

# Rezultate tehnice ale sectorului energiei electrice in Romania in 2007



## Technical Results of the Romanian Electricity Sector in 2007





## Cuprins / Content

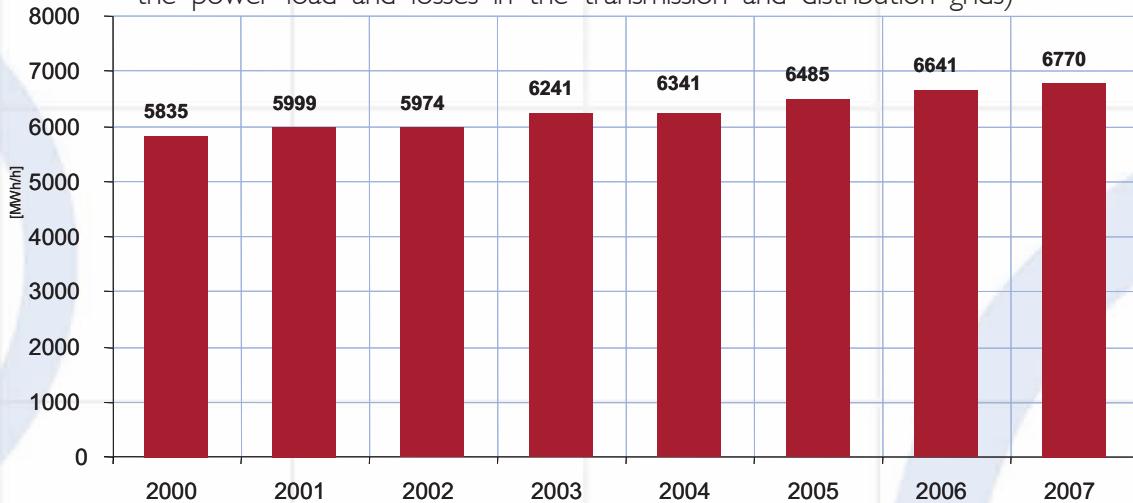
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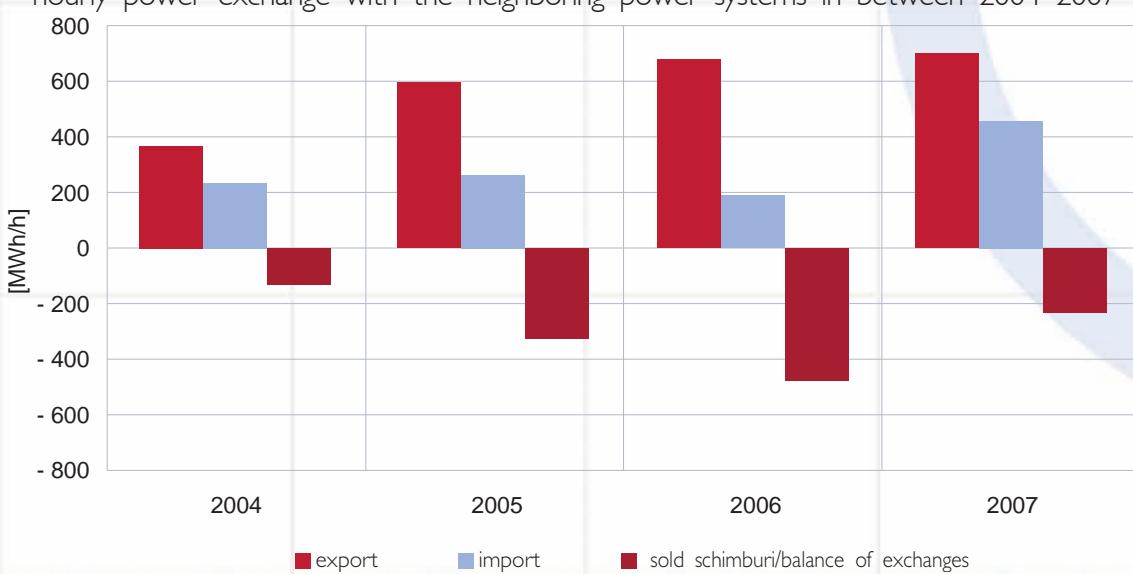
## I.Rezultate generale 2007

### I. General results in 2007

Valoarea bruta a puterii medii orare consumate in perioada 2000 – 2007  
 (include consumul de energie si pierderile din retelele de transport si distributie)  
 Gross value of the average hourly consumed power in between 2000–2007 (including  
 the power load and losses in the transmission and distribution grids)



Valorile puterii medii orare ale exportului/importului si soldul schimbului mediu orar de  
 energie cu vecinii in perioada 2004 – 2007  
 Values of the average hourly power exported/imported and the balance of the average  
 hourly power exchange with the neighboring power systems in between 2004 2007



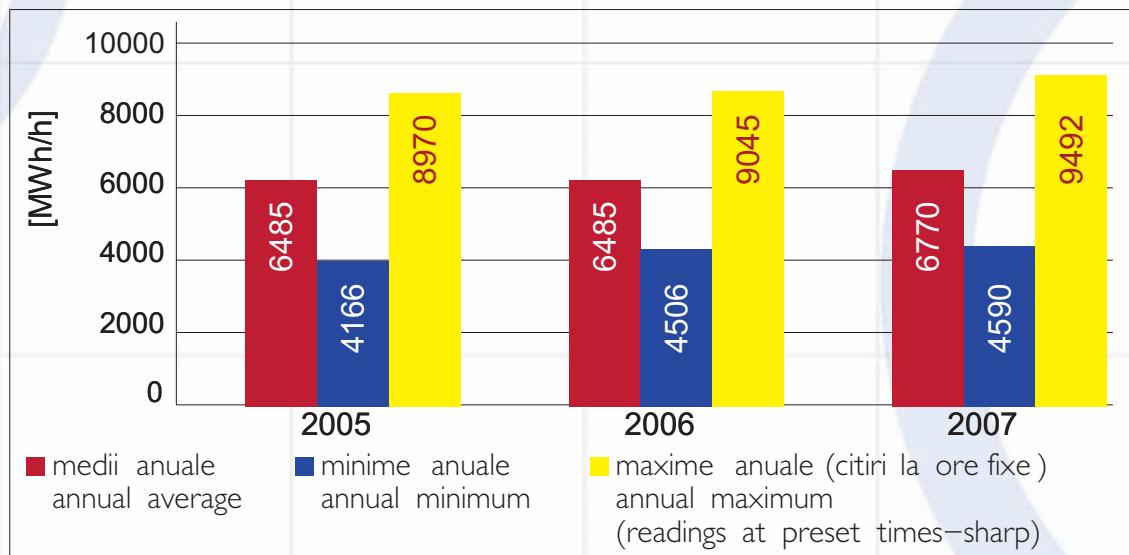
Structura productiei anuale de energie electrica pe tipuri de combustibili in anul 2007 / Structure of annual power generation by fuel types in 2007

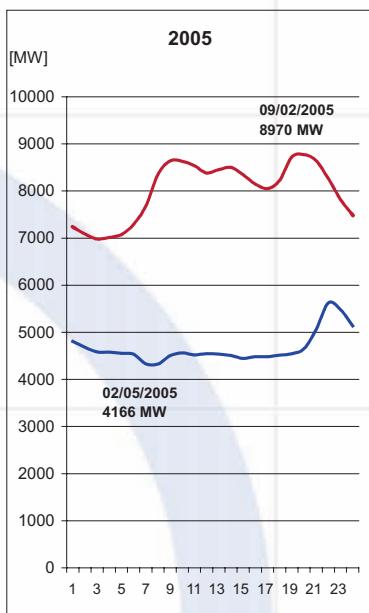
| <b>ENERGIE PRODUSA<br/>GENERATED POWER</b>                           | 2007         | 2006         | Variatie<br>Deviation<br>2007/2006 | Participare la realizarea<br>productiei<br>Contribution to output |
|--|--------------|--------------|------------------------------------|---|
|  | [GWh]        | [GWh]        | [%]                                | [%]   |
| TOTAL PRODUCTIE, din care:<br>TOTAL OUTPUT, of which:                | <b>61397</b> | <b>62428</b> | 1,7%<br>-                          | 100,0%  |
| Centrale pe carbune, din care:<br>Coal fired power plants, of which: | 26711        | 26975        | 1,0%                               | 43,5%   |
| lignite lignite  | 21207        | 22370        | -5,2%                              | 34,5%   |
| huila hard coal  | 5504         | 4605         | 19,5%                              | 9,0%  |
| hidrocarburi hydrocarbons  | 11054        | 11509        | -4,0%                              | 18,0%   |
| ape hydro  | 15916        | 18327        | -13,2%                             | 25,9%   |
| nuclear  | 7709         | 5616         | 37,3%                              | 12,6%   |
| eoliana wind   | 7            | 1            | 600,0%                             | 0,01%   |

## 2. Consum intern in 2007

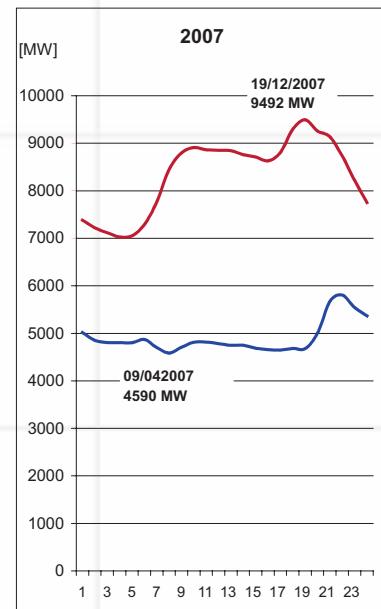
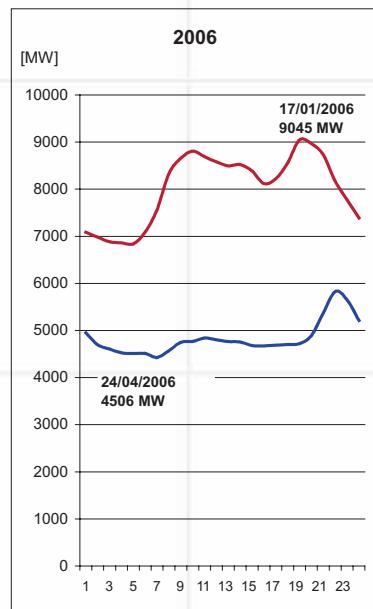
### 2. Domestic consumption in 2007

Valorile brute medie, minima si maxima ale puterii in perioada 2005–2007  
Gross average, minimum and maximum values of power in between 2005–2007

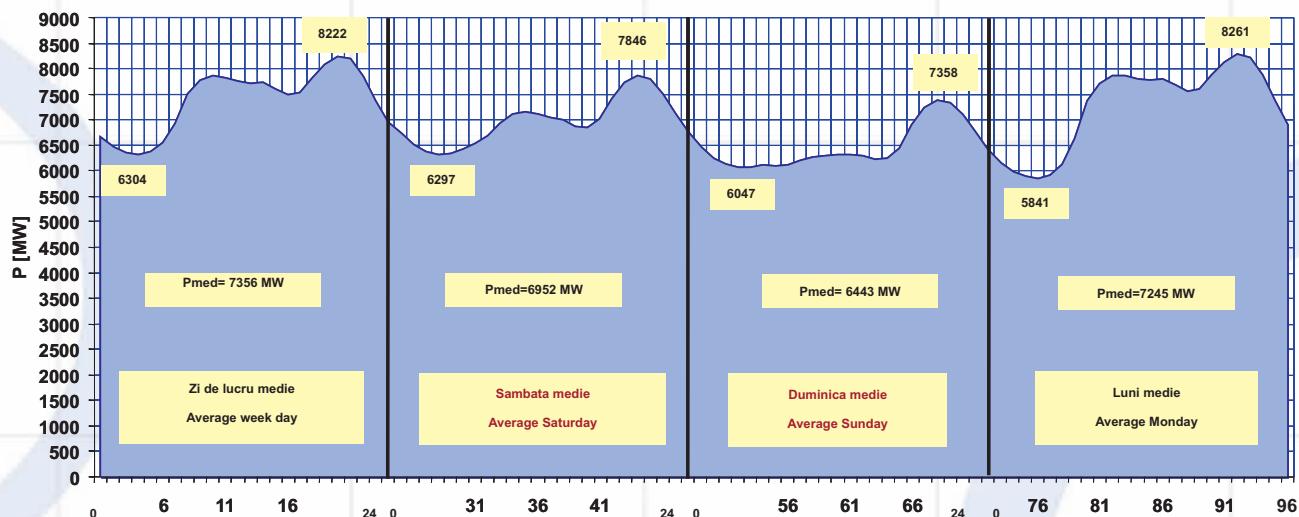




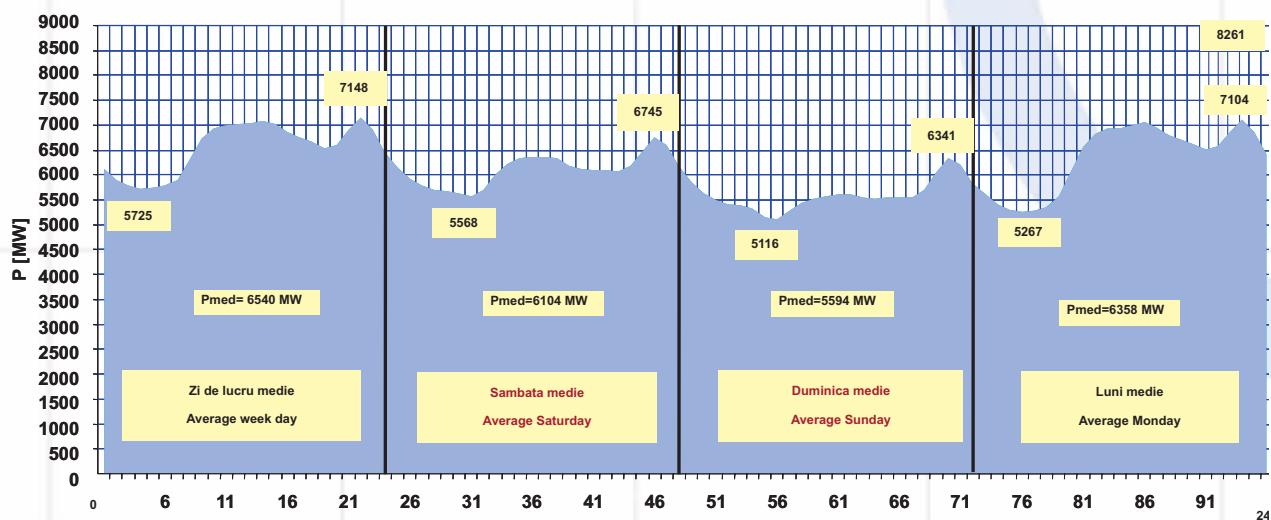
Zilele de consum brut intern maxim si minim in anii  
 2005 – 2007 (valori brute)  
 Minimum and maximum gross  
 consumption days in between 2005 – 2007  
 (gross values)



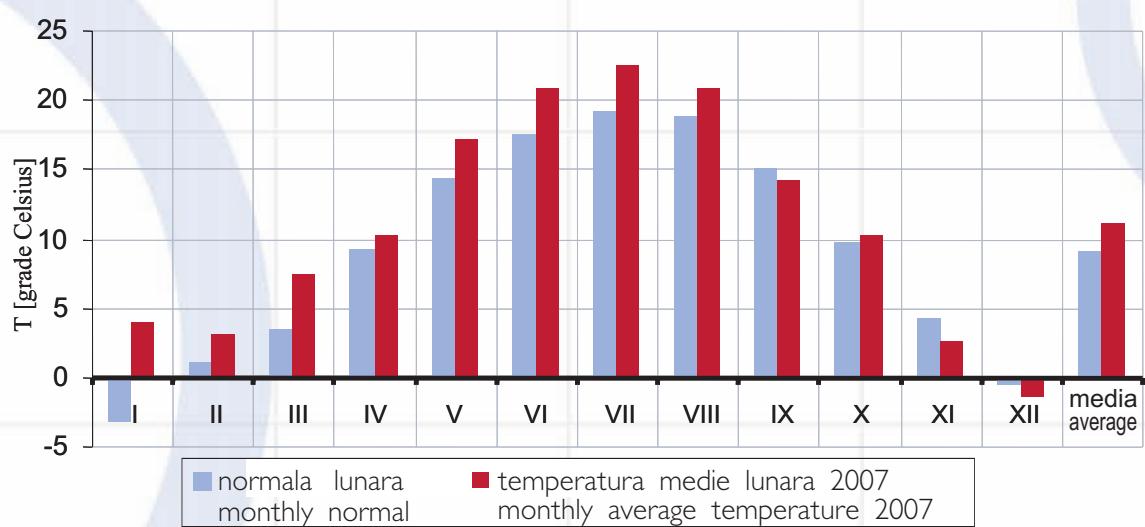
Curbe zilnice de consum brut intern / Zile caracteristice medii semestriale iarna 2007  
 Daily curves of domestic gross consumption / Semestrial medium characteristic days  
 winter 2007



Curbe zilnice de consum brut intern / Zile caracteristice medii semestriale vara 2007  
 Daily curves of domestic gross consumption / Semestrial medium characteristic days  
 summer 2007

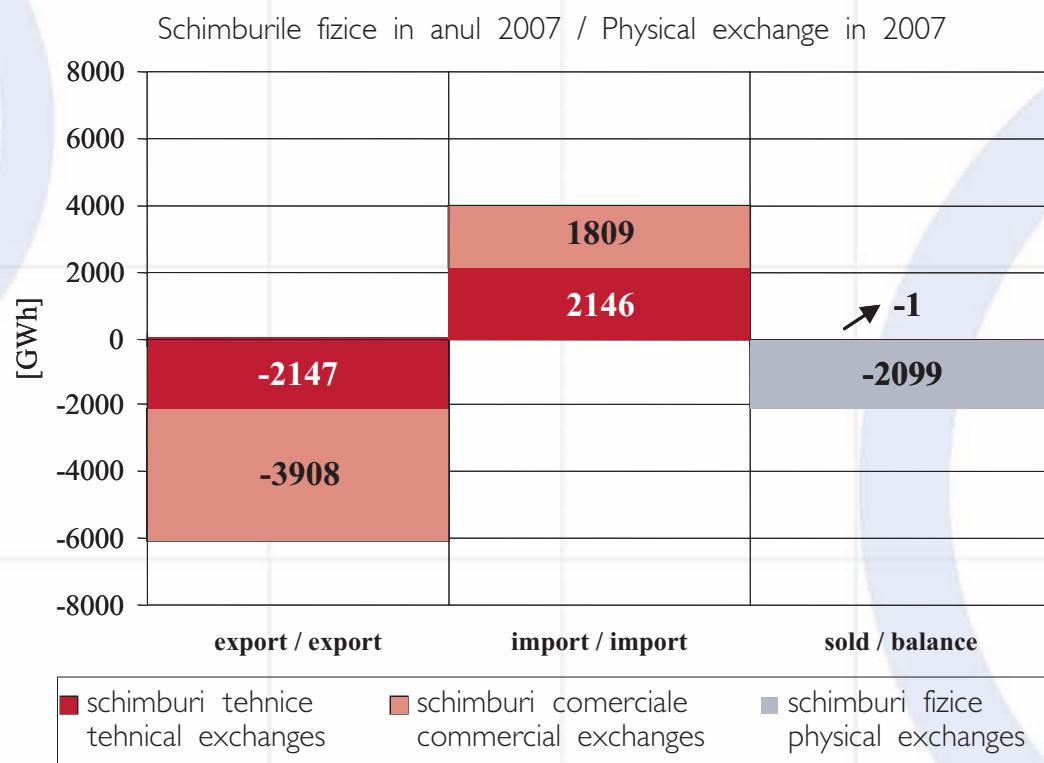


Temperaturi medii lunare in 2007, comparativ cu norma climatologica (1961 – 1990)  
 Monthly average temperature values in 2007, compared to the climate norm (1961 – 1990)

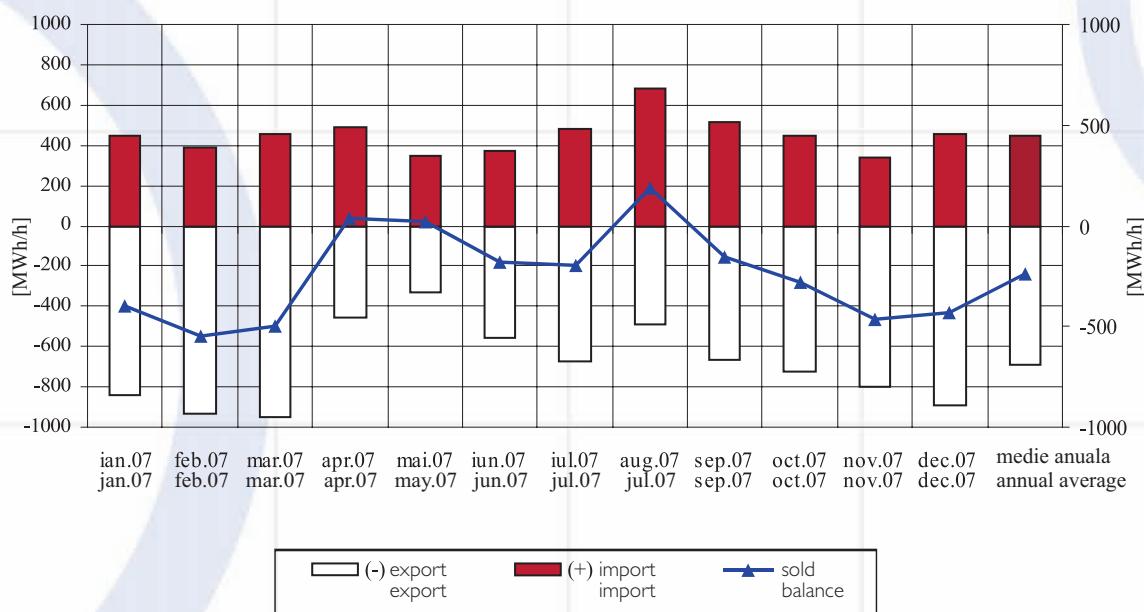


### 3. Schimburi de energie electrica cu alte tari

#### 3. Electricity exchanges with other countries

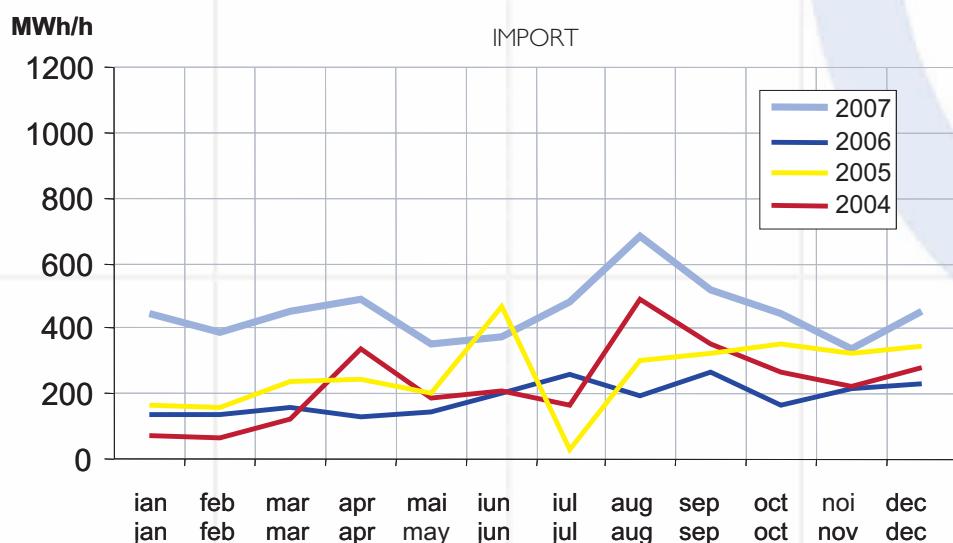
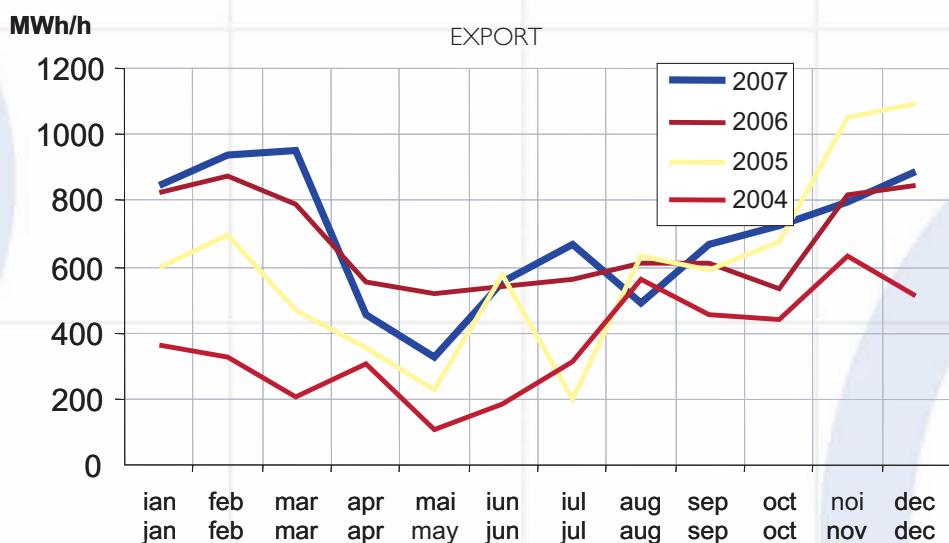


Schimburile lunare de energie electrica in 2007 / Monthly electricity exchanges in 2007

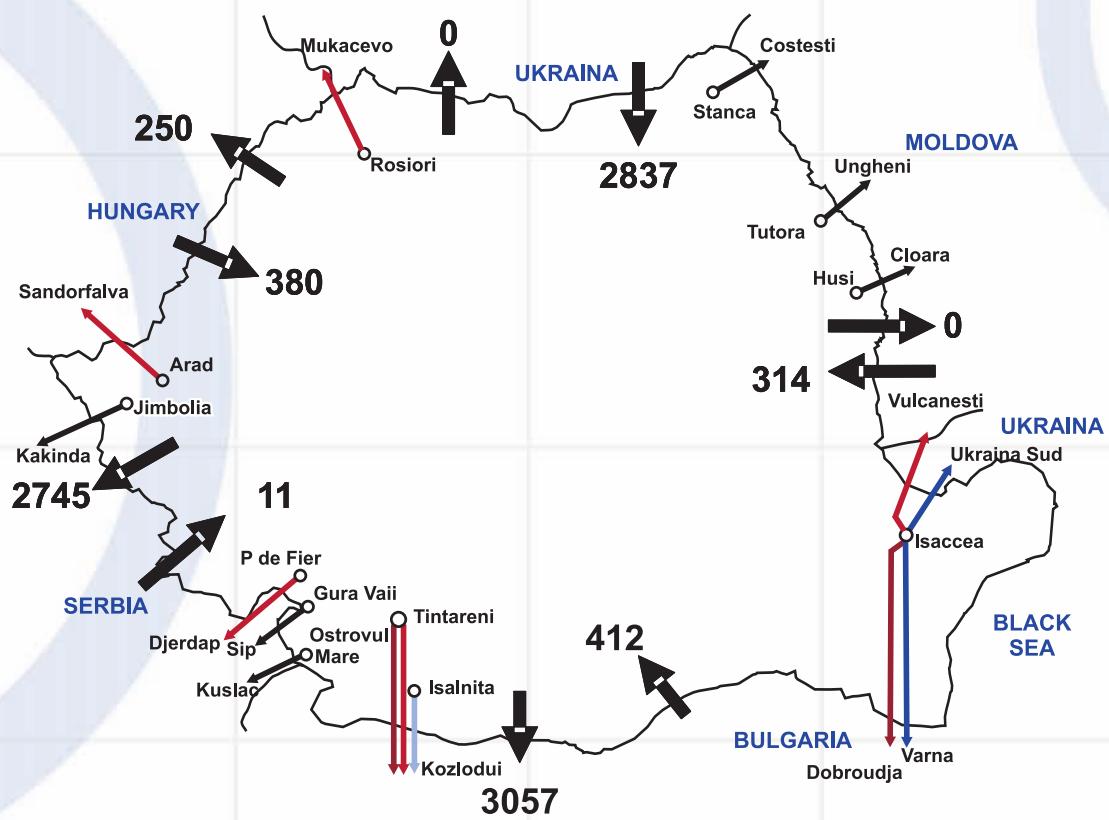


Importul si exportul de energie electrica au avut evolutii similare in perioada 2004–2007, cu exceptia anului 2006, cand s-a inregistrat o usoara scadere a volumului importului, comparativ cu anii precedenti. Anul 2007 se remarcă printr-o creștere cu 142,3% a importului fata de anul precedent.

Power import and export developed in a similar manner in 2004 – 2007, except for 2006 when a slight decrease of imported volumes was recorded in comparison with previous years. A 142.3% increase of the import differentiates 2007 from previous one.



Soldul schimburilor pe granite in 2007 [GWh] / Balance of exchanges across the borders in 2007 [GWh]



## 4. Evolutia pietei de energie electrica

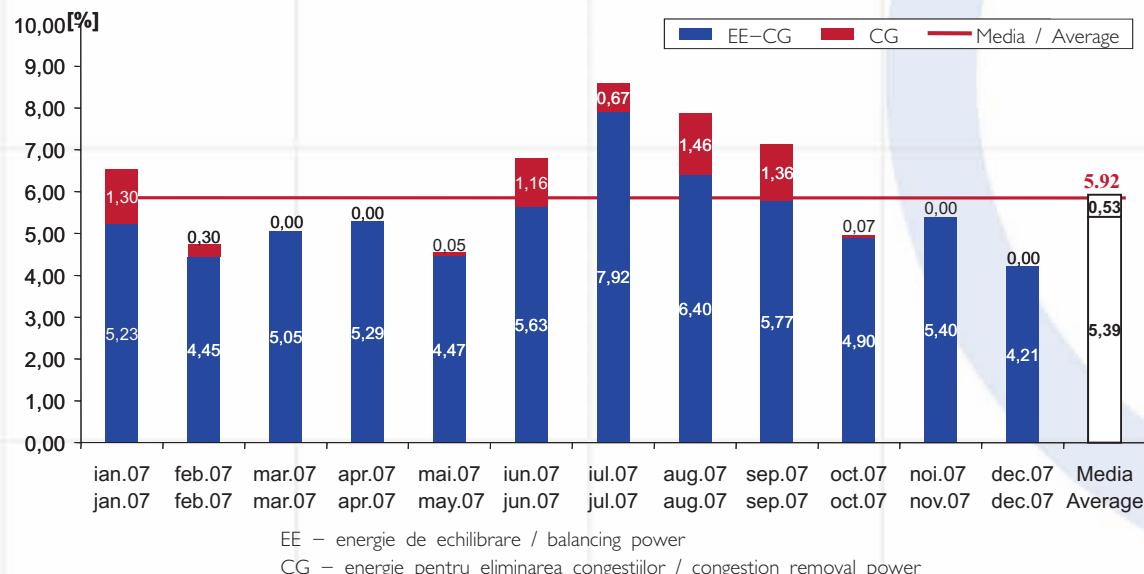
### 4. Development of the electricity market

In anul 2007 echilibrarea sistemului s-a realizat pe baza energiei de reglare selectate de operatorul de transport si de sistem prin platforma informatica a Piete de Echilibrare. Numarul Partilor Responsabile cu Echilibrarea (PRE) a crescut fata de anul precedent, ajungand la un maxim de 95 in luna octombrie 2007.

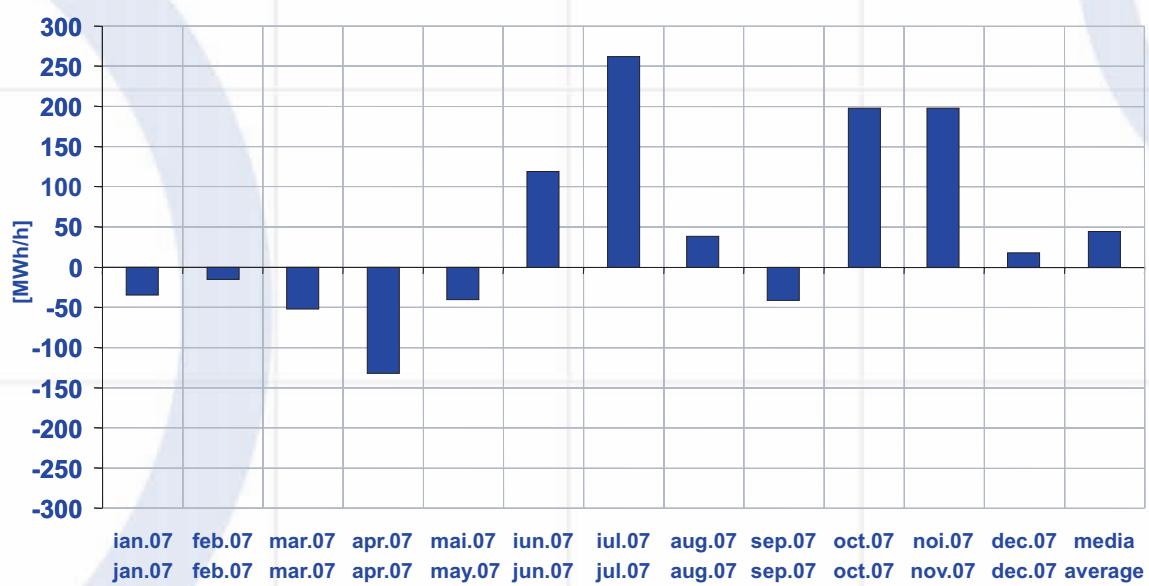
In 2007 the system was balanced using the control power selected by the transmission and system operator by means of the information platform of the Balancing Market. The number of Balancing Responsible Parties (BRP) has increased compared to last year, reaching to a maximum of 95 in October 2007.

Ponderea energiei de echilibrare din total energie consumata in 2007

Share of balancing power in the total consumption of 2007



Dezechilibrul dintre productia notificata + sold si consumul realizat in anul 2007  
Inbalance between the notified output + balance and consumption recorded in 2007



## 5. Structura puterii instalate pe tipuri de combustibili in Romania la 01.01.2008

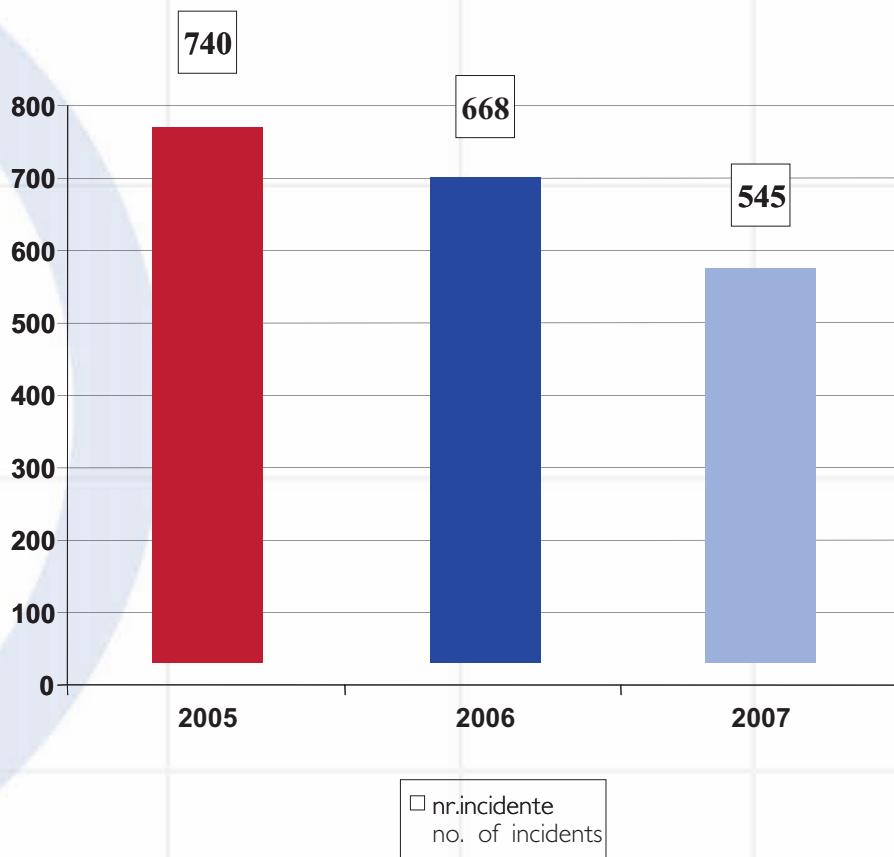
## 5. Structure of installed capacity by fuel types in Romania on 01.01.2008

| TOTAL SEN<br>TOTAL RPS  |                                       | Pi              | Ci              | Pneta           | Rpp            | Pd              |
|---|---------------------------------------|-----------------|-----------------|-----------------|----------------|-----------------|
|   |                                       | MW              | MW              | MW              | MW             | MW              |
|   |                                       | 20385           | 18734           | 18432           | 2529           | 17856           |
| <b>Total centrale termice</b><br><b>Total of thermal power plants</b> | Carbune / Coal                        | 7472.20         | 6755.20         | 6316.30         | 1040.00        | 6432.20         |
|   | din care : huila / of which hard coal | 1825.00         | 1825.00         | 1594.40         | 152.00         | 1673.00         |
|   | Hidrocarburi / Hydrocarbons           | 5117.40         | 4298.37         | 4507.27         | 981.85         | 4135.55         |
|   | <b>Total</b>                          | <b>12589.60</b> | <b>11053.57</b> | <b>10823.57</b> | <b>2021.85</b> | <b>10567.75</b> |
| <b>Total Nucleara / Total nuclear</b>                                 |                                       | <b>1413.00</b>  | <b>1413.00</b>  | <b>1300.00</b>  | <b>0.00</b>    | <b>1413.00</b>  |
| <b>Total CHE / Total HPP</b>  |                                       | <b>6374.542</b> | <b>6260.157</b> | <b>6301.395</b> | <b>506.854</b> | <b>5867.688</b> |
| <b>Total Centrale Eoliene / Total wind power</b>                      |                                       | <b>7.76</b>     | <b>7.76</b>     | <b>7.45</b>     | <b>0.00</b>    | <b>7.76</b>     |

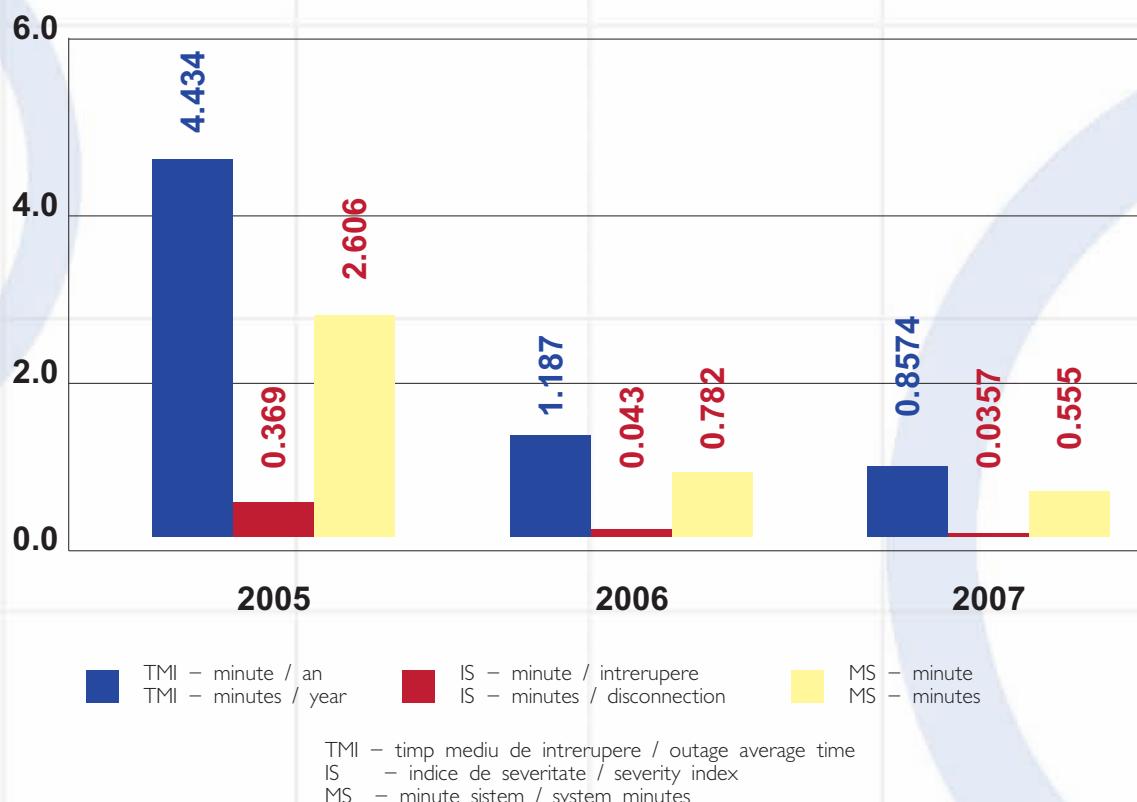
## 6. Indicatori de performanta

### 6. Performance indicators

Evolutia numarului de incidente din RET in anii 2005–2007  
Number of incidents within the transmission network in 2005–2007



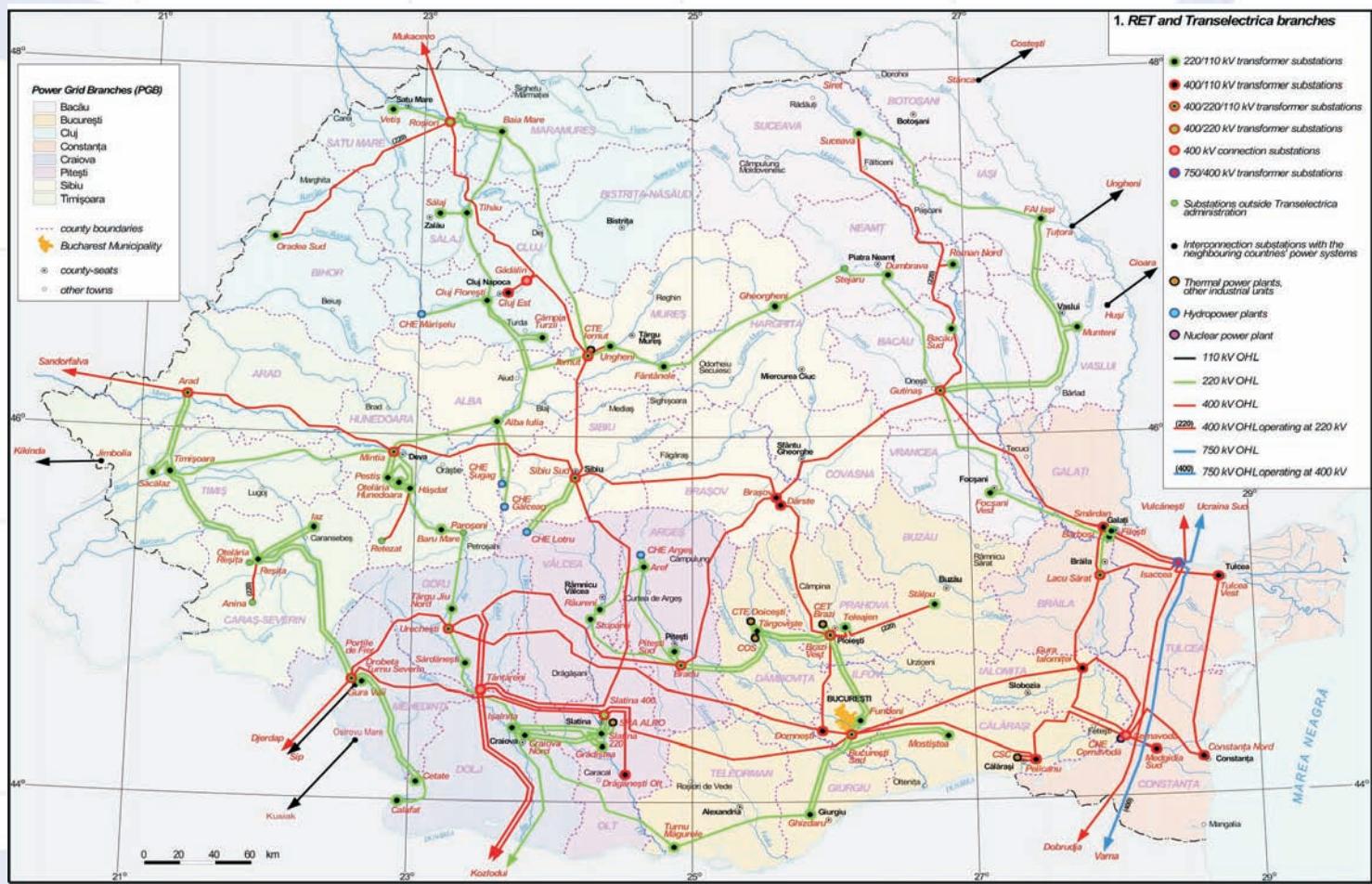
Indicatori de performanta la nivel SEN / Performance indicators at RPS level



## 7. Reteaua de transport

## 7. Transmission network

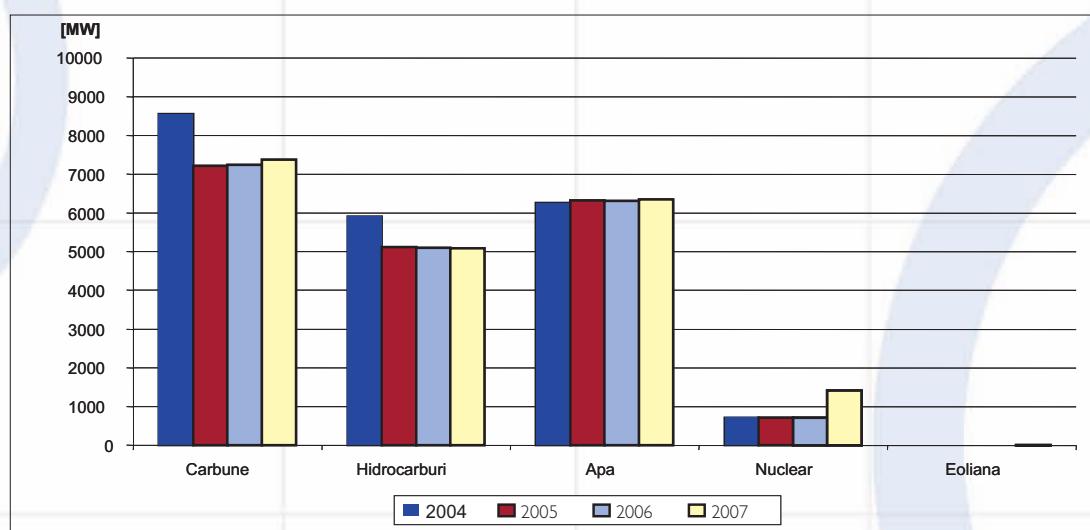
Indicatori de performanta la nivel SEN / Performance indicators at RPS level



## 8. Evolutia puterii instalate si a productiei in ultimii 4 ani

### 8. Evolution of the installed capacity and power generation in the last 4 years

Structura puterii instalate pe tipuri de combustibili in anii 2004–2007  
 Structure of installed capacity by fuel types in between 2004–2007



|                            | 2004  | 2005  | 2006  | 2007  |
|----------------------------|-------|-------|-------|-------|
| Carbune / Coal             | 8553  | 7212  | 7244  | 7374  |
| Hidrocarburi / Hydrocarbon | 5910  | 5113  | 5094  | 5089  |
| Apa / Water                | 6257  | 6319  | 6308  | 6352  |
| Nuclear                    | 707   | 707   | 707   | 1413  |
| Eoliana / Wind             | -     | -     | -     | 7     |
| Total                      | 21426 | 19351 | 19353 | 20236 |

Structura productiei medii orare in anii 2004–2007 / Structure of the hourly average power generation in between 2004–2007

| Structura Productiei in 2007<br>Structure of output in 2007<br>[hMW/h] | 2004 | 2005 | 2006  | 2007  |
|--|------|------|-------|-------|
| Nuclear / Nuclear  | 632  | 632  | 640,8 | 878,3 |
| Carbune / Coal   | 2673 | 2687 | 3079  | 3051  |
| Hidrocarburi / Hydrocarbons  | 1283 | 1182 | 1314  | 1264  |
| Ape / Hydro  | 1889 | 2317 | 2093  | 1817  |
| Eoliene / Wind   | -    | -    | 0,1   | 0,82  |

"-" Lipsa date / Data not available



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Technical results of the Romanian electricity sector in 2007

Romanian Power Grid Company „Transelectrica“ SA  
2–4 Armand Calinescu str.  
021012 Bucharest–ROMANIA  
Phone: + 4021 3035 611  
Fax: + 4021 3035 610  
Website: [www.transelectrica.ro](http://www.transelectrica.ro)  
e-mail: [office@transelectrica.ro](mailto:office@transelectrica.ro)





[www.transselectrica.ro](http://www.transselectrica.ro)

