REPORT ON RESULTS OF MONITORING THE ROMANIAN ELECTRICITY MARKET JANUARY 2018

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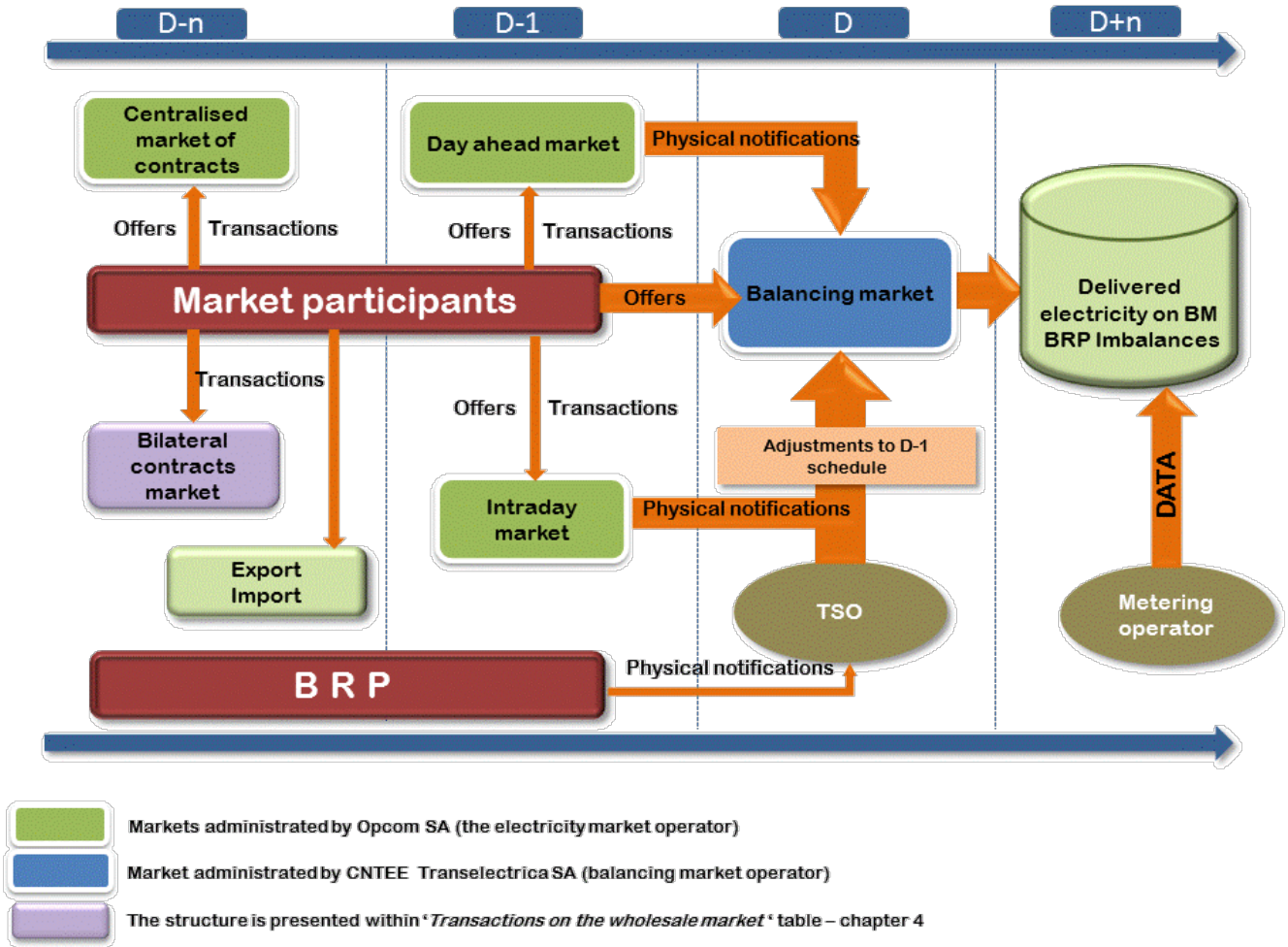
I. MAIN EVENTS IN THE DEVELOPMENT OF THE ROMANIAN ELECTRICITY MARKET

- GD 365/1998 – vertically integrated monopol – RENEL – was split into separated distribution and supply companies (SC Electrica SA) and generation companies (SC Termoelectrica SA and SC Hidroelectrica SA) were established within a new company - CONEL SA. Two other electricity generators (SN Nuclearelectrica SA and RAAN) were separately established;
- transmission. system services and market administration were separately organised. within CONEL SA;
- the relationships between parties within the electricity sector were settled based on contracts;
- GD 122/2000 – electricity market opens at 10%;
- GD 627/2000 – CONEL holding is disolved;
- September 2000 – launch of the compulsory electricity spot market in Romania. administrated by OPCOM and organized based on pool model;
- GD 1342/2001 – SC Electrica SA splits in 8 subsidiaries for electricity distribution and supply;
- GD 1524/2002 – SC Termoelectrica SA reorganizes in several separate legal entities for generation;
- July 2005 – launch of the new market model. based on:
  - voluntary spot market. with both sides offers and bilateral settlement;
  - compulsory balancing market. with TSO as single counterparty;
  - financial responsibilities of the balancing are allocated to the BRP;
- GD 644/2005 – electricity market opens at 83.5%;
- December 2005 – launch of the green certificates market;
- December 2005 – launch of the centralized market for bilateral contracts;
- March 2007 – launch of the centralized market for partially standardized bilateral contracts with continuous negociation;
- GD 638/2007 – fully opening of electricity and gas markets;
- July 2007 – rules for capacity market have been established;
- July 2008 – launch of the mechanism of direct debit and guarantee for electricity transactions on the day-ahead market (OPCOM as central counterparty);
- August 2008 – process of legal unbundling of distribution and supply companies has been concluded;
- August/December 2010 – launch of bilateral coordinated auctions for capacity allocation on interconections with Hungary and Bulgaria;
- July 2011 - launch of the intraday market;
  - GD 930/2010 – SC Electrica Furnizare SA had been established through merger of the former last resort suppliers Electrica Furnizare Muntenia Nord. Electrica Furnizare Transilvania Nord and Electrica Furnizare Transilvania Sud;
- June 2012 – a new entity obtaines the generation license and enters on the electricity market - Complexul Energetic Oltenia SA. established in a dual system through merger of the former SNLO Tg. Jiu. Complexul Energetic Turceni. Complexul Energetic Rovinari and Complexul Energetic Craiova (GD 1024/2011);
- July 2012 – the Law of electricity and natural gas no. 123/2012 has enter into force;
- September 2012 – the application of the first stage from the timetable of phasing out of regulated electricity tariffs to final customers who choose not to exercise their eligibility rights. in accordance with the obligations assumed by the Romanian Government in relation with the IMF. World Bank and European Commission;
- October 2012 – the Law no. 160/2012 regarding the organisation and operation of the Romanian Energy Regulatory Authority has entered into force;
- November 2012 - a new entity obtaines the generation license and enters on the electricity market - Complexul Energetic Hunedoara SA. established through merger of the former Electrocentrale Deva and Electrocentrale Paroseni (GD 1023/2011);
- December 2012 – launch of the organised electricity market for the large customers;
- July 2013 – launch of centralized market trading with continuous double negotiation of bilateral contracts for electricity;

- August 2013 – removal of injection transmission tariff for the imported and respectively of the extraction transmission tariff for the exported quantities. and of the corresponding system services;
- December 2013 – removal of the export tariffs applied by the electricity market operator;
  – certification with conditions for CNTEE Transelectrica SA as an independent transmission and system operator;
  – application of last stage of the phasing out calendar for removal the regulated tariffs applied to the final nonhousehold clients who do not use their eligibility rights;
- August 2014 – CNTEE Transelectrica SA certification as NES transmission system operator following the „independent system operator" model;
- October 2014 – entry into force of the Law no. 127/2014 for amending the Law no. 123/2012;
- November 2014 – the launch of the CZ-SK-HU-RO market coupling project. that encompasses the DAM markets from the Czech Republic. Slovakia. Hungary and Romania;
- January 2015 – entry into force of the new centralized market for bilateral contracts with its components: Extended Auctions Mechanism (CMBC–EA). Continuous Negotiation Mechanism (CMBC–CN). Fuel Processing Mechanism (CMBC–FP);
- February 2015 – implementing the centralized market for universal service;
- November 2016 - entry into force of the Law no. 203/2016 amending the Law no. 123/2012 on electricity and natural gas.

II. WHOLESALE ELECTRICITY MARKET

1. *Structure of the wholesale electricity market*



2. Participants on the wholesale electricity market

The market participants*) acting on the electricity market in January 2018 are presented below split into categories:

No.	Category
A	***Electricity generators on classic sources operating dispatching units***
1	Bepco SRL
2	CET Arad SA
3	CET Govora SA
4	CE Hunedoara SA
5	CE Oltenia SA
6	Contour Global Solutions SRL
7	Ecogen Energy SA
8	Electrocentrale Bucureşti SA
9	Electrocentrale Constanţa SA
10	Electrocentrale Galaţi SA
11	Electro Energy Sud SRL
12	Enet Focsani SA
13	Gas Energy Ecotherm SA
14	Lukoil Energy & Gaz Romania SRL
15	Modern Calor SA
16	OMV Petrom SA
17	Rulmenti SA
18	SNGN Romgaz SA
19	Termoficare Oradea SA
20	Veolia Energie Iaşi SRL
21	Veolia Energie Prahova SRL
22	Vest Energo SA
B	***Electricity generators on wind source operating dispatching units***
1	Alizeu Eolian SA
2	Arinna Development SRL
3	Blue Line Energy SRL
4	Blue Planet Investments SRL
5	Braila Winds SRL
6	Bridgeconstruct SRL
7	Catalan Electric SRL
8	Cernavoda Power SRL
9	Corni Eolian SRL
10	Crucea Wind Farm SRL
11	Dan Holding MGM SRL
12	Eco Power Wind SRL
13	Ecoenergia SRL
14	EDPR Romania SRL
15	Electrica Serv SRL
16	Electricom SA
17	Elektra Green Power SRL
18	Elektra Wind Power SRL
19	Enel Green Power Romania SRL
20	Energia Verde Ventuno SRL
21	Enex SRL
22	Eol Energy SRL
23	Eol Energy Moldova SRL
24	Eolian Center SRL
25	Eolica Dobrogea One SRL
26	EP Wind Project (ROM) SIX SA
27	Eviva Nalbant SRL
28	Ewind SRL
29	General Concrete Cernavoda SRL
30	Green Energy Farm SRL
31	Ground Investment Corp SRL
32	Holrom Renewable Energy SRL
33	Horia Green SRL
34	Intertrans Karla SRL
35	Kelavent Charlie SRL
36	Kelavent Echo SRL
37	Land Power SRL
38	LC Business SRL
39	M&M 2008 SRL
40	Mireasa Energies SRL
41	East Wind Farm SRL
42	Ovidiu Development SRL
43	Peştera Wind Farm SRL
44	Romconstruct Top SRL
45	Sibioara Wind Farm SRL
46	Smart Clean Power SRL
47	Smartbreeze SRL
48	Soft Grup SRL
49	Tomis Team SRL
50	Verbund Wind Power Romania SRL
51	Wind Park Invest SRL
52	Windfarm MV I SRL
53	VS Wind Farm SRL

No.	Category
C	***Electricity generators on biomass source operating dispatching units***
1	Bioenergy Suceava SRL

No.	Category
D	***Electricity generators on solar source operating dispatching units***
1	Blue Sand Investment SRL
2	Caracal Solar Alpha SRL
3	Casa Crang SRL
4	Clue Solar SRL
5	Corabia Solar SRL
6	Cujmir Solar SRL
7	Delta & Zeta Energy SRL
8	Ecosfer Energy SRL
9	Energo Proiect SRL
10	Eye Mall SRL
11	Fort Green Energy SRL
12	Foton Epsilon SRL
13	Gama & Delta Energy SRL
14	GPSB Solaris 48 SRL
15	Greenlight Solution SRL
16	Green Vision Seven
17	Izvor de Lumina SRL
18	Kentax Energy SRL
19	Lemar Grup SRL
20	LJG Green Source Energy Alpha SA
21	LJG Green Source Energy Beta SRL
22	LJG Green Source Energy Gamma SRL
23	Long Bridge Milenium SRL
24	Mar-Tin Solar Energy SRL
25	Potelu Solar SRL
26	Power L.I.V.E. One SRL
27	RA-RA PARC SRL
28	Romkumulo SRL
29	Simico Prod Factory SRL
30	Skybase Energy SRL
31	Solar Electric Frasinet SRL
32	Solar Future Energy SRL
33	Solaria Green Energy SRL
34	Solprim SRL
35	Spectrum Tech SRL
36	Studina Solar SRL
37	Sun Energy Complet SA
38	Tis Energy SRL
39	Tinmar Green Energy SRL
40	Urdel Enery SRL
41	Vanju Mare Solar SRL
42	Varokub Energy Development SRL
43	VIR Company International SRL
44	VIS Solaris 2011 SRL
45	Vrish Pro Investments SRL
46	WDP Development RO SRL
47	Xalandine Energy SRL
48	XPV SRL
E	***Electricity generators on hydro source operating dispatching units***
1	Hidroelectrica SA
F	***Electricity generator on nuclear source operating dispatching units***
1	SN Nuclearelectrica SA
G	***Transmission System Operator***
1	CNTEE TRANSELECTRICA SA
H	***Market Operator for DAM, Intra-Day, Centralised Markets - CMBC-EA, CMBC-CN, CMBC-FP, CM-OTC, CMUS***
1	OPCOM SA
I	***Distribution operators***
1	Distributie Energie Oltenia
2	Delgaz Grid
3	E-Distributie Banat
4	E-Distributie Dobrogea
5	E-Distributie Muntenia
6	SDEE Muntenia Nord
7	SDEE Transilvania Nord
8	SDEE Transilvania Sud
J	***Suppliers of Last Resort***
1	CEZ Vanzare SA
2	ENEL Energie SA
3	E.ON Energie Romania SA
4	ENEL Energie Muntenia SA
5	Electrica Furnizare SA

No.	Category
K	***Electricity Suppliers acting exclusively on the wholesale market***
1	Alpiq Energy SE
2	Bit-Reen SRL
3	CEZ as
4	Cinta Energy SA
5	Danske Commoditiesa/s Aarhus
6	EDF Trading Limited
7	Energo-Pro Trading EAD
8	Elpetra Energy E.A.D.
9	Eolian Project SRL
10	EVN Trading South East Europe
11	Ezpada SRO
12	Flavus Investiții SRL
13	Freepoint Commodities Europe Ltd
14	General Energetic
15	GEN I trgovanje in prodaja elektricne energije doo
16	Holding_ Slovenske_ Elektrarne
17	Industrial Instal Service SRL
18	Interenergo Energetski, Inzeniring d.o.o.
19	JAS Energy Trading s.r.o.
20	Lord Energy SRL
21	MVM Partner Zrt
22	Nis Petrol SRL
23	OMV Gas Marketing & Trading GmbH
24	Petrol Bucharest Rom SRL
25	Petrol, Slovenska energetska druzba
26	Photovoltaic Green Project SRL
27	Ritam-4-TB ood
28	Statkraft Markets GmbH
29	Transenergo Com SA
30	Unit Energy Trade SRL
31	Verbund Trading Romania SRL
L	***Electricity Suppliers acting also on the retail market***
1	Absolute Energy SRL
2	Aderro G.P. Energy SRL
3	A Energy Ind SRL
4	Alive Capital SRL
5	Alpiq RomIndustries SRL
6	Alro SA
7	Aqua Energia SA
8	Anchor Grup SA
9	Axpo Energy Romania SRL
10	Apuron Energy SRL
11	Ciga Energy SA
12	Cotroceni Park SA
13	Crest Energy SRL
14	Curent Alternativ SRL
15	CYEB SRL
16	E.ON Flash SA

No.	Category
	Electricity Suppliers acting also on the retail market
17	Eco2Energy Choice SRL
18	EFE Energy SRL
19	EFT Furnizare SRL
20	Electric Planners SRL
21	Electrificare CFR SRL
22	Elsid SA
23	Electrocarbon SA
24	Electromagnetica SA
25	Enel Trade Romania SRL
26	Energy Distribution Services SRL
27	Engie Romania SA
28	Enol Grup SA
29	Entrex Services SRL
30	Eolian Generator SRL
31	E.V.A. Energy SRL
32	GDM Logistic SRL
33	Getica 95 COM SRL
34	Grenerg SRL
35	Hermes Energy International SRL
36	ICCO Energ SRL
37	ICPE Electrocond Technologies SA
38	Imperial Development SRL
39	Industrial Energy SA
40	Luxten LC SA
41	Menarom PEC SRL
42	MET Romania Energy Marketing SRL
43	Midas&CO SRL
44	Monsson Trading SRL
45	Neptun SA
46	Next Power SRL
47	Next Energy Parteners SRL
48	Nova Power&Gas SRL
49	P.C. Management & Consulting SRL
50	Plenerg SRL
51	Power Clouds SRL
52	QIA Energy SRL
53	QMB Energ SRL
54	RCS&RDS SA
55	Renovatio Trading SRL
56	Restart Energy One SRL
57	Romelectro SA
58	RWE Energie SRL
59	Stock Energy SRL
60	Tinmar Energy SA
61	Transformer Energy Supply SRL
62	Unistil SRL
63	**Uzinsider General Contractor SA**
64	Werk Energy SRL

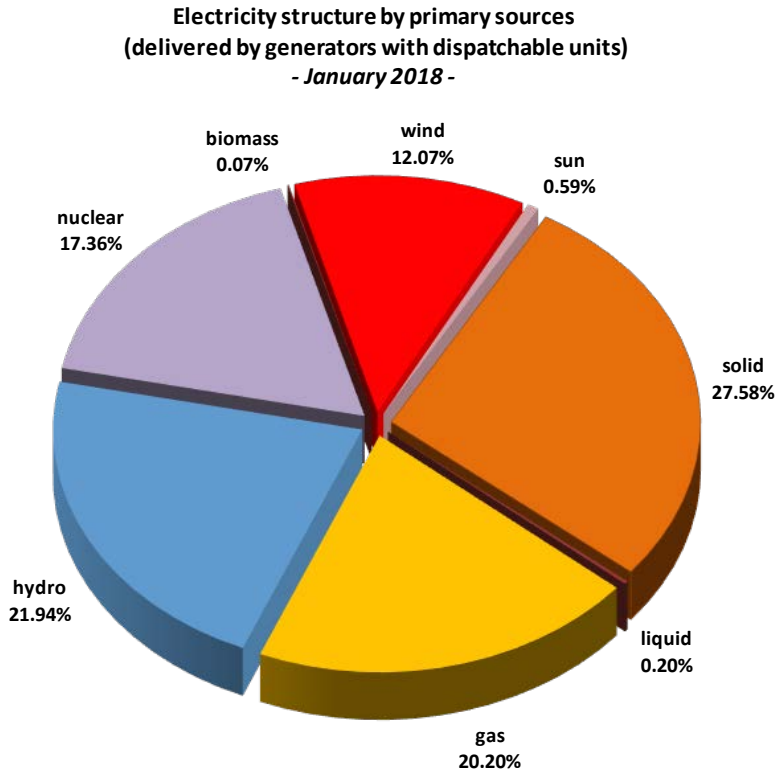
*) The electricity market participants report to ANRE technical/commercial data according to the *Methodology of wholesale electricity market monitoring for assessing the competition level on market and preventing the abuse of dominant position.* approved by ANRE Order no. 35/2006 as well as to the *Methodology of retail electricity market monitoring*. approved by ANRE Order no. 60/2008. The table does not include the Balancing Responsible Parties (BRP). The BRP updated list is published on the Balancing Market Operator website - www.transelectrica.ro.

ANRE monitors the market activity of the generators with dispatchable units. According to the Regulation of scheduling the dispatchable generation units and consumption units. the considered generation units are:

a. hydro generation group with installed power higher than 10 MW;
b. thermal generation group (including biomass and nuclear) with installed power higher than 20 MW;
c. wind. photovoltaic or internal combustion engine with installed power higher than 5 MW.

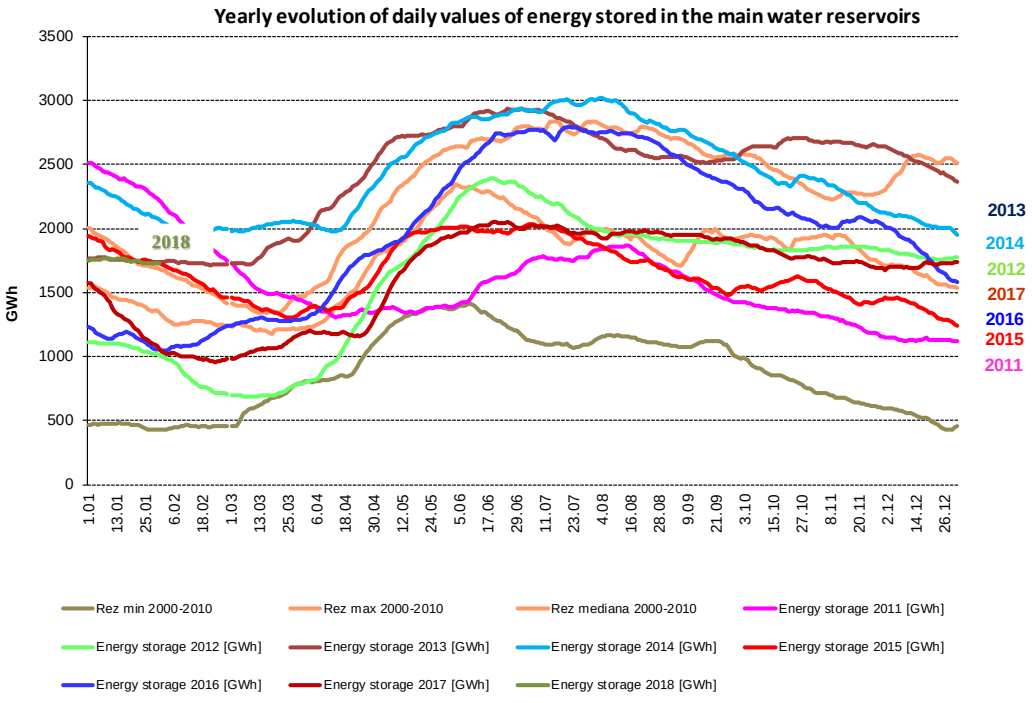
Electricity Suppliers acting exclusively on the wholesale market category include supplying license owners who act only on wholesale market and owners of a trading license issued according ANRE Order no. 13/2015 for approval of the ”General conditions associated to the license for trading electricity”.

3. Generation structure of National Energy System on resources types



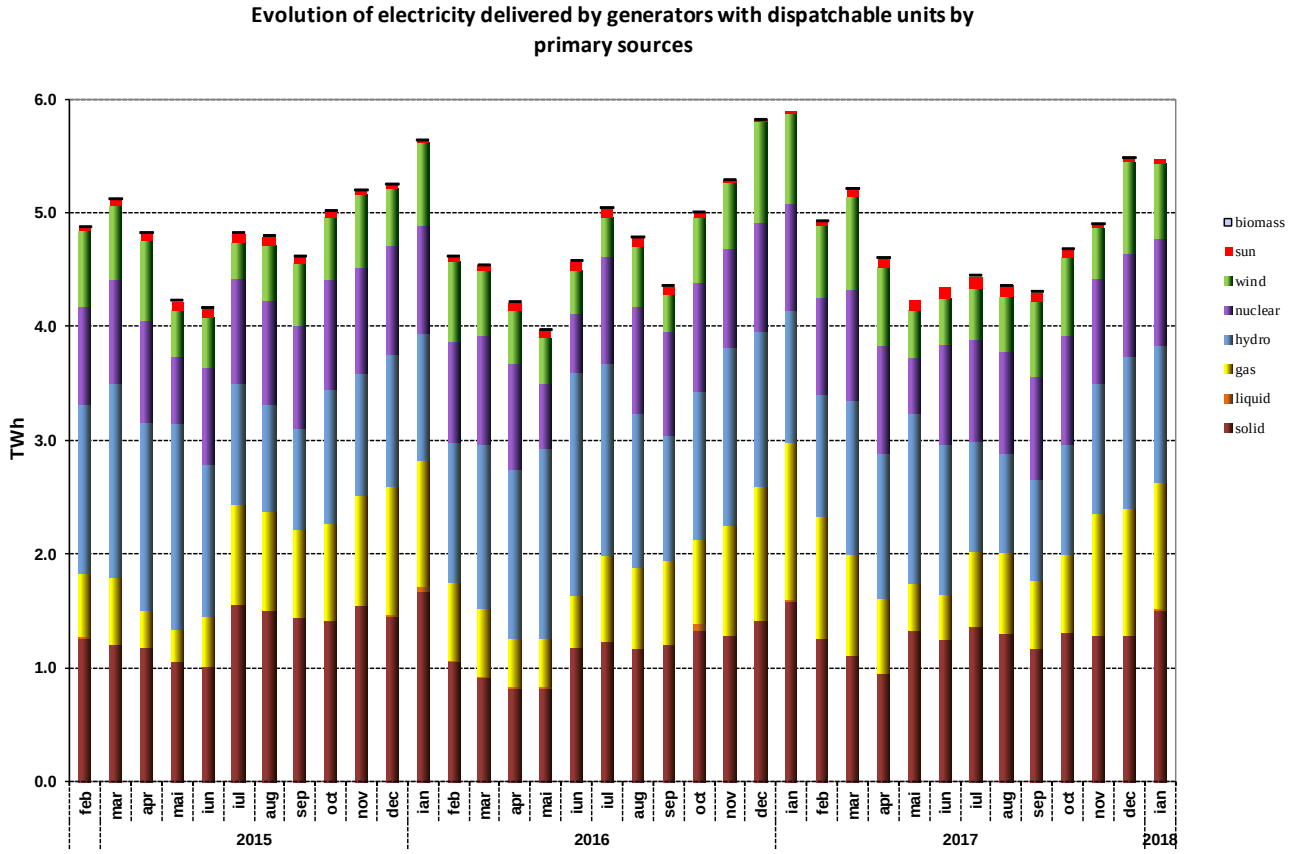
Source: Monthly reports of generators – processed by MU

The electricity generated from hydro resources and the energy stored in the main water reservoirs is directly correlated. The following graph presents the evolution of daily amounts of energy storage during January 2018 compared to the daily values of the last 7 years and compared to minimum, maximum and median values from 2000-2009.



Source: Monthly reports of S.C. Hidroelectrica S.A. – processed by MU

The evolution of the structure for the delivered electricity during the last 3 years is the following:



Source: Monthly reports of generators – processed by MU

The following table presents the main data regarding the physical balance of electricity for January 2018 compared to data for the similar period of 2017:

Nr. Crt.	INDICATOR	UM	Jan 2017	Jan 2018	%
0	**1**	**2**	**3**	**4**	**5=4/3*100**
1	Generated electricity	TWh	6.33	5.86	92.58
2	Delivered electricity	TWh	5.90	5.48	92.88
3	Import	TWh	0.17	0.27	158.82
4	Export	TWh	0.74	0.62	83.78
5	Internal consumption (2+3-4)	TWh	5.33	5.13	96.25
6	Consumption of household customers:	TWh	1.19	1.19	100.0
6.1	*on Universal Service regime*	*TWh*	*1.13*	*0.98*	*86.73*
6.2	*on the competitive market**	*TWh*	*0.06*	*0.21*	*350.0*
7	Consumption of non-households customers:	TWh	3.11	3.09	99.36
7.1	*on US and last resort regime*	*TWh*	*0.13*	*0.10*	*76.92*
7.2	*on the competitive market*	*TWh*	*2.98*	*2.99*	*100.34*
8	Transmission–Injection component	TWh	5.78	5.37	92.91
9	Transmission–Extraction component	TWh	5.25	5.07	96.57
10	Actual transmission grid losses	TWh	0.09	0.10	111.22
11	Heat generated for delivery	Tcal	2282.49	1914.33	83.87
12	Heat in co-generation	Tcal	1734.98	1447.68	83.44

Note:

1. The generated electricity and delivered electricity are presented according to the data reported by monitored generators. as they are defined as dispatchable in the Regulation of scheduling the dispatchable generation units and consumption units approved by the ANRE Order no. 32/2013;

2.Data shown in the table neither include the energy produced by the generators who do not own dispatchable units (positions 1 & 2) nor the energy delivered to the customers directly connected to the power plants (positions 6 & 7);

3. The imported/exported quantities do not comprise transits and cross-border exchange of CNTEE Transelectrica SA with neighboring countries in order to ensuring the balance of the national energy system;

4. The electricity quantity for applying the injection tariff is the electricity delivered by the generation units with installed capacity higher than 5 MW linked to the transmission network and distribution network;

5. Households customers consumption for US regime represents electricity consumption invoiced at regulated tariff and "Competitive Market Component" (CMC) tariff.

4. Transactions' structure on the wholesale electricity market

The size of wholesale market depends on the sum of all transactions performed by the market players. exceeding the quantities physically transmitted from generation to consumption; the total transactions include also resale transactions made in order to match the contractual obligations and to obtain financial benefit.

When entering into force, the Law no. 123/2012 on Electricity and Natural Gas has set the general principle that energy competitive market and electricity transactions should take place in a transparent, public, centralized and non-discriminatory way. Therefore, all the new transactions have to be the result of participation on the centralized markets administrated by Opcom SA. the only owner of a license issued by ANRE for the electricity market operation in Romania.

The centralized markets which are presently functional are DAM (Day Ahead Market), CMBC (centralized market of bilateral contracts with Extended Auction mechanism-EA, with Continuous Negotiation mechanism-CN, with Fuel Processing mechanism -FP), ID (Intraday Market), CM-OTC – (Centralized Market with Double Continuous Negotiation for Electricity Bilateral Contracts), CM-LCM (Large Consumers mechanism) and CMUS (Centralized Market for Universal Service).

Besides the existing centralized markets operated by Opcom SA (which ensure the transparent, public, centralized and non-discriminatory character required by the Law) there still exist bilateral negotiated contracts concluded before the entering into force of the Law still pending, export and import contracts and regulated contracts with regulated quantities and prices, based on ANRE decisions concluded between a number of generators and the suppliers of last resort.

Following the entering into force of the Law no. 23/2014 subsequent to Law no. 220/2008 for establishing the system for promoting producing electricity from renewable energy sources, modified and completed by Law no. 122/2015, a specific range of RES generators may conclude negotiated bilateral contracts as follows:

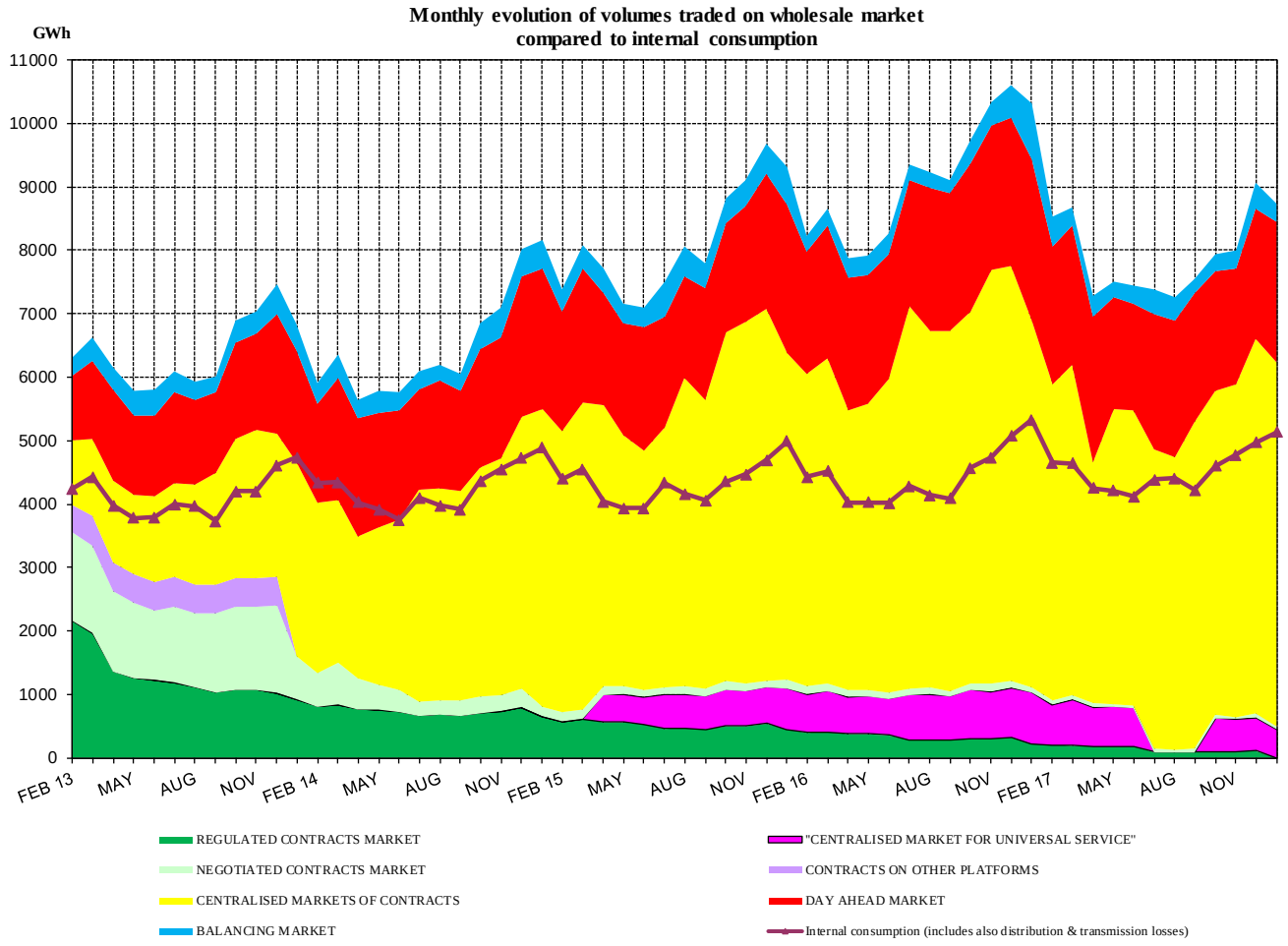
- those owning power plants that benefit from the promotion system and having installed capacity less than 1 MW/generator and less than 2 MW/generator for biomass high efficiency cogeneration, but only with suppliers for final customers;
- those owning power plants that benefit from the promotion system and having installed capacity between 1 and 3 MW/generator and between 2 and 3 MW/generator for biomass high efficiency cogeneration, but only if they are considered small or medium enterprises, according to the Law no. 346/2004.

The following table presents the volumes traded and the average prices on each type of contracts and on the main components of the wholesale market. The aggregated volumes and the average prices on negotiated contracts are reported by market participants on their own responsibility and except the concluded contracts based on provisions of Law no. 23/2014 they should reflect only the ongoing contracts which had been concluded before Law no. 123/2012 entered into force.

TRANSACTIONS ON THE WHOLESALE MARKET	December 2017	January 2018	January 2017
1. BILATERAL CONTRACTS' MARKET			
traded volume (GWh)	**164**	**46**	**288**
average price (lei/MWh)	123.76	133.80	152.65
% from internal consumption (%)	3.3	0.9	5.4
1.1. Sales on regulated contracts			
traded volume (GWh)	**105**		**220**
average price (lei/MWh)	117.51	-	136.31
% from internal consumption (%)	2.1		4.1
1.2. Sales on negotiated contracts[1)]			
traded volume (GWh)	**59**	**46**	**68**
average price (lei/MWh)	134.89	133.80	205.95
% from internal consumption (%)	1.2	0.9	1.3
2. EXPORT			
traded volume (GWh) [2)]	**685**	**616**	**740**
average price (lei/MWh)	166.81	156.01	254.67
% from internal consumption (%)	13.8	12.0	13.9
3. CENTRALIZED MARKETS OF CONTRACTS			
traded volume (GWh)	**5916**	**5736**	**5789**
average price (lei/MWh)	185.45	204.76	170.69
% from internal consumption (%)	119.0	111.7	108.6
3.1. Extended auction mechanism CMBC-EA[3)]			
traded volume (GWh)	**2585**	**2169**	**1673**
average price (lei/MWh)	176.54	182.21	166.00
% from internal consumption (%)	52.0	42.2	31.4
3.2. Continuous negotiation mechanism CMBC-CN [3)]			
traded volume (GWh)	**1118**	**1747**	**1245**
average price (lei/MWh)	194.26	221.88	169.35
% from internal consumption (%)	22.5	34.0	23.3
3.3. CM-OTC mechanism [3)]			
traded volume (GWh)	**2213**	**1820**	**2871**
average price (lei/MWh)	191.41	215.22	174.00
% from internal consumption (%)	44.5	35.4	53.8
4. CENTRALIZED MARKET FOR UNIVERSAL SERVICE - CMUS			
traded volume (GWh)	**529**	**444**	**814**
average price (lei/MWh)	234.13	249.67	174.29
% from internal consumption (%)	10.6	8.7	15.3
5. DAY AHEAD MARKET			
traded volume (GWh)	**2049**	**2217**	**2541**
average price (lei/MWh) [4)]	170.92	155.70	337.74
% from internal consumption (%)	41.2	43.2	47.6
6. INTRADAY MARKET			
traded volume (GWh)	**13.25**	**12.6**	**15.8**
average price (lei/MWh) [5)]	88.20	107.31	226.33
% from internal consumption (%)	0.3	0.2	0.3
7. BALANCING MARKET			
traded volume (GWh)	**407**	**298**	**883**
% from internal consumption (%)	8.2	5.8	16.6
upward volume (GWh)	**259**	**141**	**788**
average negative imbalance price(lei/MWh)	287.17	277.85	511.24
downward volume (GWh)	**148**	**157**	**94**
average positive imbalance price (lei/MWh)	33.35	22.13	154.71
INTERNAL CONSUMPTION (GWh) (distribution and transmission losses included)	**4973**	**5135**	**5332**

Note:
1) *Supply contracts to final customers and export contracts are not included as they are separately identified;*
2) *Export volumes and price information correspond to those reported monthly by market participants and include the volumes exported by CNTEE Transelectrica as shipper for coupled DAM; in some cases those volumes are different from those notified in DAMAS platform;*
3) *The monthly data are presented as reported by the participants for the electricity delivered in the respective month. These information refer both to transactions concluded previously on CMBC and CMBC-NC (ANRE Order 6/2011) and to transactions concluded on CMBC-EA and CMBC-NC (ANRE Order 78/2014) with delivery within the reported month;*
4) *The price is calculated as the average of the hourly market closing price and it is published by Opcom SA.The average monthly price calculated by Opcom SA as weighted average of the hourly market closing price with traded volumes was 163,64 lei/MWh in January 2018;*
5) *The average monthly price is calculated based on monthly traded volume and transaction value published by Opcom SA.*

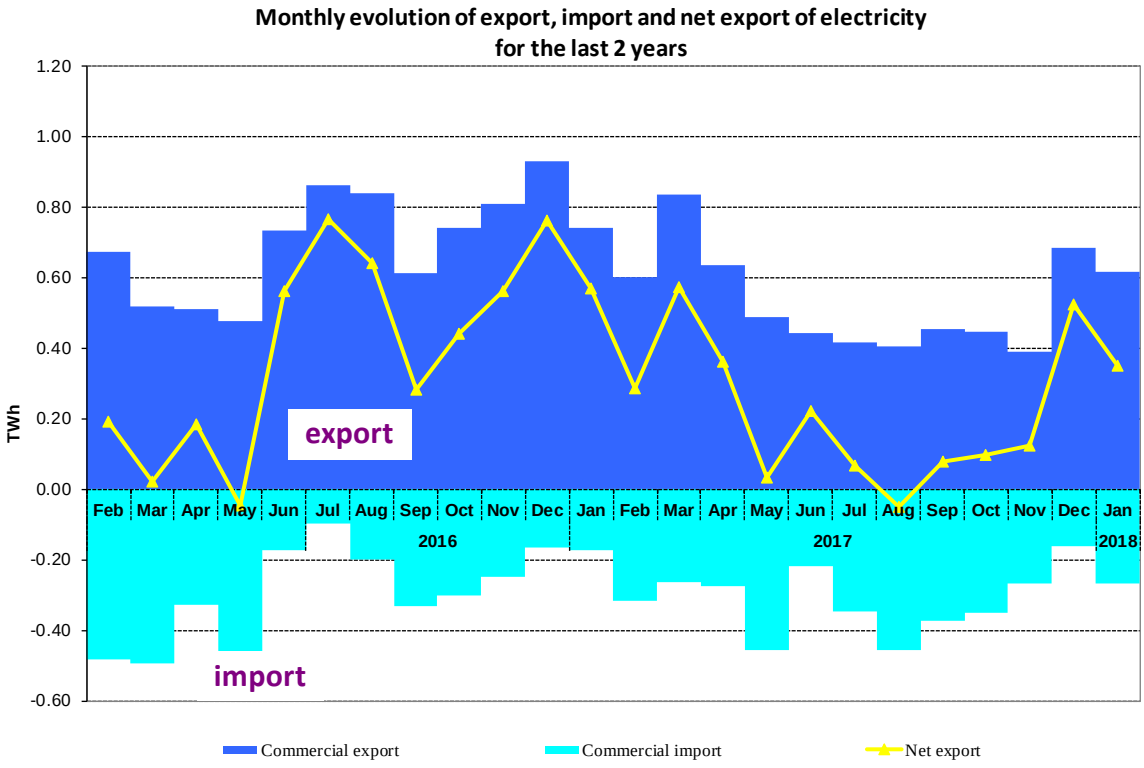
The percentage of electricity quantities from the internal consumption (see table from above) offers a dimensional reference for each of the specified markets. Prices include only the injection component of the transmission tariff, in this way being comparable within a month and making possible the comparison with the previous month. The following graph presents the evolution of the relation between the volumes sold on each market and the estimated internal consumption, since January 2013.



Source: Monthly reports of wholesale market participants. Opcom SA and CNTEE Transelectrica SA – processed by MU

Note: In the above graph, the volumes traded on negociated contracts' market do not include the export trades.

The following graph presents the monthly values of commercial export (quantities for which the extraction component of transmission tariff was applied), commercial import (quantities for which the injection component of transmission tariff was applied) and the net export (export minus import) during the last 24 months:

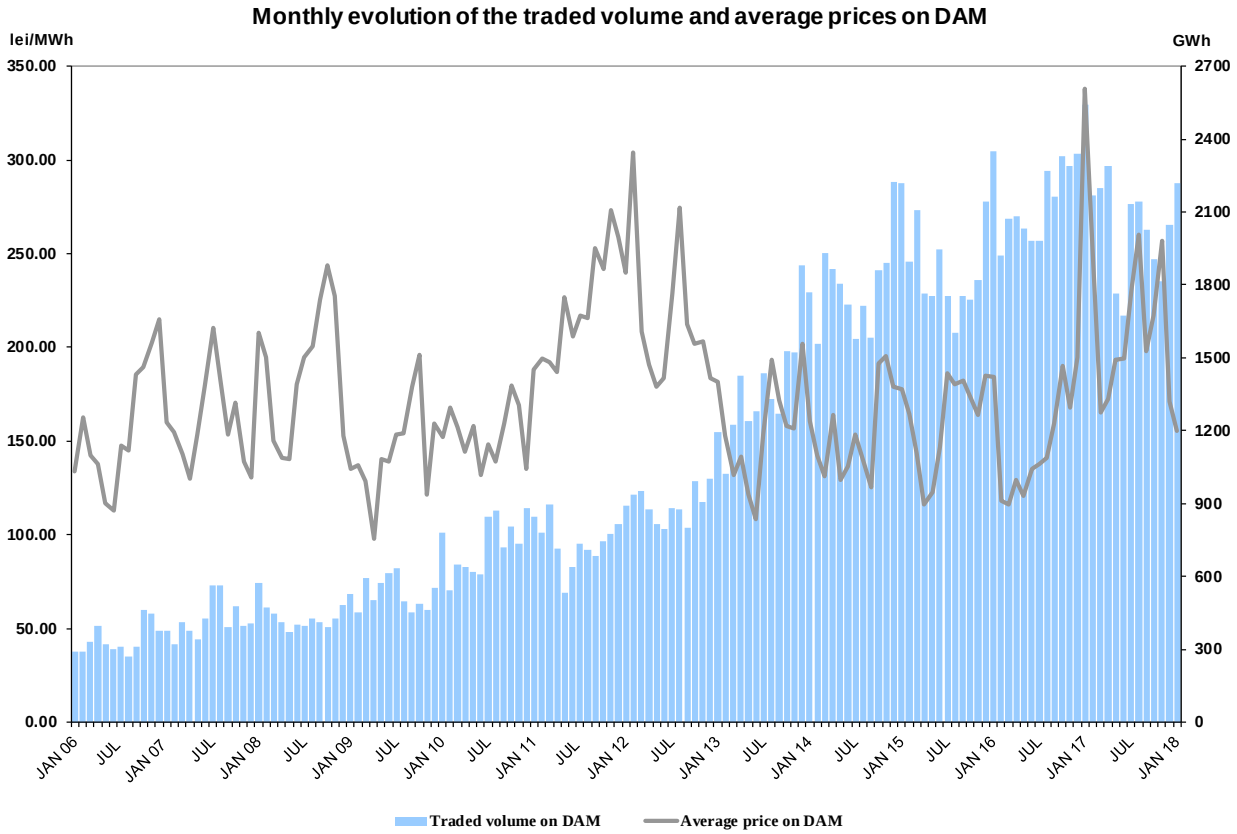


Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

The following table presents commercial export and import transactions for electricity extracted/introduced from/in transmission network. These include transaction of CNTEE Transelectrica SA as shipper agent in the price coupling mechanism of DAM, known as 4M MC. Shipper agent role is reflected in physical and commercial transfer of electricity for import/export on the interconnections between Romania and Hungary.

Import/Export Transactions	December 2017	January 2018	January 2017
Export			
traded volume (GWh)	**685**	**616**	**740**
average price (lei/MWh)	166.81	156.01	254.67
% from internal consumption	13.8	12.0	13.9
in which, for coupled DAM			
traded volume (GWh)	**124**	**81**	**128**
average price (lei/MWh)	139.99	107.39	303.58
% from internal consumption	2.5	1.6	2.4
Import			
traded volume (GWh)	**160**	**267**	**171**
average price (lei/MWh)	204.31	177.58	348.26
% from internal consumption	3.2	5.2	3.2
in which, for coupled DAM			
traded volume (GWh)	**101**	**161**	**123**
average price (lei/MWh)	192.14	176.56	367.02
% from internal consumption	2.0	3.1	2.3

The following graph presents the volumes and the monthly average prices on DAM starting with January 2006:



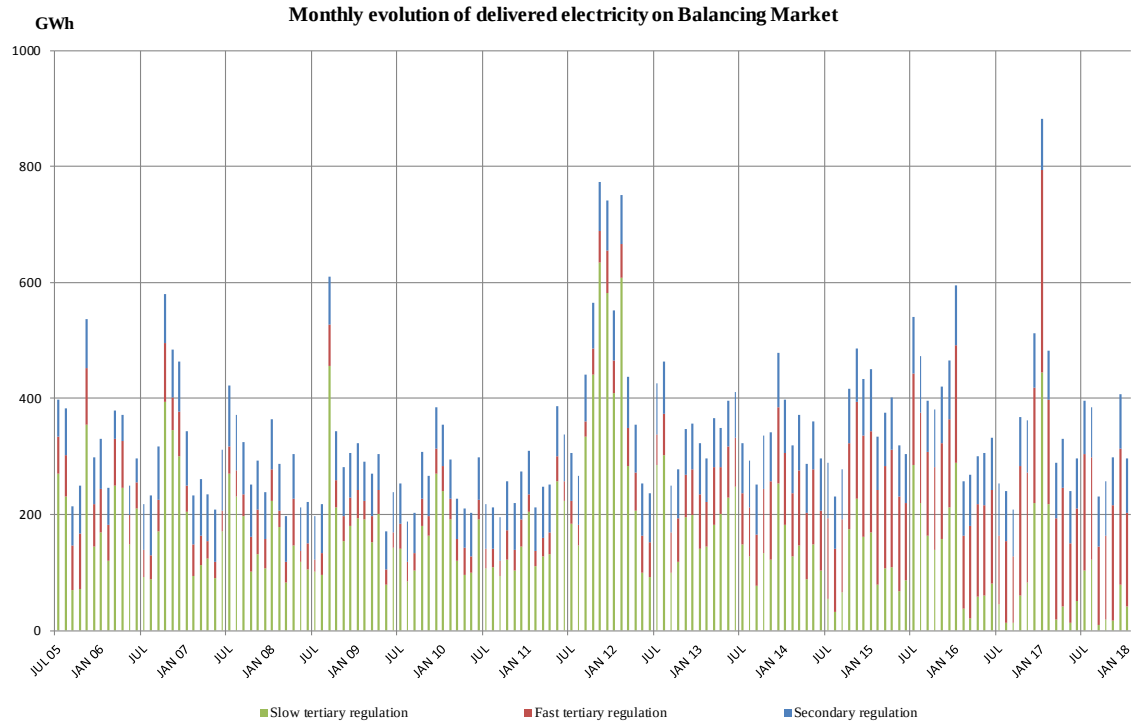
Source: Monthly reports of Opcom SA and CNTEE Transelectrica SA – processed by MU

Balancing electricity is determined by the dispatch orders (accepted offers) received by generators. After settlement, the actual electricity delivered by generators on balancing market is determined based on the measured (approved) values; the relation between the accepted and delivered electricity in January 2018 is presented in the following table:

January 2018	Dispach order (GWh)	Delivered electricity (GWh)	Deviation (%)
Secondary regulation	**95**	**95**	
upward	42	42	
downward	53	53	
Fast tertiary regulation	**173**	**161**	**7**
upward	93	91	3
downward	79	70	11
Slow tertiary regulation	**43**	**42**	**2**
upward	8	8	3
downward	35	34	2
TOTAL	**310**	**298**	
upward	144	141	
downward	167	157	
INTERNAL CONSUMPTION		**5135**	
% share of traded volumes from internal consumption		***5.8%***	

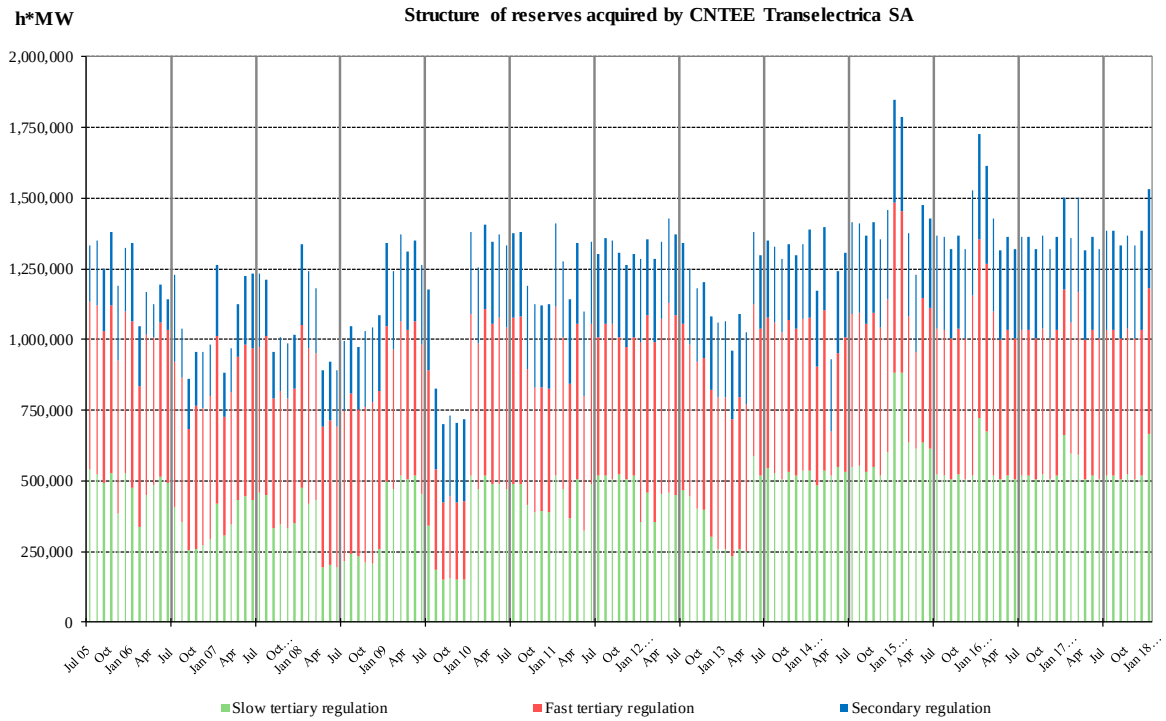
Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

The structure of balancing electricity delivered in the system on each type of regulation starting since July 2005 is presented in the graph below:



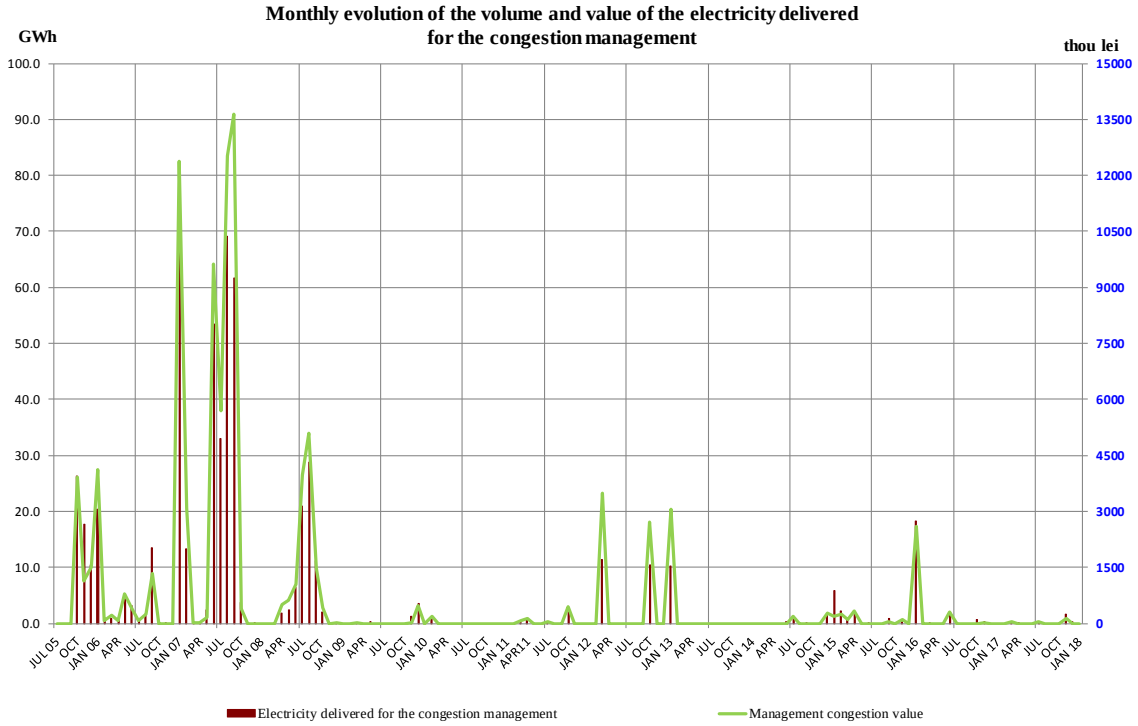
Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

For comparison, the following graph presents the evolution of reserves (ancillary services, i.e. obligations of generators to maintain their contracted capacities available for dispatching/offering on BM) acquired/paid by CNTEE Transelectrica SA since July 2005 is showed in the graph below:



Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

The following graph presents the evolution of electricity traded by CNTEE Transelectrica SA on the Balancing Market for covering the electricity used for congestion management (in order to solve the congestions occurred within the transmission grid) and the evolution of the values of these transactions starting from July 2005.



Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

5. Trading structure on the wholesale electricity market of different participant categories

Generators

In January 2018 compared with similar period of 2017, the structure of electricity sales obligations contracted before delivery interval by the electricity generators with dispatchable units was the following:

-GWh-

Transaction type	**January 2017**	**January 2018**
	1	**2**
Regulated contracts to suppliers of last resort - hydro generator	74.00	-
Regulated contracts to suppliers of last resort - nuclear generator	146.42	-
Negotiated contracts to suppliers	67.60	46.27
Contracts concluded on Opcom centralized markets:	2801.05	3541.74
CMBC-EA	*1058.92*	*1952.92*
CMBC-CN	*940.15*	*945.65*
CM-OTC	*801.98*	*643.17*
Centralized market for universal service	454.34	425.63
DAM	1860.54	1599.51
Intraday	10.41	6.26
Supply contracts to final customers. from which:	437.29	465.91
Households	*0.37*	*0.36*
Non-households	*436.91*	*465.55*
Total	**5851.64**	**6085.31**

Source: Monthly reports of generators – processed by MU

Suppliers

In January 2018, 100 companies with main activity the supply of electricity, concluded transactions on the electricity market; from those, 31 suppliers traded exclusively on the wholesale market and 69 suppliers on both retail and wholesale markets (in this category there are also included the 5 suppliers of last resort which act on both retail and wholesale markets).

Suppliers acting exclusively on WEM

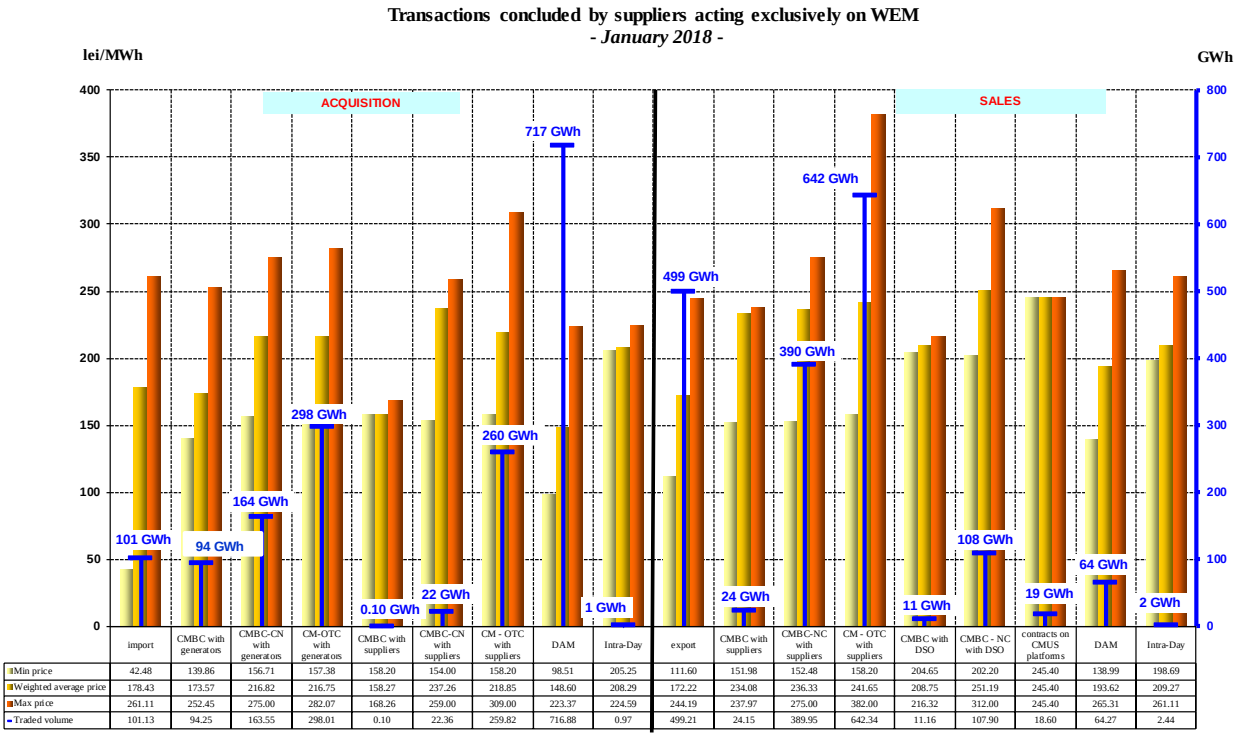
The following table shows the activity for January 2018 of the suppliers acting exclusively on WEM, acquisitions and sales being split by categories of markets participants, compared with similar period of 2017:

-GWh-

Transactions structure of suppliers acting exclusively on WEM	**January 2017**	**January 2018**
Purchase		
Import		
Negotiated contracts with generators	47.21	101.13
Contracts concluded on Opcom centralized markets:	1605.03	838.08
- *on CMBC-EA with generators*	*132.41*	*94.25*
- *on CMBC-CN with generators*	*499.47*	*163.55*
- *on CM-OTC with generators*	*270.14*	*298.01*
- *on CMBC-EA with other suppliers*	*0.18*	*0.10*
- *on CMBC-CN with other suppliers*	*45.82*	*22.36*
- *on CM-OTC with other suppliers*	*657.00*	*259.82*
DAM	176.26	716.88
Intraday market	1.28	0.97
Sales		
Export	479.03	499.21
Contracts concluded on Opcom centralized markets:	869.11	1175.49
- *on CMBC-CN with generators*	*0.08*	*0.00*
- *on CM-OTC with generators*	*17.76*	*0.00*
- *on CMBC-EA with other suppliers*	*52.35*	*24.15*
- *on CMBC-CN with other suppliers*	*135.82*	*389.95*
- *on CM-OTC with other suppliers*	*627.94*	*642.34*
- *on CMBC-EA with DO*	*16.56*	*11.16*
- *on CMBC-CN with DO*	*0.00*	*107.90*
- *on CM-OTC with DO*	*18.60*	*0.00*
- *on CMBC-EA with TSO*	*0.01*	*0.00*
CMUS with last resort suppliers	173.66	18.60
DAM	313.37	64.27
Intraday market	3.84	2.44

Source: Monthly reports of suppliers – processed by MU

In addition to the data from the table above. the following graph presents the minimum, average and maximum actual prices by categories of transactions completed by the suppliers acting exclusively on WEM (traders) in January 2018.



	import	CMBC with generators	CMBC-CN with generators	CM-OTC with generators	CMBC with suppliers	CMBC-CN with suppliers	CM - OTC with suppliers	DAM	Intra-Day	export	CMBC with suppliers	CMBC-NC with suppliers	CM - OTC with suppliers	CMBC with DSO	CMBC - NC with DSO	contracts on CMUS platforms	DAM	Intra-Day
Min price	42.48	139.86	156.71	157.38	158.20	154.00	158.20	98.51	205.25	111.60	151.98	152.48	158.20	204.65	202.20	245.40	138.99	198.69
Weighted average price	178.43	173.57	216.82	216.75	158.27	237.26	218.85	148.60	208.29	172.22	234.08	236.33	241.65	208.75	251.19	245.40	193.62	209.27
Max price	261.11	252.45	275.00	282.07	168.26	259.00	309.00	223.37	224.59	244.19	237.97	275.00	382.00	216.32	312.00	245.40	265.31	261.11
Traded volume	101.13	94.25	163.55	298.01	0.10	22.36	259.82	716.88	0.97	499.21	24.15	389.95	642.34	11.16	107.90	18.60	64.27	2.44

Source: Monthly reports of the competitive suppliers– processed by MU

Active suppliers on REM (suppliers of last resort not included)

The following table presents aggregated information on transactions volume and structure for suppliers providing electricity to final customers, on the competitive market, for January 2018 compared with similar period of 2017:

-GWh -

Transactions' structure of suppliers acting on REM (suppliers of last resort excluded)	**January 2017**	**January 2018**
Purchase		
Import	0.53	4.12
Negotiated contracts with generators	67.91	48.24
Contracts concluded on Opcom centralized markets:	3002.17	2309.01
- *on CMBC-EA with generators*	*659.10*	*1119.82*
- *on CMBC-CN with generators*	*352.51*	*337.28*
- *on CM-OTC with generators*	*387.06*	*164.47*
- *on CMBC-EA with other suppliers*	*266.29*	*67.43*
- *on CMBC-CN with other suppliers*	*129.94*	*169.29*
- *on CM-OTC with other suppliers*	*1207.26*	*450.70*
Negociated contracts with undispatchable generators (others than L23/2014 and L122/2015)*	7.98	7.59
Negociated contracts with undispatchable generators (L23/2014 and L122/2015)**	18.42	15.85
DAM	748.26	219.28
Intraday market	7.45	6.74

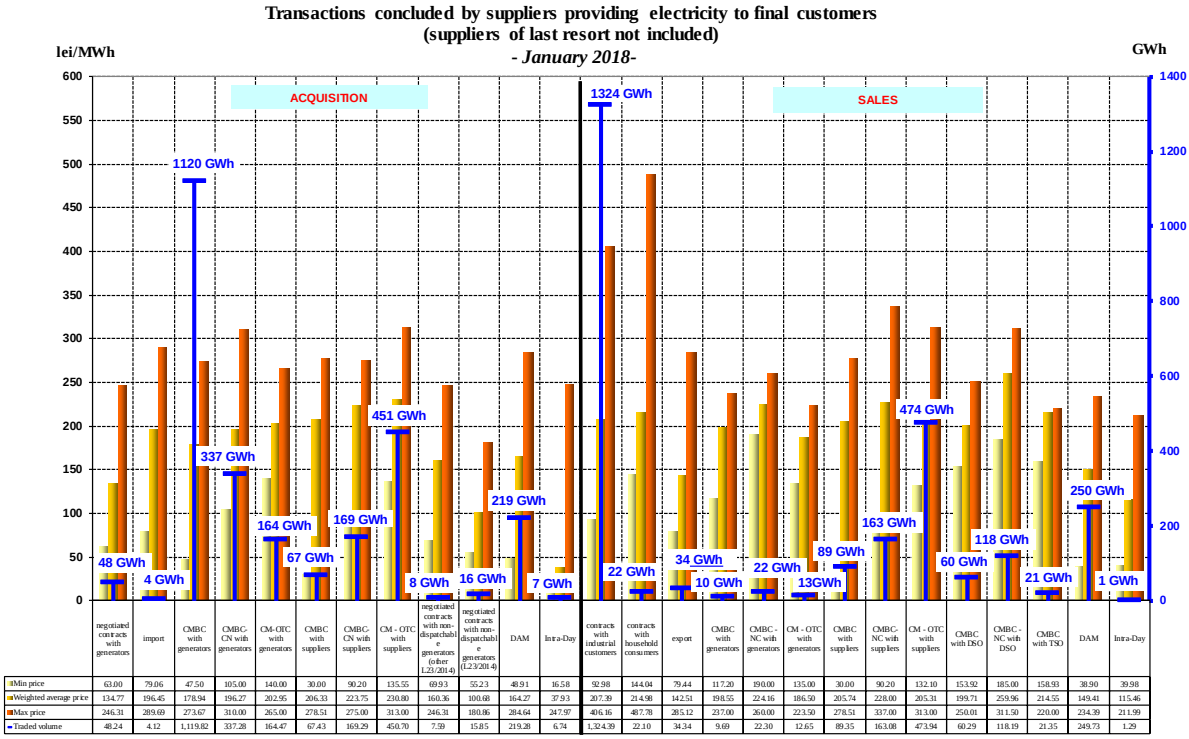
Source: Monthly reports of the competitive suppliers– processed by MU

Transactions' structure of suppliers acting on REM (suppliers of last resort excluded)	**January 2017**	**January 2018**
Sales		
Export	133.34	34.34
Contracts concluded on Opcom centralized markets:	2064.02	949.49
- *on CMBC-EA with generators*	*29.37*	*9.69*
- *on CMBC-NC with generators*	*24.11*	*22.30*
- *on CM-OTC with generators*	*13.01*	*12.65*
- *on CMBC-EA with other suppliers*	*232.17*	*89.35*
- *on CMBC-NC with other suppliers*	*144.33*	*163.08*
- *on CM-OTC with other suppliers*	*1337.05*	*473.94*
- *on CMBC-EA with DO*	*260.40*	*60.29*
- *on CMBC-NC with DO*	*0.00*	*118.19*
- *on CMBC-EA with TSO*	*23.59*	*21.35*
CMUS with last resort suppliers	186.04	0.00
DAM	210.95	249.73
Intraday market	0.11	1.29
Household customers	11.44	22.10
Non-household customers	1384.18	1324.39

Source: Monthly reports of the competitive suppliers– processed by MU

**negotiated trades concluded with undispatchable generators which are not able to conclude contracts according to Law 23/2014 provisions. with subsequent changes and additions of Law no. 122/2015. both Laws subsequent to Law no. 220/2008*
***negotiated trades concluded with undispatchable generators which may conclude contracts according to Law 23/2014 provisions. with subsequent changes and additions of Law no. 122/2015. both Laws subsequent to Law no. 220/2008*

In addition to the data from the table above, the following graph presents the sales structure and the minimum, average and maximum actual prices by categories of transactions completed by suppliers providing electricity to final customers January 2018.



Source: Monthly reports of the competitive suppliers– processed by MU

Suppliers of last resort

Electricity transactions structure of suppliers of last resort (before the delivery interval) for supplying the customers under Universal service and last resort regime is presented in the table below for January 2018, compared to similar period of 2017:

- GWh -

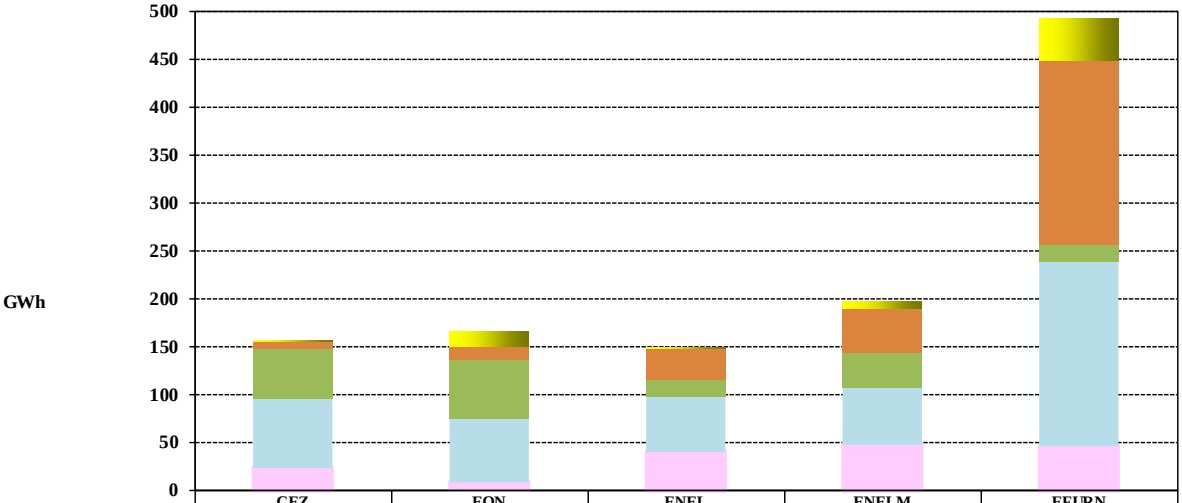
Transactions structure of suppliers of last resort for supplying the customers in SU and UI regime	**January 2017**	**January 2018**
Regulated contracts with generators	220.42	0.00
Negociated contracts with undispatchable generators (L23/2014 and L122/2015)*	0.01	0.01
Contracts concluded on Opcom centralized markets:	31.23	548.95
- *contracts on CMBC-EA with generators*	*13.73*	*41.60*
- *contracts on CMBC-CN with generators*	*0.05*	*65.94*
- *contracts on CM-OTC with generators*	*0.08*	*9.80*
- *contracts on CMBC-EA with other suppliers*	*5.82*	*26.95*
- *contracts on CMBC-CN with other suppliers*	*3.84*	*228.16*
- *contracts on CM-OTC with other suppliers*	*7.69*	*176.47*
Centralized market for universal service:	814.04	444.23
- *contracts on CMUS with generators*	*454.34*	*425.63*
- *contracts on CMUS with suppliers*	*359.71*	*18.60*
Transactions concluded on DAM:	129.77	142.17
- *purchase*	*142.04*	*166.18*
- *sales*	*12.27*	*24.02*

**negotiated trades concluded with undispatchable generators which may conclude contracts according to Law 23/2014 provisions. with subsequent changes and additions of Law no. 122/2015. both Laws subsequent to Law no. 220/2008*

Source: Monthly reports of the suppliers of last resort – processed by MU

The structure of the electricity purchased by the suppliers of last resort from is presented in the following graph for January 2018:

Transactions structure of suppliers of last resort for supplying the customers in SU and UI regime
- January 2018-



	CEZ	EON	ENEL	ENELM	EFURN
Purchase on CMBC-EA	1	15	1	7	44
Purchase on CMBC-CN	8	14	31	48	193
Purchase on CM-OTC	51	62	19	36	19
Purchase on CMUS	72	65	56	59	192
Purchase on DAM	23	8	40	47	47

Source: Monthly reports of the suppliers of last resort – processed by MU

Suppliers of the last resort present separately in the customers' invoice the "Competitive Market Component" (CMC), proposed by each supplier of last resort and approved by ANRE, in accordance with the provisions of the methodology for setting prices and tariffs for final consumers who do not use their eligibility rights; starting with 2013, CMC is applied on households' invoices. In order to reduce the differences between the electricity purchase prices to cover the consumption invoiced at the CMC tariffs by suppliers of last resort, in July 2014 ANRE approved the PCSU regulatory framework and OPCOM SA, the operator of the electricity market, implemented the corresponding trading mechanism which became operational in April 2015. As of August 2017, according to ANRE Order 75/2017, which brought amendments to the Regulation for the organization and operation of simultaneous auctions with decreasing price on the Centralized Market for Universal Service (ANRE Order 65/2014) and the methodology for setting prices and tariffs for final consumers who do not use their eligibility rights, the purchase of the electricity forecasted to be invoiced at the CMC tariff is done in a centralized way on the PCSU for at least half of the amount and through bilateral contracts concluded on the centralized contracts markets. The difference between the consumption and the contracted quantities can be traded on DAM, ID and/or at the imbalance price. To meet final customer consumption, the required power is purchased from the CMBC-EA, CMBC-CN, CM-OTC, DAM and ID centralized platforms.

During the period of suspension or in the event of the termination of a bilateral contract concluded by SLR on the CMUS prior to the expiration of its validity period, the purchase by the SLR of the corresponding quantities of electricity is done on the centralized contracts markets, DAM, ID and / or at imbalance price.

The structure of SLR's electricity transactions on the REM (made before the delivery interval) for universal service is presented in the following table for January 2018, compared with the similar period of 2017:

-GWh-

Transactions' structure of suppliers of last resort for universal service	**January 2017**		**January 2018**	
	Quantity [GWh]	**Average price [lei/MWh]**	**Quantity [GWh]**	**Average price [lei/MWh]**
Contracts concluded on Opcom			475.36	239.46
- *on CMBC-EA with generators*			*28.12*	*221.51*
- *on CMBC-CN with generators*			*35.02*	*218.26*
- *on CM-OTC with generators*			*9.14*	*249.19*
- *on CMBC-EA with other suppliers*			*26.65*	*232.26*
- *on CMBC-CN with other suppliers*			*218.30*	*240.93*
- *on CM-OTC with other suppliers*			*158.14*	*182.88*
Contracts concluded on CMUS:	814.04	174.29	444.23	249.67
- contracts on CMUS with generators	*454.34*	*176.38*	*425.60*	*249.86*
- contracts on CMUS with suppliers	*359.71*	*171.65*	*18.60*	*245.40*
Transactions concluded on DAM:	86.08	353.81	136.54	196.99
- *purchase*	*96.41*	*347.61*	*158.05*	*182.75*
- *sales*	*10.33*	*295.96*	*21.51*	*92.35*
TOTAL	**900.12**	**191.46**	**1056.13**	**238.26**

Source: Monthly reports of the suppliers of last resort – processed by MU

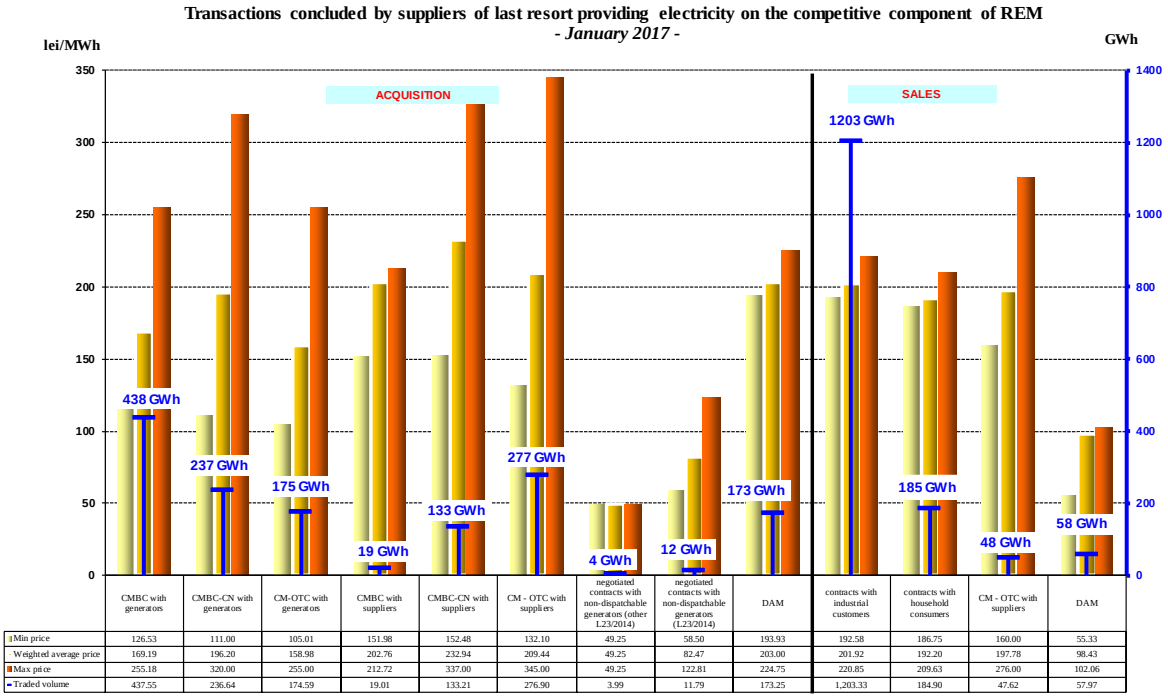
The following table presents the electricity acquisition structure of suppliers of last resort (before the delivery interval) corresponding to the competitive REM (energy supplied at negotiated prices to the customers who renounced to regulated tariffs) for January 2018 compared to similar previous period:

Transactions' structure of suppliers of last resort for the competitive segment of REM	**January 2017**	**January 2018**
Purchase		
Contracts concluded on Opcom centralized markets:	548.97	1277.91
- *on CMBC-EA with generators*	*101.92*	*437.55*
- *on CMBC-CN with generators*	*45.66*	*236.64*
- *on CM-OTC with generators*	*141.28*	*174.59*
- *on CMBC-EA with other suppliers*	*12.22*	*19.01*
- *on CMBC-CN with other suppliers*	*100.55*	*133.21*
- *on CM-OTC with other suppliers*	*147.34*	*276.90*
Negociated contracts with undispatchable generators (others than unde Law 23/2014 and 122/2015)*	0.00	3.99
Negociated contracts with undispatchable generators (Law 23/2014 and 122/2015)*	9.10	11.79
DAM	587.07	173.25
Sales		
Contracts concluded on Opcom centralized markets:	54.34	47.62
- *on CMBC-CN with generators*	*0.02*	*0.00*
- *on CMBC-CN with other suppliers*	*0.01*	*0.00*
- *on CM-OTC with other suppliers*	*54.31*	*47.62*
DAM	0.15	57.97
Household customers**	46.11	184.90
Non-household customers	1159.54	1203.33

**negotiated trades concluded with undispatchable generators which may conclude contracts according to Law 23/2014 provisions. with subsequent changes and additions of Law no. 122/2015. both Laws subsequent to Law no. 220/2008*
*** data on this category started to be collected separately in January 2017*

Source: Monthly reports of the suppliers of last resort – processed by MU

The structure by types of sources/destinations of the traded volumes and of the average prices of the suppliers of last resort on the competitive segment of REM is presented in the following graph for January 2018:



Source: Monthly reports of the suppliers of last resort – processed by MU

Main distribution operators

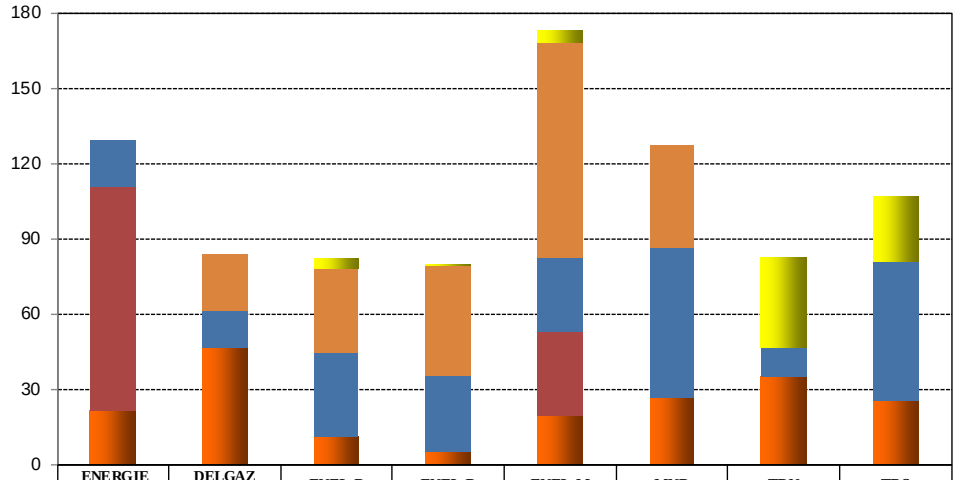
The following table shows the electricity acquisition structure of main distribution operators (before the delivery interval). for covering the distribution network losses. for January 2018 compared with similar previous period:

Transactions' structure	January 2017	January 2018
Contracts concluded on Opcom centralized markets:	514.15	673.72
- *CMBC-EA with generators*	*162.81*	*253.48*
- *CMBC-CN with generators*	*52.07*	*122.71*
- *CM-OTC with generators*	*3.72*	*0.00*
- *CMBC-EA with suppliers*	*276.96*	*71.45*
- *CMBC-CN with suppliers*	*0.00*	*226.08*
- *CM-OTC with suppliers*	*18.60*	*0.00*
Transactions concluded on Intraday market	0.93	0.06
- *purchase*	*0.93*	*0.06*
- *sales*	0.00	*0.00*
Transactions concluded on DAM:	196.13	184.81
- *purchase*	*196.14*	*189.64*
- *sales*	*0.01*	*4.83*

Source: Monthly reports of the distribution operators – processed by MU

The electricity purchased for covering their network losses is presented in detail in the following graph, for January 2018:

Electricity acquisition of distribution operators for covering the distribution losses
January 2018



	ENERGIE OLTENIA	DELGAZ GRID	ENEL-B	ENEL-D	ENEL-M	MND	TRN	TRS
Acquisition on CMBC-EA on suppliers	0	0	4	0	5	0	36	26
Acquisition on CMBC-NC on suppliers	0	22	33	44	86	41	0	0
Acquisition on CM-OTC on suppliers	0	0	0	0	0	0	0	0
Acquisition on CMBC-EA on generations	19	15	33	30	30	59	11	56
Acquisition on CMBC-NC on generations	89	0	0	0	33	0	0	0
Acquisition on CM-OTC on generations	0	0	0	0	0	0	0	0
Sales on DAM	22	46	11	5	19	27	35	25

Source: Monthly reports of the distribution operators – processed by MU

6. Concentration indicators on the wholesale electricity market and its components

According to the economic theory and the EU documents. the following market concentration indicators may be defined:

- HHI. Herfindahl-Hirschman Index = sum of square market shares (%) of participants:

  The indicator values signify:
  HHI < 1000 non-concentrated market;
  1000 < HHI < 1800 moderately concentrated market;
  HHI > 1800 highly concentrated market.

- C1 = market share of the main market participant (%)

  The indicator values signify:
  C1>20% alarming concentrated market;
  C1>40% suggests the existance of a dominant position;
  C1>50% clearly indicates a dominant position.

- C3 = sum of market shares of the main three participants in the market (%):
  The indicator values signify:
  40% < C3 < 70% moderately concentrated market;
  C3 > 70% highly concentrated market.

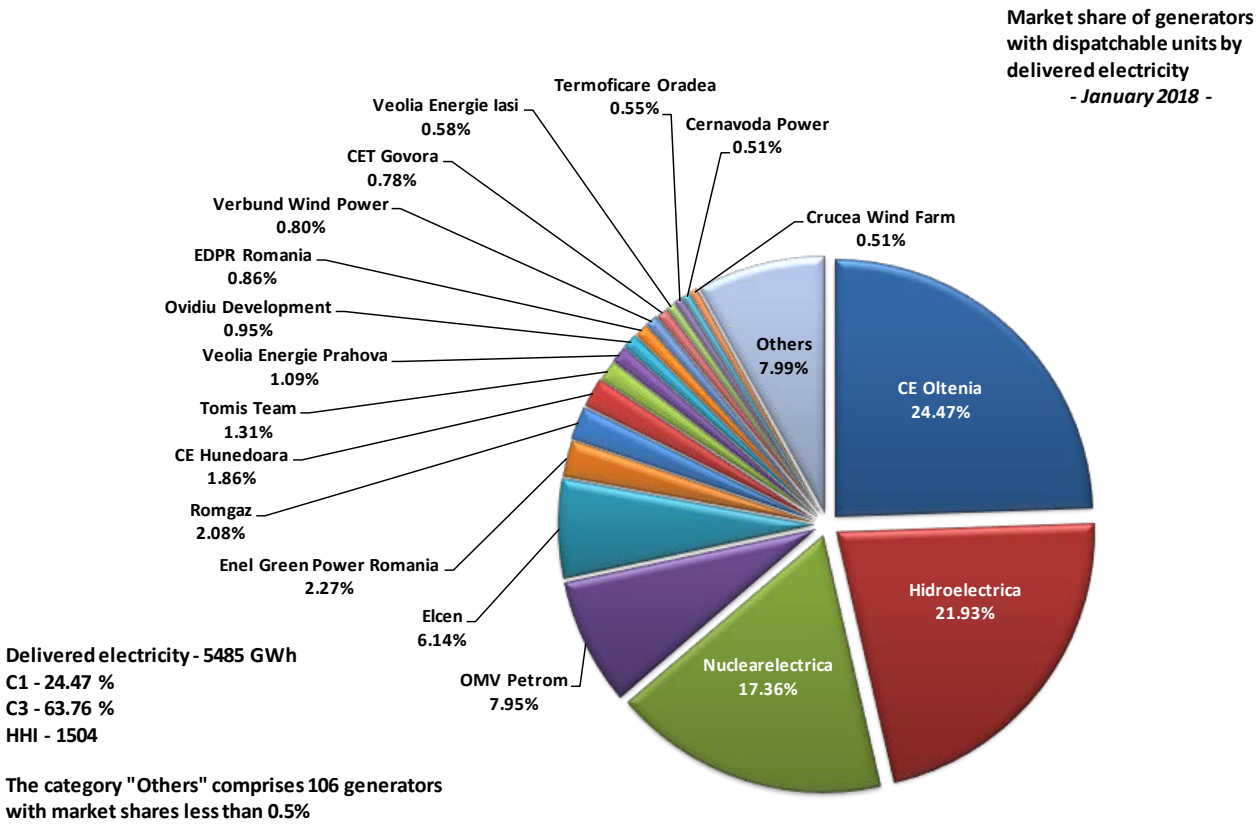
These concentration indicators may be defined for the wholesale market (electricity market or ancillary services market) or for each of its components where direct competition takes place.

Concentration indicators and market shares of the electricity generators

The market structure regarding the electricity generation offers an initial basis for analyzing the possible competitiveness level of the electricity market.

The following table presents the concentration indicators of generation for January 2018, calculated based on electricity delivered into the networks by the generators with dispatchable units while the graph shows the dispatchable generators market shares for eleven-months period.

Concentration indicators - January 2018 -	**C1 (%)**	**C3 (%)**	**HHI**
Value	**24.47**	**63.76**	**1504**



Source: Monthly reports of generators – processed by MU

A component of the WEM on which direct competition between generators exists is the Balancing Market (BM). The values of concentration indicators on this market are determined based on delivered electricity, for each type of regulation defined within the Commercial Code, and they are presented in the following table for January 2018:

Structure/concentration indicators of BM - January 2018 -	Regulation					
	Secondary		Fast tertiary		Slow tertiary	
	upward	downward	upward	downward	upward	downward
C1 - % -	51	51	75	49	62	63
C3 - % -	95	95	88	96	100	100
HHI	4265	4231	5786	3533	4795	4987

Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

In order to maintain the level of security in the NES functioning, due to significant increase of the number of RES generators, ancillary Services are ensured both based on market mechanisms and regulated contracts. Based on the provisions of *Government Decision no. 760/2014 on approving the winter program in the energy sector regarding the measures to ensure the safety stocks of the National Power System in what regards the fuel necessary for the cold season and the water volume in the water reservoirs, during the period 15 November 2017 – 15 March 2018, and other measures for the safety and security of the functioning of the National Energy System*, were established regulated quantities for secondary reserve, fast tertiary and slow tertiary reserve. Additionally, in order to ensure the ancillary services necessary to ensure the safety of the NES, CNTEE Transelectrica SA has organised auctions for acquiring reserves on the competitive market.

The following table presents the concentration indicators on types of reserves (secondary, fast tertiary and slow tertiary), that caracterize the regulated component of the Ancillary Services Market, compared with the competitive one, for the month of January 2018.

Concentration indicators on ASM - January 2018 -		**Secondary reserve**	**Fast tertiary reserve**	**Slow tertiary reserve**
regulated component	**contracted quantity (h*MW)**	**13920**	**13440**	**466320**
	C1 (%)	**100**	**100**	**68.7**
	C3 (%)	**100**	**100**	**100**
competitive component	**contracted quantity (h*MW)**	**336380**	**451360**	**200640**
	C1 (%)	**57.2**	**77.3**	**34.1**
	C3 (%)	**100**	**93.2**	**91.4**
	HHI	**4793**	**6117**	**2879**

Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

Concentration Indexes for the Day Ahead Market

Day Ahead Market (DAM) is a voluntary market. opened both for buying and selling for all types of market participants: generators, Suppliers, grid operators under aplicable regulations.

The concentration indicators on DAM reflects the level of competition between sellers and between buyers respectively, the dynamics of both influencing the price level. The following table presents C1, C3 and HHI for buying and for selling side of DAM based on quantities traded by participants on this market.

Concentration indicators on DAM - January 2018 -	**C1 (%)**	**C3 (%)**	**HHI**
Selling	**17.12**	**41.30**	**741**
Buying	**13.50**	**30.55**	**506**

Source: Monthly reports of Opcom SA – processed by MU

7. Price evolution on wholesale electricity market

Starting with November 2014 the Romanian DAM is working coupled with the spot markets from Hungary, Slovakia and Czech Republic based on the price coupling mechanism, project known as 4M MC. This coordinated corelation mechanism uses an unique European method for price coupling of regions (called *Price Coupling of Regions - PCR*-initiative*)* in order to fulfil the harmonization of national european markets and create the internal european electricity market. The functioning of these spot markets is based on coupling algorithm recommended by ACER (Euphemia) and its goal is maximizing the social welfare to the entire area of the coupled markets.

The coupling mechanism is accomplished through the operators OTE-Czech Republic. EPEX Spot (operating as services supplier for OKTE-Slovakia and HUPX-Hungary) and from 17th of January 2017 OPCOM-Romania (who became PCR member from 1st January 2016). After succesfully finalisation of the implementation process of the changes and tests performed. OPCOM operates in its own name the coupling solution impelemented in the 4M MC operational mechanism. all processes performed was carried out in safety conditions of coupled functioning 4M MC day-ahead markets. Coupling operators are acting as Coordinators on a monthly rotation basis.

According to EU legislation. coordinated cross border capacity allocation is under the governance of the transmission system operators from the 4 countries and the allocation model to be used is the default allocation on DAM of the available interconnection capacity.

To better meet the purpose of DAM coupling mechanism - electricity transfer at level and direction based on generation and consumption conditions and dependent on the coupled DAM prices - starting with 1st January 2016. TSO operators from Romania and Hungary (CNTEE Transelectrica SA and Mavir ZRt) agreed to reserve a quota from interconnection capacity for DAM allocation based on the authorities recommendations from both countries, ANRE and MEKH. The same rule was adopted for interconnection capacity allocation on Bulgarian border.

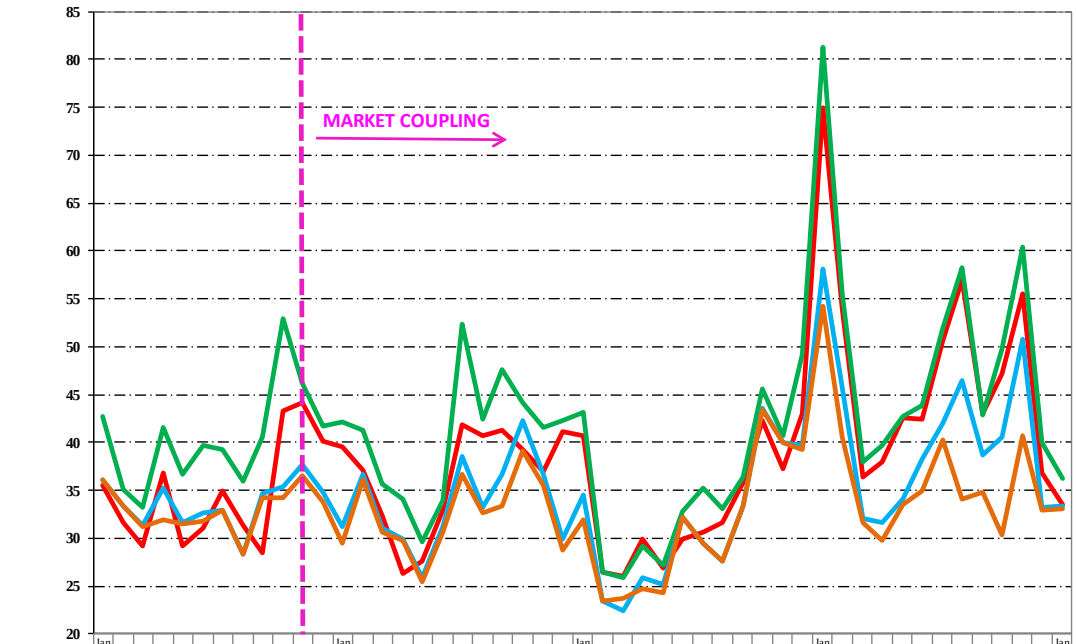
Thus. for each month of the year. reserved capacity for DAM allocation is determined as a difference between monthly ATC for each subperiod and 80% from the lowest value between the ATC resulted for subperiods of the month, incremented with the already allocated capacity at the yearly auction but which has been returned to TSO.

Particularly, for Hungarian border, if 80% from the lowest value of the ATC resulted for monthly subperiods is lower than 80 MW, ATC for monthly allocation will be 80% from the ATC calculated for each subperiod incremented with the already allocated capacity at the yearly auction but which has been returned to TSO.

Next graph presents the monthly spot prices of the 4 markets involved in the coupling mechanism starting with January 2014, before and after the start of operational phase.

Hourly spot prices on the 4 markets functioning in market coupling framework
January 2014 - January 2018

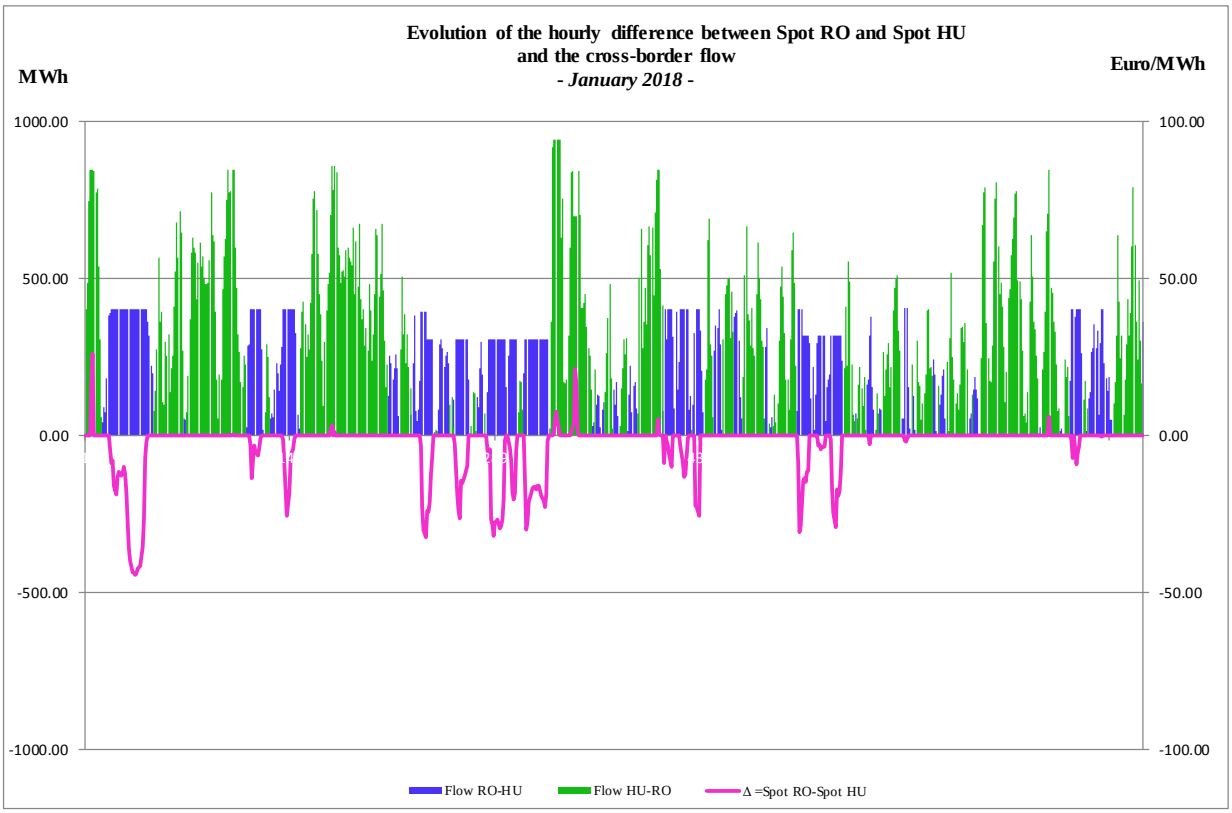
Euro/MWh



	Jan 14	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 15	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 16	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 17	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 18
OPCOM	36	32	29	37	29	31	35	31	28	43	44	40	40	37	32	26	28	33	42	41	41	39	37	41	41	26	26	30	27	30	31	32	36	42	37	43	75	54	36	38	43	42	51	57	43	47	55	37	33
HUPX	43	35	33	42	37	40	39	36	41	53	46	42	42	41	36	34	30	34	52	42	48	44	42	42	43	26	26	29	27	33	35	33	36	46	41	49	81	56	38	40	43	44	52	58	43	50	60	40	36
OKTE	36	33	31	35	32	33	33	28	35	35	38	35	31	37	31	30	26	31	39	33	37	42	37	30	34	23	22	26	25	32	29	28	33	44	40	40	58	46	32	32	34	38	42	47	39	41	51	33	33
OTE	36	33	31	32	31	32	33	28	34	34	37	34	29	36	31	30	25	31	37	33	33	39	35	29	32	23	24	25	24	32	29	28	33	43	40	39	54	41	32	30	33	35	40	34	35	30	41	33	33

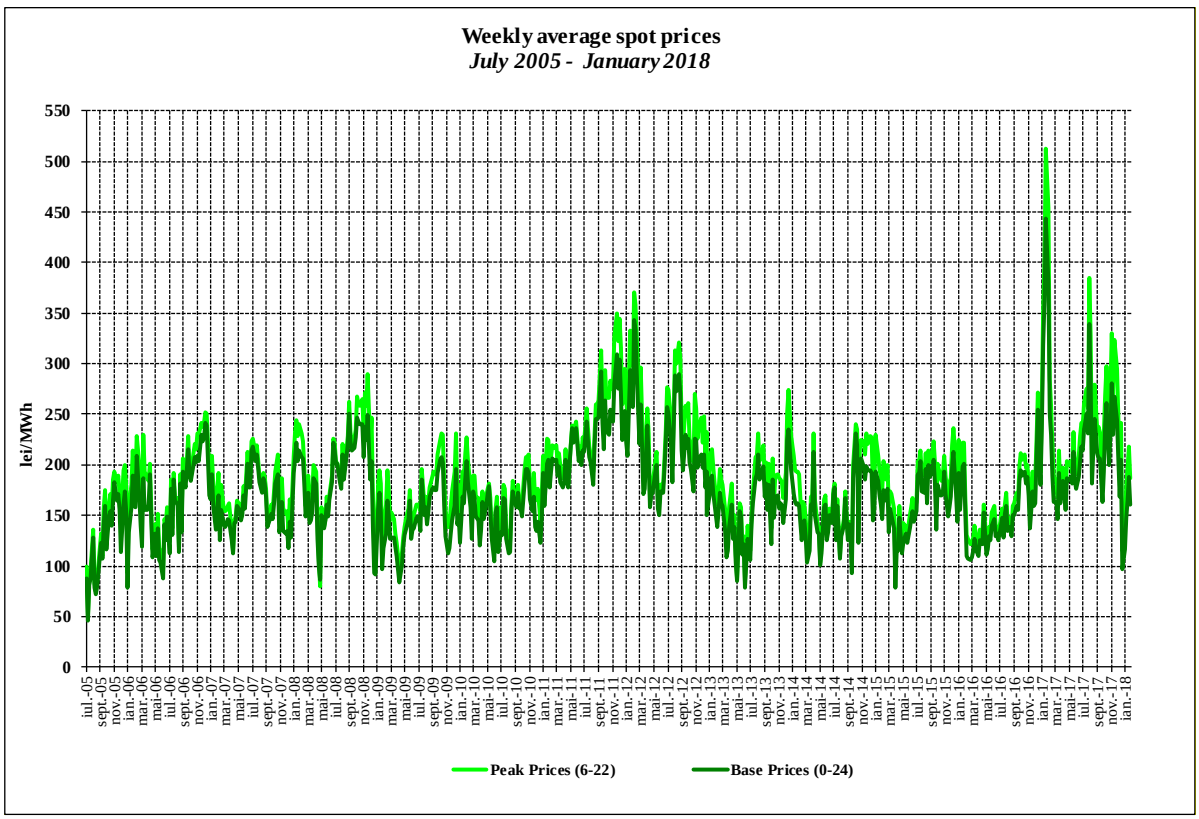
Source: Monthly reports of Opcom SA – processed by MU

The following graph presents the evolution of January 2018 hourly gap between DAM prices in Romania and Hungary as a result of the functioning of coupled markets, correlated with the cross border flows RO-HU for both directions.



Source: Data published by Opcom SA – processed by MU

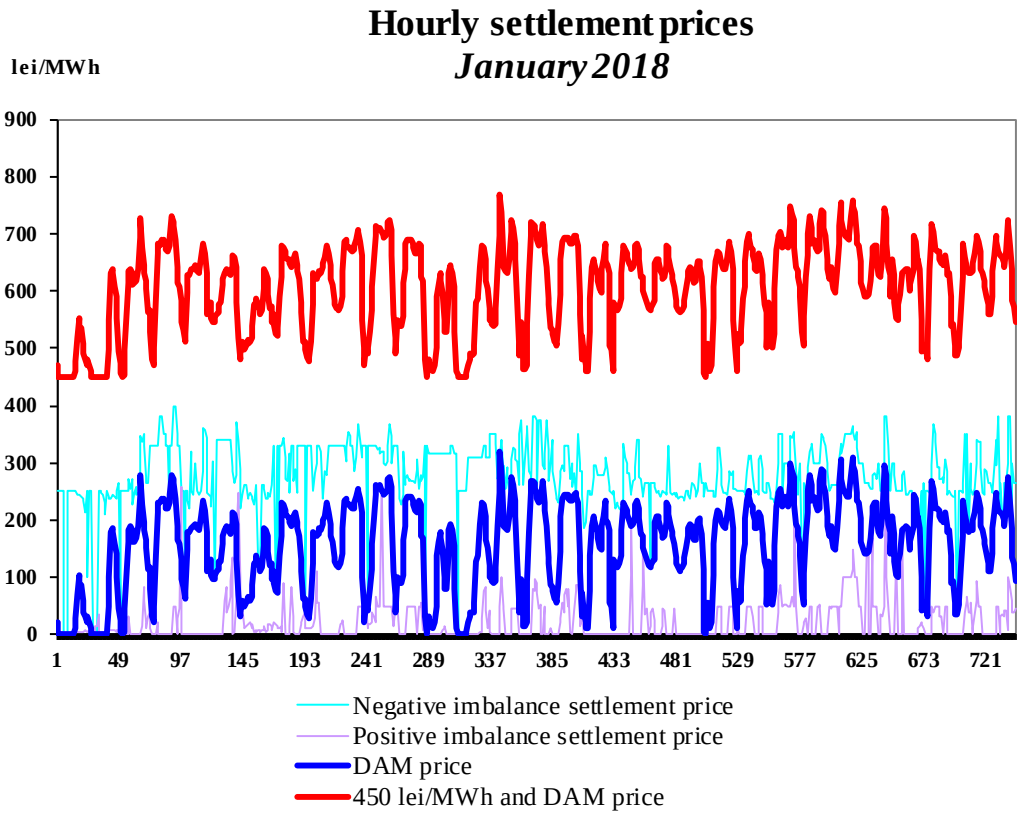
The following graph presents the evolution of weekly average spot prices starting with July 2005:



Source: Daily reports of Opcom SA – processed by MU

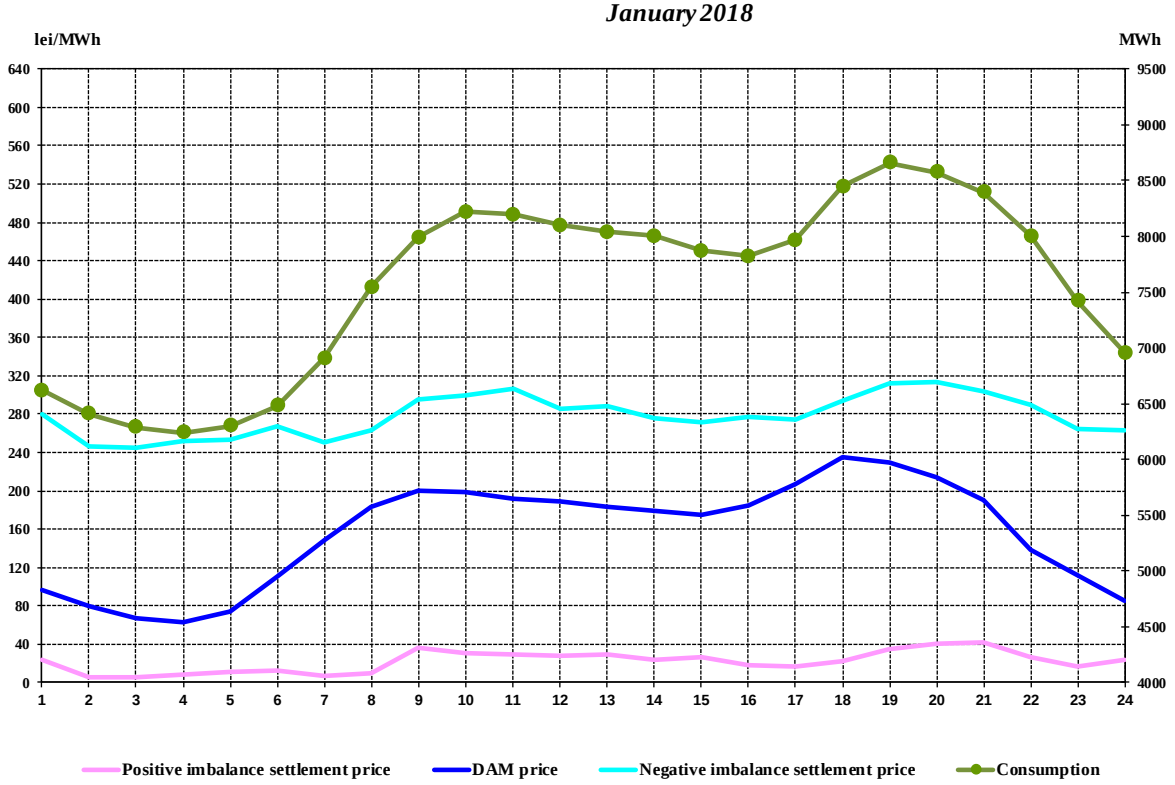
In order to cover the differences between planned/contracted amounts of consumption/ generation and the real time consumption. the system operator (CNTEE Transelectrica SA) operates the BM by buying or "selling" electricity at prices determined by the merit order of dispatchable generators' offers. The participants generating imbalances, grouped in BRPs, have to bear the imbalances costs. For the negative imbalances, they have to pay the settlement price resulting from the upward bids accepted on the BM, while for the positive imbalances they receive the settlement price resulting from the downward bids accepted on the BM.

The settlement prices (MCP on DAM. negative imbalance settlement price and positive imbalance settlement price) are represented on the same graph, showing the two markets correlation degree. In the first graph the prices are expressed in hourly values, in the second graph in hourly average values compared to internal consumption, and in the last graph in average monthly values.



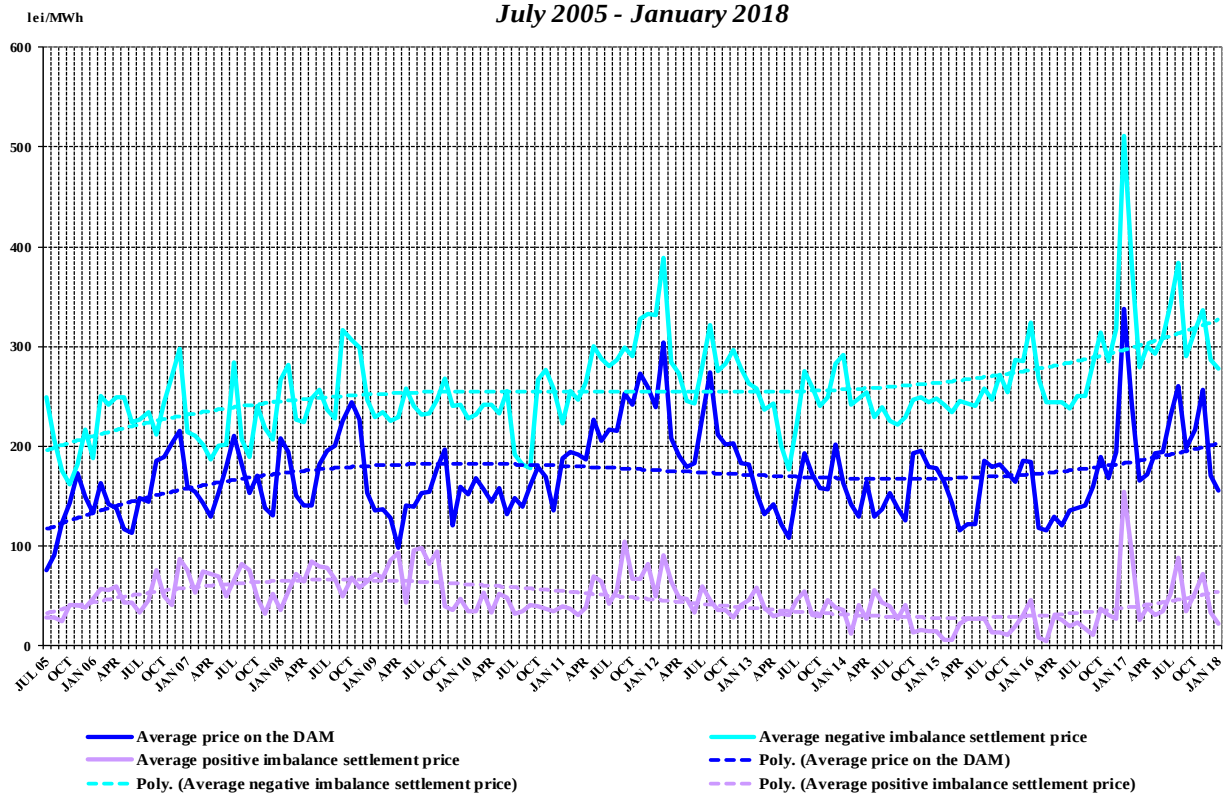
Source: Daily/monthly reports of Opcom SA – processed by MU

Hourly average settlement prices and internal consumption
January 2018



Source: Monthly reports of Opcom SA and CNTEE Transelectrica SA – processed by MU

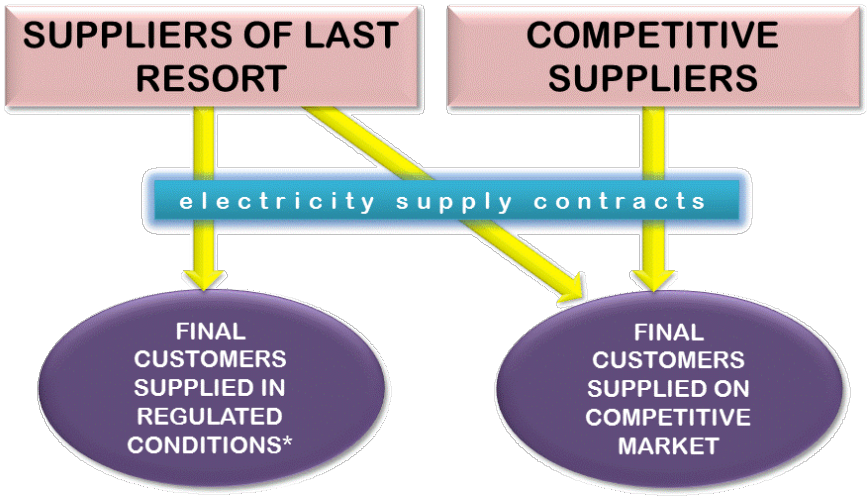
Monthly average prices on DAM and BM
July 2005 - January 2018



Source: Monthly/daily reports of Opcom SA – processed by MU

III. RETAIL ELECTRICITY MARKET

1. Structure of the retail electricity market

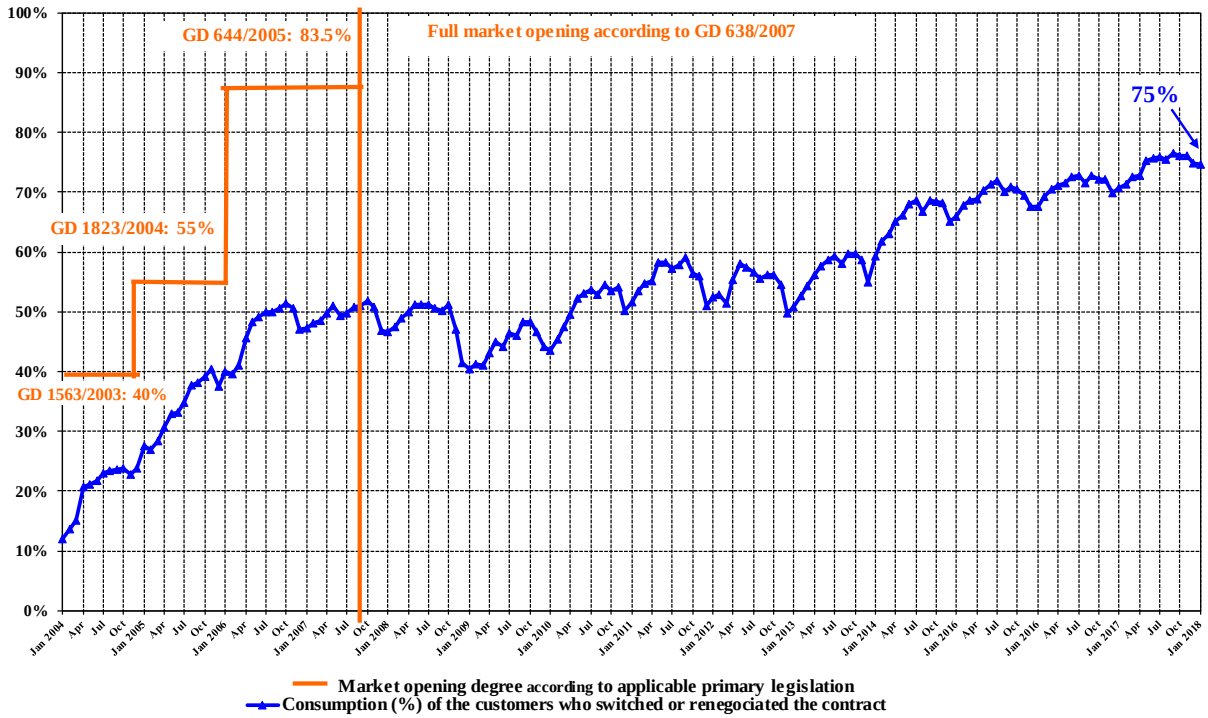


* according to art. 53 (2) and art. 55 (1) from Electricity and Gas Law no. 123/2012

2. Electricity market opening degree

The following graph contains the quota of the consumption from total consumption. of the customers who switched their supplier or renegotiated their contracts with the suppliers operating on the regulated market, between January 2004 – January 2018. The values presented are cumulated from the beginning of the opening process and are presented monthly:

Opening degree evolution of electricity market
January 2004 - January 2018

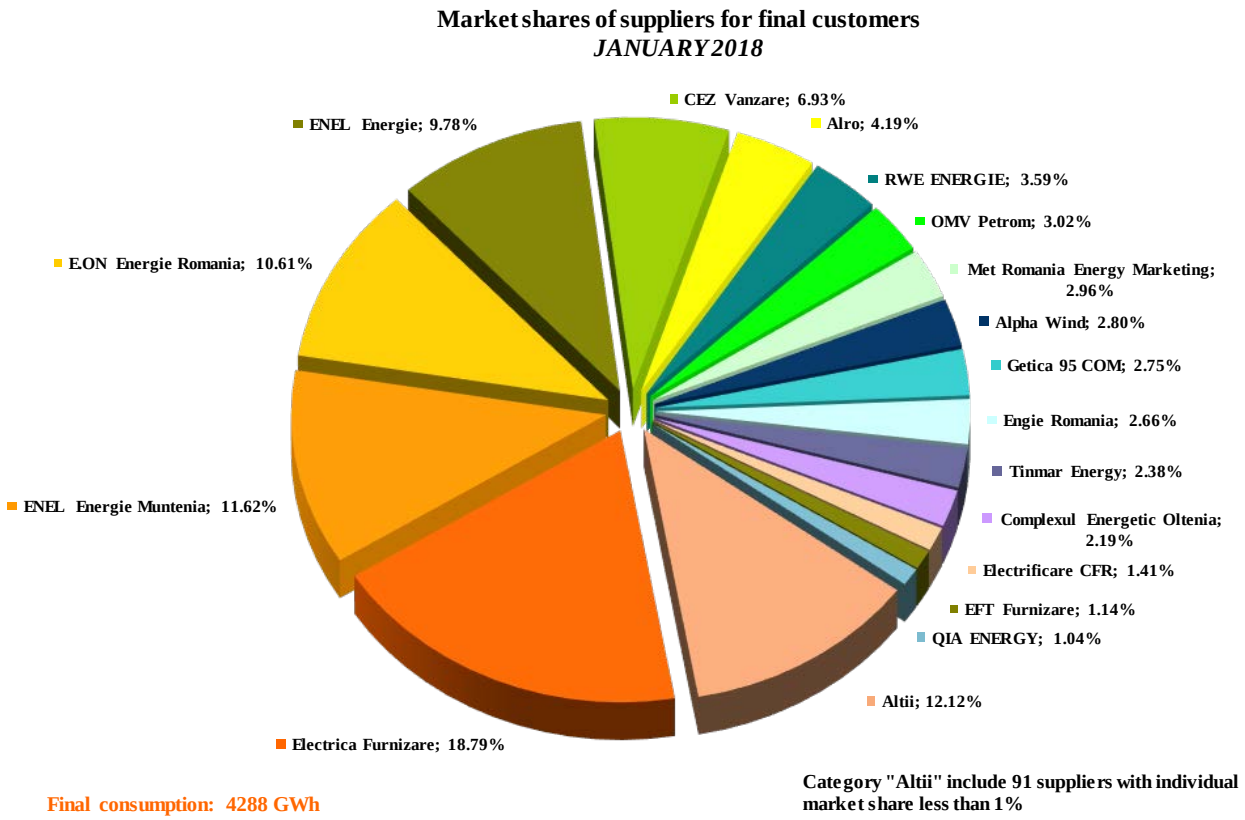


Source: Monthly reports of the final customers' suppliers – processed by MU

3. Market shares of the electricity suppliers

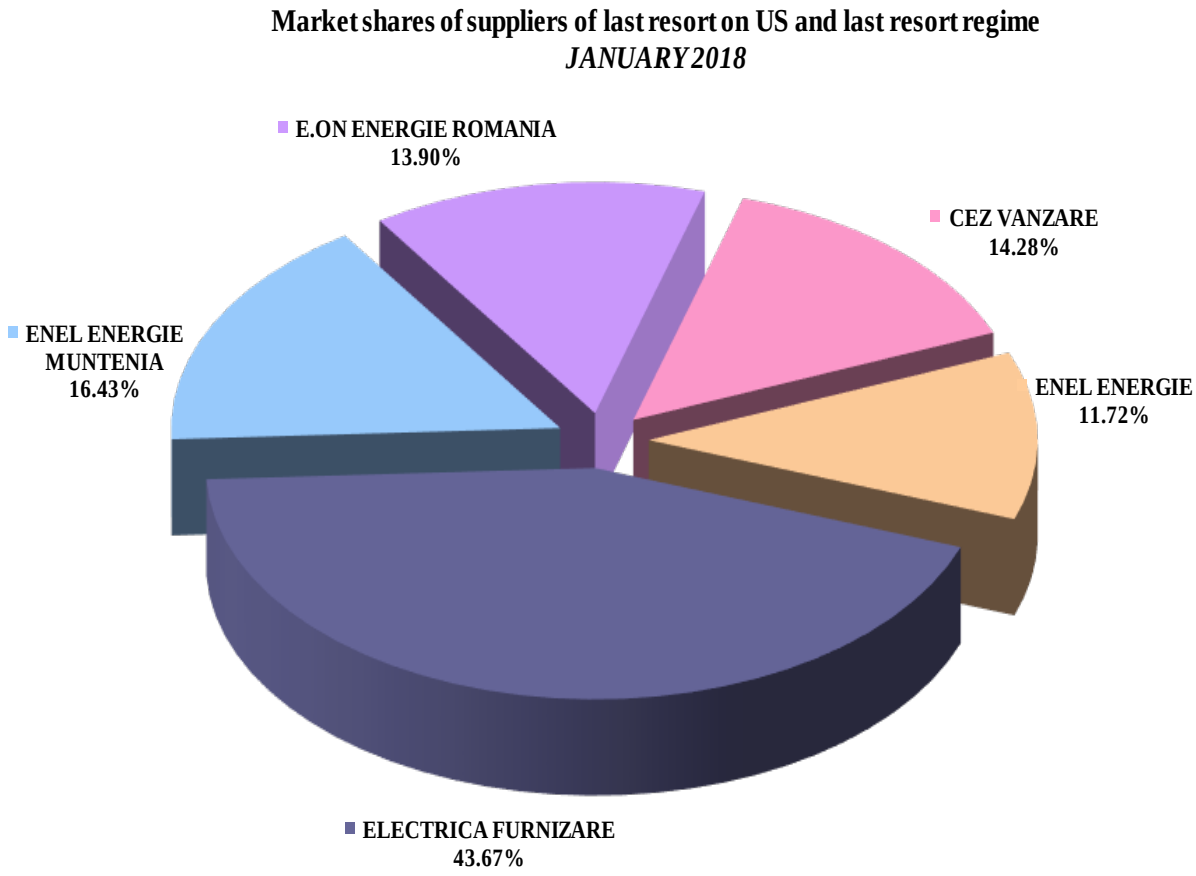
In the following three graphs there are presented the market shares of electricity suppliers on the retail market. calculated:

a) for all suppliers acting on REM. including the suppliers of last resort. based on the electricity supplied to the final customers (on regulated. Competitive Market Component and last resort tariffs) in US and last resort regime. as well as to the customers who switched their supplier or renegociated their contract;



Source: Monthly reports of suppliers for final customers– processed by MU

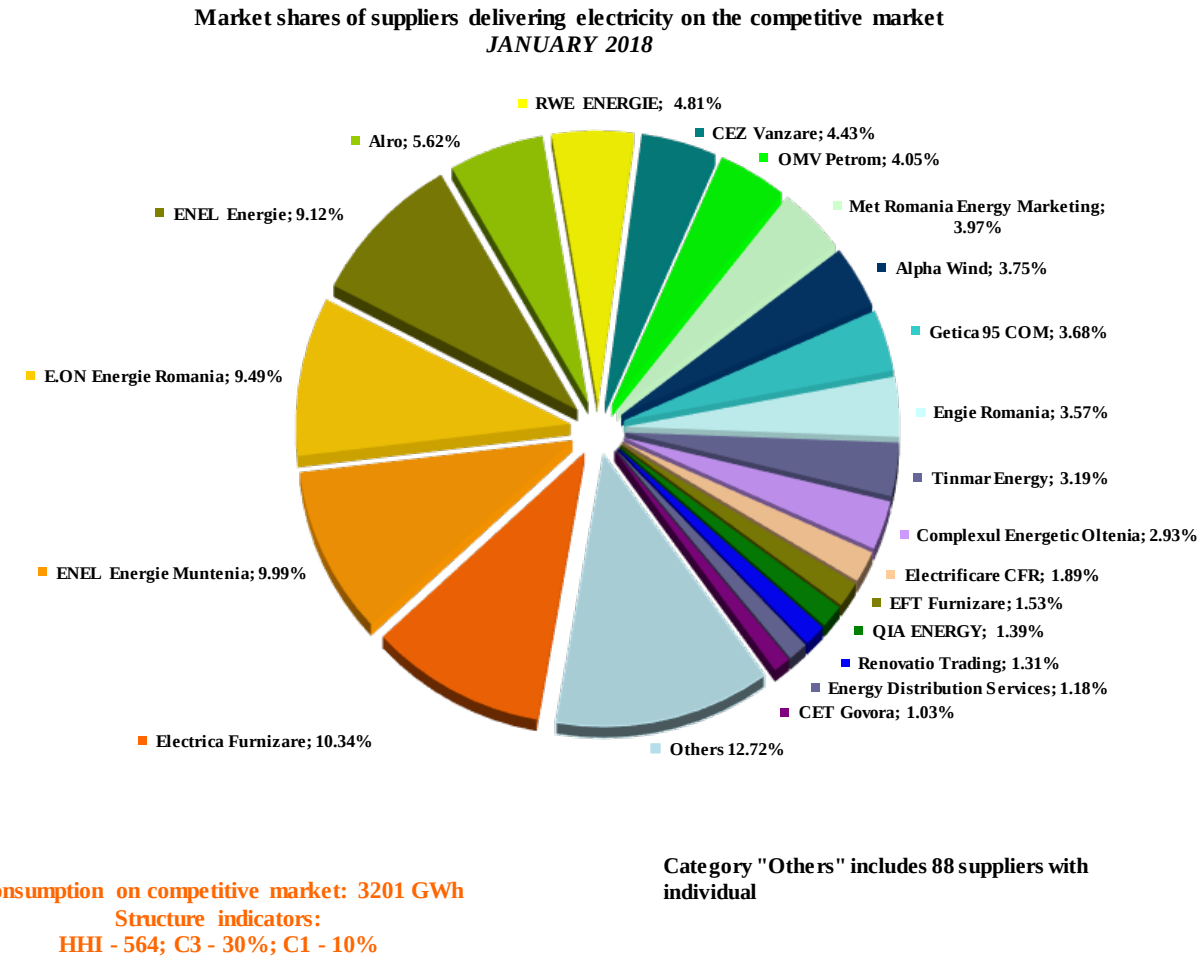
b) for suppliers of last resort - based on the electricity supplied to the final customers in US and last resort regime;



Consumption of customers supplied at regulated, CMC and last resort tariffs: 1087 GWh

Source: Monthly reports of the suppliers of last resort – processed by MU

c) for all suppliers (including the suppliers of last resort) based on the electricity supplied for the customers at negociated prices on competitive component of REM:



Source: Monthly reports of the competitive suppliers– processed by MU

The values of market indicators were calculated without taking into consideration the dominance principle. The delivered electricity used for determining the market share of each supplier comprises the self-consumption of the largest industrial customer which owns a supply license and based on it acquired its electricity from the WEM as a competitive supplier.

The electricity supplied to the final customers used for calculating the market share of every supplier includes also the self-consumption of that particular supplier (e.g. customers with supply license who buy electricity for themselves from WEM as competitive suppliers).

The analysis of the competitive suppliers' activity on the competitive REM component compared to their activity on the WEM is developed based on the weight of the electricity sold to final customers in total electricity sales. The table below presents the number of suppliers acting on the REM, grouped into categories of sales weight during January 2018:

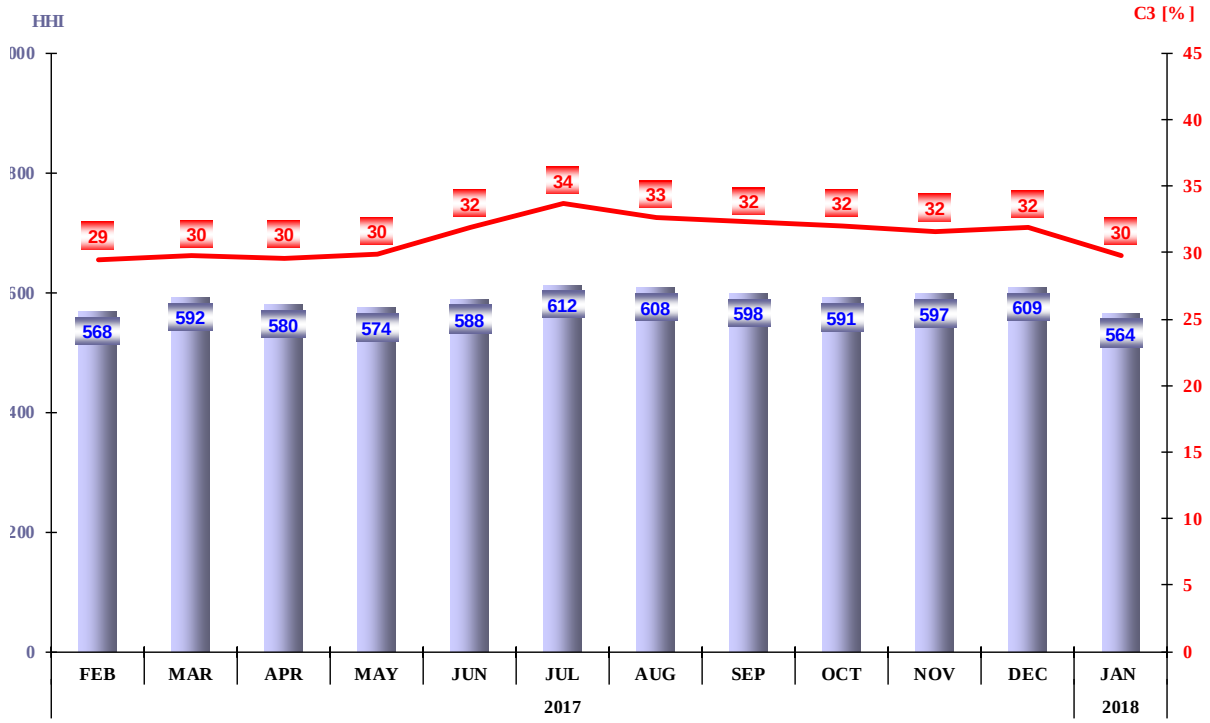
Number of suppliers	Share of sales to final customers from total sales transactions			
	100%	75% - 100%	50% - 75%	<50%
Competitive	4	15	10	35
Of last resort	0	5	0	0

Source: Monthly reports of the suppliers– processed by MU

4. Concentration indicators of the competitive retail electricity market

The monthly evolution of concentration indicators (C3, HHI) determined on the competitive component of the REM is presented for January 2018 in the following graph:

Herfindahl-Hirschman (HHI) and Concentration Ratio of the main three suppliers delivering electricity on competitive market (C3)



Source: Monthly reports of the suppliers – processed by MU

The table below shows the values of structure indicators of competitive component of REM for and the number of active suppliers in January 2018, calculated for each non-household and household customer categories as defined by the Regulation (EU) 2016/1952 of the European Parliament and of the Council:

Indicators - Ian 2018	Consumption tranches - Non-household customers							
	IA	IB	IC	ID	IE	IF	IG	Total
C1 - % -	35	25	18	11	16	16	22	**10**
C3 - % -	71	50	41	29	40	39	44	**29**
HHI	2065	1278	858	593	865	845	1043	**535**
Consumption - GWh -	120	390	305	689	424	282	783	**2993**
No. of SUPPLIERS	68	75	66	60	27	17	17	**89**
No. of suppliers of last resort	0	5	5	5	5	3	3	**5**
No. of competitive suppliers	53	54	47	45	18	11	7	**62**
No. of producers	15	16	14	10	4	3	7	**22**

Source: Monthly reports of the suppliers – processed by MU

Indicators - Yanuary 2018	Consumption tranches - Household customers					
	DA	DB	DC	DD	DE	Total
C1 - % -	60	45	36	32	25	**45**
C3 - % -	97	81	75	75	70	**83**
HHI	4698	2896	2248	2175	1913	**2919**
Consumption - GWh -	64	60	39	32	13	**207**
No. of SUPPLIERS	41	41	40	42	38	51
No. of suppliers of last resort	5	5	5	5	5	**5**
No. of competitive suppliers	32	33	31	34	29	**40**
No. of producers	4	3	4	3	4	**6**

Source: Monthly reports of the suppliers – processed by MU

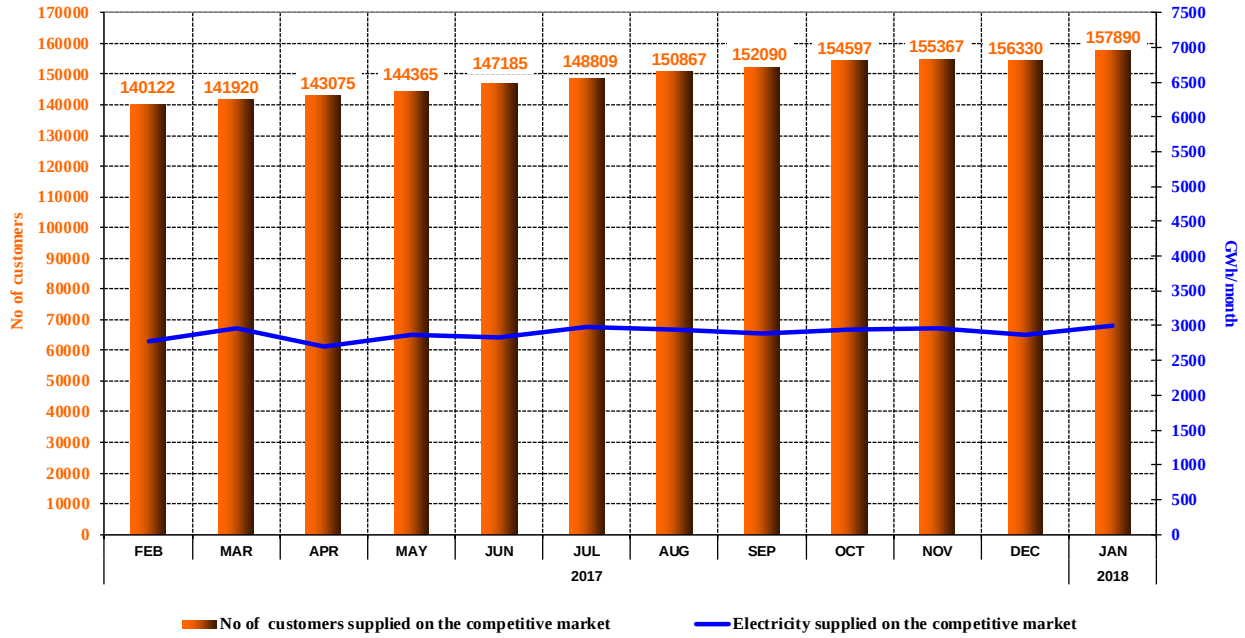
5. Evolution of customers' number and of electricity delivered

Number of customers supplied on the competitive market is presented as an evolution over the last 12 months; for January 2018 this number is split into categories, according to the provisions of Regulation (EU) no. 2016/1952 of the European Parliament and of the Council. The tables below presents the bands of consumption of each category of non-household and household customers:

Non-household customers	Annual electricity consumption (MWh):	
IA		<20
IB	>=20	<500
IC	>=500	<2000
ID	>=2000	<20000
IE	>=20000	<70000
IF	>=70000	<150000
IG	>=150000	

Household customers	Annual electricity consumption (kWh):	
DA		<1000
DB	>=1000	<2500
DC	>=2500	<5000
DD	>=5000	<15000
DE	>=15000	

Evolution of the number of supplied non-household customers and delivered electricity on the competitive market

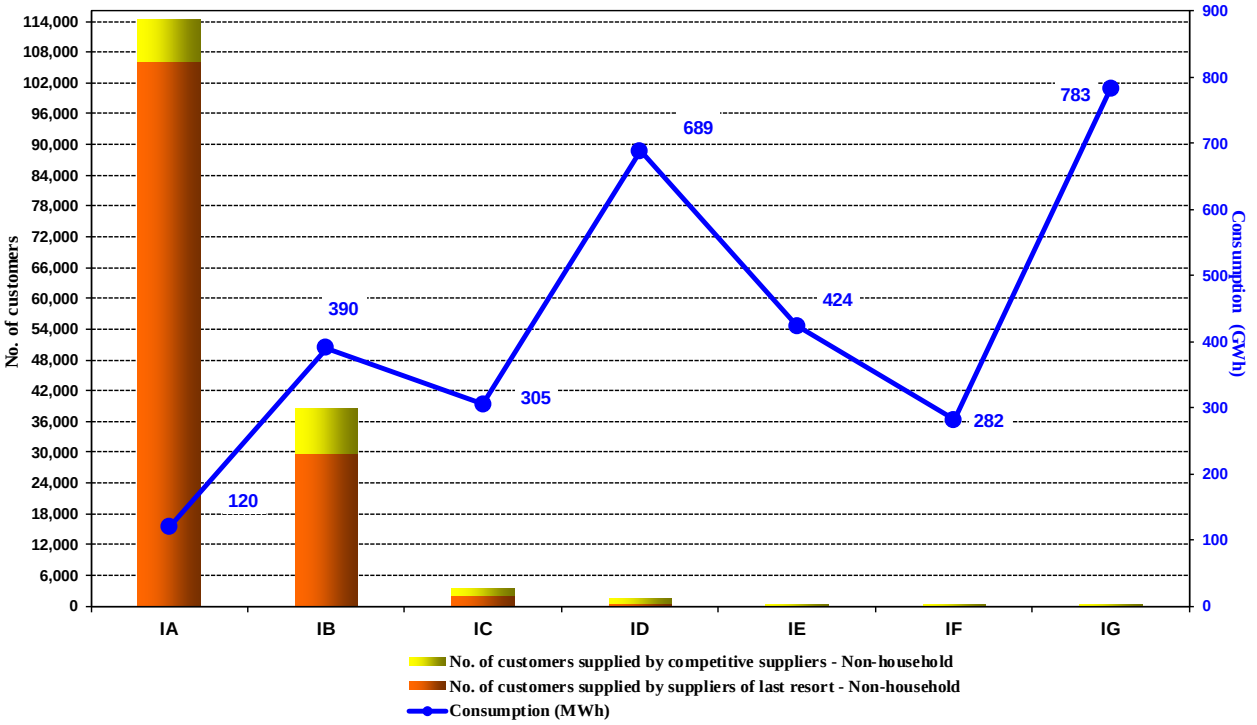


Source: Monthly reports of the competitive suppliers – processed by MU

Competitive suppliers sales to final household customers on the competitive component of REM is presented in the following table:

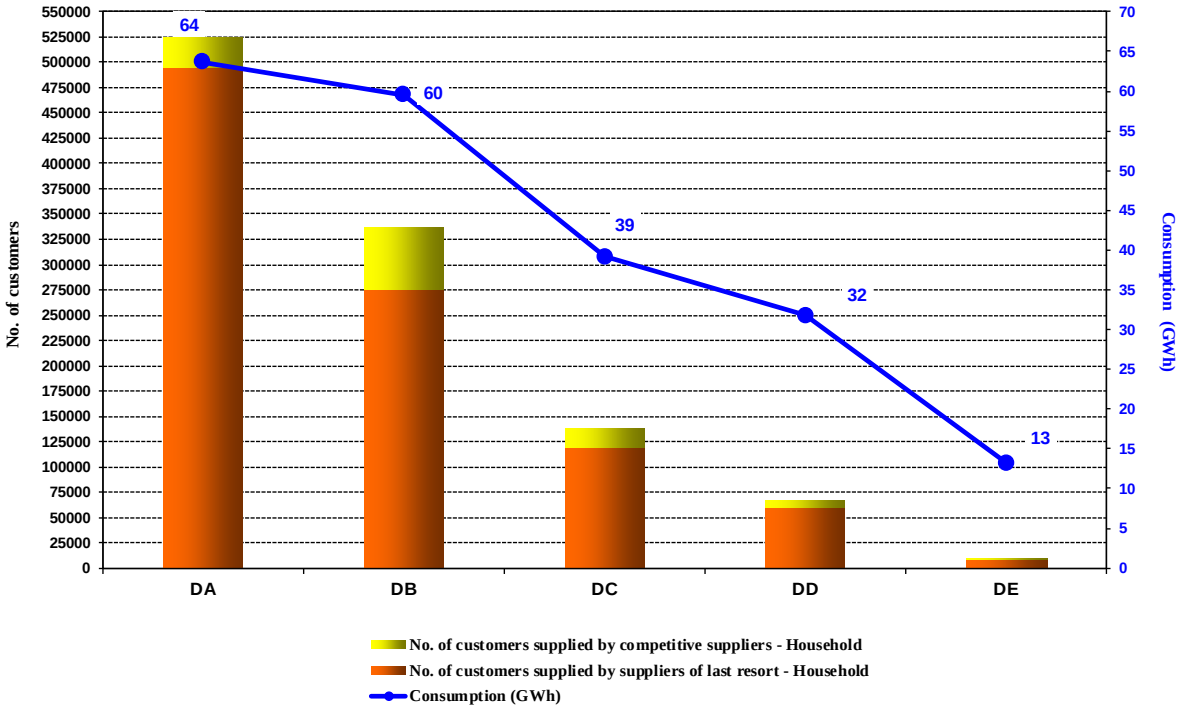
No.	Reporting month 2018	Supplied electricity (MWh)		No. of household customers	
		Total of which:	Suppliers of last resort	Total of which:	Suppliers of last resort
1	January	207 358	184 899	1 075 167	957 269

Number of non-household customers supplied on competitive market and the consumption of each category of customers
- January 2018 -



Source: Monthly reports of the suppliers – processed by MU

Number of household customers supplied on competitive market and the consumption of each category of customers
- January 2018 -

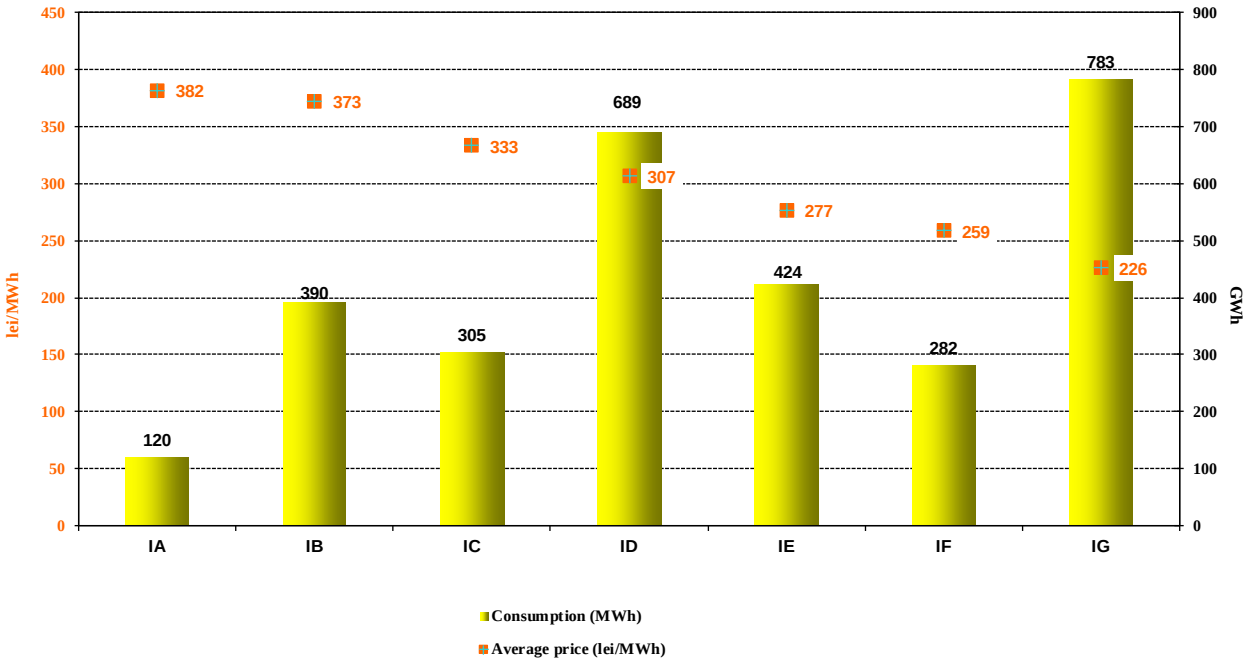


Source: Monthly reports of the suppliers – processed by MU

6. Average selling prices of customers supplied on the competitive market

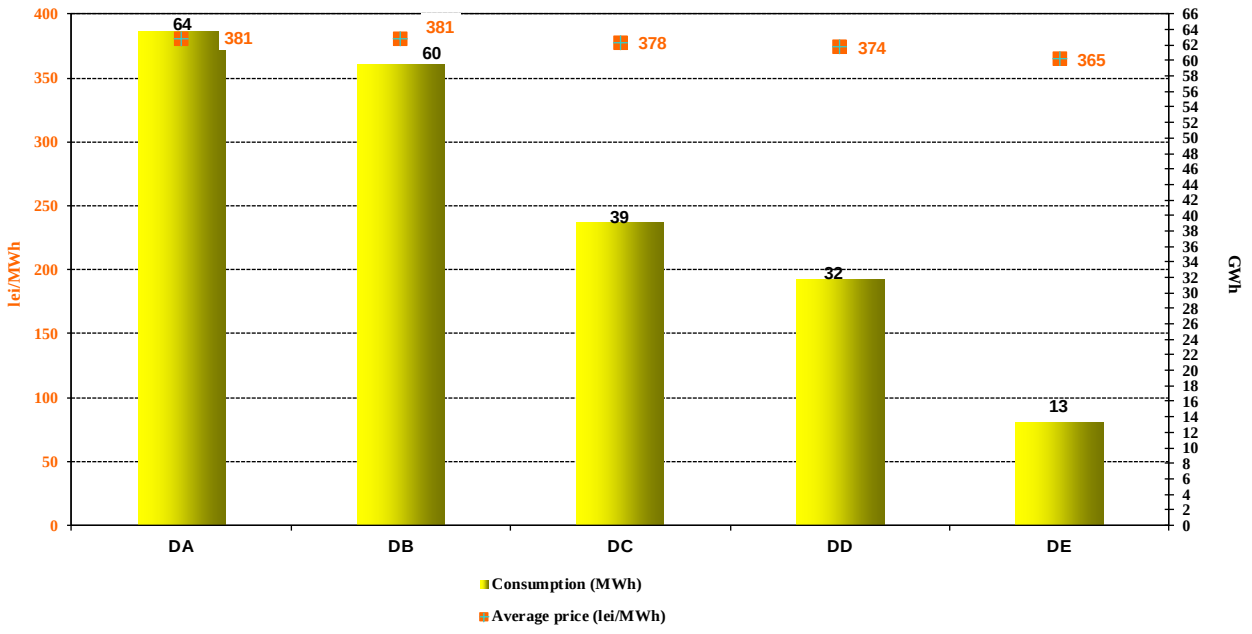
The following graph presents the average selling prices of customers supplied on the competitive market, based on the structure defined according to the Regulation (EU) no. 2016/1952 of the European Parliament and of the Council for January 2018.

Average price and energy consumption for non-household customers' tranches on competitive segment of REM
- January 2018 -



Source: Monthly reports of the competitive suppliers – processed by MU

Average price and energy consumption for household customers' tranches on competitive segment of REM
- JANUARY2018 -



Source: Monthly reports of the competitive suppliers – processed by MU

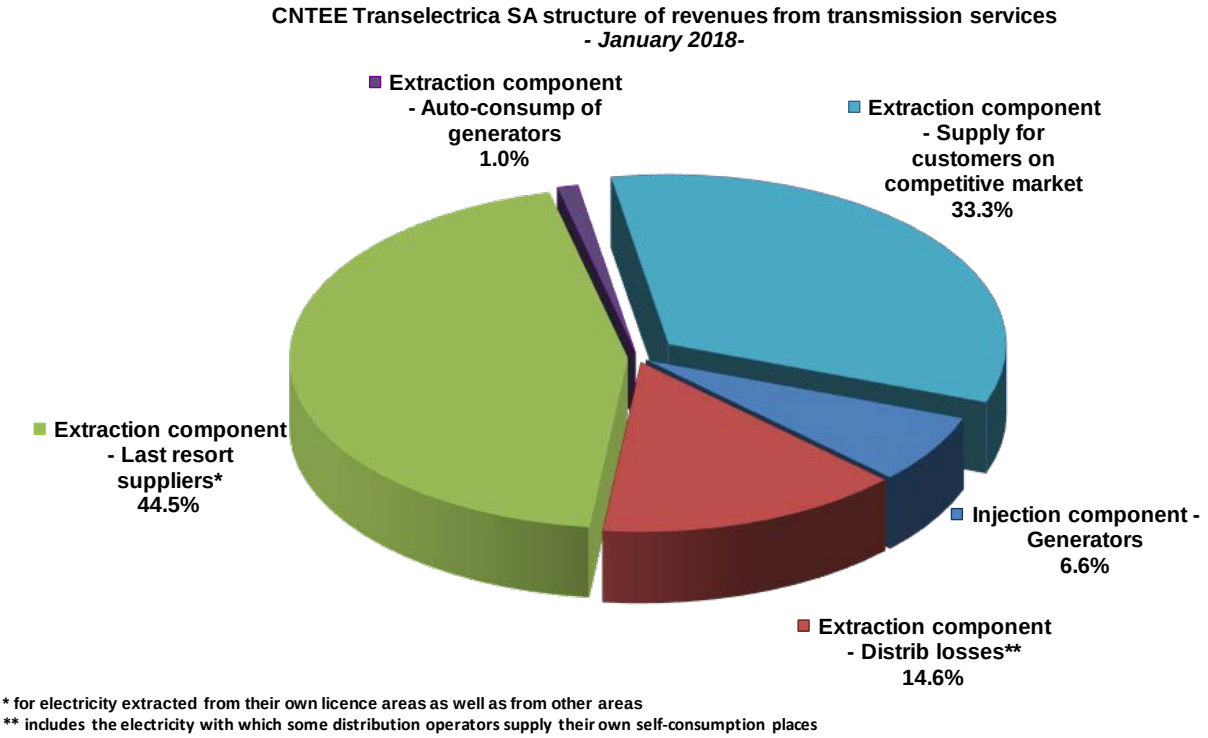
Note: The average selling price on each category was calculated as weighted average of prices applied by suppliers with quantities supplied according to the provisions of the European Regulation. The average prices do not include VAT. excise or other taxes but include the corresponding services (transmission. system services. distribution tariffs. imbalance. BRP aggregated taxe. metering). Splitting customers into categories was based on their annual consumption forecast. according to the provisions of above mentioned Regulation.

IV. TRANSMISSION AND SYSTEM OPERATOR CNTEE TRANSELECTRICA SA

TSO performs the electricity transmission service at regulated tariffs, differentiated by separate tariff zones. depending on the impact of injection or extraction of electricity in/from transmission grid upon NES functioning regime.

Compared to the previous method of establishing the transmission zonal tariffs, which aimed to offer locational signals, starting with July 2015 the methodological principles were modified in order to comply with EU regulations and ACER recommendations in this field. Following this, the injection tariff covers only the network losses costs with different zonal tariffs, while the extraction tariff covers the average cost of transmission service.

The following graph presents the structure of CNTEE Transelectrica SA revenues from performing the transmission services and reflects the structure of its clients benefiting from this type of service in January 2018.

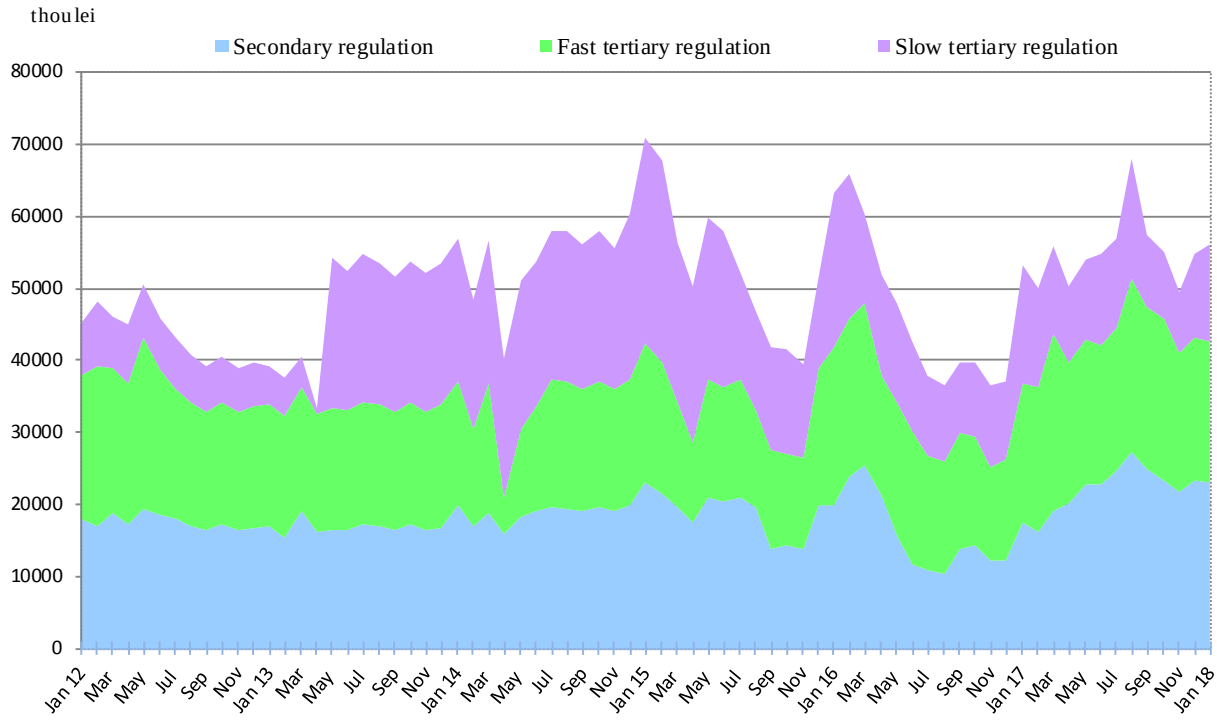


Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

In order to perform the system operator tasks. CNTEE Transelectrica SA assesses and contracts reserves (ancillary services) from qualified generators, which are integrated on BM. The ancillary services which may be used are reserves for secondary, fast tertiar, slow tertiary regulation and reactive energy.

The following graph represents the cost evolution of ancillary services acquisition which were paid by the transmission and system operator starting with January 2012. The tariffs applied for this type of services may be regulated (for the quantities approved through decision by ANRE) and/or competitive (in case the TSO organizes competitive sessions).

Structure of CNTEE Transelectrica SA costs with ancillary services acquired from qualified generators



Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

V. MARKET RULES EVOLUTION IN JANUARY 2018

In January 2018, ANRE issued the following regulations with impact on the wholesale and retail electricity markets:

- ANRE President Order no. 19/19 January 2018 regarding the application for the year 2017 of the provisions of Article 21(2) and Article 27 from the Regulation regarding the qualification of the production of electricity in high efficiency cogeneration and for the verification and monitoring of the fuel consumption and the production of electricity and useful thermal energy, in high efficiency cogeneration, approved by the ANRE President Order no. 114/2013, and the provisions of Article 21-23 of the Regulation on establishing the method of collecting the contribution for high efficiency cogeneration and the payment of the bonus for electricity produced in high efficiency cogeneration, approved by ANRE President Order no. 116/2013;
- ANRE President Order no. 23/23 January 2018 on the amendment of ANRE President Order no. 49/2013 for the approval of the Regulation regarding the organized trading platform on the Centralized market with double continuous negotiation of the electricity contracts;
- ANRE President Order no. 26/31 January 2018 approving the Regulation of competitive selection regarding the designation of suppliers of last resort and amending some regulations in the electricity sector;
- ANRE President Order no. 27/31 January 2018 approving the Regulation for organization and operation of auctions on the Centralized Market for Universal Service;

- ANRE President Order no. 28/31 January 2018 approving the Proposal of all OPEED for the products that may be considered by OPEED in the intraday coupling process in accordance with Article 40 of Commission Regulation (EU) 2015/1222 from 24 July 2015 of establishing some guidelines on capacity allocation and congestion management;
- ANRE President Order no. 29/31 January 2018 approving the Proposal of all OPEED for the products that may be considered by OPPEED in the intraday coupling process, according to Article 53 of Commission Regulation (EU) 2015/1222 from 24 July of establishing some guidelines on capacity allocation and congestion management;
- ANRE President Order no. 30/31 January 2018 approving the proposal of all OPEED for the reserve Methodology, in accordance with Article 36(3) of Commission Regulation (EU) 2015/1222 from 24 July 2015 establishing some guidelines on capacity allocation and congestion management;
- ANRE President Order no. 31/31 January 2018 approving the Regulation on the functioning and settlement of the balancing market and the Regulation for calculation and settlement of imbalances of the parties responsible for balancing;
- ANRE President Decision no. 100/23 January 2018 regarding the approval of the quantities produced in high efficiency cogeneration units benefiting from the bonus scheme for December 2017.

VI. EXPLANATIONS AND ABBREVIATIONS

1. Explanations

- ***Internal consumption*** is calculated, in this report, as the sum of electricity delivered into the grid (described below) and the balance of trades made on the basis of the import and export contracts of the wholesale market participants;
- ***Consumption of final customers under universal service and last resort regime*** represents the consumption of customers supplied by the suppliers of last resort at CMC and last resort prices;
- ***Consumption of final customers on competitive market*** represents the consumption of customers supplied at negociated prices or defined by standard bids;
- **Fuel consumption** represents the fuel consumed for generating electricity and heat in the power plants of monitored generators;
- ***Self-consumption of generators*** (in the graph regarding the revenues of CN Transelectrica SA) the self-consumption exclusively represents the generators consumption at consumption places other than the generation sites;
- ***Electricity delivered into the grid*** includes the electricity sold by the generators through direct lines or consumed by themselves at other consumption sites;
- ***Electricity delivered into the grid according to the transport contract*** is the electricity for which the transport service (the grid input component) is provided corresponding to the electricity delivered from the power plants with installed capacity of more than 5 MW connected to the transmission and distribution electric grids (according to ANRE President Order No. 89/2013); CNTEE Transelectrica SA charges for only a part of the respective electricity, given that in four of the grids the regional tariffs are zero (according to ANRE President Order No. 27/2016)

1. Abbreviations

- MU – Monitoring Unit
- WEM – Wholesale Electricity Market
- REM – Retail Electricty Market
- CMBC – Centralised Market of Bilateral Contracts
- CMC – Competitive Market Component
- DAM – Day Ahead Market
- ID – Intraday Market
- BM – Balancing Market
- MCP – Market Clearing Price
- CMUS – Centralised Market of Universal Service
- 4M MC – Price coupling mechanism for spot markets from Romania. Hungary. Slovakia and Czech Republic
- BRP – Balancing Responsible Party
- TG/TL – injection / extraction component of the transmission tariff
- OU-NPD – Operational Unit-National Power Dispatch
- US – Universal Service
- DO – Distribution operator
- SLR – Supplier of last resort
- ATC – Available Transmission Capacity
- DO – Distribution operator
- SLR – Supplier of last resort
- ATC – Available Transmission Capacity