



ROMANIAN ENERGY REGULATORY AUTHORITY

DEPARTMENT OF MONITORING, REMIT



REPORT ON RESULTS OF MONITORING THE ROMANIAN ELECTRICITY MARKET FEBRUARY 2018

- This document represents an unauthorised translation of the Romanian document -

ANRE makes all the necessary efforts to present within the here above mentioned document, as accurately and concisely as possible, the data based on the legal entities reports. This document published by ANRE is for information purpose only. ANRE is not and will not be under any circumstances legal responsible for any inadvertences regarding the information presented within the document or for the improper way the information is used

TABLE OF CONTENTS

I.	MAIN EVENTS IN THE DEVELOPMENT OF THE ROMANIAN ELECTRICITY MARKET.....	3
II.	WHOLESALE ELECTRICITY MARKET	4
1.	Structure of the wholesale electricity market.....	4
2.	Participants on the wholesale electricity market	5
3.	Generation structure of National Energy System on resources types	7
4.	Transactions' structure on the wholesale electricity market.....	9
5.	Trading structure on the wholesale electricity market of different participant categories	15
6.	Concentration indicators on the wholesale electricity market and its components....	23
7.	Price evolution on wholesale electricity market.....	26
III.	RETAIL ELECTRICITY MARKET.....	31
1.	Structure of the retail electricity market.....	31
2.	Electricity market opening degree	31
3.	Market shares of the electricity suppliers.....	32
4.	Concentration indicators of the competitive retail electricity market.....	35
5.	Evolution of customers' number and of electricity delivered.....	36
6.	Average selling prices of customers supplied on the competitive market	38
IV.	TRANSMISSION AND SYSTEM OPERATOR CNTEE TRANSELECTRICA SA	39
V.	EVOLUTION OF MARKET RULES IN FEBRUARY 2018	41
VI.	EXPLANATIONS AND ABBREVIATION	41

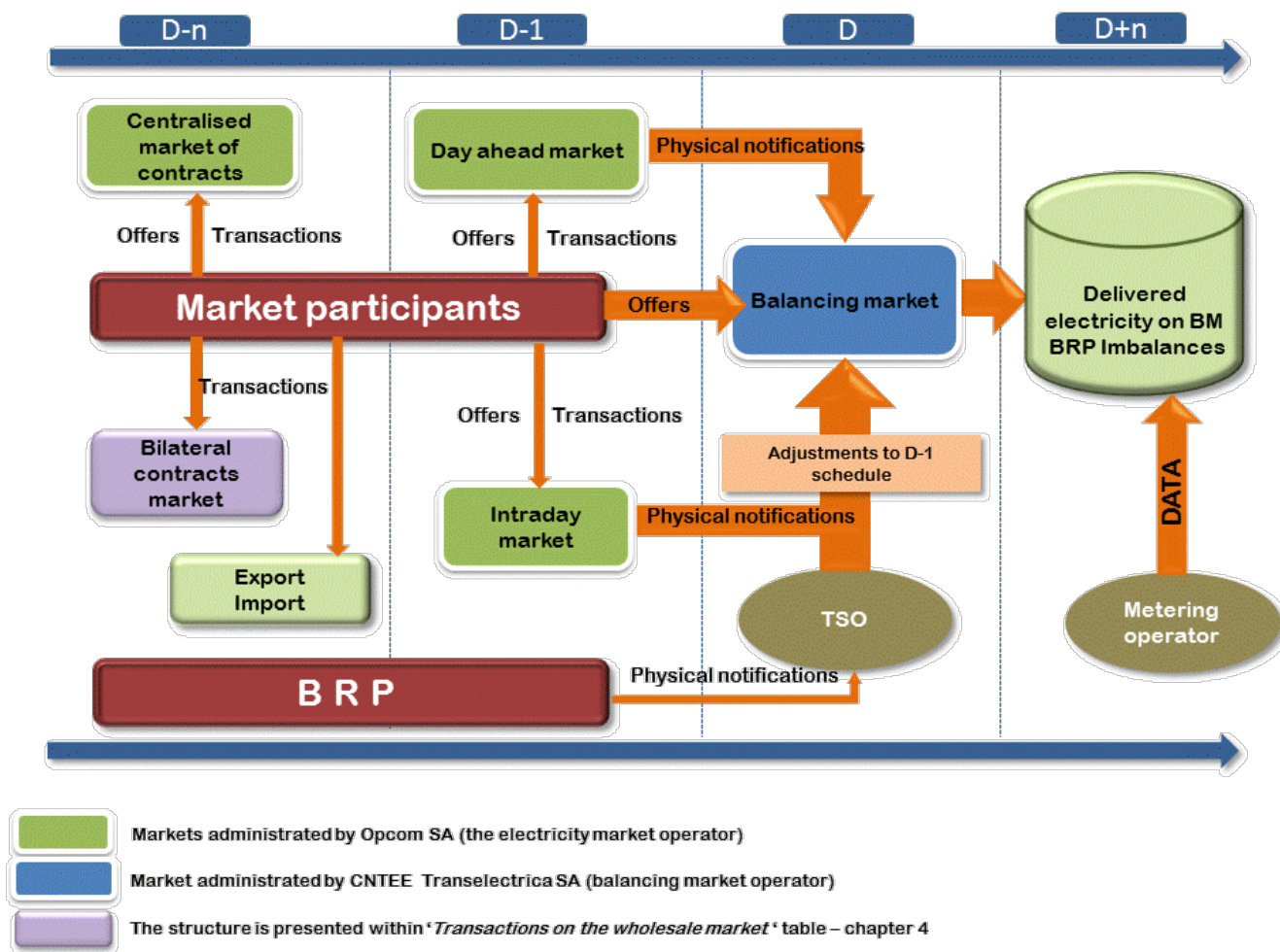
I. MAIN EVENTS IN THE DEVELOPMENT OF THE ROMANIAN ELECTRICITY MARKET

- 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 dissolved;
- 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 negotiation;
- 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 interconnections 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 obtains 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 obtains 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 Tranelectrica 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 Tranelectrica 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 February 2018 are presented below split into categories:

No.	Category	No.	Category
A Electricity generators on classic sources operating dispatching units		D Electricity generators on solar source operating dispatching units	
1	Bepco SRL	1	Blue Sand Investment SRL
2	CET Arad SA	2	Caracal Solar Alpha SRL
3	CET Govora SA	3	Casa Crang SRL
4	CE Hunedoara SA	4	Chue Solar SRL
5	CE Oltenia SA	5	Corabia Solar SRL
6	Contour Global Solutions SRL	6	Cujmir Solar SRL
7	Ecogen Energy SA	7	Delta & Zeta Energy SRL
8	Electrocentrale București SA	8	Ecosfer Energy SRL
9	Electrocentrale Constanța SA	9	Energo Proiect SRL
10	Electrocentrale Galați SA	10	Eye Mall SRL
11	Electro Energy Sud SRL	11	Fort Green Energy SRL
12	Enet Focsani SA	12	Foton Epsilon SRL
13	Gas Energy Ecotherm SA	13	Gama & Delta Energy SRL
14	Lukoil Energy & Gaz Romania SRL	14	GPSB Solaris 48 SRL
15	Modern Cakor SA	15	Greenlight Solution SRL
16	OMV Petrom SA	16	Green Vision Seven
17	Rulmenti SA	17	Izvor de Lumina SRL
18	SNGN Romgaz SA	18	Kentax Energy SRL
19	Termoficare Oradea SA	19	Lemar Grup SRL
20	Veolia Energie Iași SRL	20	LJG Green Source Energy Alpha SA
21	Veolia Energie Prahova SRL	21	LJG Green Source Energy Beta SRL
22	Vest Energo SA	22	LJG Green Source Energy Gamma SRL
B Electricity generators on wind source operating dispatching units		23	Long Bridge Milenium SRL
1	Alizeu Eolian SA	24	Mar-Tin Solar Energy SRL
2	Arinna Development SRL	25	Potehu Solar SRL
3	Blue Line Energy SRL	26	Power L.I.V.E. One SRL
4	Blue Planet Investments SRL	27	RA-RA PARC SRL
5	Braiku Winds SRL	28	Romkumulo SRL
6	Bridgeconstruct SRL	29	Simico Prod Factory SRL
7	Catakan Electric SRL	30	Skybase Energy SRL
8	Cemavoda Power SRL	31	Solar Electric Frasinet SRL
9	Corni Eolian SRL	32	Solar Future Energy SRL
10	Crucea Wind Farm SRL	33	Solaria Green Energy SRL
11	Dan Holding MGM SRL	34	Solprim SRL
12	Eco Power Wind SRL	35	Spectrum Tech SRL
13	Ecoenergia SRL	36	Studina Solar SRL
14	EDPR Romania SRL	37	Sun Energy Complet SA
15	Electrica Serv SRL	38	Tis Energy SRL
16	Electricom SA	39	Tinmar Green Energy SRL
17	Elektra Green Power SRL	40	Urdu Energy SRL
18	Elektra Wind Power SRL	41	Vanju Mare Solar SRL
19	Enef Green Power Romania SRL	42	Varokub Energy Development SRL
20	Energia Verde Ventuno SRL	43	VIR Company International SRL
21	Enex SRL	44	VIS Solaris 2011 SRL
22	Eol Energy SRL	45	Vrish Pro Investments SRL
23	Eol Energy Moldova SRL	46	WDP Development RO SRL
24	Eolian Center SRL	47	Xalandine Energy SRL
25	Eolica Dobrogea One SRL	48	XPV SRL
26	EP Wind Project (ROM) SIX SA	E Electricity generators on hydro source operating dispatching units	
27	Eviva Nalbant SRL	1	Hidroelectricita SA
28	Ewind SRL	F Electricity generator on nuclear source operating dispatching units	
29	General Concrete Cemavoda SRL	1	SN Nuclearelectrica SA
30	Green Energy Farm SRL	G Transmission System Operator	
31	Ground Investment Corp SRL	1	CNTEE TRANSELECTRICA SA
32	Holrom Renewable Energy SRL	H Market Operator for DAM, Intra-Day, Centralised Markets - CMBC-EA, CMBC-CN, CMBC-FP, CM-OTC, CMUS	
33	Horia Green SRL	1	OPCOM SA
34	Intertrans Karla SRL	I Distribution operators	
35	Kelavent Charlie SRL	1	Distributie Energie Oltenia
36	Kelavent Echo SRL	2	Delgaz Grid
37	Land Power SRL	3	E-Distributie Banat
38	LC Business SRL	4	E-Distributie Dobrogea
39	M&M 2008 SRL	5	E-Distributie Muntenia
40	Mireasa Energies SRL	6	SDEE Muntenia Nord
41	East Wind Farm SRL	7	SDEE Transilvania Nord
42	Ovidiu Development SRL	8	SDEE Transilvania Sud
43	Peștera Wind Farm SRL	J Suppliers of Last Resort	
44	Romconstruct Top SRL	1	CEZ Vanzare SA
45	Sibioara Wind Farm SRL	2	ENEL Energie SA
46	Smart Clean Power SRL	3	E.ON Energie Romania SA
47	Smartbreeze SRL	4	ENEL Energie Muntenia SA
48	Soft Grup SRL	5	Electrica Furnizare SA
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		
C Electricity generators on biomass source operating dispatching units			
1	Bioenergy Suceava SRL		

No.	Category
K	Electricity Suppliers acting exclusively on the wholesale market
1	Alpiq Energy SE
2	CEZ as
3	Danske Commodities/s Aarhus
4	EDF Trading Limited
5	Energo-Pro Trading EAD
6	Elpetra Energy E.A.D.
7	Electrocarbon SA
8	Energi Danmark A/S
9	Eolian Project SRL
10	EVN Trading South East Europe
11	Ezpada SRO
12	Flavus Investitii SRL
13	Freepoint Commodities Europe Ltd
14	General Energetic
15	GEN I trgovanje in prodaja elektricne energije doo
16	Holding_Slovenske_Elektrane
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, Slovenska energetska druzba
25	Photovoltaic Green Project SRL
26	Ritam 4-TB ood
27	Statkraft Markets GmbH
28	Transenergo Com SA
29	Unit Energy Trade SRL
30	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	Electricicare CFR SRL
22	Elsid SA
23	Electromagnetica SA
24	Enel Trade Romania SRL
25	Energy Distribution Services SRL
26	Engie Romania SA
27	Enol Grup SA
28	Entrex Services SRL
29	Eolian Generator SRL
30	E.V.A. Energy SRL
31	GDM Logistic SRL
32	Getica 95 COM SRL
33	Grenerg SRL
34	Hermes Energy International SRL
35	ICCO Energy SRL
36	ICPE Electrocond Technologies SA
37	Imperial Development SRL
38	Industrial Energy SA
39	Luxten LC SA
40	Menarom PEC SRL
41	MET Romania Energy Marketing SRL
42	Midas&CO SRL
43	Monsson Trading SRL
44	Neptun SA
45	Next Power SRL
46	Next Energy Parteners SRL
47	Nova Power&Gas SRL
48	P.C. Management & Consulting SRL
49	Plenerg SRL
50	Power Clouds SRL
51	QIA Energy SRL
52	QMB Energy SRL
53	RCS&RDS SA
54	Renovatio Trading SRL
55	Restart Energy One SRL
56	Romelectro SA
57	RWE Energie SRL
58	Stock Energy SRL
59	Tinmar Energy SA
60	Transformer Energy Supply SRL
61	Unistil SRL
62	Uzinsider General Contractor SA
63	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.

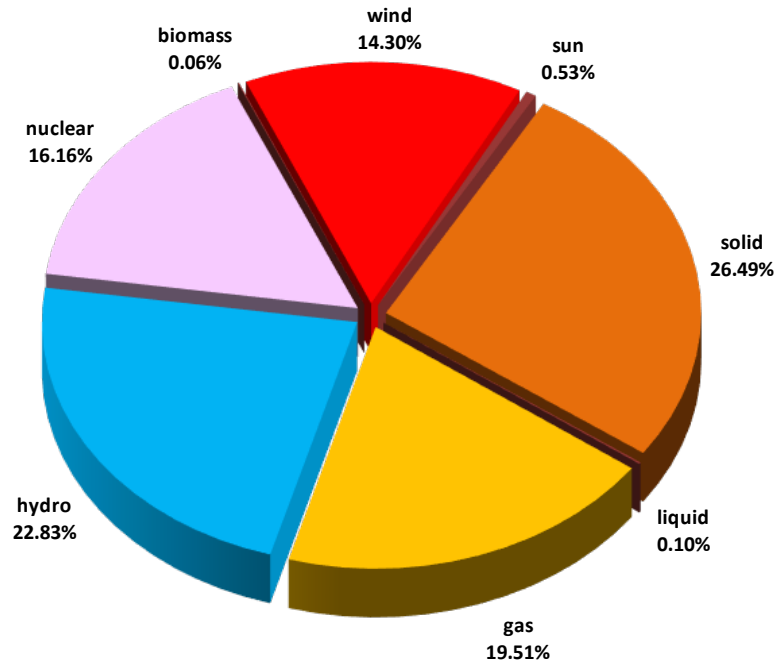
ANRE monitors the market activity of the generators with dispatchable units. According to the Regulation of scheduling the dispatchable generation units and consumption units, the considered generation units are:

- hydro generation group with installed power higher than 10 MW;
- thermal generation group (including biomass and nuclear) with installed power higher than 20 MW;
- 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 the „General conditions associated to the license for trading electricity”.

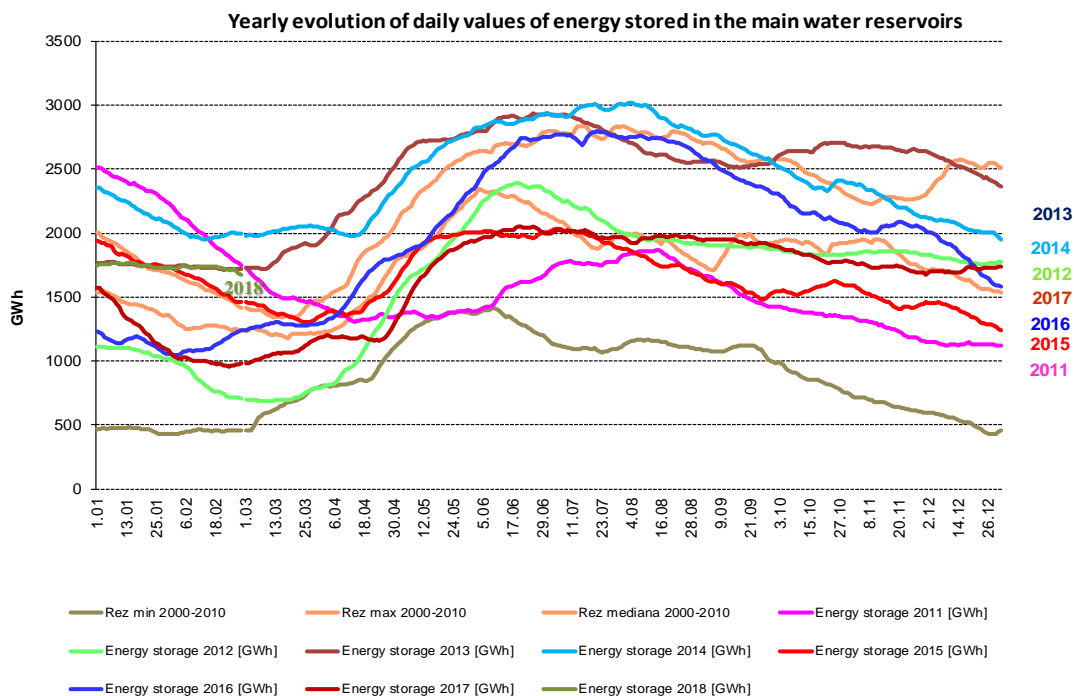
3. Generation structure of National Energy System on resources types

Electricity structure by primary sources
(delivered by generators with dispatchable units)
- February 2018 -



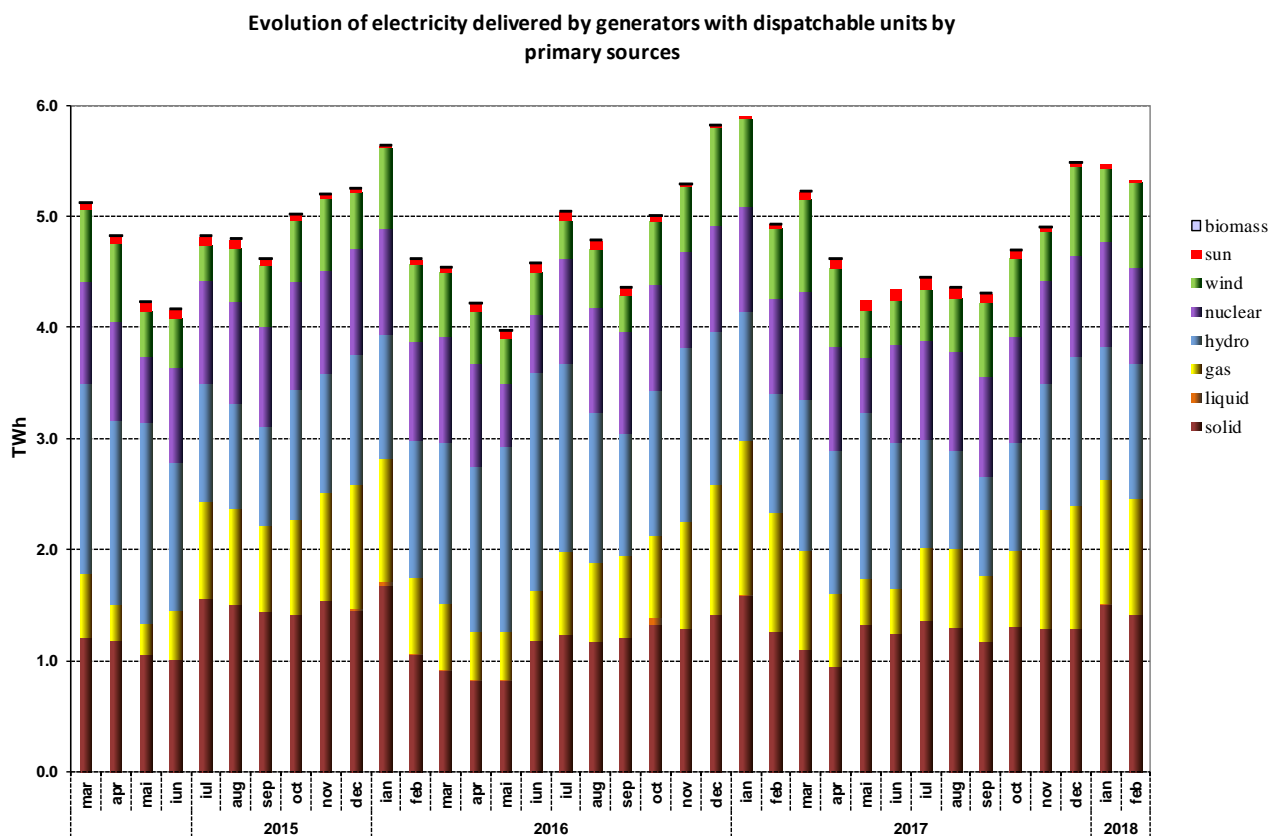
Source: Monthly reports of generators – processed by MU

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 February 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 February 2018, compared to data for the similar period of 2017:

Nr. Crt.	INDICATOR	UM	Feb 2017	Feb 2018	%	Jan-Feb 2017	Jan-Feb 2018	%
0	1	2	3	4	$5=4/3*100$	6	7	$8=7/6*100$
1	Generated electricity	TWh	5.31*	5.69	107.16	11.64	11.55	99.23
2	Delivered electricity	TWh	4.94	5.33	107.89	10.85*	10.82	99.72
3	Import	TWh	0.32	0.15	46.88	0.49	0.41	83.67
4	Export	TWh	0.60	0.66	110.00	1.34	1.27	94.78
5	Internal consumption (2+3-4)	TWh	4.66	4.83	103.65	9.99	9.96	99.70
6	Consumption of household customers:	TWh	1.07	1.08	100.93	2.26	2.28	100.89
6.1	on Universal Service regime	TWh	1.01	0.88	87.13	2.14	1.87	87.38
6.2	on the competitive market	TWh	0.06	0.20	333.33	0.12	0.41	341.67
7	Consumption of non-households customers:	TWh	2.86	2.97	103.85	5.96	6.06	101.68
7.1	on universal service and last resort regime	TWh	0.11*	0.09	81.82	0.25	0.19	76.00
7.2	on the competitive market	TWh	2.75*	2.88	104.73	5.71*	5.87	102.80
8	Transmission–Injection component	TWh	4.86*	5.23	107.61	10.64*	10.61	99.72
9	Transmission–Extraction component	TWh	4.64*	4.76	102.59	9.89*	9.84	99.49
10	Actual transmission grid losses	TWh	0.08	0.11	137.50	0.16	0.21	131.25
11	Heat generated for delivery	Tcal	1844.46	1735.12	94.07	4126.96	3649.45	88.43
12	Heat in co-generation	Tcal	1394.67	1269.57	91.03	3129.65	2717.25	86.82

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 universal service 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.

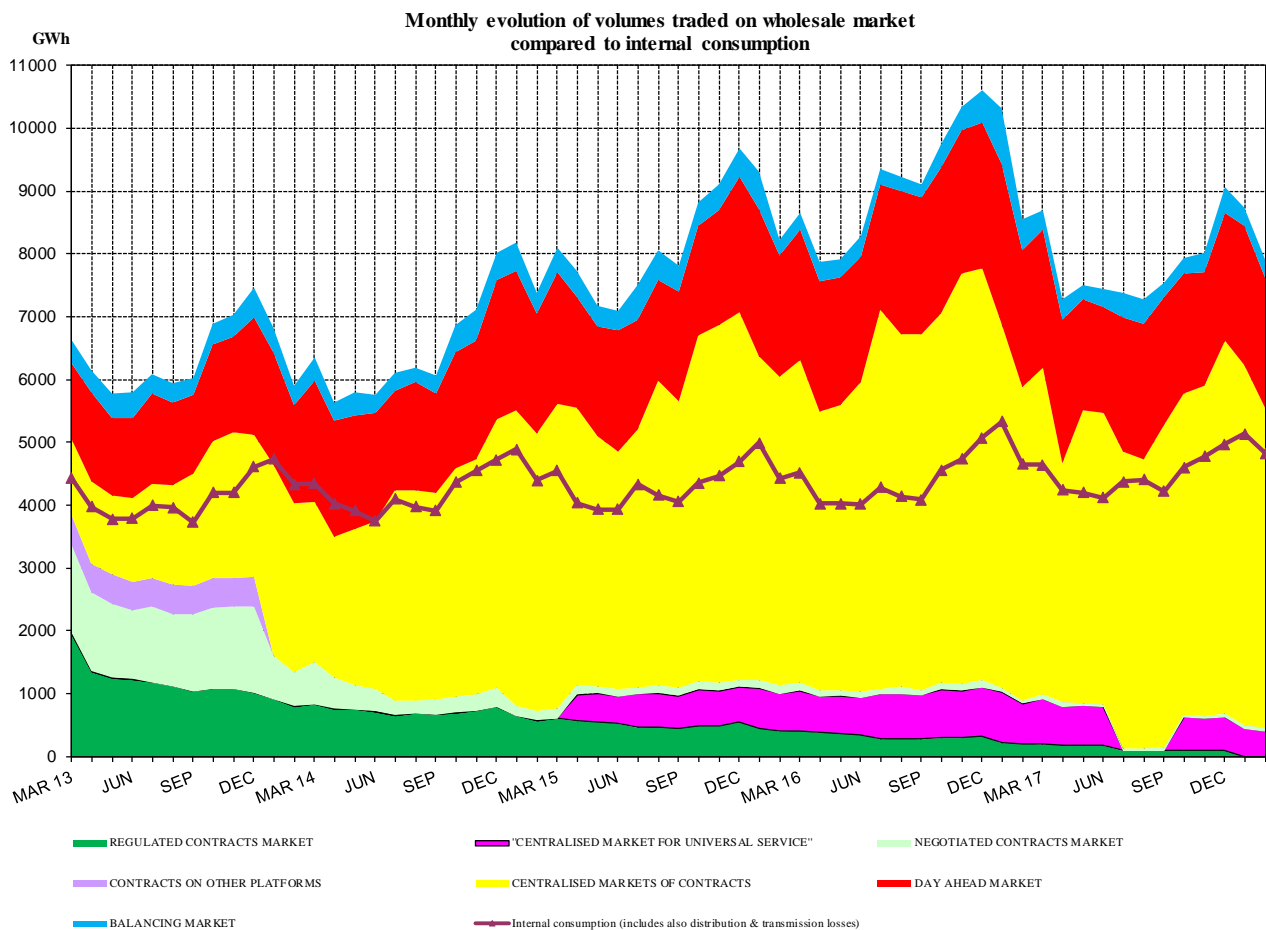
Following the entering into force of the Law no. 23/2014 subsequent to Law no. 220/2008 for establishing the system for promoting producing electricity from renewable energy sources, modified and completed by Law no. 122/2015, a specific range of RES generators may conclude negotiated bilateral contracts 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	January 2018	February 2018	February 2017
1. BILATERAL CONTRACTS' MARKET			
traded volume (GWh)	46	52	261
average price (lei/MWh)	133.80	141.96	136.17
% from internal consumption (%)	0.9	1.1	5.6
1.1. Sales on regulated contracts			
traded volume (GWh)	-	-	207
average price (lei/MWh)	-	-	128.87
% from internal consumption (%)	-	-	4.4
1.2. Sales on negotiated contracts¹⁾			
traded volume (GWh)	46	52	55
average price (lei/MWh)	133.80	141.96	163.74
% from internal consumption (%)	0.9	1.1	1.2
2. EXPORT			
traded volume (GWh) ²⁾	616	656	600
average price (lei/MWh)	156.01	176.81	209.32
% from internal consumption (%)	12.0	13.6	12.9
3. CENTRALIZED MARKETS OF CONTRACTS			
traded volume (GWh)	5736	5090	4992*
average price (lei/MWh)	204.76	199.25	178.48*
% from internal consumption (%)	111.7	105.5	107.2
3.1. Extended auction mechanism CMBC-EA³⁾			
traded volume (GWh)	2169	1904	1450*
average price (lei/MWh)	182.21	182.18	163.36
% from internal consumption (%)	42.2	39.14	31.1
3.2. Continuous negotiation mechanism CMBC-CN³⁾			
traded volume (GWh)	1747	1375	1080
average price (lei/MWh)	221.88	213.45	177.61
% from internal consumption (%)	34.0	28.5	23.2
3.3. CM-OTC mechanism³⁾			
traded volume (GWh)	1820	1811	2462
average price (lei/MWh)	215.22	206.40	187.77
% from internal consumption (%)	35.4	37.5	52.9
4. CENTRALIZED MARKET FOR UNIVERSAL SERVICE - CMUS			
traded volume (GWh)	444	401	636
average price (lei/MWh)	249.67	249.67	174.98
% from internal consumption (%)	8.7	8.3	13.7
5. DAY AHEAD MARKET			
traded volume (GWh)	2217	2085	2170
average price (lei/MWh) ⁴⁾	155.70	178.15	243.14
% from internal consumption (%)	43.2	43.2	46.6
6. INTRADAY MARKET			
traded volume (GWh)	12.6	25.3	16.2
average price (lei/MWh) ⁵⁾	107.31	119.44	233.57
% from internal consumption (%)	0.2	0.5	0.3
7. BALANCING MARKET			
traded volume (GWh)	298	285	483
% from internal consumption (%)	5.8	5.9	10.4
upward volume (GWh)	141	183	364
average negative imbalance price(lei/MWh)	277.85	286.82	383.01
downward volume (GWh)	157	102	119
average positive imbalance price (lei/MWh)	22.13	43.51	93.78
INTERNAL CONSUMPTION (GWh) (distribution and transmission losses included)	5135	4826	4658*

- 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 184.55 lei/MWh in February 2018; The average monthly price is calculated based on monthly traded volume and transaction value published by OPCOM SA.
 - 5) * The differences from the Electricity Market Monitoring Report in February 2017 are determined by the processing of the corrections reported by the economic operators.

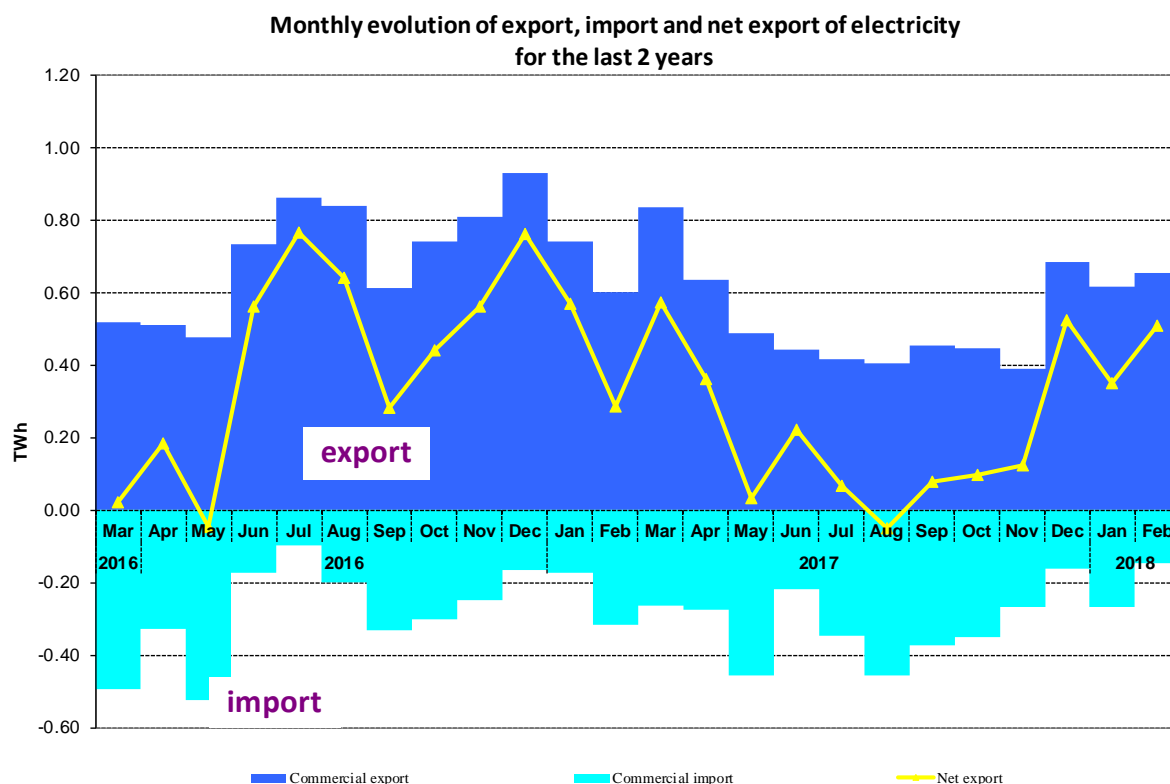
The percentage of electricity quantities from the internal consumption (see table from above) offers a dimensional reference for each of the specified markets. Prices include only the injection component of the transmission tariff. In this way being comparable within a month and making possible the comparison 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 March 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 negotiated 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:

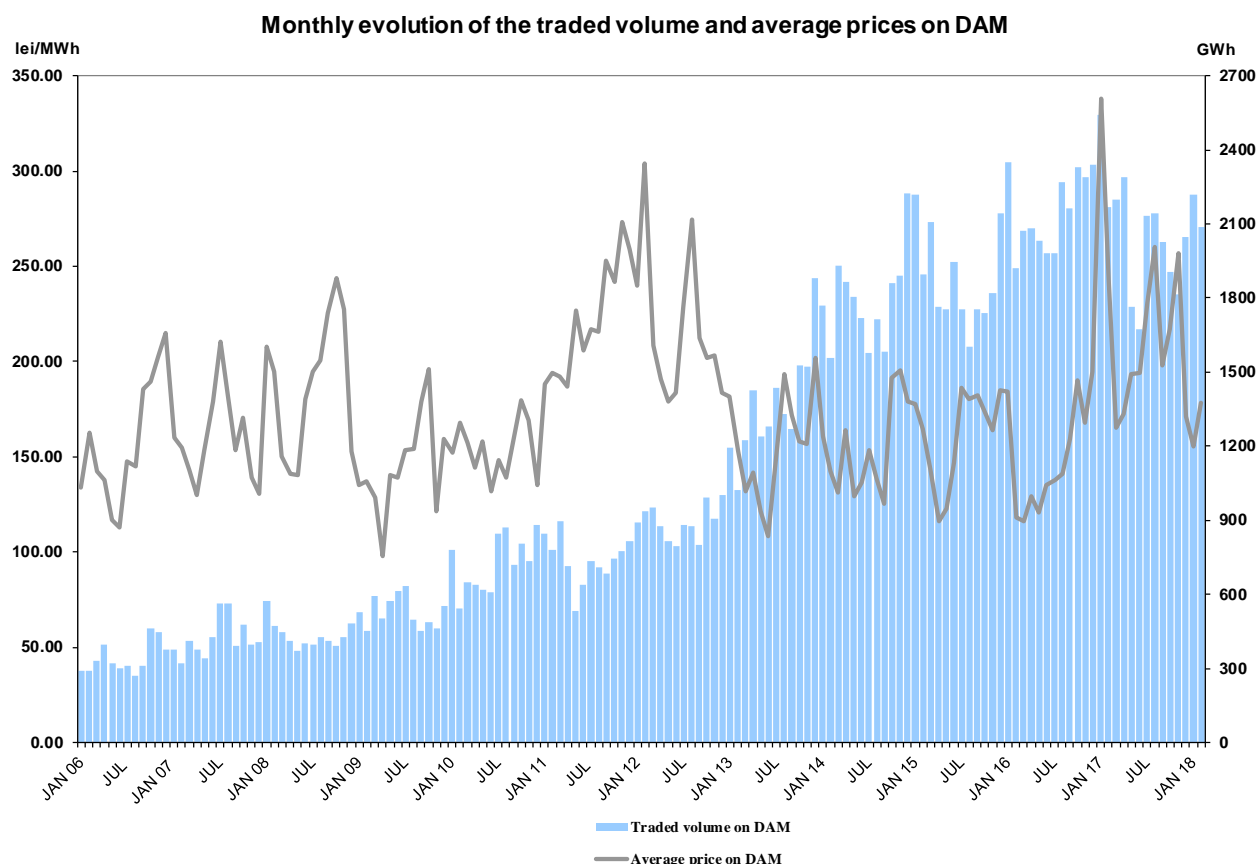


Source: Monthly reports of CNTEE Tranelectrica SA – processed by MU

The following table presents commercial export and import transactions for electricity extracted/introduced from/in transmission network. These include transaction of CNTEE Tranelectrica 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	January 2018	February 2018	February 2017
Export			
traded volume (GWh)	616	656	600
average price (lei/MWh)	156.01	176.81	209.32
% from internal consumption	12.0	13.6	12.9
in which, for coupled DAM			
traded volume (GWh)	81	152	86
average price (lei/MWh)	107.39	162.41	167.31
% from internal consumption	1.6	3.1	1.8
Import			
traded volume (GWh)	267	147	315
average price (lei/MWh)	177.58	199.50	277.26
% from internal consumption	5.2	3.0	6.8
in which, for coupled DAM			
traded volume (GWh)	161	77	146
average price (lei/MWh)	176.56	193.87	325.11
% from internal consumption	3.1	1.6	3.1

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



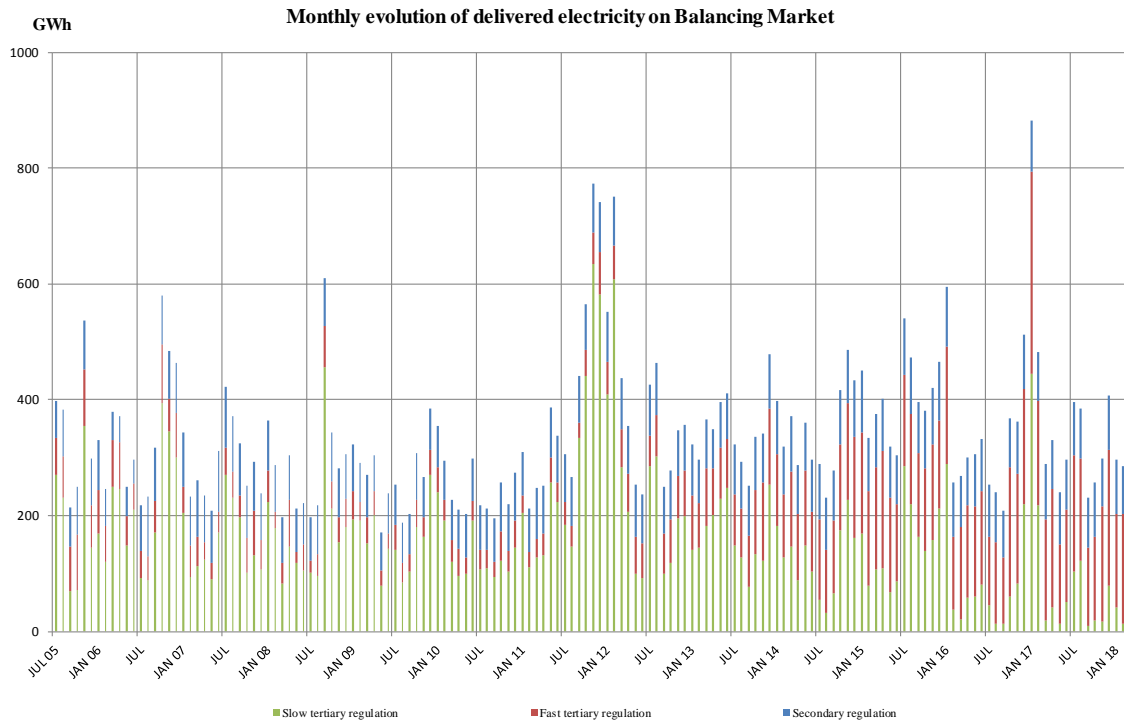
Source: Monthly reports of Opcom SA and CNTEE Transelectrica SA – processed by MU

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 February 2018 is presented in the following table:

February 2018	Dispatch order (GWh)	Delivered electricity (GWh)	Deviation (%)
Secondary regulation	82	82	
<i>upward</i>	38	38	
<i>downward</i>	44	44	
Fast tertiary regulation	200	190	5
<i>upward</i>	137	132	3
<i>downward</i>	63	58	9
Slow tertiary regulation	14	13	6
<i>upward</i>	13	12	5
<i>downward</i>	1	1	12
TOTAL	296	285	
<i>upward</i>	188	183	
<i>downward</i>	107	102	
INTERNAL CONSUMPTION		4826	
<i>% share of traded volumes from internal consumption</i>		5.9%	

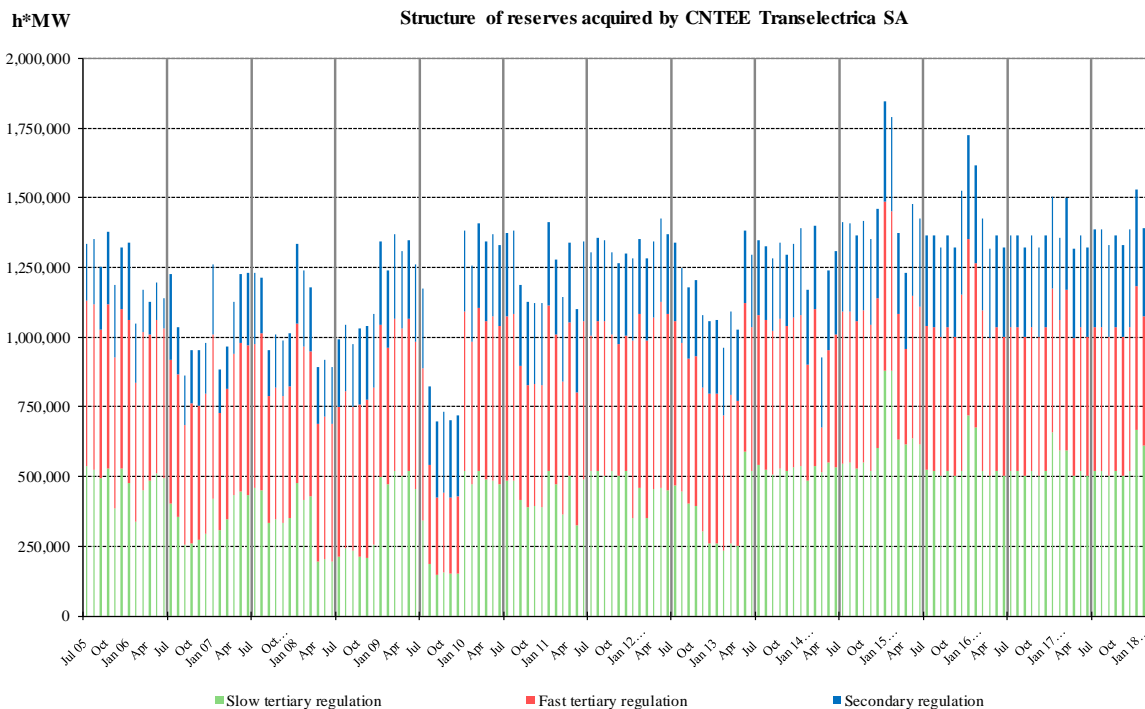
Source: Monthly reports of CNTEE Transelectrica SA – processed by MU

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



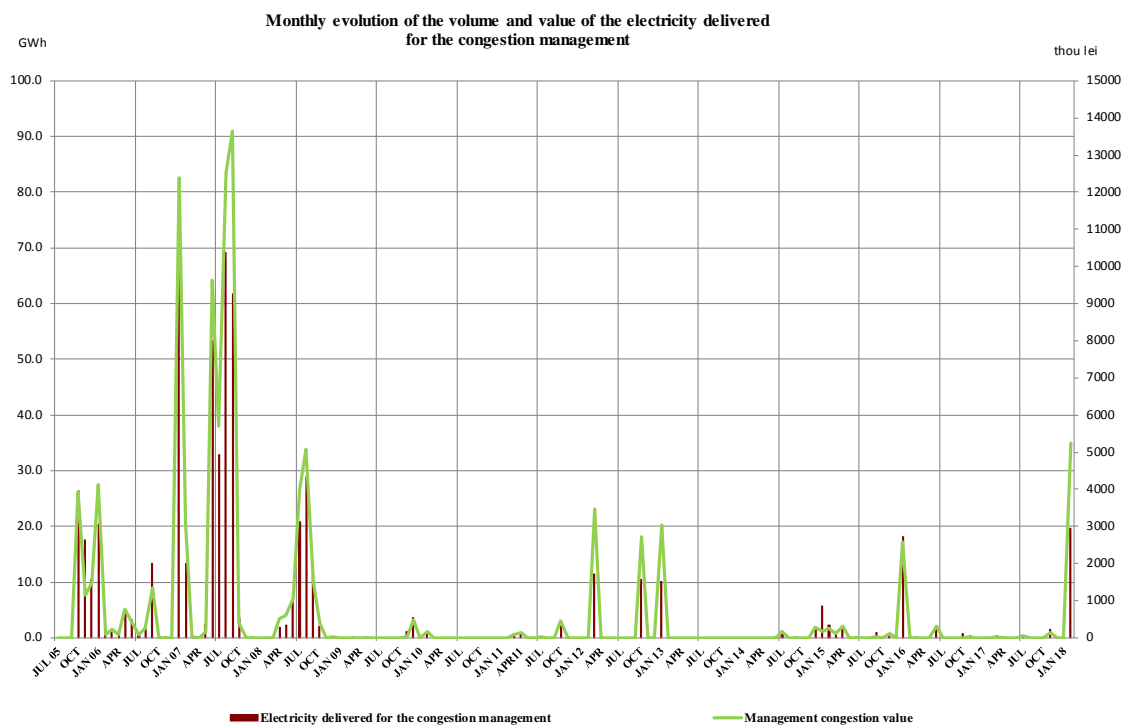
Source: Monthly reports of CNTEE Tranelectrica SA – processed by M

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 Tranelectrica SA since July 2005 is showed in the graph below:



Source: Monthly reports of CNTEE Tranelectrica 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 February 2018 compared with the similar period of 2017, the structure of electricity sales obligations contracted before delivery interval by the electricity generators with dispatchable units was the following:

Transaction type	-GWh-	
	February 2017	February 2018
	1	2
Regulated contracts to suppliers of last resort - hydro generator	100.20	-
Regulated contracts to suppliers of last resort - nuclear generator	106.54	-
Negotiated contracts to suppliers	54.76	52.07
Contracts concluded on Opcom centralized markets:	2687.83*	3262.97
CMBC-EA	1088.59*	1703.16
CMBC-CN	822.06	859.23
CM-OTC	777.18	700.58
Centralized market for universal service	410.37	384.44
DAM	1459.35	1630.64
Intraday	6.24	14.78
Supply contracts to final customers. from which:	394.03	418.58
Households*	0.56	0.63
Non-households	393.47	443.97
Total	5219.32*	5789.51

Source: Monthly reports of generators – processed by MU

* The differences from the Electricity Market Monitoring Report in February 2017 are determined by processing the corrections reported by the economic operators.

Suppliers

In February 2018, 98 companies with main activity the supply of electricity, concluded transactions on the electricity market; from those, 30 suppliers traded exclusively on the wholesale market and 68 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

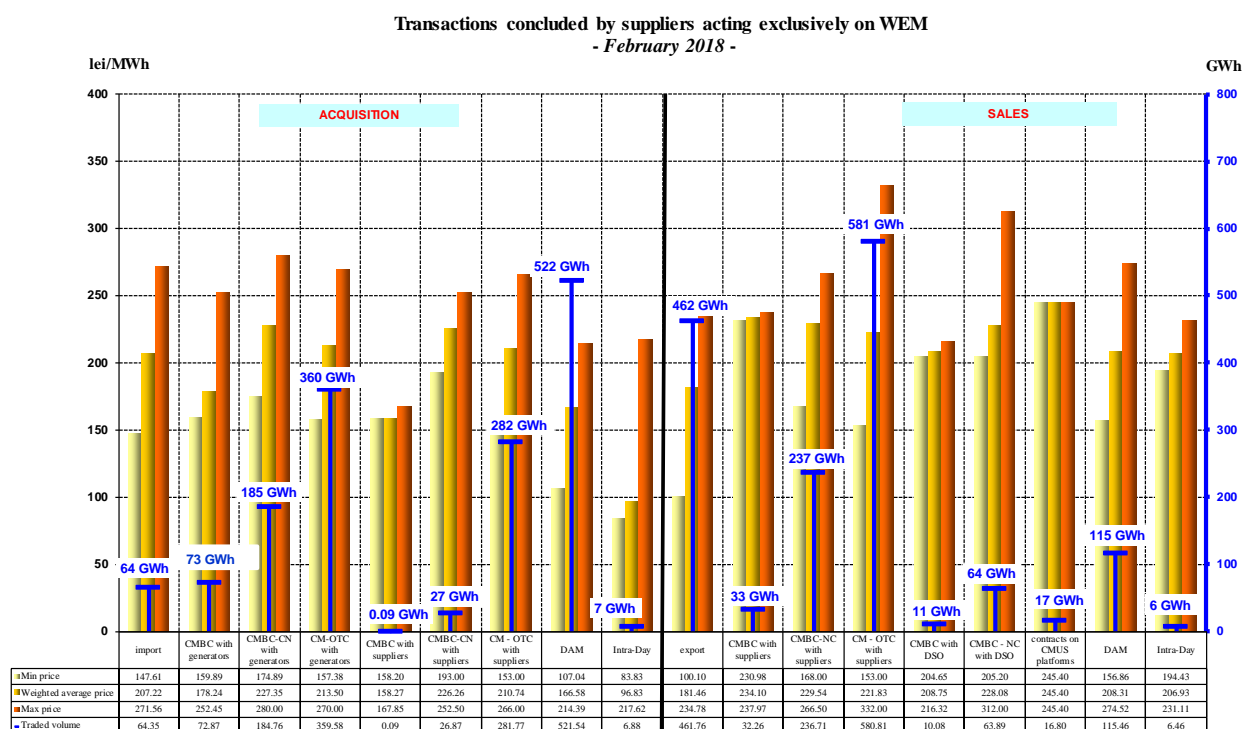
The following table shows the activity for February 2018 of the suppliers acting exclusively on WEM, acquisitions and sales being split by categories of markets participants, compared with similar period of 2017:

-GWh-

Transactions structure of suppliers acting exclusively on WEM	February 2017	February 2018
Purchase		
Import	160.60	64.35
Contracts concluded on Opcom centralized markets:	1420.02	925.95
- on CMBC-EA with generators	142.97	72.87
- on CMBC-CN with generators	385.72	184.76
- on CM-OTC with generators	248.39	359.58
- on CMBC-EA with other suppliers	0.00	0.09
- on CMBC-CN with other suppliers	40.31	26.87
- on CM-OTC with other suppliers	602.63	281.77
DAM	122.67	521.54
Intraday market	1.10	6.88
Sales		
Export	432.91	461.76
Contracts concluded on Opcom centralized markets:	812.51	923.75
- on CM-OTC with generators	43.68	0.00
- on CMBC-EA with other suppliers	33.37	32.26
- on CMBC-CN with other suppliers	106.42	236.71
- on CM-OTC with other suppliers	622.31	580.81
- on CMBC-EA with DO	0.01	10.08
- on CMBC-CN with DO	0.00	63.89
- on CM-OTC with DO	6.72	0.00
CMUS with last resort suppliers	156.86	16.80
DAM	293.86	115.46
Intraday market	8.04	6.46

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 February 2018.



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 February 2018 compared with the similar period of 2017:

Transactions' structure of suppliers acting on REM (suppliers of last resort excluded)	-GWh -	
	February 2017	February 2018
Purchase		
Import	8.17	5.23
Negotiated contracts with generators	55.74	54.50
Contracts concluded on Opcom centralized markets:	2487.15	1985.41
- on CMBC-EA with generators	660.70	976.46
- on CMBC-CN with generators	352.15	291.47
- on CM-OTC with generators	342.66	167.88
- on CMBC-EA with other suppliers	171.92	63.01
- on CMBC-CN with other suppliers	108.33	92.65
- on CM-OTC with other suppliers	851.39	393.96
Negotiated contracts with undispatchable generators (others than under Law 23/2014 and Law 122/2015)*	10.90	8.25
Negotiated contracts with undispatchable generators (Law 23/2014 and Law 122/2015)**	21.06	14.26
DAM	453.23	301.63
Intraday market	5.51	8.50

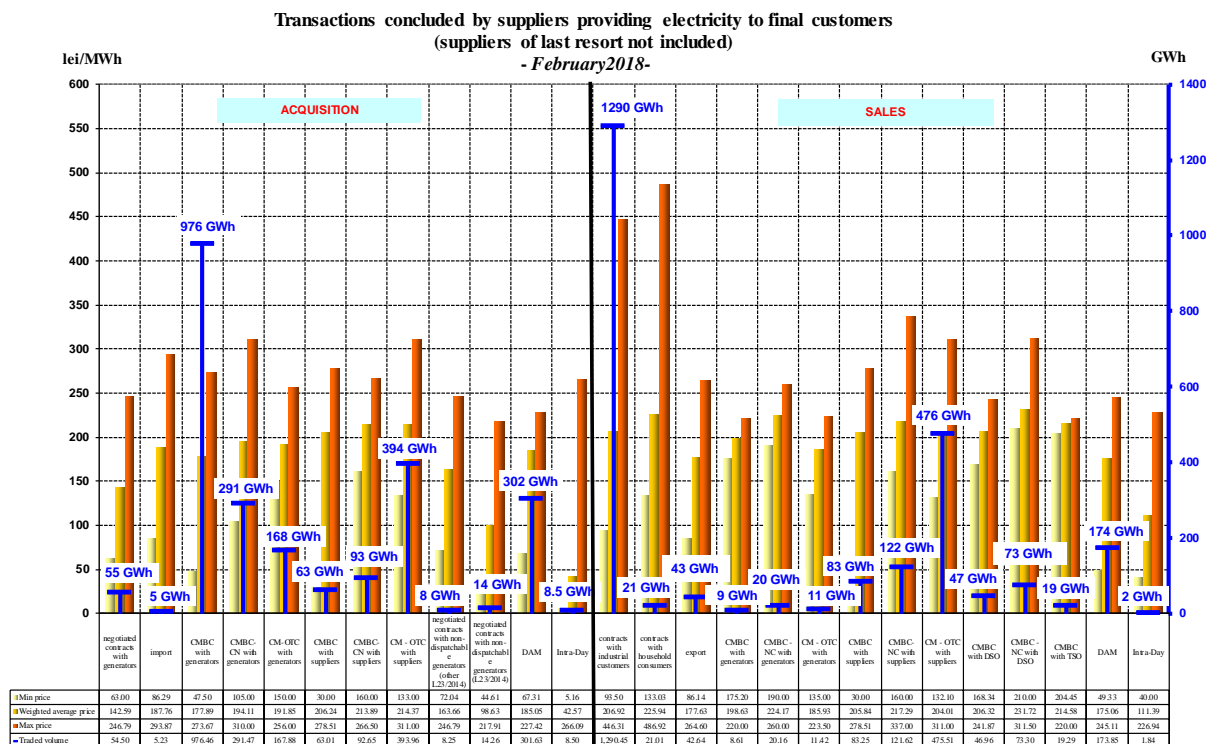
Transactions' structure of suppliers acting on REM (without the suppliers of last resort)	Februarie 2017	Februarie 2018
Sales		
Export	81.29	42.64
Contracts concluded on Opcom centralized markets:	1442.64	860.12
- on CMBC-EA with generators	14.54	8.61
- on CMBC-NC with generators	19.68	20.16
- on CM-OTC with generators	10.08	11.42
- on CMBC-EA with other suppliers	141.90	83.25
- on CMBC-NC with other suppliers	127.68	121.62
- on CM-OTC with other suppliers	952.87	475.51
- on CMBC-EA with DO	164.83	46.96
- on CMBC-NC with DO	4.20	73.30
- on CMBC-EA with TSO	6.85	19.29
CMUS with last resort suppliers	68.88	0.00
DAM	229.80	173.85
Intraday market	0.17	1.84
Household customers***	11.12	21.01
Non-household customers	1268.37	1290.45

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

*negotiated trades concluded with undispachable 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 undispachable 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 February 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 SU and UI regime is presented in the table below for February 2018 compared to similar period of 2017:

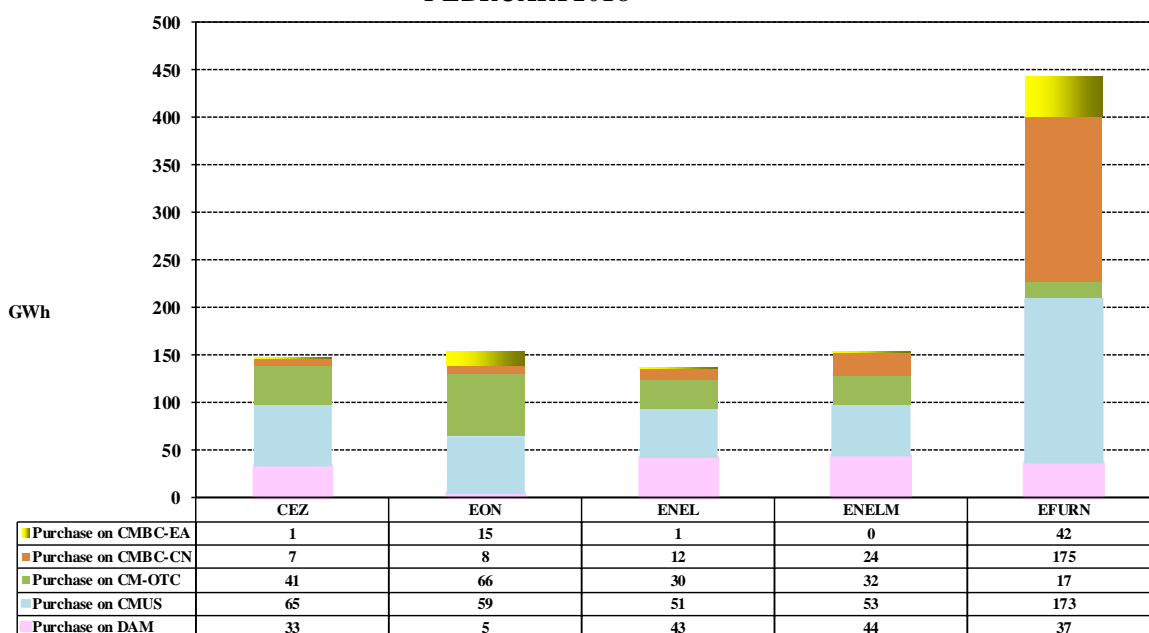
- GWh -		
Transactions structure of suppliers of last resort for supplying the customers in SU and UI regime	February 2017	February 2018
Regulated contracts with generators	206.73	0.00
Negotiated contracts with undispachable generators (L23/2014 and L122/2015)*	0.02	0.01
Contracts concluded on Opcom centralized markets:	27.65	471.79
- contracts on CMBC-EA with generators	11.21	26.05
- contracts on CMBC-CN with generators	0.00	70.70
- contracts on CM-OTC with generators	0.07	11.95
- contracts on CMBC-EA with other suppliers	0.00	33.87
- contracts on CMBC-CN with other suppliers	3.43	155.50
- contracts on CM-OTC with other suppliers	12.93	173.71
Centralized market for universal service:	636.10	401.24
- contracts on CMUS with generators	410.37	384.44
- contracts on CMUS with suppliers	225.74	16.80
Transactions concluded on DAM:	219.14	137.54
- purchase	228.49	162.09
- sales	9.36	24.55

*negotiated trades concluded with undispachable 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 the main generators on regulated contracts is presented in the following graph for February 2018:

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



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 in 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:

Transactions' structure of suppliers of last resort for universal service	-GWh-			
	February 2017		February 2018	
	Quantity [GWh]	Average price [lei/MWh]	Quantity [GWh]	Average price [lei/MWh]
Contracts concluded on Opcom centralized markets:			414.21	235.70
o on CMBC-EA with generators			23.95	234.37
o on CMBC-CN with generators			32.68	228.42
o on CM-OTC with generators		-	11.10	234.09
o on CMBC-EA with other suppliers			33.60	234.18
o on CMBC-CN with other suppliers			151.91	236.51
- on CM-OTC with other suppliers			160.97	175.57
Contracts concluded on CMUS:	636.10	174.98	401.24	249.67
- contracts on CMUS with generators	410.37	176.38	384.44	249.86
- contracts on CMUS with suppliers	225.74	172.44	16.80	245.40
Transactions concluded on DAM:	159.89	-	116.47	218.92
o purchase	167.04	250.83	138.98	203.40
o sales	7.15	189.70	22.51	123.07
TOTAL	796.00	190.77	931.92	239.62

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 February 2018 compared to similar previous period:

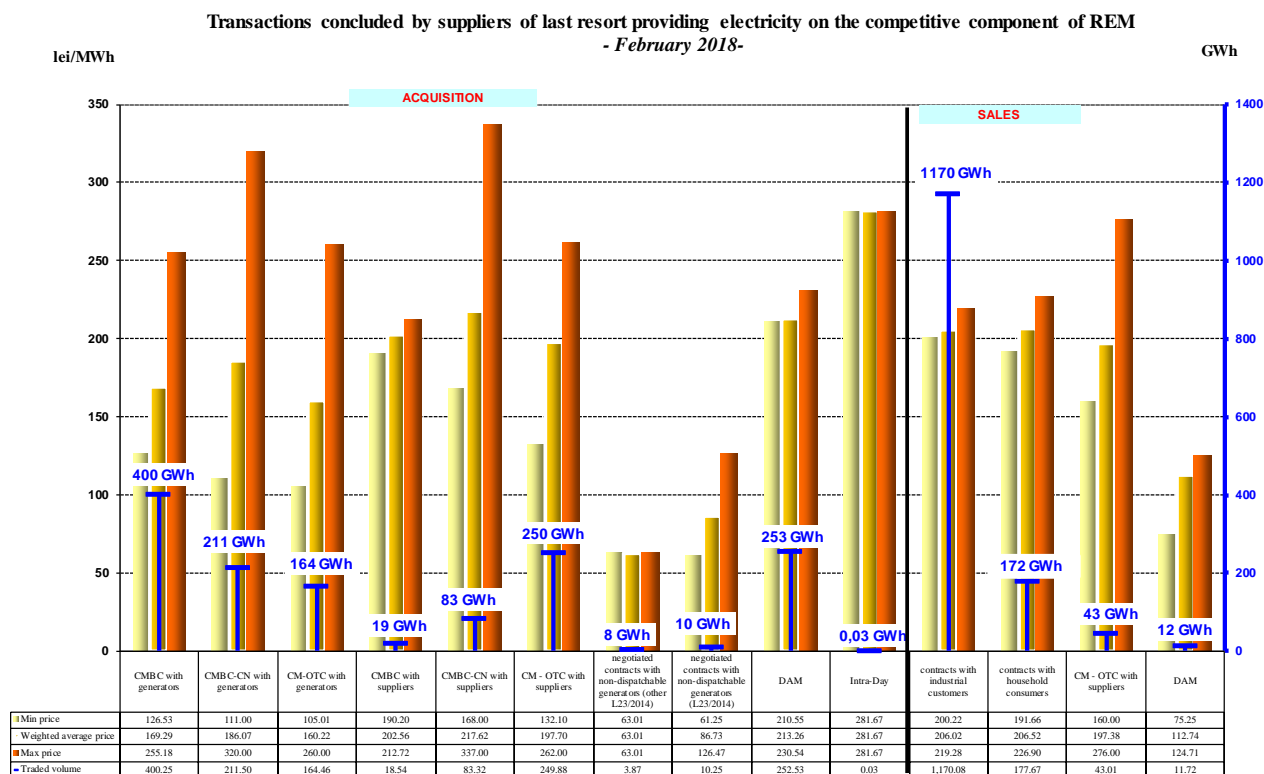
Transactions' structure of suppliers of last resort for the competitive segment of REM	-GWh-	
	February 2017	February 2018
Aquisitions		
Contracts concluded on Opcom centralized markets:	605.81	1127.94
- on CMBC-EA with generators	149.44	400.25
- on CMBC-CN with generators	42.46	211.50
- on CM-OTC with generators	168.88	164.46
- on CMBC-EA with other suppliers	3.36	18.54
- on CMBC-CN with other suppliers	82.02	83.32
- on CM-OTC with other suppliers	159.65	249.88
Negotiated contracts with undispachable generators (others than L23/2014 and 122/2015)*	0.00	3.87
Negotiated contracts with undispachable generators (L23/2014 and 122/2015)*	13.67	10.25
DAM	559.55	252.53
PI	0.03	0.03
Sales		
Contracts concluded on Opcom centralized markets:	49.06	43.01
- on CM-OTC with other suppliers	49.06	43.01
DAM	0.00	11.72
Household customers**	51.20	177.67
Non-household customers	1113.87	1170.08

*negotiated trades concluded with undispachable 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 February 2018:



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

Main distribution operators

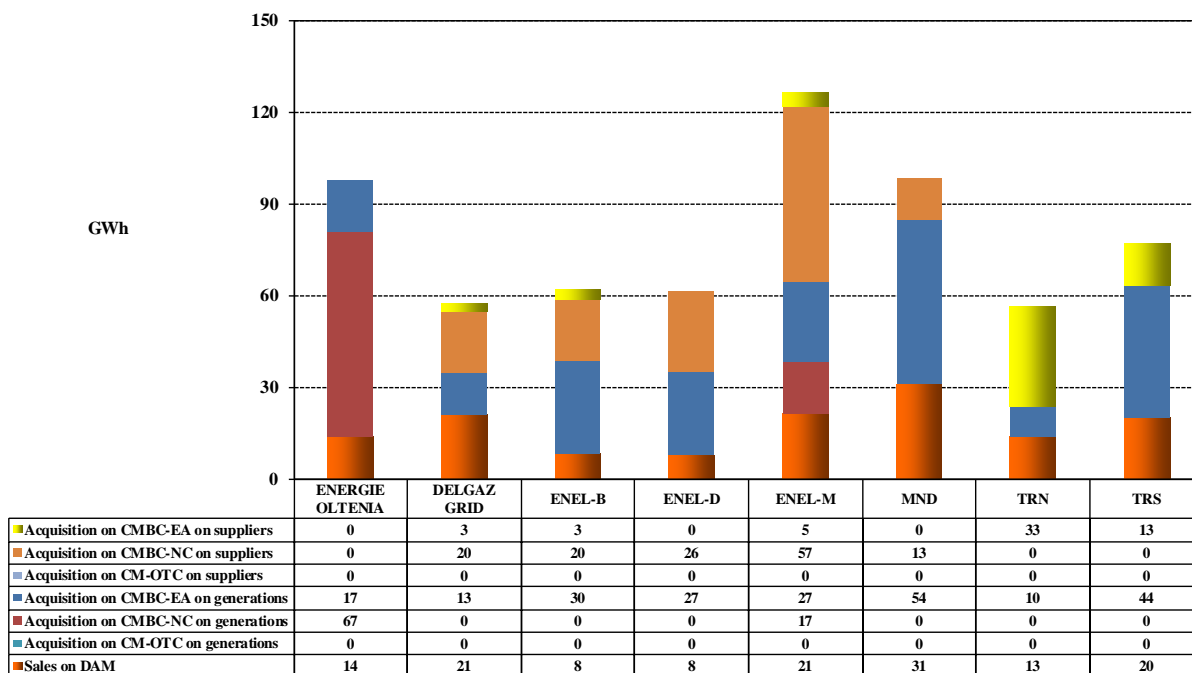
The following table shows the electricity acquisition structure of main distribution operators (before the delivery interval), for covering the distribution network losses, for February 2018 compared with similar previous period:

Transactions' structure	February 2017	February 2018
Contracts concluded on Opcom centralized markets:	370.13	499.75
- CMBC-EA with generators	140.61	221.48
- CMBC-CN with generators	50.40	84.04
- CM-OTC with generators	3.36	0.00
- CMBC-EA with suppliers	164.84	57.04
- CMBC-CN with suppliers	4.20	137.19
- CM-OTC with suppliers	6.72	0.00
Transactions concluded on Intraday market	-0.26	0.08
- purchase	0.03	0.08
- sales	0.29	0.00
Transactions concluded on DAM:	275.56	133.75
- purchase	275.56	136.38
- sales	0.00	2.63

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 February 2018:

**Electricity acquisition of distribution operators for covering the distribution losses
February 2018**



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 existence 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.

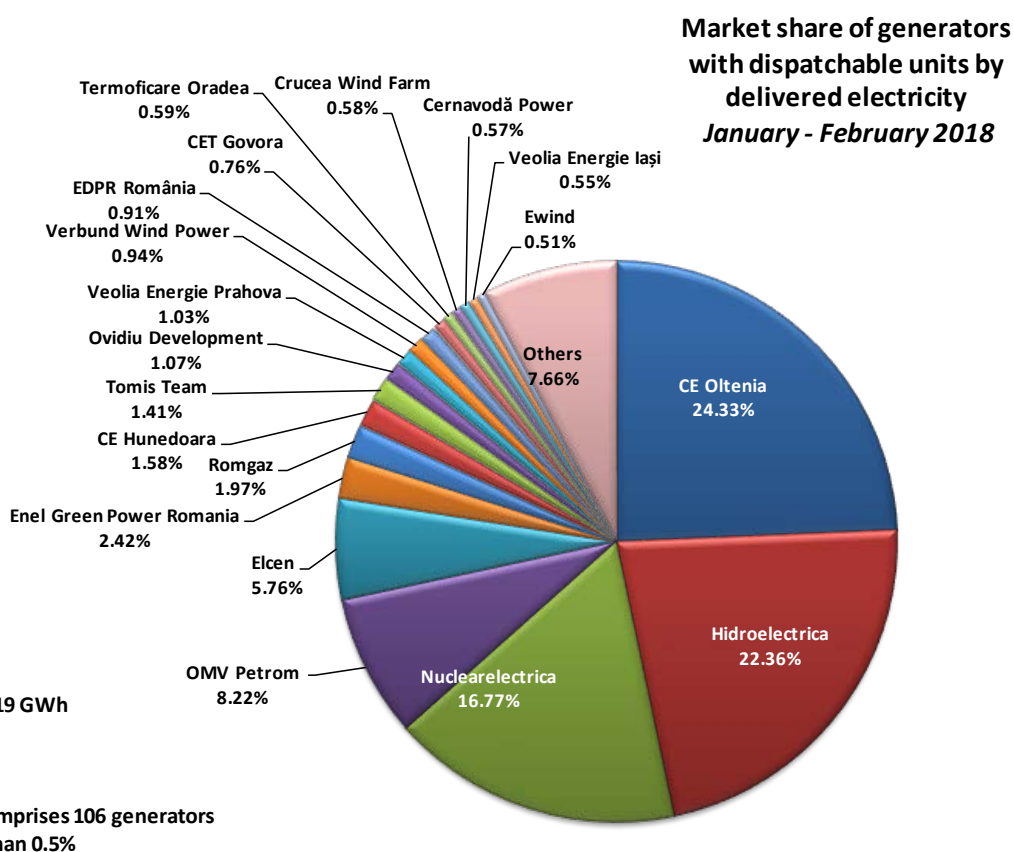
These concentration indicators may be defined for the wholesale market (electricity market or ancillary services market) or for each of its components where direct competition takes place.

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 February 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 - February 2018 -	C1 (%)	C3 (%)	HHI
Value	24.19	63.16	1490



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 effectively delivered electricity, for each type of regulation defined within the Commercial Code and they are presented in the following table for February 2018:

Structure/concentration indicators of BM - February 2018 -	Regulation					
	Secondary		Fast tertiary		Slow tertiary	
	upward	downward	upward	downward	upward	downward
C1 - % -	51	51	74	30	93	90
C3 - % -	98	98	88	64	98	100
HHI	4295	4276	5637	1735	8630	8168

Source: Monthly reports of CNTEE Tranelectrica 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 Tranelectrica 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 characterize the regulated component of the Ancillary Services Market, compared with the competitive one, for the month of February 2018.

Concentration indicators on Ancillary Services Market - February 2018 -		Secondary reserve	Fast tertiary reserve	Slow tertiary reserve
regulated component	contracted quantity (h*MW)	13440	13440	450240
	C1 (%)	100	100	68.7
	C3 (%)	100	100	100
competitive component	contracted quantity (h*MW)	302960	451360	161280
	C1 (%)	57.9	77.3	36.3
	C3 (%)	100	93.2	100
	HHI	4946	6117	3361

Source: Monthly reports of CNTEE Tranelectrica 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 applicable 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 - February 2018 -	C1 (%)	C3 (%)	HHI
Selling	19.79	40.63	774
Buying	16.82	31.85	563

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 correlation 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 developed 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.

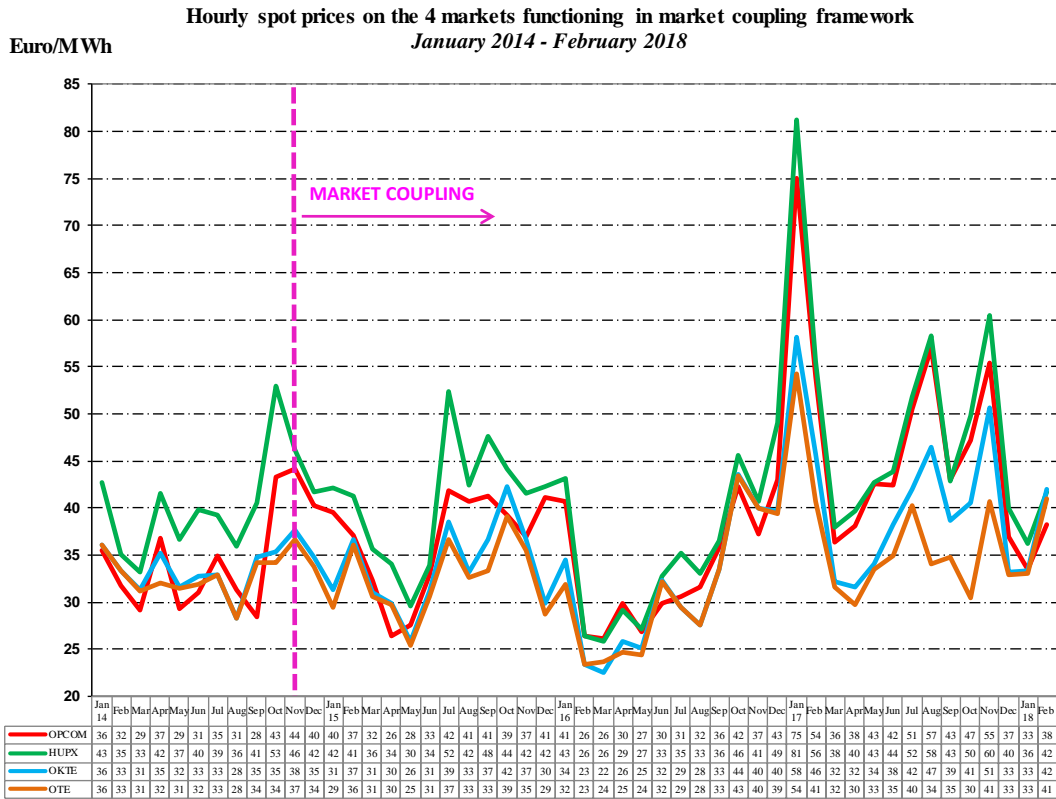
According to EU legislation, coordinated cross border capacity allocation is under the governance of the transmission system operators from the 4 countries and the allocation model to be used is the default allocation on DAM of the available interconnection capacity.

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.

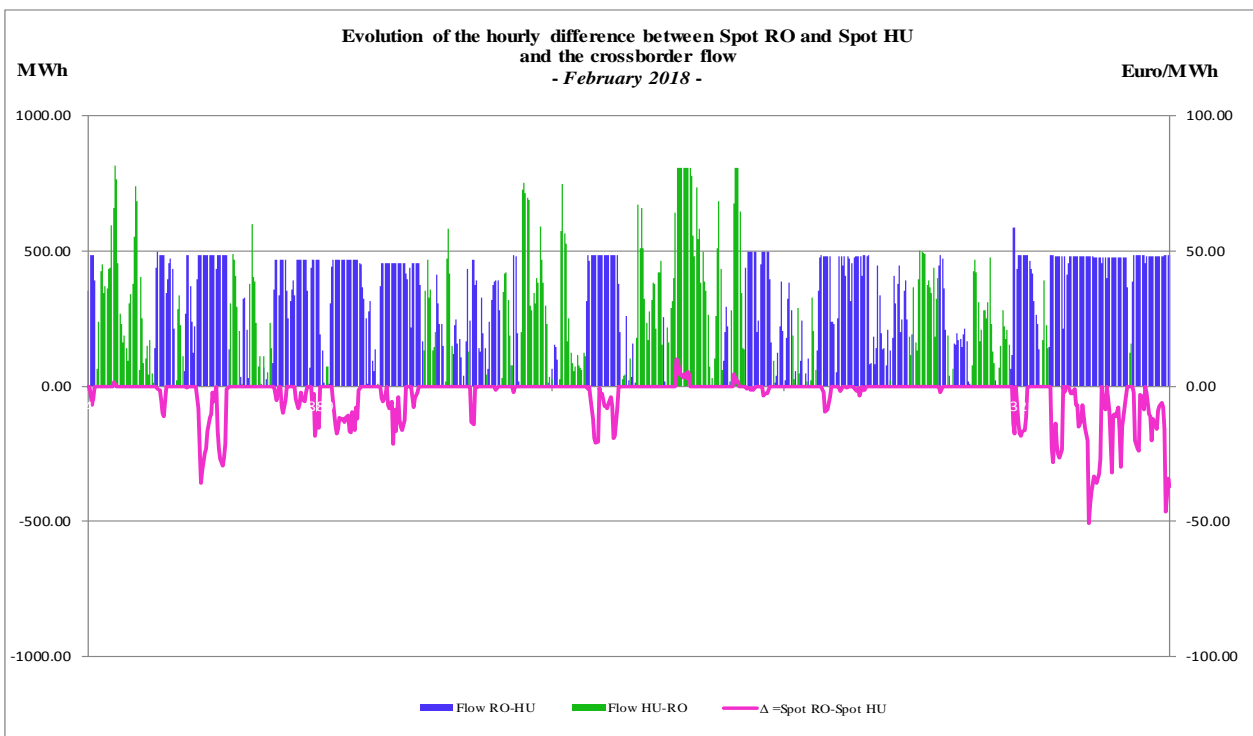
Particularly, for Hungarian border, if 80% from the lowest value of the ATC resulted for monthly subperiods is lower than 80 MW. ATC for monthly allocation will be 80% from the ATC calculated for each subperiod incremented with the already allocated capacity at the yearly auction but which has been returned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



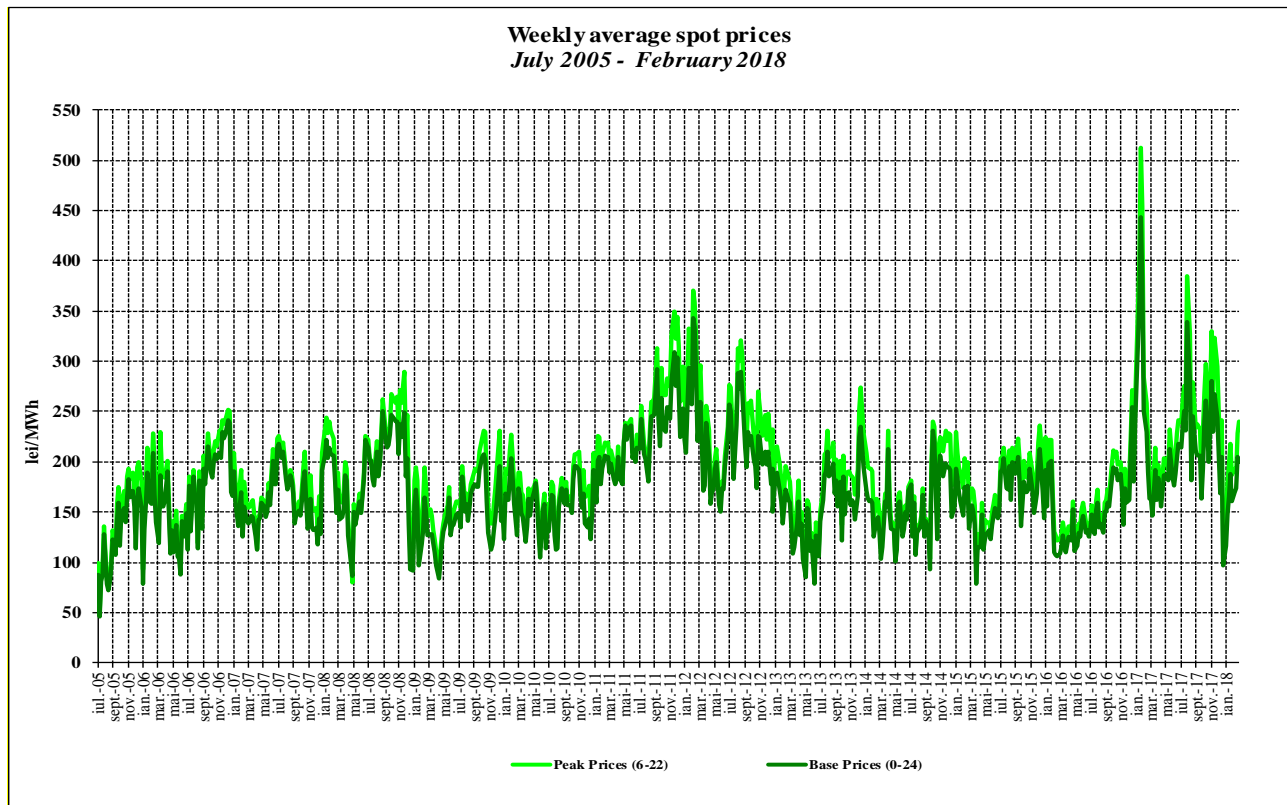
Source: Monthly reports of Opcom SA – processed by MU

The following graph presents the evolution of February 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:

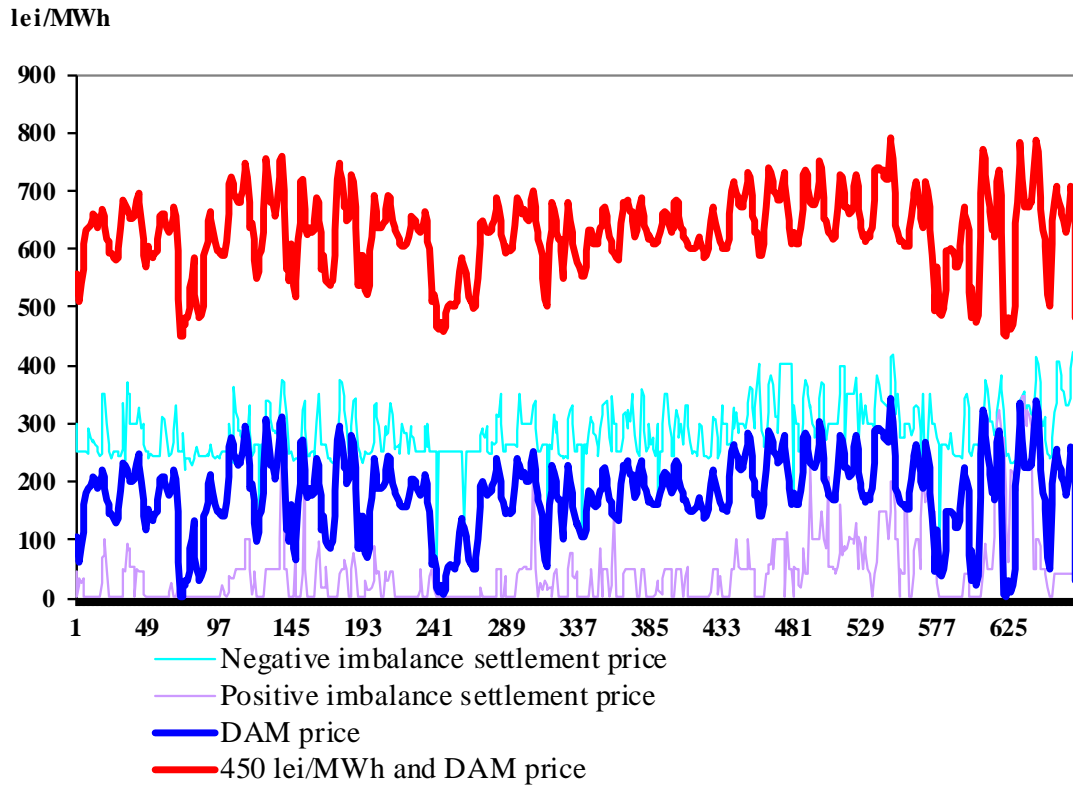


Source: Daily reports of Opcom SA – processed by MU

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.

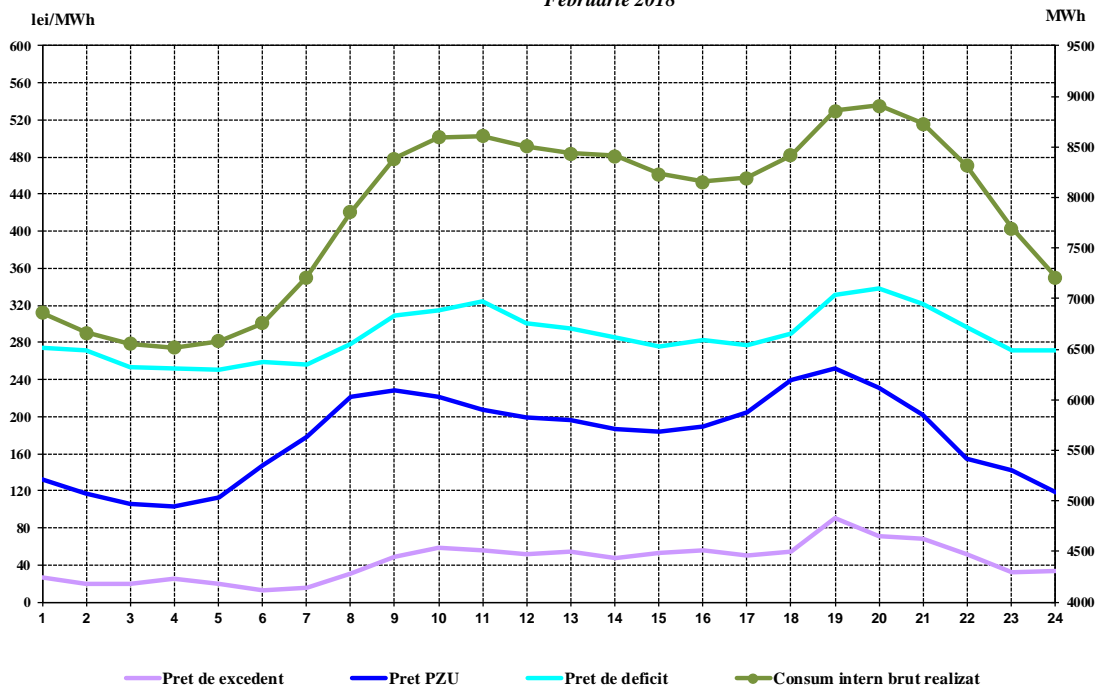
The settlement prices (MCP on DAM, negative imbalance settlement price and positive imbalance settlement price) are represented on the same graph, showing the two markets correlation degree. In the first graph the prices are expressed in hourly values, in the second graph in hourly average values compared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

Hourly settlement prices February 2018



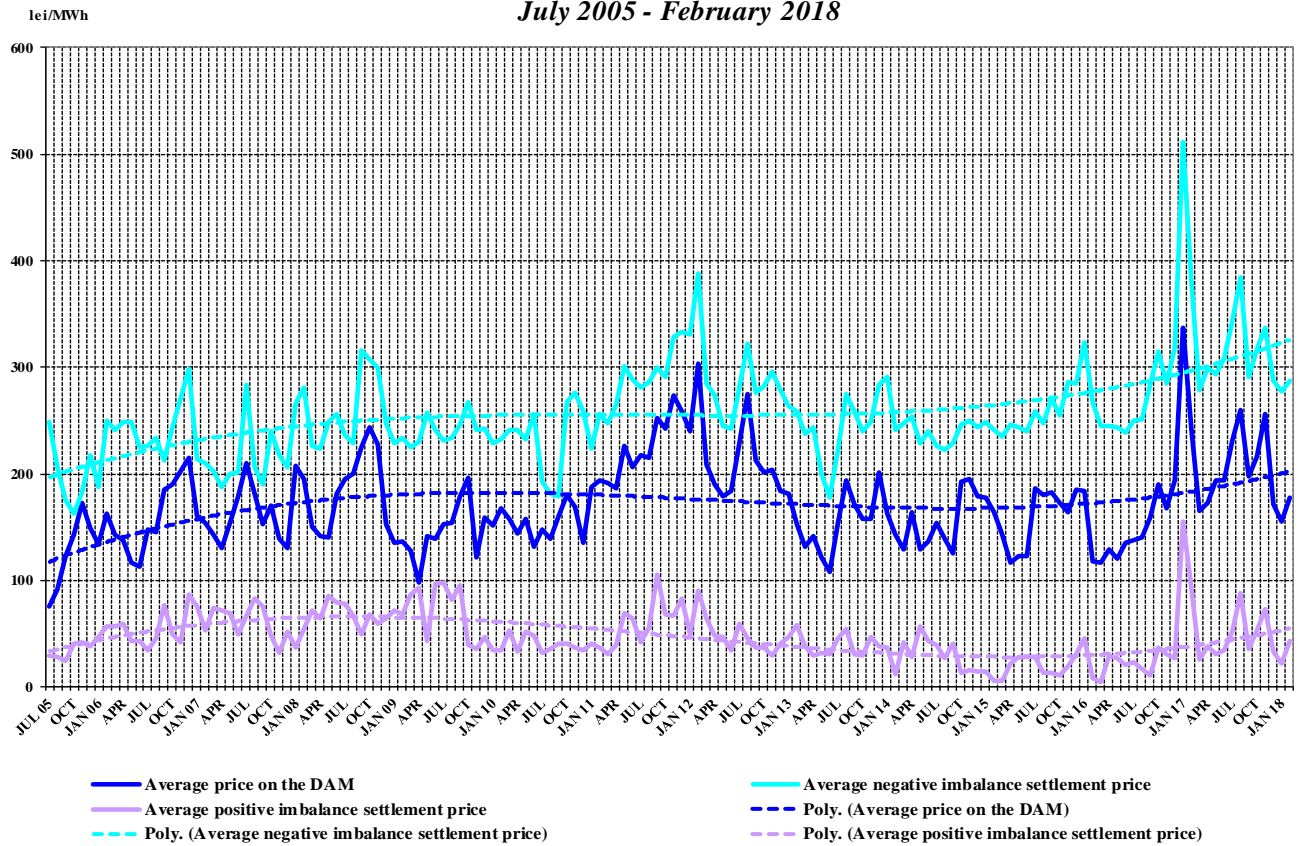
Source: Daily/monthly reports of Opcom SA – processed by MU

Valori medii orare ale preturilor de decontare si ale consumului intern brut realizat Februarie 2018



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

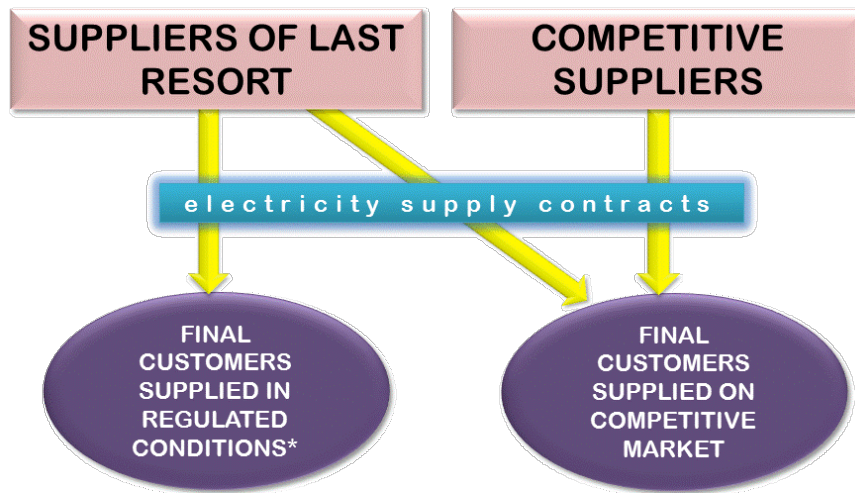
Monthly average prices on DAM and BM
July 2005 - February 2018



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

III. RETAIL ELECTRICITY MARKET

1. Structure of the retail electricity market

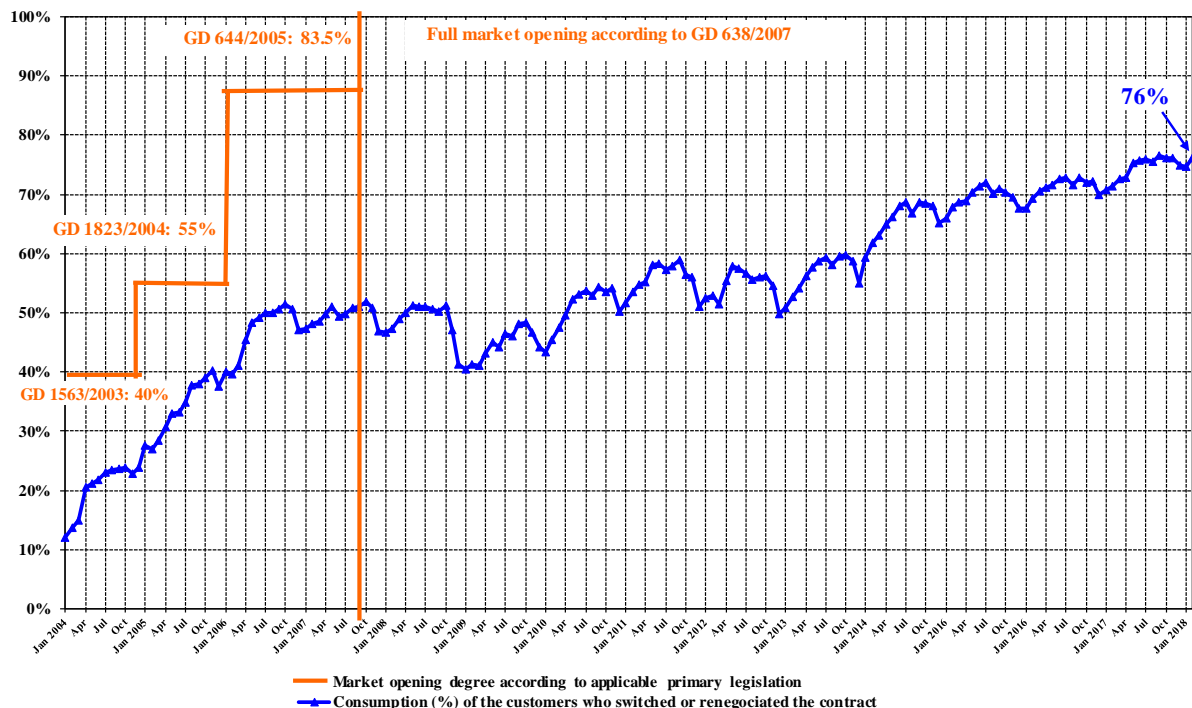


* according to art. 53 (2) and art. 55 (1) from Electricity and Gas Law no. 123/2012

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 – February 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 - February 2018

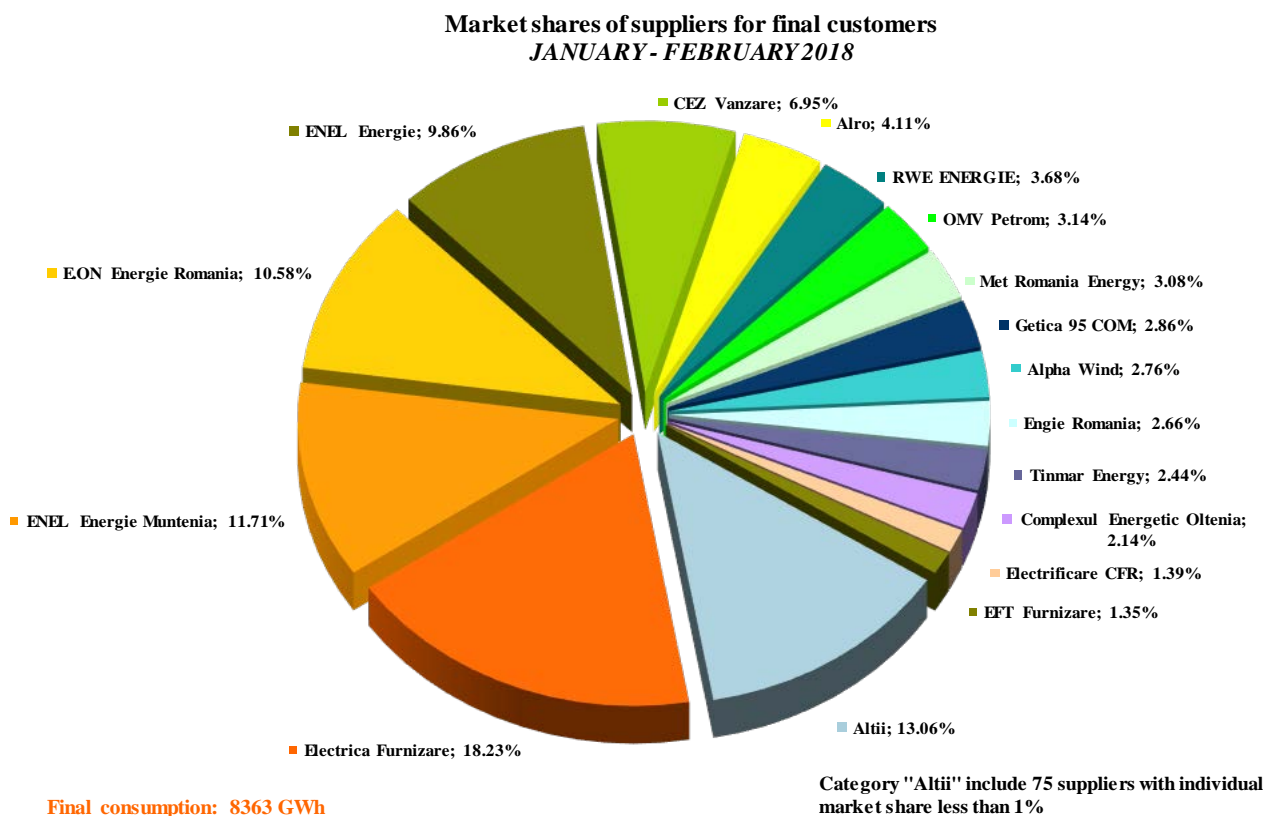


Source: Monthly reports of the final customers' suppliers – processed by MU

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:

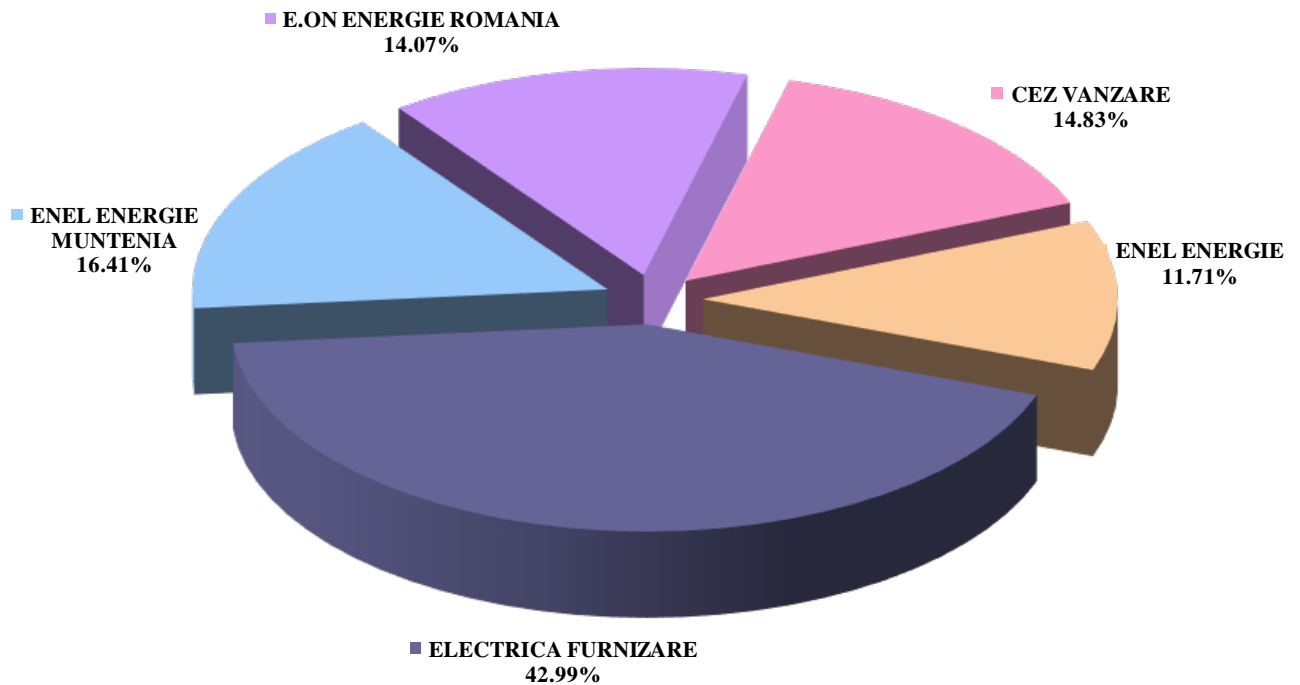
- a) for all suppliers acting on REM. including the suppliers of last resort, based on the electricity supplied to the final customers (on regulated. Competitive Market Component and last resort tariffs) in US and last resort regime, as well as to the customers who switched their supplier or renegotiated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

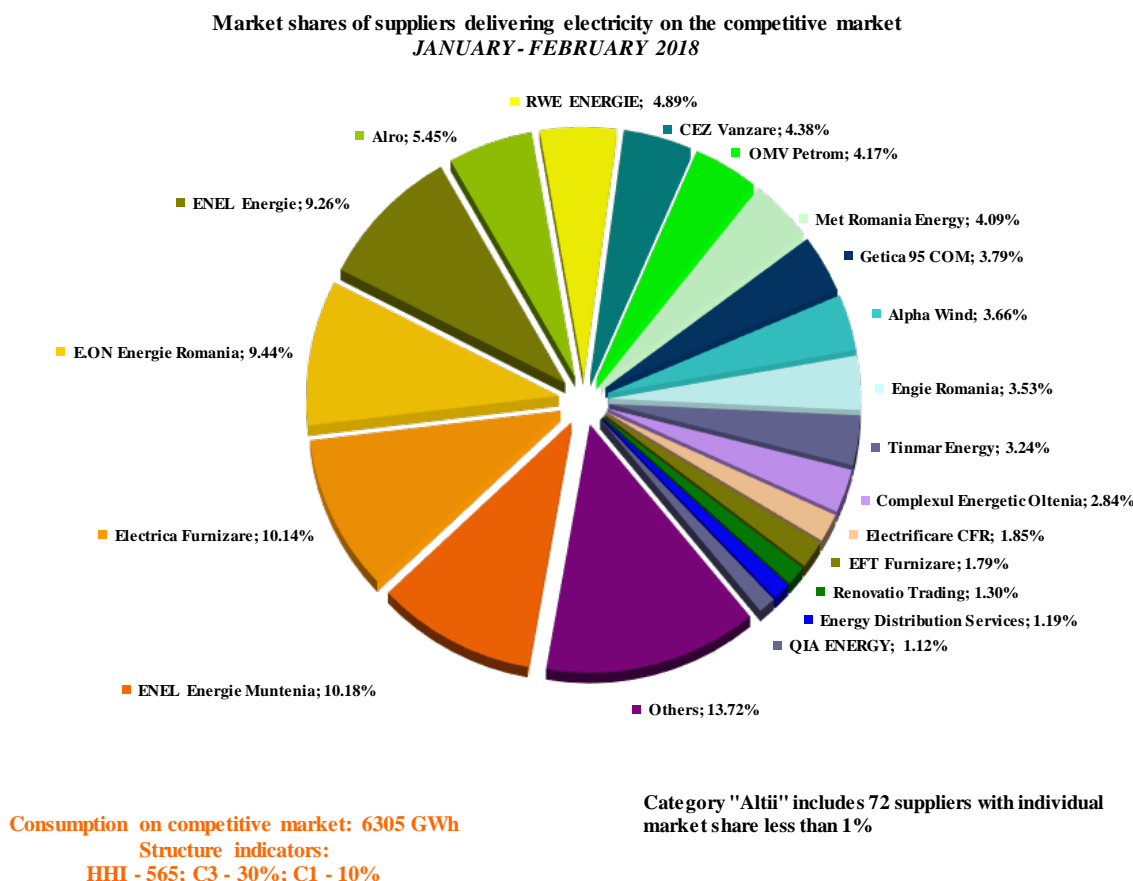
**Market shares of suppliers of last resort on US and last resort regime
JANUARY - FEBRUARY 2018**



Consumption of customers supplied CMC and last resort tariffs: 2058 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 negotiated 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).

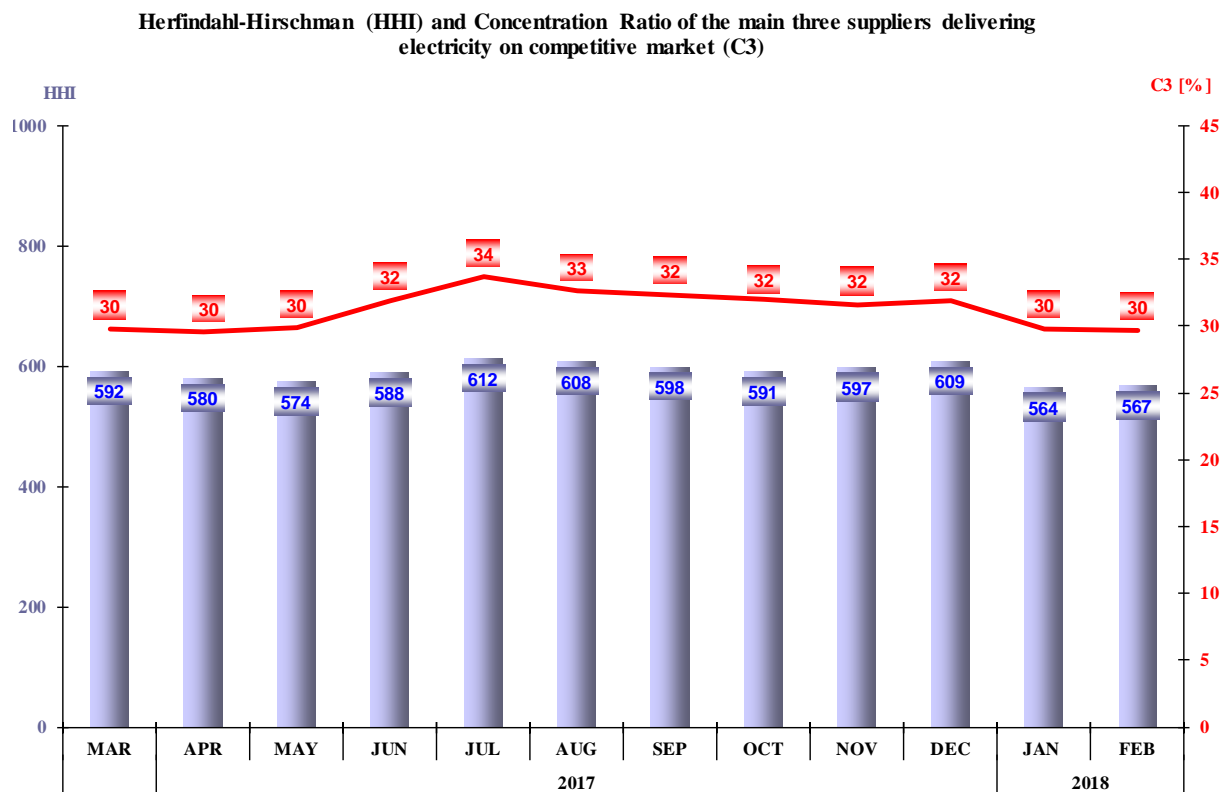
The analysis of the competitive suppliers' activity on the competitive REM component compared to their activity on the WEM is developed based on the weight of the electricity sold to final customers in total electricity sales. The table below presents the number of suppliers acting on the REM, grouped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

Number of suppliers	Share of sales to final customers from total sales transactions			
	100%	75% - 100%	50% - 75%	<50%
Competitive	7	20	14	22
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 February 2018 in the following graph:



Source: Monthly reports of the suppliers – processed by MU

The tables below shows the values of structure indicators of competitive component of REM for and the number of active suppliers in February 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 - Feb 2018	Consumption tranches - Non-household customers							
	IA	IB	IC	ID	IE	IF	IG	Total
C1 - % -	35	24	18	11	17	15	20	10
C3 - % -	72	51	40	29	44	36	44	29
HHI	2110	1267	843	591	935	798	999	535
Consumption - GWh -	117	382	299	671	388	271	778	2905
No. of SUPPLIERS	69	74	66	58	26	17	17	88
No. of suppliers of last resort	0	5	5	5	5	3	3	5
No. of competitive suppliers	54	53	47	43	17	11	7	61
No. of producers	15	16	14	10	4	3	7	22

Source: Monthly reports of the suppliers – processed by MU

Indicators - February 2018	Consumption tranches - Household customers					
	DA	DB	DC	DD	DE	Total
C1 - % -	60	44	37	31	28	44
C3 - % -	96	79	75	74	71	82
HHI	4568	2762	2298	2156	2013	2852
Consumption - GWh -	61	58	36	30	14	199
No. of SUPPLIERS	40	41	38	42	38	51
No. of suppliers of last resort	5	5	5	5	5	5
No. of competitive suppliers	31	33	30	34	29	40
No. of producers	4	3	3	3	4	6

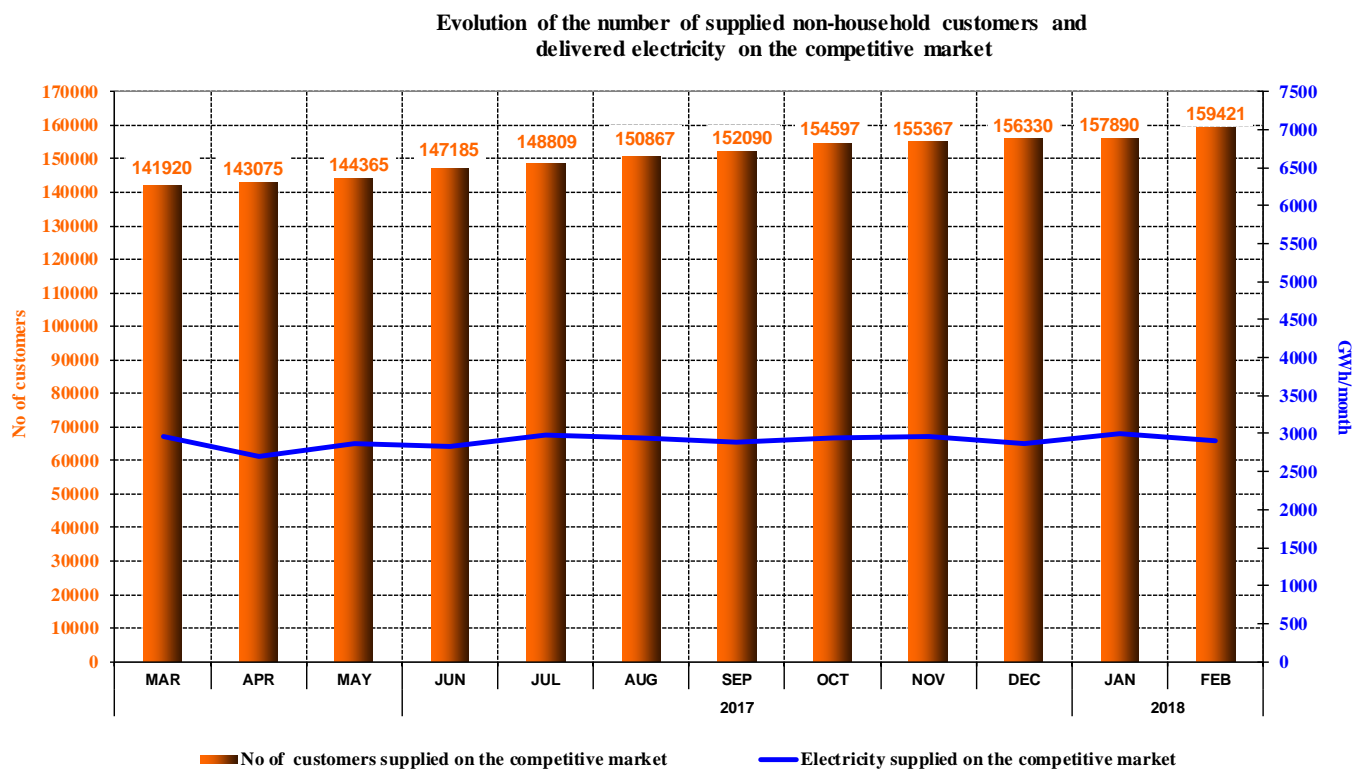
Source: Monthly reports of the suppliers – processed by MU

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 February 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	

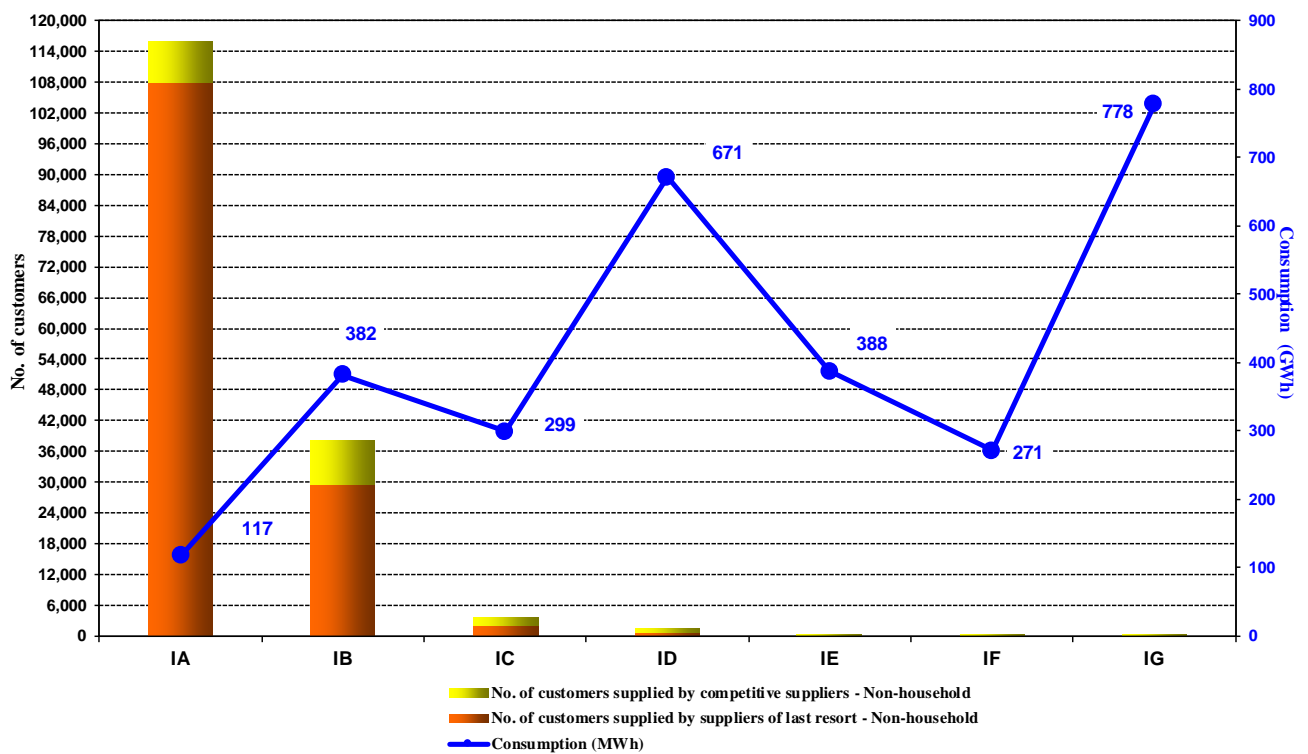


Source: Monthly reports of the competitive suppliers – processed by MU

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

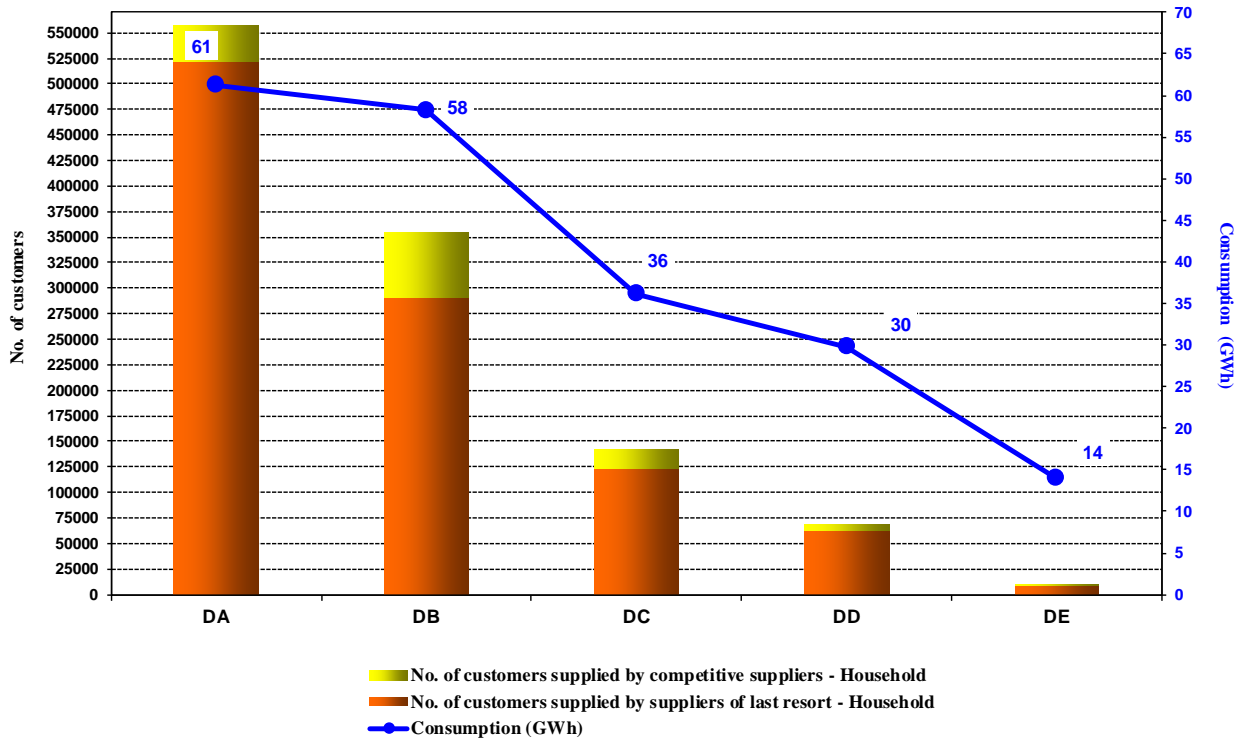
No.	Reporting month 2018	Supplied electricity (MWh)		No. of household customers	
		Total of which:	Suppliers of last resort	Total of which:	Suppliers of last resort
1	January	207 358	184 899	1 075 167	957 269
2	February	199.387	177.748	1.132.212	1.008.532

Number of non-household customers supplied on competitive market and the consumption of each category of customers
-FEBRUARY2018-



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
- FEBRUARY 2018 -

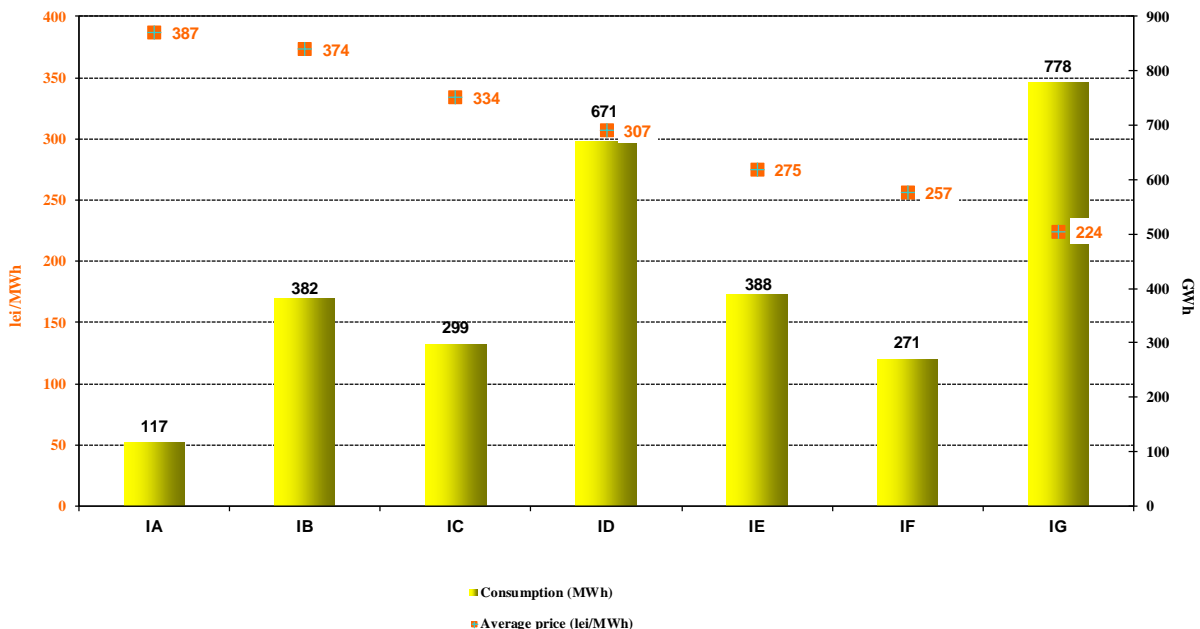


Source: Monthly reports of the suppliers – processed by MU

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

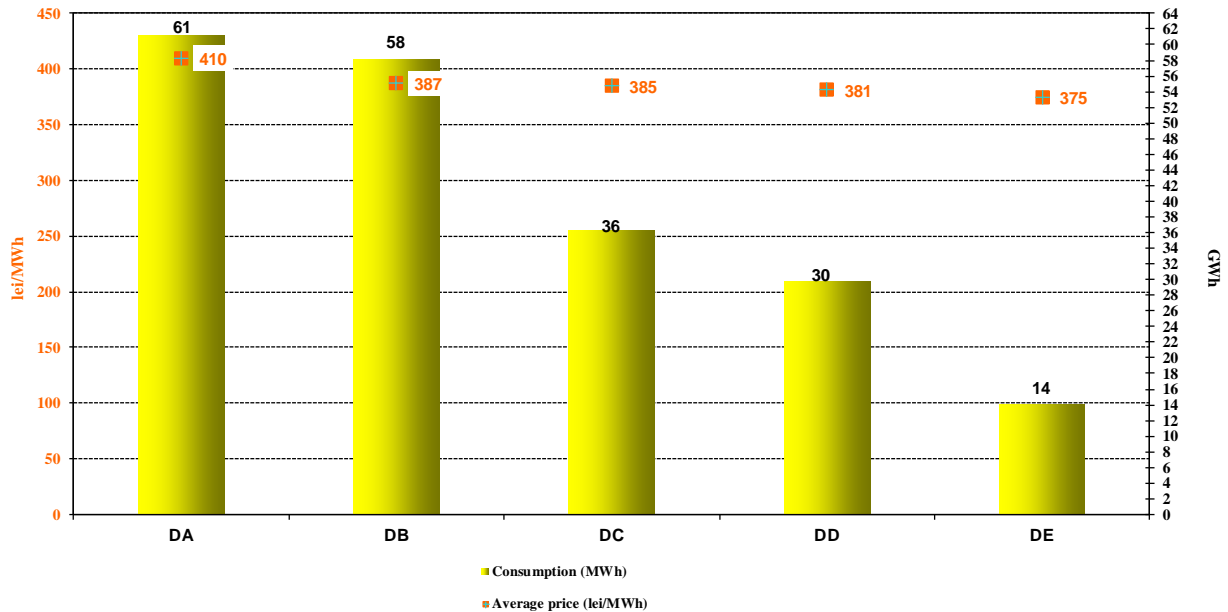
The following graph presents the average selling prices of customers supplied on the competitive market, based on the structure defined according to the Regulation (EU) no. 2016/1952 of the European Parliament and of the Council for February 2018.

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



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 tax, metering). Splitting customers into categories was based on their annual consumption forecast, according to the provisions of above mentioned Regulation.

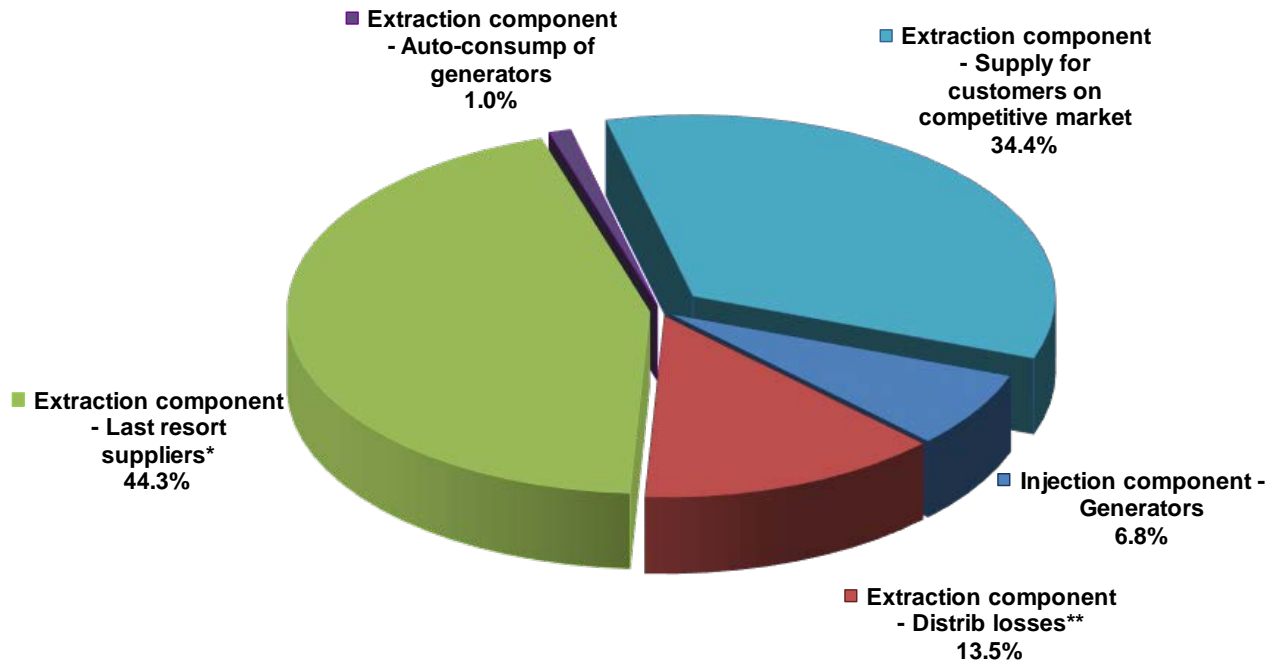
IV. TRANSMISSION AND SYSTEM OPERATOR CNTEE TRANSELECTRICA SA

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 February 2018.

**CNTEE Tranelectrica SA structure of revenues from transmission services
- February 2018-**



* for electricity extracted from their own licence areas as well as from other areas

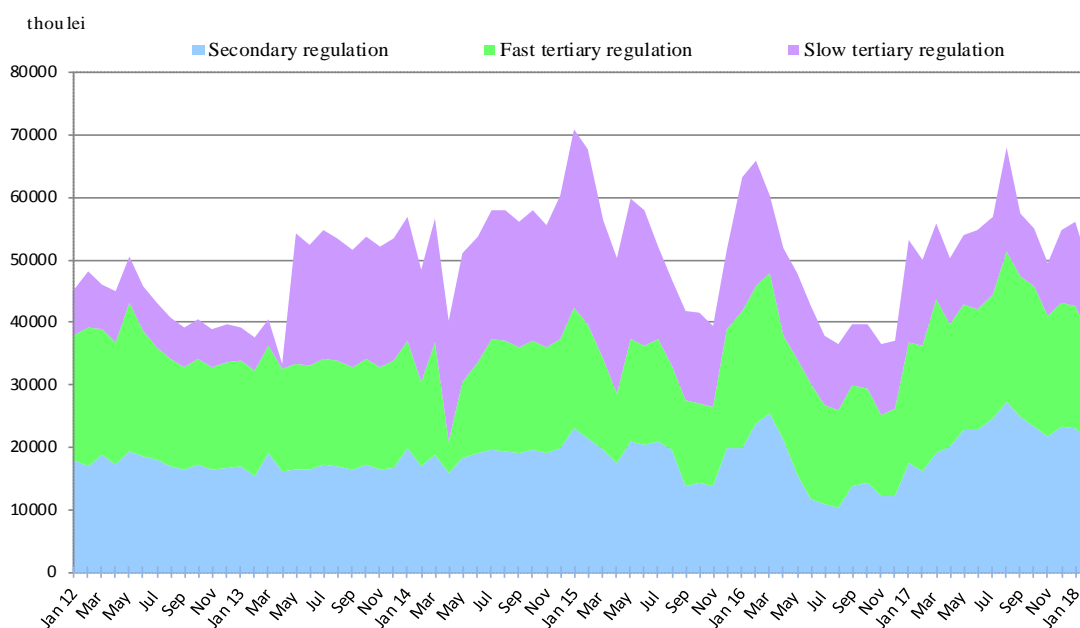
** includes the electricity with which some distribution operators supply their own self-consumption places

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

In order to perform the system operator tasks, CNTEE Tranelectrica 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 tertiary, 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 FEBRUARY 2018

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

- ANRE President Order no. 32/2018 regarding the modification of the General Conditions related to the license for electricity distribution by the economic operators who are not concessionaries of the power distribution service, approved by the Order of the ANRE President no. 73/2014;
- ANRE President Order no. 33/2018 regarding the modification of the Regulation for issuing green certificates, approved by the ANRE President Order no. 4/2015;
- ANRE President Order no. 38/2018 regarding the establishment of the mandatory quota for the acquisition of green certificates for the year 2017;
- ANRE President Decision no. 283/23 February 2018 regarding the approval of the quantities produced in high efficiency cogeneration units benefiting from the bonus scheme for January 2018.

VI. EXPLANATIONS AND ABBREVIATIONS

1. Explanations

- **Internal consumption** is calculated, in this document, 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 negotiated 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)

2. Abbreviations

- MU – Monitoring Unit
- WEM – Wholesale Electricity Market
- REM – Retail Electricity 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
- PCSU – Centralised Market of Universal Service (Romanian abbreviation)
- 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