Transelectrica

Compania Națională
de Transport
al Energiei Electrice

WE LEAD THE POWER

TRANSELECTRICA facing the energy challenges in South East Europe

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Europe & Romania

- **EU member since 01.01.2007**

- **The 7th largest country in EU:**
  - 238,391 km^2 (5.5% of EU);
  - 21,154,226 inhabitants (4.5% of EU);

- **GDP vs. electrical consumption evolution:**
  - for 2007 GDP was increased with **6.1%** compared with the same period of 2006
  - 2007 GDP estimation = 382 bill. RON (> 100 bill. €)

  - realized CAGR in 2007: ~**1.5 - 2%/year**

Member states of the European Union (2007)

Candidate countries

Romanian power sector structure today

Transelectrica

Ministry of Economy and Finance

1. Energy strategy
2. Energy policy
3. Energy program
4. Concession of the public network

ANRE
The Regulatory Authority

1. Authorization
2. Licensing
3. Regulated contracts and tariffs
4. Market monitoring
5. Certification

A fully unbundled and liberalized electricity market (100 % from 1.07.2007 - today effective > 40 %)

Areas:	GENERATION	TRANSMISSION	DISTRIBUTION	SUPPLY	USE
Licenses:	82/20 (DU)	1 (TSO)	28/8	129	N/A

? IPO on BSE

Hidroelectrica

Nuclearelectrica

Termoelectrica

Electrocentrale Bucuresti

Electrocentrale Deva

?

CE Turceni

CE Rovinari

CE Craiova

Other GENCO's

Ownership unbundling DONE

TRANSELECTRICA
The TSO
a regulated natural monopoly

UCTE and ETSO member

OPCOM
The Market Operator
(TEL 100% subsidiary)

Final unbundling Distribution/Supply

ENEL Distributie Banat

ENEL Distributie Dobrogea | ENEL Energie

ENEL Distributie MS

E.ON Moldova Distributie | EON Furnizare

CEZ Distributie (Oltenia) | CEZ Vanzare

EMN - Distributie | EMN - Furnizare

ETS - Distributie | ETS - Furnizare

ETN - Distributie | ETN - Furnizare

Private DISCO's | Private suppliers

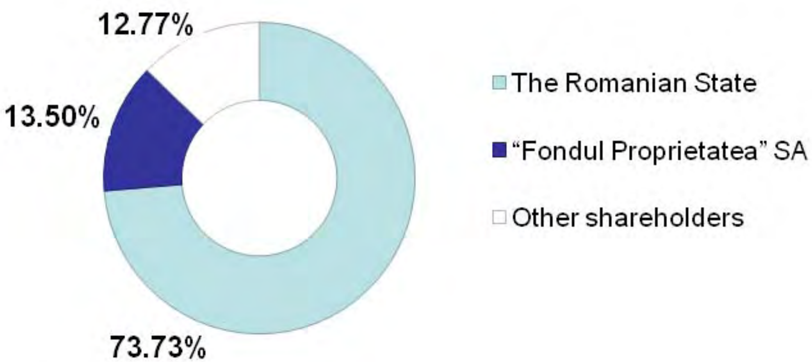
privatisation
? IPO possible

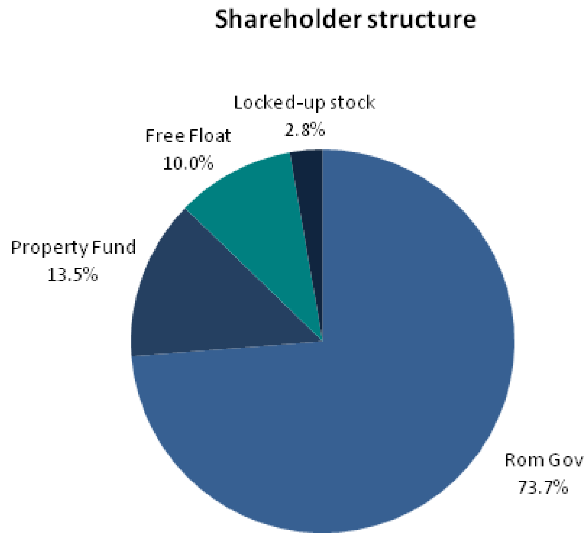
Consumers
(incl. captive)

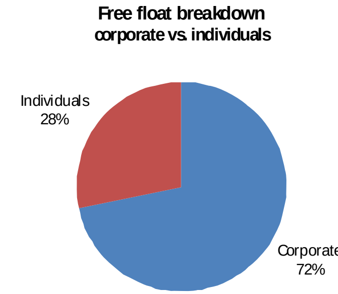
?? The NEW CHAMPION (generation & distribution)

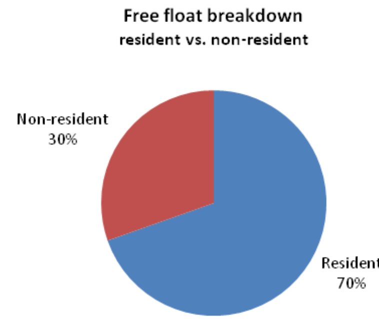
Transelectrica ownership

Current structure – as of December 31st, 2007









Share capital: RON 733,031,420,
spread across 73,303,142 ordinary shares
with par value of RON 10/share

No treasury stock.
5% threshold not reached by shareholders

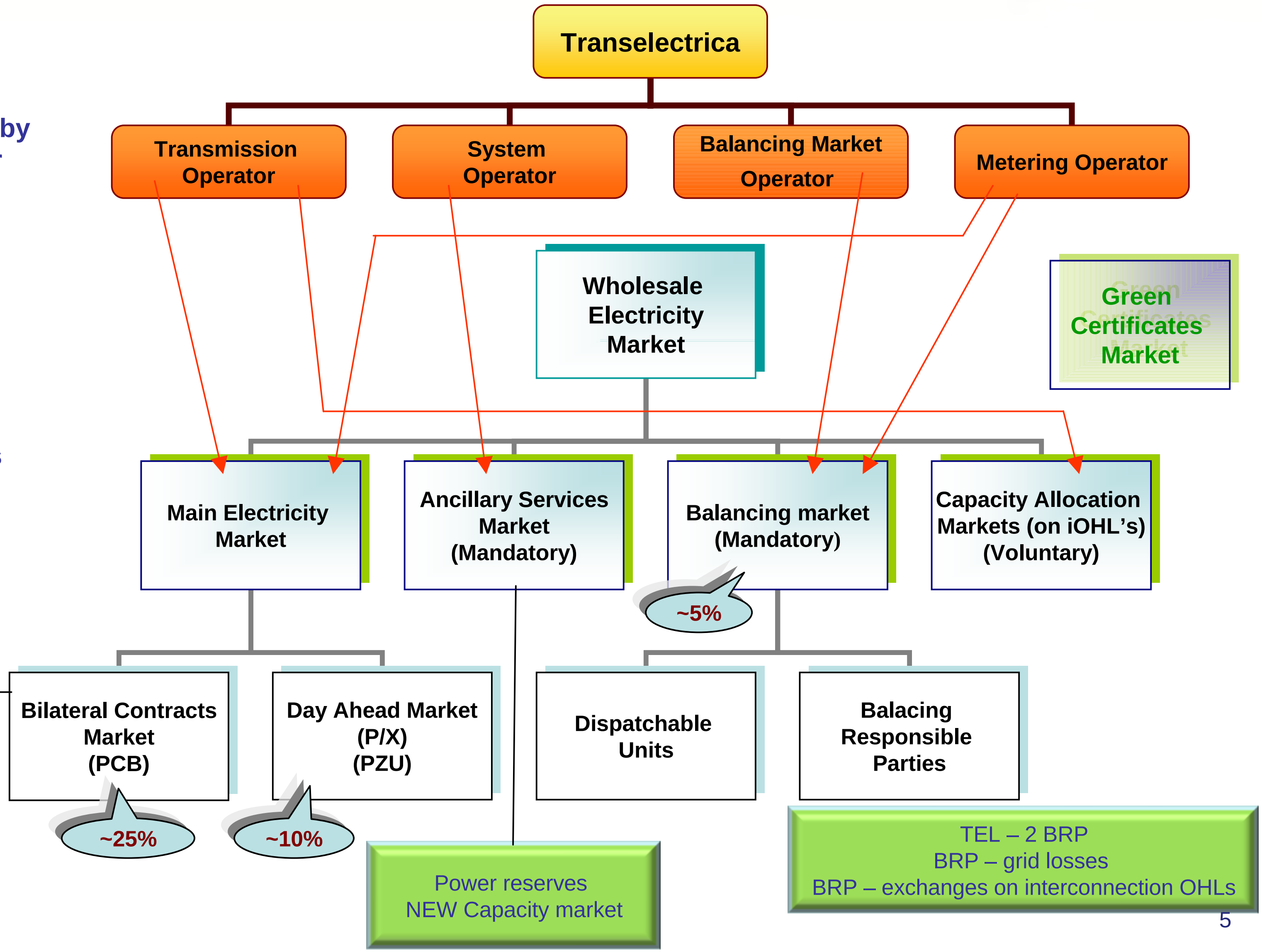
Application of Law no. 10/2001 provisions (for ex-owners of real-estate properties subject to expropriation under the communist regime):

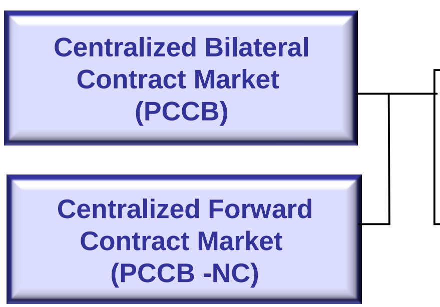
- 6 month average compound price: 31.54 RON/share
- first distribution date: 9.07.2007
- free float increase (at October 29th , 2007) with 2.81 %
- lock-up 6 month: January 9, 2008 …

The wholesale electricity market

Three major **services** provided by Transelectrica for the power market participants:

1. Transmission services with metering services
2. System services
3. Balancing Market services





The new Romanian energy strategy

- **Document** (available on Ministry of Economy and Finance site):
  - for 2007 - 2020
  - approved by the Government (GD no. 1069/5.09.2007) and published in the Official Gazette no. 781/19.11.2007
- **Emphasis on**:
  - security of supply
  - climate change
  - competitiveness
- **EU energy legislation framework**:
  - the new European energy policy (January 2007)
  - the 3rd legislative package (September 2007)
- **Total needed CAPEX**: ~29 bill. € (resources and energy)

- **proposal for ownership unbundling**
- **"European Regulatory Authority"**
- **major role for TSO's in developing of regional electricity market**

Needed investments	
Generation	12.70 bill. €
Distribution grid	3.40 bill. €
Transmission and system operator, from which:	2.00 bill. €
- direct investments, from tariff	1.45 bill. €
- investments from tariff, special regime, abroad	0.15 bill. €
- investments from connection fee	0.45 bill. €

Transelectrica infrastructure

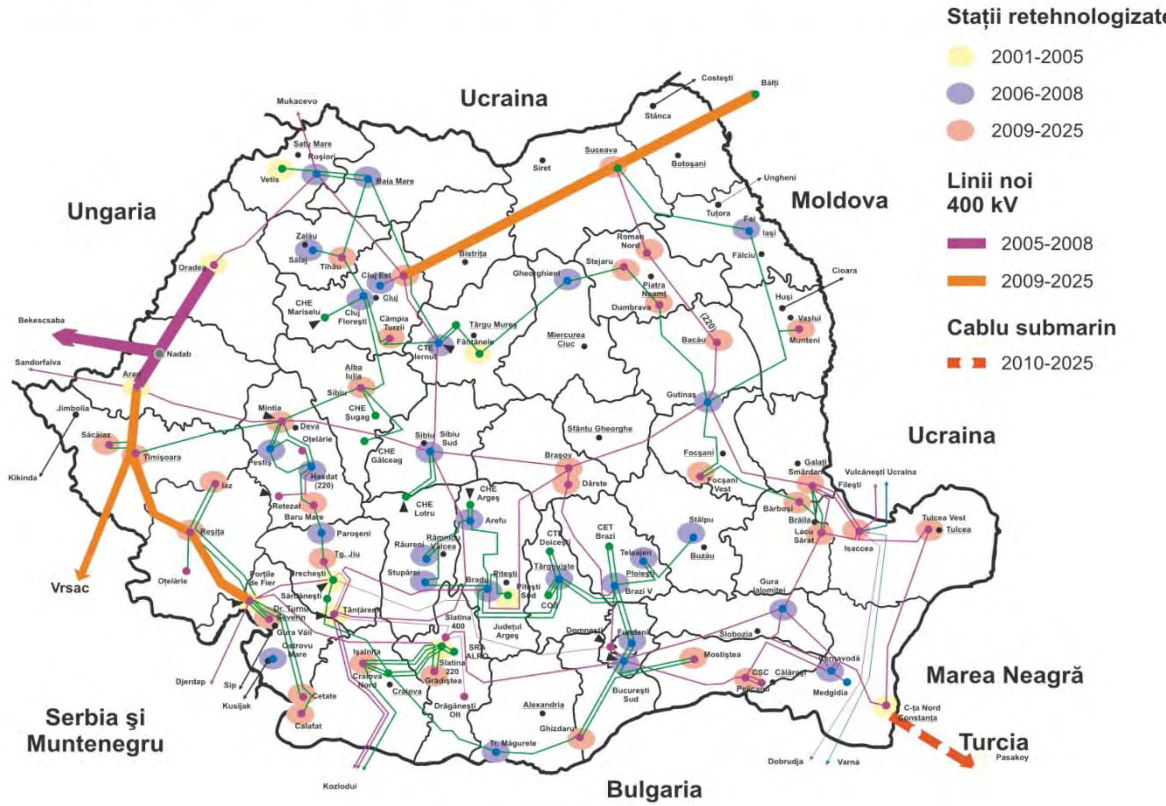
- Transelectrica operates 8,955.6 km Over Head Lines (OHL):
  - 155 km of 750 kV
  - 4,630.2 km of 400 kV
  - 4,132.4 km of 220 kV
  - 38 km of 110 kV (interconnection lines to the neighboring systems)

- Transelectrica operates 77 Substations:
  - 1 of 750 kV
  - 32 of 400 kV
  - 44 of 220 kV
  - Facilities: 135 main transformer units totaling 34,525 MVA

- The total transmission capacity (installed) is 22,000 MW
- The total transmission capacity (available) is 17,000 MW

- Strong interconnection capacity and under further development
- A modern and strong telecommunication network in optic fiber (aprox. 5,000 km)
- A modern and strong dispatching infrastructure (EMS-SCADA)
- A modern and strong metering system for the wholesale market

From a traditional grid to a market – oriented, smart grid



The transmission grid: public ownership of the State; 49 years concession agreement for Transelectrica, starting in 2004, royalty 1/1000 from transmission revenue

CAPEX plan

RON million	Total	2008	2009	2010	2011	2012
Investments (commissioned, included in 2008-2012 tariff)	1,415.78	274.57	237.16	293.72	317.88	292.45
	2nd regulatory period (5 years)					

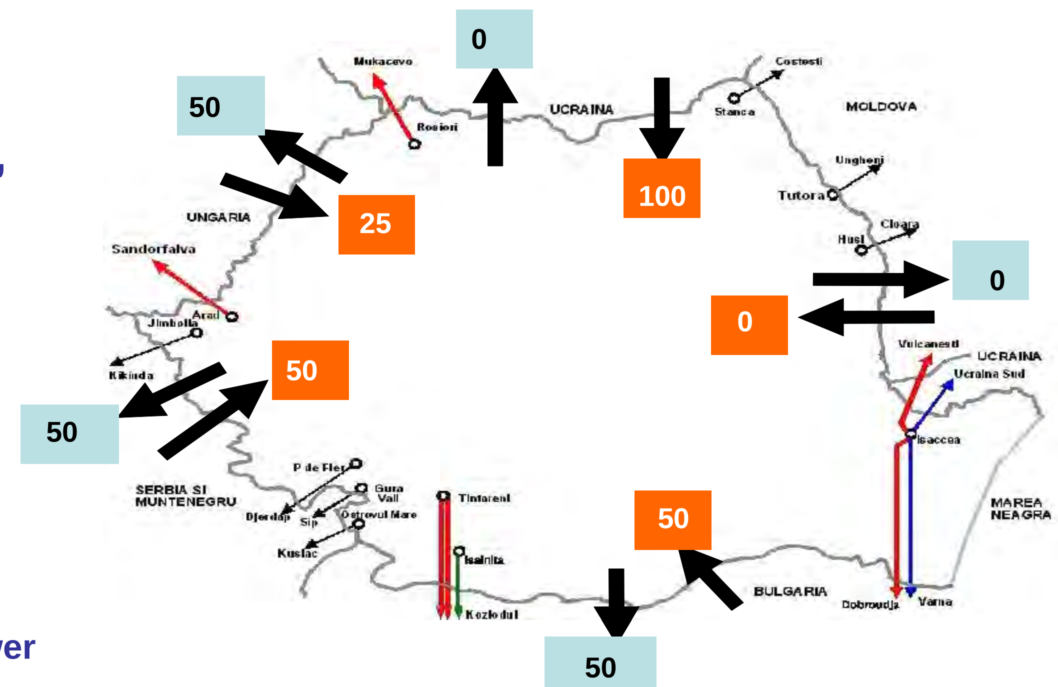
- **Proposed CAPEX 2008-2012 ~ 600 mil. €**
  - **electrical substations to be modernized and rehabilitated**: 220/110 kV Barbosi, 400/110 kV/MT Tulcea Est, 220/110 kV/MT Stejaru, 220/110 kV Mintia, 220/110 kV/MT Turnu Severin Est, Transformer 1 – 400/110 kV in Oradea Sud substation, 400/220/110 kV/MT Bradu, 400 kV Viisoara (Bistrita), 220/110 kV/MT Arad
  - **enhanced interconnection capacity**
    - 400 kV OHL PdF II – Resita – Timisoara – Arad (and Serbia interconnection Sacalaz - Novisad),
    - 400 kV OHL Suceava - Gadalin and Suceava (RO) - Balti (Republic of Moldova)
    - substations: Suceava 110 kV/MT and Gadalin 400 kV

- Estimated CAPEX 2007-2020 in the transmission grid:
  - **Total: 2 billion €**
    - 1.45 billion € grid modernization and rehabilitation based on transmission tariff
    - 0.15 billion € foreign direct investment:
      - Moldova OHLs,
      - Turkey HVDC project
      - others
    - 0.40 billion € grid development for connecting new generating facilities to the grid; financed by the generating facilities investors

Other activities

- **Interconnection capacity allocation**
  - auction based
  - according to the Operational Procedure TEL-01.06
- **Transit**
  - ANRE Order no. 43/16.10.2007 – regulated transit tariff (1.41 Euro/MWh, VAT excl.):
    - from the suppliers
    - for the transit from/to the neighborhood countries
- **RES connection to the grid**
- **Wind farms : from 7 MW to 7000 MW;**
  - Pressure on the grid
  - Pressure for safe dispatching and back-up power reserves

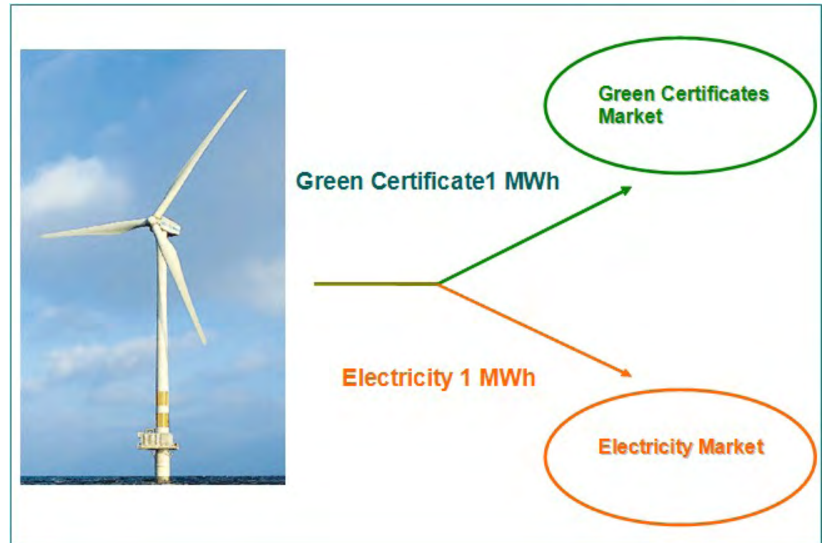
Romania = net electricity exporter in 2007



Available capacity on the interconnection OHLs for 2008

Other activities

- **Green certificates**
  - beneficiaries = the renewable producers
  - in 2007 → 37.703 certificates traded on the Green Certificates Market
  - for 2005-2012 values for transactions are:
    - Min 24 €/certificate
    - Max 42 €/certificate



Mandatory quota applied to electricity suppliers (%)	Year
0.7	2005
2.22	2006
3.74	2007
5.26	2008
6.78	2009
8.3	2010-2012

According to GD and ANRE's Decisions, Transelectrica issues each month green certificates (1 GC = 1 MWh) to the electricity generators from renewable sources (E-SRE), based on the reports of generators from renewable sources, and are confirmed for the previous month by the electricity distributors that has taken over the respective amount of electricity.
When the GC has been issued, Transelectrica notifies the number of GC issued and their codes to the producer, GC market operator (OPCOM) as well as to ANRE.

OPCOM

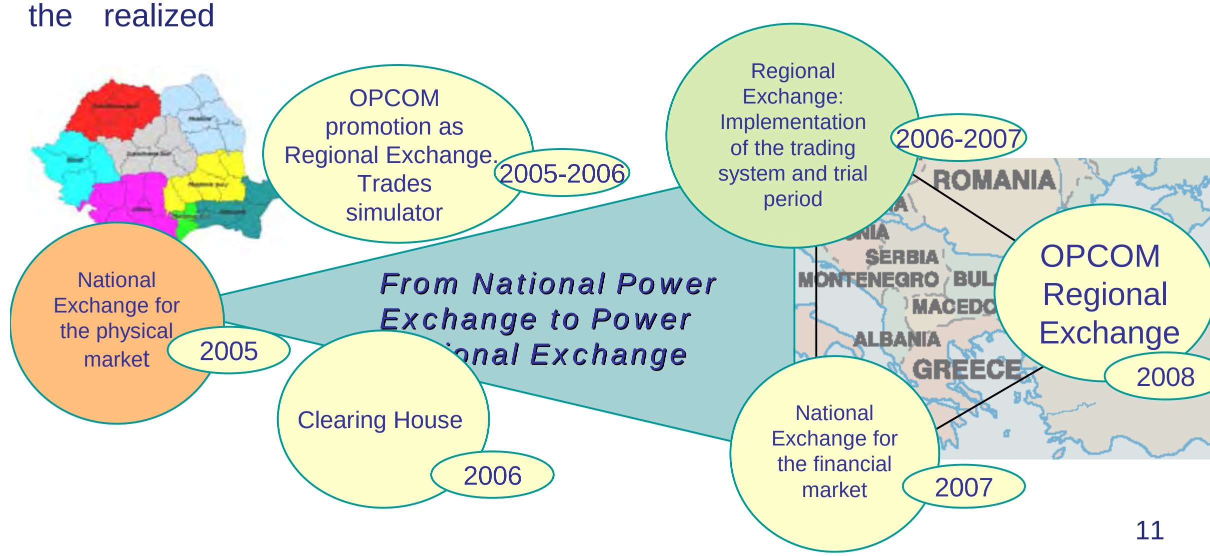
- **The Power Market Operator**
- **The main activities**:
  - the electricity market administration;
  - the continuously equilibrating the balance between demand and supply in order to ensure the continuous functioning of RPS;
  - establishing the unconstrained merit order of the dispatchable generating units by ordering them on levels of power depending on the bidded price;
  - establishing the payment rights and liabilities for the market participants in conformity with the realized transactions.

SPOT MARKET RELEVANT FIGURES FOR 2007

Number of registered participants on Day Ahead Market: **99**
Average number of active market participants: **52**
Maximum number of active market participants: **58**
Average price [euros/MWh]: **47.89**
Total traded volume [MWh]: **5,043,193.266**
Average traded volume [MWh/h]: **575,707**
DAM quota from net forecasted consumption [%]: **9.33**
Value of transactions [euros]: **251,683,352.65**

Spot Market Figures – Yearly Variation

Period	Total Traded Volume [MWh]	Average Traded Volume [MWh/h]	DAM Quota [%]	Average Price [euros/MWh]	Value of Transactions [euros]
2006	4,105,930.592	468.714	7.74%	44.78	192,495,635.26
2007	5,043,193.266	575.707	9.33%	47.89	251,683,352.65
Variation	▲ +22.83%	▲ +22.83%	▲ +20.59%	▲ +6.93%	▲ +30.75%



international cooperation and projects

- **driver - the development of the internal electricity market (EU)**
  - 3rd legislative package
  - regional markets
  - expansion of grid infrastructure
  - expansion of transmission services business
- **cooperation & major international projects**
  - MoU with Terna (IT), signed in Roma, on 17.10.2007, regarding the cooperation and strategic partnership in the field of electricity transmission and system operation:
    - partnership for a BOT approach on 400kV OHL Suceava (RO) – Balti (MD)
  - MoU TEL-Moldelectrica and EBRD support for the feasibility study
  - 400 kV HVDC link undersea cable Constanta (RO) – Pasakoy (TR)
    - TEL contracting execution of the feasibility study in partnership with Teias-Nuclearelectrica-Swedish Government
  - Market coupling between RO & HU with possible extension with AT
    - preparatory discussions

future strategic initiatives

- **explore opportunities for growth in international markets**:
  - inside EU
  - outside EU
  - TEL a regional TSO?
  - regulated business /non-regulated business
- **active participation in the improving of market design**:
  - at the **EU level** through professional bodies (UCTE, ETSO)
  - at the **national level** with ANRE
    - preparation of performance-based regulation
- **pro-active measures for the reality of a new generation mix**:
  - connection to the grid and safe operation of renewables
- **cost-reduction plan through rationalization & IT support**:
  - expenses decrease – action plan and indicators
  - wages and personnel motivation (ESOP)
  - ERP/GIS

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Thank you for your attention !