

Market Surveillance

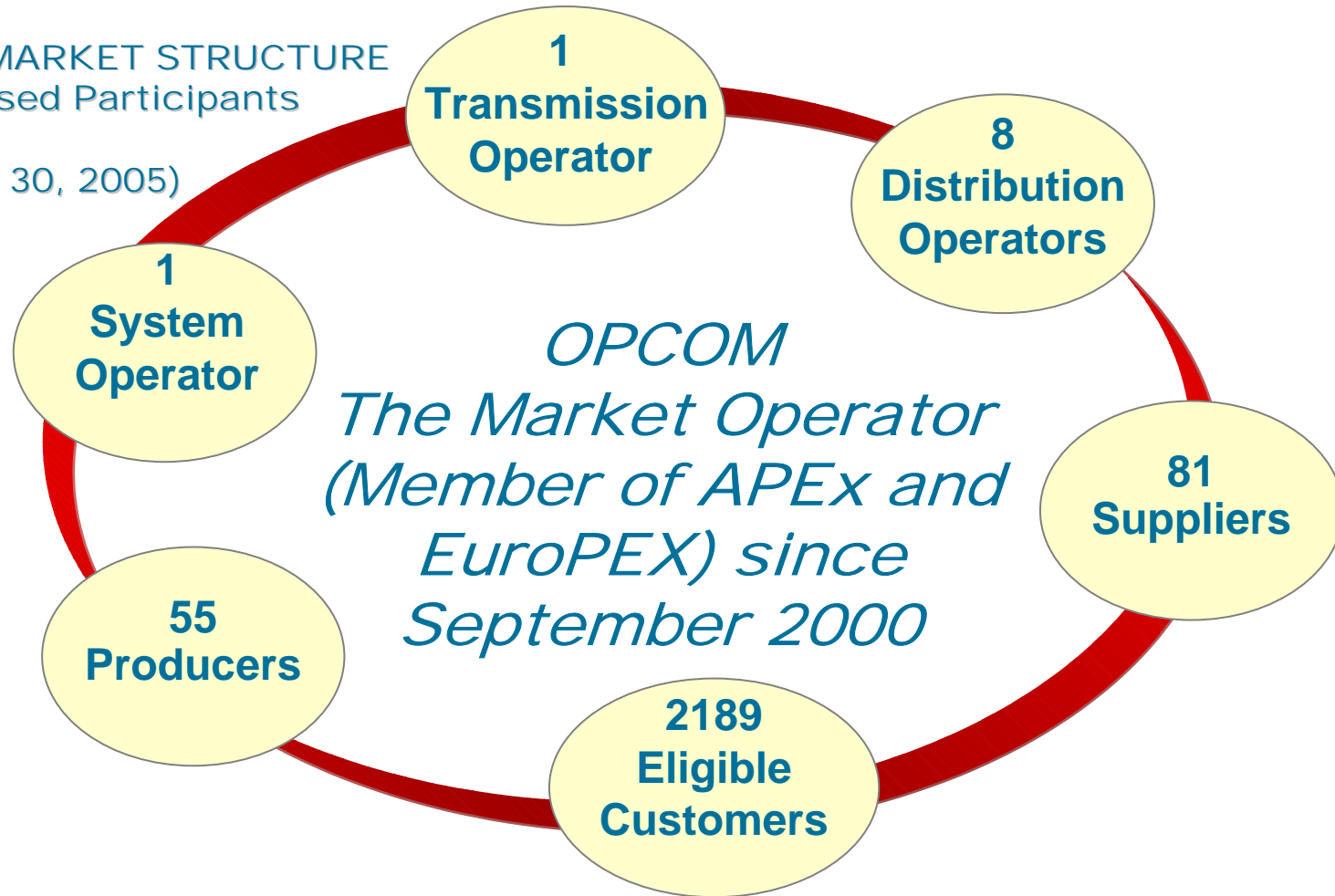
OPCOM
October, 2005

THE MARKET STRUCTURE



THE MARKET STRUCTURE
Licensed Participants

(June 30, 2005)



The Power Market, since July 1th, 2005:
17.5 % Regulated
83.5 % Competitive

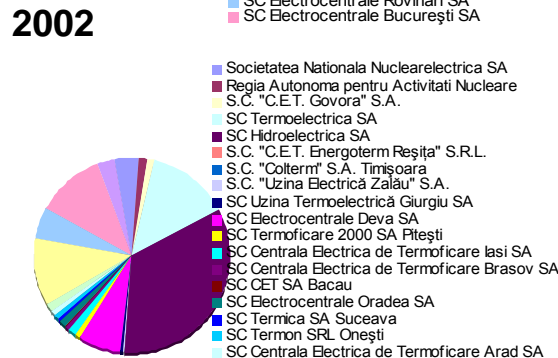
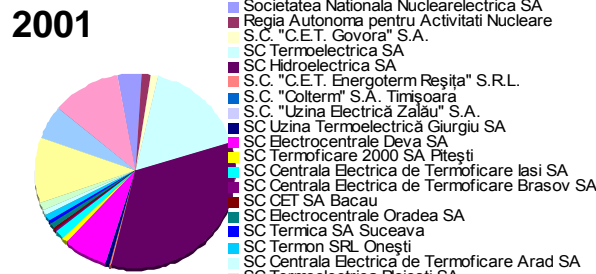
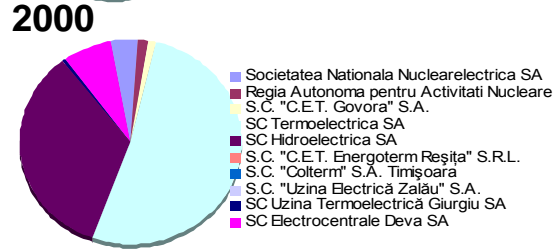
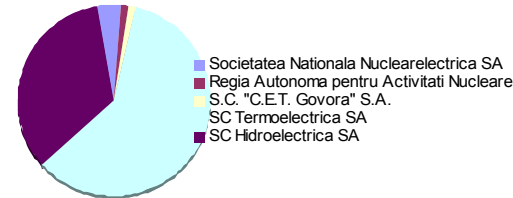
52 DAM participants, signatories of Agreement, registered at OPCOM in September 15th, 2005, with daily average participation of 27

The DAM market first 11 weeks results:
8.16% market share (av.430 MWh/h)
Average price: 26 Euro/MWh

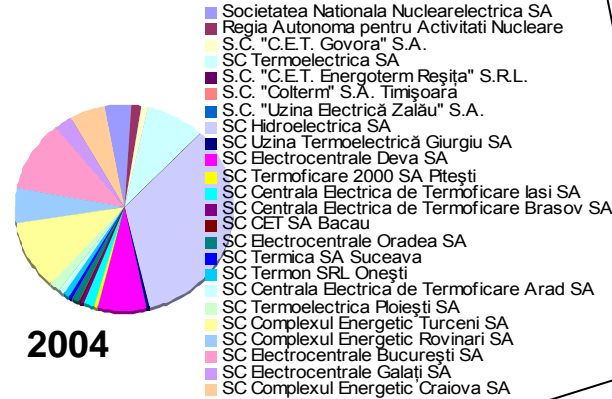
ROMANIAN POWER MARKET FRAMEWORK: PRIMARY INFORMATION

INSTALLED CAPACITY & MARKET SHARES

UNBUNDLING RESULTS & MARKET MECHANISMS DEVELOPMENT

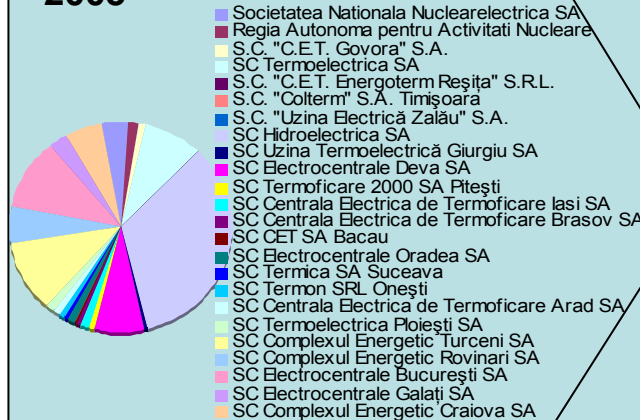


2003



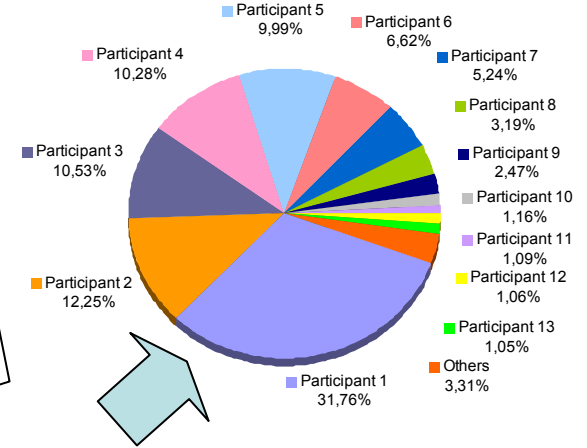
Installed capacity shares

2005



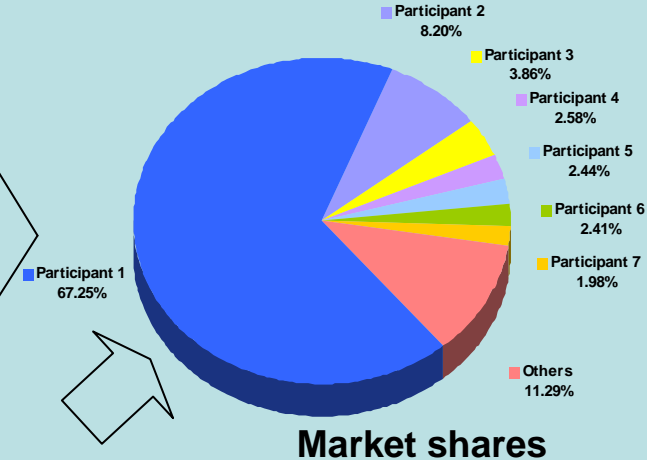
Market shares

The market shares were calculated based on the energy scheduled for each generator during 2004.

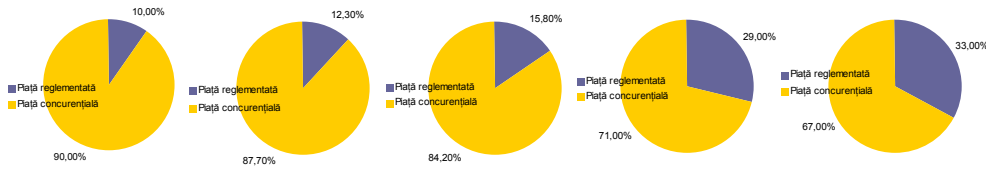


After June 30th

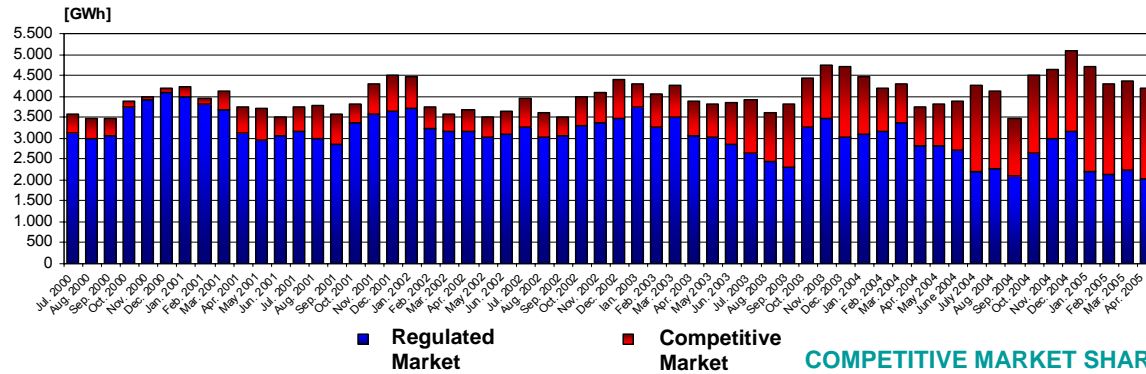
The market shares were calculated based on the volumes cleared in the market.



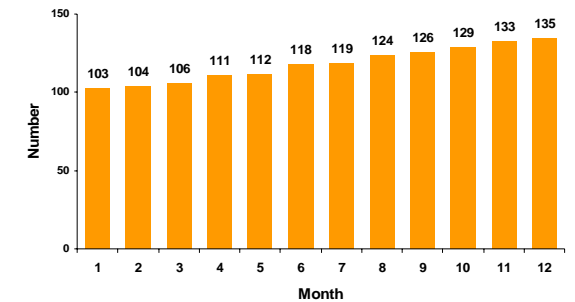
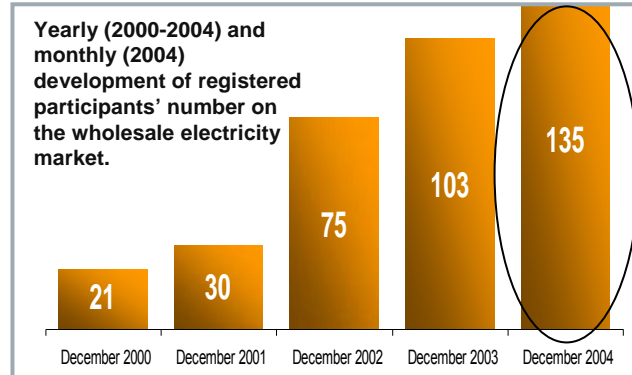
MARKET INDICATORS



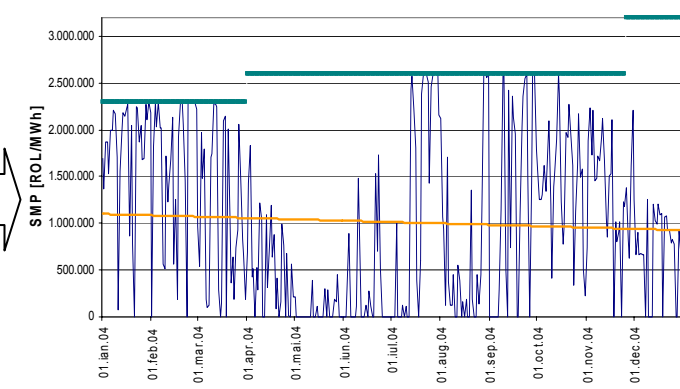
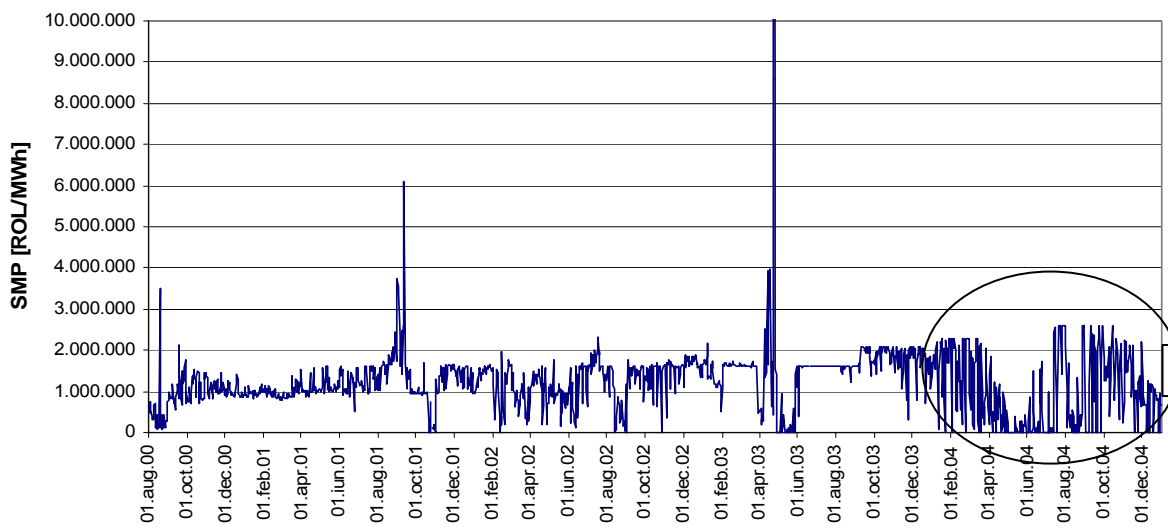
OPENING DEGREE



COMPETITIVE MARKET SHARE



PRICE EVOLUTION – THE CAP INFLUENCE



FINDINGS FROM THE PAST

MARKET SURVEILLANCE (since 2002): MARKET INDICATORS EVOLUTION

Ongoing reorganization process of SC Termoelectrica SA.
Positive evolution of the market concentration mirrored in the specific indicators: HHI versus CR4

HHI & CR4

Herfindahl-Hirschman (HHI) – market concentration degree.

$$HHI = \sum_{i=1}^n P_i^2$$

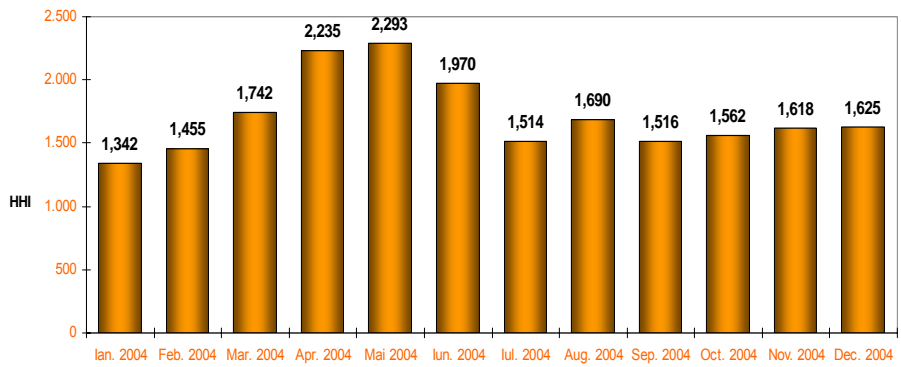
0	perfectly competitive market
0 – 1,000	reasonably competitive market
1,000 – 1,800	moderately concentrated market
1,800 – 10,000	highly concentrated market
10,000	monopoly

Pi: Participant's share in total installed capacity (a) and total delivered energy (b).

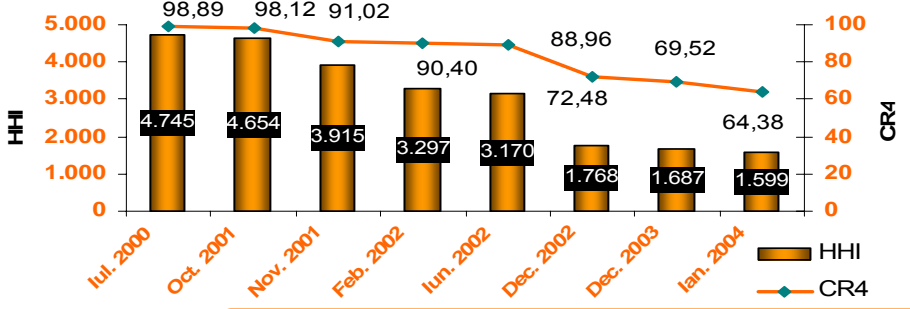
Four-Firm Concentration Ratio (CR4) - the extent to which the restructuring process generated competitive market participants.

$$CR4 = \sum_{i=1}^4 P_i$$

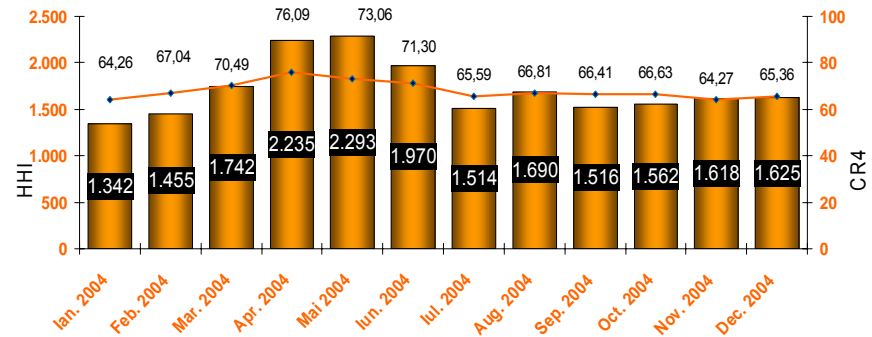
0-50%	market is considered moderately concentrated
50 – 100%	concentrated market



(a) Subsequent reorganizations

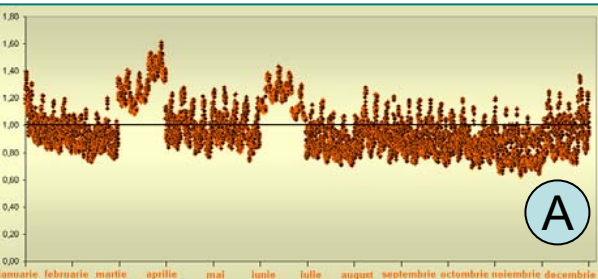


(b) Specific conditions during 2004: low level of consumption, high level of reservoirs



FINDINGS FROM THE PAST

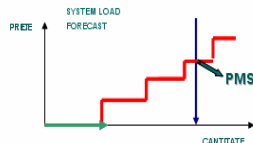
MARKET SURVEILLANCE (since 2002): MARKET POWER PRESENCE



A

Calculation of System Marginal Price (PMS)

OPCOM aggregates sell offers and elaborates system load forecast.

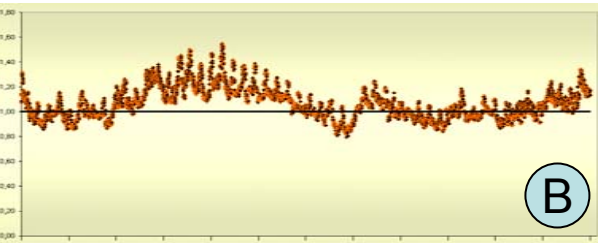


Residual Supply Index (RSI) – the extent to which the supply owned by the specific producer is needed to cover market demand.

$$RSI = \frac{Cap_{tot} - Cap_j}{Demand}$$

- 0 - 1 high market power
- 1 - 1,5 significant potential market power
- 1,5 - 2 low potential market power

Cap_{tot} : total capacity bid into the market by each producer
 Cap_j : supply provided by the producer j
 Demand : total market demand

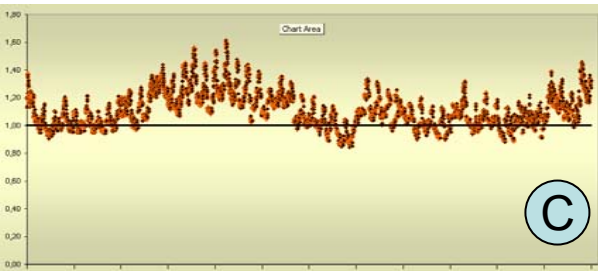


B

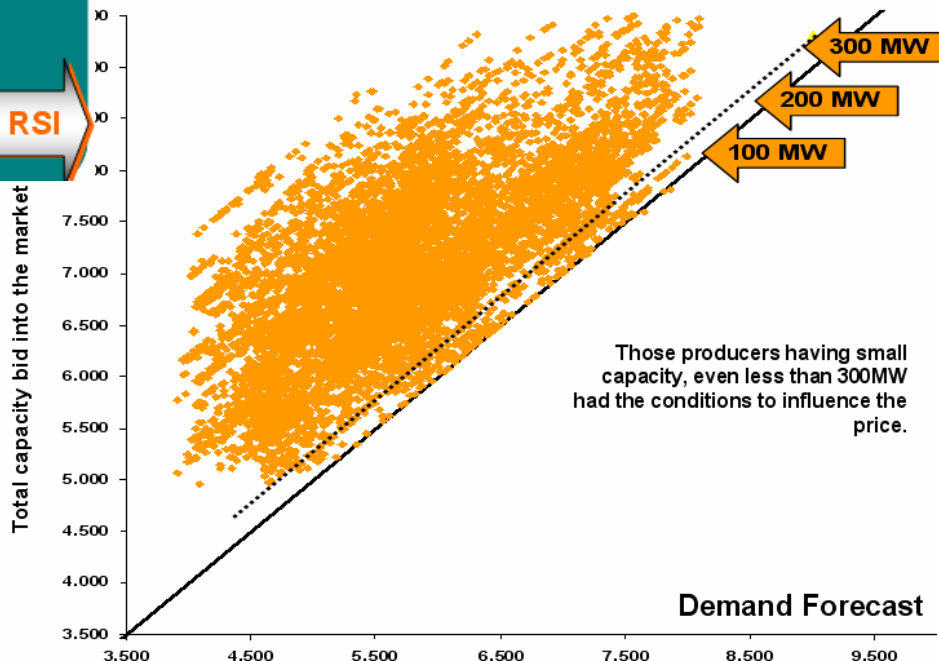
Dominant position under specific situations occurred during 2004.

Pivotal Producers:

RSI



C



Year	Pivotal Producers	Number of those hourly intervals when RSI<1	Percent of those hourly intervals when RSI<1	Minimal RSI	Percent of those hourly intervals when the pivotal producer was also price determinant
2004	Participant A	5,630	64%	0.62	3%
	Participant B	3,247	35%	0.79	21%
	Participant C	1,980	20%	0.85	3%

LEGAL SUPPORT

Commercial Code of the Wholesale Electricity Market:

Organization & Mission

“.....will be organized within distinct department, based on procedures approved by Regulatory Authority and it will be focused on the surveillance of electricity trading activities within The centralized markets administered by OPCOM.”

Requirements

- To monitor the market operation
- To monitor if the parties comply with commercial code, other rules and procedures and to identify possible breach or anti-competitive behavior
- To inform the Authority about inadequate operation of the centralized market
- If the case will be:
 - proposals to modify regulations
 - proposals to penalize participants
- To report on regular basis about: events in operation, reasons of increasing/decreasing of market clearing price
- To monthly assess the DAM functioning and the DAM participants' behavior
- To report to CEO about issues that could influence the effectiveness, compliance, integrity and confidence in market surveillance performance, also DAM efficiency and competitiveness.

GOVERNANCE

weekly Reporting to CEO, daily providing specific data weekly & monthly reporting to Regulatory Authority

OPERATION & RESOURCES

Independently of other departments
3 employees, minimum 1 person in operative surveillance

TASKS

Data and Information reporting on regular basis
Benchmarking data managing
Indicators values calculation, trends and consequences monitoring
Assessment of administrated market performance, participants' behavior monitoring

SUBJECT FOR MONITORING

Historical biddings: patterns in similar conditions
Bidding behavior's influence upon prices
Concentration and possible effects
Physical and economic withhold
Usage of market features in connection with opportunities

PUBLIC INFORMATION

OPCOM web-site as vector

PRE TRADE

Price scale, Maintenance plans (through TSO web-site link)
Hourly allowed priority generation volume as aggregated form

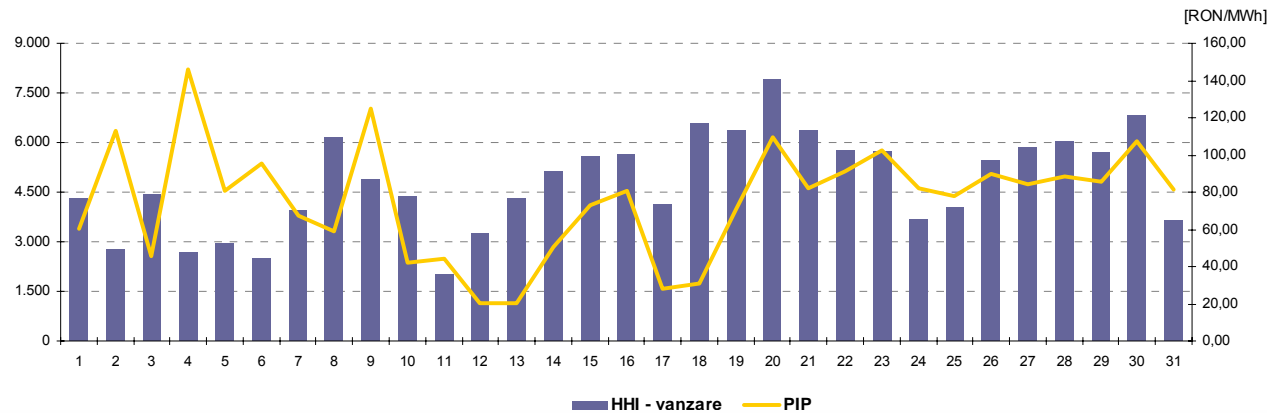
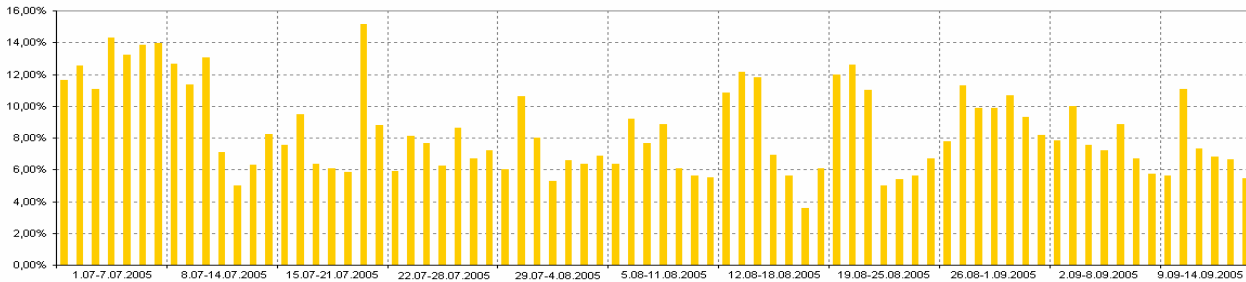
POST TRADE

Hourly aggregated matching curves
Hourly traded volumes and related market clearing prices
Hourly priority generation traded on DAM

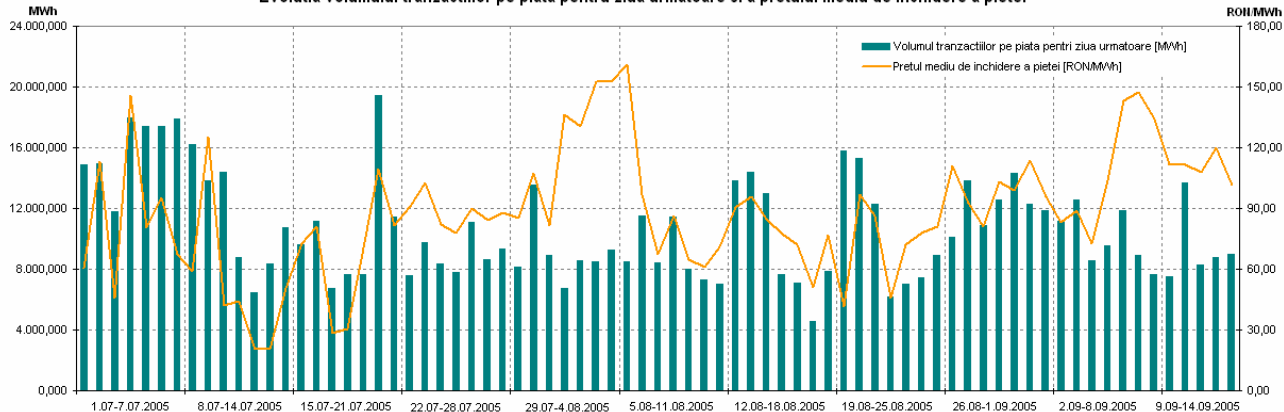
NEW TRADING PLATFORM LAUNCH ON JUNE 30TH

NEW OPCOM ROLE, NEW MARKET SURVEILLANCE APPROACH

Cota pietei pentru ziua urmatoare din consumul net prognozat

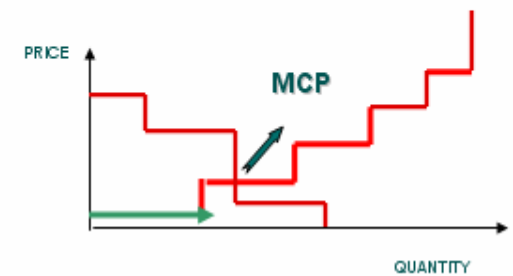


Evolutia volumului tranzactiilor pe piata pentru ziua urmatoare si a pretului mediu de inchidere a pietei



Calculation of Market clearing Price on DAM (PIP)

➤ OPCOM aggregates sell and buy offers.



Conclusion:

After five years operation: mature participants, experienced operator

After 11 weeks from new mechanism launch, a stable DAM, as participation, share and price

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