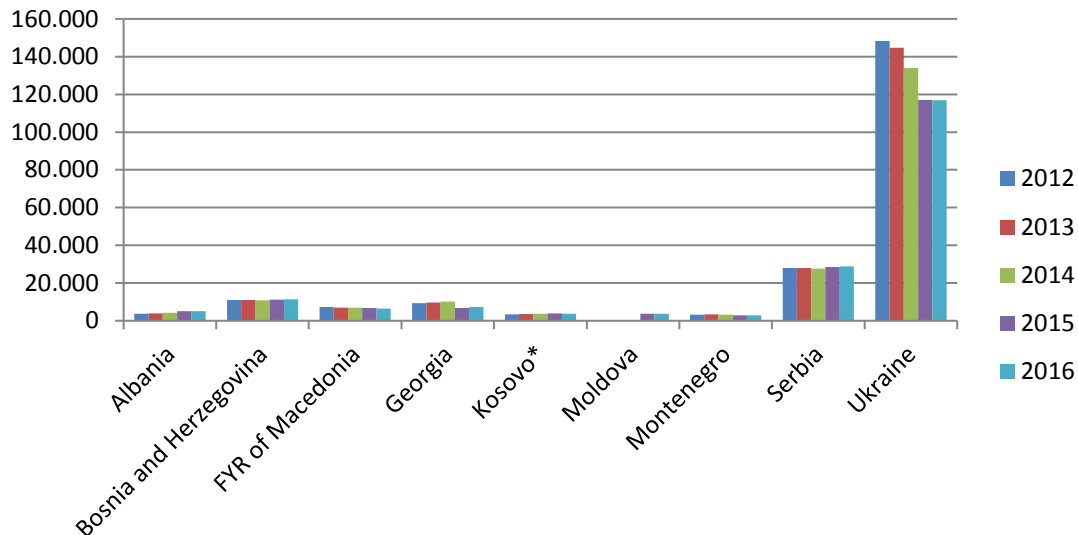
B. FINDINGS: ELECTRICITY

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

1. Electricity retail market characteristics

The total **sale of electricity** to final customers in the Contracting Parties remained almost stable in the period 2015-2016 with a slight increase of only 0.07% on average. Only Georgia (+7.33%)² and Bosnia and Herzegovina (+2.23%)³ experienced a significant increase in electricity consumption, while Albania and Serbia faced an increase of only 1%. Other markets had a decline of electricity consumption – in fYR of Macedonia 5.81%, Kosovo* 4.51%, Montenegro 1.74%, Moldova 1.29% and Ukraine 0.23%. In fYR of Macedonia and Kosovo* the main reason was a drop of big industry activities. Figure 1 shows the total electricity sales to final customers in the period 2012-2016.⁴ Having in mind the size of the Ukraine electricity market compared to other Contracting Parties, figure 2 shows the same results without data for Ukraine.

Figure 1 Total electricity sale to final customers in GWh 2012-2016

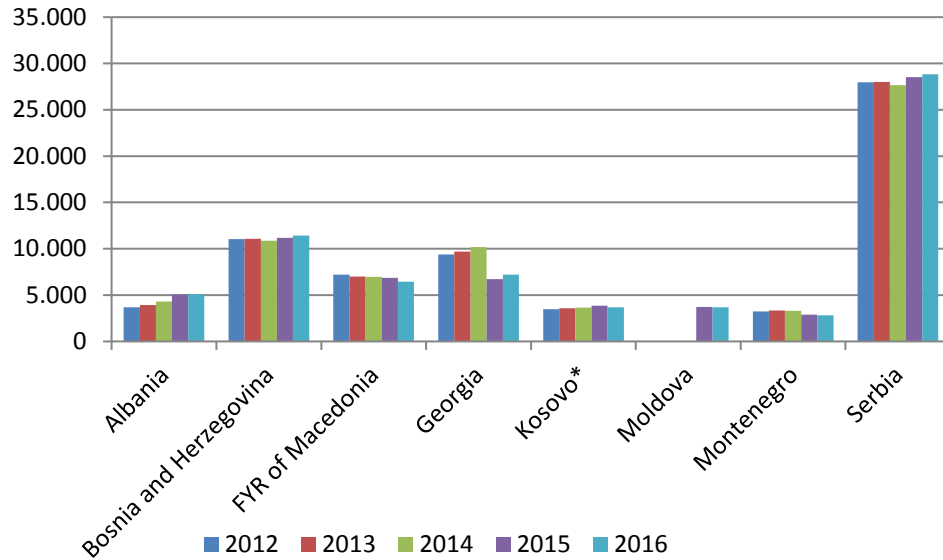


² Increase in electricity consumption is the result of general industry growth.

³ Bosnia and Herzegovina: The highest increase in consumption was noted for customers connected to the 10 kV voltage level (6.5%), followed by customers connected to the transmission network (4.1%) and public lighting (3.7%), while commercial customers connected to 0.4kV network increased their consumption by 2.3%. Households reached almost the same level of consumption as in the previous year (0.01% increase), while customers connected to the 35 kV level decreased their consumption by 2.5%.

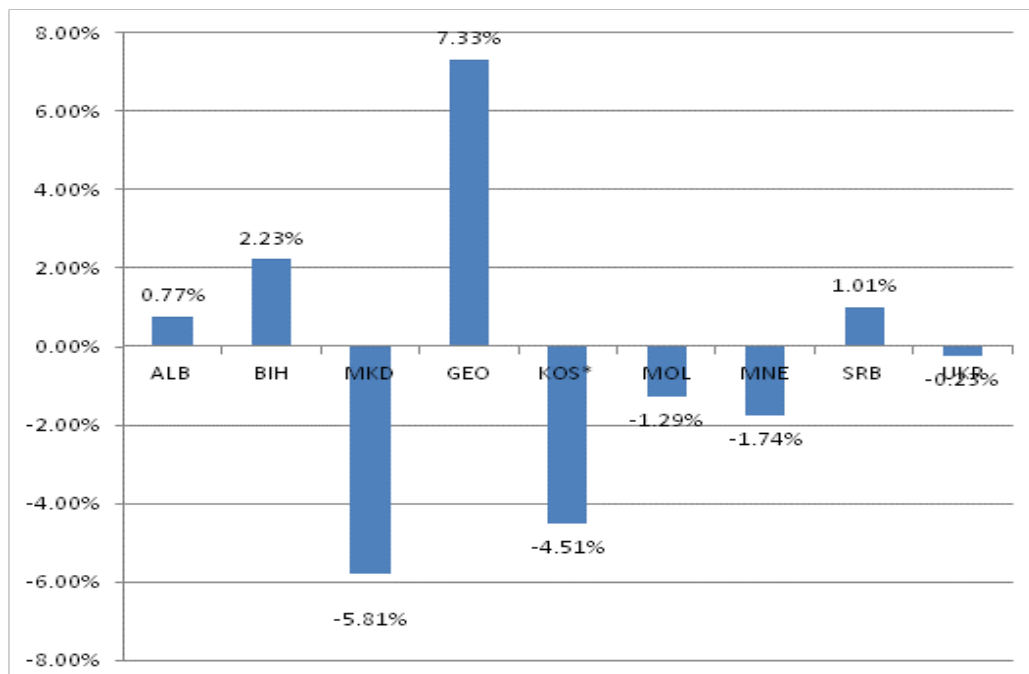
⁴ Only for Moldova the presented data refers to the period 2015-2016.

Figure 2 Total electricity sale to final customers in GWh 2012-2016 (excluding Ukraine)



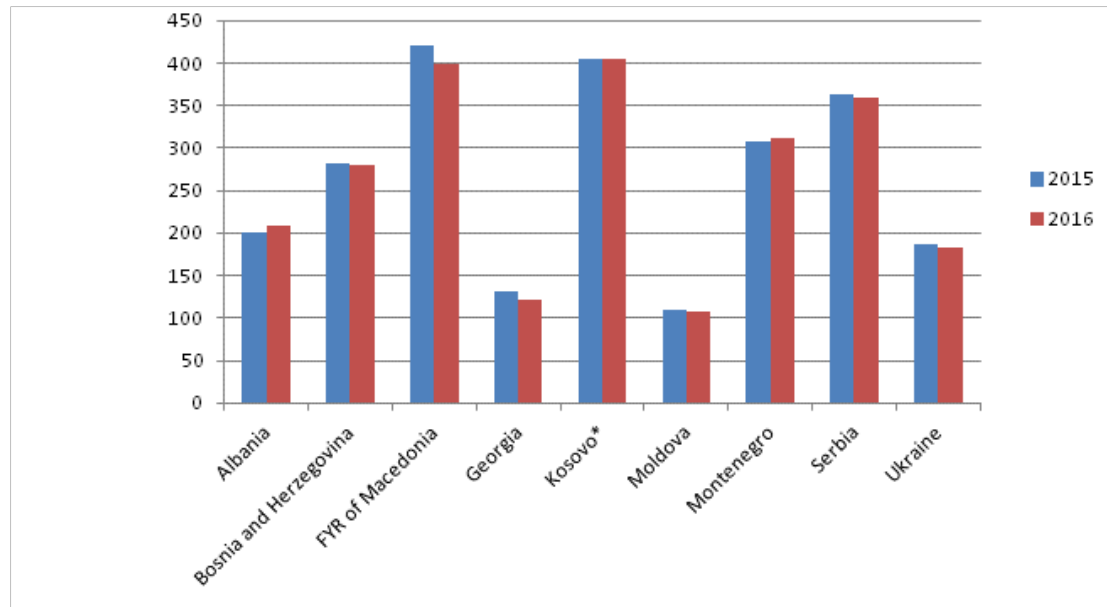
The following figure shows the growth rate of total electricity sales to final customers in the Contracting Parties from 2015 to 2016.

Figure 3 Electricity demand growth rate 2015 to 2016



The average monthly consumption of electricity per household⁵ varies among the Contracting Parties. In 2016 the lowest consumption was observed for Moldova (107 kWh/month) and Georgia (129 kWh/month) and the highest for Kosovo* (404 kWh/month) and fYR of Macedonia (398 kWh/month). Quantities are displayed in the figure below.

Figure 4 Average monthly consumption of electricity per household in 2015 and 2016 (kWh)



Only in Ukraine a large number of both **local and nationwide**⁶ **suppliers** were active in the retail market in 2016. In Bosnia and Herzegovina, fYR of Macedonia and Serbia more than ten suppliers were active in the retail market, while in the other Contracting Parties supply to electricity end-users was offered by one or only few suppliers. With the exception of Georgia, the majority of suppliers active in the Contracting Parties were nationwide suppliers. In 2016 new active nationwide suppliers entered the markets of Albania, fYR of Macedonia, Serbia and Ukraine. In Georgia only three distribution companies supply end-users connected to their network.

Except for Ukraine, in all Contracting Parties licenses have to be issued for the activity of supply of electricity to end-users. In Ukraine, according to the Law "On licensing of economic activity" adopted in 2015 only electricity suppliers that supply end-users at regulated tariffs need to be licensed. Other electricity suppliers are not required to obtain a license. This explains why the total number of licensed electricity suppliers in Ukraine in 2016 is lower than the total number of active electricity suppliers in the retail market. In Georgia there is no separate supply license but, instead, the distribution license entails the right to supply customers.

⁵ In the calculation of average monthly consumption of electricity per household, the number of households is equal to the number of metering points.

⁶ Nationwide supplier means a supplier offering its products on the whole territory of a country.

Table 1 Number of active suppliers in retail electricity markets in 2016

	Number of licensed electricity suppliers	Total number of active electricity suppliers	Number of active nationwide suppliers	Number of net new active nationwide suppliers ⁷
Albania	41	20	20	1
Bosnia and Herzegovina	32	13	8	0
fYR of Macedonia	77	12	11	4
Georgia	3	3	0	0
Kosovo*	3	1	1	0
Moldova	17	3	1	0
Montenegro	5	2	2	0
Serbia	60	14	14	8
Ukraine	37	124	87	6

It is worth noting that in Contracting Parties where more suppliers are active in the market than nationwide suppliers, access to the **transmission and distribution networks are opened**. The figures below show detailed information on transmission and distribution network use by more suppliers in 2016.

⁷ Net means number of entries minus number of exits in the market.

Figure 5 Are electricity TSO networks used by more than one supplier?

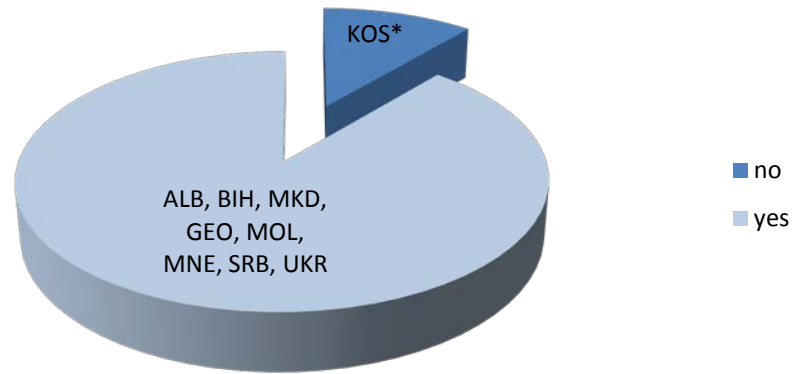
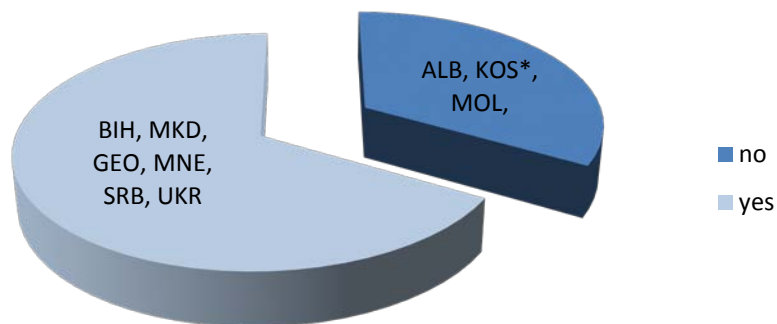


Figure 6 Are electricity DSO networks used by more than one supplier?



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 hereinafter. The analyzed markets can be explained in the following way:

- Except for Serbia, in all Contracting Parties all households are supplied by the incumbent supplier at regulated prices. Still, also in Serbia, the majority of households were supplied by an incumbent supplier at regulated prices (99.96% of total consumption of households) and the rest of households were supplied on the electricity market.
- In Albania 20 suppliers were active. Still, the incumbent supplier remained the dominant supplier with a market share of 90% of total electricity consumed by final customers. The market share of the three largest suppliers was 96% of total electricity consumed by final customers.

- In Bosnia and Herzegovina 13 suppliers were active.⁸ Three companies⁹ are dominant suppliers with a joint market share of 95.11% and acted as regional suppliers, although holding nationwide licenses.
- In Georgia electricity retailers are regional and incumbent suppliers. Three distribution companies are suppliers for customers connected to their network. The market share of these three companies is 100%.
- In FYR of Macedonia there were eleven active suppliers and four of them started to supply customers in 2016. The market share of the three largest electricity suppliers added up to 84.69%.
- In Kosovo* there was only one retail public supplier of electricity, namely the incumbent with a 100% market share.
- In Moldova there were three retail electricity suppliers active in the retail electricity market. Two of them are state owned companies out of which one supplies electricity at regulated prices and the other at non-regulated prices. The market share of electricity supplied to final customers at regulated prices is about 98.20% of the total sale of electricity on the retail market: out of this The only private supply company on the market holds 73,2% and 25% are held by one of the state owned companies.
- In Montenegro two retail electricity suppliers were active in the market. One of them supplies only non-household customers covering a market share of 3.95% of total consumption. All other non-household customers are supplied by the incumbent supplier.
- In Serbia there were 14 active suppliers and eight of them started to supply customers in 2016. The great majority of customers were supplied by the incumbent supplier covering a market share of 95.52% of the total sale of electricity to end user customers. The market share of three largest companies was 98.57%.
- The large number of electricity suppliers in Ukraine – namely: 124 active suppliers on the retail electricity market – and their low market shares¹⁰ might indicate an open market for supply to non-household customers. However, 88.3% of consumption of non-household customers was supplied at regulated prices. The market share of three largest suppliers added up to 32.76%.

⁸ Including five subsidiaries of Elektroprivreda RS supplying tariff customers in their designated areas

⁹ Elektroprivreda BiH, Elektroprivreda RS including its five subsidiaries and Elektroprivreda HZHB.

¹⁰ The market share of the largest supplier in the whole market was 18.57% in 2016, while the market share of the same company in supplying households was only 9.79%.

Table 2 Electricity retail market concentration and market opening in 2016

	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 annual consumption
Albania	1	96.00%	100%
Bosnia and Herzegovina	3	95.11%	100%
fYR of Macedonia	3	84.69%	100%
Georgia	2	100%	100%
Kosovo*	1	100%	100%
Moldova	2	100%	100%
Montenegro	1	100%	100%
Serbia	1	98.57%	99.96%
Ukraine	4	32.76%	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 by taking into consideration relevant legislative and regulatory provisions as well as the structures of the markets.

In 2016 in the most of the Contracting Parties legal requirements were in place allowing customers to choose their supplier.¹¹

- All customers are eligible to choose their supplier in Bosnia and Herzegovina, Kosovo*, Moldova, Montenegro, Serbia and Ukraine.

¹¹ Data presented according to the Annual Implementation Report 2016 of the Energy Community Secretariat.

- In Albania, eligible customers are those connected to the 110 kV voltage network, customers with an annual consumption of more than 50 GWh and since 30 June 2016 customers connected to the 35 kV voltage network.
- According to the Protocol on the Accession of Georgia to the Treaty Establishing Energy Community, Georgia must ensure that all non-household customers become eligible customers from 31 December 2018. All customers, including households, will become eligible from 31 December 2019. Presently retail customers are supplied by electricity distribution companies and are not eligible to switch suppliers, except when purchasing electricity directly from small power plants (up to 13 MW in 2016).
- In fYR of Macedonia in 2016, eligible customers were customers connected to the transmission network, customers connected to the distribution network with more than 50 employees and an annual turnover exceeding EURO 10 million, as well, according to the current Energy Law, as of 1st July 2016 customers with an electricity consumption of more than 1000 MWh in 2015 became eligible.

In order to better understand switching rates in the analyzed markets, it is worth mentioning that in some Contracting Parties some of the customers (mainly according to the voltage level of connection to the network, electricity consumption and which are not households or small customers) were obliged to leave the regulated market and choose a supplier. This obligation is defined in Bosnia and Herzegovina, fYR of Macedonia, Montenegro, Serbia and Ukraine¹². In Serbia as of 1st January 2015 all customers except households and small customers were forced to choose their supplier on the market. In fYR of Macedonia large customers connected to the transmission network were forced to leave the regulated market as of beginning of 2008, while customers connected to the distribution network with more than 50 employees and an annual turnover exceeding EURO 10 million were forced to leave the regulated market and choose a supplier on the free market mid of 2014.

The table below shows the **switching rates** in the analyzed markets in 2016. Data refers to the definition of switching as the free move of a customer from one to another supplier; i.e. the change of incumbent supplier due to the obligation to leave the regulated market defined in the law is not included in the data.

¹² In Ukraine, according to the Electricity Market Law adopted in 2017, all customers except households and small non-households must choose their supplier no later than December 2018.

Table 3 Annual switching rates in electricity markets in 2016 (in %)¹³

	Number of eligible customers under national legislation/active eligible customers	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)
Albania	1,189,478/10	na	nap	na	na	nap	na
Bosnia and Herzegovina	1,531,501/58	0.004	0.000	0.046	2.815	0.000	4.803
fYR of Macedonia	428/371	15.171	nap	15.171	16.510	nap	16.510
Georgia	nap (see explanation above)						
Kosovo*	536,393/1	nap	nap	nap	nap	nap	nap
Moldova	1,354,804/1	0.000	0.000	0.000	0.000	0.000	0.000
Montenegro	367,880/4	0.000	0.000	0.000	0.000	0.000	0.000
Serbia	3,624,625/ 106,081	0.300	0.010	2.970	3.500	0.005	6.770
Ukraine ¹⁴	17,076,137/1,272 ¹⁵	0.012	0.000	0.118	1.770	0.000	2.890

In the majority of Contracting Parties no supplier switching was observed in 2016. A small number of eligible customers changed their suppliers in Bosnia and Herzegovina, fYR of Macedonia, Serbia and Ukraine. Except for Serbia, only non-household customers changed their suppliers. In Serbia, also only a very small number of household customers left electricity supply at regulated prices and chose a new supplier. During 2016 more than a thousand customers in Bosnia and Herzegovina changed the contract conditions with their incumbent supplier which must be also considered a move towards choosing best market conditions available. Switching rates in fYR of Macedonia in 2016 reflect the active engagement of the eligible¹⁶ customers in the electricity retail market.

¹³“Nap” stands for “not applicable” and means that the market has not been opened to relevant group of customers or that there is only one active supplier in the market. “Na” stands for “not available” and means that data was not collected.

¹⁴Based on the data provided by 30 electricity distribution companies, those companies covered 89.5% (in 2015) and 90.7% (in 2016) of electricity consumption of all customers.

¹⁵ 401 customers changed their supplier (based on the data provided by 30 electricity distribution companies).

¹⁶ In fYR of Macedonia, according to the present Energy Law, households and most of the small customers were not eligible to choose supplier on the liberalized retail market in 2016.

The increasing **number of switching requests** in Bosnia and Herzegovina and FYR of Macedonia is a proof of market liquidity development: Bosnia and Herzegovina recorded only two switching request in 2015 but 58 in 2016, in FYR of Macedonia this number increased from 915 to 1392 in the same period. In Ukraine the number of switching requests remained stable in these two years - 444 and 435 respectively, whereby the percentage of rejected switching requests decreased from 15.32% in 2015 to 7.36% in 2016. In Serbia, the number of switching requests in 2016 added up to 2445.¹⁷ In Kosovo*, Moldova and Montenegro no switching requests were recorded or related information is not available to the regulatory authorities.

3. End- user electricity prices¹⁸

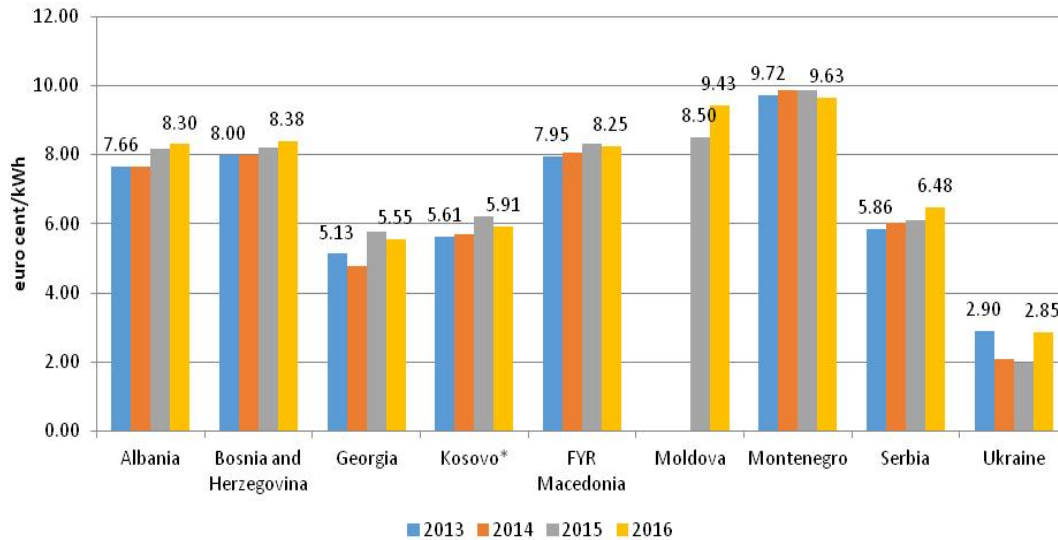
In the period between 2013 and 2016, electricity prices for households increased in all Contracting Parties. In the same period, industry prices decreased in the majority of the Contracting Parties. In Moldova the main reason for this decline was stepwise abandoning of cross-subsidies, while in other countries industry prices follow market trends already for several years. In Ukraine industry prices increased¹⁹ in 2016 mainly due to an increase of the wholesale electricity price. Household and industry price trends in the Contracting Parties can be seen from figures 7 and 8 below.

¹⁷ Information for 2015 is not available.

¹⁸ Information in this chapter was partially provided by the NRAs, also for the purpose of ACER Market Monitoring Report 2016 (http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202016%20-%20ELECTRICITY%20AND%20GAR%20RETAIL%20MARKETS.pdf). The source of other information is EUROSTAT.

¹⁹ In the figure the decrease of the industry price in Ukraine for 2014-2015 is due to the fall of exchange rates for UAH.

Figure 7 Electricity POTP²⁰ trends for households in the Contracting Parties -2013-2016 (euro cent/kWh)



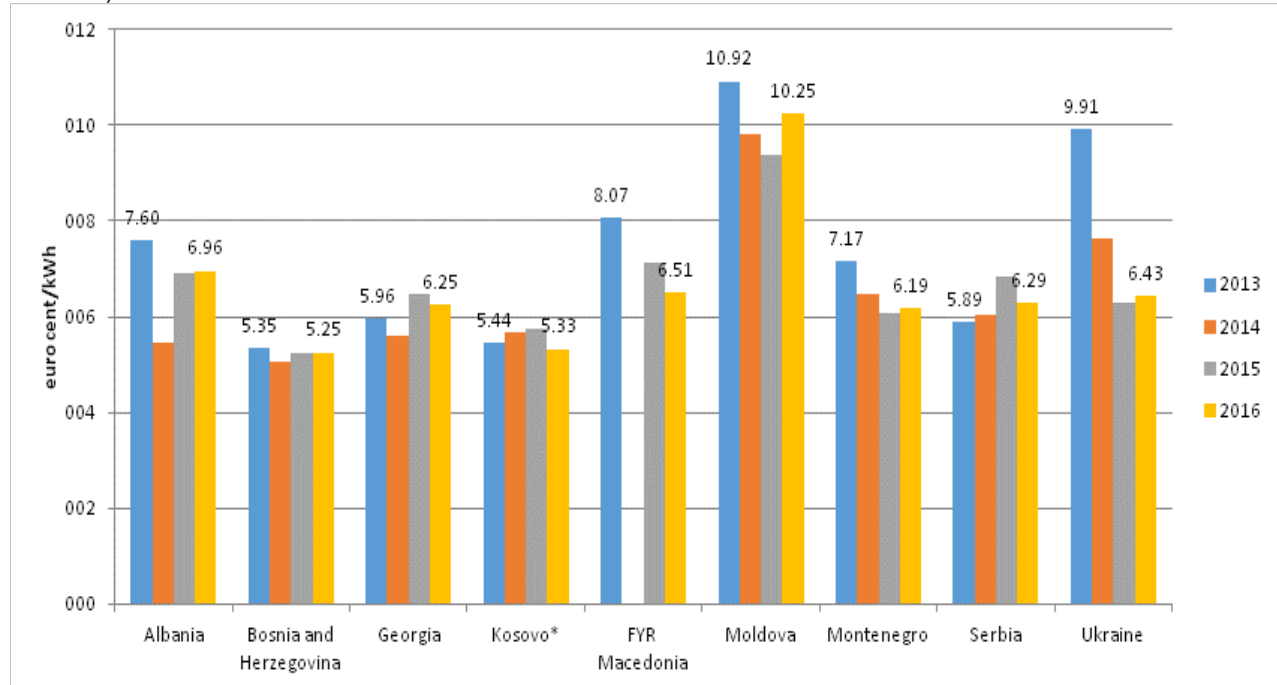
Source: EUROSTAT (14 June 2017), CP NRAs and Energy Community Secretariat calculations

Note: The figure is based on bi-annual data provided by EUROSTAT for consumption bands DC: 2,500-5,000 kWh (household electricity consumption) and on the annual data provided by NRAs of Moldova, Georgia and Ukraine. However, the calculations of ERE Albania differ from those reported to EUROSTAT: the price for households in Albania for 2015 and 2016 were respectively 6.79 and 7.00 euro cent/kWh.

Household electricity prices in 2016 were highest in Montenegro (9.63 euro cent/kWh), where consumers on average paid more than three times more than consumers in Ukraine (2.85 euro cent/kWh). It is worth mentioning that the end-user prices of electricity for households were still regulated in all Contracting Parties in 2016, in some cases not covering actual costs and including cross- subsidization between industrial categories of electricity consumers and household consumers.

²⁰ Post-tax price i.e. end- user price.

Figure 8 Electricity POTP trends for industrial consumers in the Contracting Parties-2013-2016 (euro cent/kWh)



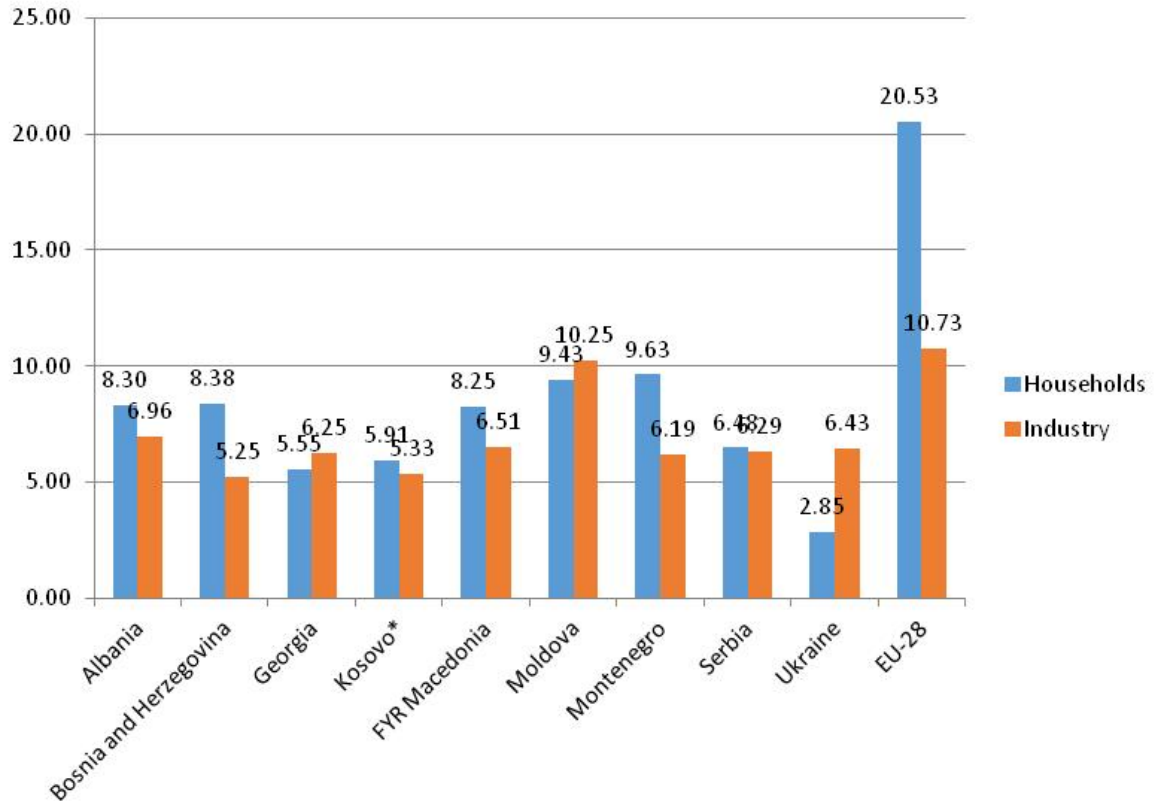
Source: EUROSTAT (14 June 2017), CP NRAs and Energy Community Secretariat calculations
 Note: The figure is based on bi-annual data provided by EUROSTAT for consumption band IE: 20,000-70,000 MWh (industrial electricity consumption) and on the annual data provided by NRAs of Moldova, Georgia and Ukraine. According to ERE, industry prices were higher than household prices in the whole period.

In the majority of Contracting Parties industrial electricity prices are lower than household prices. However, in Georgia, Moldova and Ukraine the opposite tends to be the case. In the period 2013 to 2016, the average electricity price for households increased by 11%, while average industrial prices decreased by almost 30%.

The lowest electricity industry prices are observed for Bosnia and Herzegovina: 5.25 euro cents/kWh and Kosovo*: 5.33 euro cents/kWh, which is two times less than the average price for industrial consumers in the EU28 in 2016 (10.73 euro cent/kWh).

The differences among 2016 electricity prices in the Contracting Parties, on one side, and in the EU 28, on the other, are presented in the figure below.

Figure 9 Households and industry electricity POTP in Contracting Parties in 2016, in comparison to EU-28 average level (euro cent/kWh)



Note: According to ERE, industry prices were higher than household prices in the whole period.

4. Electricity price breakdown for households²¹

Figure 10 shows the breakdown of final electricity price for households available in capital cities in November/ December 2016 based on a consumption profile of 3,500 kWh per year. The composition of final household electricity price varies widely across the Contracting Parties. The share of the energy component in the final bill was slightly above 50% in Kosovo*, Georgia and fYR of Macedonia, while it was the lowest in Serbia (32%) and the highest in Albania (74%)²². The major part of the energy component relates to the cost of purchasing electricity on the wholesale market.

The share of transmission network costs in the total household electricity price was 7% of the final bill in Albania, Bosnia and Herzegovina, Georgia and Serbia, with a maximum of 8% in Kosovo* and a minimum of 3% in Montenegro²³. Distribution network costs accounted for 38% in Serbia (the highest share) and 20% in fYR of Macedonia (the lowest share). Taxes and levies on electricity bills vary between 7% and 20% of the final household prices, reflecting different national energy and fiscal policies.

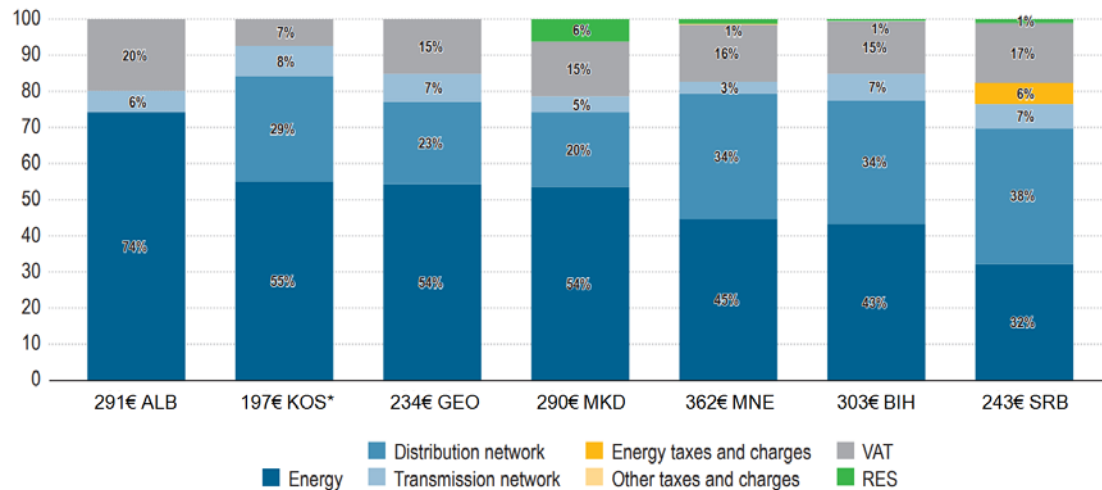
The share of charges for electricity produced from renewable energy sources (RES) in the final price gives an indication of the support for renewable electricity production to the extent that it is financed by the electricity tariff. In Albania, Georgia and Kosovo*, no RES support mechanism was reported for 2016. In all other Contracting Parties, the RES support accounted for 1% of the final household electricity price, with the exception of fYR of Macedonia charging the highest share (6%).

²¹ Ref.: ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Gas Markets in 2016 (Electricity and Gas Retail Markets Volume), October 2017
http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202016%20-%20ELECTRICITY%20AND%20GAR%20RETAIL%20MARKETS.pdf.

²² However, this share in the final price includes also the costs of distribution network, which cannot be disentangled from the energy component for Albania.

²³ It has to be noted that costs related to purchasing electricity for transmission losses in Montenegro are not included in the transmission part but in the energy component.

Figure 10 POTP electricity breakdown of the incumbent's standard offers for households in EnC capitals – November–December 2016 (%)



Source: ECS calculations based on ACER's methodology and data provided by regulators (2017).

Note: The regulators of Moldova and Ukraine did not provide the required data for calculating the electricity price breakdown. The energy component in Albania includes the costs of the distribution network. In Montenegro, the costs related to purchasing electricity for compensation of network losses are included in the energy component.

5. Regulation of electricity 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 Contracting Parties in 2016.

In Bosnia and Herzegovina small and medium enterprises connected to the 0.4 kV network were entitled to supply under regulated end-user electricity prices; for all other customers prices were not regulated. In Serbia only small customers had the possibility to be supplied at regulated end-user prices; for all other non-household customers, prices were not regulated. In FYR of Macedonia large customers connected to the transmission network and customers with more than 50 employees and an annual turnover exceeding EURO 10 million do not have the right to be supplied at regulated prices. The first group of small customers which gained eligibility in mid 2016 had the option to either continue being supplied by the regulated incumbent supplier (supplier of last resort) or to choose an alternative supplier in the liberalized market. The same will be valid for the remaining small customers and households

once they become eligible customers. In other Contracting Parties all non-household customers had the possibility to be supplied at regulated prices.

Table 4 Number of non-households (number of metering points) supplied at non-regulated electricity prices in 2016

Number of non- household customers supplied at non- regulated prices in 2016 (number of metering points)	
Albania	10
Bosnia and Herzegovina	10,133
fYR of Macedonia	371 consumers 8,516 metering points
Georgia	0
Kosovo*	1
Moldova	1
Montenegro	4 ²⁴
Serbia	104,862
Ukraine	not available

End- user electricity prices were regulated using the following methodologies:

- Rate of return/cost plus in Bosnia and Herzegovina, Serbia and Ukraine;
- Cost plus and revenue cap in Georgia;
- Revenue cap in fYR of Macedonia, Kosovo*, Moldova and Montenegro.²⁵

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 a frequent update of the regulated 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 once a year in most of Contracting Parties:

- Albania, fYR of Macedonia, Georgia, Kosovo*, Moldova, Montenegro: once per year;
- Ukraine: every three months;

²⁴ This is number of non- household customers, number of metering points is not available.

²⁵ Revenue cap was applied in Montenegro from 2012 to 2016. In 2017 a new methodology was applied using the "hybrid regulatory method" which aims at limiting the allowed revenue, providing efficiency improvement incentives and allowing risk-sharing between operators and users of the system (risk related to changes in deployed capacity).

- Bosnia and Herzegovina: no automatic mechanism;
- Serbia: no automatic mechanism, the regulator decides upon request of a supplier.

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 not allowed to return to regulated supply, they will most likely not be willing to change their supplier at all. **Switching in and out of regulated prices for households** is allowed in majority of the Contracting Parties - Bosnia and Herzegovina, Georgia, Kosovo*, Moldova, Montenegro, Serbia and Ukraine.²⁶

²⁶ Non- households only, households were not eligible to switch in 2016.

C. FINDINGS: GAS

This part of the report provides analysis of the retail gas markets in Bosnia and Herzegovina²⁷, fYR of Macedonia, Georgia, Moldova, Serbia and Ukraine. Having in mind that Albania, Kosovo* and Montenegro do not have gas markets, this part of the report does not include information for these Contracting Parties.

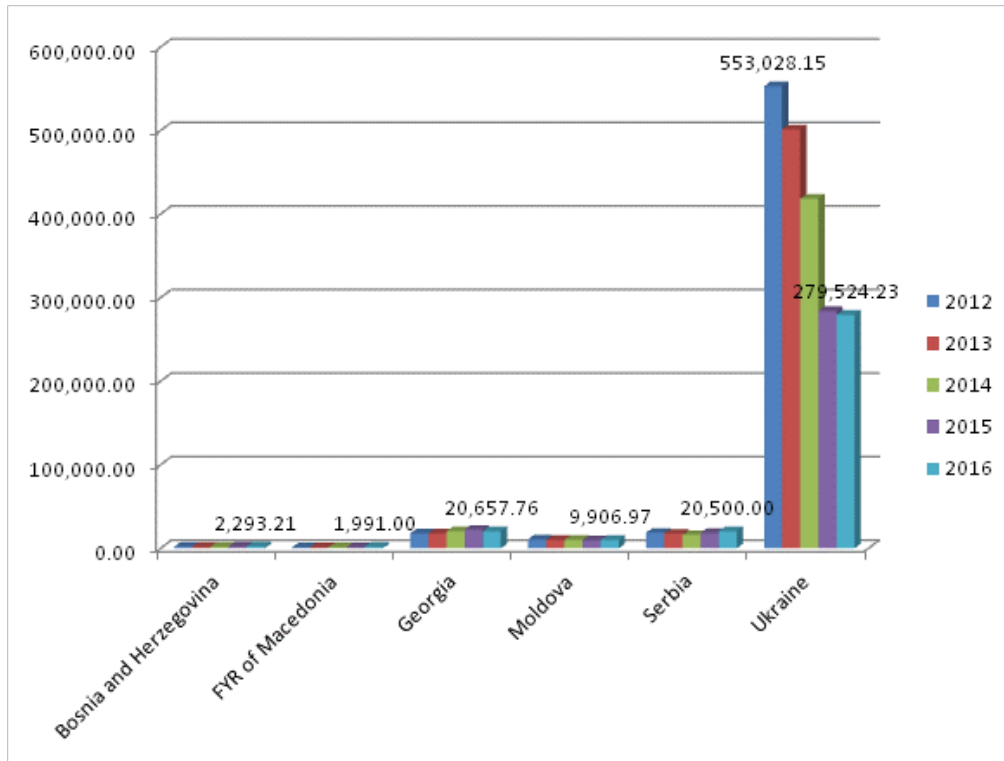
1. Gas retail market characteristics

The total sale of gas to final customers in the Contracting Parties decreased from 2012 to 2016 by 45%. This was mainly driven by a substantial drop of gas consumption in Ukraine adding up to almost 50% initiated on purpose with a view to lower import dependence.²⁸ The majority of other Contracting Parties experienced different levels of growth in gas demand with fYR of Macedonia facing constant year-to-year increase of consumption due to network developments. While gas consumption in Ukraine and fYR of Macedonia shows clear trends, consumption in other countries varies depending on industry performances and winter temperatures. The figures below present the total gas sales to final customers in the period from 2012 to 2016 as well as consumption growth rates for the whole period and in the last year. Having in mind the size of the Ukraine gas market compared to other Contracting Parties, the results are displayed separately with and without data for Ukraine.

²⁷ The information on gas demand is available for entire Bosnia and Herzegovina. The rest of the analysis is based on the information for one of the entities of Bosnia and Herzegovina, namely Republika Srpska, while the information on gas market for the other entity, - Federation of Bosnia and Herzegovina, is not available.

²⁸ Also due to lack of data for Crimea and uncontrolled territory of Donbass in 2014-2016.

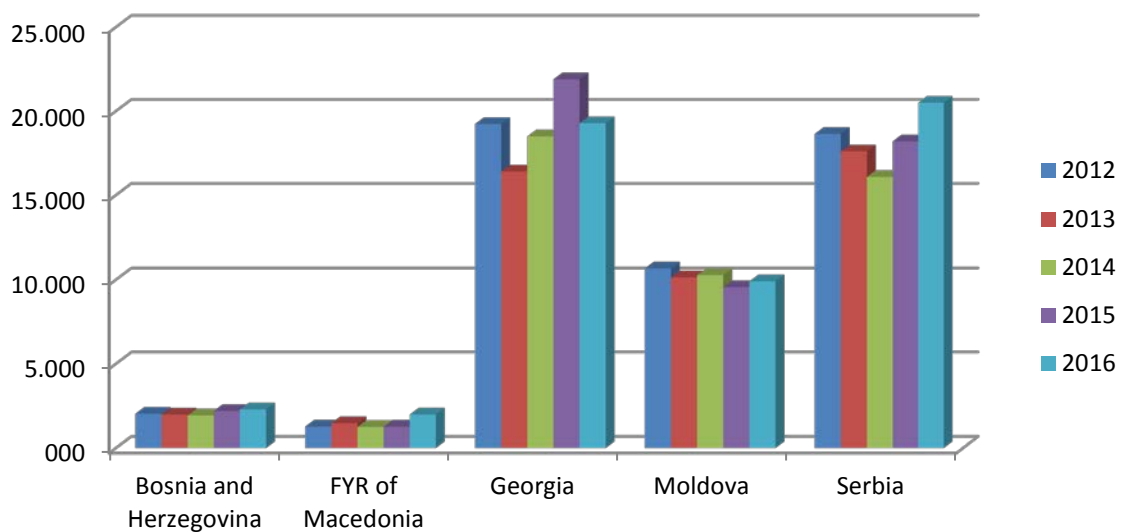
Figure 11 Total sale of gas to final customers in the Energy Community Contracting Parties in the period 2012- 2016 (in GWh)



Source: National regulatory authorities

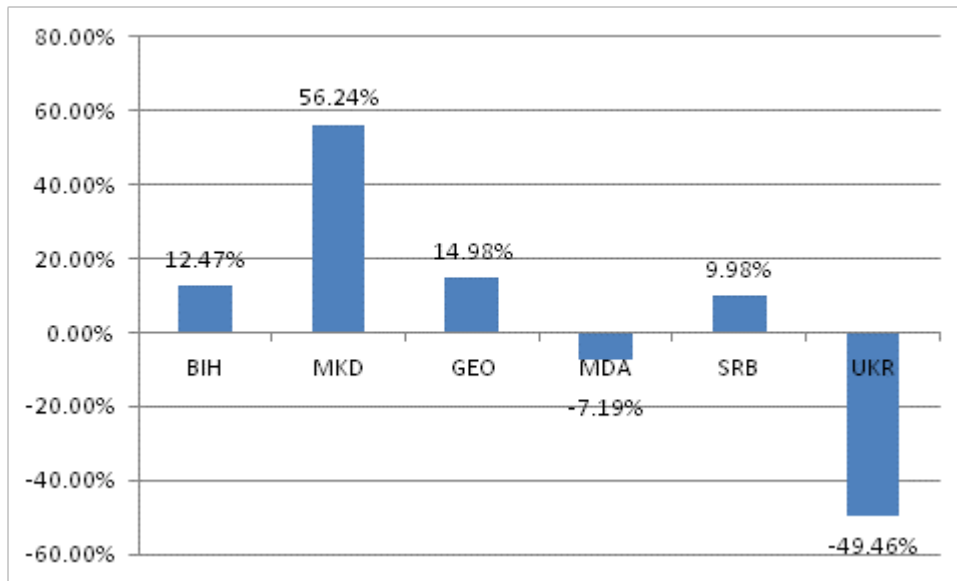
Note: figures presented in the figure show the total sales in the Contracting Parties in 2016. Only for Ukraine the significant decrease is illustrated by adding the information on total sale in 2012.

Figure 12 Total sale to final gas customers in GWh (excluding Ukraine)



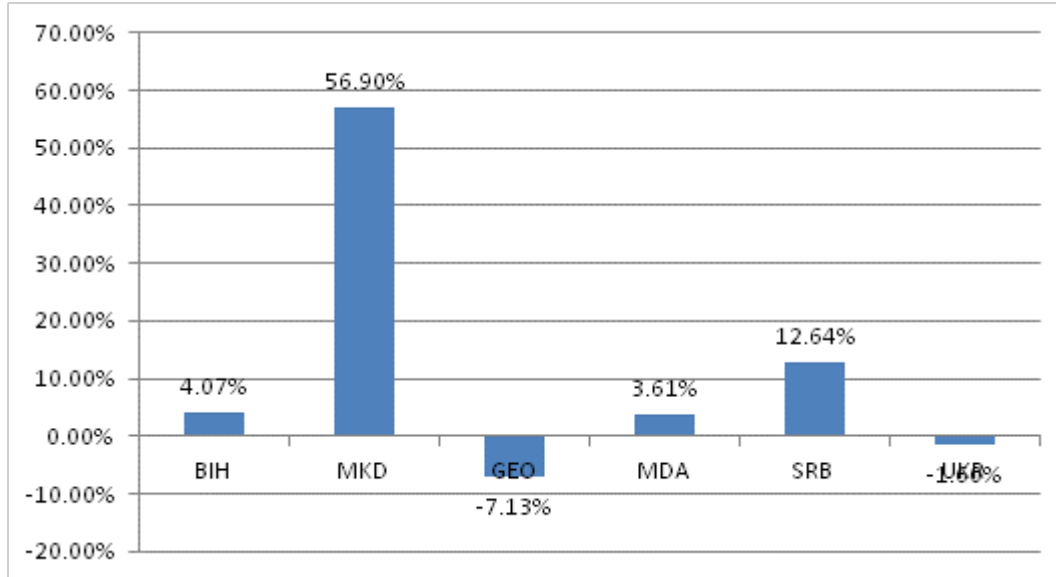
Source: National regulatory authorities

Figure 13 Growth rates of gas demand 2012 to 2016



Source: National regulatory authorities

Figure 14 Growth rates of gas demand 2015 to 2016



Source: National regulatory authorities

The **consumption of natural gas on household level differs** between the analyzed markets. The percentages of households using gas (connected to the distribution network) in the reporting period were as follows:²⁹

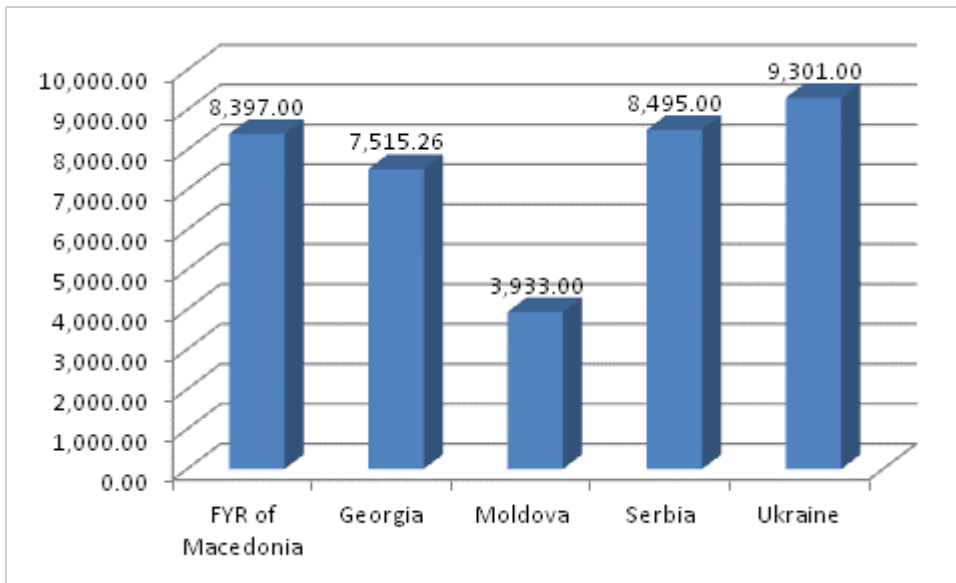
- fYR of Macedonia: 0.004%;

²⁹ Information for Bosnia and Herzegovina and Moldova is not available.

- Georgia: 80%;
- Serbia 10%;
- Ukraine 75%.

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

Figure 15 Average annual gas consumption per household in 2016 (in kWh)



End-users of gas in the Contracting Parties 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 distribution system operator (DSO) functions. The number of active suppliers ranged from three in Bosnia and Herzegovina (Republika Srpska) to 200 in Ukraine. The number of active nationwide suppliers³⁰ varied from only one in Moldova to around 200 in Ukraine. In Bosnia and Herzegovina none of the suppliers was active in the country (for more details see the table below).

In only three countries, namely: Georgia, Ukraine and Serbia, transmission and distribution networks were used by more than one supplier. In Bosnia and Herzegovina (Republika Srpska), FYR of Macedonia and Moldova only transmission networks were used by more than one supplier. To achieve positive market opening effects, it is of utmost importance to enable efficient separation of supply and network activities and allow gas retailers to supply customers nation-wide.

³⁰ Nationwide supplier means suppliers offering their products on the whole territory of a country.

Table 5 Number of active gas suppliers in 2016

	Number of active gas suppliers	Number of active nationwide suppliers
Bosnia and Herzegovina	3	0
fYR of Macedonia	6	3
Georgia	35	35
Moldova	9	1
Serbia	65	38
Ukraine ³¹	~200	~200

Source: *National regulatory authorities*

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:

- In all Contracting Parties except Ukraine, dominant retail suppliers sell more than 80% of gas to end-users. In Ukraine market shares of retail suppliers are lower. This, however, does not prove immediately absence of monopolies, but, taking into consideration other relevant information provided in this report, rather points to the existence of regional or local monopolies;
- There was often no alternative to the incumbent gas suppliers in the household segments of the analyzed markets, and in cases where there was an alternative available it was hardly used in 2016. However, obstacles to retail market entries mainly stem from reasons other than retail market design, namely the status of wholesale market development (e.g. single source of gas and poor access to liquid wholesale markets) and regulation of end- user prices.³²

³¹ 40 licensed suppliers and about 160 suppliers without a license.

³² Especially in Ukraine the prices of gas for households and other protected categories (i.e. district heating companies and religious organizations) are regulated on three levels: (1) the price of domestically produced gas for sell to protected customers is regulated; (2) the price at which public wholesale supplier Naftogaz sells gas to retail suppliers for the needs of protected customers is regulated; and (3), the end- user price for the same customer category is regulated (cf Public Service Obligation (PSO) act of the Cabinet of Ministers of Ukraine).

Table 6 Retail gas market concentration in 2016

	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 annual consumption
Bosnia and Herzegovina	3	100%	100%
fYR of Macedonia	4	92.59 ³³	100%
Georgia	3	80%	99%
Moldova	3	98%	100%
Serbia	1	84.40%	100%
Ukraine	3	57.78%	100%

2. Switching behavior

All natural gas customers in the analyzed Contracting Parties³⁴ were eligible to choose their supplier. However **household customers** in none of the markets changed their suppliers in 2016. For non- households the information on switching rates has been provided for two Contracting Parties:

- fYR of Macedonia: 0.93% of non-household customers, measured by number of metering points, changed supplier in 2016. The switching rate measured by volume³⁵ added up to 3.53%.
- Georgia: none of the household customers changed their supplier in 2016. There were few non-household customers who switched but exact information is not available.
- Serbia: 0.17% of non- households changed their supplier in 2016 which corresponds to a switching rate of 4.35% by volume.

In Bosnia and Herzegovina and Moldova none of the customers changed their supplier in 2016, while for the other Contracting Parties this information is not available.

³³ This reflects the three key players active on the retail market itself excluding direct import by BEG Proizvodstvo and CCPP TE-TO AD Skopje.

³⁴ The exception is the Federation BIH for which information has not been provided. However the legislation of the Federation BIH does not provide for eligibility status of gas customers.

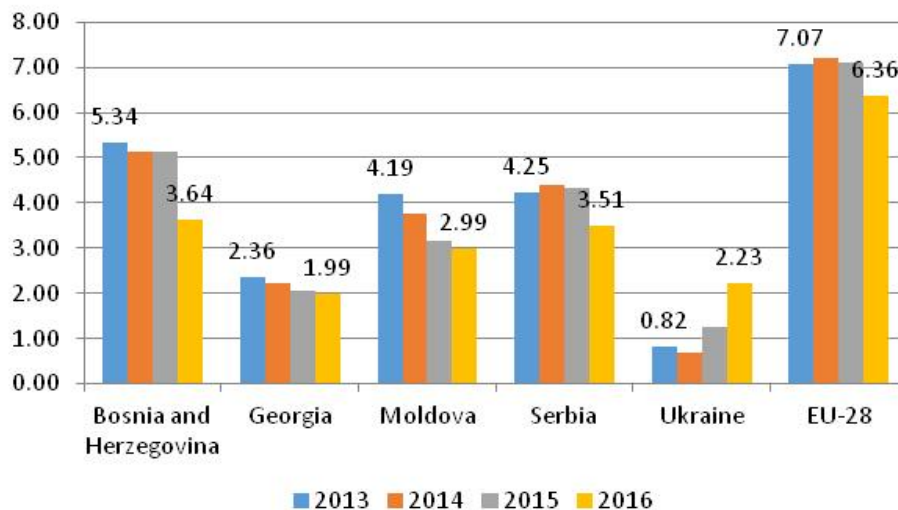
³⁵ Share of consumption of non- household customers that switched supplier related to the total consumption of non-households.

3. End-user natural gas prices³⁶

In the period 2013 to 2016 household gas prices decreased in all Contracting Parties, except Ukraine. Household gas prices in Ukraine increased from 2014 onwards due to the Government's Public Service Decree which implements a stepwise increase of household gas prices pursuant to an agreement with the International Monetary Fund. In the same period, industrial gas prices decreased in all Contracting Parties.

Differences between household and industrial gas prices on national level across the Contracting Parties can be seen from figures 16, 17 and 18 below. The discrepancies in the household segment mainly originate from different levels of cross-subsidization applied between industry and households in the process of regulating end-user gas prices: in 2016 household gas prices were regulated in all Contracting Parties except FYR of Macedonia and, partially, Georgia³⁷, while industrial prices were regulated in Bosnia and Herzegovina, Moldova and, partially, Serbia.³⁸ However, the intensity of cross-subsidization decreased in the reporting period, especially in Ukraine where the household gas price in 2016 (2.23 euro cent/kWh) was almost three times higher than in 2013 (0.86 euro cent/kWh) and industrial prices decreased almost two times (from 4.63 euro cent/kWh in 2013 to 2.45 euro cent/kWh in 2016).

Figure 16 Gas POTP³⁹ trends for households in the Contracting Parties- 2013-2016, in comparison to EU-28 average level (euro cent/kWh)



Source: EUROSTAT (14 June 2017), CP NRAs and Energy Community Secretariat calculations

³⁶ Information in this chapter was partially provided by the national regulatory authorities also for the purpose of ACER Market Monitoring Report 2016 (http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202016%20-%20ELECTRICITY%20AND%20GAR%20RETAIL%20MARKETS.pdf). The source of other information is EUROSTAT.

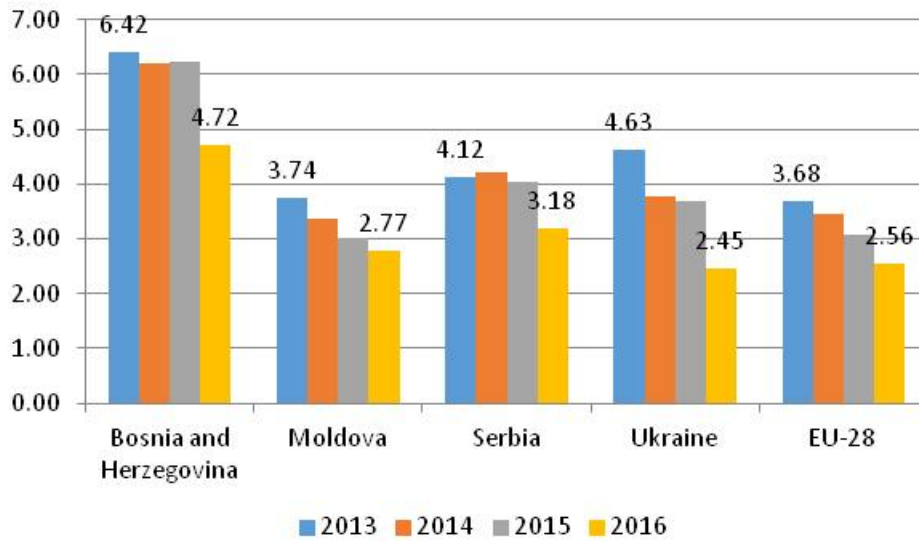
³⁷ Households connected to the network after 1 August 2008 were supplied at non-regulated prices.

³⁸ Only for small non-household customers consuming less than 3,600 GJ per year.

³⁹ Post-tax price i.e. end-user price.

Note: The figure is based on bi-annual data provided by EUROSTAT for consumption bands D2: 20-200 GJ (household gas consumption) and on the annual data provided by regulators of Moldova, Georgia and Ukraine. Data for FYR of Macedonia is not available/representative for the period 2013-2016 due to a very limited number of household customers in the country connected to a small virtual distribution system operator.

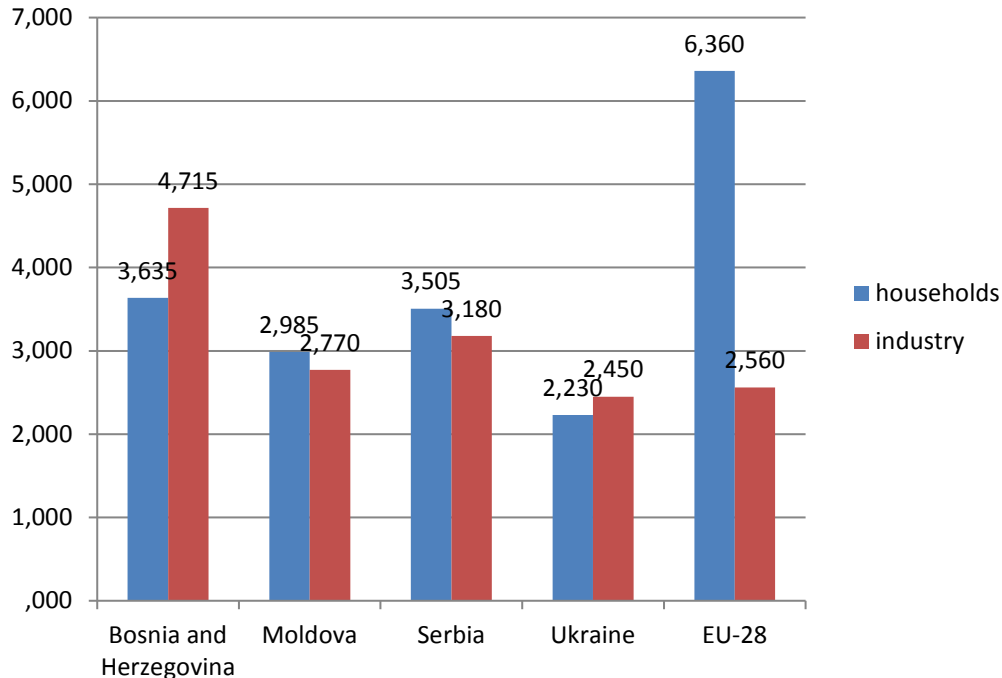
Figure 17 Gas POTP trends for industrial consumers in the Contracting Parties -2013-2016, in comparison to EU-28 average level (euro cent/kWh)



Source: EUROSTAT (14 June 2017), CP NRAs and Energy Community Secretariat calculations

Note: The figure is based on bi-annual data provided by EUROSTAT for consumption bands I5: 1,000,000-4,000,000 GJ (industrial gas consumption) and on the annual data provided by regulators of Moldova and Ukraine. Industry gas prices for FYR of Macedonia are confidential for consumption band I5. Information on industry prices in Georgia is not available to the regulator.

Figure 18 Households and industry gas POTP in the Contracting Parties in 2016, in comparison to EU-28 average level (euro cent/kWh)



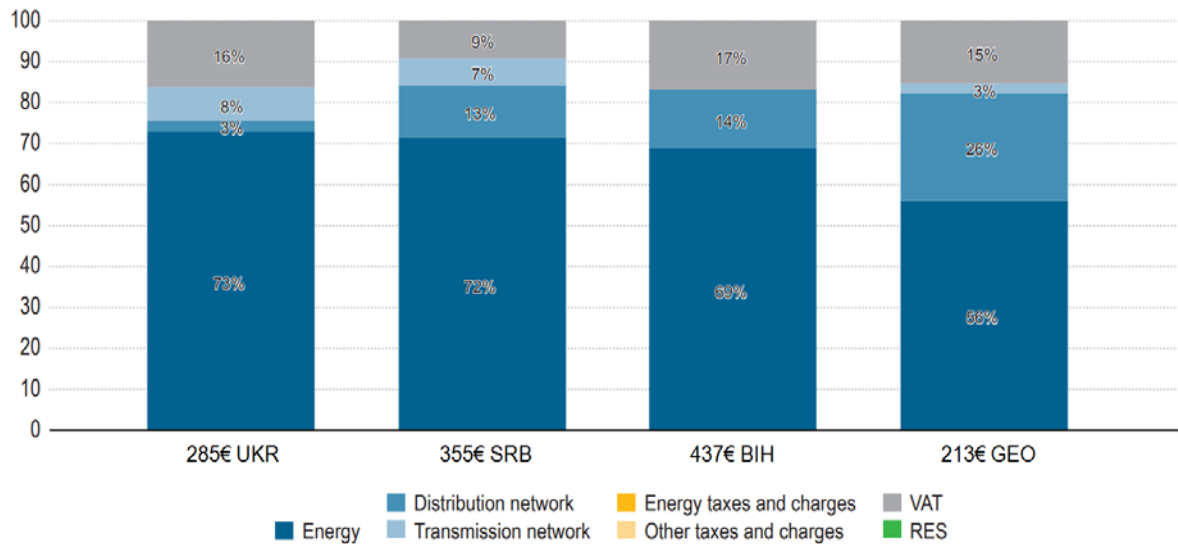
Source: EUROSTAT (14 June 2017), EnC CPs' NRAs and ECS calculations

4. Gas price breakdown for households⁴⁰

The following figure illustrates the breakdown of gas incumbents' standard offers to households in capital cities of the Contracting Parties for an annual consumption profile of 11,000 kWh/year. The share of the energy component in the final gas price in 2016 ranged from 56% in Georgia to 73% in Ukraine. Network charges ranged from 10% of the final gas price for consumers in Kiev to 28% for households in Tbilisi, with substantial differences as regards the share of the distribution charges which ranged from 3% in Ukraine to 26% in Georgia.

⁴⁰ ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Gas Markets in 2016 (Electricity and Gas Retail Markets Volume), October 2017
http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202016%20-%20ELECTRICITY%20AND%20GAR%20RETAIL%20MARKETS.pdf

Figure 19 POTP gas breakdown of incumbents' standard offers for households in EnC capitals – November–December 2016 (%)



Source: EnC Secretariat calculations, based on ACER's methodology and data provided by national regulatory authorities (2017).

Note: Albania, Kosovo*, Moldova and Montenegro are not included in this figure due to insufficient data. FYR of Macedonia is not included in this figure due to its small retail gas market with a very small number of household consumers. The transmission network costs for Bosnia and Herzegovina could not be disentangled and are included in the energy component.

5. End- user gas 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 Contracting Parties in 2016⁴¹, with the exception of FYR of Macedonia where only a limited number of households was supplied at non-regulated prices. In Georgia household customers connected to the grid after 1 August 2008 were supplied under non-regulated prices in 2016.⁴²

Application of price regulation for industry differs among Contracting Parties:

⁴¹ It is worth noting that all customers, including households, are eligible to change their suppliers. However in all Contracting Parties protected customer categories (households, small industry and/or district heating) have the right to be supplied at regulated prices.

⁴² In 2017 all households in Georgia are supplied at regulated prices.

- In Bosnia and Herzegovina (Republika Srpska), FYR of Macedonia and Georgia end-user prices for industry are not regulated;
- In Serbia and Ukraine certain industry categories may buy gas at regulated prices – i.e. small and medium enterprises with a yearly consumption up to 100.000 m³ and connected to the distribution system in Serbia⁴³; and district heating companies and religious organizations in Ukraine;⁴⁴
- In Moldova all industry customers were supplied at regulated prices.

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 regulated 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 once per year in all Contracting Parties where end-user price regulation is applied.

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 not 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. Among the markets analyzed in this report, only in Bosnia and Herzegovina (Republika Srpska), Serbia and Ukraine switching in and out of regulated prices was allowed.

⁴³ 12008 customers in 2016.

⁴⁴ 1173 customers in 2016.

D. CONSUMER PROTECTION AND CUSTOMER EMPOWERMENT

1. Background

Well functioning of retail electricity and gas markets means that consumers have continuous access to energy and benefit from competition, as well as that their rights are guaranteed and strengthened. The Third Energy Package outlines a set of measures which aim to:

- Ensure continuous supply of electricity and gas and address energy poverty;
- Define a concept of vulnerable customers and means for their protection;
- Ensure participation of customers in the liberalized energy market by providing necessary information to customers in a transparent way and free of charge related to metering and billing, contractual terms and conditions, switching supplier, dispute settlement etc.

This chapter monitors **household consumer protection** according to the relevant provisions of the Third Packages' Electricity and Gas Directives⁴⁵ (hereinafter 'the Electricity Directive' and 'the Gas Directive'). More precisely, it explores how these provisions have been transposed into national legislation, i.e. how the national legal frameworks protect household consumers.

The topics covered in this chapter are:

- Supplier of last resort and disconnections;
- Vulnerable customers;
- Consumer information;
- Complaint handling and dispute resolution;
- Service quality provided by distribution system operators.

2. Supplier of last resort and disconnections

The Electricity Directive stipulates that all household customers, and where appropriate, small enterprises, should be provided an universal electricity service, i.e. the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable, transparent and nondiscriminatory prices. To ensure the provision of universal service, a supplier of last resort may be appointed. According to the Electricity Directive this

⁴⁵ Directive 2009/72/EC and Directive 2009/73/EC adapted and adopted for the Contracting Parties by Decision of the Ministerial Council 2011/02/MC-EnC.

supplier may be the sales division of a vertically integrated undertaking which also performs the functions of distribution, provided that it meets the unbundling requirements of the Directive.

The instrument of a supplier of last resort is widely used across the EU. However, concrete function elements are not defined in the Directives. Protection of inactive consumers, precaution for failure of supplier/DSO and protection of consumers with payment difficulties are possible functions highlighted in the ACER Market Monitoring Report 2016.⁴⁶ The role of suppliers of last resort should be designed in a way to enable and promote consumer engagement in the liberalized market.

The following table shows results for the Contracting Parties.

Table 7 Functions of the supplier of last resort in the Contracting Parties in 2016

In what circumstances may a household customer turn to the "supplier of last resort" to ensure continuous energy supply?	Number of countries – electricity	Number of countries - gas
If a household customer does not find supplier on the market	5	4
If a household customer is dropped by its current supplier because of non- payment	3	0
The current supplier has gone bankrupt and is no longer doing business	5	5
The license of the current supplier has been revoked	6	5
If a final household customer does not choose a supplier in the open market	5	4
If a fix- term supply contract expires	5	3
Other reasons (please explain)	0	1 ⁴⁷
There is no supplier of last resort in the country	1	0

A supplier of last resort for electricity exists in all Contracting Parties, except in Ukraine⁴⁸ and Georgia; for gas it exists in Bosnia and Herzegovina, fYR of Macedonia, Moldova, Serbia and Ukraine. The data also shows that the most common cases allowing a

⁴⁶ ACER Market Monitoring Report 2016 – consumer protection and empowerment volume http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Market%20Monitoring%20Report.%20CONSUMER%20PROTECTION%20AND%20EMPOWERMENT.pdf.

⁴⁷ In Ukraine: if there is a lack of natural gas resources to meet the consumer needs, the consumer has a right to turn to the supplier of last resort.

⁴⁸ In Ukraine the supplier at regulated tariff in a certain territory performs the functions of the last resort supplier.

household customer to turn to a supplier of last resort are: revocation of the license of their current supplier; bankruptcy of the current supplier; in case a customer does not choose a supplier in the open market or in case a customer does not find a supplier on the free market. This means that protection of inactive consumers and precaution for failure of supplier is provided through the role of supplier of last resort.

The Third Package Directives stipulate that appropriate measures should be taken to **protect final customers**. In this context it is of great importance to set clear and simple procedures for disconnection from the network due to non-payment and for re-connection to the network after removing reasons for disconnection. Special emphasis is placed on vulnerable customers. Every country is allowed to create its own concept of vulnerable customers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity to such customers in critical times. The rules shall ensure that rights and obligations linked to vulnerable customers are applied and regulatory authorities are obliged to monitor the level and effectiveness of market opening, prices for household customers, switching rates, disconnection rates, complaints by household customers etc. The **minimum notice period to disconnect** a consumer from the network in Energy Community Contracting Parties is shown in the following table.

Table 8 Minimum duration of disconnection process for non-paying consumers across Energy Community Contracting Parties in 2016

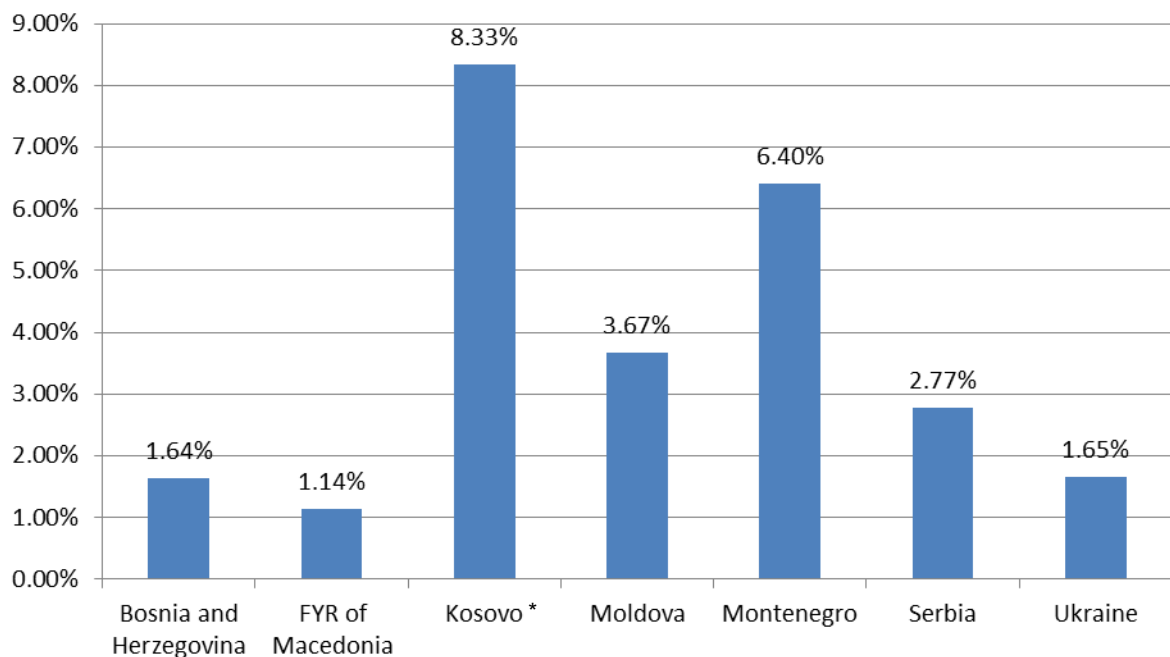
How many days (at least) does it take to disconnect a final household customer from the grid because of non-payment? Starting date is due date of payment.	Legal	In practice
Albania	30	30 - 45
Bosnia and Herzegovina	FBIH 30, RS 21 (8+8+5), BD 60	FBIH & BD approx 60, RS 8 - 25
fYR of Macedonia	NA	60
Georgia	15	15-17
Kosovo*	30	45
Moldova	10	Up to 20
Montenegro	8	More than 8
Serbia	38	NA
Ukraine	50	54

From the data presented it is evident that the number of days legally envisaged for disconnection of household consumer because of non-payment varies significantly from

country to country (from eight in Montenegro to 60 in Bosnia and Herzegovina). The actual duration of a disconnection takes longer than legally binding deadlines. In the next figure the shares of disconnections of household consumers due to non-payment of electricity bills are shown.

Apart from protection of inactive consumers and precaution for failure of a supplier/DSO, the **supplier of last resort** has a role in protection of consumers with payment difficulties. As shown in table 8, consumers usually have several weeks to settle their due amounts before they are disconnected, which helps them to deal with financial settlement. Nevertheless, some households do get disconnected because of non-payment, as shown in the following figure.

Figure 20 Share of household disconnections due to non-payment of electricity bills in % of household metering points in 2016



The share of household disconnections due to non-payment for electricity in the Contracting Parties varies among countries (1.14% - 8.33%), similar to those of the majority of EU Member States (almost 0% to 6%).⁴⁹ Shares in Bosnia and Herzegovina, FYR of Macedonia and Ukraine are below 2% and in Montenegro and Kosovo* higher than 6%.

⁴⁹ ACER Market Monitoring Report 2016 – consumer protection and empowerment volume http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Market%20Monitoring%20Report.%20CONSUMER%20PROTECTION%20AND%20EMPOWERMENT.pdf.

3. Vulnerable customers

Energy represents an essential need in every society. Different customers have different ability to protect their interests in the energy market and some of them are more exposed to suffer significant damage than other customers. Therefore it is necessary to provide ways and means to identify and protect vulnerable customers.

Most Contracting Parties have introduced definitions of the concept of vulnerable consumers, as required by the Energy Community law, providing them special protection. Some Contracting Parties have defined vulnerable customers in their energy laws and some in legal acts related to social protection. There is a variety of national approaches in defining the criteria for obtaining the status of a vulnerable customer which makes it difficult to compare data on the occurrence of vulnerability, but the common criteria generally is the need for financial support and health and social care.

It is difficult to define vulnerability of customers in the right way as the definition should cover risk factors from personal circumstances as well as from the energy market itself.⁵⁰ In addition to this vulnerability can be transitory as people's circumstances change in time. The following table shows measures used for protection of vulnerable customers in the Contracting Parties in 2016.

⁵⁰ ECRB published reports on the treatment of vulnerable customers in 2011 and 2013. The Energy Community Secretariat developed a regional recommendation for definition of vulnerable customers in its "Outline of the Social Strategy in the Energy Community" in 2013 (page 19): *A socially vulnerable customer is an electricity consumer: (a) using energy for supplying her/his permanent housing; (b) not exceeding maximum energy consumption per person: when defining electricity consumption level per person, Contracting Parties shall consider total consumption of up to 200 kWh/month for a family with up to 4 members and reflect seasonality; (c) belonging to a category of citizens with lowest income: for the definition of low income, beside the income all available assets shall be taken into account; (d) having her/his electricity consumption supplied through single-phase meter with a connection not exceeding maximum power. When defining power of a mono phase meter Contracting Parties shall consider power of up to 16 Ampere. The definition shall not include more than a minority of population. Market prices of the electricity should be cost reflective and consumption of vulnerable customers should be financed by social allowances. A socially vulnerable customer is also a gas consumer: (a) using gas for supplying her/his permanent housing; (b) not exceeding maximum gas consumption per person: when defining gas consumption level per person, Contracting Parties shall consider total consumption of up to 70 cubic meters/month for a family with up to 4 members and reflect seasonality.; (c) belonging to a category of citizens with lowest income: for the definition of low income, beside the income all available assets shall be taken into account. The definition shall not include more than a minority of consumers.*

Table 9 Measures to protect vulnerable customers in the Contracting Parties in 2016

Measures to protect vulnerable customers	Number of countries - electricity	Number of countries – gas
Restrictions on disconnection due to non-payment	7	4
Earmarked social benefits to cover (unpaid) energy expenses	6	2
Special energy prices for vulnerable customers	0	0
Additional social benefits to cover (unpaid) energy expenses (non-earmarked financial means)	0	0
Free energy-saving advice to vulnerable customers	1	1
Measures to protect vulnerable customers	Number of countries - electricity	Number of countries – gas
Right to deferred payment	3	3
Exemption from some components of final customer energy costs (e.g. energy price, network tariffs, taxes, levies...)	0	0
Financial grants for the replacement of inefficient appliances	0	0
Free basic supply of energy	1	0
Other	1	0

The data shows that the **most common measures for protection of vulnerable customers** are restrictions as regards disconnection due to non-payment and earmarked social benefits to cover (unpaid) energy expenses. Measures of protection are more used in electricity which is partly to also lack of gas markets in some of the analyzed countries.

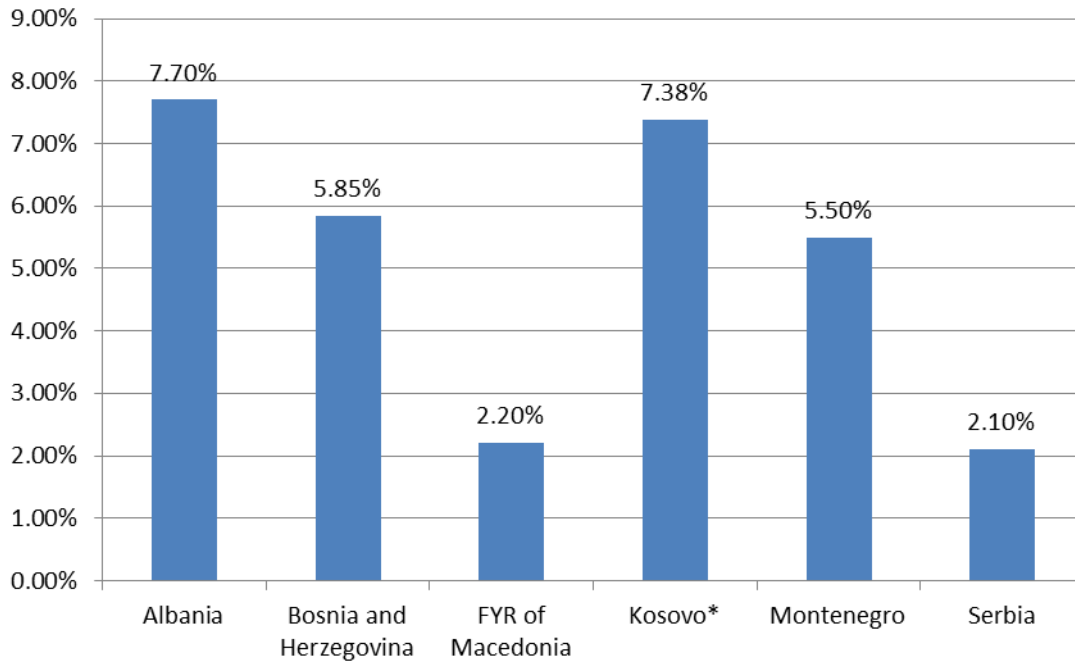
Specific measures of protection of vulnerable customers are listed below:

- Bosnia and Herzegovina - There are restrictions on disconnection of customers using life supporting equipment. Also, there are restrictions on disconnection before and during public holiday, as well as on Friday and during weekend. Distributors and suppliers must take appropriate measures to avoid any disconnection due to non-payment. Republika Srpska and Brčko District have restrictions on disconnection during the winter and extreme cold weather in place, but the suspension of delivery can be used as a final measure.
- fYR of Macedonia - Households which are eligible for receiving financial support for reducing energy poverty, first have to prove that the energy expenses are paid in order to receive the financial support (currently 11.4 euro/month).

- Georgia- Distribution licensees are restricted from terminating electricity supply to consumers without first allowing at least one month of additional time for payment of the bill if it would jeopardize human lives. Financial support is provided by the 2015 Law on Development of High Mountainous Regions, which foresees partial subsidization of the electricity costs for the residents of mountainous settlements. A Decree of the Government sets rules for partial subsidization of electricity costs and targets specifically socially vulnerable customers, defined in accordance with a methodology approved by the government. The municipality of Tbilisi has its own support scheme to help vulnerable households to cover the costs of electricity supply during the winter period. If disconnection from the gas distribution network for non-payment would pose a threat to a person's life or health, the supplier must grant additional time for payment, but no more than three months. During the cold season, there are subsidies for gas consumption available to population of certain mountainous municipalities.
- Kosovo* - The Law on Electricity defines temporary suspension and termination of electricity supply. Suppliers shall have the right to arrange to cut off customers for non-payment, but they will need to take into account the decisions taken by the national regulator regarding the protection of vulnerable customers in order to avoid disconnections during the winter period.
- Montenegro - Subventions for all endangered categories are 40% of the bill if it is up to 60 euro, for bills of more than 60 euro there is fixed subvention of 24 euro. Subventions are financed by the Government.
- Serbia - Reduction of the monthly payment obligations depends on the number of household members, monthly income and financial conditions.
- Ukraine - Disconnection of households is prohibited before the weekend and holidays. Also, if a household customer does not have funds to pay the debt, s/he can apply to the supplier for scheduling debt repayment or deferring the payment period and provide a certificate confirming his insolvency. As regards gas, according to the rules of natural gas supply when incurring of customer debt for natural gas a debt repayment schedule can be agreed by the parties (supplier and customer). However, it should be noted that this provision does not oblige a natural gas supplier to conclude the debt repayment schedule (agreement on debt restructuring) with a customer who has an existing debt for gas supply. Suppliers may determine the feasibility of concluding this schedule (agreement) on their own discretion.

The following figure shows the share of vulnerable electricity customers out of the total number of households metering points in Contracting Parties on 31st December 2016.

Figure 21 Share of vulnerable customers in Contracting Parties on 31st December 2016



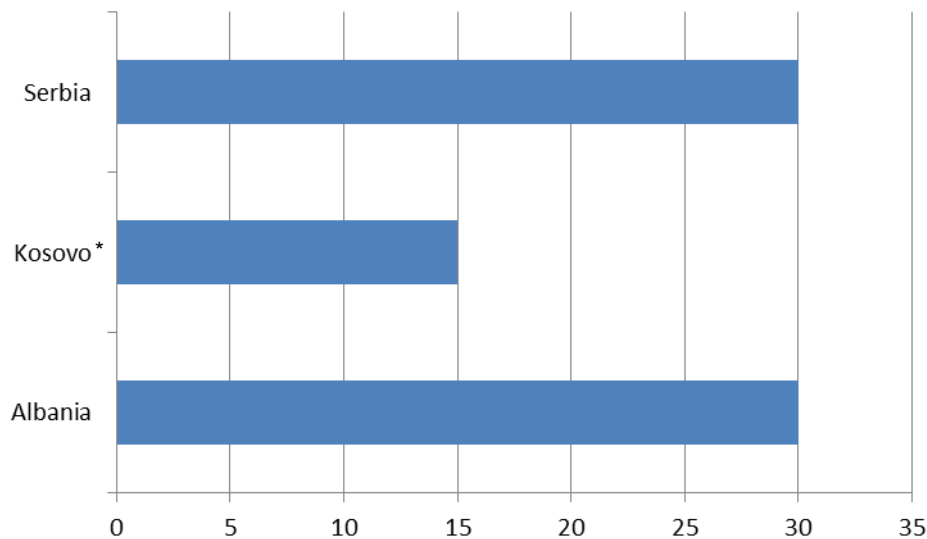
4. Customer information

In order to facilitate the participation of customers in the liberalized market it is important to have clear and simple procedures and transparent information. The Energy Community law prescribe that clear and comprehensible information should be made available to consumers concerning their rights in relation to the energy sector. A high level of consumer protection, particularly with respect to transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms should be provided. It is advisable to establish a single point of contact to provide consumers with all necessary information concerning their rights, current legislation and the means of dispute settlement available to them in the event of a dispute.

Research has been carried out to look at related practice in the Energy Community Contracting Parties. The survey covered legal requirements for information to consumers about price changes for fixed-price and variable-price contracts, the minimum lead time for informing customers about energy price changes, the minimum lead time for DSOs to inform customers about planned disconnection, the number of days for supplier switching, the number of households with smart meters, information on bills issued by suppliers, choice of payment methods, frequency of billing information based on actual consumption, existence of price comparison tools and single point of contact.

According to the provided data, in the majority of Contracting Parties a legal requirement for information to household consumers on **price changes** exists. In fYR of Macedonia and Moldova there is no such requirement. The following figure shows how many days in advance households have to be informed about electricity and gas price changes.

Figure 22 Minimum lead time for informing customers about energy price changes for variable-price contracts



As shown in figure 22, the minimum lead time for informing customers about energy price changes is 30 days in Albania and Serbia and 15 days in Kosovo*. In Bosnia and Herzegovina there is no standard rule in place, but for competitive supply definitions are part of the supply contract. In fYR of Macedonia, Georgia, Moldova, Montenegro and Ukraine variable-price contracts are not applicable yet and household customers are still supplied at regulated conditions.

In Montenegro the supplier that had the status of public supplier until the day of entry into force of Energy Law (i.e. 28th January 2016) continued to supply all household customers; the Energy Law prescribes that this supplier shall be in a position to change prices for households and small sized non-household customers in line with changes of prices on the market, under certain restrictions – i.e. on the basis of an increase of electricity price, prices for final customers cannot be increased above weighted electricity price realized in the previous year and futures for the following year on reference energy exchange nominated by the national energy regulator, and cannot exceed 7% in 2017 and 6% in 2018 and 2019. The Law defines that suppliers shall publish prices for households and other final customers on their web page at least 15 days prior to initiation of supply and suppliers shall publish each change of prices and fees on its web page in a timely manner but not later than by expiry of the calculation period after the change came into force; suppliers shall also inform customers

about the possibility of contract termination in case the customer refuses to accept the price change.

In Ukraine variable-price contracts for households are not applicable as prices are regulated. For electricity suppliers shall inform households about tariffs (prices) changes in written form or through the media and in the offices for payment of electricity not later than five days prior to entry into force of the new tariffs (prices). For gas according to the rules of natural gas supply suppliers shall inform the customer about price changes 30 days before the new price enters into force (except in the case when the price is set for the supplier by the regulatory authority).

Similar to Energy Community Contracting Parties, legal requirements to inform consumers about changes in the energy price component are very different in EU Member States. The majority of Member States defined different minimum lead periods for this purpose. In some cases legal requirements do not necessarily mention a specific number of days and in few Member States there are no legal requirements to inform consumers about changes in the energy price in advance, as the legislation specifies that this can be done after the price change.⁵¹

Price comparison tools (PCT) exist only in Bosnia and Herzegovina (<http://uporedistruju.ba/>) and it is currently in its test phase within ongoing USAID EIA project (technical assistance) for PCT-electricity.

Besides changes in the energy price component, it is of great importance that **information on energy bills** is clear and transparent. Presenting ten or more distinct information items may be too much for consumers to deal with. It is recommended that consumers are provided with only essential information on bills, such as price, energy consumption, payment options and the details of the single point of contact. Detailed consumer information could be provided through various other communications channels.

The Electricity Directive stipulates that suppliers should make the following information available to final customer in the bills and in promotional materials:

- the contribution of each energy source to the overall fuel mix of the supplier over the preceding year in a comprehensible and, at a national level, clearly comparable manner,
- at least a reference to existing reference sources, such as web pages where information on the environmental impact in terms of at least CO₂ emissions and the radioactive waste resulting from the electricity produced by the overall fuel mix of the supplier over the preceding year is publicly available,
- information concerning their rights as regards the means of dispute settlement available to them in the event of a dispute.

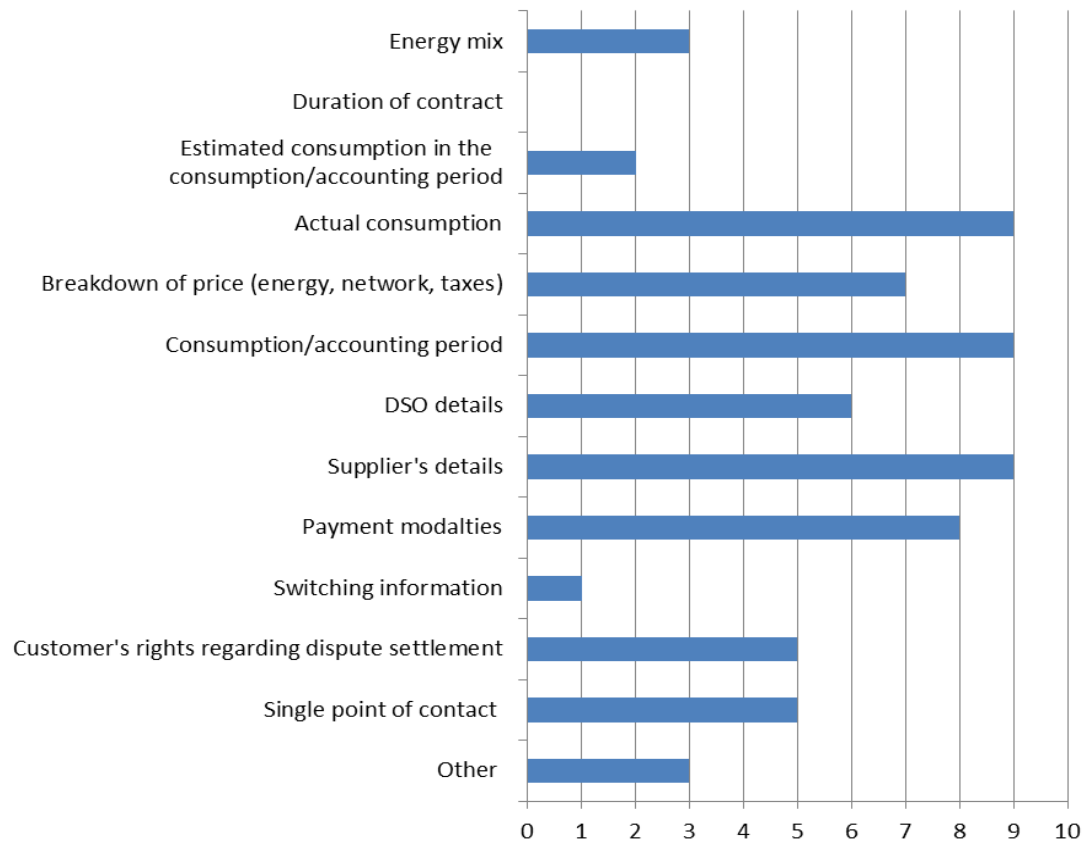
⁵¹

ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Gas Markets in 2016 Consumer Protection and Empowerment Volume
http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Market%20Monitoring%20Report.%20CONSUMER%20PROTECTION%20AND%20EMPOWERMENT.pdf.

Consumers should have access to their consumption data, associated prices and services costs so that they can invite competitors to make an offer based on those data.

The content of the customer bill is prescribed by various legal acts in every Energy Community Contracting Party. The following figure shows which information is included in the customers bills in analyzed countries.

Figure 23 Content of electricity bills 2016



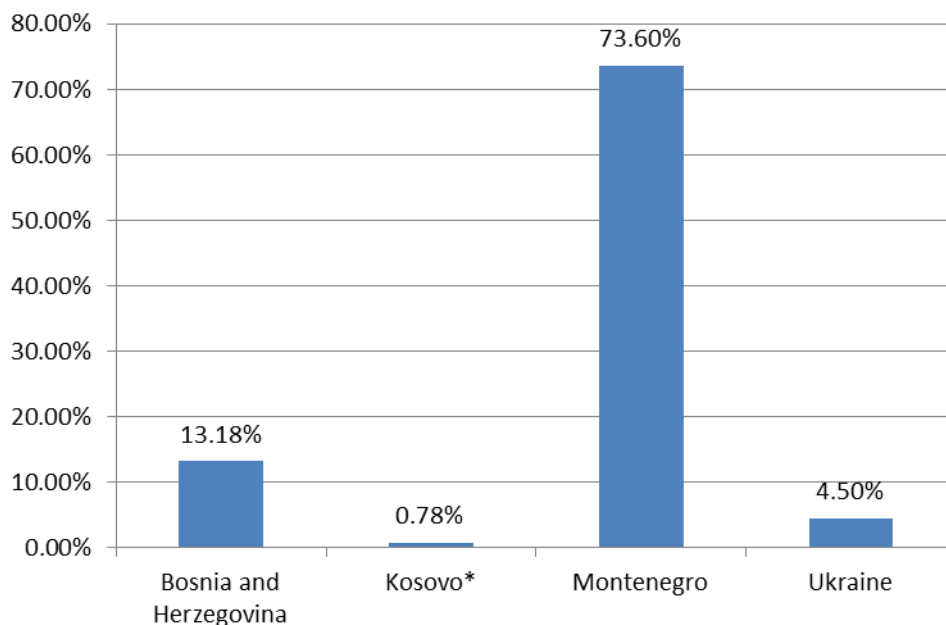
Actual consumption, the accounting period and supplier contact details are included in the bills in all analyzed countries. Information related to the energy mix, as one of the mandatory elements, is available only in fYR of Macedonia, Serbia and Ukraine. In Bosnia and Herzegovina, among other information, bills also include information related to the payment deadline, cost per metering point, common area consumption (elevator, water pump) and in Federation of Bosnia and Herzegovina and in Republika Srpska RES incentives. In Ukraine, other information includes customer details, privileges and subsidies and the balance of payments. In Georgia at least the following shall be indicated in a bill: payment due date, for gas: cost of consumed gas per cubic meter (either the regulated tariff or the price indicated in the contract), for gas: volume of consumed gas in cubic meters and the total price, the total price to be paid by consumer and corresponding shares of supply and distribution, for

electricity: the tariff, the volume of electricity consumed in kWh and the total cost, bank accounts of the DSO and supplier and methods of payment including one method that is completely free of charge as well as customer service telephone numbers for both DSO and supplier.

The frequency of billing information based on actual consumption was monthly in every Energy Community Contracting Party in 2016. The Third Package Directives stipulate that consumers should have the right to be properly informed about their energy consumption and this requirement is met in every observed energy market.

The Electricity Directive requires the implementation of **intelligent metering systems** that shall assist the active participation of consumers in the electricity supply market. The implementation of those metering systems may be subject to an economic assessment of all the long-term costs and benefits to the market and the individual consumer. Where roll-out of smart meters is assessed positively, at least 80 % of consumers shall be equipped with intelligent metering systems by 2020. According to information provided, Montenegro has the highest share of household customers equipped with smart meters. The following figure shows the share of households with smart meters in Energy Community Contracting Parties.

Figure 24 Share of households with smart meters (status 31th December 2016)



The Electricity and Gas Directives require the provision of a **single point of contact** to provide consumers with all necessary information concerning their rights, current legislation and the means of dispute settlement. The conducted research shows the following:

- in Albania and Serbia there is no point of contact for customers to obtain independent information about their rights;

- in Bosnia and Herzegovina, fYR of Macedonia, Georgia, Kosovo*, Montenegro and Ukraine there are several points of contact (usually national regulatory bodies, Ombudsman and customer associations).

Annex I of both the Electricity and Gas Directives requires that customers have to be offered a wide choice of **payment methods**, which is fulfilled in all analyzed markets.

The customers' **right to switch supplier** is essential for empowerment of customers and for competition development in energy markets. The process of switching supplier has to be easy from the customer's point of view and conducted under clear and simple rules. The switching period should be as short as possible and the customer shall not pay any direct fees for changing supplier. Any unnecessary obstacle for switching supplier should be removed. In order to facilitate the whole process, there should be easy access to relevant and correct information for the customer prior to switching.

The Electricity and Gas Directives stipulate that switching procedures for customers should be executed by system operators within three weeks. Research related to this issue shows that the legally prescribed number of working days for supplier switching in the Energy Community Contracting Parties usually is 21, namely this the case in Bosnia and Herzegovina, Kosovo*, Serbia and Ukraine. In Albania the maximum period is 11 days, in fYR of Macedonia 23 days, in Moldova 20 and Montenegro 15 days. The switching process may be stopped due to various reasons which are different from country to country:

- Bosnia and Herzegovina - in case of an incomplete or inaccurate request for switching, conflicting provisions of the previous contract between the old supplier and a customer, withdrawal of customer request and force majeure.
- fYR of Macedonia – in case the DSO concludes that the provided data in context of the switching request show inconsistency, the DSO sends a notification for rejecting the switching request to the new supplier and incumbent supplier. If this occurs, the switching procedure ends at this point.
- Kosovo* - in case then current supplier rightly considers that, in the proposed transfer date, the customer is still obligated under the contract with the current supplier.
- Serbia - in case of a complaint of the current supplier, if a request is incomplete or more than one supplier applies for the same delivery point and the customer does not give his opinion on the selected supplier or does not provide requested information in due time or if a customer has been disconnected.
- Ukraine – in cases of debt of customers under the current supply contract (for gas and electricity) and failure to submit the necessary documents (for electricity). Also if the customer system of commercial metering does not meet the requirements necessary to switch supplier (for electricity).

5. Customer complaints

The Energy Community law stipulates that customers should have access to dispute settlement mechanisms. Customers can be protected and empowered in the right way only if their complaints are efficiently treated. According to the 3th Energy Package an independent mechanism - such as an energy ombudsman or a consumer body - should be in place in order to ensure efficient treatment of complaints and out-of-court dispute settlements. Also the obligation of regulators is prescribed, namely to monitor complaints by household customers.

The following table shows the number of household customer complaints received by different institutions in 2016.

Table 10 Number of household customer complaints for gas and electricity received by different institutions in 2016

	Suppliers	DSOs	ADR ⁵²	NRA
Albania	NA	NA	957	
Bosnia and Herzegovina ⁵³	11725	31755		301
fYR of Macedonia	9196	NA	25	
Georgia	NA	NAP	3345	
Kosovo*	11180	349		235
Moldova	NA	NA		593
Montenegro	NA	NA	95	
Serbia	NA	NA	282	
Ukraine ⁵⁴	247203 ⁵⁵		1305	

In all assessed countries national regulatory authorities have the role of an Alternative Dispute Resolution body. In Bosnia and Herzegovina (Federation of BIH) besides the regulator an Ombudsman for customer protection and the local/regional court may also be appointed as ADR, the same is the case in Georgia for the Public Defender of Consumers' Interests⁵⁶ and

⁵² Alternative Dispute Resolution. The relevant Directive 2013/11 of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC is not yet applicable in the Contracting Parties.

⁵³ Electricity data, for gas not available.

⁵⁴ Number of complaints relates only to electricity.

⁵⁵ In Ukraine the number of complaints refers to both suppliers and DSOs, because companies are not unbundled.

⁵⁶ Public Defender of Consumer's Interests in Georgia is not empowered to resolve complaints. She presents the complaints submitted by customers to GNERC, while the latter adopts the decision. Customers may also submit complaints directly to the courts of Georgia instead of applying to the NRA first except for cases where administrative

in Kosovo* for private mediators licensed by the Ministry of Justice. In Serbia a non-energy body is in charge for other than connection issues and in Ukraine information and consulting centers are in charge for supply companies for electricity.

The majority of complaints included in the table above refer to bills. The great part of them is related to the quality of supply in Bosnia and Herzegovina, Moldova and Ukraine. In Serbia the majority of complaints are related to connection issues.

6. Service quality of distribution system operators

The duties of DSOs include ensuring long-term system capability to meet realistic requirements for electricity and gas distribution, as well as to provide distribution system users with clear and precise information regarding conditions for service provision, and particularly, information about access to the distribution system including technical, contractual and available capacities. The Electricity and Gas Directives prescribe the obligation of regulatory bodies to monitor, among others, the time taken by distribution system operators to make connections and repairs.

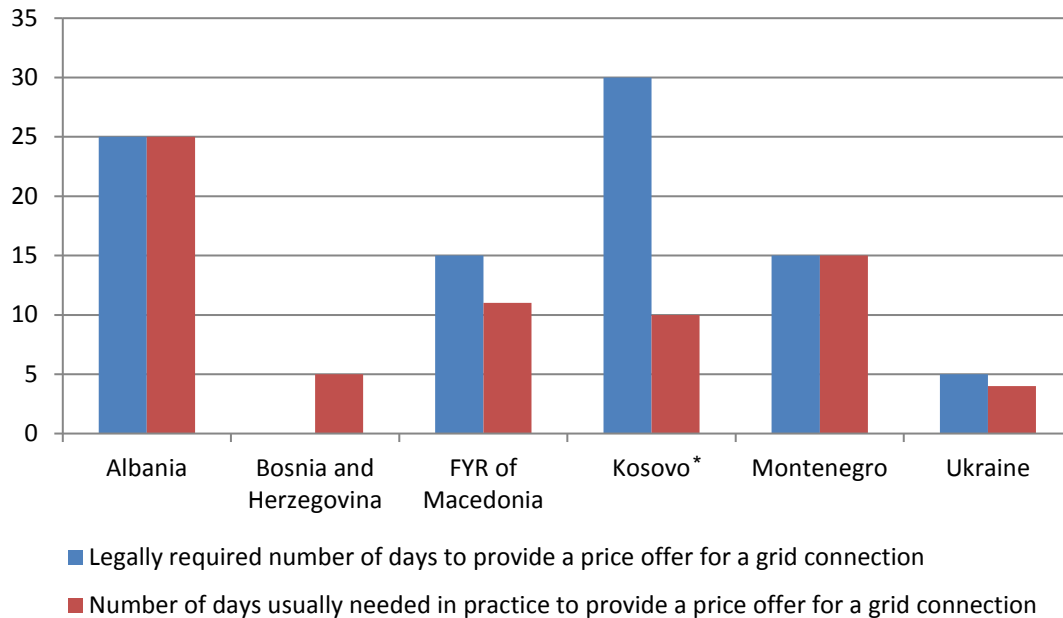
Research has been carried out in order to review the legal requirements and practice in Energy Community Contracting Parties related to indicators of DSO service quality. Research covered the following indicators:

- Number of days to provide a price offer for a grid connection (from the date of consumer's request for a price offer);
- Number of days to connected to the network and activate energy supply to a consumer (starting from the date of consumer's request to be connected);
- Maximum number of days to disconnect the energy supply following a consumer request; and
- Maximum duration of a planned supply interruption.

The figure below shows the legally required number of days to provide a price offer for grid connection as well as the time used in practice.

sanctions imposed by utilities are appealed. In such cases, the complaint has to be submitted to GNERC first and afterwards may be appealed in court.

Figure 25 Number of days to provide a price offer for a grid connection (from the date of consumer's request for a price offer) – electricity



There are specific details related to this indicator for almost every observed country as listed below:

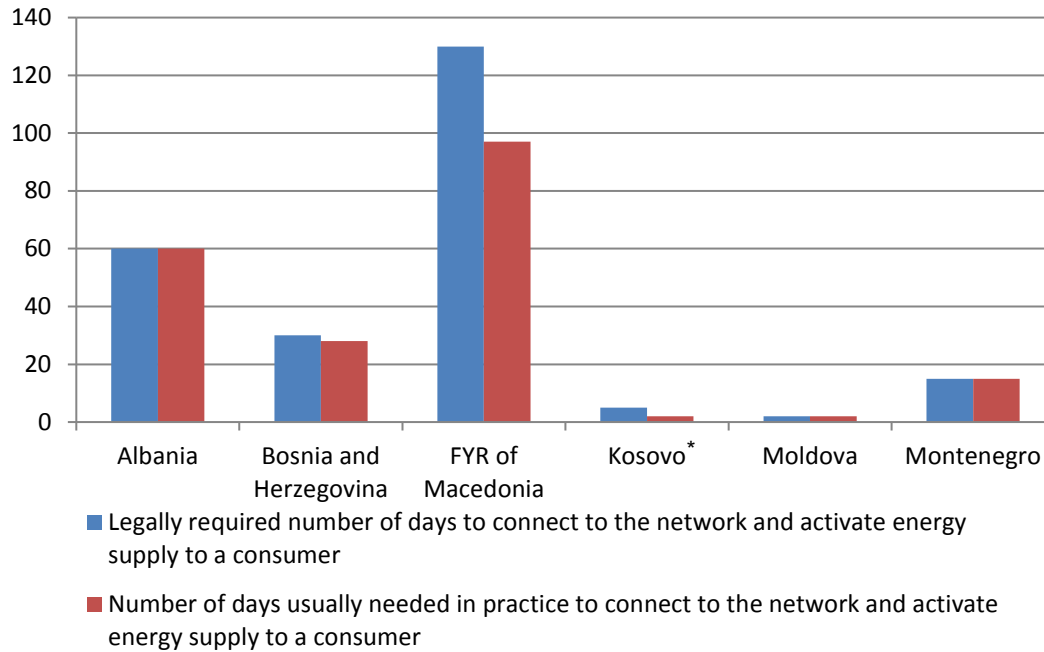
- In Albania the legally prescribed number of days to provide a price offer for grid connection equals to the used praxis, namely up to 25 working days depending on the requested power and voltage level.
- In Bosnia and Herzegovina there is a price list for standard connection, as well as for additional costs related to specific connection. In practice it takes up to five days to provide a price offer for connection to the electricity or gas distribution system.
- In FYR of Macedonia it takes one day to provide a price offer for a connection to the gas distribution system.
- In Georgia, if a connection takes place within a 800 meter- (in case of connection to 0.4 kV voltage) or 6 kilometer- (in case of connection to 6/10 kV voltage) radius from the existing distribution network, the timeline and price for connection is set by the regulator: it takes 40 business days to get connected with up to 150 kWh of capacity during which the DSO carries out all works necessary for connection to the network. In case of connection to the gas distribution network, the NRA sets the timeline and price for connection within 300 meter radius from the existing distribution network: connection to the distribution network with the capacity of up to 16 cubic meters requires 40 business days.

- In Kosovo* the legally prescribed number of days for price offer is 30 days but in practices it takes ten days only.
- In Moldova the legally prescribed equals the days used in praxis to provide a price offer for a connection to gas distribution system, namely two days and it is 2.
- In Montenegro it takes between 15 days and four months for (a) production and industrial facilities that are connected to the 110 kV or higher voltage level and for which a systemic analysis is needed, and for (b) distributed production and objects of customers connected with an inadequate connection for which it is necessary to develop a report on connection to the system.
- In Serbia the price for connection to electricity and gas distribution system is regulated by the methodology for the criteria and manner of settings cost for connection to the electricity or gas distribution system; those methodologies are available on the regulators website.
- In Ukraine for standard connection for electricity⁵⁷: first level - up to 16 kW inclusive; second level - from 16 kW to 50 kW inclusive; third level - from 50 kW to 160 kW inclusive. For gas the legally prescribed period for providing a price offer is ten days and it is related to connection (to the gas distribution system) of the customer facility with capacity up to 16 cubic meters per hour inclusive within a distance not exceeding 25 meters in rural areas and ten meters in urban areas in a straight line from the point of provision of capacity to the customer land boundary.

The figure bellow shows legally required number of maximum days to **connect to the network** and activate energy supply to a consumer as well as related praxis.

⁵⁷ i.e. connection to the existing distribution networks within a distance not exceeding 300 meters in a straight line from the place of provision of capacity to the point of connection which is differentiated by the level of customer facility capacity.

Figure 26 Number of days to connect to the network and activate energy supply to a consumer (from the date of consumer's request to be connected)



There are specific details related to this indicator for almost every observed country and they are listed below:

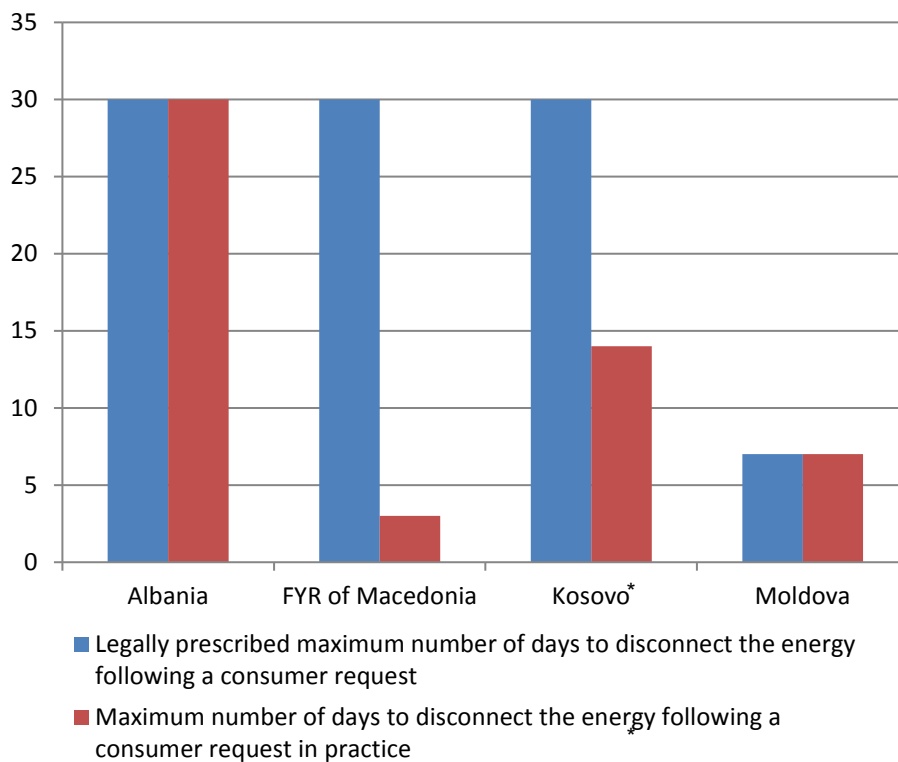
- In Albania the number of days to connect to the network in practice equals to the legally prescribed period, namely up to 60 working days depending from the requested power and the voltage level.
- In fYR of Macedonia legislation allows for a maximum of 130 days to connect to the electricity network. In practice it takes 30 days to connect to gas network in case the customer has finalized internal gas installation and has a usage permit.
- In Georgia the number of days to connect to the network in practice equals to the legally prescribed period.
- In Kosovo* it is legally defined that the deadline for connection of customer to the grid from the date of application is five days but in practice it takes two days.
- In Moldova, before connection to the grid the customer has to demonstrate that his installation is ready for operation in a safe mode. The customer can ask for connection to the grid only in this case and the DSO has two days for making the connection and for activation the contract.
- In Montenegro it takes 15 days to connect to the grid if the customer fulfills the prescribed conditions before the request.
- In Serbia, for both the electricity and gas distribution system, the prescribed number of days for the distribution system operator to issue the approval for connection from the

date at which he received the customer's request for connection is 15 days. Eight days is the deadline for the distribution system operator to connect the facility of a customer to the distribution system from the date of fulfillment conditions which are defined in the law.

- In Ukraine for electricity, according to the connection rules for the first level of connection⁵⁸ the time-frame for provisioning the connection service is 20 calendar days from the date of payment by the customer for the cost of connection. For the second and third levels⁵⁹ that period is 30 days. In practice, it takes 62 days⁶⁰ to connect to electricity network and activate energy supply to a customer. For gas the legal requirement is 90 days but in practice it takes 71 days on average.

The figure below shows the maximum number of days to **disconnect the energy flow following a consumer request**.

Figure 27 Maximum number of days to disconnect the energy following a consumer request



Specific details related to this indicator are listed below:

⁵⁸ Up to 16 kW inclusive.

⁵⁹ Second level - from 16 kW to 50 kW inclusive; third level - from 50 kW to 160 kW inclusive.

⁶⁰ Based on the data provided by 30 electricity distribution companies for standard connection.

- In Bosnia and Herzegovina the legally prescribed number of days to disconnect the energy supply following a consumer request is one in Republika Srpska and three in Brčko District. In practice, it is one and two, respectively.
- In FYR of Macedonia the number of days to disconnect the energy following a consumer request in practice is two to three days for electricity and one for gas while the legal provisions would allow for a maximum period of 30 days.
- In Georgia, there is no legally prescribed timeline for fulfillment of such request. In practice it is estimated to take three to five days to fulfill the request for disconnection.
- In Kosovo* the number of days to disconnect the energy following a consumer request is 14 days in practice while the legal provisions would allow for a maximum period of 30 days.
- In Moldova, the legally prescribed period of 15 days equals to the timeline applied in praxis.
- In Serbia, without delay for suspension and disconnection after two years of suspension.
- In Ukraine, according to the rules of electricity usage for households if a household customer wants to terminate the electricity usage contract s/he shall submit to the supplier a written statement on contract termination not later than seven working days in advance; the statement shall indicate the desirable date of household customer facility disconnection. The disconnection should be performed at the indicated date. According to the rules of electricity usage (for legal entities) if a customer leaves premises and/or terminates the electricity usage s/he shall inform the supplier no later than 20 working days⁶¹ in advance and provide a statement regarding the termination of contract. The supplier shall stop supplying electricity and the distribution company shall stop distributing electricity at the date of leaving premises or terminating electricity usage as indicated by customer. In practice this takes 20 days. According to the gas distribution systems code if a customer makes a request for suspension of gas supply/distribution to her/his object or her/his individual gas appliances for the purpose of repair, reconstruction or technical re-equipment, the customer shall notify the DSO no later than seven days in advance in written form and agree with the DSO on the date of suspension of gas supply/distribution, and the DSO shall suspend gas supply/distribution at the date agreed with the customer.

As regards the indicator of the **maximum duration of a planned supply interruption**, there is no legal requirement in Bosnia and Herzegovina, FYR of Macedonia, Georgia, Montenegro, Serbia and Ukraine. Specific details about this indicator are presented below:

- In Albania the legally prescribed maximum duration of a planned supply interruption is two to 24 hours depending on the area.
- In Bosnia and Herzegovina the maximum duration of a planned interruption in practice is six to seven hours.
- In Kosovo* the legally prescribed duration is six hours but in practice only two to six hours.

⁶¹ Based on the data provided by 30 electricity distribution companies.

- In Moldova in case of major overhauls of electricity networks the duration can be more than 24 hours and must be coordinated by local authorities. The maximum allowed duration of a planned interruption is 24 hours in case of capital and complex works in the distribution networks. However, in case a DSO plans to execute some massive works in the network⁶² and there are no other possibilities to supply costumers with electricity, is allowed to disconnect electricity for customers for more than 24 hours. However, in this case the DSO has to coordinate the duration of planned interruption with local authorities, explaining all the circumstances which lead to this situation and the DSO also has to inform every customer in the affected zone about this interruption. In case of works for maintenance and current reparations, the allowed duration of a planned interruption is eight hours. For gas, the prescribed maximum duration of a planned interruption is 120 hours but in practice it takes more time.
- In Ukraine the average duration in electricity related to the reconstruction of 0.4 kV overhead lines in practice is 222 minutes and the maximum is 625 minutes.

⁶² For instance capital reparations, replacement of medium or high voltage lines.

E. MAIN FINDINGS AND CONCLUSIONS

1. Electricity

The **total sale of electricity to final customers** in the Energy Community Contracting Parties almost remained stable in the period 2015-2016, i.e. it increased only by 0,07%. A significant increase of electricity consumption was registered in Georgia and Bosnia and Herzegovina, and a decrease in fYR of Macedonia and Kosovo*. Those changes were caused by the changes in industrial consumption. Consumption of electricity by households did not change significantly. Also the average monthly consumption of electricity per household almost did not change in 2016 compared to 2015.

Only in Ukraine a large **number of both local and nationwide suppliers** were active in the retail market in 2016. In Albania, Bosnia and Herzegovina, fYR of Macedonia and Serbia more than ten suppliers were active in the retail market in the reporting period, while in the other Contracting Parties supply to electricity end-users was offered by one or few suppliers.

In the majority of the Contracting Parties, retail electricity markets are still **highly concentrated**, with an aggregated market share of the three largest companies higher than 95%. Only in fYR of Macedonia this share is 85% and in Ukraine 33%.

In 2016 in the majority of the Energy Community Contracting Parties (namely: Bosnia and Herzegovina, Kosovo*, Moldova, Montenegro, Serbia and Ukraine), all customers had the **right to choose the supplier**. In the other Contracting Parties (Albania, Georgia and fYR of Macedonia) the dynamics of giving customers the right to choose a supplier on the free market are defined by the law or by sub-legal acts.

During 2016 only a limited number of eligible customers **changed their suppliers** in Bosnia and Herzegovina, fYR of Macedonia, Serbia and Ukraine. Except for Serbia only non-household customers changed their suppliers. In Serbia a very small number of household customers left electricity supply at regulated prices and choose new supplier. The increasing number of switching requests monitored in Bosnia and Herzegovina as well as fYR of Macedonia is a proof for market liquidity development. It is worth mentioning that in Bosnia and Herzegovina, fYR of Macedonia, Montenegro and Serbia some customers⁶³ were obliged to leave the regulated market and choose a supplier.

End-user electricity prices for household customers in the Energy Community Contracting Parties vary substantially from 2.85 euro cent/kWh in Ukraine to 9.63 euro cent/kWh in Montenegro and are still much lower than the EU 28 average price for households of 20.53 euro cent/kWh in the second semester of 2016. Without proper investigation of wholesale market structures and their functioning it is not possible to estimate precisely the reasons for the existing differences between end-user prices.

⁶³ Mainly related to the voltage level of their connection to the network and exclusively reacted to customers that are not households or small customers.

Electricity prices for industrial customer are more harmonized among Contracting Parties varying from 5.25 euro cent/kWh in Bosnia and Herzegovina to 6.96 euro cent/kWh in Albania except for Moldova where the price of 10.23 euro cent/kWh is very close to the EU-28 average price of 10.73 euro cent/kWh.

End-user electricity prices for household customers were **regulated** in all Energy Community Contracting Parties in 2016. Also the great majority of non-household customers were still supplied at regulated prices in 2016. Only in Bosnia and Herzegovina (at more than 10000 metering points) and in Serbia (at about 110000 metering points) a significant number of non-household customers were supplied at non-regulated prices.

Providing an adequate approach for protecting **vulnerable customers** in the Energy Community Contracting Parties is also an important step in the process of price deregulation. Namely, only when the vulnerable customers are properly defined and targeted, price regulation will lose one of its main alleged justifications,⁶⁴ i.e. protection of customers by not exposing them to potential effects of liberalized market.

Another precondition for successful transition towards complete deregulation of end-user prices is allowing customers to switch from and to regulated prices as customers, especially households, typically consider regulated energy prices as more stable. Switching in and out of regulated prices for households is allowed in majority of the Contracting Parties, namely in Bosnia and Herzegovina, Georgia, Kosovo*, Moldova, Montenegro, Serbia and Ukraine.

2. Gas

Total sale of gas to final customers in the Energy Community Contracting Parties decreased in the period 2012-2016 by 45%. While gas consumption in Ukraine and fYR of Macedonia show clear backward or stable trends, consumption in other countries varies depending on industry performances and winter temperatures.

In the reporting period end-users of gas in the Energy Community Contracting Parties were mainly supplied by regional retail suppliers. The number of **active suppliers** ranged from three in Bosnia and Herzegovina to 200 in Ukraine.

In only three countries, namely Georgia, Serbia and Ukraine, transmission and distribution networks were used by more than one supplier. In fYR of Macedonia and Moldova this was only the case for transmission networks. If effects of the market opening are to be achieved, it is of utmost importance to allow gas retailers to supply customers on the whole territory of a country.

⁶⁴ ECRB in its reports on protection of vulnerable customer treatment (2011, 2013) pinpointed to the negative effects of price regulation on market development and liquidity, in particular when too extensive, not targeted, not cost-covering. ECRB thus urged for de-regulation of prices and establishment of customer protection mechanism outside from and neutral to the energy market.

Although most of the analyzed gas markets have a substantial number of retailers, only a very limited number of them has 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, rather points out to the existence of regional or local monopolies. Household customers are supplied almost only by incumbents. However, obstacles to retail market entries mainly result from reasons outside the retail market, such as scarce infrastructure and the little developed wholesale market (e.g. single source of gas and poor access to liquid wholesale markets).

In the reporting period all gas customers in the Energy Community Contracting Parties were **eligible to choose their supplier**. However in practice:

- Household customers in none of the Energy Community Contracting Parties changed their supplier in 2016;
- Several non-household customers in FYR of Macedonia, Georgia and Serbia changed their supplier in 2016.⁶⁵

End-user gas prices for household customers decreased in all Energy Community Contracting Parties, except Ukraine.⁶⁶ In the same period, also **prices for industrial** users decreased in all of them. While household prices were still much lower than in the EU average, decreasing industry prices came almost to the EU level. This is mainly due to the continuous process of abandoning cross- subsidization between the two customer categories.

End-user gas prices for household customers were **regulated** in all Energy Community Contracting Parties in 2016, with the exception of FYR of Macedonia, where a limited number of households was supplied at non-regulated prices. In Georgia household customers connected to the grid after 1st August 2008 were supplied at non-regulated prices.

Application of price regulation for industry differs among the Contracting Parties: they were regulated in Moldova, but not in Bosnia and Herzegovina (Republika Srpska), FYR of Macedonia and Georgia. In Serbia and Ukraine certain industry categories were entitled to buy gas at regulated prices, but they were also free to choose their suppliers and be supplied at non- regulated prices.

If 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 should 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 gas at market prices, market liberalization and competition can bring benefits to customers in terms of lower prices.

⁶⁵ Information for Ukraine is not available.

⁶⁶ Stepwise increase of household prices in Ukraine is part of the Government Public Service Decree.

3. Customer protection

A **supplier of last resort** is appointed for electricity in all Energy Community Contracting Parties, except in Ukraine and Georgia; for gas this is the case in Bosnia and Herzegovina, FYR Macedonia, Moldova, Serbia and Ukraine. Electricity and gas suppliers of last resort usually supply customers in the following circumstances: when the license of the current supplier was revoked, when the current supplier went bankrupt, when the customer does not choose a supplier on the open market or when customer does not find a supplier on the free market. The aforementioned means that protection of inactive consumers and precaution for failure of a supplier is provided through the role of supplier of last resort.

Non-payment of energy bills is one of the main problems that electricity and gas suppliers face in the Contracting Parties. Therefore easy and transparent procedures for disconnection that protect both suppliers and customers are very important. The minimum number of days that are legally envisaged between the payment due date and actual **disconnection of a customer** varies significantly between the monitored countries (from eight to 60 days). The actual period before disconnection is executed is usually longer than legally binding deadlines. The shares of household disconnections due to non-payment for electricity in the Contracting Parties vary substantially: with a range of 1.14% to 8.33% the shares are quite similar to those in the majority EU Member States (almost 0% to 5.8%).

Contracting Parties in the majority of cases have a **definition of vulnerable customers** as well as measures for their protection in their legislative frameworks. Some of the Contracting Parties define vulnerable customers in their energy related laws and some in legal acts related to social protection. There is a variety of national approaches in defining the criteria for obtaining the status of a vulnerable customer, but one common criterion is the need for financial support and health and social care. The share of vulnerable customers compared to the total number of household metering points, showing how well targeted vulnerable customer categories are, varied between 2.10% in Serbia to 7.70% in Albania. ECRB has in previous discussion papers drawn attention to the negative effects of untargeted definition of vulnerable customers and price regulation on market development and liquidity urged for deregulation of prices and establishment of customer protection mechanism outside from and neutral to the energy market.

Different approaches to protect vulnerable customers have been chosen. Measures for protections of vulnerable customers are much more used for electricity than for gas, partly because gas markets do not exist in all of the monitored countries. The most frequent measures are restrictions for disconnection due to non-payment and earmarked social benefits to cover energy expenses.

Consumers should receive transparent information on applicable electricity and gas prices. This also means that they need to be informed in advance about the change in energy prices. In the majority of the analyzed markets there is a legal requirement for information to household consumers on price changes, including definitions for the minimum number of days for informing consumers before new prices apply. A **price comparison tool** (PCT)

exists only in Bosnia and Herzegovina (<http://uporedistruju.ba/>) which is currently in a test phase as part of an ongoing USAID EIA technical assistance for PCT-electricity.

Electricity and gas **bills** are the primary source of information to customers, therefore their content needs to be carefully prepared to be clear and concise. The content of electricity and gas bills is prescribed by various legal acts in most of the Contracting Parties. Actual consumption, the accounting period and information details of suppliers are included in bills in all monitored energy markets. Information related to the energy mix is only available in fYR of Macedonia, Serbia and Ukraine.

All Contracting Parties used monthly billing based on actual consumption in 2016. This means that the requirement of the Gas and Electricity Directives that stipulate that consumers should have the right to be properly informed about their energy consumption is met in all markets.

The Electricity Directive requires the implementation of **intelligent (smart) metering systems** to support active participation of consumers in the electricity retail market. Smart meter roll-out is carried out in Bosnia and Herzegovina, Kosovo*, Montenegro and Ukraine. The share of household customers with smart meters varies between 0.78% in Albania to 73.60% in Montenegro. Contracting Parties could consider introduction of incentive schemes in order to motivate and facilitate smart meters roll-out.

In all analyzed markets the electricity and gas customers are offered a wide choice of **payment methods**, which fulfills requirements of Annex I of both Electricity and Gas Directives.

Establishing a **single point of contact** to provide consumers with all necessary information concerning their rights, current legislation and the available means of dispute settlement is another obligation for the Contracting Parties. In most observed countries there was more than one point of contact for customers to obtain necessary information about their rights (usually national regulatory bodies, Ombudsman and customer associations).

Besides being continuously supplied by energy and informed about various aspects of their consumption, consumers may be properly protected and empowered only if their **complaints** are efficiently treated and if there are clearly defined dispute resolution procedures. When monitoring level and effectiveness of market opening and competition, regulatory authorities should monitor also the complaints of household customers. Research showed that in every observed country national regulatory bodies have the role of Alternative Dispute Resolution body. Besides the regulator the following bodies may also act as Alternative Dispute Settlement body: in Bosnia and Herzegovina (Federation of BIH - the ombudsman for customer protection and local/regional courts; in Georgia - the Public Defender of Consumers' Interests; in Kosovo* - private mediators licensed by the Ministry of Justice; in Serbia – a non energy specific third-party body for issues other than connection issues; and in Ukraine - information and consulting centers of supply companies for electricity. The majority of complaints during 2016 refer to bills. The great part of them is related to the quality of supply in Bosnia and Herzegovina, Moldova and Ukraine. In Serbia the majority of complaints is related to connection issues.

Research related to DSO **service quality** showed that legal requirements for analyzed indicators (number of days to provide a price offer for a grid connection, number of days to connect to the network and activate energy supply to a consumer and maximum number of days to disconnect the energy following a consumer request) varies significantly among the Contracting Parties and usually it differs from the number of days needed in practice. As regards the indicator maximum duration of a planned supply interruption, there is no such legal requirement in Bosnia and Herzegovina, fYR of Macedonia, Georgia, Montenegro, Serbia and Ukraine.