REPORT ON RESULTS OF MONITORING THE ROMANIAN ELECTRICITY MARKET NOVEMBER 2016

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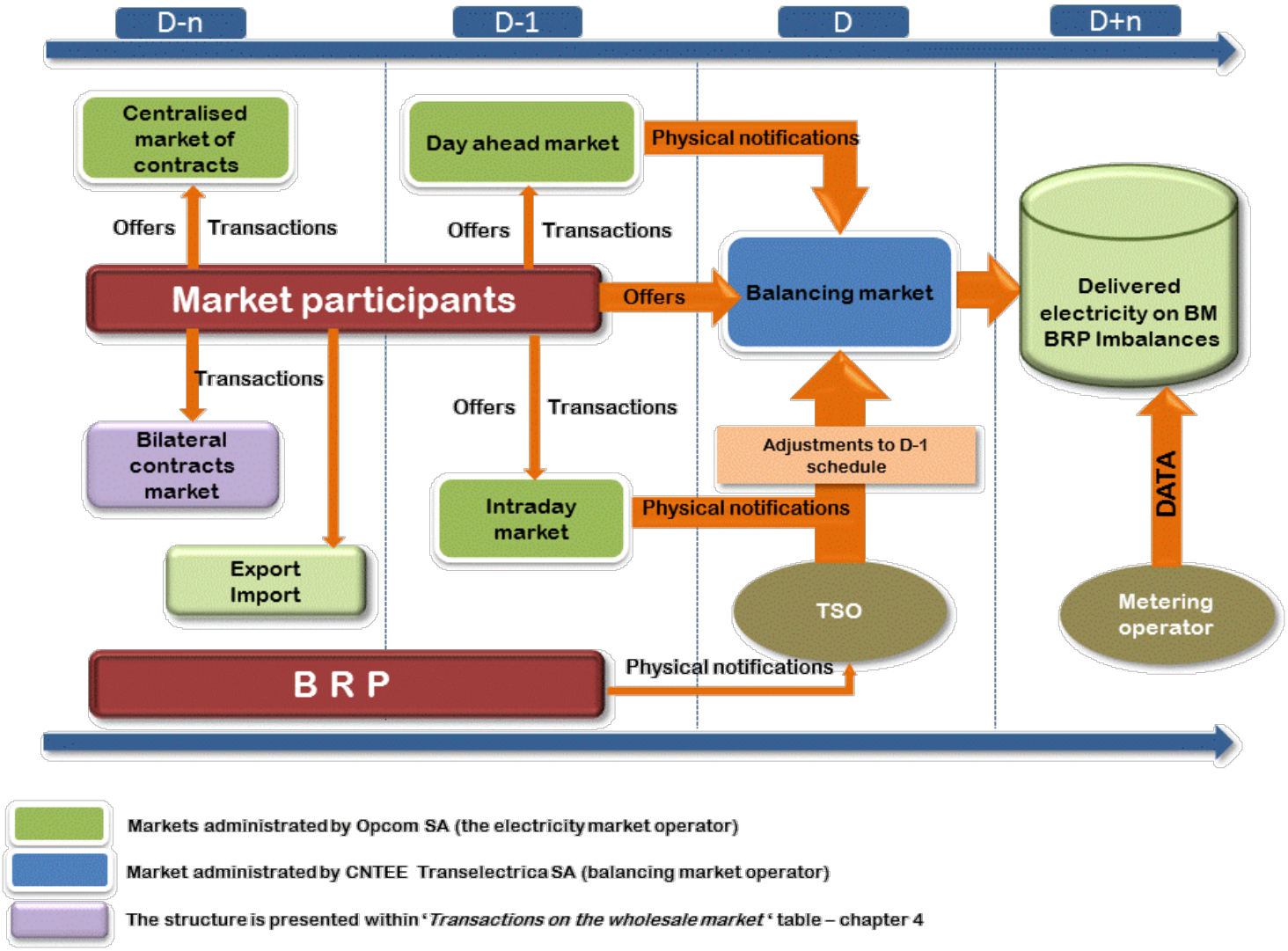
I. MAIN EVENTS IN THE DEVELOPMENT OF THE ROMANIAN ELECTRICITY MARKET

- 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 November 2016 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 Galaţi SA
10	Electro Energy Sud SRL
11	Enet Focsani SA
12	Gas Energy Ecotherm SA
13	Lukoil Energy & Gaz Romania SRL
14	Modern Calor SA
15	OMV Petrom SA
16	SNGN Romgaz SA
17	Rulmenţi SA
18	Termoficare Oradea SA
19	Veolia Energie Iaşi SRL
20	Veolia Energie Prahova SRL
21	Vest Energo SA
B	***Electricity generators on wind source operating dispatching units***
1	Alizeu Eolian SA
2	Alpha Wind SRL
3	Arinna Development SRL
4	Blue Line Energy SRL
5	Blue Planet Investments SRL
6	Braila Winds SRL
7	Bridgeconstruct SRL
8	CAS Regenerabile SRL
9	Cernavoda Power SRL
10	Corni Eolian SRL
11	Crucea Wind Farm SRL
12	Dan Holding MGM SRL
13	Eco Power Wind SRL
14	Ecoenergia SRL
15	EDP Renewables Romania SRL
16	Electrica Serv SRL
17	SC Electricom SA
18	Elektra Green Power SRL
19	Elektra Wind Power SRL
20	Enel Green Power Romania SRL
21	Energia Verde Ventuno SRL
22	Enex 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	Holrom Renewable Energy SRL
32	Horia Green SRL
33	Ialomita Power 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	OMV Petrom Wind Power 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	Ventus Renew 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
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	Eye Mall SRL
10	Fort Green Energy SRL
11	Foton Epsilon SRL
12	Gama & Delta Energy SRL
13	GPSB Solaris 48 SRL
14	Greenlight Solution SRL
15	Green Vision Seven
16	Izvor de Lumina SRL
17	Kentax Energy SRL
18	Lemar Grup SRL
19	LJG Green Source Energy Alpha SA
20	LJG Green Source Energy Beta SRL
21	LJG Green Source Energy Gamma SRL
22	Long Bridge Milenium SRL
23	Mar-Tin Solar Energy SRL
24	Potelu Solar SRL
25	Power L.I.V.E. One SRL
26	RA-RA PARC SRL
27	Romkumulo SRL
28	Simico Prod Factory SRL
29	Solar Electric Frasinet SRL
30	Solar Future Energy SRL
31	Solaria Green Energy SRL
32	Solprim SRL
33	Spectrum Tech SRL
34	Studina Solar SRL
35	Sun Energy Complet SA
36	Tis Energy SRL
37	Tinmar Green Energy SRL
38	Vanju Mare Solar SRL
39	Varokub Energy Development SRL
40	VIS Solaris 2011 SRL
41	Vrish Pro Investments SRL
42	WDP Development RO SRL
43	Xalandine Energy SRL
44	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	CEZ Distributie SA
2	ENEL Distributie Banat SA
3	ENEL Distributie Dobrogea SA
4	E.ON Moldova Distributie SA
5	ENEL Distributie Muntenia SA
6	FDEE Electrica Distributie Muntenia Nord SA
7	FDEE Electrica Distributie Transilvania Sud SA
8	FDEE Electrica Distributie Transilvania Nord SA
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	Alive Capital SRL
2	Alpiq Energy SE
3	ARV God Technology SRL
4	Bit-Reen SRL
5	CEZ as
6	Ciga Energy SA
7	Cinta Energy SA
8	Danske Commoditiesa/s Aarhus
9	EDF Trading Limited
10	Edison Trading Spa
11	Energo-Pro Trading EAD
12	Elpetra Energy E.A.D.
13	EVN Trading South East Europe
14	Ezpada SRO
15	Freepoint Commodities Europe Ltd
16	GEN I trgovanje in prodaja elektricne energije doo
17	Holding_ Slovenske_ Elektrarne
18	Industrial Instal Service SRL
19	Interenergo Energetski, Inzeniring d.o.o.
20	JAS Energy Trading s.r.o.
21	Lord Energy SRL
22	MVM Partner Zrt
23	MWH Trade Invest
24	Neas Energy A/S
25	Nis Petrol SRL
26	OMV Trading GmbH
27	Petrol Bucharest Rom SRL
28	Statkraft Markets GmbH
29	Unit Energy Trade SRL
30	Verbund Trading Romania SRL
31	Vitol Gas and Power B.V.

L	***Electricity Suppliers acting also on the retail market***
1	A Energy Ind SRL
2	Absolute Energy SRL
3	Aderro G.P. Energy SRL
4	Alpiq RomIndustries SRL
5	Alro SA
6	Aqua Energia SA
7	Arelco Energy SRL
8	Arelco Power SRL
9	Axpo Energy Romania SRL
10	Belectric Energy Trading SRL
11	Biol Energy SRL
12	Cotroceni Park SA
13	Crest Energy SRL
14	C-Gaz & Energy Distributie SRL
15	Curent Alternativ SRL
16	CYEB SRL
17	Eco2Energy Choice SRL
18	Electrocarbon SA
19	EFE Energy SRL

No.	Category
M	***Electricity Suppliers acting also on the retail market***
20	EFT Furnizare SRL
21	Electric Planners SRL
22	Electrificare CFR SRL
23	Electromagnetica SA
24	Elsaco Energy SRL
25	Elsid SA
26	Enel Trade Romania SRL
27	Energy Distribution Services SRL
28	Energy Network SRL
29	Engie Romania SA
30	Enol Grup SA
31	Entrex Services SRL
32	Eolian Project SRL
33	E.V.A. Energy SRL
34	Fidelis Energy SRL
35	Flavus Investiţii SRL
36	GDM Logistic SRL
37	Getica 95 COM SRL
38	Grenerg SRL
39	Hermes Energy International SRL
40	ICCO Energ SRL
41	ICPE Electrocond Technologies SA
42	Imperial Development SRL
43	Industrial Energy SA
44	KDF Energy SRL
45	Luxten LC SA
46	Menarom PEC SRL
47	MET Romania Energy Trade SRL
48	Midas&CO SRL
49	Monsson Trading SRL
50	Neptun SA
51	Next Power SRL
52	Nova Power&Gas SRL
53	P.C. Management & Consulting SRL
54	Photovoltaic Green Project SRL
55	Polimed Energy Trading SRL
56	Power Clouds SRL
57	QMB Energ SRL
58	QIA Energy SRL
59	RCS&RDS SA
60	Romelectro SA
61	Renovatio Trading SRL
62	Repower Furnizare Romania SRL
63	Restart Energy One SRL
64	RWE Energie SRL
65	Stock Energy SRL
66	Tinmar Energy SA
67	Transformer Energy Supply SRL
68	Transenergo Com SA
69	Three Wings SRL
70	UGM Energy Trading SRL
71	Vienna Energy Forta Naturala
72	Werk Energy SRL

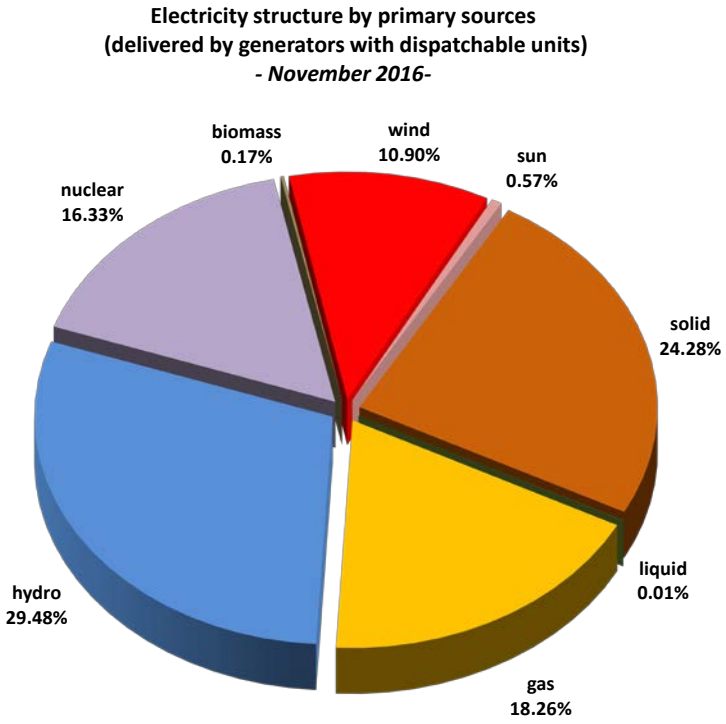
*) The electricity market participants report to ANRE technical/commercial data according to the *Methodology of wholesale electricity market monitoring for assessing the competition level on market and preventing the abuse of dominant position*. approved by ANRE Order no. 35/2006 as well as to the *Methodology 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.

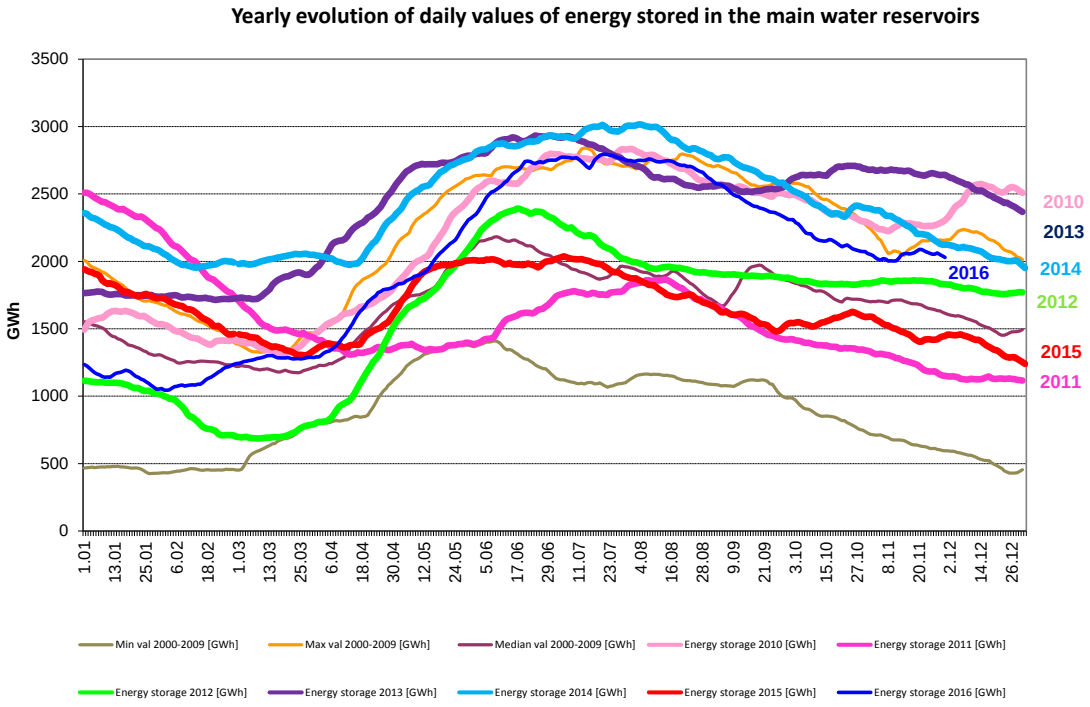
Electricity Suppliers acting exclusively on the wholesale market category include supplying license owners who act only on wholesale market and owners of a trading license issued according ANRE Order no. 13/2015 for approval the ,,General conditions associated to trading electricity license".

3. Generation structure of National Energy System on resources types



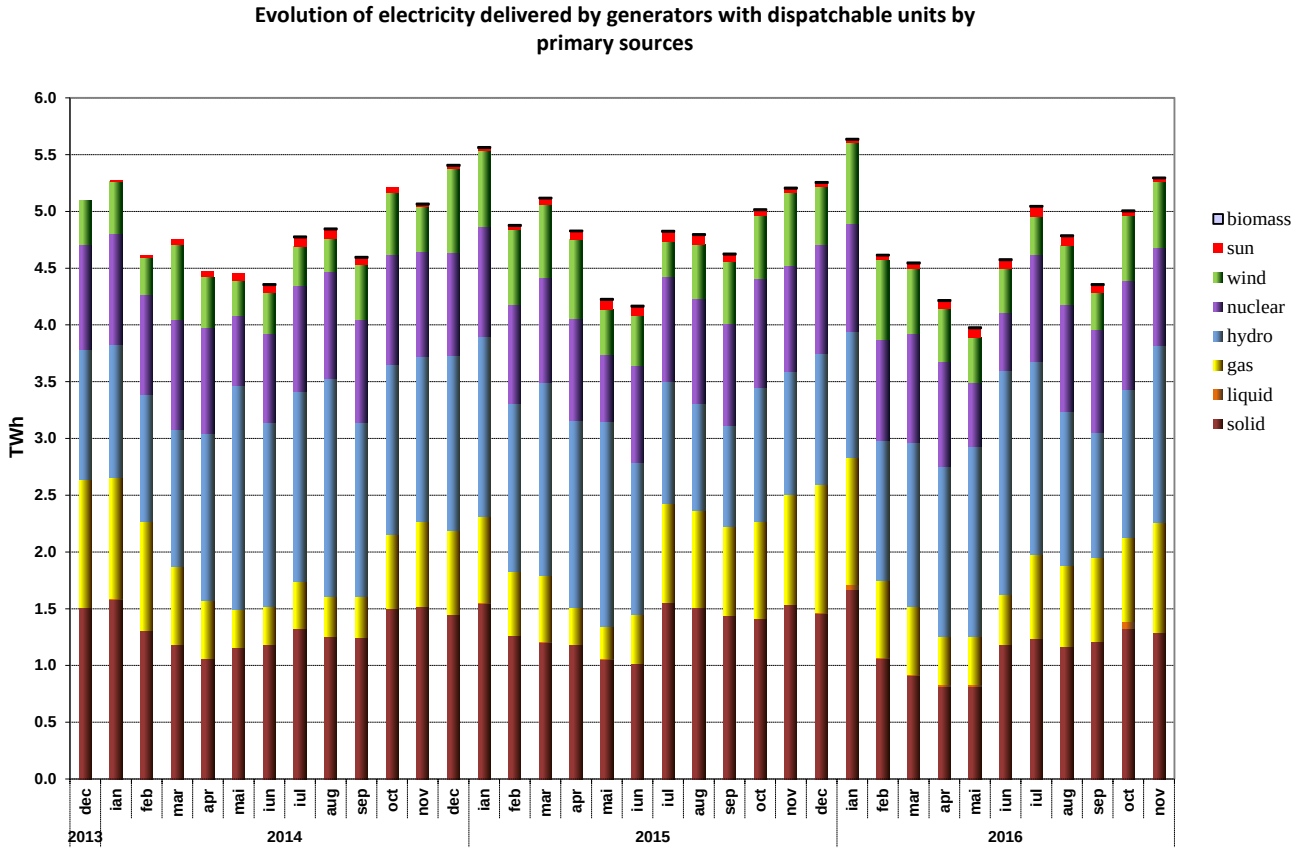
Source: Monthly reports of generators – processed by MG

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 November 2016 compared to the daily values of the last 6 years and compared to minimum, maximum and median values from 2000-2009.



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

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



Source: Monthly reports of generators – processed by MG

The following table presents the main data regarding the physical balance of electricity for November 2016 compared to data for similar period of 2015:

Nr. Crt.	INDICATOR	UM	Nov 2015	Nov 2016	%	Jan-Nov 2015	Jan-Nov 2016	%
0	**1**	**2**	**3**	**4**	**5=4/3*100**	**6**	**7**	**8=7/6*100**
1	Generated electricity	TWh	5.58	5.64	101.08	56.98	55.53	97.46
2	Delivered electricity	TWh	5.20	5.29	101.73	53.28	52.08	97.75
3	Import	TWh	0.27	0.25	92.59	3.32	3.40	102.41
4	Export	TWh	1.00	0.81	81.00	9.48	7.66	80.80
5	Internal consumption (2+3-4)	TWh	4.47	4.73	105.82	47.12	47.82	101.49
6	Consumption of household customers on the regulated market	TWh	1.03	1.01	98.06	10.91	10.95	100.37
7	Consumption of non-households customers	TWh	2.85	3.03	106.32	31.46	31.84	101.21
7.1	*on the regulated market*	TWh	*0.15*	*0.11*	*73.33*	*1.96*	*1.36*	*69.39*
7.2	*on the competitive market*	TWh	*2.70*	*2.92*	*108.15*	*29.50*	*30.48*	*103.32*
8	Transmission–Injection component	TWh	5.11	5.21	101.96	52.62	51.21	97.32
9	Transmission–Extraction component	TWh	4.45	4.75	106.74	47.79	48.47	101.42
10	Actual transmission grid losses	TWh	0.09	0.09	100.00	0.95	0.92	96.84
11	Heat generated for delivery	Tcal	1339.22	1468.16	109.63	11246.65	10676.12	94.93
12	Heat in co-generation	Tcal	1131.77	1108.94	97.98	8979.21	8240.24	91.77

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 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:

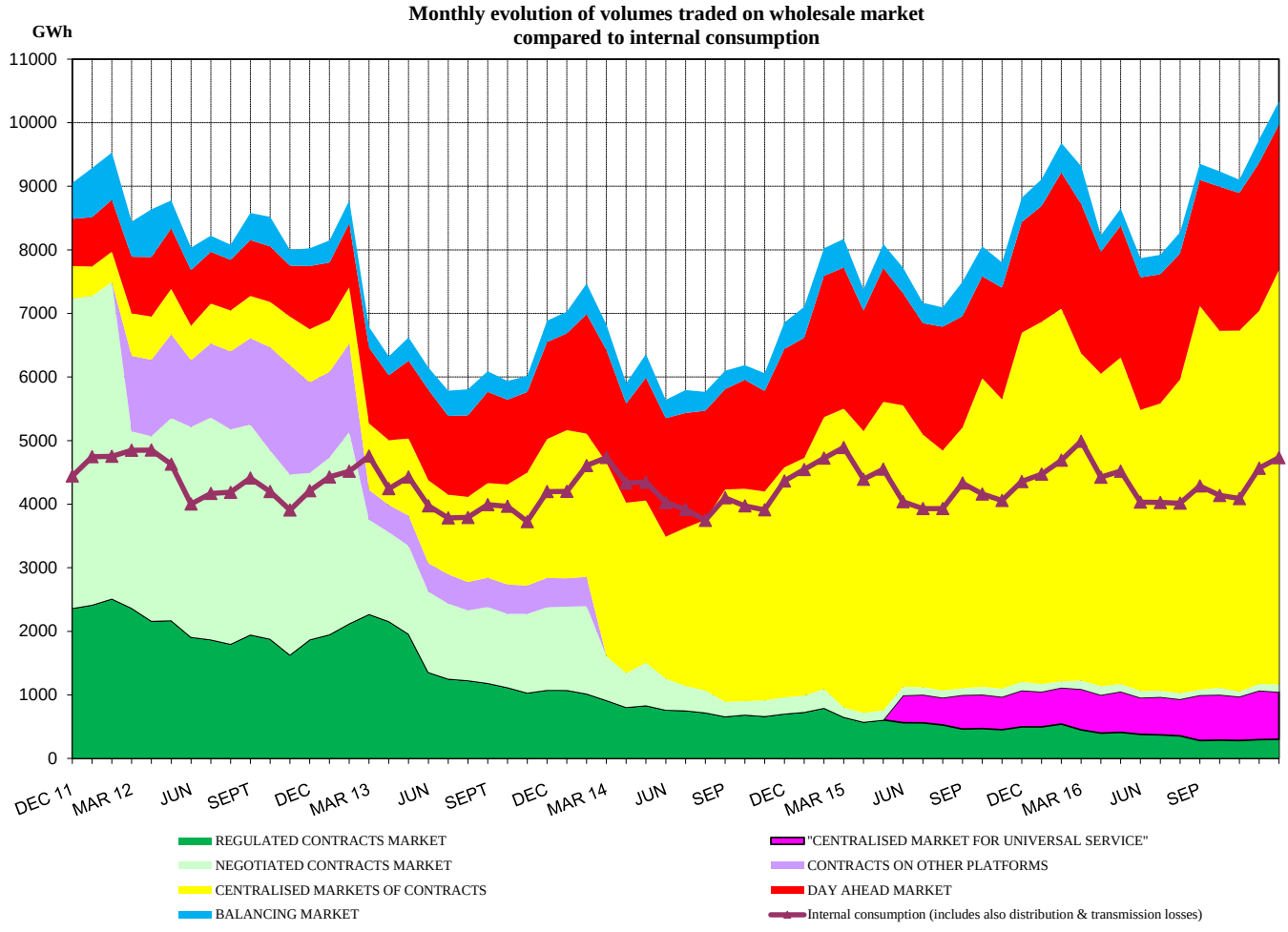
- those owning power plants that benefit from the promotion system and having installed capacity less than 1 MW/generator and less than 2 MW/generator for biomass high efficiency cogeneration, but only with suppliers for final customers;
- those owning power plants that benefit from the promotion system 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	October 2016	November 2016	November 2015
1. BILATERAL CONTRACTS' MARKET			
traded volume (GWh)	**400**	**416**	**619**
average price (lei/MWh)	141.16	136.13	138.64
% from internal consumption (%)	8.8	8.8	13.8
1.1. Sales on regulated contracts			
traded volume (GWh)	**297**	**302**	**497**
average price (lei/MWh)	133.26	133.57	138.16
% from internal consumption (%)	6.5	6.4	11.1
1.2. Sales on negotiated contracts[1)]			
traded volume (GWh)	**103**	**114**	**122**
average price (lei/MWh)	163.99	142.89	140.59
% from internal consumption (%)	2.3	2.4	2.7
2. EXPORT			
traded volume (GWh) [2)]	**742**	**809**	**999**
average price (lei/MWh)	186.84	168.84	168.74
% from internal consumption (%)	16.2	17.1	22.3
3. CENTRALIZED MARKETS OF CONTRACTS			
traded volume (GWh)	**5868**	**6521**	**5695**
average price (lei/MWh)	162.16	164.22	166.40
% from internal consumption (%)	128.5	137.8	127.3
3.1. Extended auction mechanism CMBC-EA[3)]			
traded volume (GWh)	**1681**	**1950**	**2947**
average price (lei/MWh)	160.54	161.01	160.40
% from internal consumption (%)	36.8	41.2	65.9
3.2. Continuous negotiation mechanism CMBC-CN [3)]			
traded volume (GWh)	**1474**	**1501**	**804**
average price (lei/MWh)	156.41	158.44	171.20
% from internal consumption (%)	32.3	31.7	18.0
3.3. CM-OTC mechanism [3)]			
traded volume (GWh)	**2713**	**3070**	**1944**
average price (lei/MWh)	166.28	169.08	173.49
% from internal consumption (%)	59.4	64.9	43.5
4. CENTRALIZED MARKET FOR UNIVERSAL SERVICE - CMUS			
traded volume (GWh)	**772**	**746**	**554**
average price (lei/MWh)	164.90	164.90	181.41
% from internal consumption (%)	16.9	15.8	12.4
5. DAY AHEAD MARKET			
traded volume (GWh)	**2329**	**2288**	**1822**
average price (lei/MWh) [5)]	189.84	167.96	163.91
% from internal consumption (%)	51.0	48.3	40.7
6. INTRADAY MARKET			
traded volume (GWh)	**10.8**	**13.9**	**15.2**
average price (lei/MWh) [5)]	154.25	154.74	36.79
% from internal consumption (%)	0.2	0.3	0.3
7. BALANCING MARKET			
traded volume (GWh)	**367**	**362**	**421**
% from internal consumption (%)	8.0	7.6	9.4
upward volume (GWh)	**291**	**280**	**309**
average negative imbalance price(lei/MWh)	314.60	285.41	286.11
downward volume (GWh)	**76**	**82**	**112**
average positive imbalance price (lei/MWh)	37.13	30.76	19.82
INTERNAL CONSUMPTION (includes distribution and transmission losses) (GWh)	**4565**	**4733**	**4472**

Note:
1) *Supply contracts to final customers and export contracts are not included as they are separately identified*
2) *Export volumes and price informations correspond to notifications from DAMAS platform for electricity extracted from RET and includ both volumes reported by only generator traded this activity (outside of the monitoring report) and volumes exported by CNTEE Transelectrica in his shipper export role for coupled DAM; in some cases those volumes are different from those reported as traded by participants*
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) *Price table price is calculated as the average of the hourly market closing price and it is published by Opcom SA. The average monthly price calculated as wheighted average of the hourly market closing price with traded volumes was in November 2016, 171.95 lei/MWh and it is, also, published by Opcom SA*
5) *The average monthly price is calculated based on monthly traded volume and transaction value published by Opcom SA*

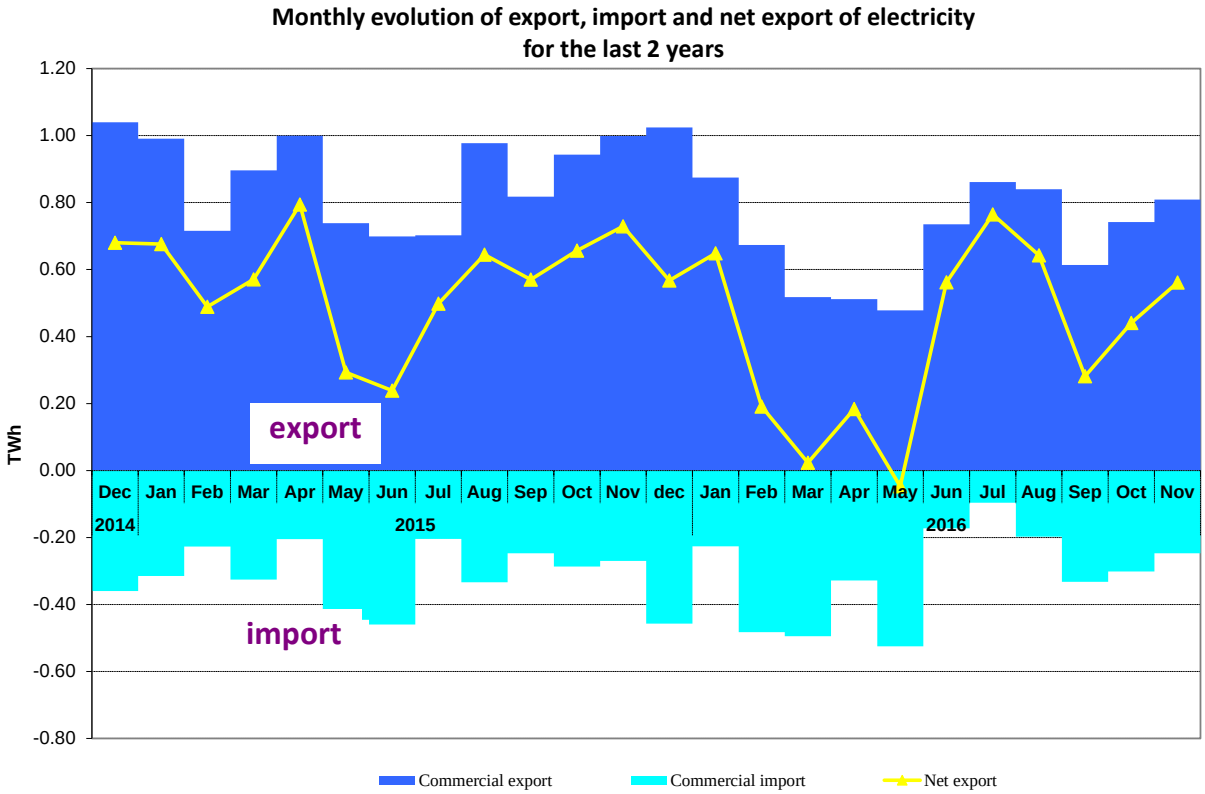
The percentage of electricity quantities from the internal consumption (see table from above) offers a dimensional reference for each of the specified markets. Prices include only the injection component of the transmission tariff, in this way being comparable within a month and making possible the comparison 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 December 2011.



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

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:

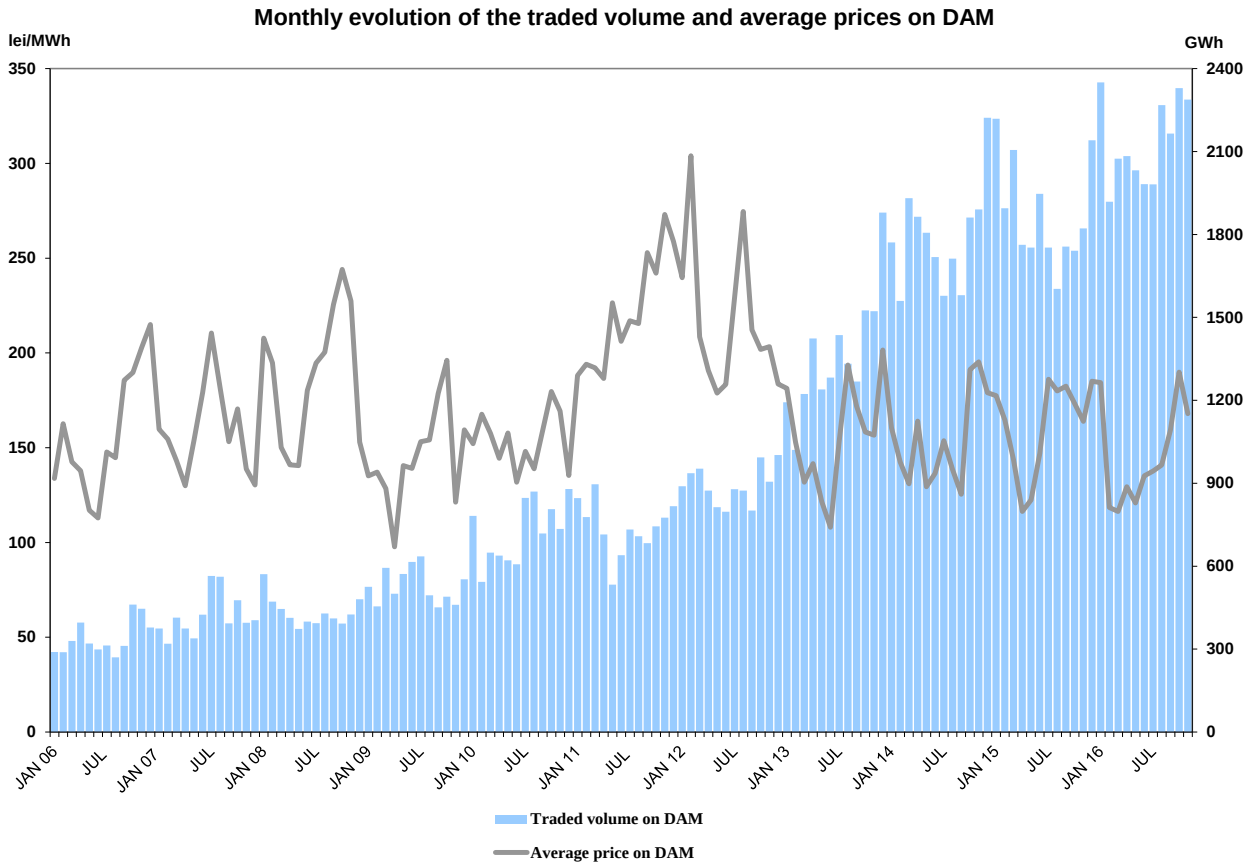


Source: Monthly reports of CNTEE Transelectrica SA – processed by MG

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	October 2016	November 2016	November 2015
Export			
traded volume (GWh)	**742**	**809**	**999**
average price (lei/MWh)	186.84	168.74	168.74
% from internal consumption	16.2	17.1	22.3
in which, for coupled DAM			
traded volume (GWh)	**79**	**88**	**1**
average price (lei/MWh)	197.04	145.32	149.96
% from internal consumption	1.7	1.9	0.03
Import			
traded volume (GWh)	**301**	**247**	**270**
average price (lei/MWh)	191.61	187.57	168.00
% from internal consumption	6.6	5.2	6.03
in which, for coupled DAM			
traded volume (GWh)	**186**	**182**	**218**
average price (lei/MWh)	182.32	181.39	167.70
% from internal consumption	4.1	3.8	4.9

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



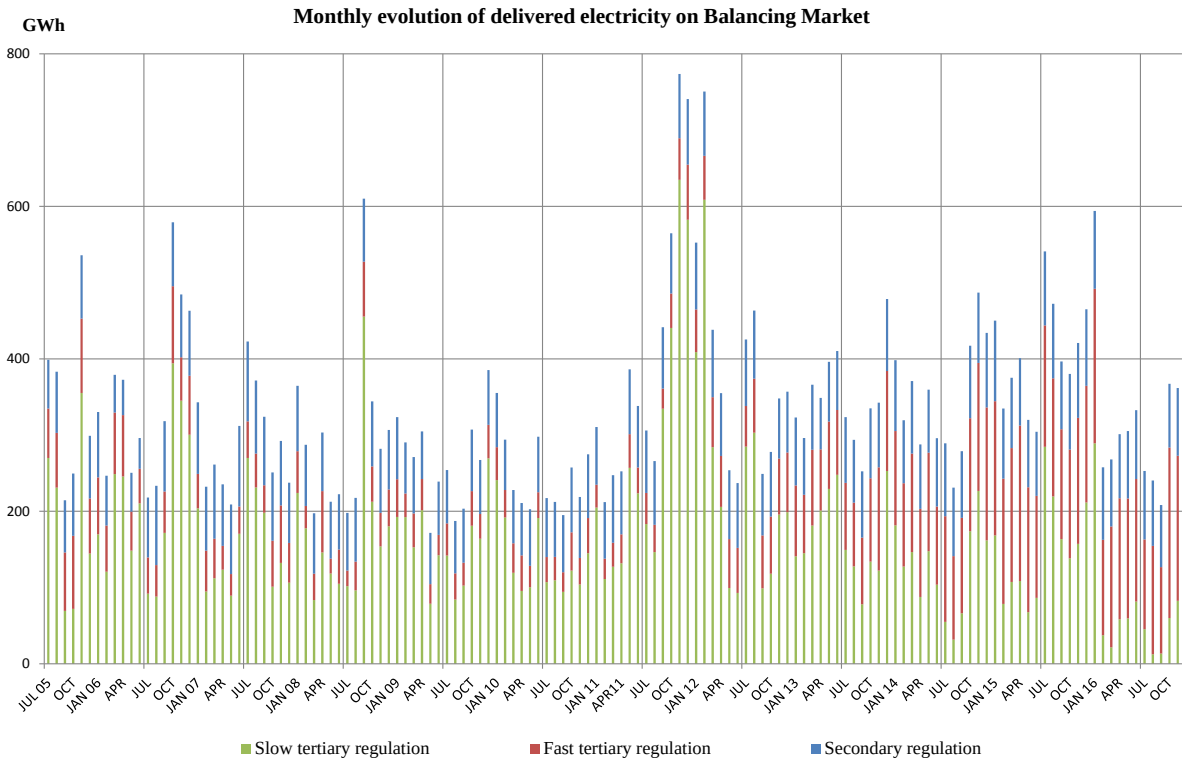
Source: Monthly reports of Opcom SA and CNTEE Transelectrica SA – processed by MG

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 November 2016 presented in the following table:

November 2016	Dispach order (GWh)	Delivered electricity (GWh)	Deviation (%)
Secondary regulation	**89**	**89**	
upward	43	43	
downward	46	46	
Fast tertiary regulation	**197**	**190**	**6**
upward	165	161	7
downward	32	29	4
Slow tertiary regulation	**84**	**83**	**1**
upward	77	76	1
downward	7	7	2
TOTAL	**370**	**362**	
upward	285	280	
downward	85	82	
INTERNAL CONSUMPTION		**4733**	
% share of traded volumes from internal consumption		***7.6%***	

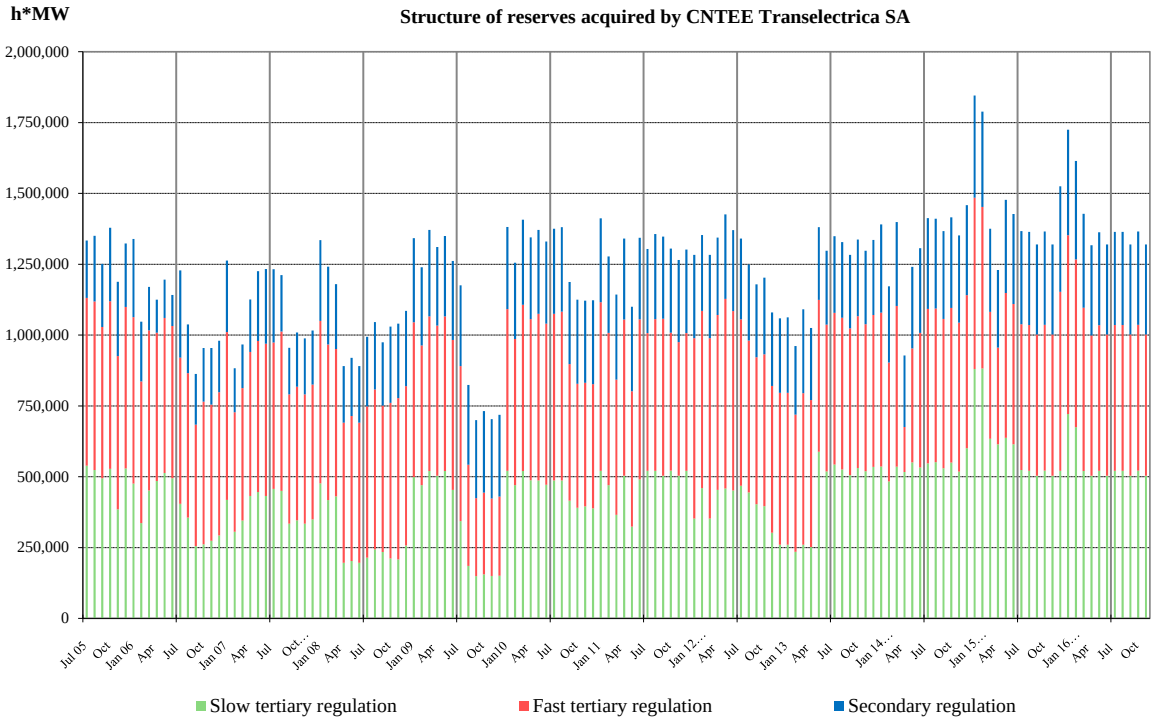
Source: Monthly reports of CNTEE Transelectrica SA – processed by MG

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



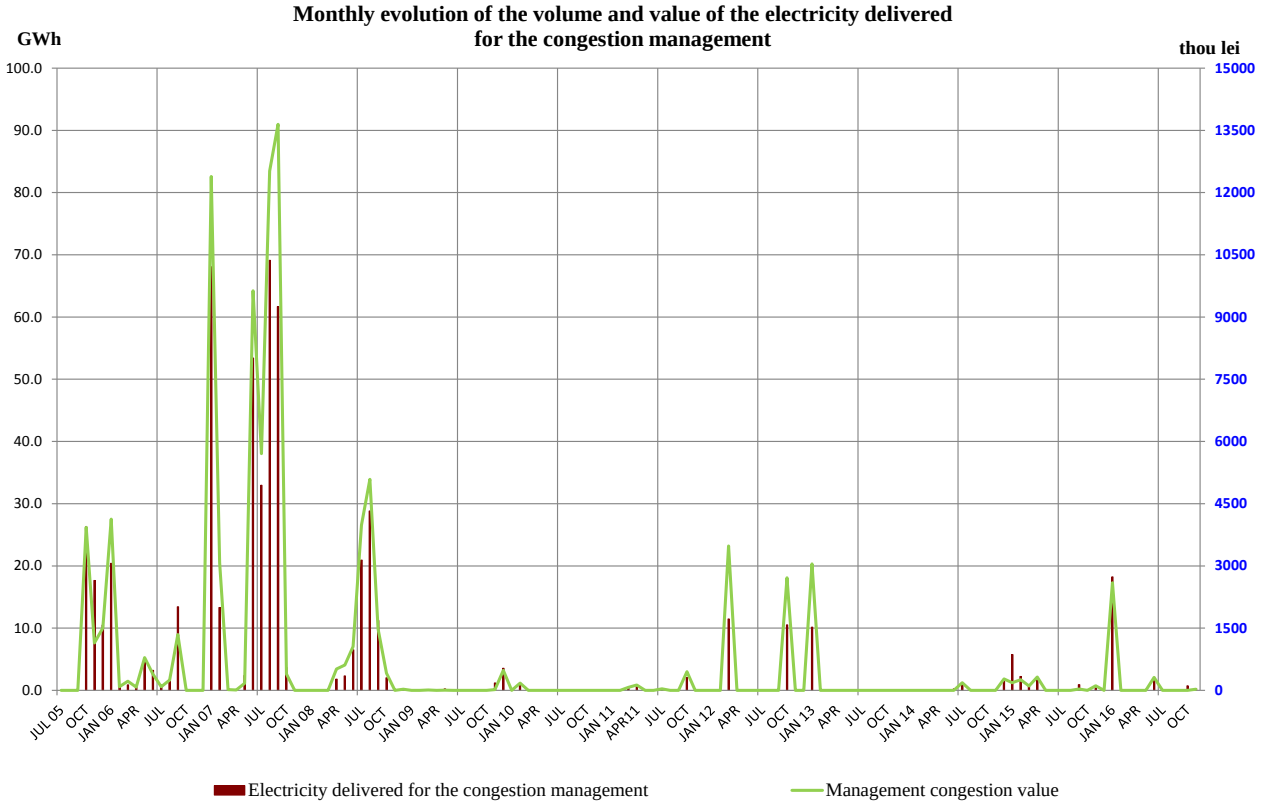
Source: Monthly reports of CNTEE Transelectrica SA – processed by MG

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 MG

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 MG

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

Generators

In November 2016, the structure of electricity sales obligations contracted before delivery interval by the electricity generators with dispatchable units in was the following:

-GWh-

Transaction type	November 2015	November 2016
Regulated contracts to suppliers of last resort - hydro generator	303.15	221.09
Regulated contracts to suppliers of last resort - nuclear generator	193.87	80.82
Negotiated contracts to suppliers	121.54	114.18
Contracts concluded on Opcom centralized markets:	3200.92	3353.00
CMBC-EA	*2174.71*	*1261.16*
CMBC-CN	*650.24*	*1113.68*
CM-OTC	*375.98*	*978.16*
Centralized market for universal service	350.01	478.32
DAM	1216.53	1416.00
Intraday	11.46	7.78
Export	0.00*	0.00
Supply contracts to final customers	218.94	282.67
Total	**5616.43**	**5953.85**

Source: Monthly reports of generators – processed by MG

*Note: *In November 2015, one generator reported transactions concluded on Hungary market of 7200 MWh. outside the monitoring report*

Suppliers

In November 2016, 108 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 77 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 November 2016 compared to November 2015 of the suppliers acting exclusively on WEM, acquisitions and sales being split by categories of markets/participants:

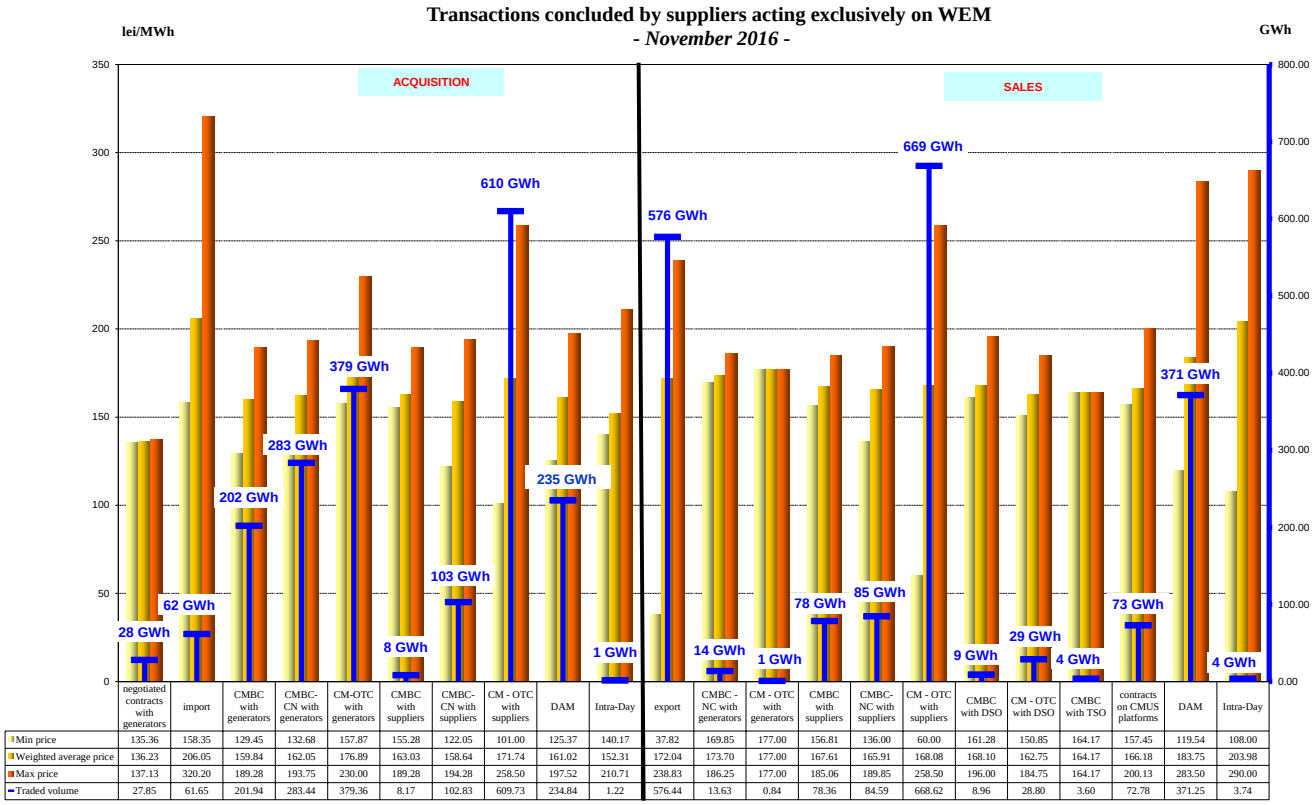
-GWh-

Transactions structure of suppliers acting exclusively on WEM	**November 2015**	**November 2016**
Purchase		
Import	41.63	61.65
Negotiated contracts with generators	0.00*	27.85
Contracts concluded on Opcom centralized markets:	1628.60	1585.48
- *on CMBC-EA with generators*	*557.93*	*201.94*
- *on CMBC-CN with generators*	*179.86*	*283.44*
- *on CM-OTC with generators*	*152.58*	*379.36*
- *on CMBC-EA with other suppliers*	*49.47*	*8.17*
- *on CMBC-CN with other suppliers*	*8.62*	*102.83*
- *on CM-OTC with other suppliers*	*680.15*	*609.73*
DAM	276.87	234.84
Intraday market	3.28	1.22
Sales		
Export	745.96	576.44
Contracts concluded on Opcom centralized markets:	937.48	887.39
- *on CMBC-CN with generators*	*0.00*	*13.63*
- *on CM-OTC with generators*	8.64	*0.84*
- *on CMBC-EA with other suppliers*	*71.98*	*78.36*
- *on CMBC-CN with other suppliers*	*13.95*	*84.59*
- *on CM-OTC with other suppliers*	*734.08*	*668.62*
- *on CMBC-EA with DO*	*61.20*	*8.96*
- *on CM-OTC with DO*	*47.64*	*28.80*
- *on CMBC-EA with TSO*	*0.00*	*3.60*
Centralized market for universal service	66.30	72.78
DAM	196.70	371.25
Intraday market	2.88	3.74

Source: Monthly reports of suppliers – processed by MG

**although the quantities reported are traded on contracts concluded before entering into force of the Law of electricity and natural gas no. 123/2012, in November 2015, these are not presented in the above tabel because, during that period, the supplier which purchased negotiated quantities from generators had the quality of competitive supplier acting on REM*

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 November 2016.



	negotiated contracts with generators	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 - NC with generators	CM - OTC with generators	CMBC with suppliers	CMBC-NC with suppliers	CM - OTC with suppliers	CMBC with DSO	CM - OTC with DSO	CMBC with TSO	contracts on CMUS platforms	DAM	Intra-Day
Min price	135.36	158.35	129.45	132.68	157.87	155.28	122.05	101.00	125.37	140.17	37.82	169.85	177.00	156.81	136.00	60.00	161.28	150.85	164.17	157.45	119.54	108.00
Weighted average price	136.23	206.05	159.84	162.05	176.89	163.03	158.64	171.74	161.02	152.31	172.04	173.70	177.00	167.61	165.91	168.08	168.10	162.75	164.17	166.18	183.75	203.98
Max price	137.13	320.20	189.28	193.75	230.00	189.28	194.28	258.50	197.52	210.71	238.83	186.25	177.00	185.06	189.85	258.50	196.00	184.75	164.17	200.13	283.50	290.00
Traded volume	27.85	61.65	201.94	283.44	379.36	8.17	102.83	609.73	234.84	1.22	576.44	13.63	0.84	78.36	84.59	668.62	8.96	28.80	3.60	72.78	371.25	3.74

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

Active suppliers on REM (the suppliers of last resort are 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 November 2016 compared to the situation of November 2015:

-GWh-

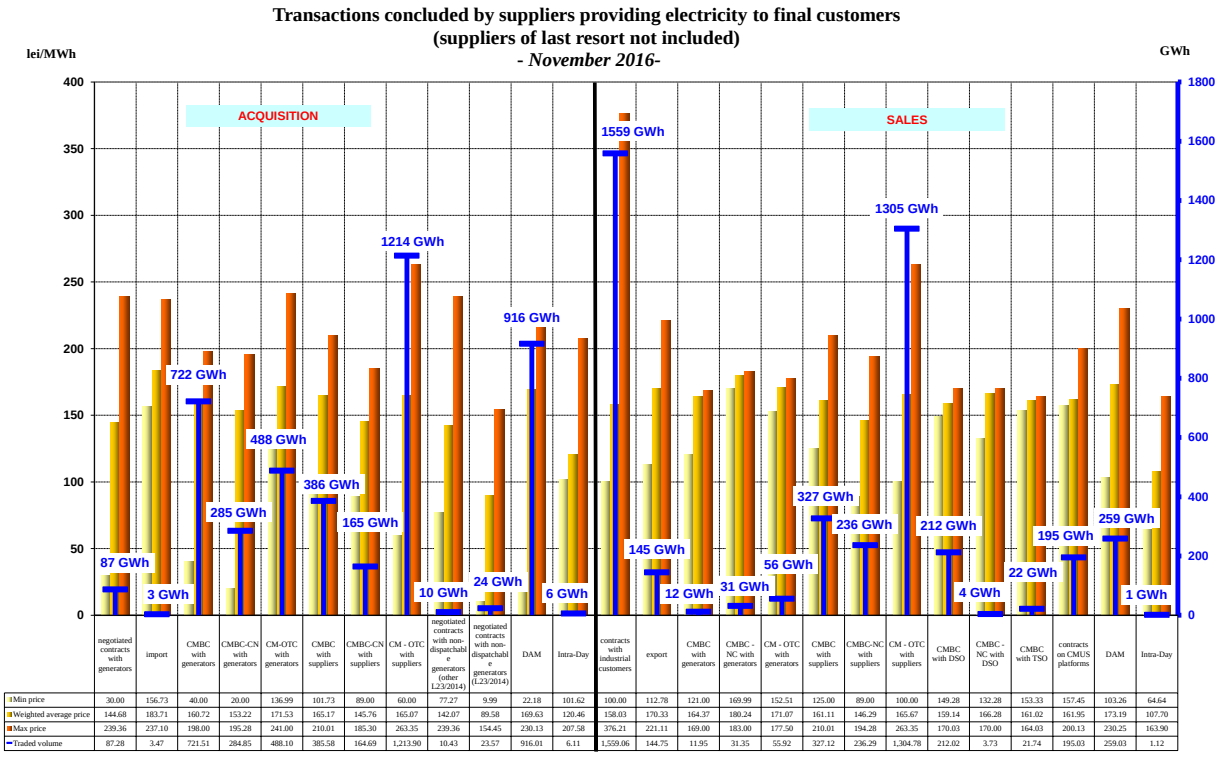
Transactions' structure of suppliers acting on REM (suppliers of last resort excluded)	**November 2015**	**November 2016**
Purchase		
Import	10.59	3.47
Negotiated contracts with generators	122.00	87.28
Contracts concluded on Opcom centralized markets:	2626.98	3258.64
- *on CMBC-EA with generators*	*939.29*	*721.51*
- *on CMBC-CN with generators*	*394.68*	*284.85*
- *on CM-OTC with generators*	*196.25*	*488.10*
- *on CMBC-EA with other suppliers*	*248.49*	*385.58*
- *on CMBC-CN with other suppliers*	*105.94*	*164.69*
- *on CM-OTC with other suppliers*	*742.34*	*1213.90*
Negociated contracts with undispatchable generators (others than L23/2014 and L122/2015)*	10.00	10.43
Negociated contracts with undispatchable generators (L23/2014 and L122/2015)**	18.95	23.57
DAM	633.84	916.01
Intraday market	5.54	6.11

Transactions' structure of suppliers acting on REM (suppliers of last resort excluded)	**November 2015**	**November 2016**
Sales		
Export	244.60	144.75
Negotiated contracts with other suppliers	0.00	0.00
Contracts concluded on Opcom centralized markets:	1486.04	2204.89
- *on CMBC-EA with generators*	*12.96*	*11.95*
- *on CMBC-NC with generators*	*34.42*	*31.35*
- *on CM-OTC with generators*	*7.56*	*55.92*
- *on CMBC-EA with other suppliers*	*363.15*	*327.12*
- *on CMBC-NC with other suppliers*	*104.21*	*236.29*
- *on CM-OTC with other suppliers*	*764.97*	*1304.78*
- *on CMBC-EA with DO*	*186.90*	*212.02*
- *on CMBC-NC with DO*	*0.84*	*3.73*
- *on CMBC-EA with TSO*	*11.03*	*21.74*
Centralized market for universal service	137.85	195.03
DAM	129.62	259.03
Intraday market	0.67	1.12
Non-household customers	1473.06	1559.06

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

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 November 2016:



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

Suppliers of last resort

Electricity acquisition structure of suppliers of last resort (before the delivery interval), for supplying the regulated market customers, is presented in the table below, November 2016, compared to November 2015:

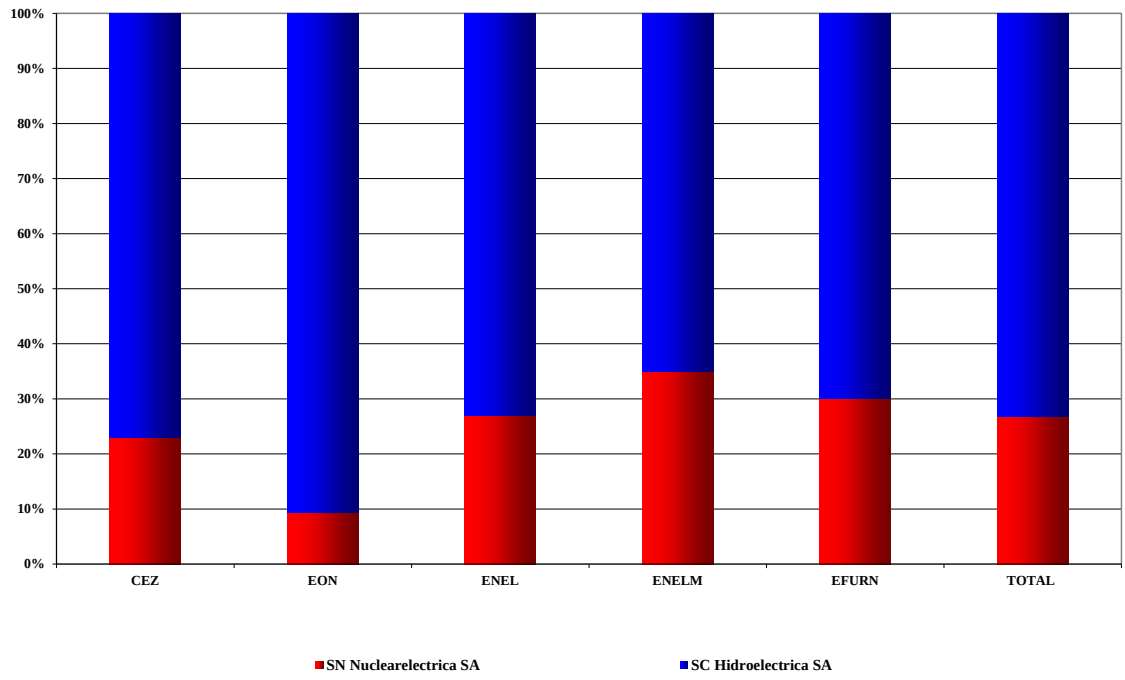
- GWh -

Acquisition structure of suppliers of last resort for regulated REM component	**November 2015**	**November 2016**
Regulated contracts with generators	497.02	301.91
Negociated contracts with undispatchable generators (L23/2014)*	0.03	0.01
Contracts concluded on Opcom centralized markets:	71.87	26.00
- *contracts on CMBC-EA with generators*	*45.47*	*2.65*
- *contracts on CMBC-CN with generators*	*0.00*	*0.16*
- *contracts on CM-OTC with generators*	*0.42*	*18.08*
- *contracts on CMBC-EA with other suppliers*	*25.12*	*0.18*
- *contracts on CMBC-CN with other suppliers*	*0.00*	*3.60*
- *contracts on CM-OTC with other suppliers*	*0.86*	*1.34*
Centralized market for universal service:	554.16	746.13
- *contracts on CMUS with generators*	*350.01*	*478.32*
- *contracts on CMUS with suppliers*	*204.15*	*267.81*
Transactions concluded on DAM:	6.36	42.09
- *purchase*	79.67	*98.01*
- *sales*	*73.31*	*55.92*

**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*

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 November 2016:

Electricity aquisition from main generators, on regulated contracts, of the suppliers of the last resort for delivering electricity to final consumers on regulated market
NOVEMBER 2016



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

The suppliers of last resort separately display in the bills of their customers the "Competitive Market Component" (CMC). This tariff component was proposed by each supplier of last resort and finally

approved by ANRE. In accordance with the provisions of ANRE Order no. 83/2013 for approving the Methodology to set up prices and tariffs to the final customers who choose not to exercise their eligibility rights. Since July 01 2013, CMC is separately highlighted within the household invoice. In order to reduce the gap between acquisition prices of electricity bought for covering the consumption at CMC tariffs, ANRE approved in July 2014 the regulatory framework for the Centralised Market for Universal Service (CMUS). This centralised market, operated by OPCOM became operational in April 2015 by implementing the trading mechanism. Consequently, the acquisition process of the forecasted demand to be invoiced with CMC tariffs is made in a centralised manner on CMUS and the difference between invoiced and forecasted demand is to be covered from DAM. The demand of final customers who are delivered in last resort regime is to be covered from the centralised markets – CMBC-EA, CMBC-CN, CM-OTC, DAM and ID.

The following table presents the electricity acquisition structure of suppliers of last resort for US (before the delivery interval) for November 2016 compared to November 2015:

-GWh-

Acquisition structure of last resort suppliers for universal service	**November 2015**		**November 2016**	
	Quantity [GWh]	**Average price [lei/MWh]**	**Quantity [GWh]**	**Average price [lei/MWh]**
Contracts concluded on CMUS:	554.16	181.41	746.13	164.90
- contracts on CMUS with generators	*350.01*	*177.05*	*478.32*	*165.91*
- contracts on CMUS with suppliers	*204.15*	*188.88*	*267.81*	*163.10*
Transactions concluded on DAM:	-2.66	-	-10.26	-
- purchase	*42.11*	*190.47*	*31.17*	*172.68*
- sales	*44.77*	*169.83*	*41.43*	*169.89*
TOTAL	**551.50**	**183.04**	**758.31**	**164.95**

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 November 2016 compared to November 2015:

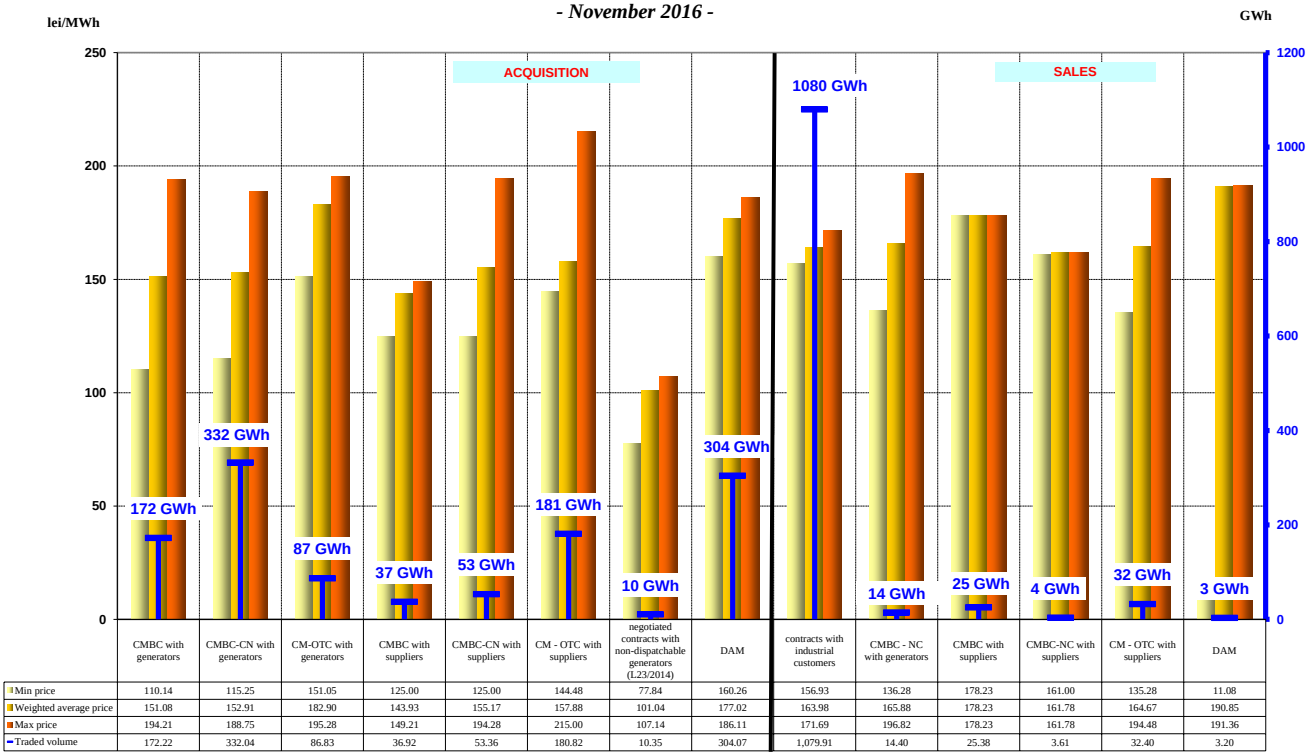
- GWh -

Transactions' structure of suppliers for the competitive segment of REM	**November 2015**	**November 2016**
Purchase		
Contracts concluded on Opcom centralized markets:	830.28	862.20
- on CMBC-EA with generators	*488.96*	*172.22*
- on CMBC-CN with generators	*73.92*	*332.04*
- on CM-OTC with generators	*27.02*	*86.83*
- on CMBC-EA with other suppliers	*155.80*	*36.92*
- on CMBC-CN with other suppliers	*3.60*	*53.36*
- on CM-OTC with other suppliers	*80.98*	*180.82*
Negociated contracts with undispatchable generators (others than L23/2014 and L122/2015)*	1.16	0.00
Negociated contracts with undispatchable generators (L23/2014 and L122/2015)**	4.16	10.35
DAM	254.97	304.07
Sales		
Contracts concluded on Opcom centralized markets:	70.63	75.79
- on CMBC-CN with generators	0.00	*14.40*
- on CMBC-EA with other suppliers	*43.75*	*25.38*
- on CMBC-CN with other suppliers	*0.00*	*3.61*
- on CM-OTC with other suppliers	*5.28*	*32.40*
- on CMBC-EA with DO	*21.60*	*0.00*
DAM	6.58	3.20
Non-household customers	1008.82	1079.91

**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*

The structure by types of sources/destinations of the traded volumes combined with the actual average prices of the suppliers of last resort corresponding to the competitive segment of REM is presented in the following graph for November 2016:

Transactions concluded by suppliers providing electricity on the competitive component of REM
- November 2016 -



	CMBC with generators	CMBC-CN with generators	CM-OTC with generators	CMBC with suppliers	CMBC-CN with suppliers	CM - OTC with suppliers	negotiated contracts with non-dispatchable generators (L23/2014)	DAM	contracts with industrial customers	CMBC - NC with generators	CMBC with suppliers	CMBC-NC with suppliers	CM - OTC with suppliers	DAM
Min price	110.14	115.25	151.05	125.00	125.00	144.48	77.84	160.26	156.93	136.28	178.23	161.00	135.28	11.08
Weighted average price	151.08	152.91	182.90	143.93	155.17	157.88	101.04	177.02	163.98	165.88	178.23	161.78	164.67	190.85
Max price	194.21	188.75	195.28	149.21	194.28	215.00	107.14	186.11	171.69	196.82	178.23	161.78	194.48	191.36
Traded volume	172.22	332.04	86.83	36.92	53.36	180.82	10.35	304.07	1,079.91	14.40	25.38	3.61	32.40	3.20

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

Main distribution operators

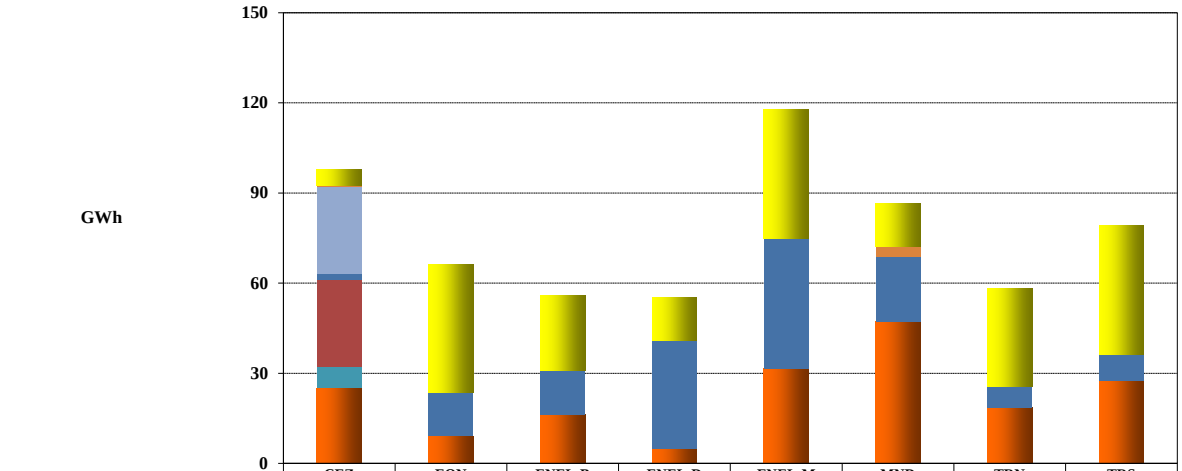
The following table shows the electricity acquisition structure of main distribution operators (before the delivery interval), for covering the distribution network losses, for November 2016 compared with November 2015:

- GWh -

Acquisition structure	November 2015	November 2016
Contracts concluded on Opcom centralized markets:	422.76	436.92
- *CMBC-EA with generators*	*95.48*	*147.51*
- *CMBC-CN with generators*	*5.51*	*28.70*
- *CM-OTC with generators*	*3.60*	*7.20*
- *CMBC-EA with suppliers*	*269.69*	*220.98*
- *CMBC-CN with suppliers*	*0.84*	*3.73*
- *CM-OTC with suppliers*	*47.64*	*28.80*
Transactions concluded on Intraday market	0.00	0.16
Transactions concluded on DAM:	168.43	174.59
- *purchase*	*184.21*	180.50
- *sales*	*15.78*	*5.91*

The electricity purchased for covering their network losses is presented in detail in the following graph, for November 2016:

Electricity acquisition of distribution operators for covering the distribution losses
November 2016



	CEZ	EON	ENEL-B	ENEL-D	ENEL-M	MND	TRN	TRS
Acquisition on CMBC-EA on suppliers	5	43	25	14	43	14	32	43
Acquisition on CMBC-NC on suppliers	0	0	0	0	0	3	0	0
Acquisition on CM-OTC on suppliers	29	0	0	0	0	0	0	0
Acquisition on CMBC-EA on generations	2	14	14	36	43	22	7	8
Acquisition on CMBC-NC on generations	29	0	0	0	0	0	0	0
Acquisition on CM-OTC on generations	7	0	0	0	0	0	0	0
Sales on DAM	25	9	16	5	32	47	18	28

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

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.

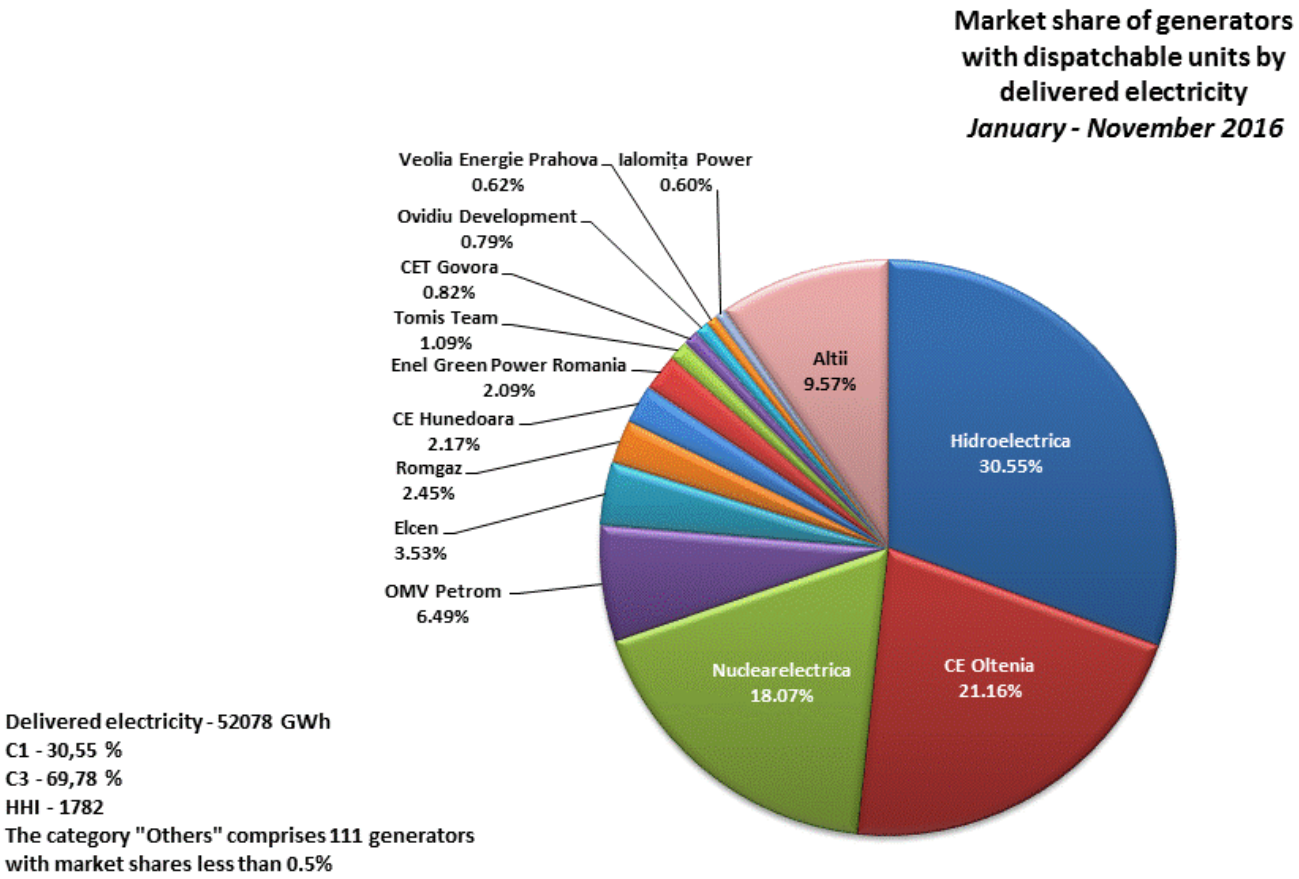
These concentration indicators may be defined for the wholesale market (electricity market or ancillary services market) or for each of its components where direct competition takes place.

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 November 2016, calculated based on electricity delivered into the networks by the generators with dispatchable units while the graph shows the dispatchable generators market shares for the first eleven-month period.

Concentration indicators -November 2016-	C1 (%)	C3 (%)	HHI
Value	29.43	66.93	1673



Source: Monthly reports of generators – processed by MG

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 November 2016:

Structure/concentration indicators of BM - November 2016 -	Regulation					
	Secondary		Fast tertiary		Slow tertiary	
	upward	downward	upward	downward	upward	downward
C1 - % -	57	57	66	44	62	57
C3 - % -	95	93	93	95	92	90
HHI	4461	4378	4772	3799	4557	3921

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

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 on market mechanisms and regulated contracts. Based on *GD no. 941/2014 provisions for modifying art. no. 4 of GD no. 138/2013 regarding approving some measures for electricity supplying security and for extension of a term*, they were established regulated quantities for secondary, fast tertiary and slow tertiary reserves.
Besides that, in October 2016 CNTEE Transelectrica SA has organised auctions for acquiring reserves on the competitive component for secondary reserve, fast tertiary and slow tertiary reserve.

The relationship between regulated and competitive components on the Ancillary Services Market (ASM) as well as the main concentration indicators on each type of reserve (secondary, fast tertiary and slow tertiary) are presented in the following table, for November 2016.

Concentration indicators on ASM - November 2016 -		**Secondary reserve**	**Fast tertiary reserve**	**Slow tertiary reserve**
regulated component	**contracted quantity (h*MW)**	**14400**	**14400**	**331200**
	C1 (%)	**86.8**	**100.0**	**100.0**
	C3 (%)	**100.0**	**100.0**	**100.0**
competitive component	**contracted quantity (h*MW)**	**303600**	**483600**	**172800**
	C1 (%)	**59.7**	**75.4**	**67.9**
	C3 (%)	**97.6**	**89.1**	**100.0**
	HHI	**4808**	**5815**	**5457**

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

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 - November 2016 -	**C1 (%)**	**C3 (%)**	**HHI**
Selling	**13.21**	**29.52**	**497**
Buying	**23.08**	**42.50**	**861**

Source: Monthly reports of Opcom SA – processed by MG

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 and EPEX Spot (both of them, stock members of PCR initiative), the last one operating as services supplier for OKTE-Slovakia, HUPX-Hungary (which is not a PCR member) and Opcom-Romania (who became PCR member from 1st January 2016). 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.

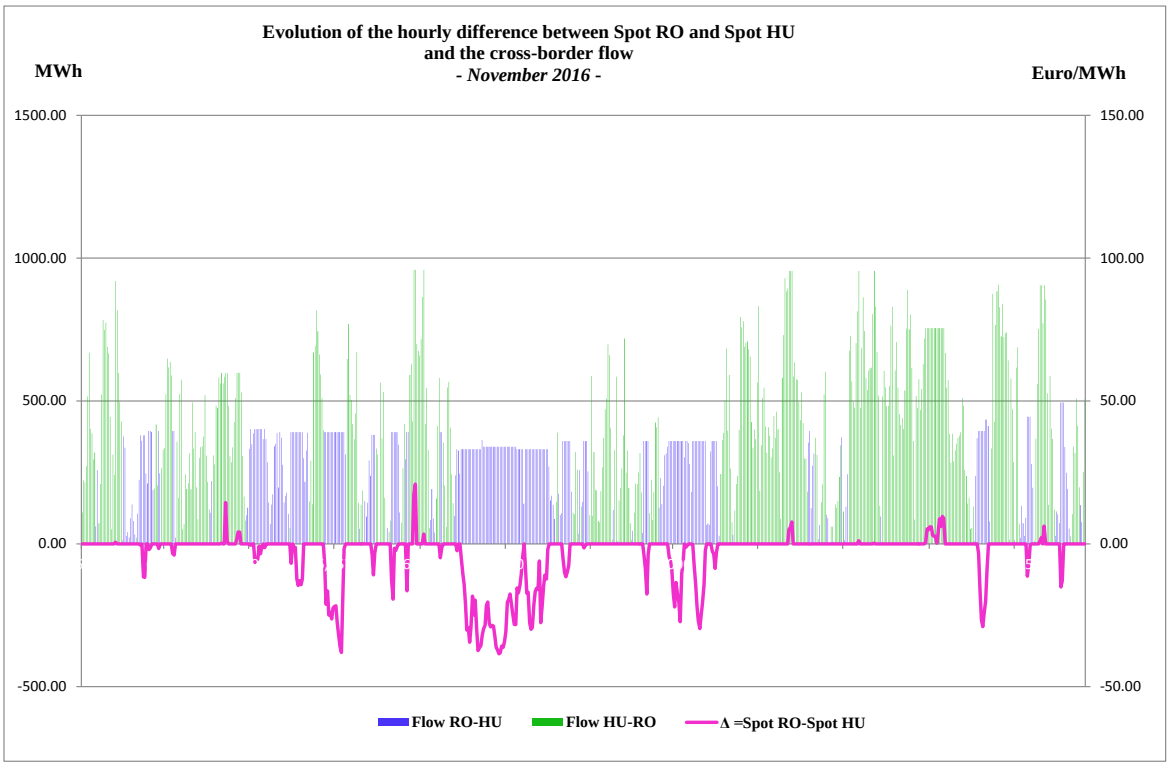
Monthly spot prices on the 4 markets functioning in market coupling framework
January 2014 - November 2016

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
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
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
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
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

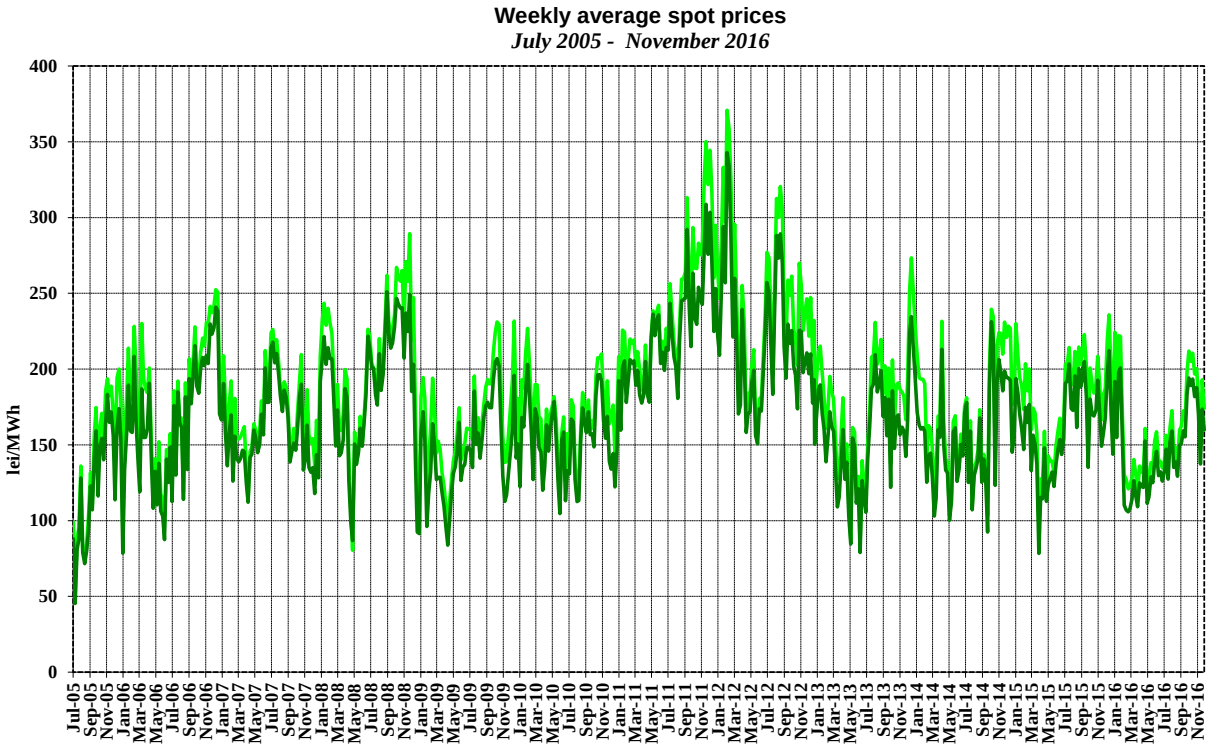
Source: Monthly reports of Opcom SA – processed by MG

The following graph presents the evolution of Octoer 2016 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 MG

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



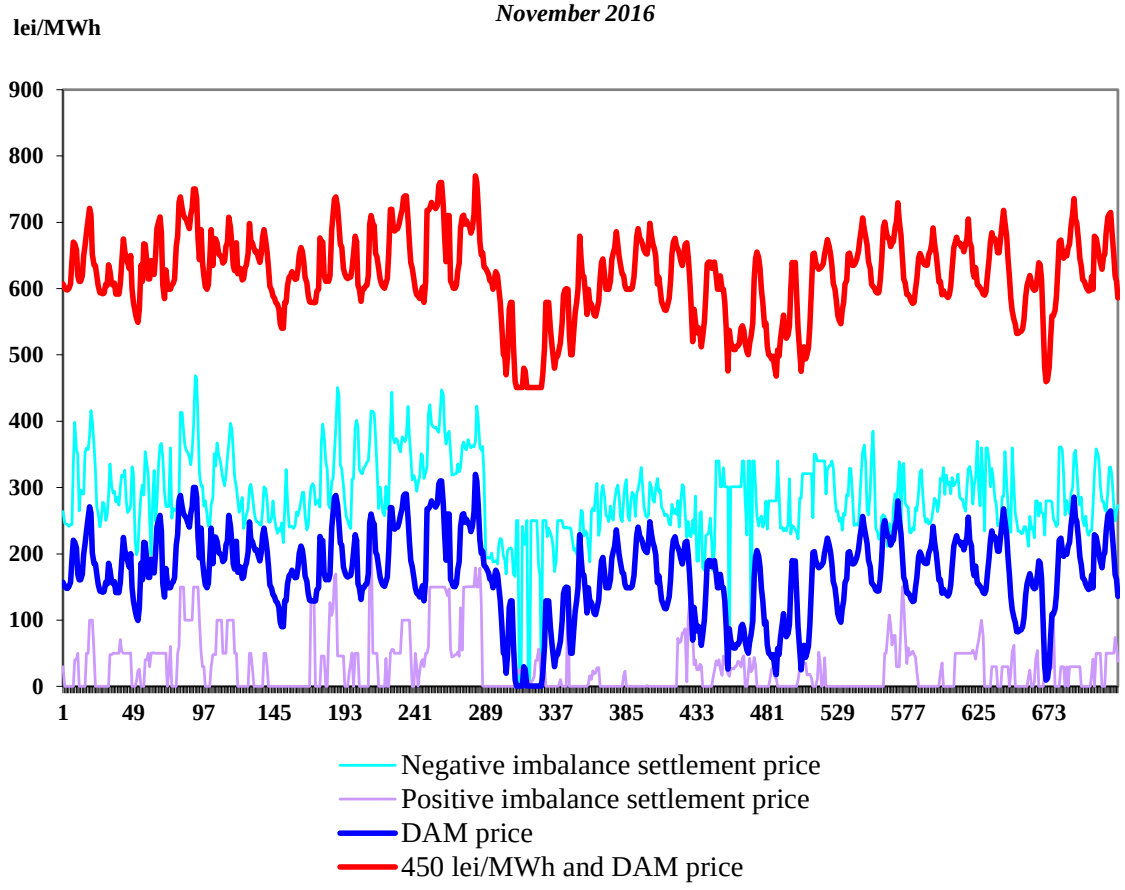
Source: Daily reports of Opcom SA – processed by MG

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.

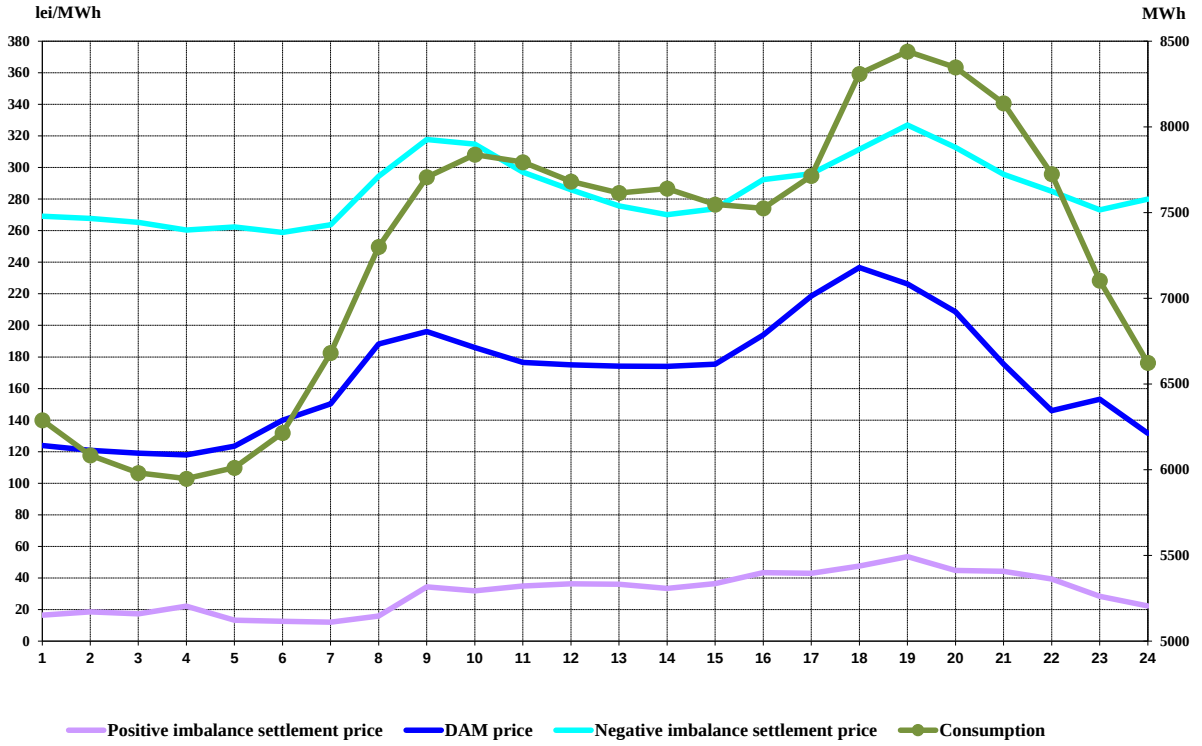
Hourly settlement prices

November 2016



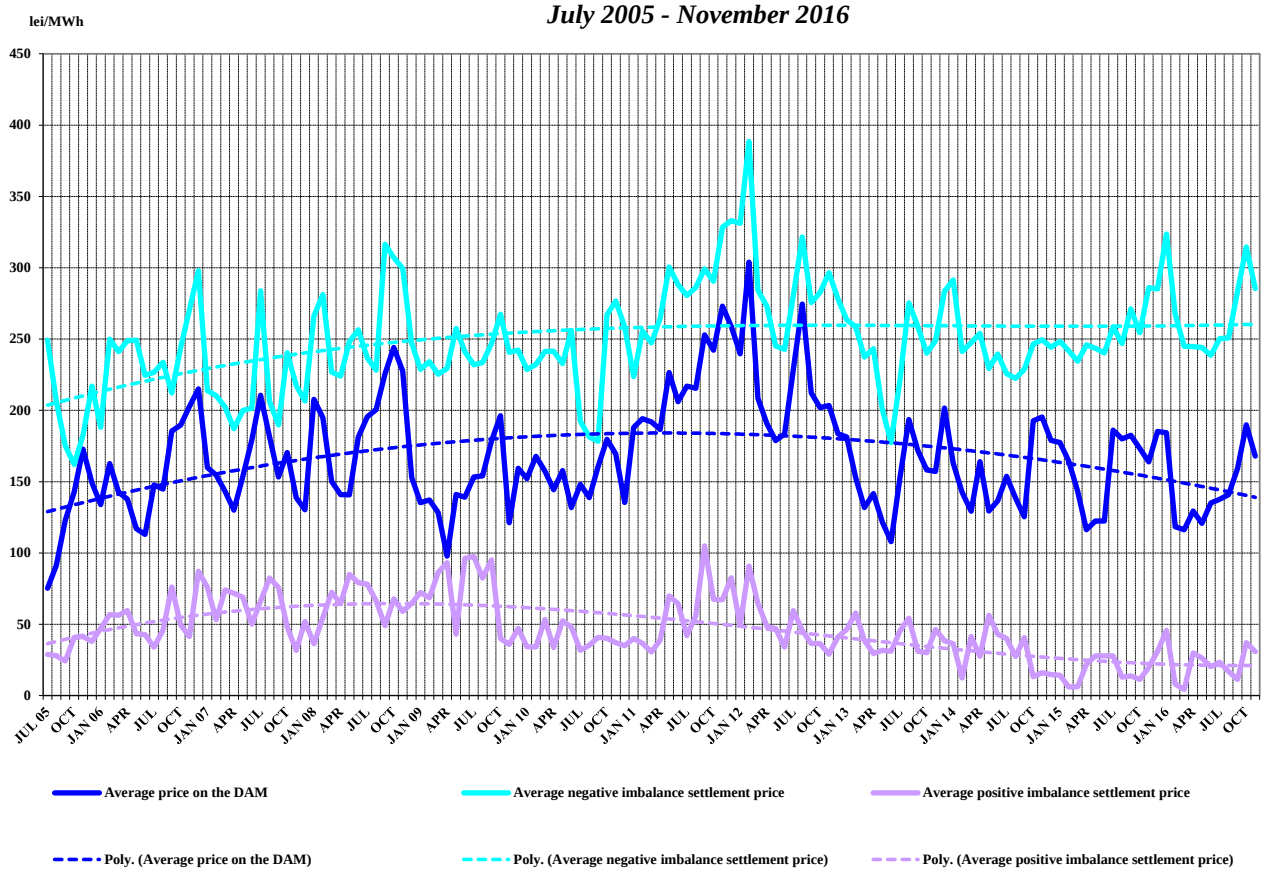
Source: Daily/monthly reports of Opcom SA – processed by MG

Hourly average settlement prices and internal consumption
November 2016



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

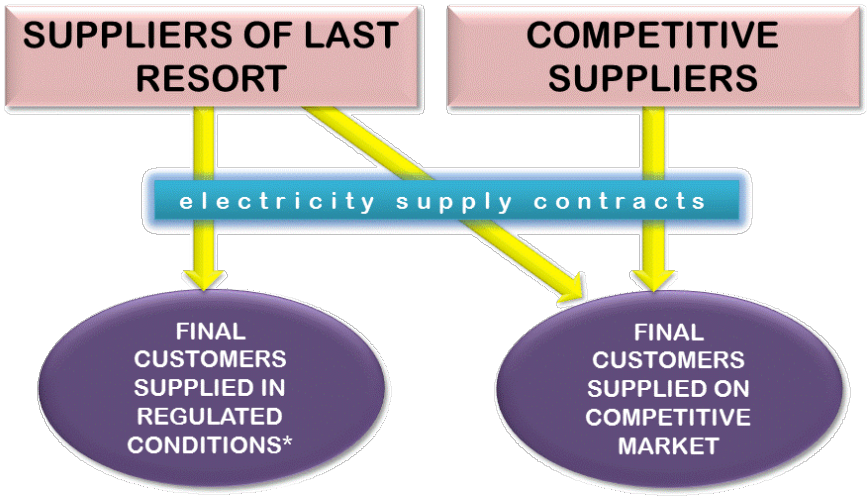
Monthly average prices on DAM and BM
July 2005 - November 2016



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

III. RETAIL ELECTRICITY MARKET

1. Structure of the retail electricity market

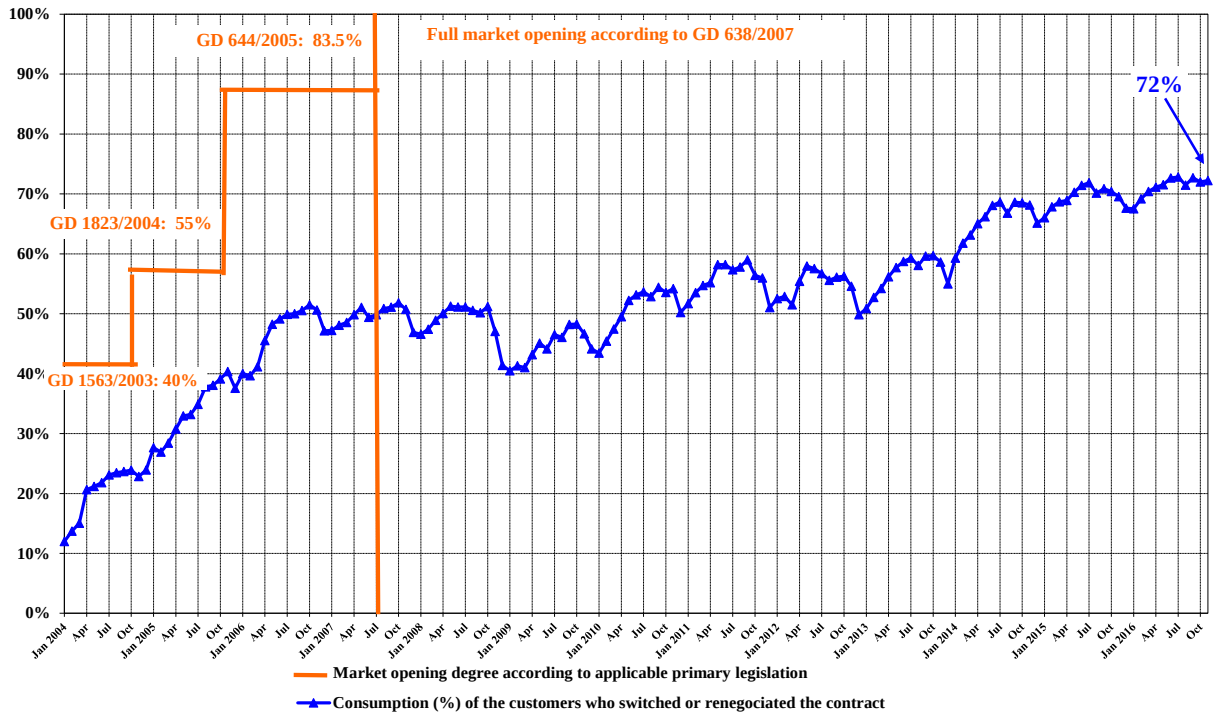


* according to art. 53 (2) and art. 55 (1) from Electricity and Gas Law no. 123/2012

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 – November 2016. The values presented are cumulated from the beginning of the opening process and are presented monthly:

Opening degree evolution of electricity market
January 2004 - November 2016

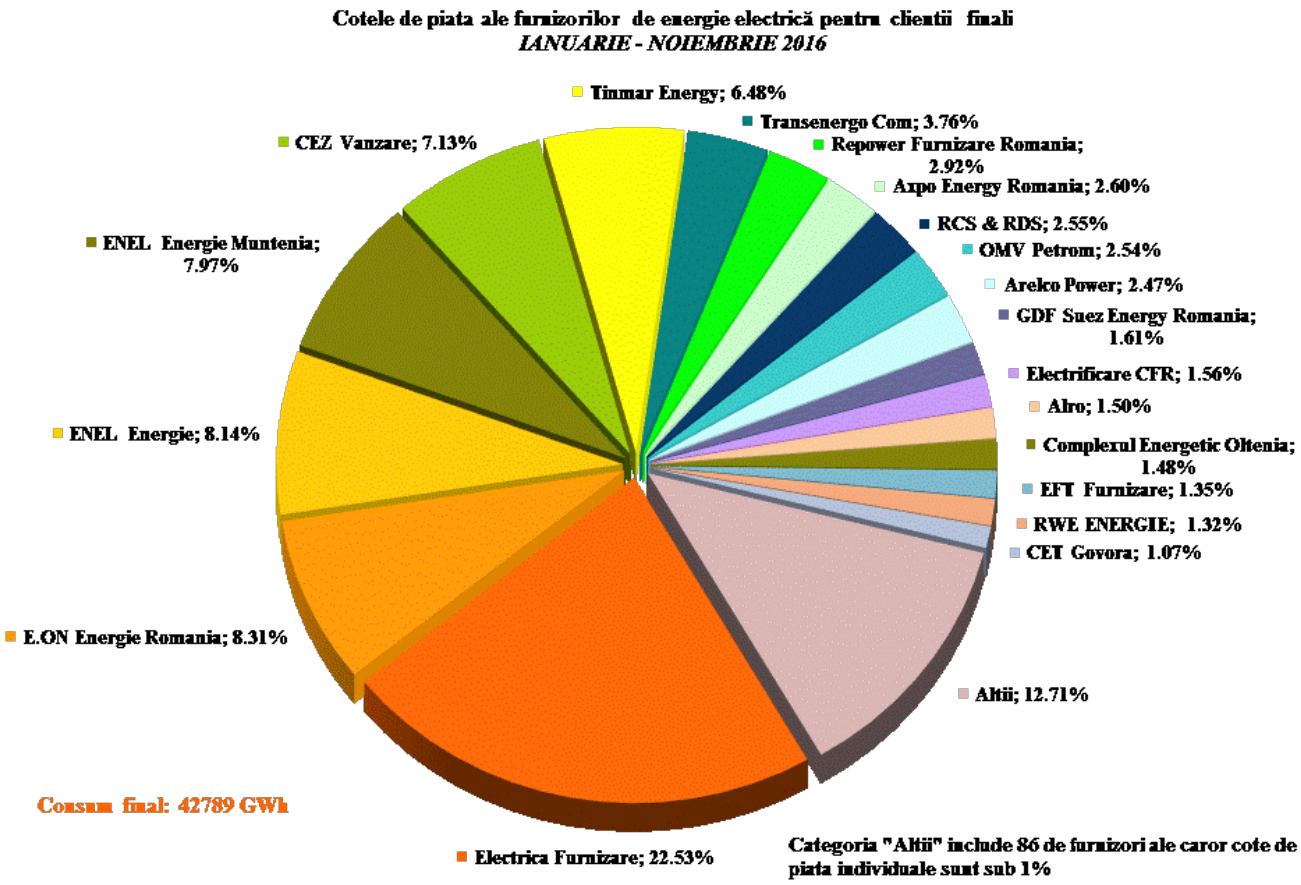


Source: Monthly reports of the final customers' suppliers – processed by MG

3. Market shares of the electricity suppliers

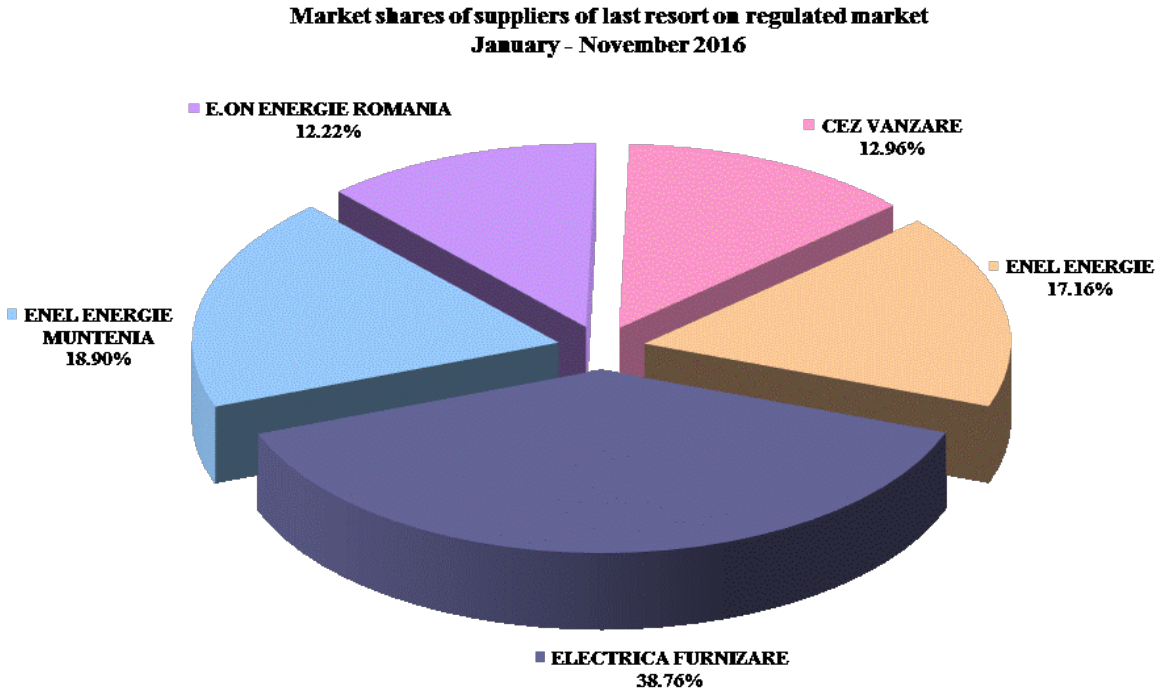
In the following three graphs there are presented the market shares of electricity suppliers on the retail market, calculated:

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 MG

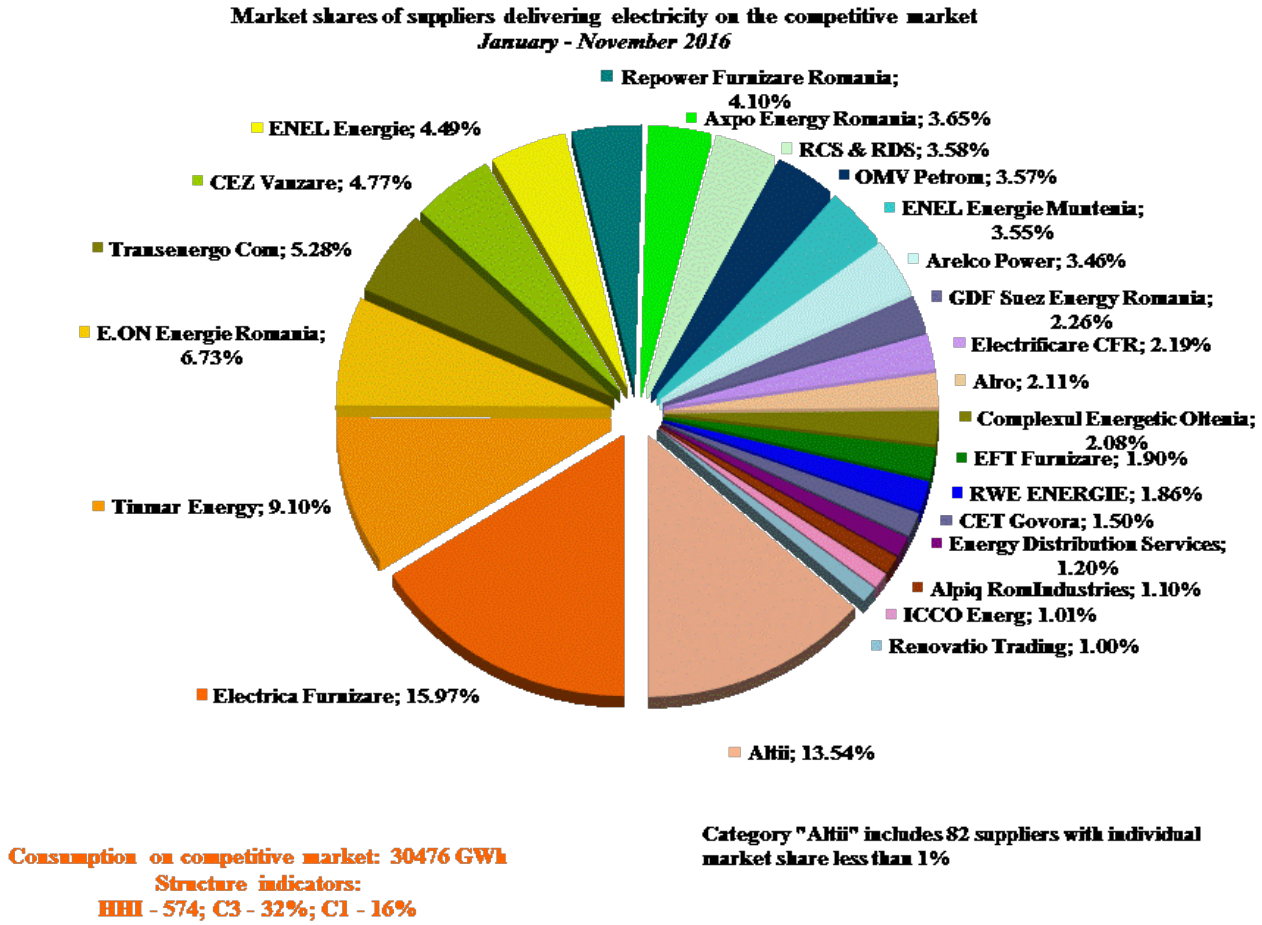
b) for suppliers of last resort - based on the electricity supplied to the final customers in US and last resort regime;



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

and

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 MG

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 November 2016:

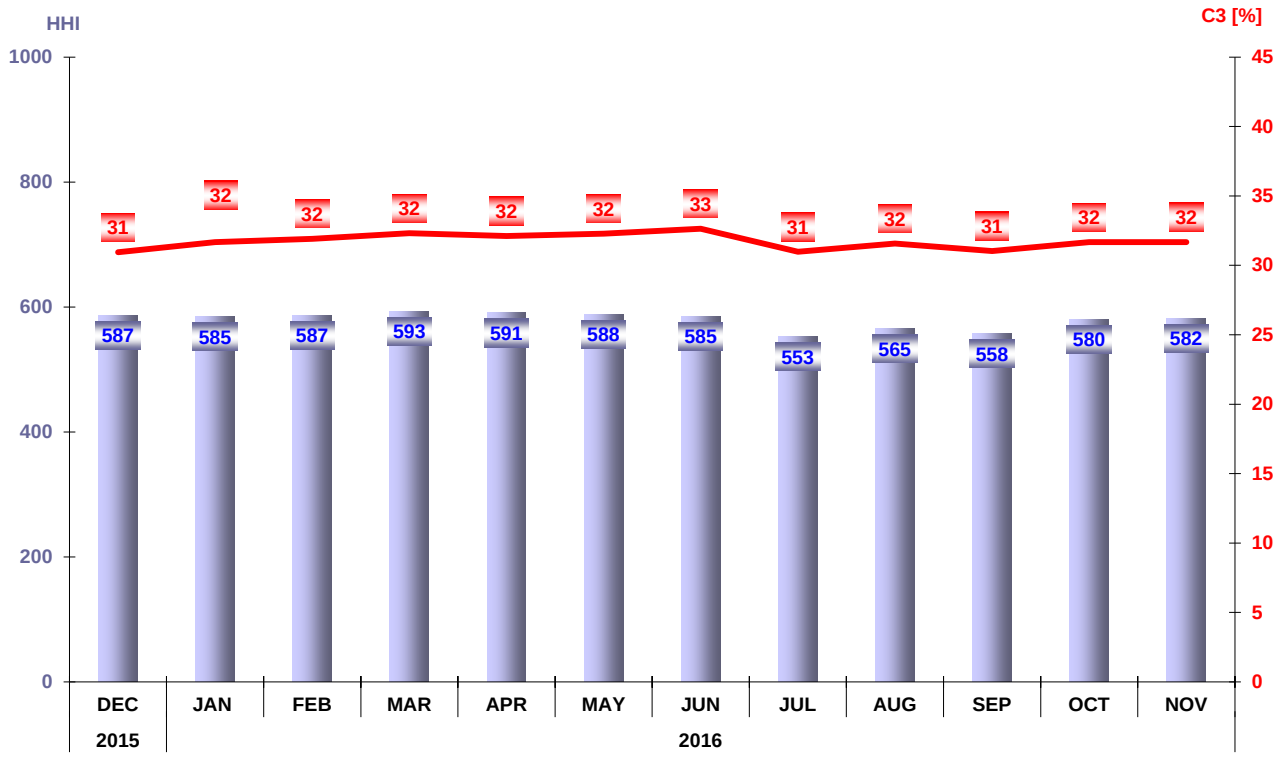
Number of suppliers	Share of sales to final customers from total sales transactions			
	100%	75% - 100%	50% - 75%	<50%
Competitive	9	20	9	34
Of last resort	0	4	1	0

Source: Monthly reports of the suppliers– processed by MG

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 December 2015 – November 2016 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 MG

The table below shows the values of structure indicators of competitive component of REM for and the number of active suppliers in November 2016, calculated for each customer category as defined by the Directive 2008/92/EC of the European Parliament and of the Council:

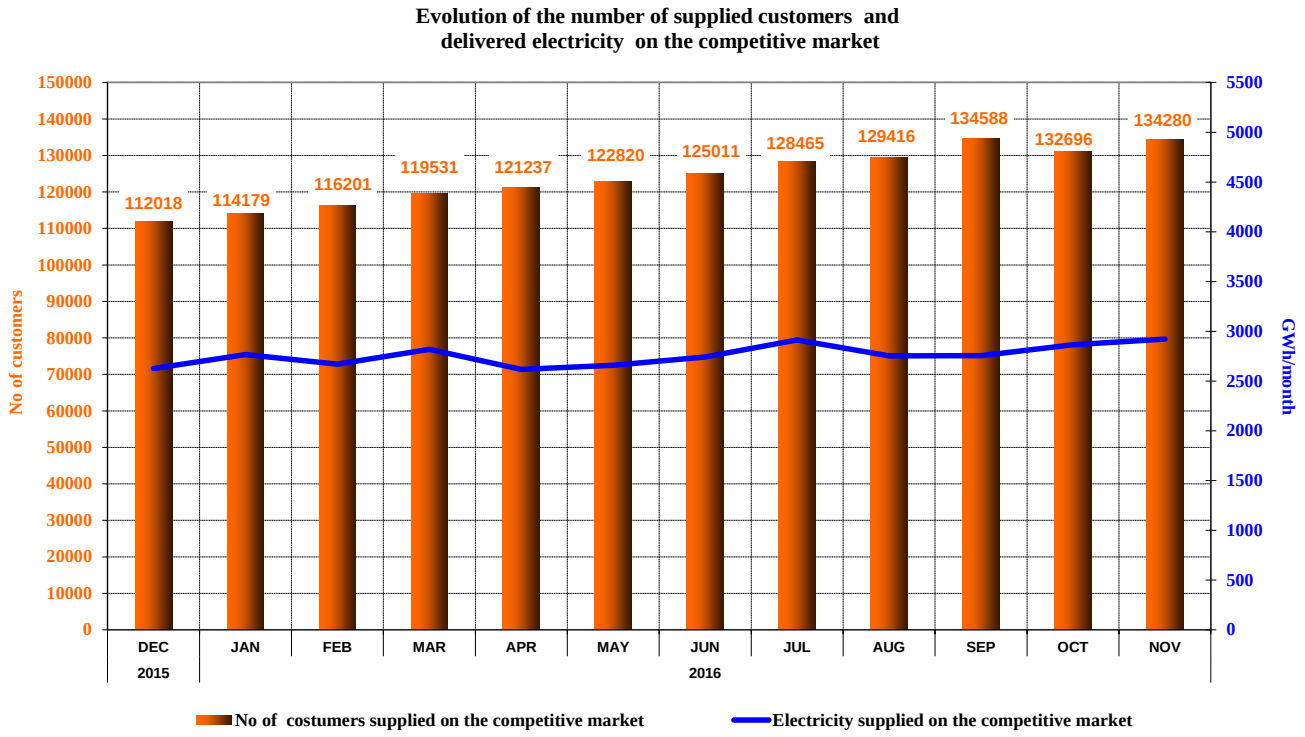
Indicators - Nov 2016	Consumer category							Total REM
	IA	IB	IC	ID	IE	IF	Other	
C1 - % -	29	26	20	15	17	23	18	**16**
C3 - % -	60	50	39	33	37	49	46	**32**
HHI	1635	1231	808	617	730	1145	1030	**582**
Consumption - GWh -	101	380	318	684	436	240	762	**2921**
No. of SUPPLIERS	70	82	71	65	32	18	18	**95**
No. of suppliers of last resort	5	5	5	5	5	3	3	**5**
No. of competitive suppliers	52	64	56	53	24	13	9	**72**
No. of producers	13	13	10	7	3	2	6	**18**

Source: Monthly reports of the suppliers – processed by MG

5. Evolution of customers' number and of electricity delivered

Number of customers supplied on the competitive market is presented as total value from the beginning of the market opening process; for November 2016 this number is split into categories, according to the provisions of Directive 2008/92/EC of the European Parliament and of the Council. The table below presents the bands of consumption of each category of customers:

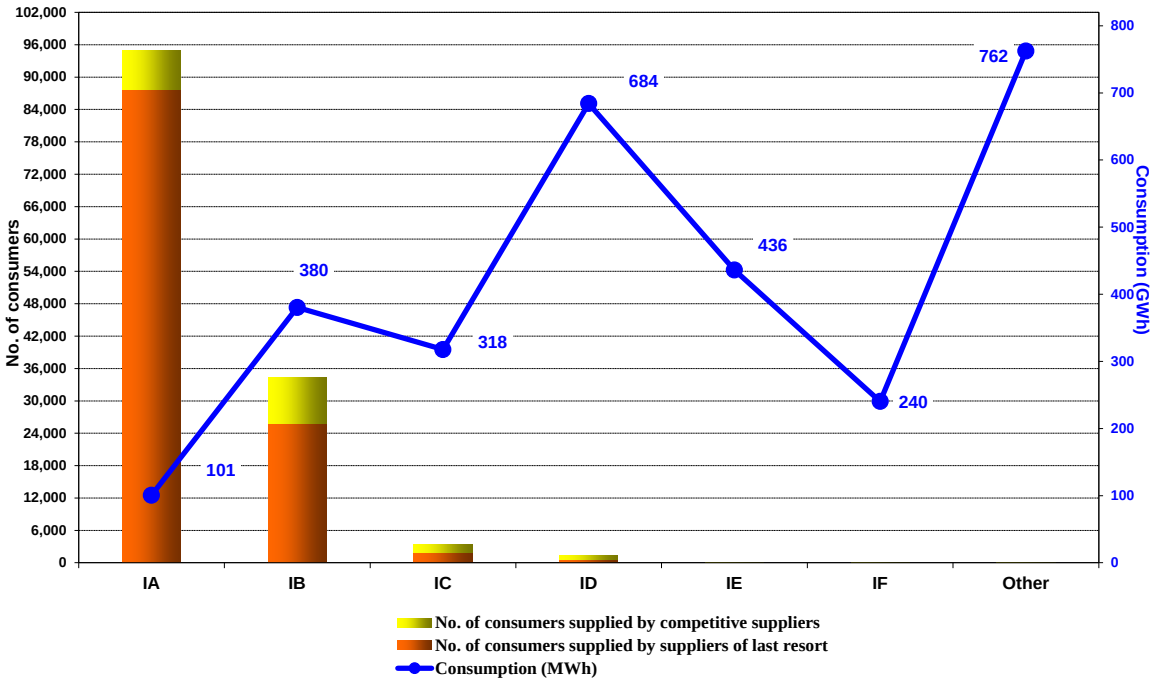
Non-household customers	Annual electricity consumption (MWh) between:	
IA		<20
IB	20	<500
IC	500	<2000
ID	2000	<20000
IE	20000	<70000
IF	70000	<=150000
Others	>150000	



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

Note: following the analysis of September 2016 values, an error on the number of clients supplied on the competitive suppliers has been identified due to a supplier report which will be modified within the year report

Number of consumers supplied on competitive market and the consumption of each category of consumers
- November 2016 -

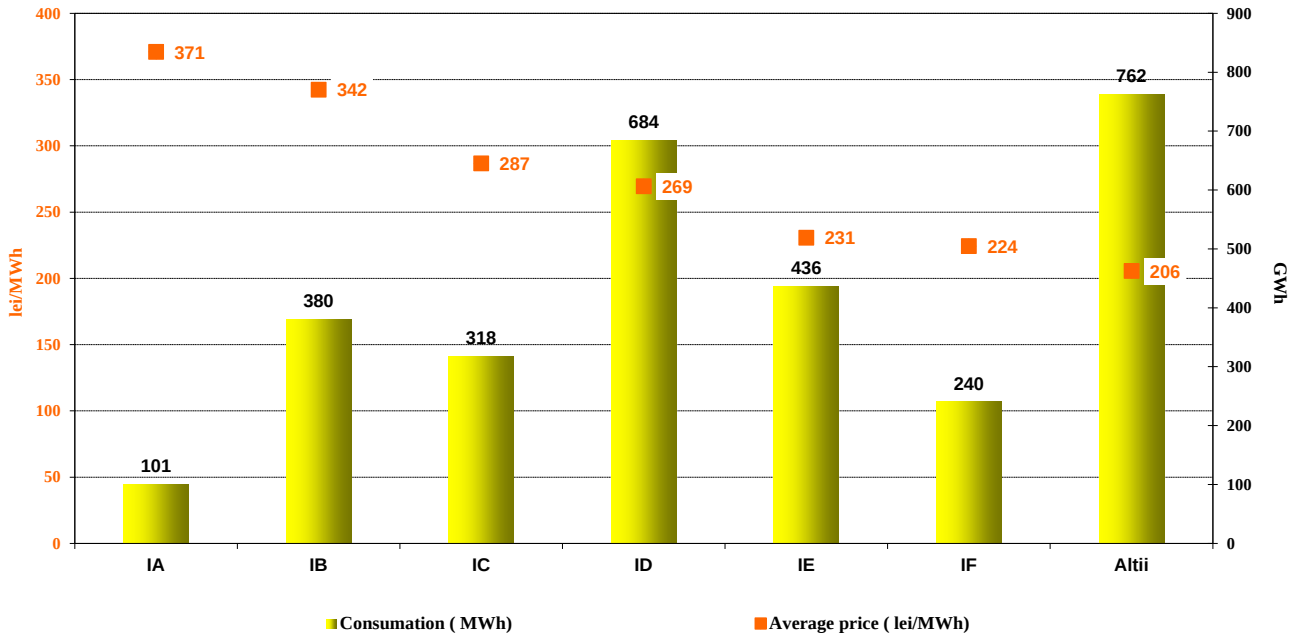


Source: Monthly reports of the suppliers – processed by MG

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 Directive 2008/92/EC of the European Parliament and of the Council for November 2016.

Average price and energy consumption on types of consumers applied on compatitive market
- November 2016 -



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

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 Directive. 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 Directive.

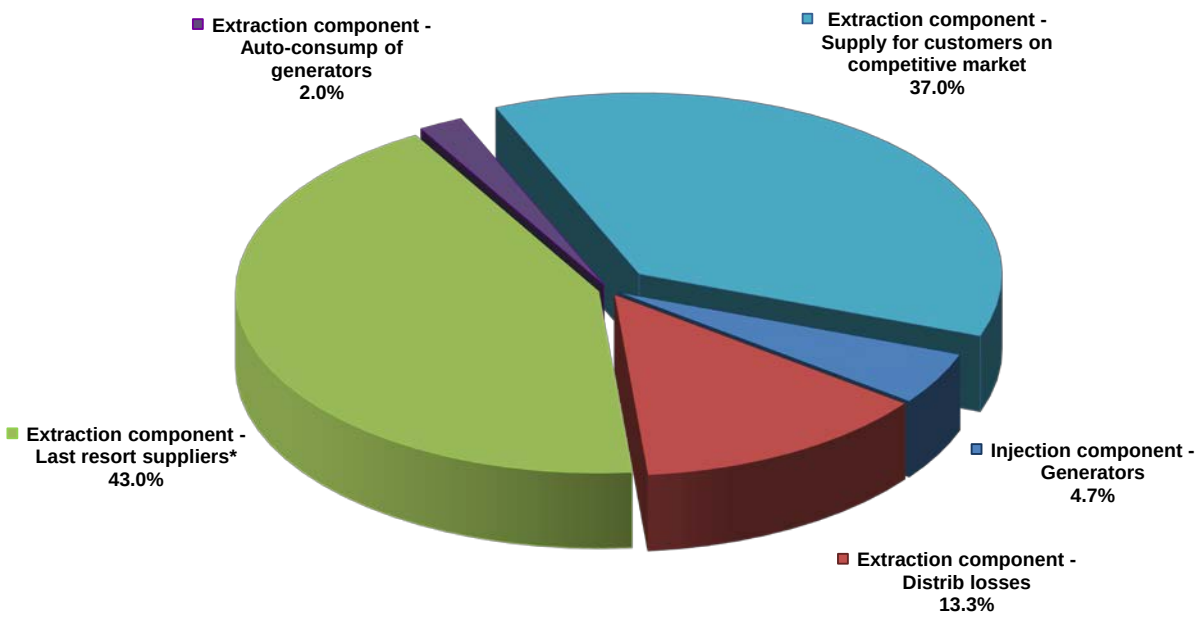
IV. TRANSMISSION AND SYSTEM OPERATOR CNTEE TRANSELECTRICA S.A.

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 November 2016.

CNTEE Transelectrica SA structure of revenues from transmission services
- November 2016 -



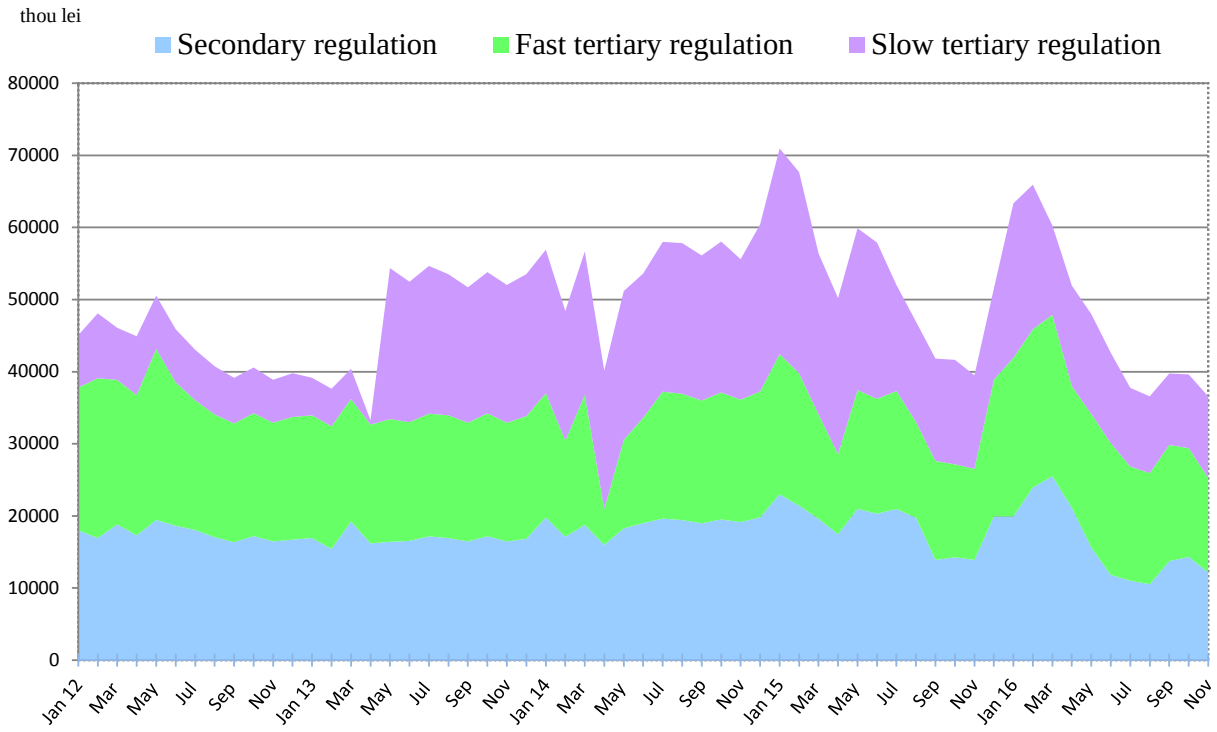
*** for electricity extracted from their own licence areas as well as from other areas**

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

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 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 costs with ancillary services acquired from qualified generators



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

V. EVOLUTION OF MARKET RULES IN NOVEMBER 2016

In November 2016, ANRE issued the following regulations with impact on the wholesale and retail electricity markets:

- ANRE Order no. 77/2016 regarding the amendment of the Regulation for accreditation of producers generating RES electricity for applying the green certificates promoting system, approved by ANRE Order no. 48/2014;
- ANRE Order no. 78/2016 regarding the value of reference bonus for high efficiency cogeneration and the reference prices for thermal energy produced in cogeneration, applicable for 2017;
- ANRE Order no. 87/2016 regarding the amendment of Methodology for establishing the regulated tariff applied by Opcom SA, the electricity market operator approved by ANRE Order no. 67/2013;
- ANRE Decision no. 1804/2016 on approving the quantities produced in highly efficient cogeneration units which benefit of bonus scheme in October 2016.

VI. EXPLANATIONS AND ABBREVIATION

1. Explanations

- *Electricity delivered into the grid* includes also the own consumption of auto-generators such as RAAN and OMV Petrom together with the electricity sold by the generators through direct lines or consumed by themselves at other consumption sites.
- *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.
- *Internal consumption* represents the electricity covered by the wholesale market participants and calculated as *Delivered electricity + Import – Export*.
- *Consumption of final customers on regulated market* represents the consumption of customers supplied at regulated tariffs and CMC by suppliers of last resort.
- *Consumption of final customers on competitive market* represents the consumption of customers supplied at negociated prices.
- *Fuel consumption* represents the fuel consumed for generating electricity and heat.
- *Competitive supplier* represents the supplier which is active on the competitive retail market.

2. Abbreviation

- MG – Monitoring Group
- 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
- 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
- ATC – Available Transmission Capacity