REPORT ON RESULTS OF MONITORING THE ROMANIAN ELECTRICITY MARKET DECEMBER 2015

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

TABLE OF CONTENTS

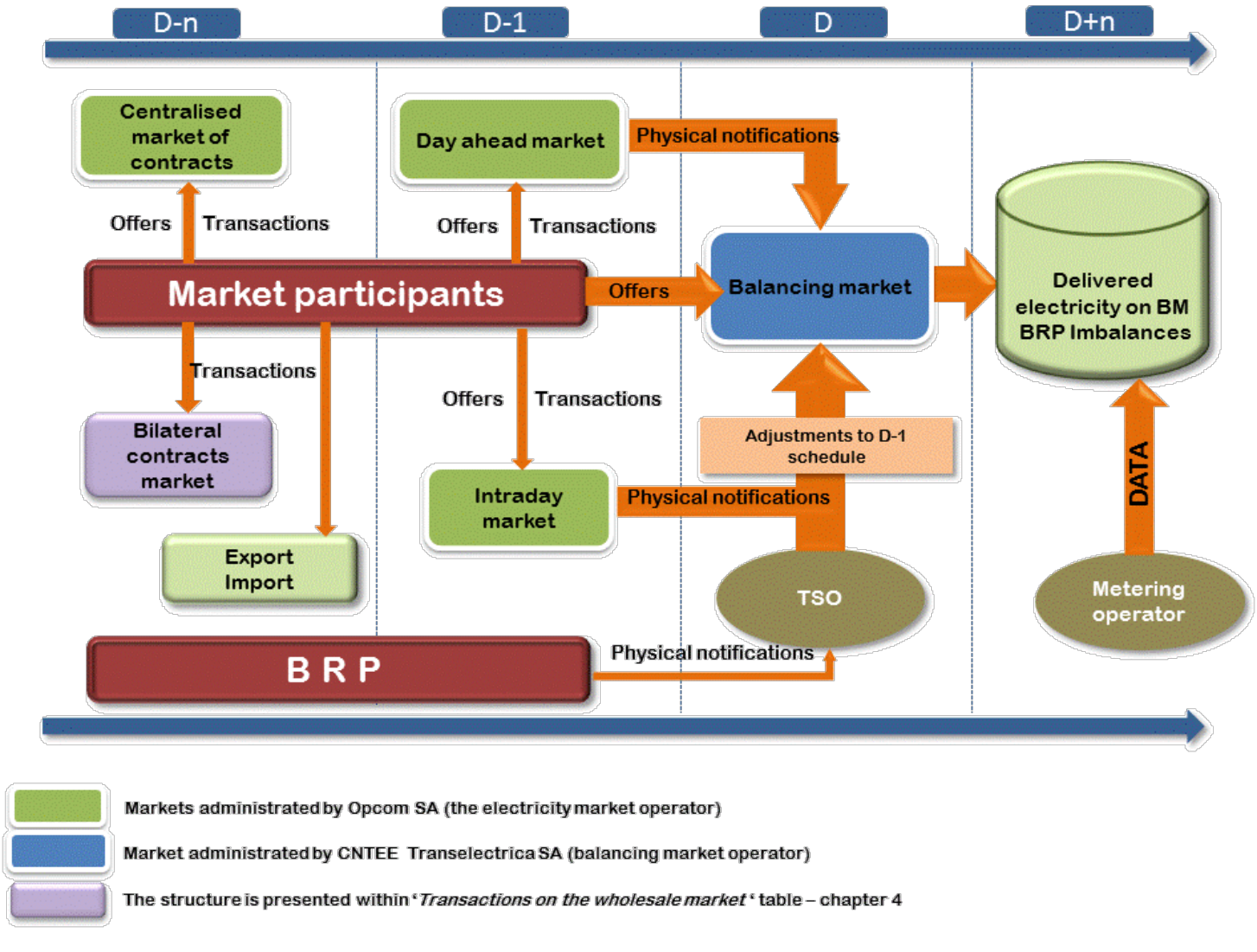
I. MAIN EVENTS IN THE DEVELOPMENT OF THE ROMANIAN ELECTRICITY MARKET

- 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

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 December 2015 are presented below split into categories:

Category
Electricity generators on classic sources operating dispatching units
Bepco SRL
CET Arad SA
CET Govora SA
CE Hunedoara SA
CE Oltenia SA
Contour Global Solutions SRL
Ecogen Energy SA
Electrocentrale Bucureşti SA
Electrocentrale Galaţi SA
Electrocentrale Oradea SA
Electro Energy Sud SRL
Enet Focsani SA
Lukoil Energy & Gaz Romania SRL
Modern Calor SA
OMV Petrom SA
RAAN
SNGN Romgaz SA
Rulmenti SA
Veolia Energie Iaşi SRL
Veolia Energie Prahova SRL
Vest Energo SA
Electricity generators on wind source operating dispatching units
Alizeu Eolian SA
Alpha Wind SRL
Arinna Development SRL
Blue Line Energy SRL
Blue Planet Investments SRL
Braila Winds SRL
Bridgeconstruct SRL
CAS Regenerabile SRL
Cernavoda Power SRL
Corni Eolian SRL
Crucea Wind Farm SRL
Dan Holding MGM SRL
Eco Power Wind SRL
Ecoenergia SRL
EDP Renewables Romania SRL
Electrica Serv SRL
SC Electricom SA
Elektra Invest SRL
Elektra Wind Power SRL
Enel Green Power Romania SRL
Energia Verde Ventuno SRL
Enex SRL
Eol Energy Moldova SRL
Eolian Center SRL
Eolica Dobrogea One SRL
EP Wind Project (ROM) SIX SA
Eviva Nalbant SRL
Ewind SRL
General Concrete Cernavoda SRL
Green Energy Farm SRL
Holrom Renewable Energy SRL
Horia Green SRL
Ialomita Power SRL
Intertrans Karla SRL
Kelavent Charlie SRL
Kelavent Echo SRL
Land Power SRL
LC Business SRL
M&M 2008 SRL
Mireasa Energies SRL
OMV Petrom Wind Power SRL
Ovidiu Development SRL
Peştera Wind Farm SRL
Romconstruct Top SRL
Sibioara Wind Farm SRL
Smart Clean Power SRL
Smartbreeze SRL
Soft Grup SRL
Tomis Team SRL
Ventus Renew Romania SRL
Wind Park Invest SRL
Windfarm MV I SRL
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	Solprim SRL
32	Spectrum Tech SRL
33	Studina Solar SRL
34	Sun Energy Complet SA
35	Tis Energy SRL
36	Tinmar Green Energy SRL
37	Vanju Mare Solar SRL
38	Varokub Energy Development SRL
39	VIS Solaris 2011 SRL
40	Vrish Pro Investments SRL
41	WDP Development RO SRL
42	Xalandine Energy SRL
43	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	Alpiq Energy SE
2	SC ARV God Technology SRL
3	SC Bit-Reen SRL
4	CEZ as
5	SC CYEB SRL
6	Danske Commoditiesa/s Aarhus
7	SC ECG Power Trading SRL
8	E&T ENERGIE Handelsgesellschaft
9	Edison Trading Spa
10	Energo-Pro Trading EAD
11	EVN Trading South East Europe
12	SC Energy Market Consulting SRL
13	Ezpada SRO
14	Freepoint Commodities Europe Ltd
15	GEN I trgovanje in prodaja elektricne energije doo
16	Holding_ Slovenske_ Elektrarne
17	SC Industrial Instal Service SRL
18	Interenergo Energetski, Inzeniring d.o.o.
19	JAS Energy Trading s.r.o.
20	SC Lord Energy SRL
21	MVM Partner Zrt
22	SC Nis Petrol SRL
23	OMV Trading GmbH
24	Repower Trading Ceska Republica s.r.o.
25	SC Repower Vanzari Romania SRL
26	Statkraft Markets GmbH
27	SC Vertis Energy SRL
28	Vitol Gas and Power B.V.

L	***Electricity Suppliers acting also on the retail market***
1	SC A Energy Ind SRL
2	SC Aderro G.P. Energy SRL
3	SC Alpiq RomIndustries SRL
4	SC Alro SA
5	SC Arelco Power SRL
6	SC Axpo Energy Romania SRL
7	SC Belectric Energy Trading SRL
8	SC Biol Energy SRL
9	SC Ciga Energy SA
10	SC Cotroceni Park SA
11	SC C-Gaz & Energy Distributie SRL
12	SC Curent Alternativ SRL
13	SC EFE Energy SRL
14	SC EFT Furnizare SRL
15	SC Electra Management Supply SRL
16	SC Electric Planners SRL
17	SC Electrificare CFR SRL
18	SC Electrocarbon SA
19	SC Electromagnetica SA

No.	Category
M	***Electricity Suppliers acting also on the retail market***
20	SC Elsaco Energy SRL
21	SC Elsid SA
22	SC Enel Trade Romania SRL
23	SC Energy Distribution Services SRL
24	SC Energy Holding SRL
25	SC Energy Network SRL
26	SC Enol Grup SA
27	SC Entrex Services SRL
28	SC Eolian Project SRL
29	SC E.V.A. Energy SRL
30	SC Fidelis Energy SRL
31	SC Flavus Investiții SRL
32	SC GDF Suez Energy Romania SA
33	SC GDM Logistic SRL
34	SC General Com Invest SRL
35	SC Getica 95 COM SRL
36	SC Hermes Energy International SRL
37	SC ICCO Energ SRL
38	SC ICPE Electrocond Technologies SA
39	SC Imperial Development SRL
40	SC Industrial Energy SA
41	SC Inversolar Energy SA
42	SC KDF Energy SRL
43	SC Luxten LC SA
44	SC Menarom PEC SRL
45	SC MET Romania Energy Trade SRL
46	SC Midas&CO SRL
47	SC Monsson Trading SRL
48	SC Neptun SA
49	SC Nova Power&Gas SRL
50	SC P.C. Management & Consulting SRL
51	SC Polimed Energy Trading SRL
52	SC QMB Energ SRL
53	SC RCS&RDS SA
54	SC Romelectro SA
55	SC Renovatio Trading SRL
56	SC Repower Furnizare Romania SRL
57	SC Restart Energy One SRL
58	SC Romenergy Industry SRL
59	SC RWE Energie SRL
60	SC Tinmar Ind SA
61	SC Transformer Energy Supply SRL
62	SC Transenergo Com SA
63	SC Three Wings SRL
64	SC UGM Energy Trading SRL
65	SC Verbund Trading Romania SRL
66	SC Verta Tel SRL
67	SC Werk Energy SRL

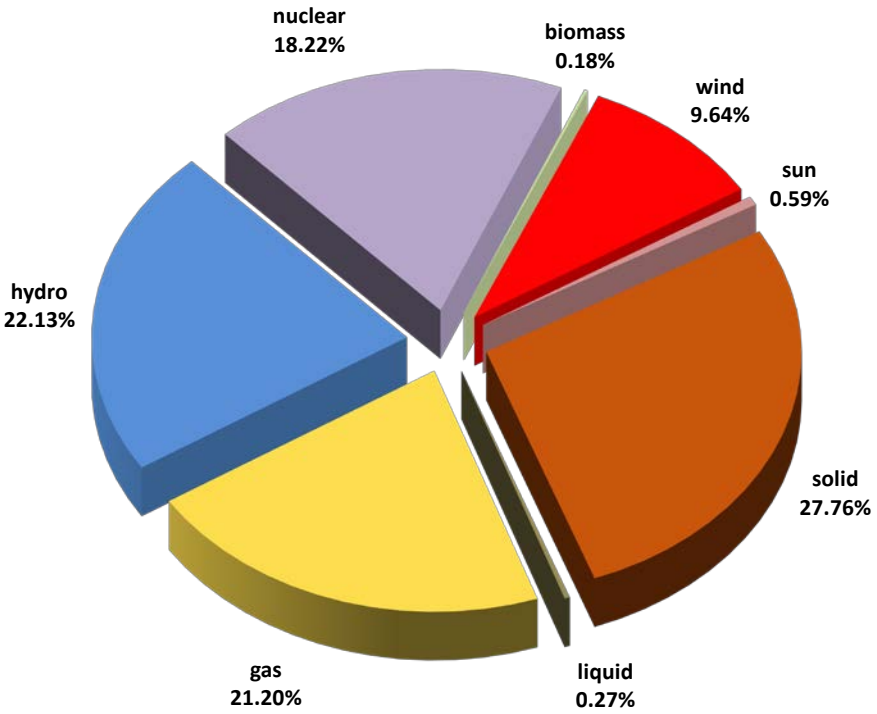
*) The electricity market participants report to ANRE technical/commercial data according to the *Methodology of wholesale electricity market monitoring for assessing the competition level on market and preventing the abuse of dominant position*, approved by ANRE Order no. 35/2006 as well as to the *Methodology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

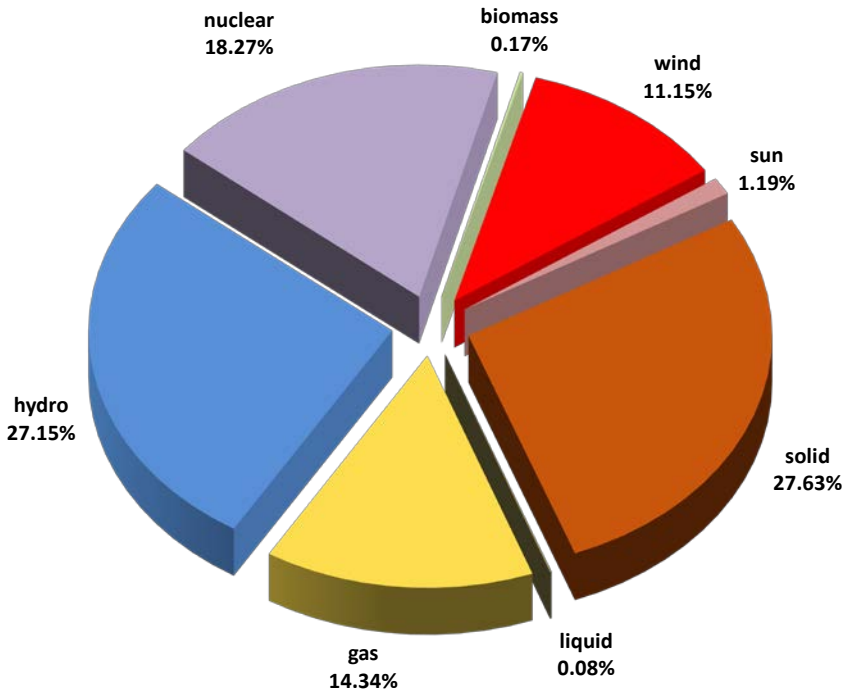
3. Generation structure of National Energy System on resources types

Electricity structure by primary sources
(delivered by generators with dispatchable units)
- December 2015-



Source: Monthly reports of generators – processed by MG

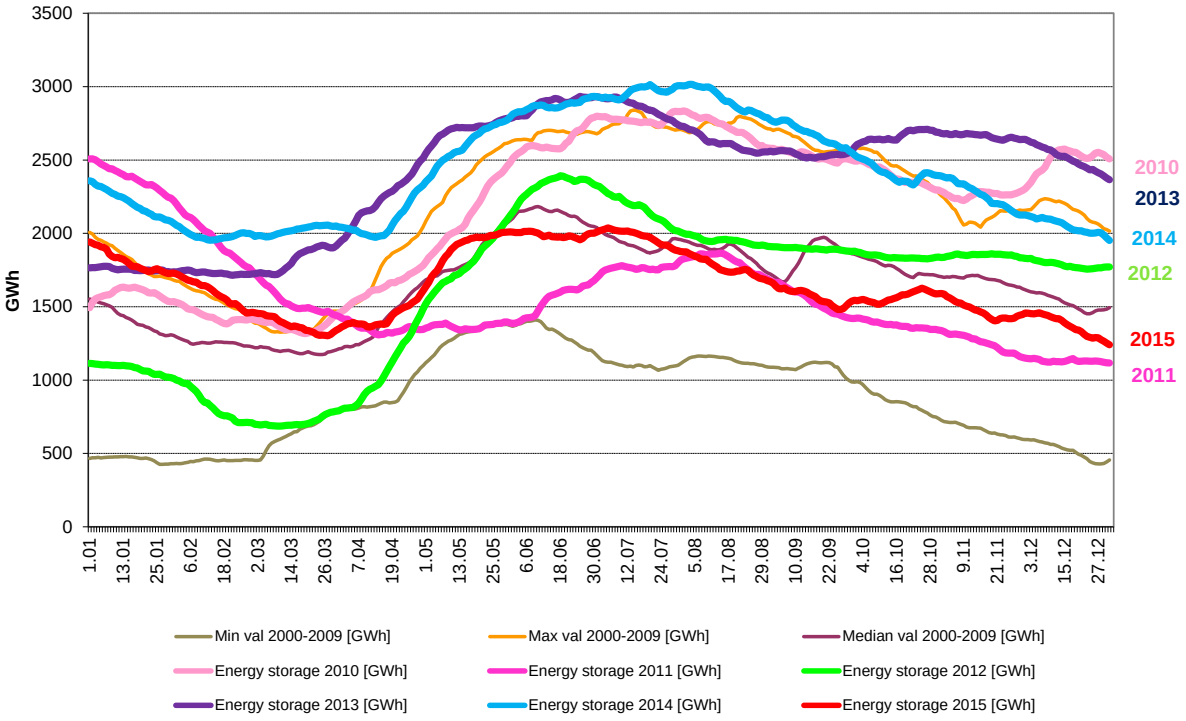
Electricity structure by primary sources
(delivered by generators with dispatchable units)
- 2015-



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 December 2015 compared to the daily values of the last 5 years and compared to minimum, maximum and median values from 2000-2009.

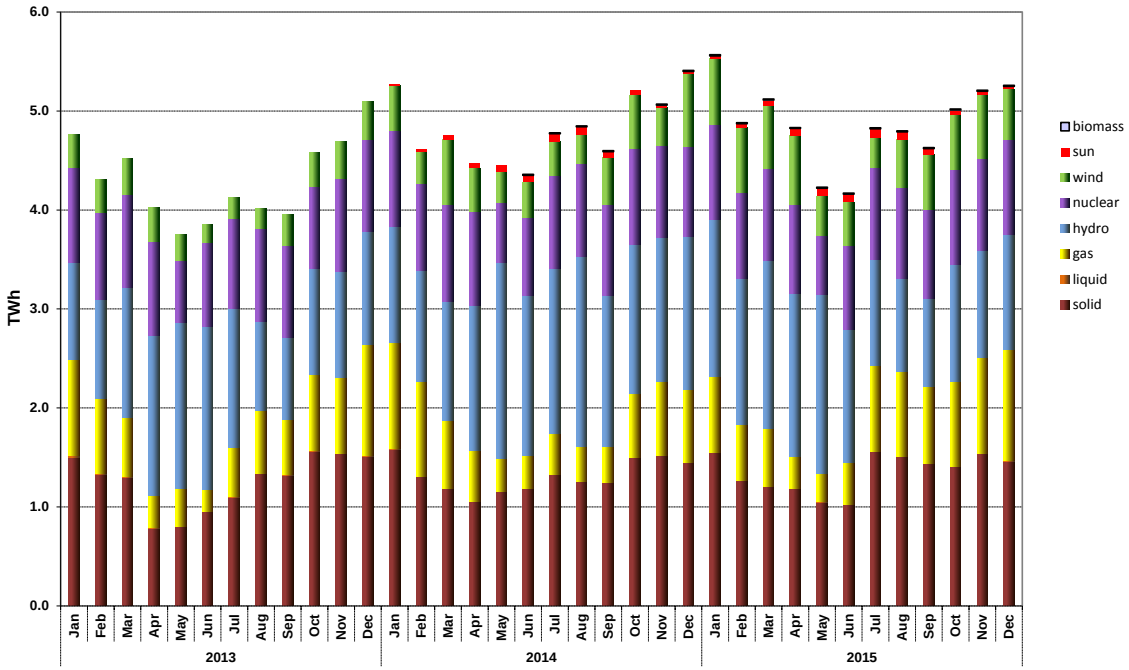
Yearly evolution of daily values of energy stored in the main water reservoirs



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:

Evolution of electricity delivered by generators with dispatchable units by primary sources



Source: Monthly reports of generators – processed by MG

The following table presents the main data regarding the physical balance of electricity for December 2015 and year 2015 compared to data for similar periods of 2014:

Nr. Crt.	INDICATOR	MU	Dec 2014	Dec 2015	%	2014	2015	%
0	**1**	**2**	**3**	**4**	**5=4/3*100**	**6**	**7**	**8=7/6*100**
1	Generated electricity	TWh	5.80	5.65	97.41	62.04	62.62	100.93
2	Delivered electricity	TWh	5.41	5.26	97.23	57.85	58.53	101.18
3	Import	TWh	0.36	0.46	127.78	1.07	3.78	353.27
4	Export	TWh	1.04	1.02	98.08	8.20	10.50	128.05
5	Internal consumption (2+3-4)	TWh	4.72	4.69	99.36	50.73	51.81	102.13
6	Consumption of household customers on the regulated market	TWh	1.11	1.10	99.10	11.62	12.00	103.27
7	Consumption of non-households customers	TWh	2.80	2.79	99.64	32.83	34.20	104.18
7.1	*on the regulated market*	TWh	*0.25*	*0.16*	*64.00*	*3.59*	*2.12*	*59.05*
7.2	*on the competitive market*	TWh	*2.55*	*2.63*	*103.14*	*29.24*	*32.08*	*109.72*
8	Transmission–Injection component	TWh	5.43	5.17	95.21	57.29	57.79	100.88
9	Transmission–Extraction component	TWh	4.78	4.69	98.12	51.34	52.47	102.20
10	Actual trans. grid losses	TWh	0.11	0.07	63.64	1.03	1.03	100.00
11	Heat generated for delivery	Tcal	2071.72	1730.93	83.55	14080.71	12977.58	92.17
12	Heat in co-generation	Tcal	1596.18	1529.37	95.81	11311.22	10508.59	92.90

Note: 1. The generated electricity and delivered electricity are presented according to the data reported by the 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, therefore, starting with January 2014, the number of monitored generators has strongly increased;

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 crossborder exchange of CNTEE Transelectrica SA with neighboing 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.

**Differences compared to the Report on results of monitoring the Romanian electricity market – December 2014 due to modified data reported by some participants.*

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	November 2015	December 2015	December 2014
1. BILATERAL CONTRACTS' MARKET			
traded volume (GWh)	**619**	**641**	**1091**
average price (lei/MWh)	138.64	139.21	151.27
% from internal consumption	13.8	13.7	23.1
1.1. Sales on regulated contracts			
traded volume (GWh)	**497**	**542**	**796**
average price (lei/MWh)	138.16	136.50	146.27
% from internal consumption	11.1	11.6	16.8
1.2. Sales on negotiated contracts[1)]			
traded volume (GWh)	**122**	**99**	**295**
average price (lei/MWh)	140.9	154.15	164.73
% from internal consumption	2.7	2.1	6.3
2. EXPORT			
traded volume[2)] (GWh)	**999**	**1024**	**1044**
average price (lei/MWh)	168.74	172.97	184.65
% from internal consumption	22.3	21.8	22.1
3. CENTRALIZED MARKETS OF BILATERAL CONTRACTS			
traded volume (GWh)	**5695**	**5862**	**4278**
average price (lei/MWh)	166.40	167.39	175.83
% from internal consumption	127.3	125.0	90.6
3.1. Extended auction mechanism CMBC-EA[3)]			
traded volume (GWh)	**2947**	**3112**	**3524**
average price (lei/MWh)	160.40	161.61	174.93
% from internal consumption	65.9	66.3	74.6
3.2. Continuous negotiation mechanism CMBC-CN [3)]			
traded volume (GWh)	**804**	**693**	**250**
average price (lei/MWh)	171.20	168.54	177.68
% from internal consumption	18.0	14.8	5.3
3.3. CM-OTC mechanism [3)]			
traded volume (GWh)	**1944**	**2057**	**504**
average price (lei/MWh)	173.49	175.41	181.21
% from internal consumption	43.5	43.8	10.7
4. CENTRALIZED MARKET FOR UNIVERSAL SERVICE - CMUS			
traded volume (GWh)	**554**	**573**	
average price (lei/MWh)	181.41	181.41	-
% from internal consumption	12.4	12.2	
5. DAY AHEAD MARKET			
traded volume (GWh)	**1822**	**2141**	**2222**
average price (lei/MWh)	163.91	185.04	178.99
% from internal consumption	40.7	45.6	47.1
6. INTRADAY MARKET			
traded volume (GWh)	**15.2**	**11.14**	**5.3**
average price4) (lei/MWh)	36.79	110.21	156.00
% from internal consumption	0.3	0.2	0.1

TRANSACTIONS ON THE WHOLESALE MARKET	September 2015	October 2015	October 2014
7. BALANCING MARKET			
traded volume (GWh)	**421**	**465**	**434**
% from internal consumption	9.4	9.9	9.2
upward volume (GWh)	**309**	**328**	**305**
average negative imbalance price (lei/MWh)	286.11	285.20	244.33
downward volume (GWh)	**112**	**137**	**129**
average positive imbalance price (lei/MWh)	19.82	30.90	14.71
INTERNAL CONSUMPTION (includes distribution and transmission losses) (GWh)	**4472**	**4691**	**4723**

TRANSACTIONS ON THE WHOLESALE MARKET	2013	2014	2015
1. BILATERAL CONTRACTS' MARKET			
traded volume (GWh)	**37607**	**13669**	**7922**
average price (lei/MWh)	184.61	149.79	141.96
% from internal consumption	75.7	26.9	15.6
1.1. Sales on regulated contracts			
traded volume (GWh)	**16755**	**9058**	**6413**
average price (lei/MWh)	171.13	142.68	140.56
% from internal consumption	33.7	17.9	12.6
1.2. Sales on broker platforms			
traded volume (GWh	**5466**	**0.00**	**0.00**
average price (lei/MWh)	222.51	0.00	0.00
% from internal consumption	11.0	0.00	0.00
1.3. Sales on negotiated contracts[1)]			
traded volume (GWh	**15386**	**4611**	**1509**
average price (lei/MWh)	185.82	163.75	147.89
% from internal consumption	31.0	9.1	3.0
2. EXPORT[2)]			
traded volume (GWh)	**2466**	**8200**	**10504**
average price (lei/MWh)	179.63	173.47	168.05
% from internal consumption	5.0	16.2	20.3
3. CENTRALIZED MARKETS OF BILATERAL CONTRACTS			
traded volume (GWh)	**18779**	**37284**	**56717**
average price (lei/MWh)	204.47	173.90	163.87
% from internal consumption	37.8	73.5	109.5
3.1. Extended auction mechanism CMBC-EA[3)]			
traded volume (GWh)		**34319**	**31407**
average price (lei/MWh)	N/A	174.19	162.01
% from internal consumption		67.7	61.9
3.2. Continuous negotiation mechanism CMBC-CN [3)]			
traded volume (GWh)		**1621**	**7915**
average price (lei/MWh)	N/A	168.11	167.68
% from internal consumption		3.2	15.6
3.3. CM-OTC mechanism [3)]			
traded volume (GWh)		**1344**	**17394**
average price (lei/MWh)	-	173.50	165.50
% from internal consumption		2.6	34.3
4. CENTRALIZED MARKET FOR UNIVERSAL SERVICE - CMUS			
traded volume (GWh)			**4592**
average price (lei/MWh)	-	-	170.52
% from internal consumption			9.1
5. DAY AHEAD MARKET			
traded volume (GWh)	**16346**	**21496**	**22496**
average price (lei/MWh)	156.05	153.92	161.83
% from internal consumption	32.9	42.4	44.3
6. INTRADAY MARKET			
traded volume (GWh)	**14.15**	**64**	**76**
average price (lei/MWh)	194.30	162.63	112.52
% from internal consumption	0.028	1.3	1.5

TRANSACTIONS ON THE WHOLESALE MARKET	2013	2014	2015
7. BALANCING MARKET			
traded volume (GWh)	**4168**	**4169**	**4861**
% from internal consumption	8.4	8.2	9.4
upward volume (GWh)	**2231**	**2691**	**3485**
average negative imbalance price (lei/MWh)	242.50	243.35	254.74
downward volume (GWh)	**1937**	**1478**	**1376**
average positive imbalance price (lei/MWh)	40.06	30.77	15.89
INTERNAL CONSUMPTION (includes distribution and transmission losses) (GWh	**49673**	**50728**	**51807**

Note:

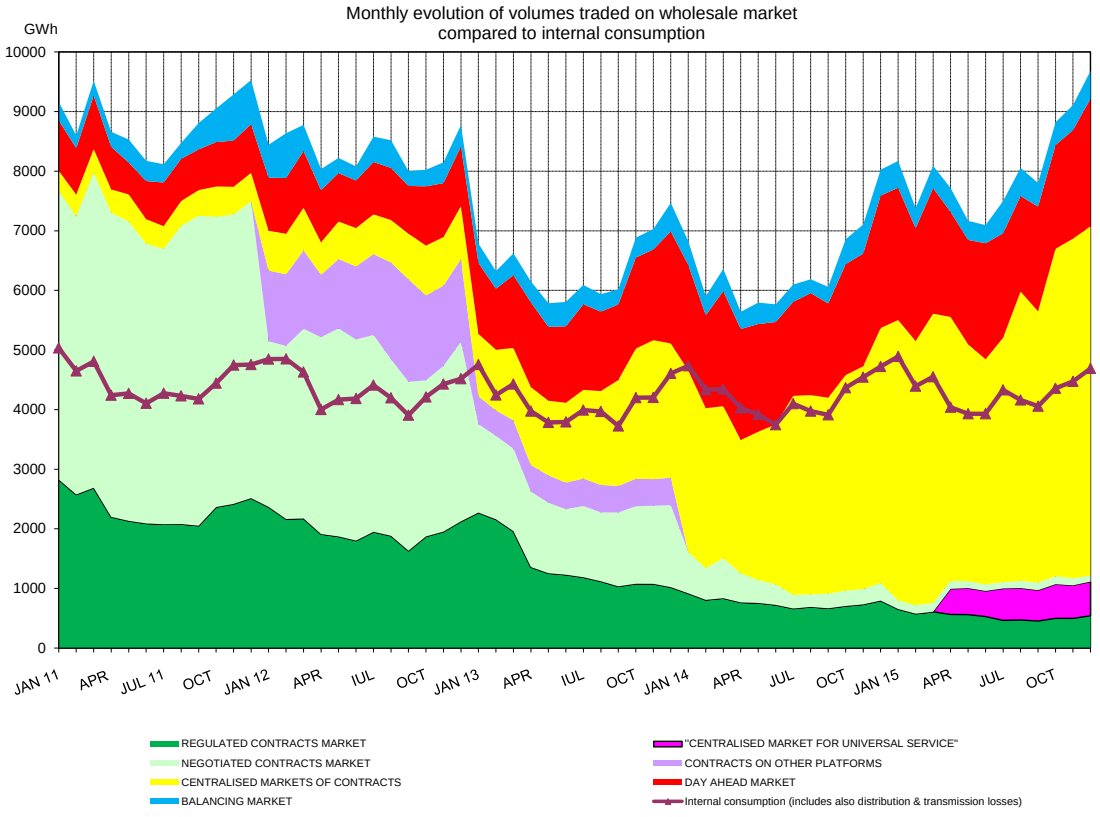
1) Supply contracts to final customers and export contracts are not included as they are separately identified

2) Prices and quantities for export in 2015 correspond to data reported by market participants, including the generator which exports and the data from Transelectrica regarding the transfer agnet for coupled DAM; export quantities are checked with DAMAS data, there are some differences in some cases

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

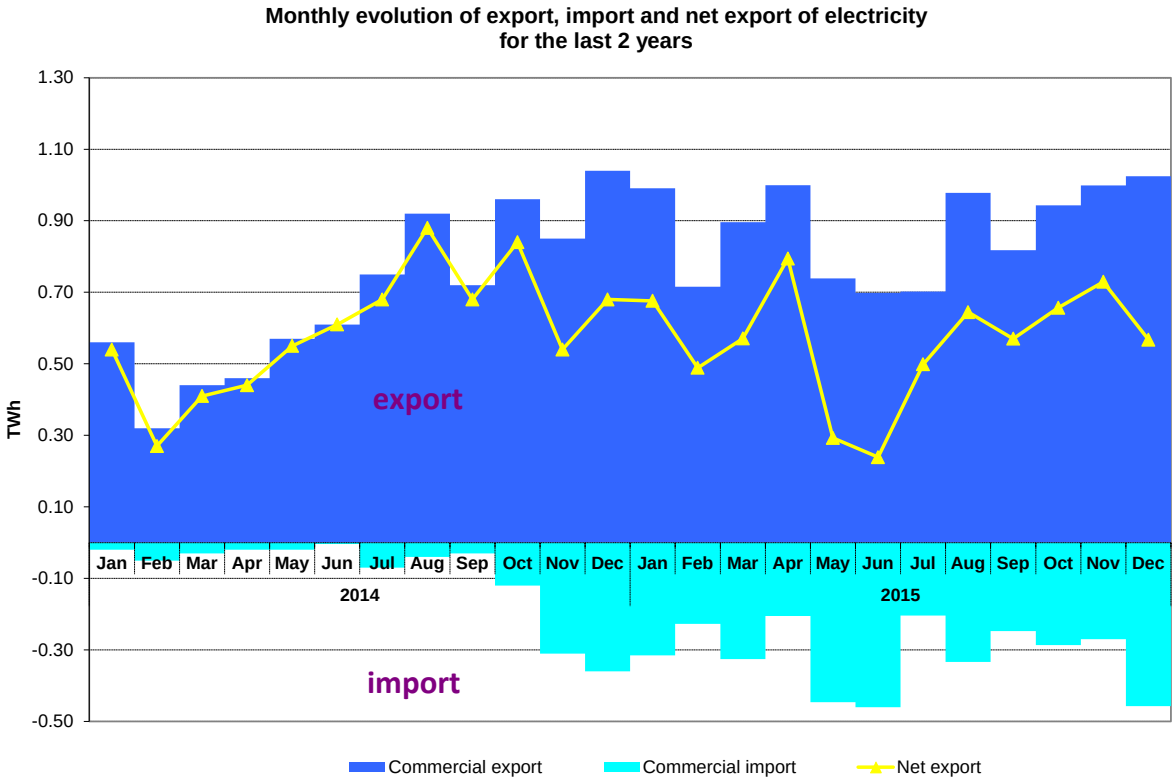
4) The average monthly price has been calculated based on monthly traded volume and transaction value published by Opcom SA

The percentage of electricity quantities from the internal consumption (see table from above) offers a dimensional reference for each of the specified markets. Prices include only the injection component of the transmission tariff, in this way being comparable within a month and making possible the comparison with the previous month. The following graph presents the evolution of the relation between the volumes sold on each market and the estimated internal consumption, since January 2011.



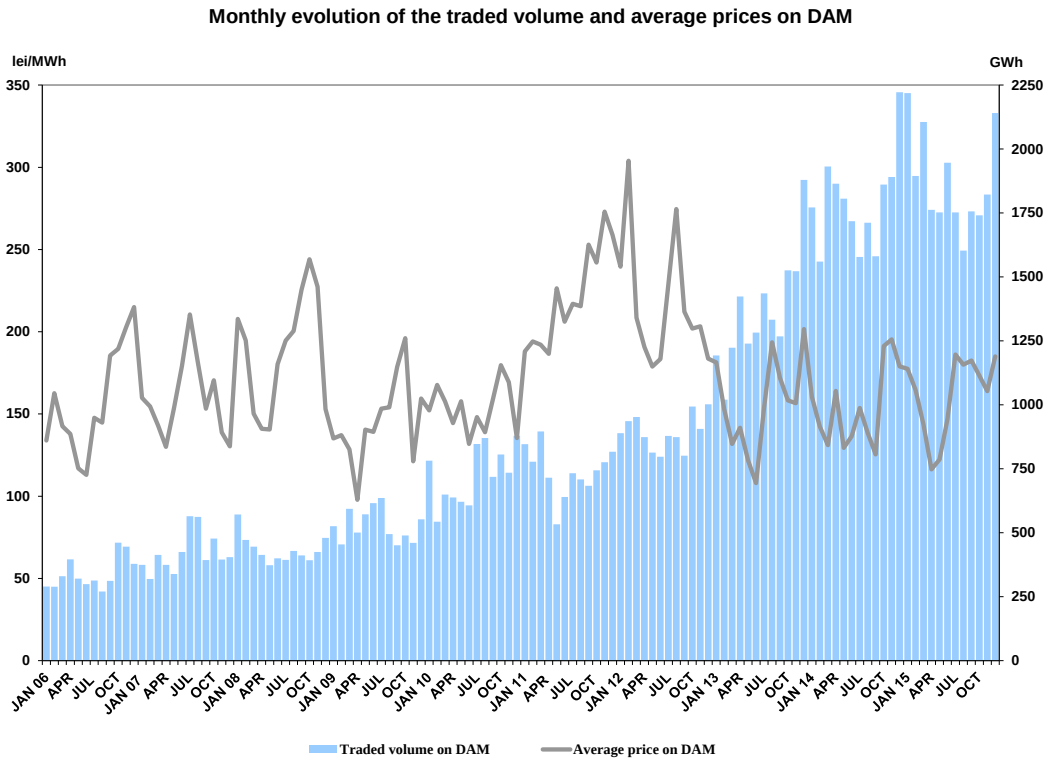
Source: Monthly reports of participants, Opcom SA and CNTEE Transelectrica SA – processed by MG
Note: In the above graph, the volumes traded on negociated contracts' market do not include the export trades

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 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 December 2015 and the entire year 2015 presented in the following table:

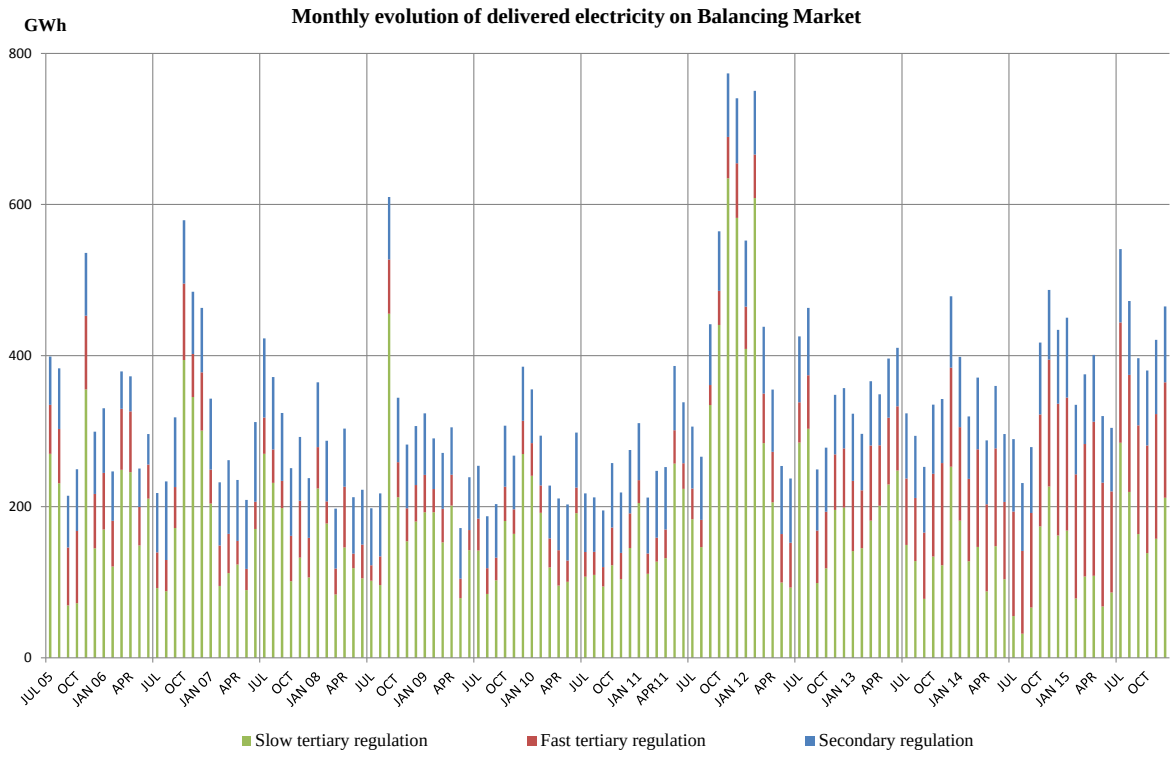
December 2015	Dispach order (GWh)	Delivered electricity (GWh)	Deviation (%)
Secondary regulation	**100**	**100**	
upward	44	44	
downward	56	56	
Fast tertiary regulation	**162**	**153**	**6**
upward	87	83	5
downward	75	70	7
Slow tertiary regulation	**214**	**212**	**1**
upward	202	201	1
downward	12	11	7
TOTAL	**477**	**465**	
upward	334	328	
downward	143	137	
INTERNAL CONSUMPTION		**4691**	
% share of traded volumes from internal consumption		***9.9%***	

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

2015	Dispach order (GWh)	Delivered electricity (GWh)	Deviation (%)
Secondary regulation	**1132**	**1132**	
upward	543	543	
downward	589	589	
Fast tertiary regulation	**2046**	**1936**	**5**
upward	1404	1343	4
downward	642	593	8
Slow tertiary regulation	**1815**	**1793**	**1**
upward	1616	1600	1
downward	200	193	3
TOTAL	**4994**	**4861**	
upward	3563	3485	
downward	1431	1376	
INTERNAL CONSUMPTION		**51807**	
% share of traded volumes from internal consumption		***9.4%***	

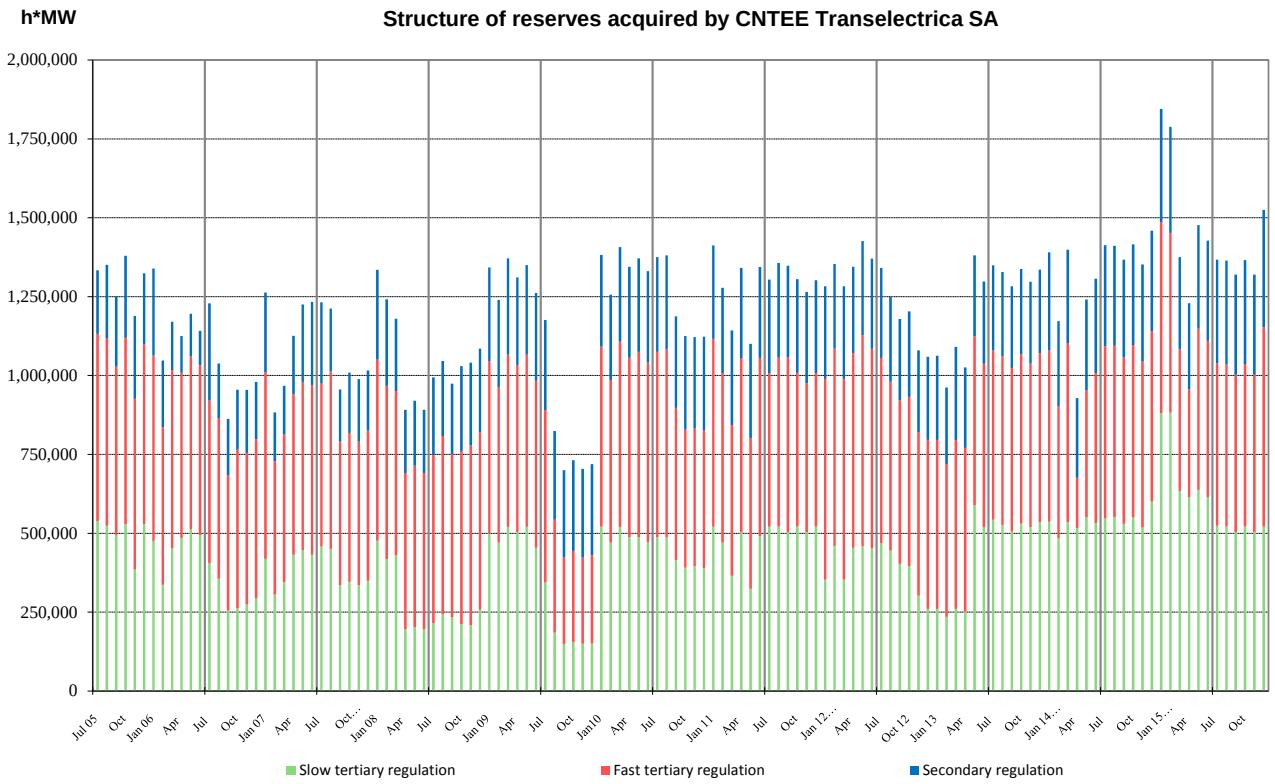
Source: Monthly reports of CNTEE Transelectrica SA – processed by MG

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



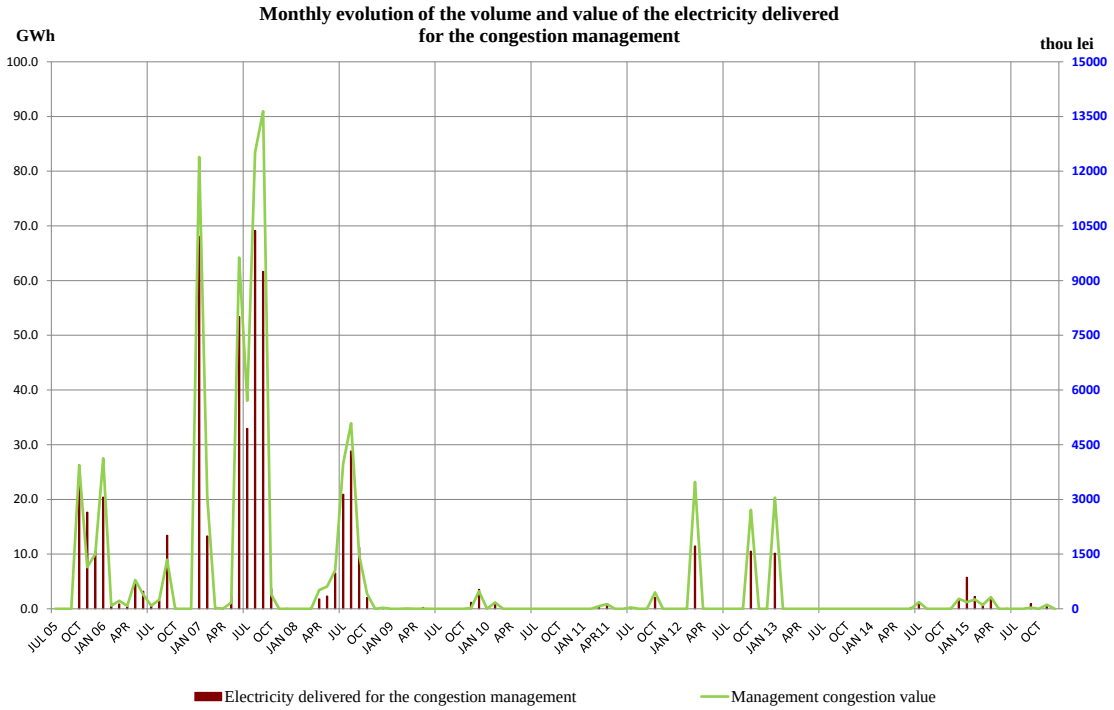
Source: Monthly reports of CNTEE Transelectrica SA – processed by MG

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

The following table presents the structure of electricity sales obligations contracted before delivery interval by the electricity generators with dispatchable units in December 2015 and the entire year 2015 compared with previous periods:

-GWh-

Transaction type	December 2014	December 2015	2014	2015
Regulated contracts to suppliers of last resort -	467.26	341.52	5316.03	4160.37
Regulated contracts to suppliers of last resort -	328.38	200.47	3742.44	2252.44
Negotiated contracts to suppliers	251.30	98.59	3387.54	1304.03
Contracts concluded on centralized markets:	2638.11	3067.62	24971.13	32860.53
CMBC-EA	*2205.30*	*2238.97*	*22926.20*	*22487.94*
CMBC-CN	*246.34*	*484.25*	*1431.34*	*6714.45*
CM-OTC	*186.48*	*344.40*	*613.59*	*3658.15*
Centralized market for universal service	-	361.68	-	2849.61
DAM	1601.13	1424.54	18213.77	14828.95
Intraday	2.15	9.35	39.74	55.90
Export*	0.00	0.00	0.00	0.00
Supply contracts to final customers	259.86	216.69	2956.69	2810.85
Total	**5548.19**	**5720.45**	**58627.33**	**61122.69**

Source: Monthly reports of generators – processed by MG

**One generator reported transactions concluded on Hungarian market of 7440 MWh, outside the monitoring report – volume cumulated for 2015, 137090 MWh*

Suppliers

In December 2015, 100 companies with main activity the supply of electricity, concluded transactions on the electricity market; from those, 28 suppliers traded exclusively on the wholesale market and 72 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).

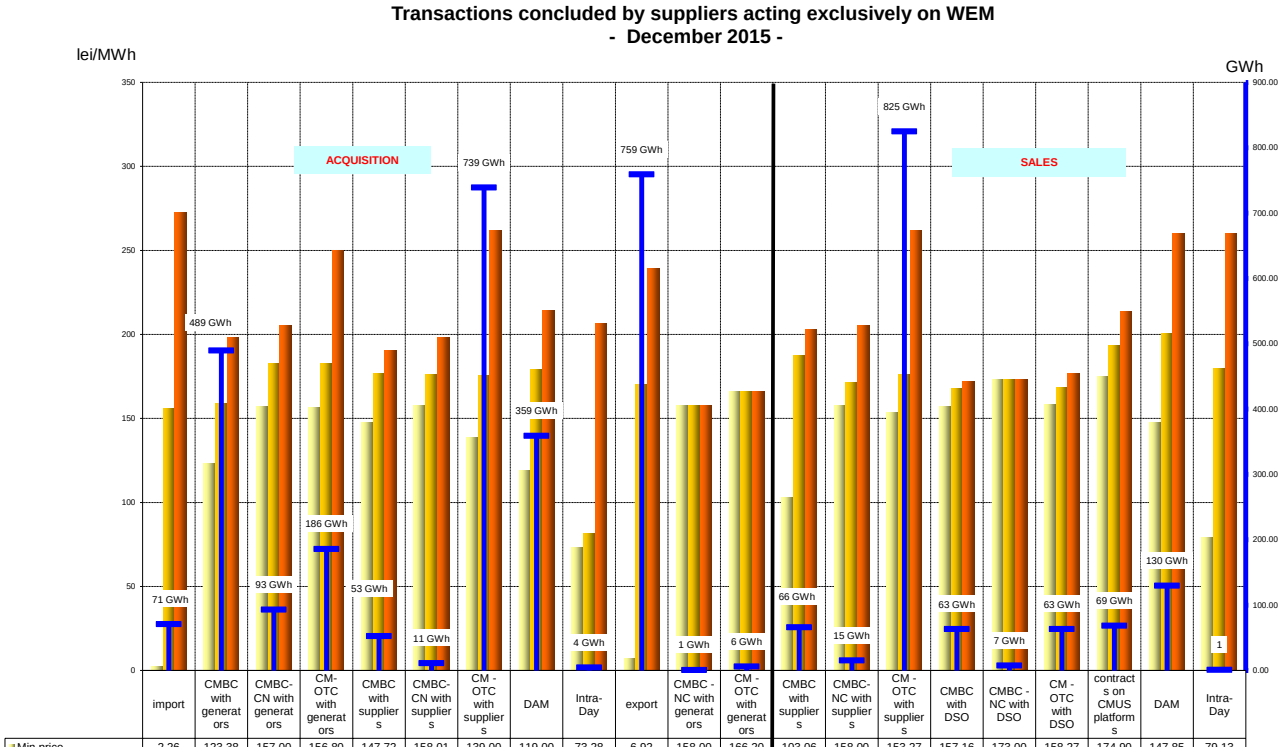
Suppliers acting exclusively on WEM

The following table shows the activity for December 2015 and the entire year 2015 of the suppliers acting exclusively on WEM, acquisitions and sales being split by categories of markets/participants:

Transactions structure of suppliers acting exclusively on WEM	**December 2014**	**December 2015**	**2014**	**2015**
Purchase				
Import	79.12	70.86	605.45	670.74
Negotiated contracts with suppliers	6.62	0.00	709.11	3.36
Negotiated contracts with generators	53.08	0.00	398.35	0.00
Contracts concluded on centralized markets:	964.84	1571.07	5354.96	15293.28
- *on CMBC-EA with generators*	*395.59*	*489.38*	*3448.02*	*5496.68*
- *on CMBC-CN with generators*	*41.33*	*93.09*	*227.02*	*1370.55*
- *on CM-OTC with generators*	*171.20*	*185.82*	*557.81*	*1819.67*
- *on CMBC-EA with other suppliers*	*85.05*	*52.57*	*530.81*	*628.37*
- *on CMBC-CN with other suppliers*	*3.72*	*11.14*	*19.77*	*86.03*
- *on CM-OTC with other suppliers*	*267.95*	*739.07*	*571.54*	*5891.97*
DAM	511.18	358.98	3917.17	3059.10
Intraday market	1.97	4.49	12.92	22.52
Sales				
Export	788.71	759.05	5384.91	7748.88
Negotiated contracts with other suppliers	6.62	0.00	586.52	3.36
Contracts concluded on centralized markets:	602.77	1046.33	3125.22	8827.56
- *on CMBC-EA with other suppliers*	*0.00*	*0.50*	*33.60*	*2.52*
- *on CMBC-CN with other suppliers*	*0.00*	*6.00*	*0.00*	*67.62*
- *on CM-OTC with other suppliers*	*254.22*	*65.96*	*2027.00*	*674.02*
- *on CMBC-EA with DO*	*0.00*	*15.16*	*31.92*	*168.29*
- *on CM-OTC with DO*	*270.43*	*824.80*	*588.46*	*7000.79*
- *on CMBC-EA with TSO*	*78.12*	*63.24*	*444.24*	*584.88*
Centralized market for universal service	*0.00*	*7.43*	*0.00*	*27.59*
DAM	*0.00*	*63.24*	*0.00*	*301.86*
Intraday market	0.00	68.51	0.00	210.70
Export	180.09	129.55	1530.67	2259.23
Negotiated contracts with other suppliers	2.68	0.84	21.06	12.94

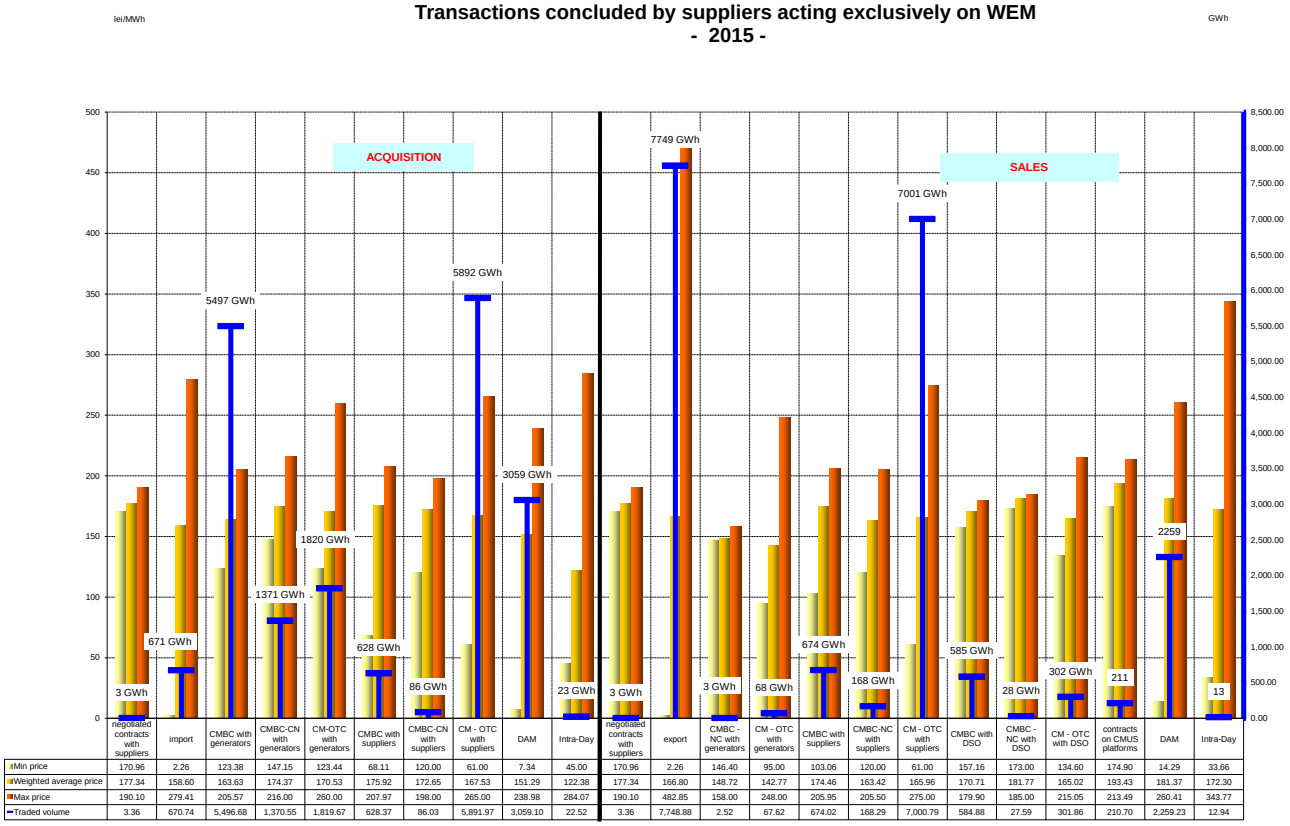
Source: Monthly reports of suppliers – processed by MG

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 December 2015 and year 2015.



	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	CMBC - NC with DSO	CM - OTC with DSO	contracts on CMUS platforms	DAM	Intra-Day
Min price	2.26	123.38	157.00	156.80	147.72	158.01	139.00	119.00	73.28	6.92	158.00	166.20	103.06	158.00	153.27	157.16	173.00	158.27	174.90	147.85	79.13
Weighted average price	156.05	159.14	182.68	182.66	176.61	176.21	175.82	178.88	81.37	170.41	158.00	166.20	187.72	171.27	176.27	167.94	173.00	168.41	193.75	200.74	179.71
Max price	272.66	198.00	205.33	250.00	190.27	198.00	262.00	214.11	206.27	239.20	158.00	166.20	203.21	205.50	262.00	172.17	173.00	177.00	213.49	260.41	260.00
Traded volume	70.86	489.38	93.09	185.82	52.57	11.14	739.07	358.98	4.49	759.05	0.50	6.00	65.96	15.16	824.80	63.24	7.43	63.24	68.51	129.55	0.84

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



	negotiated contracts with suppliers	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	negotiated contracts with suppliers	export	CMBC - NC with generators	CM - OTC with generators	CMBC with suppliers	CMBC-NC with suppliers	CM - OTC with suppliers	CMBC with DSO	CMBC - NC with DSO	CM - OTC with DSO	contracts on CMUS platforms	DAM	Intra-Day
Min price	170.96	2.26	123.38	147.15	123.44	68.11	120.00	61.00	7.34	45.00	170.96	2.26	146.40	95.00	103.06	120.00	61.00	157.16	173.00	134.60	174.90	14.29	33.66
Weighted average price	177.34	158.60	163.63	174.37	170.53	175.92	172.65	167.53	151.29	122.38	177.34	166.80	148.72	142.77	174.46	163.42	165.96	170.71	181.77	165.02	193.43	181.37	172.30
Max price	190.10	279.41	205.57	216.00	260.00	207.97	198.00	265.00	238.98	284.07	190.10	482.85	158.00	248.00	205.95	205.50	275.00	179.90	185.00	215.05	213.49	260.41	343.77
Traded volume	3.36	670.74	5,496.68	1,370.55	1,819.67	628.37	86.03	5,891.97	3,059.10	22.52	3.36	7,748.88	2.52	67.62	674.02	168.29	7,000.79	584.88	27.59	301.86	210.70	2,259.23	12.94

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 December 2015 and year 2015 compared to the previous periods.

-GWh-

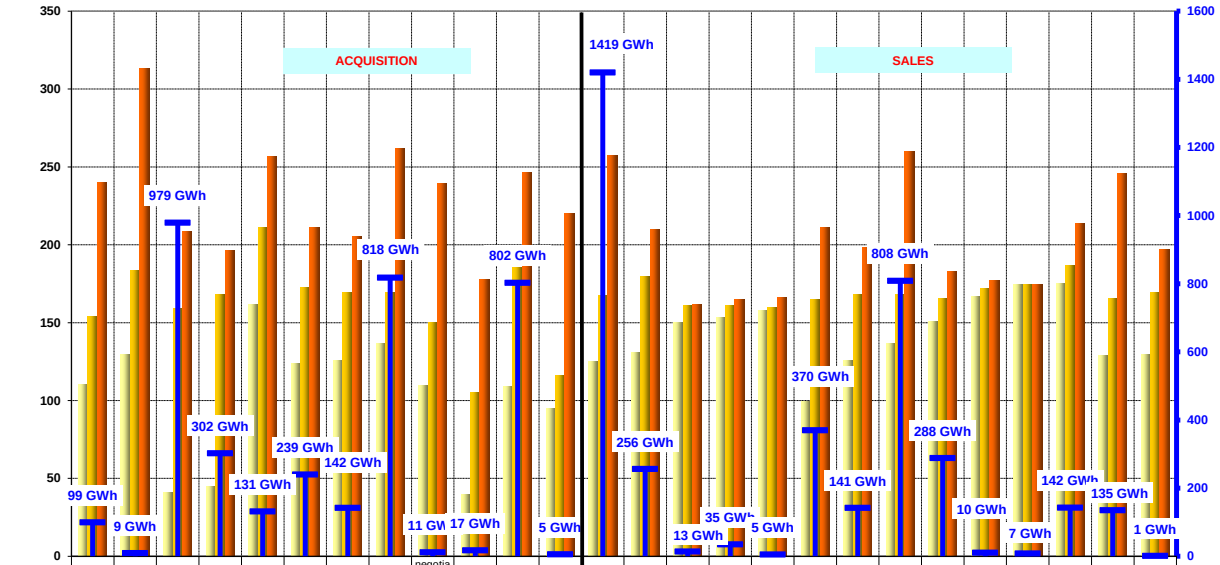
Transactions' structure of suppliers acting on REM (suppliers of last resort excluded)	**December 2014**	**December 2015**	**2014**	**2015**
Purchase				
Import	2.58	9.01	103.92	143.87
Negotiated contracts with suppliers	37.56	0.00	514.27	201.86
Negotiated contracts with generators	112.12	99.38	3148.79	1317.89
Contracts concluded on centralized markets:	1576.78	2610.45	*15813.90*	26093.93
- *on CMBC-EA with generators*	*736.74*	*978.59*	*8462.29*	*9611.79*
- *on CMBC-CN with generators*	*134.66*	*302.13*	*1123.39*	*4242.29*
- *on CM-OTC with generators*	*15.28*	*131.10*	*55.78*	*1486.07*
- *on CMBC-EA with other suppliers*	*640.93*	*239.32*	*5895.90*	*3287.61*
- *on CMBC-CN with other suppliers*	*0.00*	*141.77*	*136.52*	*762.42*
- *on CM-OTC with other suppliers*	*49.16*	*817.57*	*140.35*	*6703.76*
Negociated contracts with undispatchable generators (others than L23/2014 and L122/2015)*	-	11.32	-	251.47
Negociated contracts with undispatchable generators (L23/2014 and L122/2015)**		16.96		209.02
DAM	817.93	802.22	9153.36	9546.58
Intraday market	0.38	5.13	11.06	24.50
Sales				
Export	219.26	255.95	2406.72	2583.90
Negotiated contracts with other suppliers	37.56	0.00	636.87	201.86
Contracts concluded on centralized markets:	954.43	1677.11	8468.45	14207.15
- *on CMBC-EA with generators*	*17.11*	*13.39*	*244.32*	*160.22*
- *on CMBC-CN with generators*	*0.00*	*34.70*	*3.60*	*229.57*
- *on CM-OTC with generators*	*0.00*	*4.68*	*0.12*	*97.88*
- *on CMBC-EA with other suppliers*	*654.09*	*369.52*	*6571.99*	*4818.86*
- *on CMBC-CN with other suppliers*	*3.72*	*141.47*	*124.37*	*782.82*
- *on CM-OTC with other suppliers*	*46.68*	*808.08*	*141.43*	*6249.95*
- *on CMBC-EA with TSO*	*48.09*	*7.44*	*456.27*	*186.09*
- *on CMBC-EA with DO*	*184.74*	*288.00*	*926.36*	*1666.53*
Centralized market for universal service	*0.00*	*9.83*	*0.00*	*15.23*
DAM	0.00	142.45	0.00	1531.81
Intraday market	105.26	134.67	872.32	1753.99
Non-household customers	0.31	0.63	2.44	4.53
Export	1449.10	1419.38	17427.99	18437.15

*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:

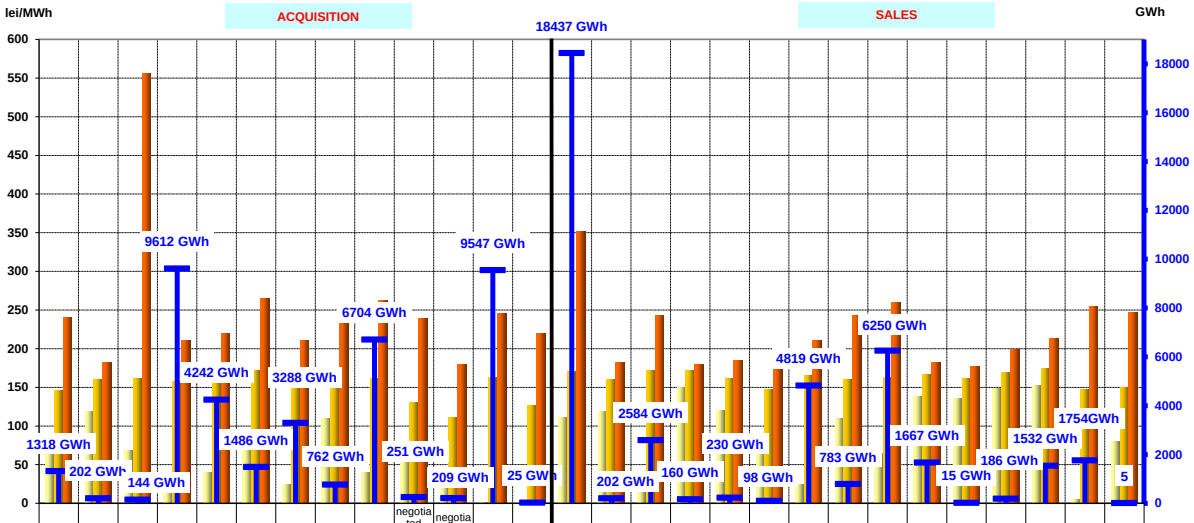
Transactions concluded by suppliers providing electricity to final consumers
(suppliers of last resort not included)
- December 2015 -



	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	negotiated contracts with non-dispatchable generators (other L23/2014)	negotiated contracts with non-dispatchable generators (L23/2014)	DAM	Intra-Day	contracts with industrial consumers	export	CMBC with generators	CMBC - NC with generators	CM - OTC with generators	CMBC with suppliers	CMBC-NC with suppliers	CM - OTC with suppliers	CMBC with DSO	CMBC - NC with DSO	CMBC with TSO	contracts on CMUS platforms	DAM	Intra-Day
Min price	110.00	129.27	41.07	45.00	161.87	124.00	125.77	136.71	109.46	39.60	108.93	95.19	125.00	131.08	149.90	153.27	157.77	99.27	125.77	136.71	151.00	167.00	174.33	174.90	129.06	129.85
Weighted average price	154.04	183.15	159.43	167.91	211.36	172.77	168.99	169.38	149.97	104.97	185.08	116.24	167.71	179.77	160.94	161.01	159.46	164.58	168.29	167.91	165.35	172.07	174.33	186.54	165.38	169.60
Max price	240.01	313.37	208.50	196.00	257.00	211.28	205.50	262.00	239.57	178.00	246.11	220.00	257.60	210.00	161.72	165.00	166.00	211.28	198.00	260.00	182.52	177.00	174.33	213.49	245.80	196.90
Traded volume	99.38	9.01	978.59	302.13	131.10	239.32	141.77	817.57	11.32	16.96	802.22	5.13	1,419.3	255.95	13.39	34.70	4.68	369.52	141.47	808.08	288.00	9.83	7.44	142.45	134.67	0.63

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

Transactions concluded by suppliers providing electricity to final consumers
(suppliers of last resort not included)
- 2015 -



	negotiated contracts with generators	negotiated contracts with suppliers	import	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 (other L23/2014)	negotiated contracts with non-dispatchable generators (L23/2014)	DAM	Intra-Day	contracts with industrial consumers	negotiated contracts with suppliers	export	CMBC with generators	CMBC - NC with generators	CM - OTC with generators	CMBC with suppliers	CMBC-NC with suppliers	CM - OTC with suppliers	CMBC with DSO	CMBC - NC with DSO	CMBC with TSO	contracts on CMUS platforms	DAM	Intra-Day
Min price	75.81	118.54	68.54	40.00	40.00	95.00	24.31	110.00	40.00	70.00	35.00	1.40	0.15	110.75	118.54	15.00	149.90	120.00	85.00	24.31	110.00	65.00	137.49	135.60	148.27	153.08	5.06	80.48
Weighted average price	145.82	160.32	162.08	157.07	166.94	171.10	163.88	160.56	161.58	130.61	110.87	163.21	126.60	169.85	160.32	171.41	171.41	161.34	147.79	165.18	160.79	162.38	166.36	162.10	168.53	174.86	147.31	150.00
Max price	240.01	182.31	555.74	210.95	220.00	265.00	211.28	243.00	262.00	239.57	180.00	246.11	220.00	351.60	182.31	242.41	180.14	185.00	190.00	211.28	243.00	260.00	182.52	177.00	199.35	213.49	254.74	246.67
Traded volume	1,317.8	201.86	143.87	9,611.7	4,242.2	1,486.0	3,287.6	762.42	6,703.7	251.47	209.02	9,546.5	24.50	18,437	201.86	2,583.9	160.22	229.57	97.88	4,818.8	782.82	6,249.9	1,666.5	15.23	186.09	1,531.8	1,753.9	4.53

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 for December 2015 and year 2015 compared to similar period:

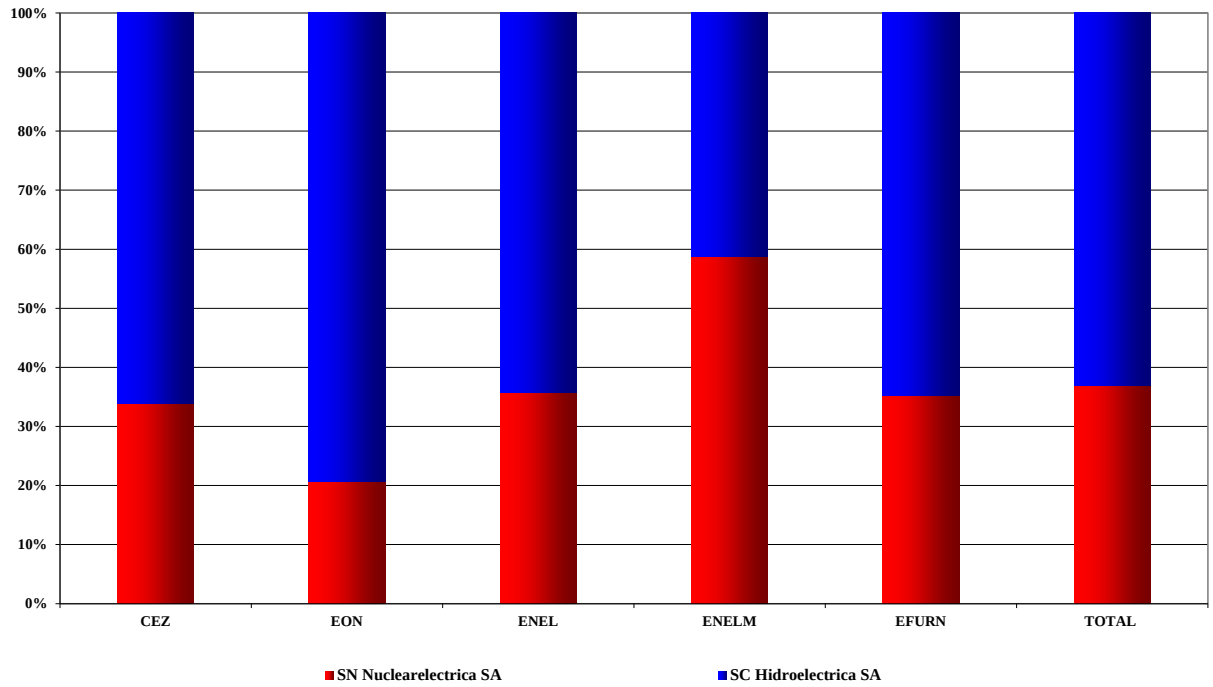
-GWh-

Acquisition structure of suppliers of last resort for regulated REM component	**December 2014**	**December 2015**	**2014**	**2015**
Regulated contracts with generators	795.638	541.990	9058.65	6412.82
Negociated contracts with undispatchable generators	0.00	0.03	0.00	0.39
Contracts concluded on Opcom centralized markets:	417.942	69.789	*4585.55*	1748.05
- *contracts on CMBC-EA with generators*	*276.775*	*47.033*	*3156.63*	*805.69*
- *contracts on CMBC-CN with generators*	*0.00*	*0.04*	*0.00*	*410.34*
- *contracts on CM-OTC with generators*	*0.00*	*0.50*	*0.00*	*24.98*
- *contracts on CMBC-EA with other suppliers*	*141.167*	*21.217*	*1428.92*	*435.14*
- *contracts on CM-OTC from suppliers*	*0.00*	*0.00*	*0.00*	*9.23*
Centralized market for universal service:	0.00	1.00	0.00	62.66
- *contracts on CMUS with generators*	-	572.632	-	*4592.11*
- *contracts on CMUS with suppliers*		*361.677*		*2849.61*
Intraday market		*210.955*		*1742.50*
Regulated contracts with generators	0.00	0.00	1.56	0.00
DAM	192.788	117.796	2041.70	1832.53

*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

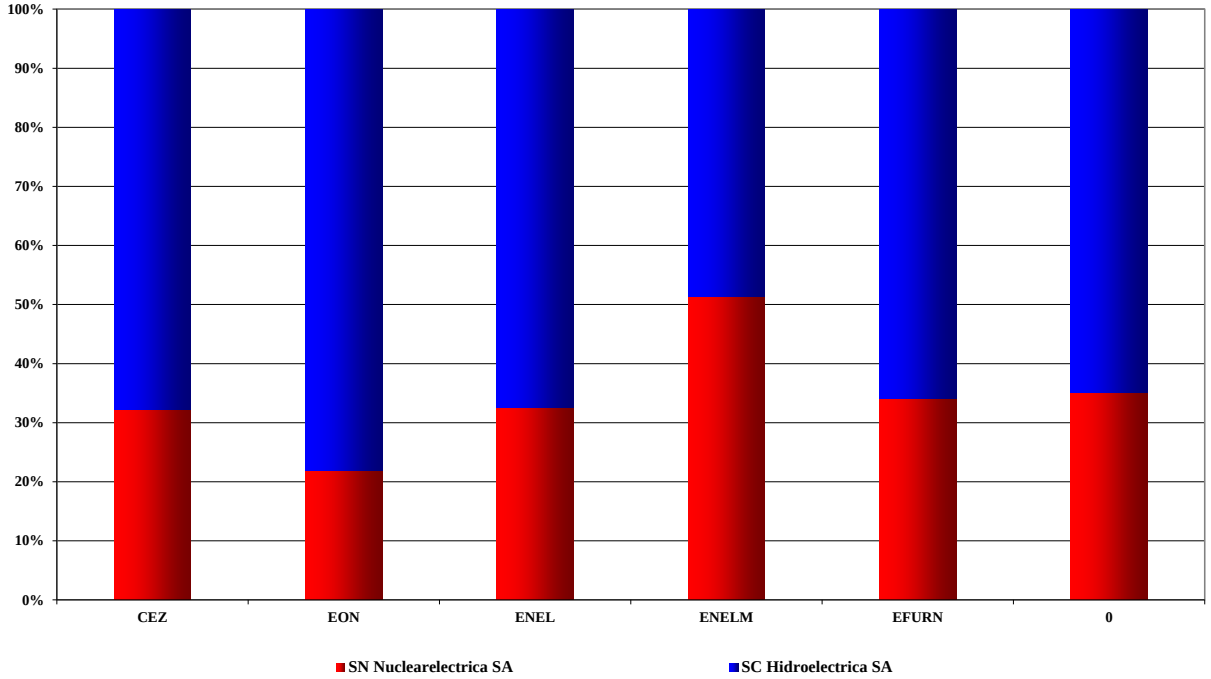
The structure of the electricity purchased by the suppliers of last resort from the main generators on regulated contracts is presented in the following graph for December 2015 and the entire year 2015:

Electricity aquisition on regulated contracts of the suppliers of last resort for electricity delivered to final customers on regulated market
- December 2015 -



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

Electricity aquisition on regulated contracts of the suppliers of last resort for electricity delivered to final customers on regulated market
- 2015 -



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 also separately highlighted within the household invoices.

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 CMC (before the delivery interval) for December 2015 and year 2015 compared to similar previous periods:

Acquisition structure of last resort suppliers for CMC	**December 2014**		**December 2015**		**2014**		**2015**	
	Quantity [GWh]	**Average price [lei/MWh]**	**Quantity [GWh]**	**Average price]**	**Quantity [GWh]**	**Average price [lei/MWh]**	**Quantity [GWh]**	**Average price [lei/MWh]**
Contracts on centralised markets	301.132	180.10			2861.92	179.23	913.610	174.77
CMBC-EA with generators	*210.006*				*2008.43*		*347.232*	*173.56*
CMBC-CN with generators	*0.00*				*0.00*		*265.134*	*179.86*
CM-OTC with generators	*0.00*	*180.10*		-	*0.00*	*179.23*	*14.865*	*175.50*
CMBC-EA with suppliers	*91.126*				*853.49*		*229.761*	*168.89*
CMBC-CN with suppliers	*0.00*				*0.00*		*7.432*	*183.02*
CM-OTC with suppliers	*0.00*				*0.00*		*49.185*	*181.82*
Contracts on CMUS			*572.632*	*181.41*			*4592.109*	*170.52*
with generator	-		*361.677*	*177.05*	-		*2849.607*	*166.50*
with suppliers			*210.955*	*188.88*			*1742.502*	*144.10*
Intraday	0.00	0.00	0.00	0.00	0.45	191.85	0.00	0.00
DAM	98.203	209.65	60.260	206.94	946.90	175.57	886.940	188.20
TOTAL	**399.335**	**187.37**	**632.892**	**183.84**	**3809.27**	**178.30**	**6392.658**	**160.50**

Similar to the situation presented for the regulated REM, the table below presents the structure of last resort suppliers' transactions (before the delivery interval), corresponding to the competitive REM (energy supplied at negotiated prices to the customers who renounced to regulated tariffs) for December 2015 and year 2015 compared to similar previous periods:

-GWh -

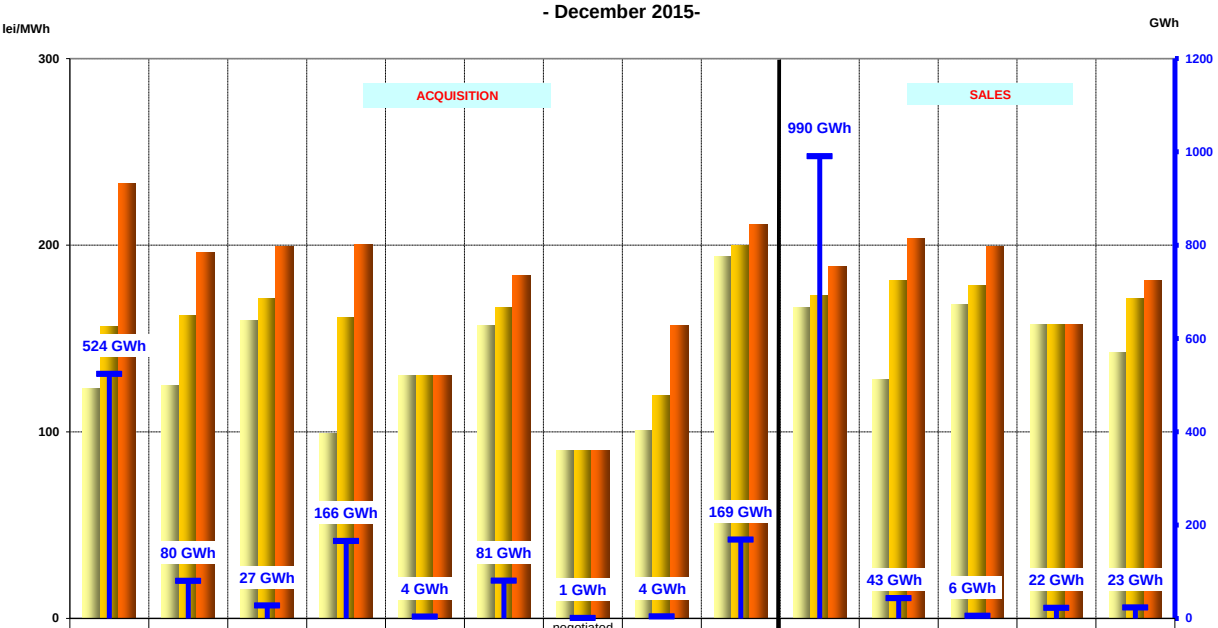
Transactions' structure of suppliers acting on the competitive segment of REM	**December 2014**	**December 2015**	**2014**	**2015**
Purchase				
Negociated contracts with generators	0.00	0.00	0.03	0.00
Contracts concluded on Opcom centralized markets:	695.70	881.48	7165.99	8664.12
- *on CMBC-EA with generators*	*550.74*	*523.84*	*5692.91*	*5199.73*
- *on CMBC-CN with generators*	*29.01*	*80.11*	*32.37*	*536.78*
- *on CM-OTC with generators*	*0.00*	*27.34*	*0.00*	*342.37*
- *on CMBC-EA with other suppliers*	*115.95*	*165.68*	*1423.46*	*1872.16*
- *on CMBC-CN with other suppliers*	*0.00*	*3.72*	*0.00*	*88.49*
- *on CM-OTC with other suppliers*	*0.00*	*80.00*	*17.24*	*624.59*
Negociated contracts with undispatchable generators (others than L23/2014 and L122/2015)*	-	0.91	-	9.86
Negociated contracts with undispatchable generators (L23/2014 and L122/2015)**	-	4.03	-	25.09
DAM	217.33	168.85	2466.13	3153.01
Intraday market	0.00	0.01	2.76	0.59
Sales				
Contracts concluded on centralized markets:	82.24	71.19	*723.02*	1011.05
- *on CM-OTC with generators*	0.00	0.00	*0.00*	0.48
- *on CMBC-EA with other suppliers*	*74.80*	*43.31*	*679.34*	*715.52*
- *on CM-OTC with other suppliers*	*0.00*	*5.56*	*0.00*	*32.25*
- *on CMBC-EA with DO*	*7.44*	*22.32*	*43.68*	*262.80*
DAM	9.92	23.12	160.09	91.22
Intraday market	0.00	0.00	0.00	0.05
Non-household customers	839.09	990.45	8784.86	10879.42

*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

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 December 2015:

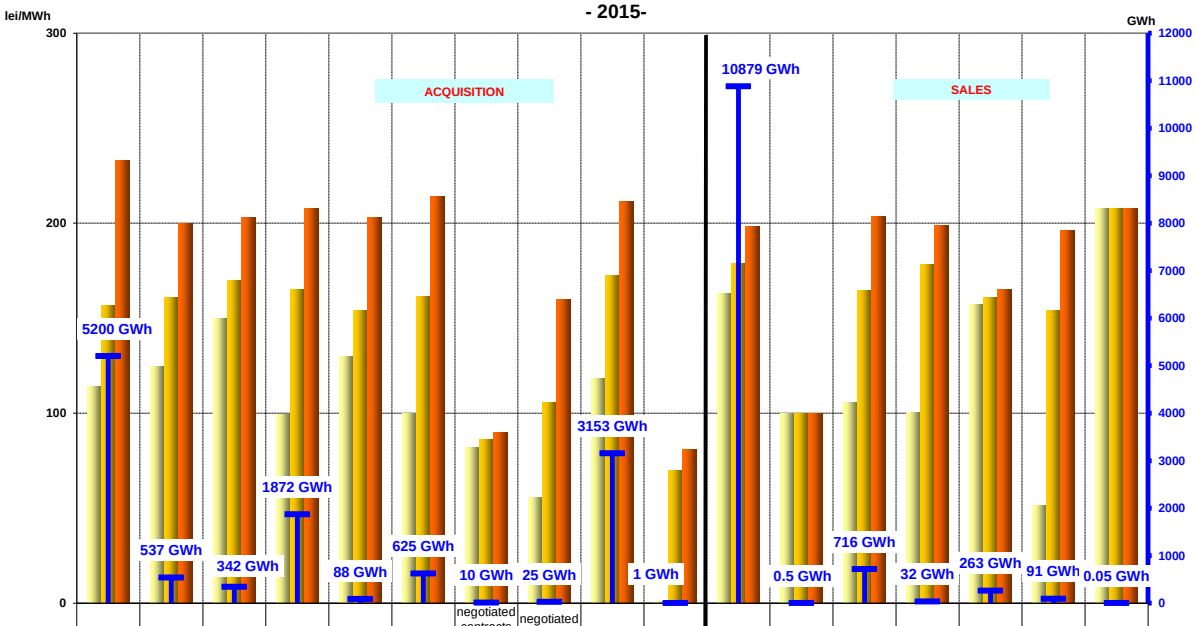
Transactions concluded by suppliers of last resort providing electricity on competitive REM
- December 2015-



	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 (other L23/2014)	negotiated contracts with non-dispatchable generators (L23/2014)	DAM	contracts with industrial consumers	CMBC with suppliers	CM - OTC with suppliers	CMBC with DSO	DAM
Min price	123.36	124.72	159.80	99.27	130.00	156.77	90.02	100.76	193.81	166.44	128.01	168.00	157.27	142.28
Weighted average price	156.45	162.05	171.52	161.31	130.00	166.77	90.02	119.66	199.57	172.83	181.10	178.26	157.27	171.23
Max price	232.94	196.00	199.00	200.17	130.00	183.77	90.02	157.16	211.31	188.75	203.75	199.00	157.27	180.90
Traded volume	523.84	80.11	27.34	165.68	3.72	80.80	0.91	4.03	168.85	990.45	43.31	5.56	22.32	23.12

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

Transactions concluded by suppliers of last resort providing electricity on competitive REM
- 2015-



	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 (other L23/2014)	negotiated contracts with non-dispatchable generators (L23/2014)	DAM	Intra-Day	contracts with industrial consumers	CM - OTC with generators	CMBC with suppliers	CM - OTC with suppliers	CMBC with DSO	DAM	Intra-Day
Min price	113.80	124.72	150.00	99.27	130.00	99.90	82.19	55.87	118.27	1.00	162.84	99.90	105.65	100.50	157.27	51.57	208.00
Weighted average price	156.51	160.93	169.96	165.02	153.95	161.66	86.35	105.75	172.39	69.75	178.70	99.90	164.40	178.31	161.10	154.01	208.01
Max price	232.94	200.09	203.00	207.90	203.00	214.00	90.02	160.00	211.31	80.97	198.07	99.90	203.75	199.00	165.00	196.21	208.00
Traded volume	5,199.73	536.78	342.37	1,872.16	88.49	624.59	9.86	25.09	3,153.01	0.59	10,879.42	0.48	715.52	32.25	262.80	91.22	0.05

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

Main distribution operators

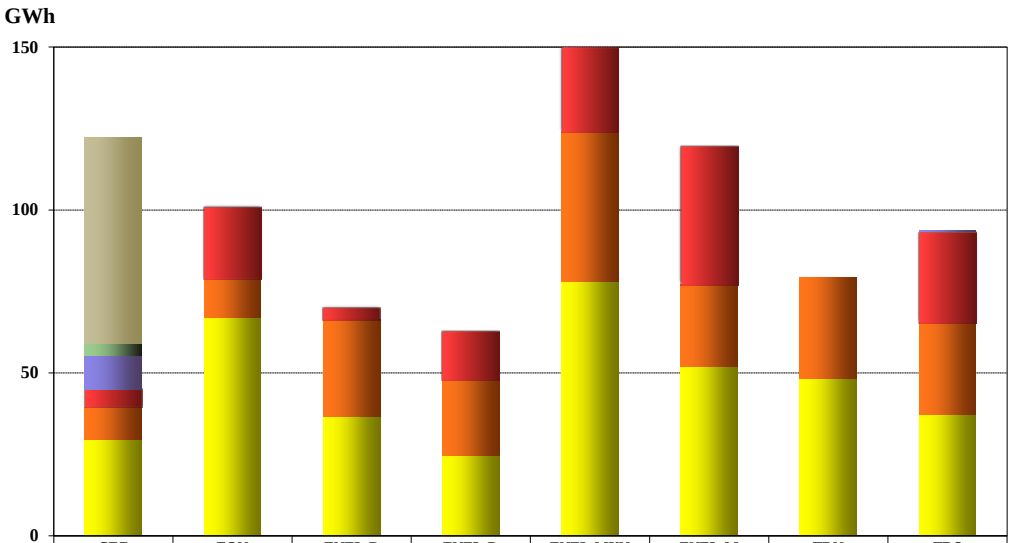
The following table shows the electricity acquisition structure of main distribution operators (before the delivery interval), for covering the distribution network losses, for December 2015 and year 2015 compared with similar previous periods:

- GWh -

Acquisition structure	December 2014	December 2015	2014	2015
Contracts concluded oncentralized markets:	600.791	611.275	4362.89	4280.12
- *CMBC-EA with generators*	*330.791*	*142.785*	*2948.61*	*1223.77*
- *CMBC-CN with generators*	*0.00*	*10.706*	*0.00*	*164.84*
- *CM-OTC with generators*	*0.00*	*3.720*	*0.00*	*32.64*
- *CMBC-EA with suppliers*	*270.295*	*373.563*	*1414.28*	*2514.21*
- *CMBC-CN with suppliers*	*0.00*	*17.261*	*0.00*	*42.82*
- *CM-OTC with suppliers*	*0.00*	*63.240*	*0.00*	*301.86*
DAM	235.382	204.659	1962.37	1775.90

The electricity purchased for covering their network losses is presented in detail in the following graph, for December 2015 and year 2015:

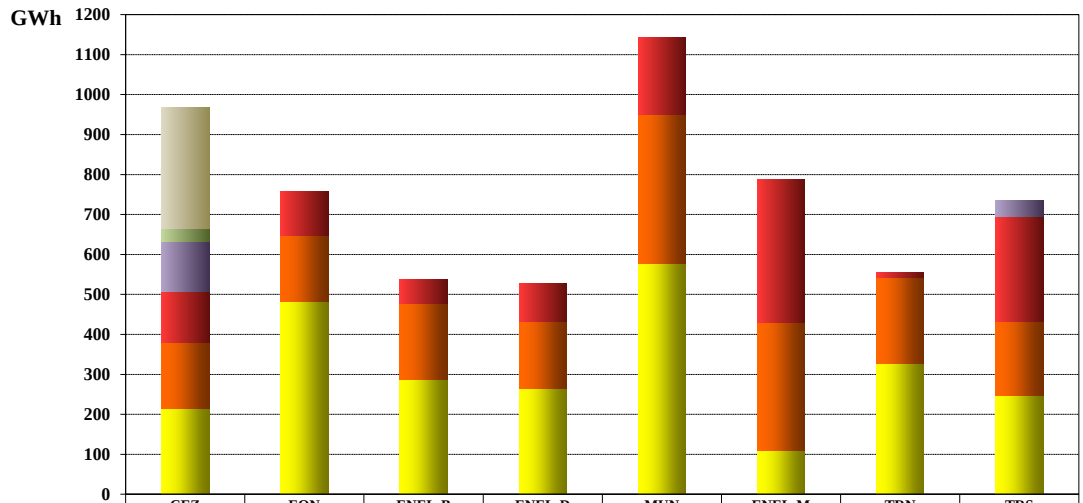
Electricity acquisition of distribution operators for covering the distribution losses
- December 2015 -



	CEZ	EON	ENEL-B	ENEL-D	ENEL-MUN	ENEL-M	TRN	TRS
Acquisition on CM-OTC on suppliers	63	0	0	0	0	0	0	0
Acquisition on CM-OTC on generations	4	0	0	0	0	0	0	0
Acquisition on CMBC-NC on generations	10	0	0	0	0	0	0	0
Acquisition on CMBC-EA on generations	6	22	4	15	26	42	0	28
Sales on DAM	10	12	30	23	46	25	31	28
Acquisition on CMBC-EA on suppliers	30	67	37	25	78	52	48	37

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

Electricity acquisition of distribution operators for covering the distribution losses
- 2015 -



	CEZ	EON	ENEL-B	ENEL-D	MUN	ENEL-M	TRN	TRS
Acquisition on CM-OTC on suppliers	302	0	0	0	0	0	0	0
Acquisition on CM-OTC on generations	33	0	0	0	0	0	0	0
Acquisition on CMBC-NC on generations	126	0	0	0	0	0	0	39
Acquisition on CMBC-EA on generations	129	110	61	95	193	358	14	264
Sales on DAM	164	166	189	169	371	320	213	184
Acquisition on CMBC-EA on suppliers	215	483	288	264	579	110	328	248

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.

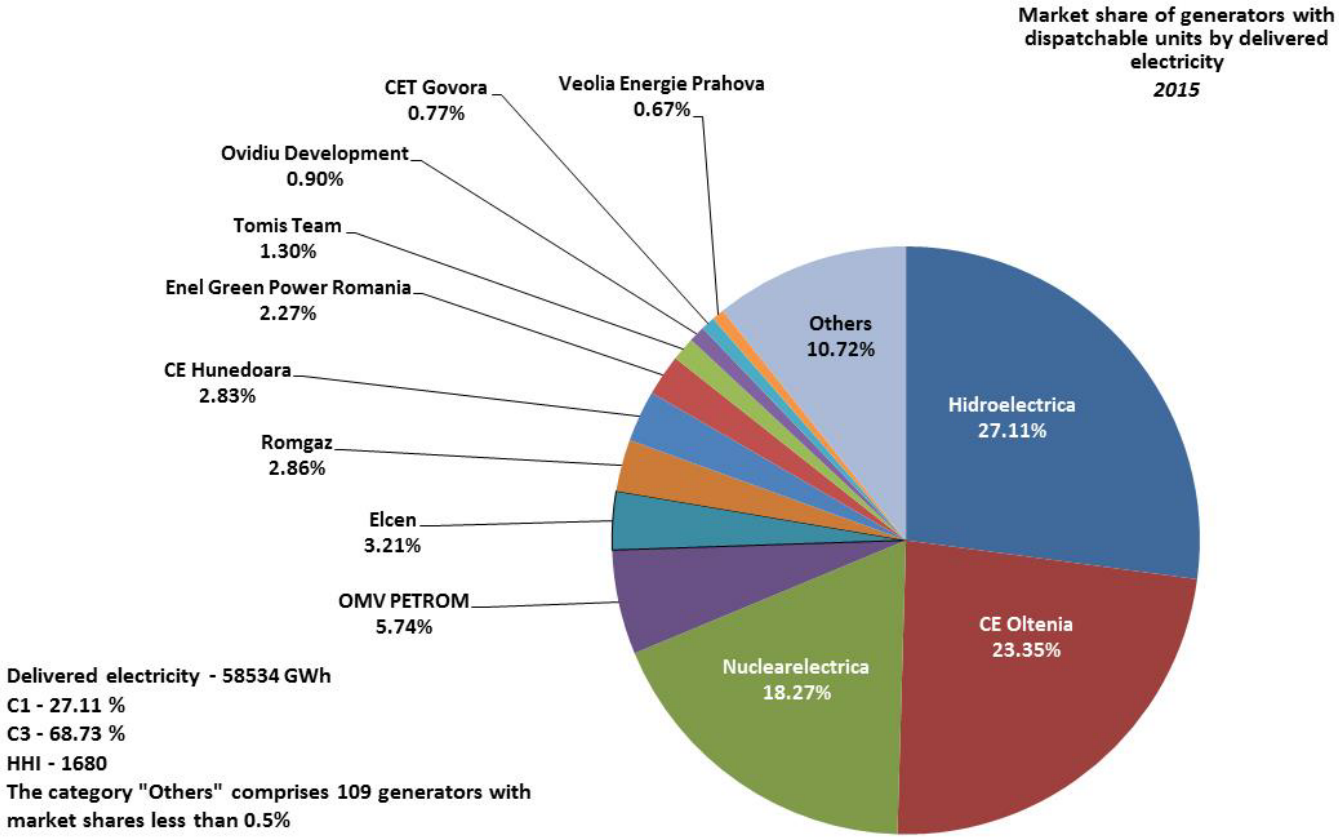
These concentration indicators may be defined for the wholesale market (electricity market or ancillary services market) or for each of its components where direct competition takes place.

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 December 2015, 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 entire year 2015.

Concentration indicators -December 2015-	C1 (%)	C3 (%)	HHI
Value	23.39	63.70	1504



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 December 2015 and year 2015:

Structure/concentration indicators of BM - December 2015 -	Regulation					
	Secondary		Fast tertiary		Slow tertiary	
	upward	downward	upward	downward	upward	downward
C1 - % -	57	56	62	50	82	64
C3 - % -	95	94	90	95	98	92
HHI	4303	4090	4309	4211	6964	4499

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

Structure/concentration indicators of BM - 2015 -	Regulation					
	Secondary		Fast tertiary		Slow tertiary	
	upward	downward	upward	downward	upward	downward
C1 - % -	58	57	55	74	37	36
C3 - % -	94	93	85	95	91	85
HHI	4368	4274	3626	5779	2997	2640

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

The competition between generators is also present when speaking about ensuring the reserves necessary for security of supply in the NES. Due to the fact that generators have different levels of capabilities for ensuring this type of service, this market has an important regulated component.

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. In October 2015, the transmission and system operator has organised auctions for acquiring reserves on the competitive component for secondary reserve and fast tertiary reserve.

Concentration indicators on ASM - December 2015 -		Secondary reserve	Fast tertiary reserve	Slow tertiary reserve
regulated component	contracted quantity (h*MW)	14880	14880	342240
	C1 (%)	75.0	100.0	100.0
	C3 (%)	100.0	100.0	100.0
competitive component	contracted quantity (h*MW)	357120	617420	178560
	C1 (%)	66.6	85.1	68.4
	C3 (%)	99.3	96.0	100.0
	HHI	5268	7311	5261

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

Concentration indicators on ASM - 2015 -		Secondary reserve	Fast tertiary reserve	Slow tertiary reserve
regulated component	contracted quantity (h*MW)	767310	480890	6304000
	C1 (%)	77.2	63.6	63.9
	C3 (%)	100.0	100.0	97.3
competitive component	contracted quantity (h*MW)	3136625	5662030	1054320
	C1 (%)	73.5	89.7	74.2
	C3 (%)	94.8	94.0	94.1
	HHI	5728	8070	5756

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 - December 2015 -	**C1 (%)**	**C3 (%)**	**HHI**
Selling	**23.47**	**46.45**	**924**
Buying	**16.76**	**29.86**	**490**

Source: Monthly reports of Opcom SA – processed by MG

7. Price evolution on wholesale electricity market

Since November 2014 the Romanian DAM has been working in a coupled regime 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.

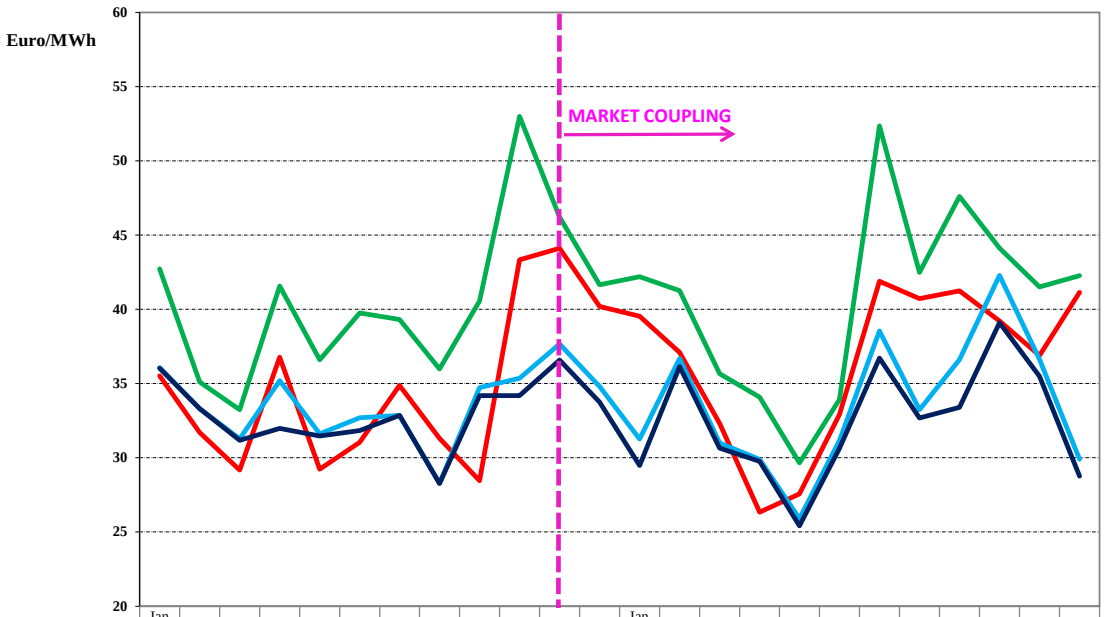
The functioning of these spot markets is based on coupling algorithm recommended by ACER (Euphemia) and its goal is maximizing the social welfare to the entire area of the coupled markets.

The coupling mechanism is accomplished through the operators OTE-Czech Republic and EPEX Spot (both of them, stock members of PCR initiative). Moreover, EPEX Spot operates as services supplier for OKTE-Slovakia, HUPX-Hungary and Opcom-Romania (neither of these exchanges are PCR members). 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.

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.

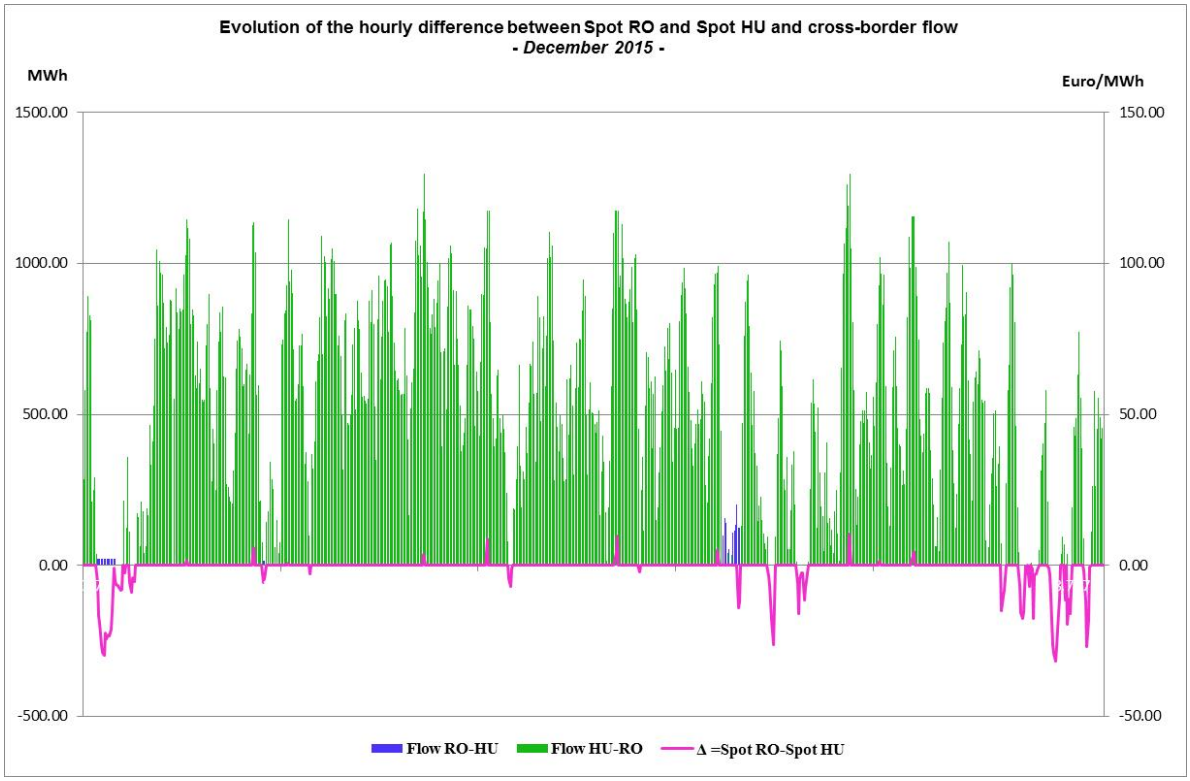
Monthly spot prices on the 4 markets functioning in market coupling framework
January 2014 - December 2015



	Ian 2014	Feb	Mar	Apr	Mai	Iun	Iul	Aug	Sep	Oct	Nov	Dec	Ian 2015	Feb	Mar	Apr	Mai	Iun	Iul	Aug	Sep	Oct	Nov	Dec
OPCOM	35.51	31.7	29.17	36.77	29.23	31.05	34.87	31.3	28.45	43.34	44.11	40.19	39.53	37.1	32.32	26.34	27.56	32.92	41.89	40.72	41.25	39.21	36.89	41.14
HUPX	42.72	35.1	33.23	41.56	36.6	39.76	39.31	35.99	40.56	53	46.21	41.66	42.19	41.26	35.66	34.08	29.65	33.92	52.35	42.49	47.61	44.12	41.51	42.27
OKTE	36.07	33.31	31.28	35.19	31.61	32.7	32.86	28.28	34.72	35.36	37.66	34.8	31.26	36.68	31	29.89	25.9	31.16	38.54	33.24	36.61	42.29	36.63	29.9
OTE	36.03	33.31	31.18	31.98	31.47	31.83	32.86	28.27	34.19	34.19	36.58	33.75	29.48	36.14	30.65	29.76	25.41	30.64	36.71	32.68	33.4	39.09	35.48	28.76

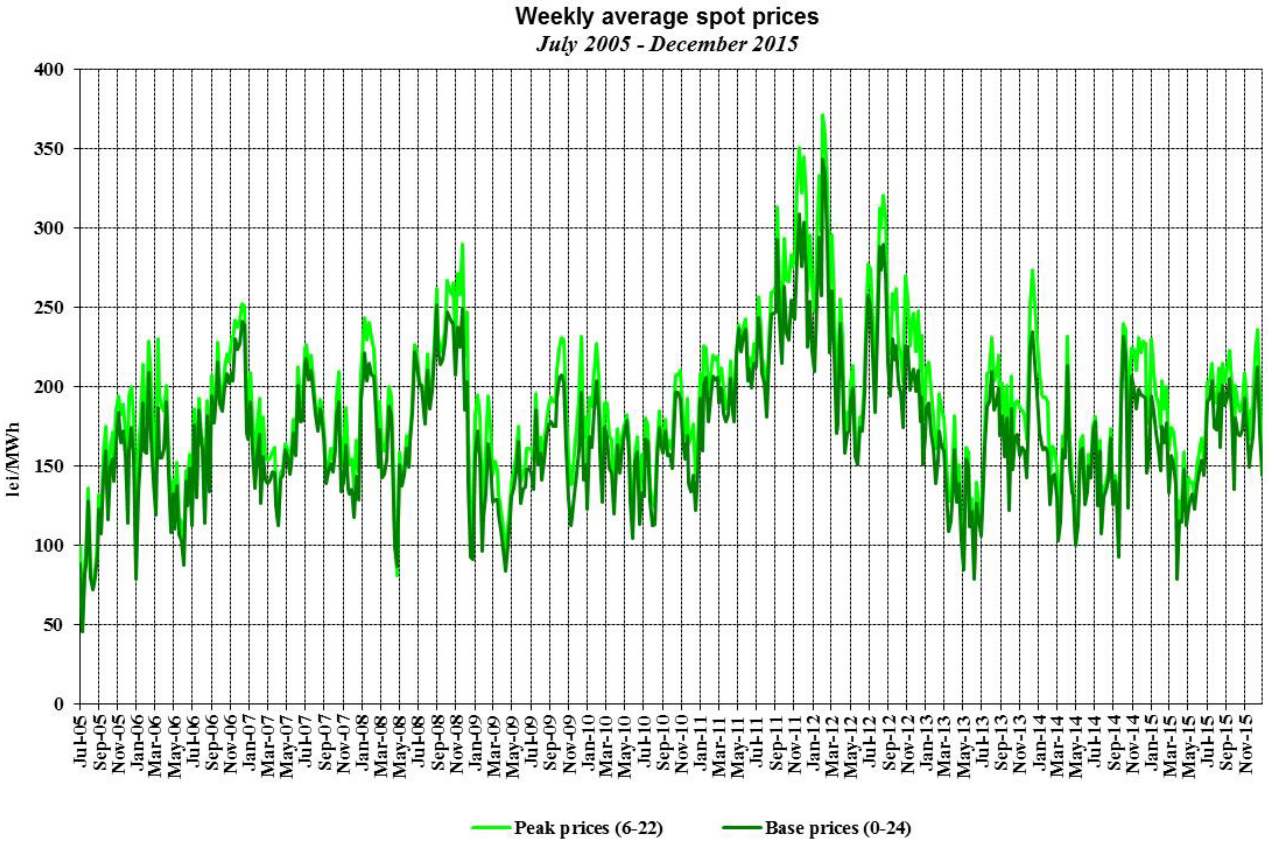
Source: Monthly reports of Opcom SA – processed by MG

The following graph presents the evolution for December 2015 of the 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:

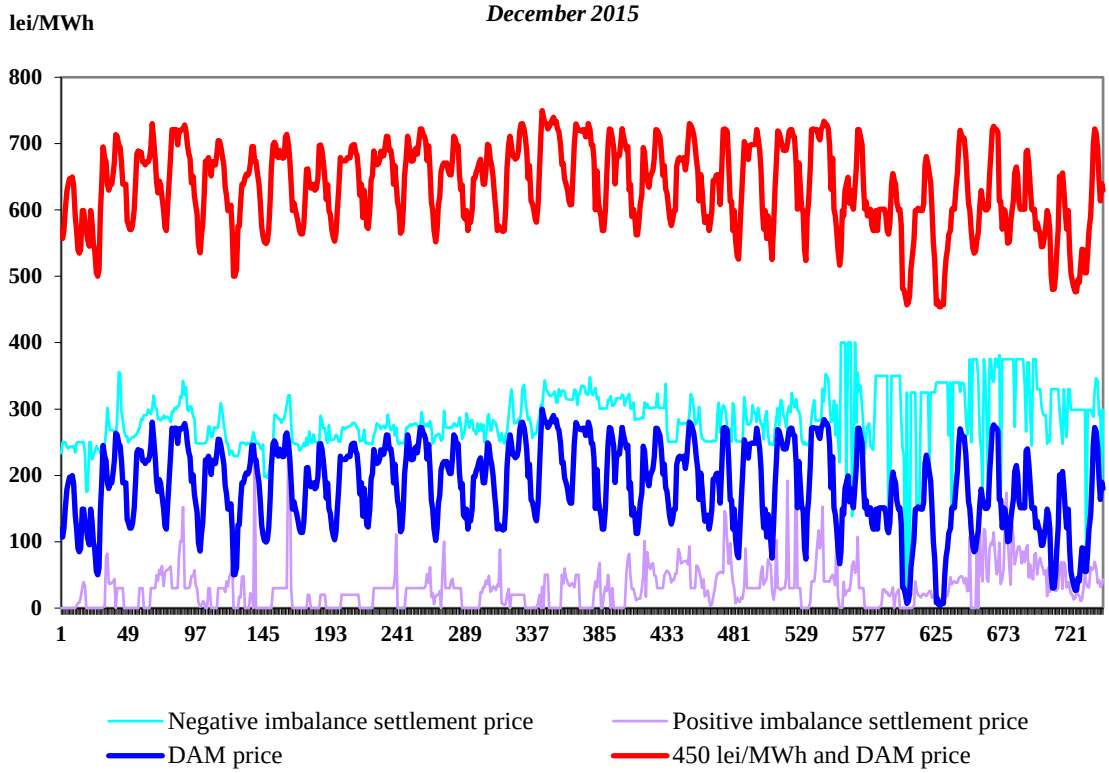


Source: Daily reports of Opcom SA – processed by MG

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.

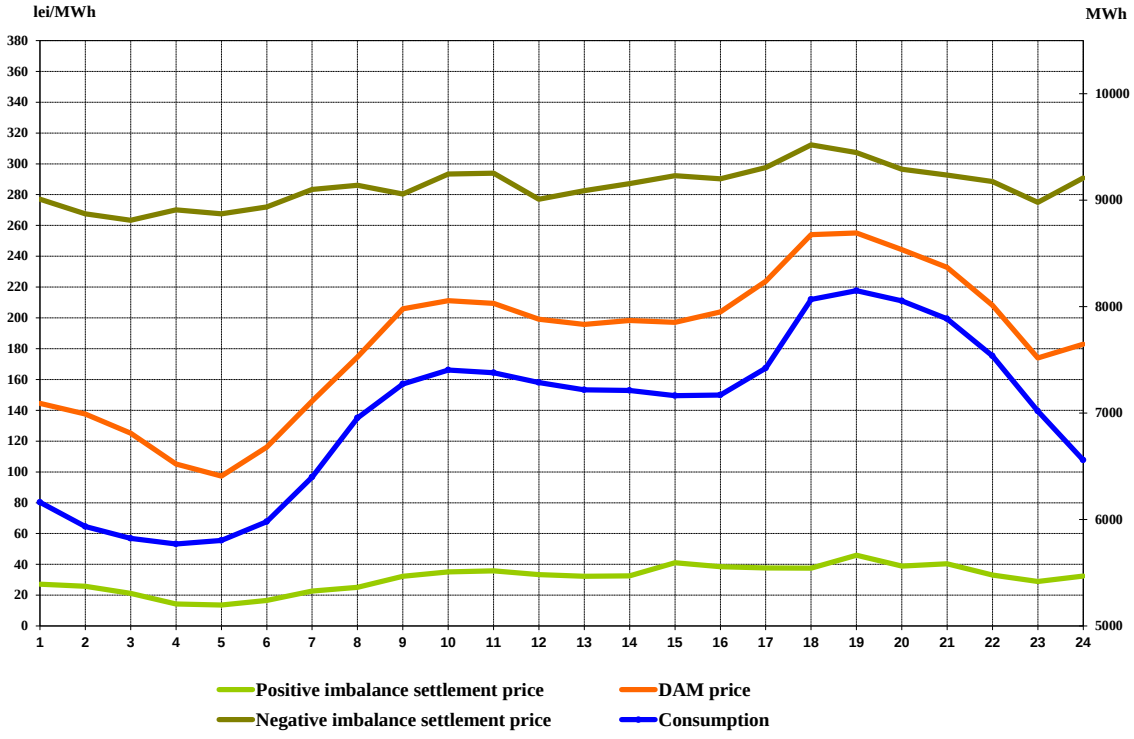
The settlement prices (MCP on DAM, negative imbalance settlement price and positive imbalance settlement price) are represented on the same graph, showing the two markets correlation degree. In the first graph the prices are expressed in hourly values, in the second graph in hourly average values compared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

Hourly settlement prices
December 2015



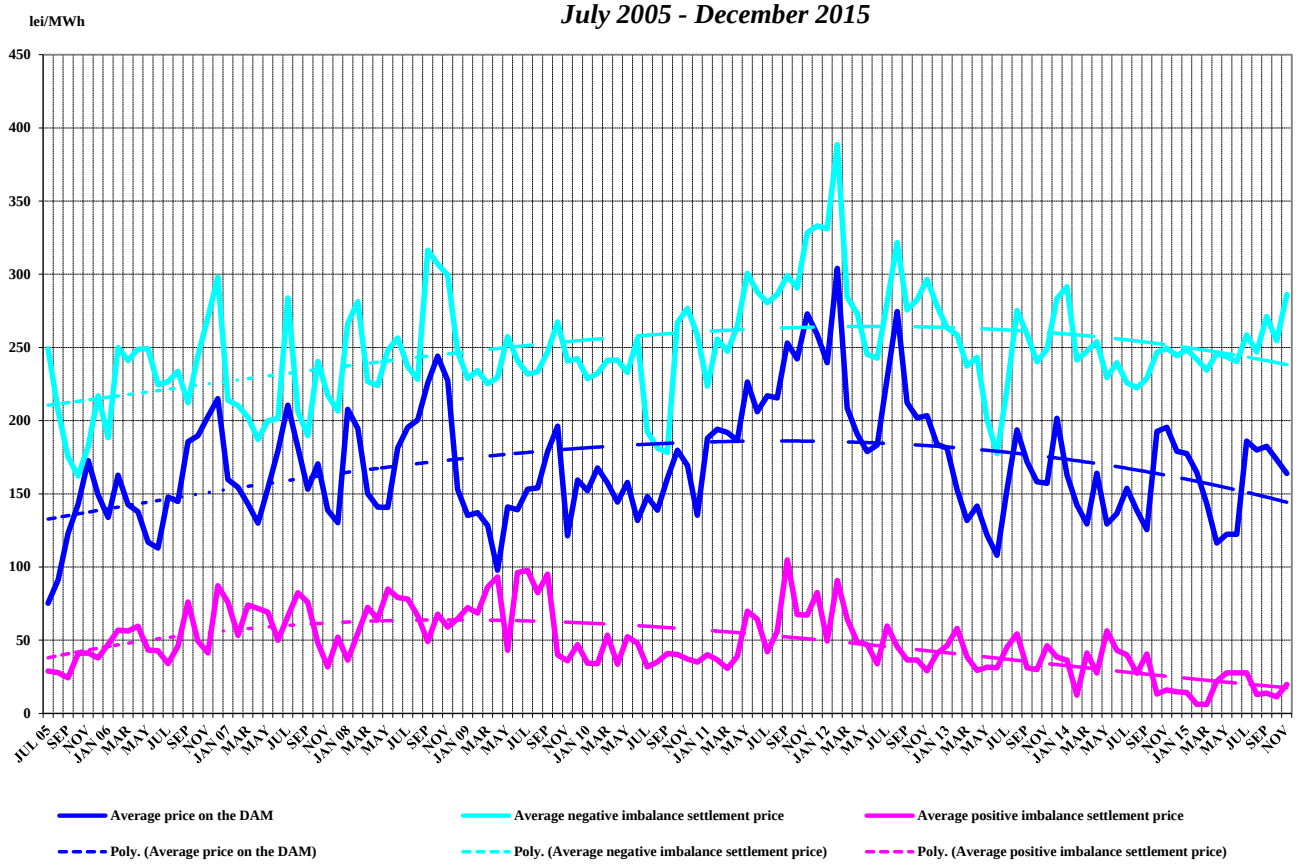
Source: Daily/monthly reports of Opcom SA – processed by MG

Hourly average settlement prices and internal consumption
December 2015



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

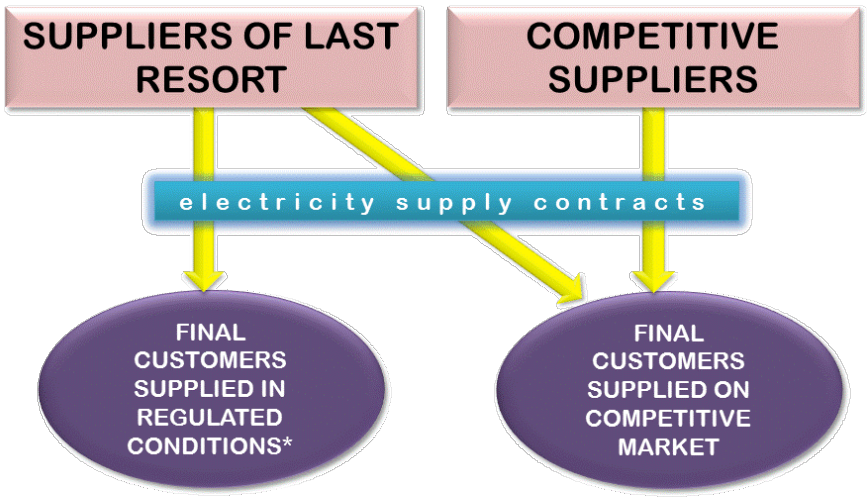
Monthly average prices on DAM and BM
July 2005 - December 2015



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

III. RETAIL ELECTRICITY MARKET

1. Structure of the retail electricity market

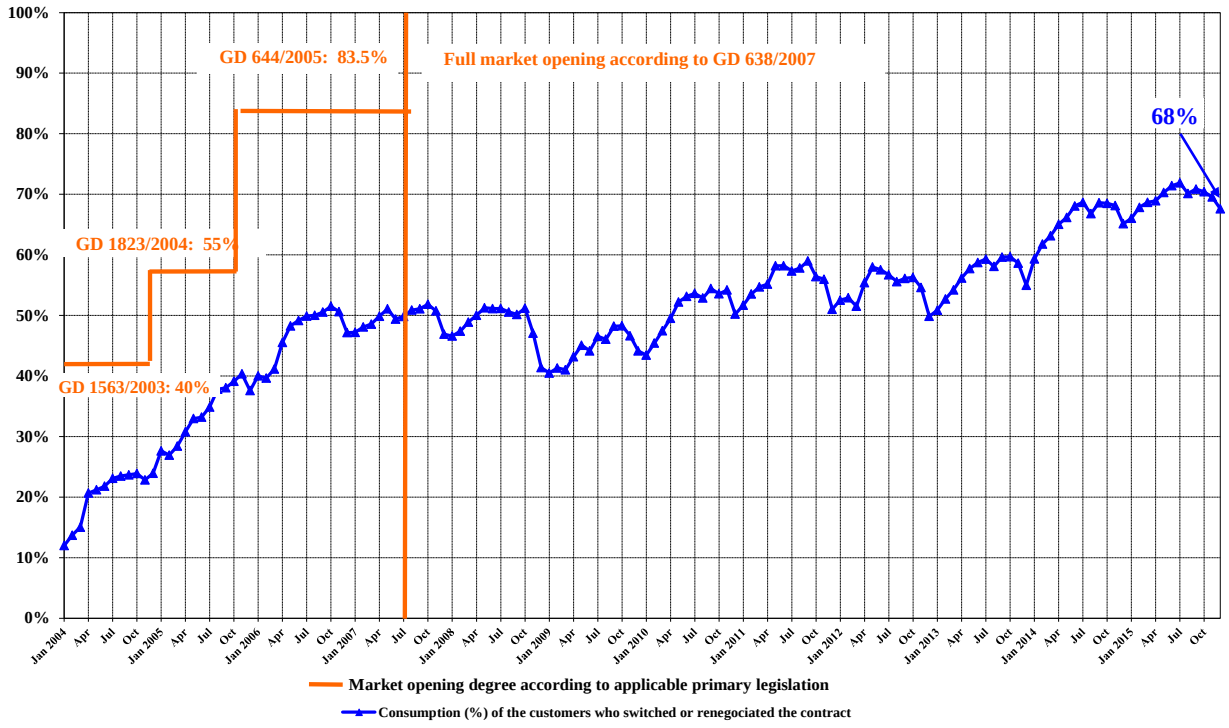


* according to art. 53 (2) and art. 55 (1) from Electricity and Gas Law no. 123/2012

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 – December 2015. The values presented are cumulated from the beginning of the opening process and are presented monthly:

Opening degree evolution of electricity market
January 2004 - December 2015

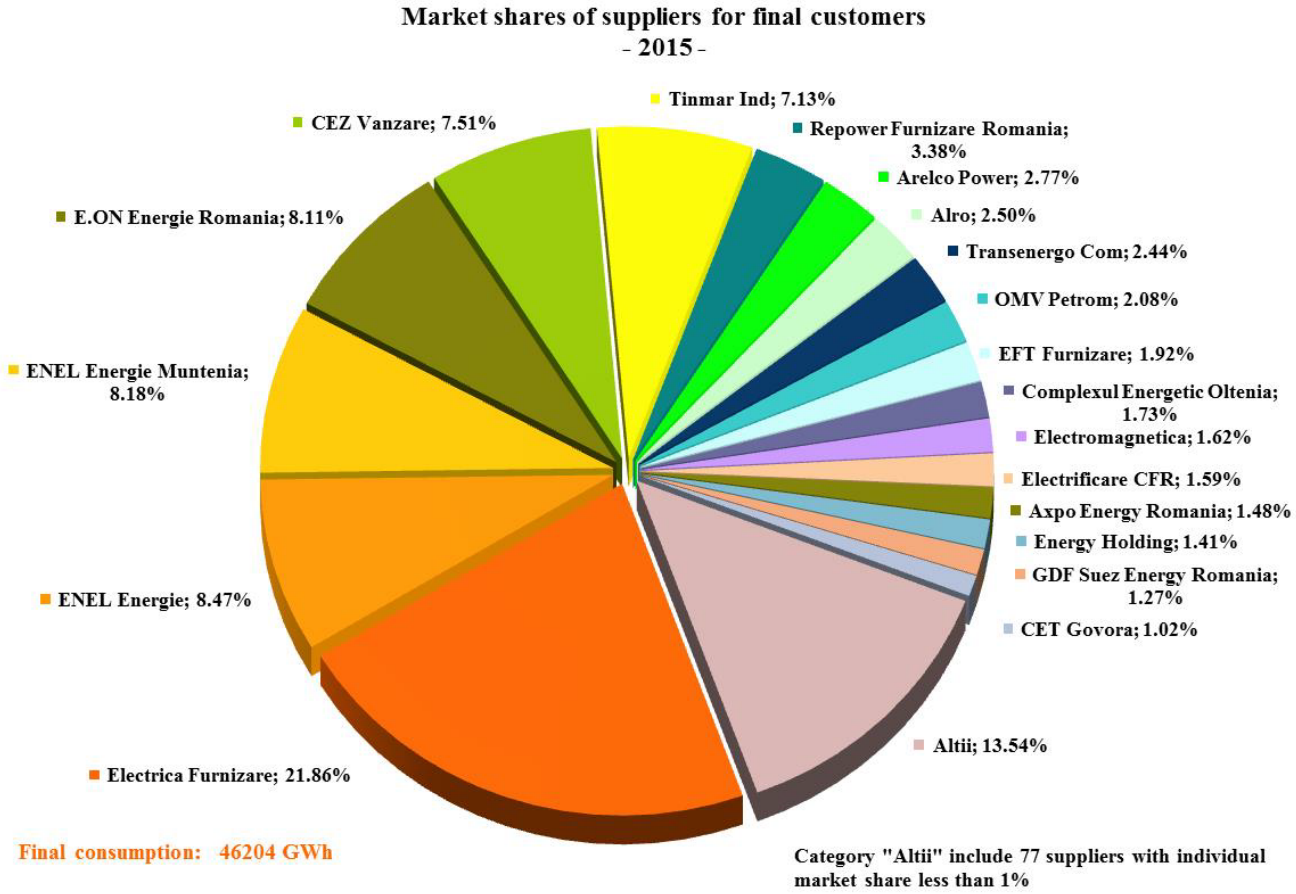


Source: Monthly reports of the final customers' suppliers – processed by MG

3. Market shares of the electricity suppliers

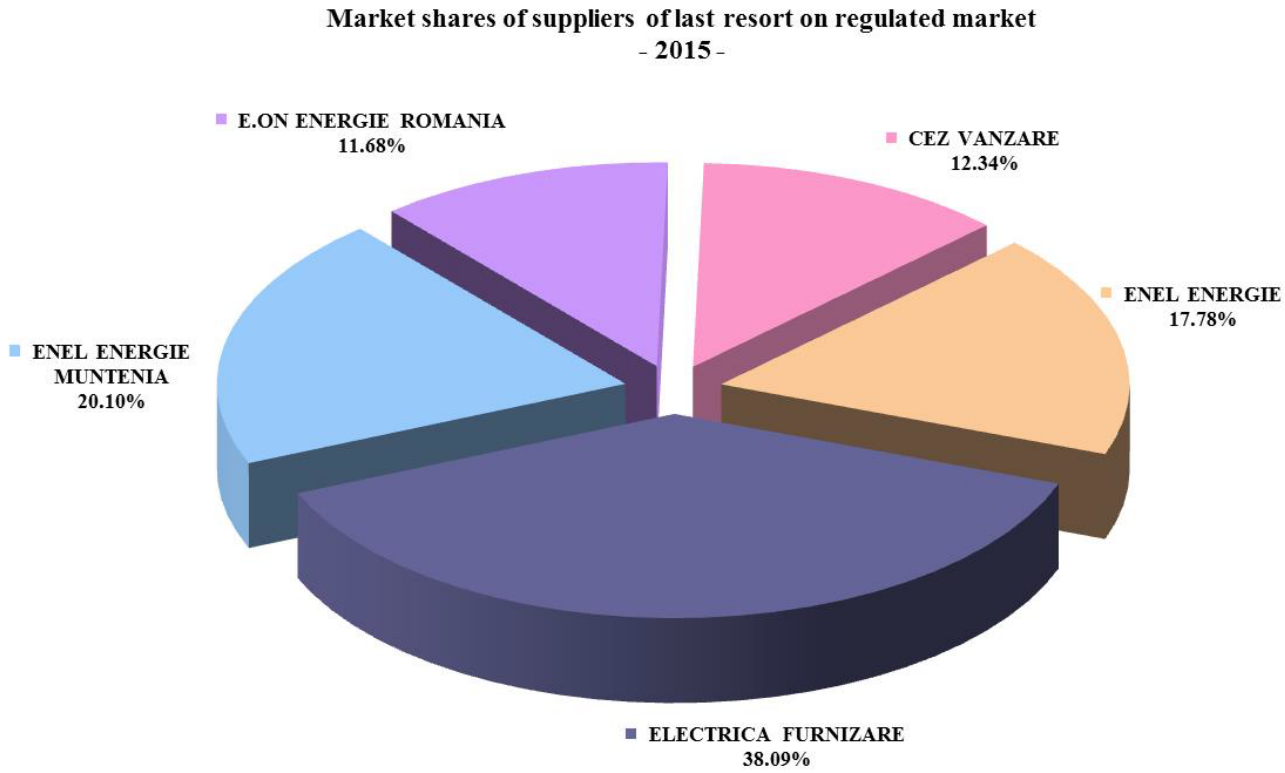
In the following three graphs there are presented the market shares of electricity suppliers on the retail market, calculated:

a) for all suppliers (including the suppliers of last resort) on REM – based on the electricity supplied to the customers on regulated tariffs (including CMC) 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

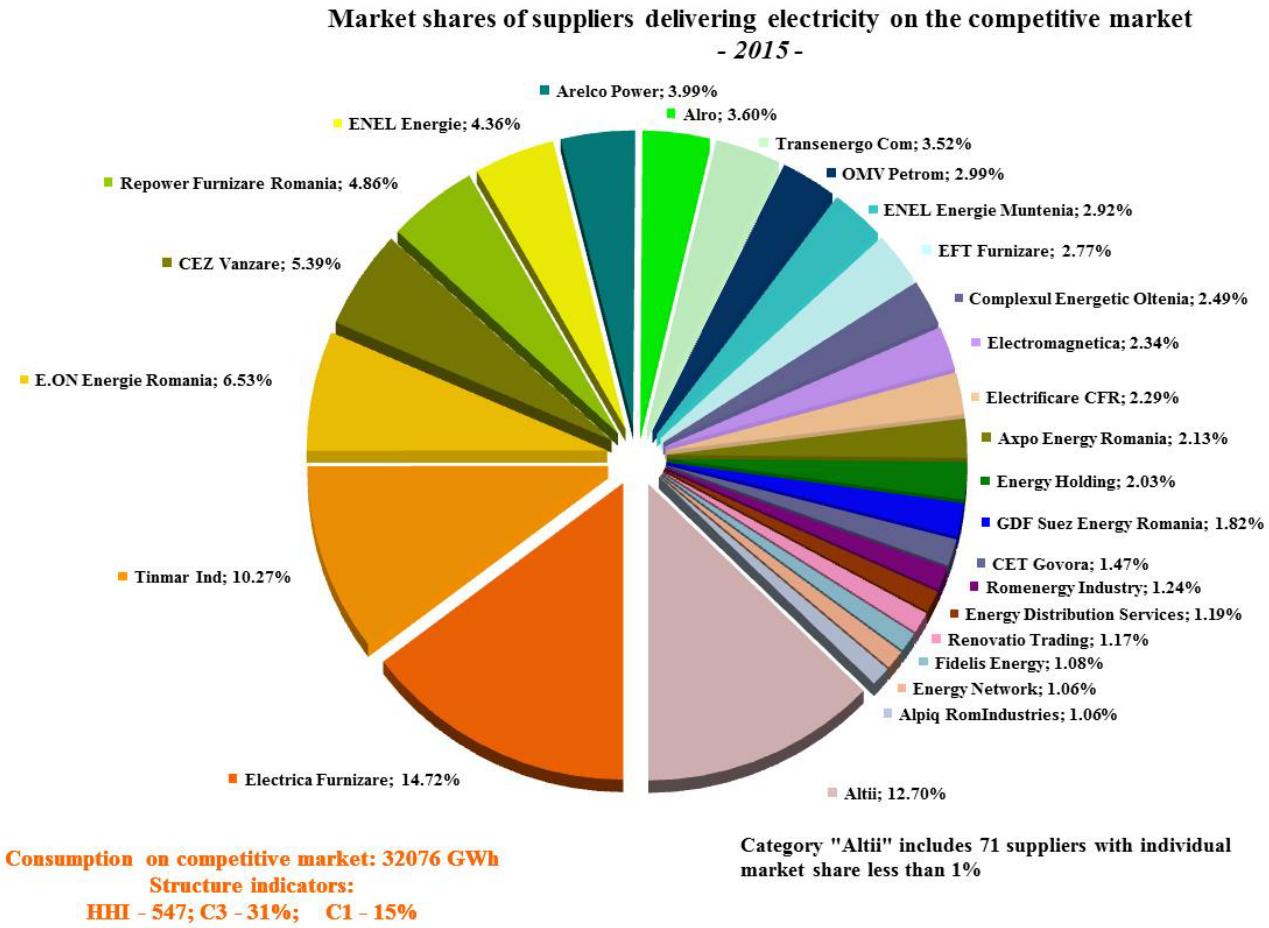
b) for suppliers of last resort - based on the electricity supplied to the final customers at regulated tariffs, CMC included;



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 b 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).

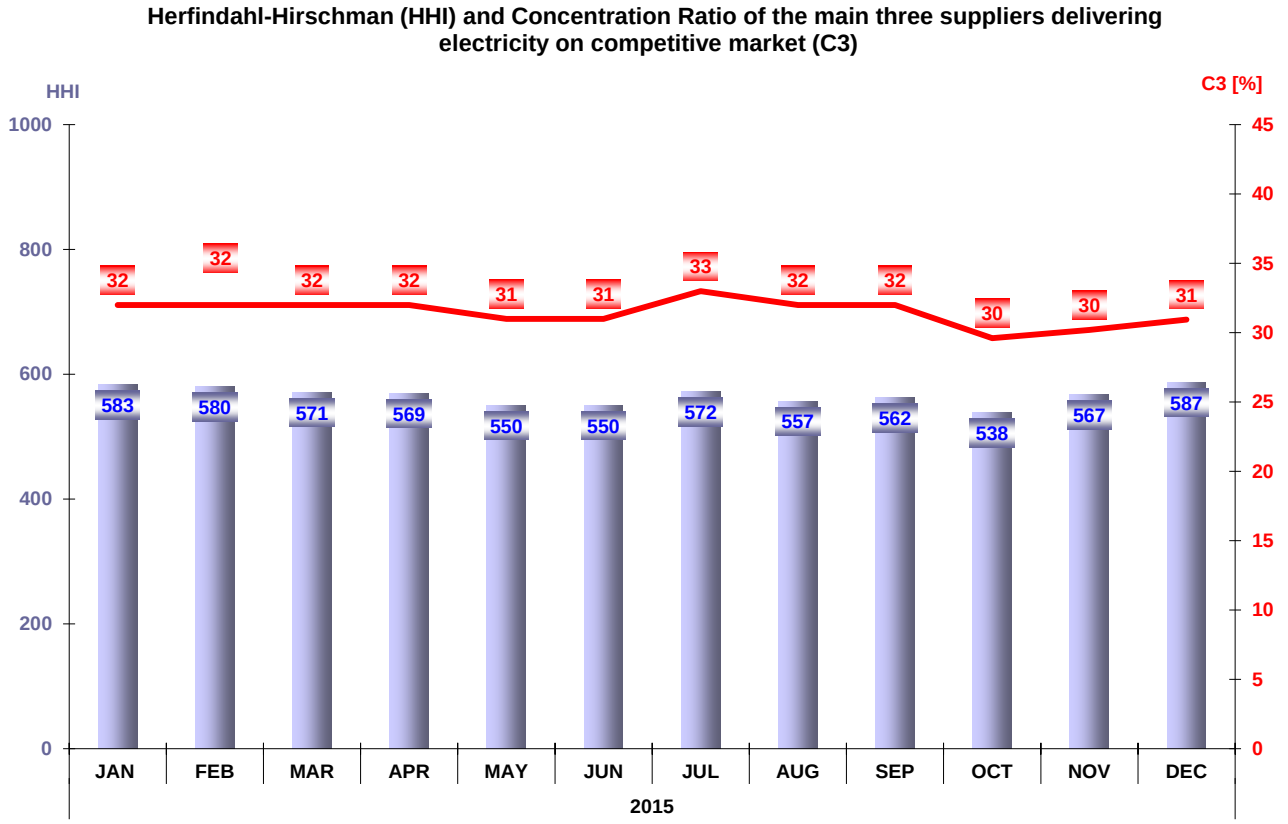
The analysis of the competitive suppliers' activity on the competitive REM component compared to their activity on the WEM is developed based on the weight of the electricity sold to final customers in total electricity sales. The table below presents the number of suppliers acting on the REM in December 2015, grouped into categories of sales weight.

Number of suppliers	Share of sales to final customers from total sales transactions			
	100%	75% - 100%	50% - 75%	<50%
Competitive	7	22	8	30
Of last resort	0	4	1	0

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

4. Concentration indicators of the competitive retail electricity market

The monthly evolution for 2015 of concentration indicators (C3, HHI) determined on the competitive component of the REM is presented in the following graph:



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 December 2015 and the entire year 2015, calculated for each customer category as defined by the Directive 2008/92/EC of the European Parliament and of the Council:

Indicators - Dec 2015	Consumer category							Total REM
	IA	IB	IC	ID	IE	IF	Other	
C1 - % -	26	27	25	16	15	22	17	**17**
C3 - % -	66	51	43	33	35	46	43	**31**
HHI	1732	1232	972	606	636	1088	945	**587**
Consumption - GWh -	74.4	346	278	658	361	136	773	**2626**
No. of SUPPLIERS	65	77	65	62	35	16	21	**91**
No. of suppliers of last resort	5	5	5	5	4	3	3	**5**
No. of competitive suppliers	47	59	50	50	28	11	13	**67**
No. of producers	13	13	10	7	3	2	5	**19**

Source: Monthly reports of the suppliers – processed by MG

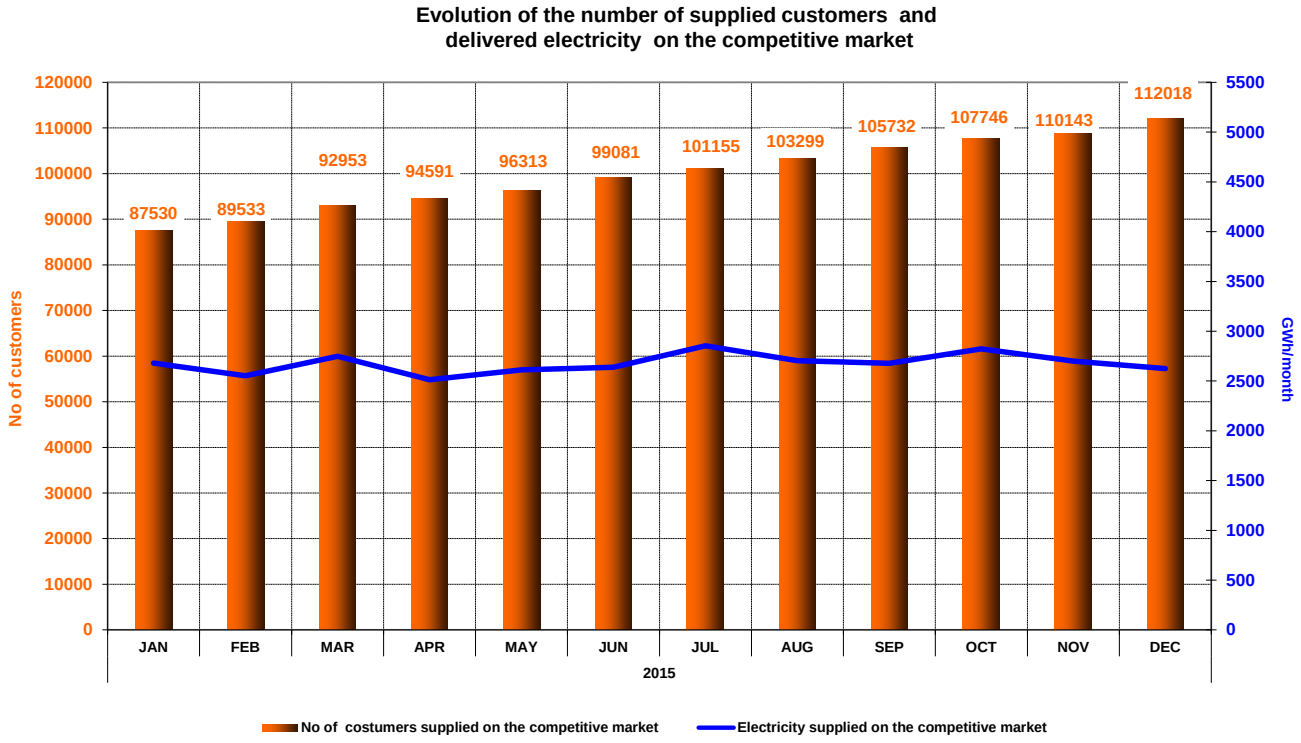
Indicators - year 2015	Consumer category							Total REM
	IA	IB	IC	ID	IE	IF	Other	
C1 - % -	29	25	23	15	17	25	16	**15**
C3 - % -	74	52	42	33	37	47	36	**32**
HHI	2030	1210	920	610	714	1064	794	**548**
Consumption - GWh -	793.6	3837	3378	8003	4350	2014	9701	**32076**
No. of SUPPLIERS	67	81	72	66	37	22	23	**96**
No. of suppliers of last resort	5	5	5	5	4	3	3	**5**
No. of competitive suppliers	49	62	55	53	29	16	15	**70**
No. of producers	13	14	12	8	4	3	5	**21**

Source: Monthly reports of the suppliers – processed by MG

5. Evolution of customers' number and of electricity delivered

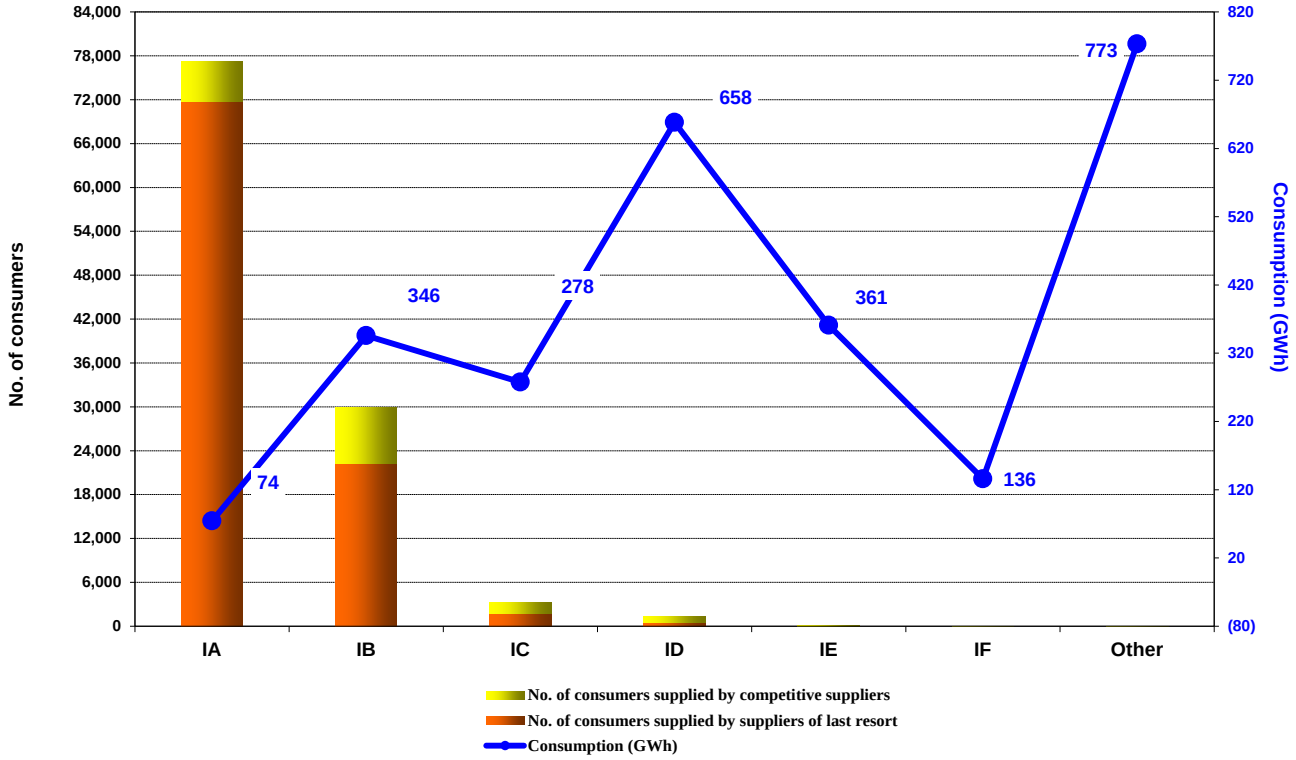
Number of customers supplied on the competitive market is presented as total value from the beginning of the market opening process; the indicator is split into categories, according to the provisions of Directive 2008/92/EC of the European Parliament and of the Council. The table below presents the 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	



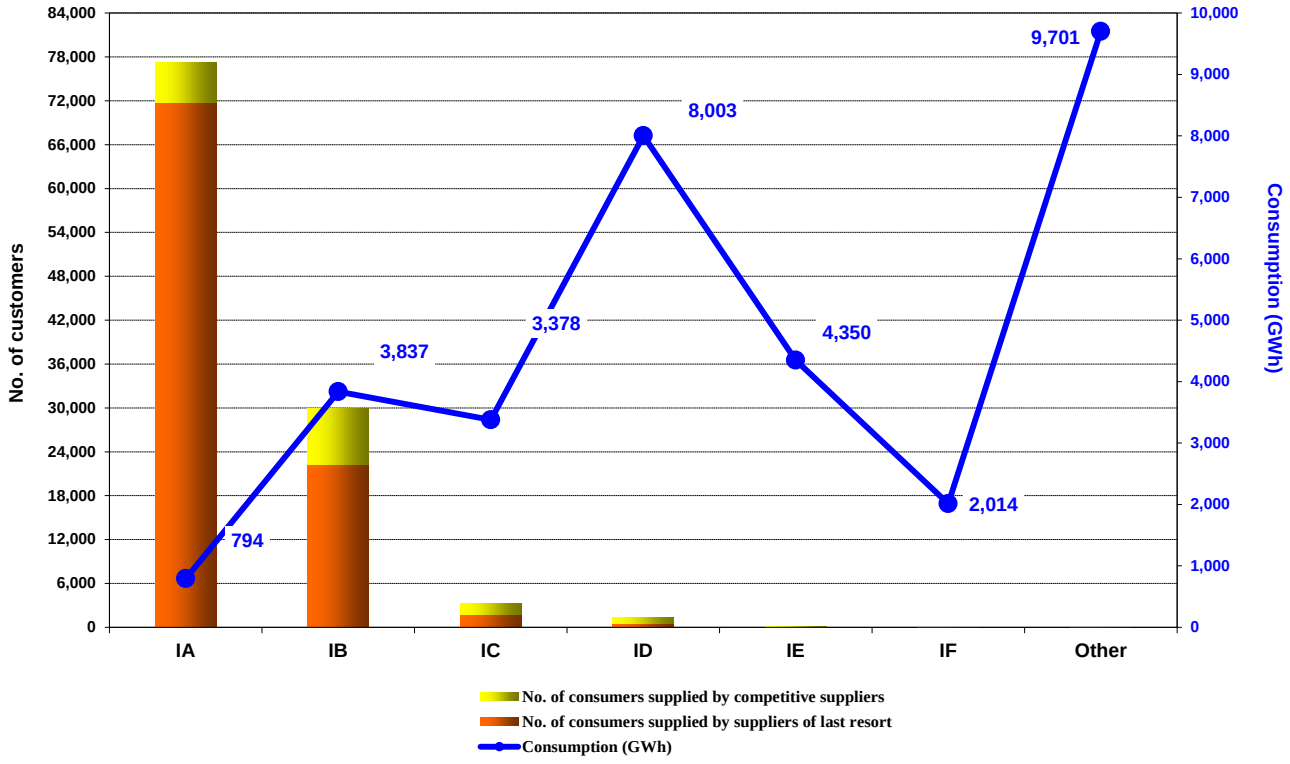
Source: Monthly reports of the competitive suppliers – processed by MG

Number of consumers supplied on competitive market and the consumption of each category of consumers
- December 2015-



Source: Monthly reports of the suppliers – processed by MG

Number of consumers supplied on competitive market and the consumption of each category of customers
- 2015-

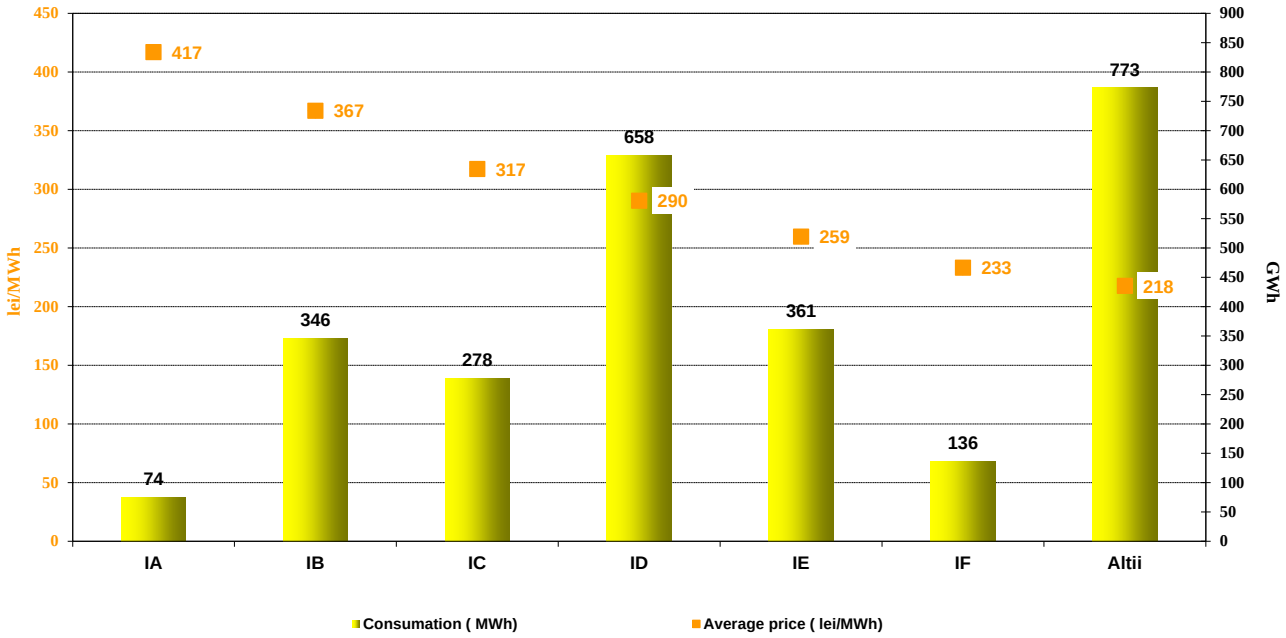


Source: Monthly reports of the suppliers – processed by MG

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

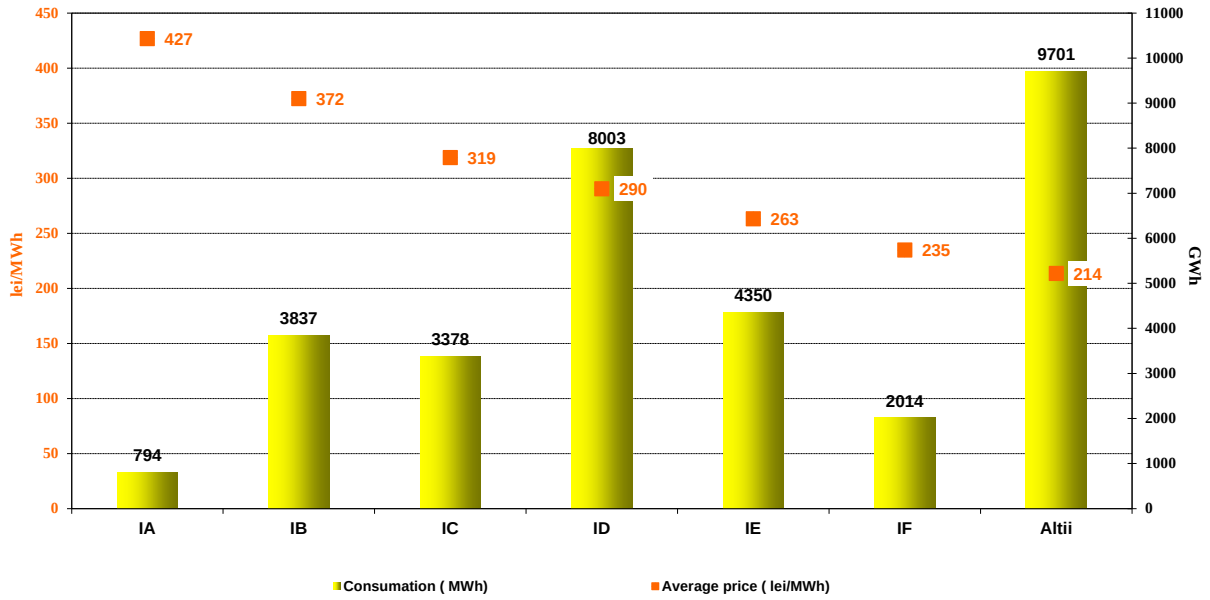
The following graph presents the average selling prices of customers supplied on the competitive market, based on the structure defined according to the Directive 2008/92/EC of the European Parliament and of the Council for December 2015 and the entire year 2015 2015.

Average price and energy consumption on types of consumers applied on competitive market
- DECEMBER 2015 -



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

Average price and energy consumption on types of consumers applied on competitive market
- 2015 -



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 supplied services (injection and extraction components of transmission, system services, distributi, market settlement. Imbalance, BRP aggregated taxe, metering). Splitting customers into

categories was based on their annual consumption forecast, according to the provisions of above mentioned Directive.

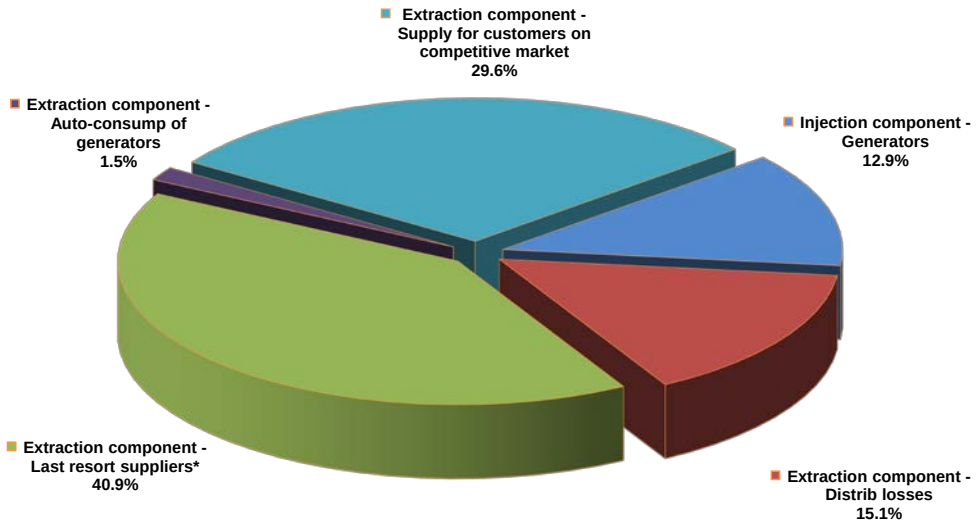
IV. TRANSMISSION AND SYSTEM OPERATOR CNTEE TRANSELECTRICA S.A.

CNTEE Transelectrica SA performs the electricity transmission service at regulated regional and average tariffs, depending on the impact of introduction or extraction of electricity in/from RET on NES functioning regime. Setting the regional transmission tariffs for both components, injection and extraction, aims locational transmission signals to determine an optimum geographic positioning of the new power units, respective an equilibrate positioning into the teritorry of the new customers.

Methodological principles for establishing the transmission service tariffs were modified starting with 1st of July 2015, in order to equalize the regional transmission tariffs to the approved introduction average tariff, for complying with applicable EU regulations.

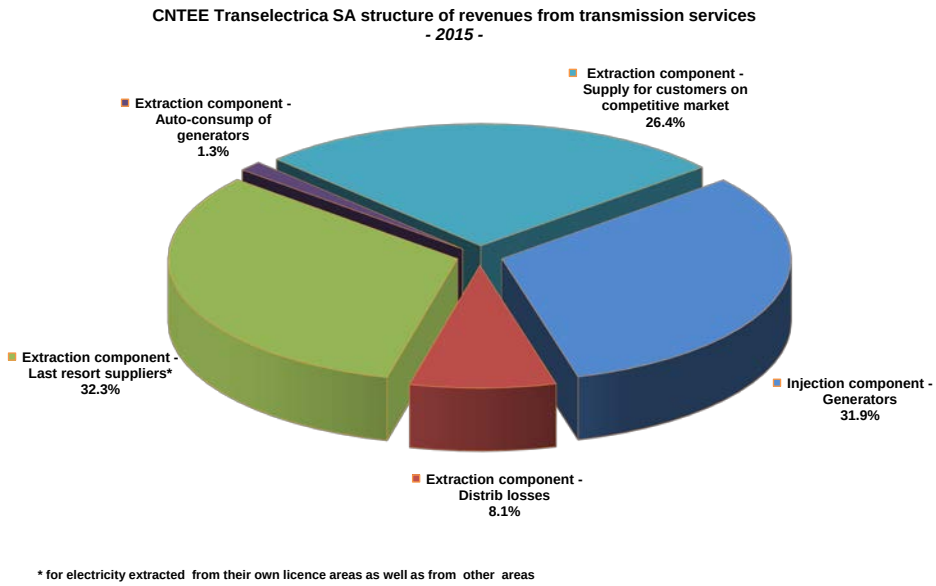
The following graph presents the structure of CNTEE Transelectrica SA revenues from performing the transmission services and reflects the structure of its clients benefiting from this type of service in December 2015 and in the entire year 2015.

CNTEE Transelectrica SA structure of revenues from transmission services
- December 2015 -



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

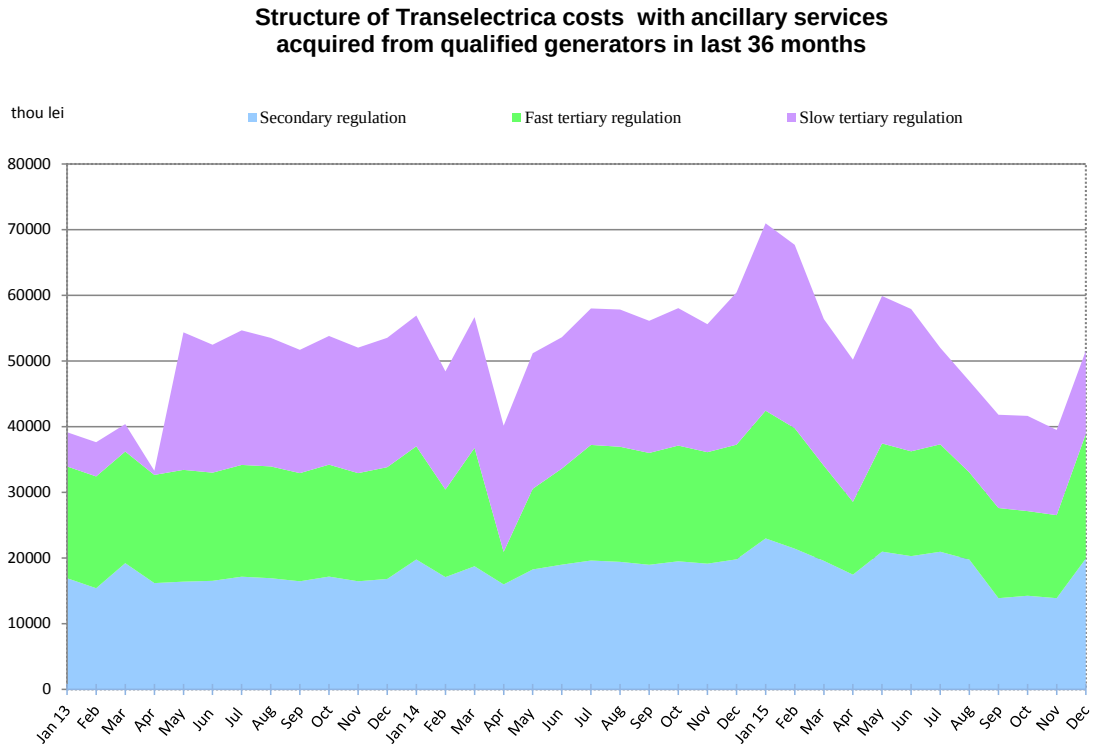
Source: Monthly reports of CNTEE Transelectrica SA – processed by MG



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 during the last 36 months. 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).



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

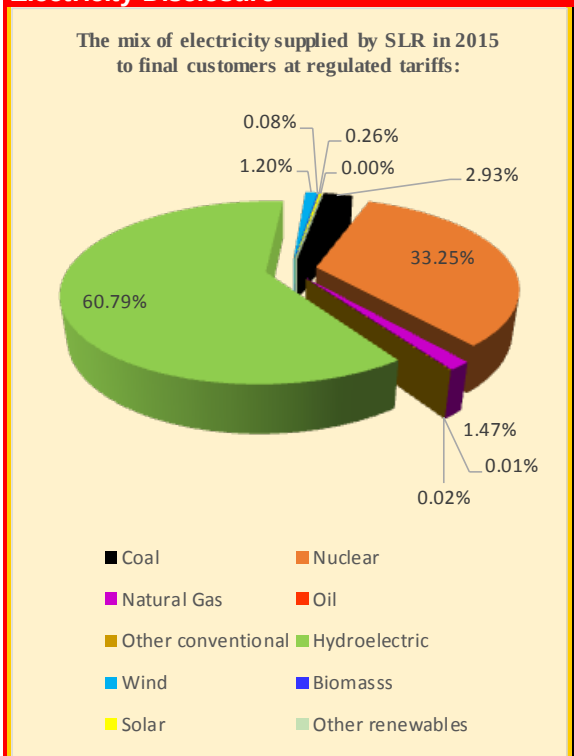
V. DISCLOSURE OF THE ELECTRICITY SUPPLIED IN 2015

The 2015 Romanian Electricity Label for the customers supplied at regulated tariffs was calculated based on the provisions of the Regulation on electricity disclosure–revision 1, approved by ANRE Order no. 69/2009.

This label reflects the electricity structure split by primary sources of the incumbent suppliers' acquisition and by the total electricity generation in Romania.

THE ELECTRICITY LABEL FOR THE CUSTOMERS SUPPLIED AT REGULATED TARIFFS

Electricity Disclosure



Primary Source	Suppliers of Last Resort (SLR)	Electricity Generation Romania 2015
Coal	**2.93%**	**26.89%**
Nuclear	**33.25%**	**17.83%**
Natural Gas	**1.47%**	**13.52%**
Oil	**0.01%**	**0.06%**
Other conventional	**0.02%**	**0.16%**
Renewables:	**62.33%**	**41.54%**
Hydroelectric	**60.79%**	**27.36%**
Wind	**1.20%**	**11.03%**
Biomasss	**0.08%**	**0.71%**
Solar	**0.26%**	**2.43%**
Other renewables	**0.00%**	**0.01%**

Environmental Impact

SLR:

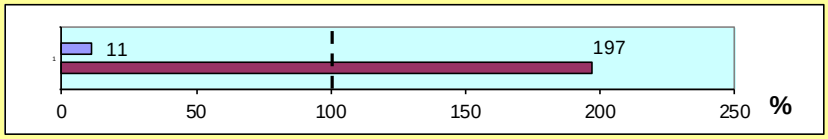
CO_2 Emissions: 32.53 g/kWh

Radioactive Wastes: 0.006 g/kWh

Romania:

CO_2 Emission: 299,02 g/kWh

Radioactive Wastes: 0,003 g/kWh



Environmental impact below/over sectorial average

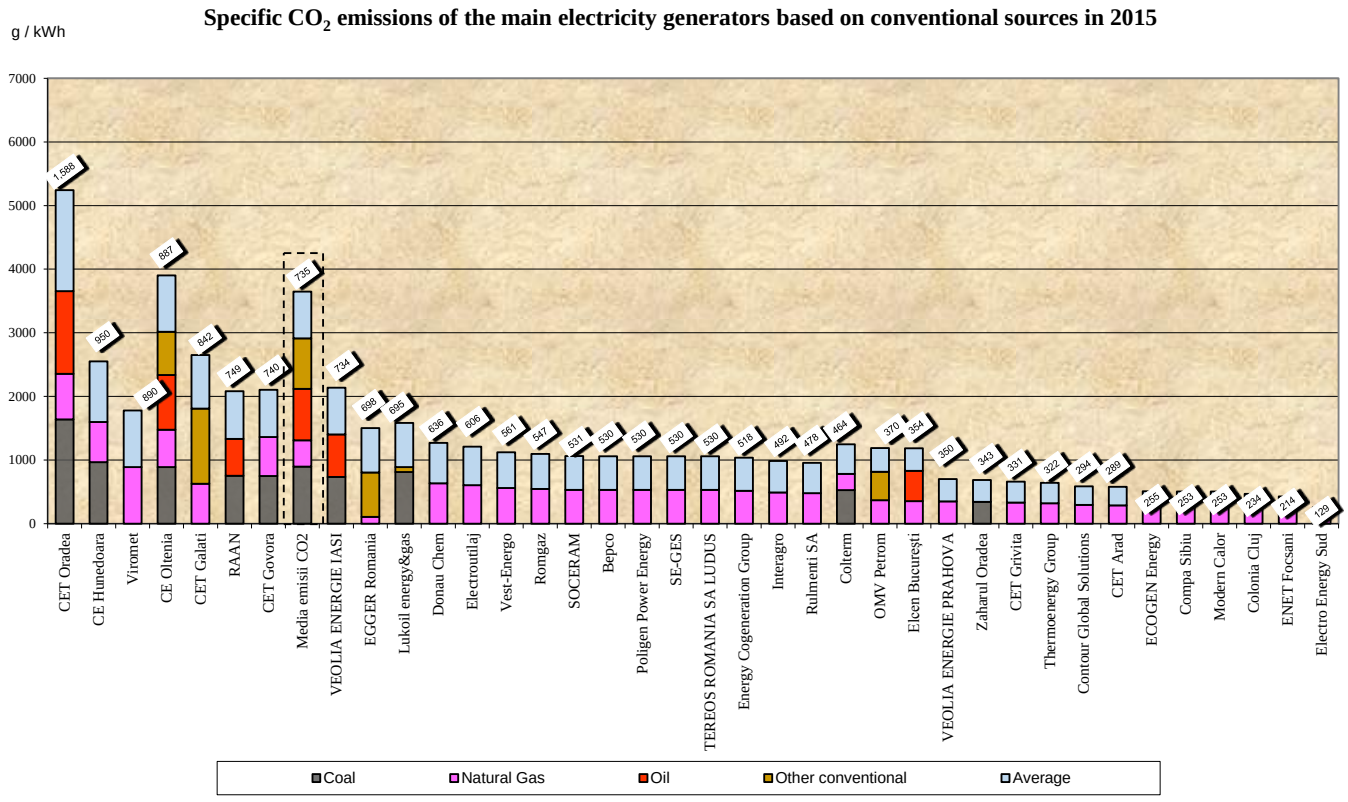
According to ANRE Order no. 69/2009 - Electricity Disclosure Regulation (www.anre.ro)

In 2015 the sectorial average of CO_2 specific emissions resulted from the electricity generation was **299.02 g/kWh**. Based on this, the active suppliers on the competitive market have to specify in their own electricity label the environment impact of the electricity they supplied during 2015, by comparing it with the sectorial average value.

The average specific CO_2 emissions split by primary sources were calculated as weighted averages of specific emissions and delivered electricity on each type of primary source.

Primary energy source	Specific CO2 Emissions [g/kWh]
Coal	898.76
Natural Gas	411.07
Oil	777.26
Other conventional	794.20
Renewable	0
Sectorial Average	**299.02**

The following graph presents the specific CO2 emissions of the main electricity generators in 2015.



Source: Generators' reports according to ANRE Order no. 69/2009 – processed by ANRE

VI. EVOLUTION OF MARKET RULES IN DECEMBER 2015

In December 2015, ANRE issued the following regulations with impact on the wholesale and retail electricity markets:

- ANRE Order no. 164/2015 regarding certification of CNTEE Transelectrica SA as transmission and system operator, according with the ownership separation model;
- ANRE Order no. 166/2015 regarding the amendments to the Regulation of organisation and functioning of green certificates market apporved by ANRE Order no. 60/2015;
- ANRE Order no. 167/2015 for approving the regulated tariff of market operator;
- ANRE Order no. 168/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by Enel Distributie Banat SA;
- ANRE Order no. 169/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by Enel Distributie Dobrogea SA;
- ANRE Order no. 170/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by Enel Distributie Muntenia SA;
- ANRE Order no. 171/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by Electrica Distributie Transilvania Sud SA;
- ANRE Order no. 172/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by Electrica Distributie Muntenia Nord SA;
- ANRE Order no. 173/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by Electrica Distributie Transilvania Nord SA;
- ANRE Order no. 174/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by E.ON Distributie Romania SA;
- ANRE Order no. 175/2015 for approving specific tariffs for electricity distribution service and price of reactive electricity applied by CEZ Distributie SA;
- ANRE Order no. 176/2015 for approving the regulated tariffs applied by suppliers of last resort to household non eligible customers and the rules of application of regulated tariffs and CMC tariffs;
- ANRE Order no. 177/2015 for approving the Procedure for granting compensation to household customers in case of damaged equipments as a consequence of high voltage incidents by distribution operator fault;
- ANRE Order no. 183/2015 for determining the compulsory estimated quota for acquisition of green certificates for 2016;
- ANRE Decision no. 2514/2015 regarding the modification of the licence for administrating the electricity centralised markets granted for Opcom SA;
- ANRE Decision no. 2515/2015 for granting Opcom SA as the designated market operator;
- ANRE Decision no. 2560/2015 on approving the quantities produced in highly efficient cogeneration units which benefit of bonus scheme in November 2015;
- ANRE Decision no. 2561/2015 on approving the electricity quantities sold on regulated contracts and regulated prices for electricity delivered in 2016 by Hidroelectrica SA;

- ANRE Decision no. 2562/2015 on approving the electricity quantities sold on regulated contracts and regulated prices for electricity delivered in 2016 by Nuclearelectrica;
- ANRE Decision no. 2583/2015 on approving the harmonised allocation rules on long term (HAR), including Annex no. 15 for Romanian-Hungarian border.

V. 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