

**WIND - CHEAPEST OPTION FOR ROMANIAN
CONSUMERS TO REACH EU BINDING GREEN
TARGETS**



RENEWABLE ENERGY: PROGRESSING TOWARDS 2020 TARGETS - SUPPORTING SCHEMES

	AT	BE	BG	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK
FIT	x	x	x	x	x	x		x	x		X	x	x	x	x	x	x	x	x			x			x	x	x
Premium					x		x	x	x											x					x		
Quota obligation		x													x						x		x	x			x
Investment grants		x		x	x					x		x	x			x	x	x	x								
Tax exemptions		x							x	x		x						x		x	x			x		x	x
Fiscal incentives			x			x		x											x	x	x				x		

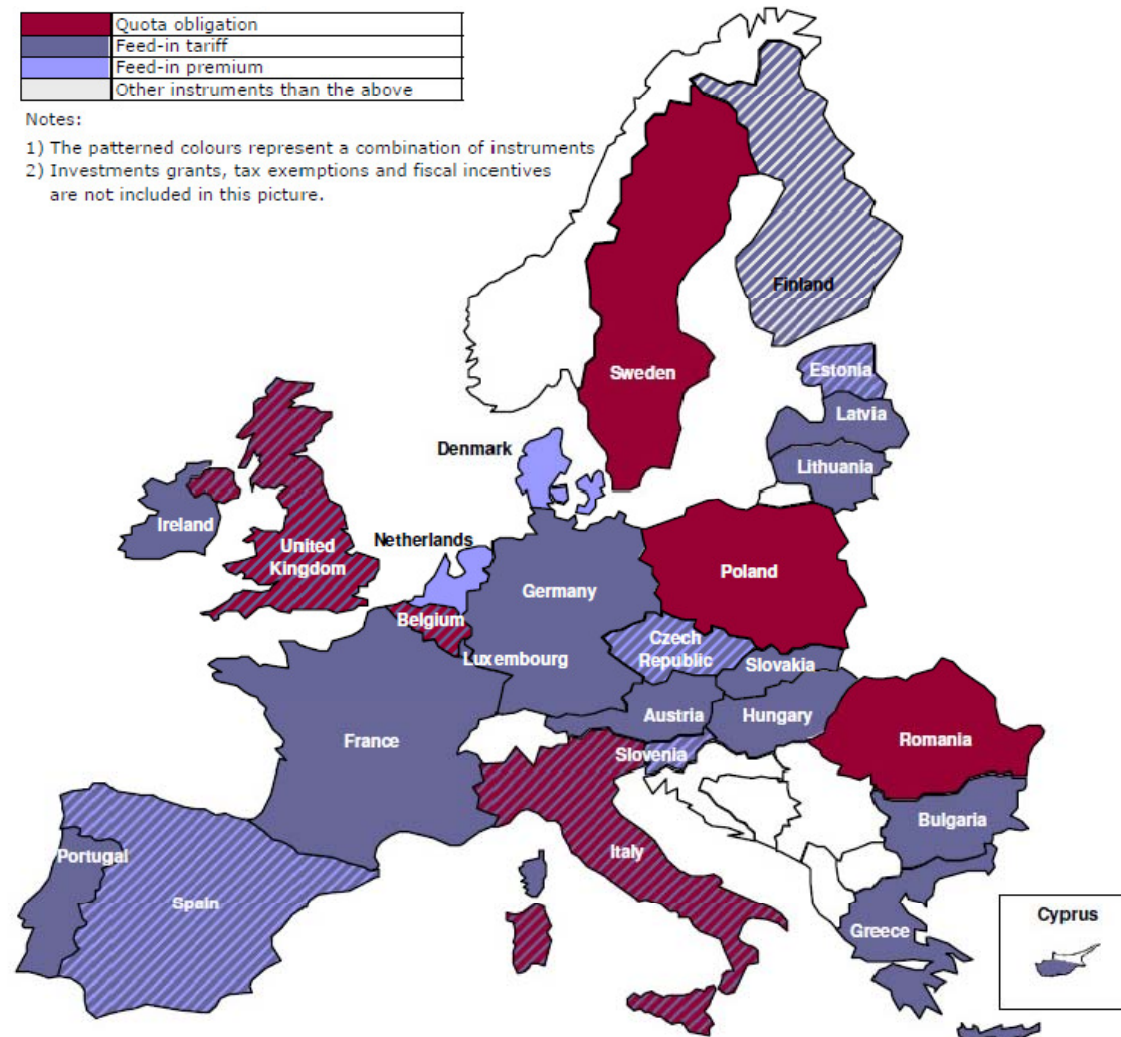


RENEWABLE ENERGY: PROGRESSING TOWARDS 2020 TARGETS - SUPPORTING SCHEMES

	Quota obligation
	Feed-in tariff
	Feed-in premium
	Other instruments than the above

Notes:

- 1) The patterned colours represent a combination of instruments
- 2) Investments grants, tax exemptions and fiscal incentives are not included in this picture.



Source:
Financing Renewable Energy
in the European Energy
Market, Report to EC, January
2011



EUROPEAN WIND ENERGY ASSOCIATION ESTIMATION FOR 2020

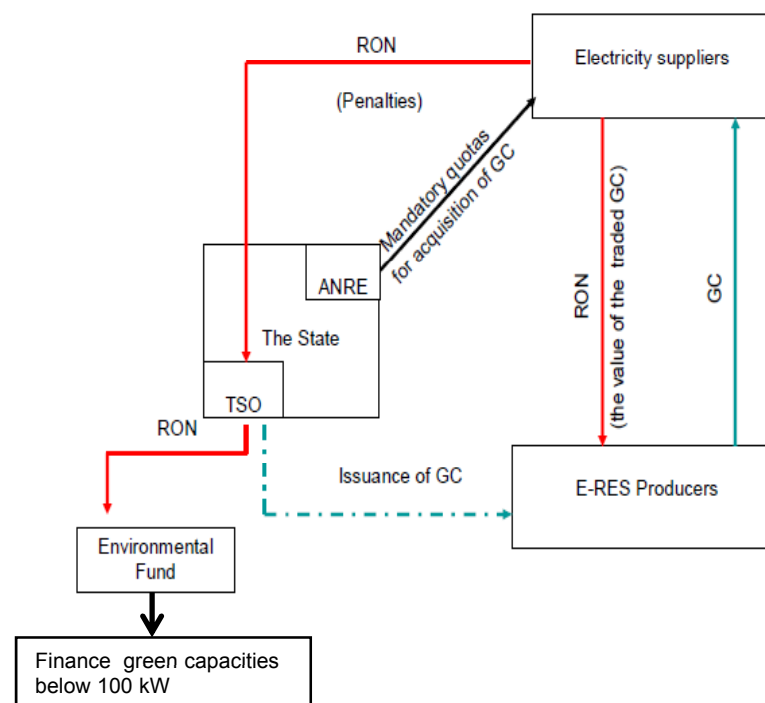
Country	MW Installed end 2010			MW Installed end 2020: Baseline			MW Installed end 2020: High			Average annual MW Baseline (2011-2020)	Average annual MW High (2011-2020)
	Onshore	Offshore	Total	Onshore	Offshore	Total	Onshore	Offshore	Total		
Austria	1,011	0	1,011	3,500	0	3,500	4,000	0	4,000	249	299
Belgium	716	195	911	2,100	1,800	3,900	2,500	2,000	4,500	299	359
Bulgaria	375	0	375	3,000	0	3,000	3,500	0	3,500	263	313
Cyprus	82	0	82	300	0	300	500	0	500	22	42
Czech Republic	215	0	215	1,600	0	1,600	1,800	0	1,800	139	159
Denmark	2,944	854	3,798	3,700	2,300	6,000	4,000	2,500	6,500	220	270
Estonia	149	0	149	500	0	500	500	100	600	35	45
Finland	171	26	197	1,500	400	1,900	2,000	1,000	3,000	170	280
France	5,660	0	5,660	19,000	4,000	23,000	20,000	6,000	26,000	1,734	2,034
Germany	27,122	92	27,214	41,000	8,000	49,000	42,000	10,000	52,000	2,179	2,479
Greece	1,208	0	1,208	6,500	0	6,500	8,300	200	8,500	529	729
Hungary	295	0	295	900	0	900	1,200	0	1,200	60	90
Ireland	1,403	25	1,428	5,000	1,000	6,000	6,000	1,000	7,000	457	557
Italy	5,797	0	5,797	15,000	500	15,500	17,000	1,000	18,000	970	1,220
Latvia	31	0	31	200	0	200	200	100	300	17	27
Lithuania	154	0	154	1,000	0	1,000	1,000	100	1,100	85	95
Luxembourg	42	0	42	300	0	300	700	0	700	26	66
Malta	0	0	0	100	0	100	200	0	200	10	20
Netherlands	1,998	247	2,245	5,000	4,500	9,500	5,400	6,000	11,400	726	916
Poland	1,107	0	1,107	10,000	500	10,500	12,000	500	12,500	939	1,139
Portugal	3,898	0	3,898	7,500	0	7,500	9,000	0	9,000	360	510
Romania	462	0	462	3,000	0	3,000	3,500	0	3,500	254	304
Slovakia	3	0	3	800	0	800	1,000	0	1,000	80	100
Slovenia	0.03	0	0.03	500	0	500	700	0	700	50	70
Spain	20,676	0	20,676	39,000	1,000	40,000	41,000	1,500	42,500	1,932	2,182
Sweden	1,999	164	2,163	6,000	3,000	9,000	8,000	3,000	11,000	684	884
UK	3,863	1,341	5,204	13,000	13,000	26,000	14,000	20,000	34,000	2,080	2,880
EU27	81,380	2,944	84,324	190,000	40,000	230,000	210,000	55,000	265,000	14,568	18,068



Romanian supporting mechanism for renewables

- The supporting system for electricity from renewable energy sources (E-RES) has been defined for Romania beginning with 2007 as **mandatory quota combined with a system of green certificates (GC) trading**;
- **Eligible** are producers generating energy from:
 - Wind energy, Solar energy, Geothermal energy, Biomass, Waves energy,
 - Hydro power plants less than 10 MW, commissioned or rehabilitated starting 2004
- Each supplier has a given percentage (a mandatory quota) obligation for green certificates and can comply with its quota obligation by purchasing green certificates on the **green certificates market (bilateral contracts at negotiated prices and/or monthly centralized market of green certificates)**.
- Related electricity can be sold by bilateral contracts at regulated prices (only for producers less than 1 MW), or free at negotiated price
- The certificates are issued monthly by the TSO
- OPCOM administrates trading and certificates ownership at the end of the period
- The bids for GC are honoured once per month; the clearing price applies for all the participants.

Figure 1: Functioning of green certificates system





GREEN CERTIFICATES STORY

ACHIEVEMENTS

- 2008 – law 220 to grant 2 GC per MWh generated by wind parks;
- 2010 – law 139 to extend period of receiving 2 GC/MWh from until 2015 to end of 2017;
- 12.10. Emergency Ordinance (EO) approved – 2GC with price according to the amended law 220/2008 (55EUR + inflation)
- 20.10. ANRE approved Accreditation regulation and sent it to Official Gazette for publication
- 01.11. Accreditation regulation was published in the Official Gazette
- 18.11. Individual ANRE accreditation decisions approved for:
 - Fantanele Est (62,5 MW) accredited for 15 years (minus already working months)
 - Fantanele Vest (237,5 MW) accredited for 24 months to receive normal supporting scheme (2 GC/MWh), with the obligation to individually notify within next 3 months
- 25.11. Transelectrica's procedures linked to accreditation and GC are approved
- 2nd GC is granted starting November production to Fantanele and from December to TMK Hydro)
- 16.02.2012 Individual notification for Fantanele Vest (262.5 MW) submitted to Romanian authorities
- 18.05.2012 Individual notification for Fantanele Vest submitted by Ro authorities to DG COM

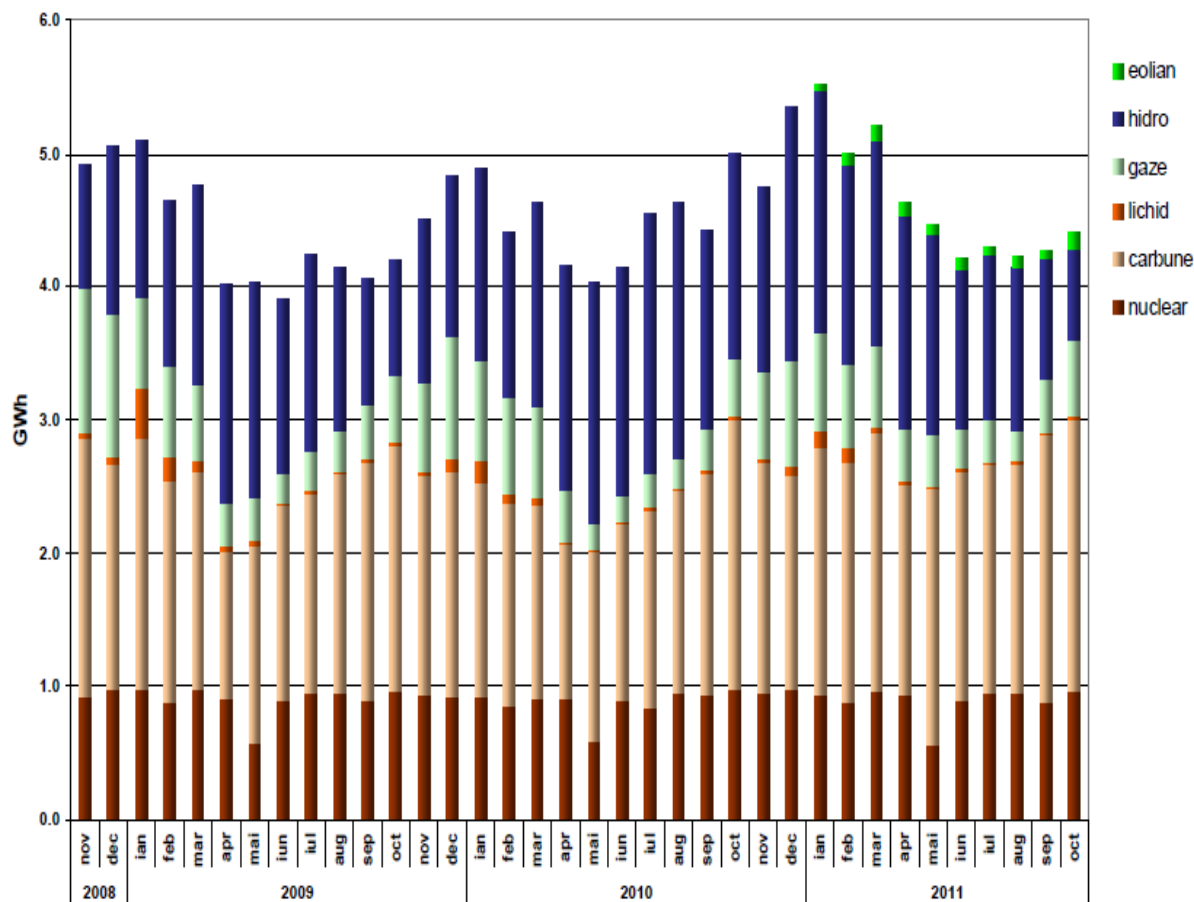
NEXT STEPS

- Individual notification for Cogeaalac (255 MW)
- DG COM endorsement on individual notifications
- EO should be confirmed by Parliament – debates have started

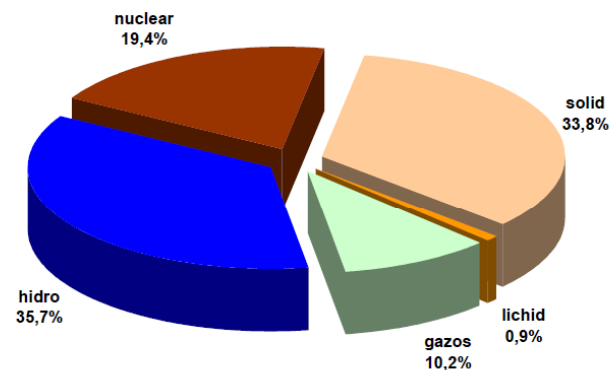


Generation portfolio has started to change

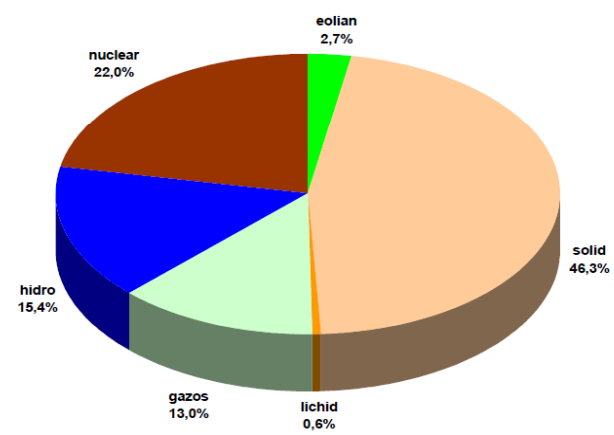
Evolutia structurii pe tipuri de resurse a energiei electrice livrate in retea de producatorii cu unitati dispecerizabile



Structura pe tipuri de resurse a energiei electrice livrate in retele de producatorii cu unitati dispecerizabile - 2010 -



Structura pe tipuri de resurse a energiei electrice livrate in retele de producatorii cu unitati dispecerizabile - octombrie 2011 -





ESTIMATION FOR GREEN ENERGY DEVELOPMENT

Source: National notification

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Renewables installed capacity (MW)	1797	2559	3331	3902	4349	4677	4677	4677	4677	4677
Wind - new equipment	1250	1850	2450	2880	3200	3400	3400	3400	3400	3400
Wind - reused	12	14	16	18	20	20	20	20	20	20
Hydro - new	117	167	217	267	317	367	367	367	367	367
Hydro - upgrade	34	59	84	109	134	159	159	159	159	159
Hydro - existing	286	261	236	211	186	161	161	161	161	161
BiomassCogen - new	45	83	126	150	175	210	210	210	210	210
Landfill/SewageGas - new	5	8	11	14	17	20	20	20	20	20
BiomassE - new	20	37	56	70	85	100	100	100	100	100
BiomassECropsE - new	20	37	57	70	85	100	100	100	100	100
Solar - new	8	43	78	113	130	140	140	140	140	140

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Target (%)	5.26	6.28	8.30	10	12	14	15	16	17	18	19	19.5	20
Achieved (%)	0.316	0.589	1.566										

CONTRACTE RACORDARE TRANSELECTRICA	
27.01.2012	
Tip energie verde	MW
Eolian	8825
Hidro mic	105
Photovoltaic	219
Biogaz	3.64
Biomasa	21.2
Cogenerare	841.2
TOTAL	10015.04

ATR TRANSELECTRICA 27.01.2012	
27.01.2012	
Tip energie verde	MW
Eolian	8828
Hidro mic	204
Photovoltaic	339
Biogaz	22.5
Biomasa	37.9
Cogenerare	670
TOTAL	10101.4

Source: Transelectrica



RELEVANT INFORMATION ON GC

Piața Centralizată pentru Certificate Verzi - Date relevante ianuarie 2012 (sursa: OPCOM)

Participanți înregistrați la PCCV: **166**

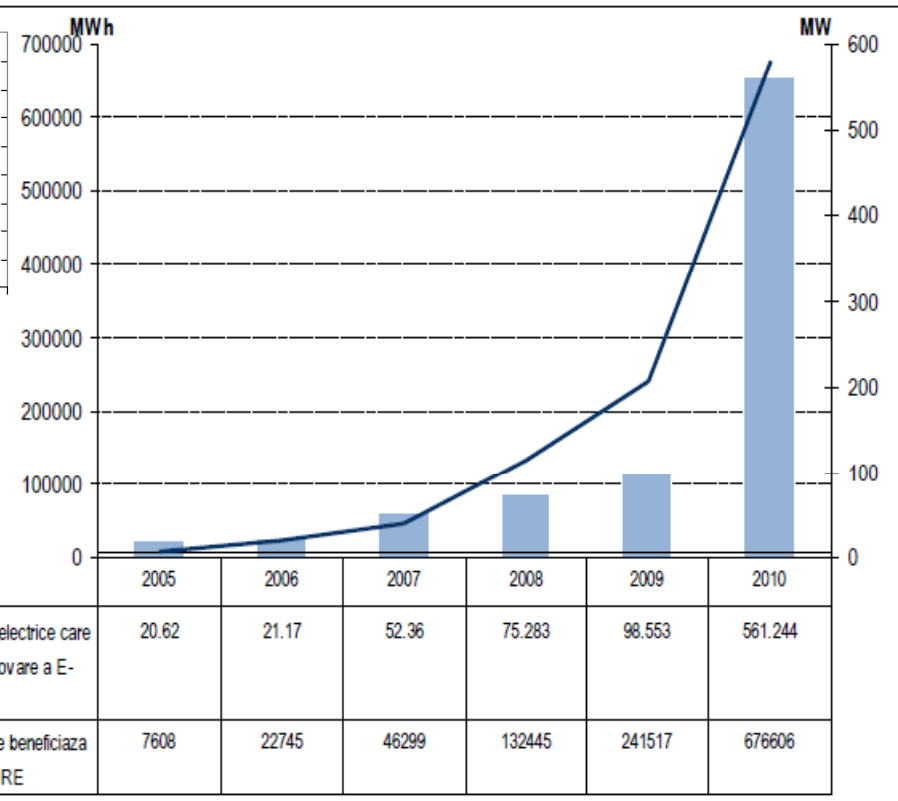
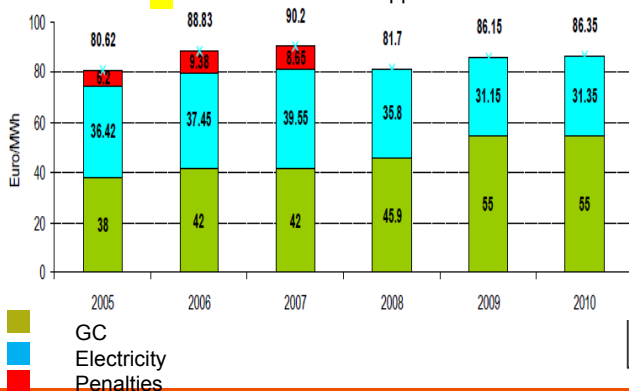
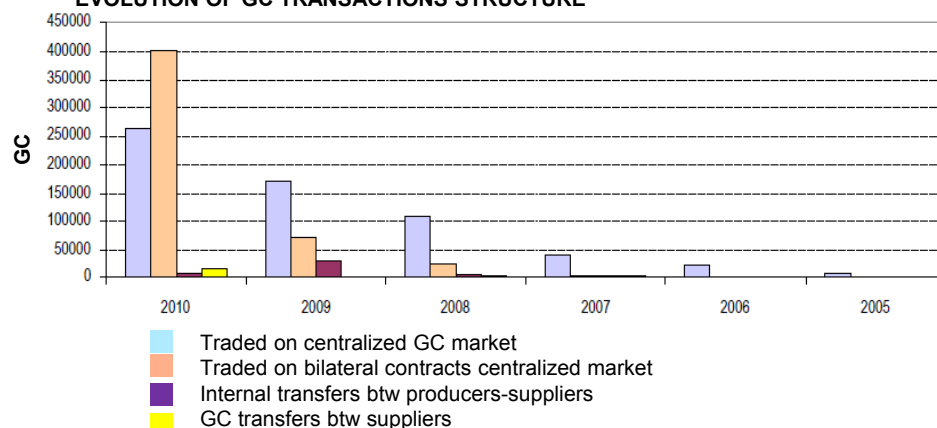
Număr de participanți activi [participanți/lună]: **43**

Certificate verzi tranzacționate:

- Număr: **21.750**
- Preț [RON/certificat]: **241,04**
- Preț [EUR/certificat]: **56,15**

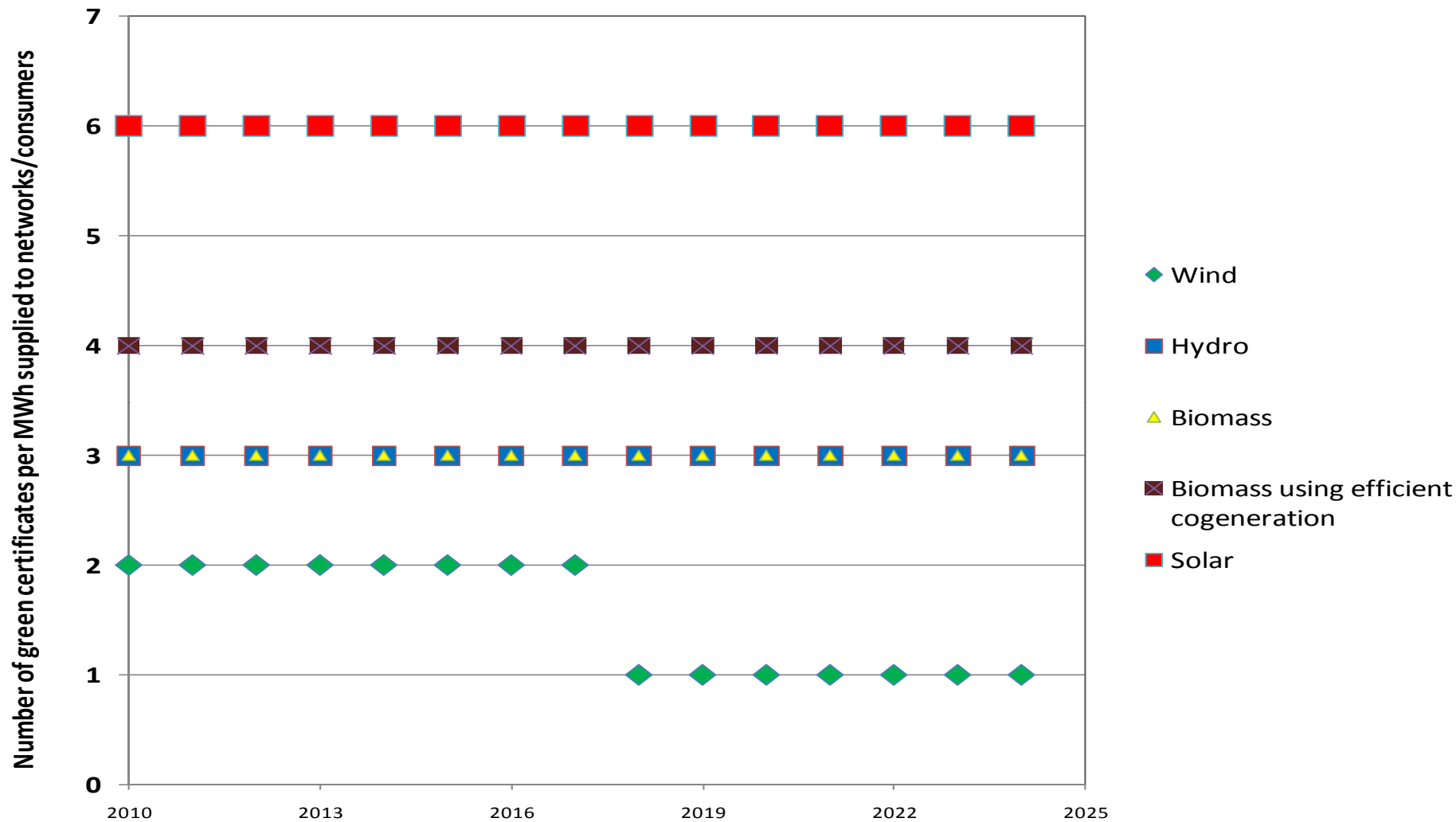
Numărul certificatelor verzi tranzacționate centralizat în contul anului 2011 reprezintă **22,09%** din numărul certificatelor verzi emise.

EVOLUTION OF GC TRANSACTIONS STRUCTURE



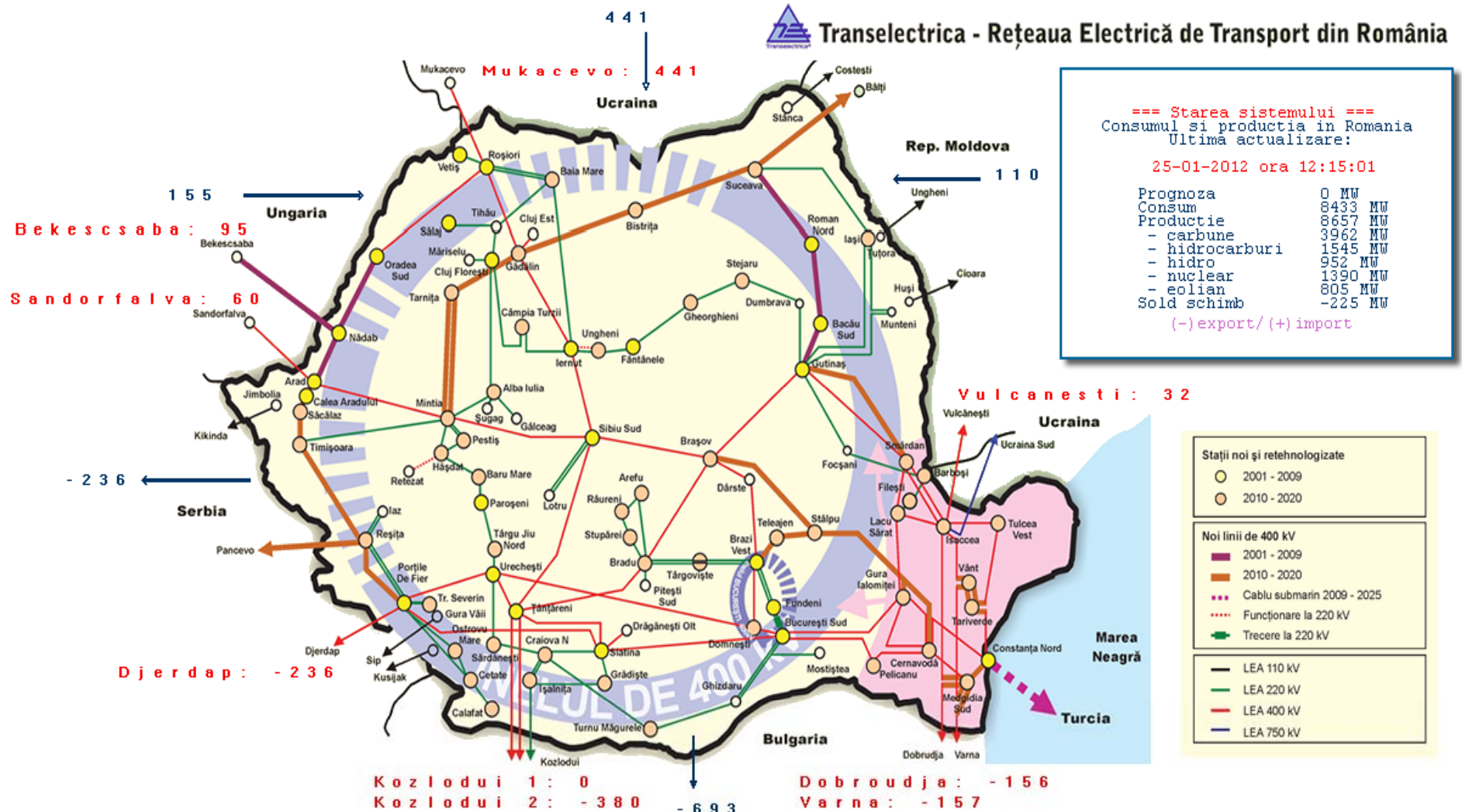


WIND IS THE CHEAPEST GREEN ENERGY FOR ROMANIAN ELECTRICITY CONSUMERS





DURING DRY YEAR, WIND IS EVEN MORE IMPORTANT TO COVER ELECTRICITY DEMAND AND TO ACHIEVE NATIONAL TARGET OF GREEN ENERGY





WITH 10 MILLION CUSTOMERS AND 18 BILLIONS EURO AS MARKET CAPITALIZATION, CEZ GROUP RANKS 8TH PLACE AMONG LARGEST UTILITIES IN EUROPE

CEZ Group in Poland

(100% stake in Skawina, 100% in Elcho)

Electricity generation, gross (TWh)	2.1
Market share	1.4%
Installed capacity (MW)	730
Market share	2.2%
Number of employees	433
Sales (EUR million)	145

CEZ Group in Germany

(50% stake in MIBRAG)

Annual coal extraction (m t)	19.6
Sales (EUR m)	416

CEZ Group in the Czech Republic

Electricity generation, gross (TWh)	63.2
Market share	74%
Number of connection points (million)	3.5
Market share	61%
Installed capacity (MW)	12,728
Number of employees	20,851
Sales (EUR million)	6,041

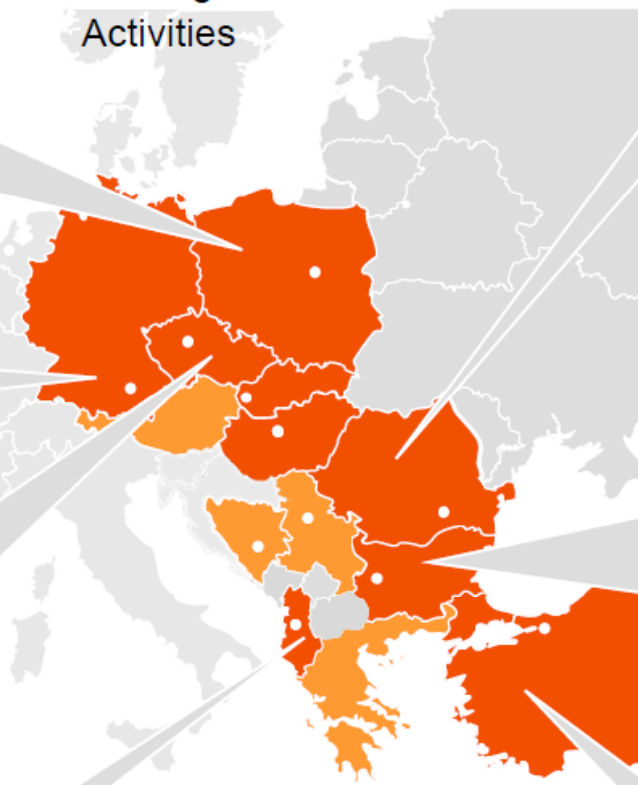
CEZ Group in Albania

(76% stake in CEZ Shpërndarje)

El. sales to end customers (TWh)	4.6
Number of connection points (million)	1.1
Number of employees	5,044

■ Energy Assets
 ○ Active subsidiaries

■ Trading Activities



CEZ Group in Romania

(100% stake in CEZ Distributie, CEZ Vanzare, CEZ Romania, CEZ Trade, Tomis Team, MW Invest, Ovidiu Development, TMK Hydroenergy)

El. sales to end customers (TWh)	3.5
Number of connection points (million)	1.4
Market share for sales	8%
Electricity generation, gross (TWh)	0.66
Market share	
Installed capacity (MW)	405
Market share	1.5%
Number of employees	1,996
Sales (EUR million)	370

CEZ Group in Bulgaria

(67% stake in CEZ Razpredelenie Bulgaria, CEZ Electro Bulgaria, 100% in TPP Varna)

El. sales to end customers (TWh)	8.8
Number of connection points (million)	2.0
Market share	40%
Installed capacity (MW)	1,260
Market share	6,9%
Number of employees	4,282
Sales (EUR million)	773



CEZ Group in Turkey

(44.3% stake in SEDAS through AkCez, 37.36% stake in Akenerji)

El. sales to end customers (TWh)	10.1
Number of connection points (million)	1.3
Market share	6.5 %
Installed capacity (MW)	654
Market share	1.1%



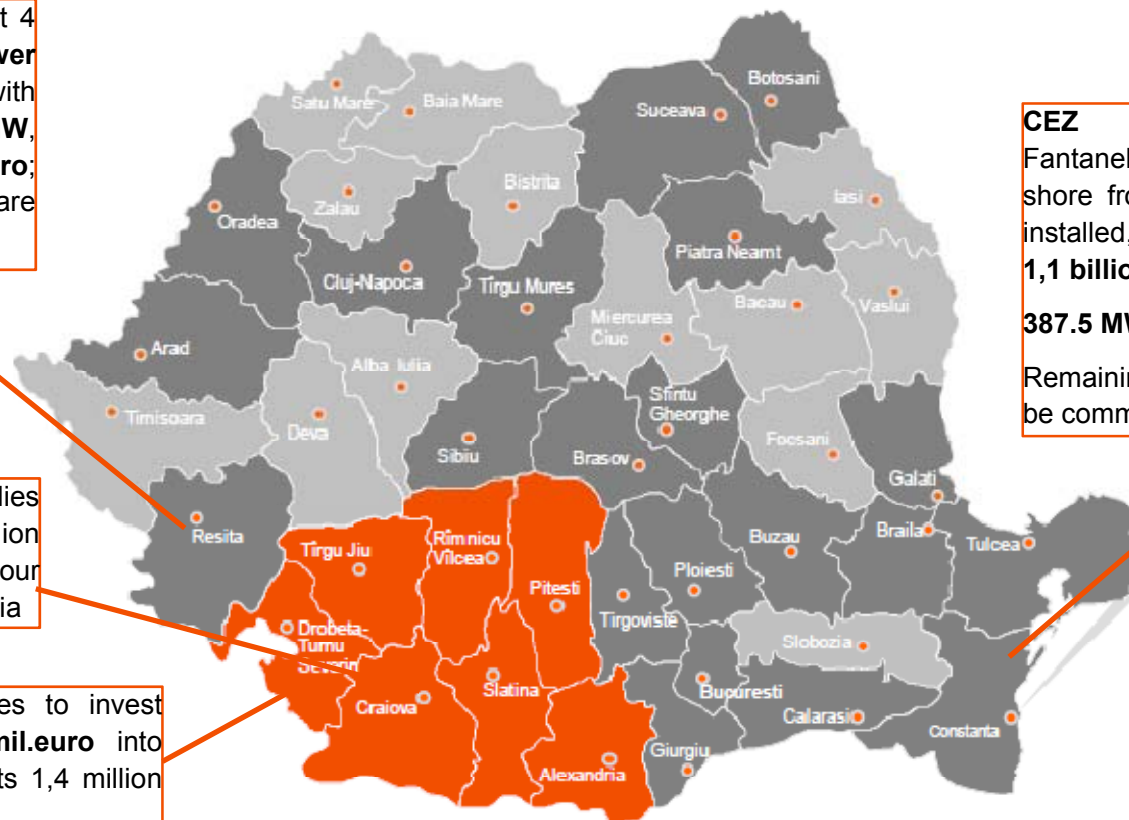
CEZ GROUP ALREADY INVESTED ABOUT 1,5 BILLION EURO IN ROMANIA

-  Sales and distribution services
-  Sales services

At end 2010, CEZ bought 4 small **microhidropower plants** close to Resita, with an installed power of **18 MW**, spending **20 mil.Euro**; during 2012-2013, units are to be fully rehabilitated

CEZ Vanzare supplies electricity for 1,4 million customers, not only in our region, but all over Romania

CEZ Distributie continues to invest every year about **50 mil.euro** into distribution networks for its 1,4 million customers



CEZ wind park CEZ at Fantanele&Cogealac is the biggest on-shore from Europe, with its **600 MW** installed, with an investment of over **1,1 billion Euro**;
387.5 MW are already up and running;
Remaining capacity up to 600 MW to be commissioned by end 2012



THANK YOU VERY MUCH FOR YOUR KIND ATTENTION!

