

#### **About Romania**

Capital city: Bucharest Total Area: 238,392 km2

Population: 22,303,600 (at the end of 2007)

GDP: USD 218.4 bn (in 2007)

GDP per capita: USD 10,152 (in 2007)

Key strategic role

TRANSELECTRICA COMPANY PROFILE

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Transelectrica is the Romanian Transmission and System Operator (TSO) with a key strategic role in the Romanian electricity market. It manages and operates the electricity power system and transmission grid, providing transmission services for electricity transactions among Central and South – Eastern countries, as a member of UCTE (Union for Coordination of Transmission of Electricity) and ETSO (Association of European Transmission and System Operators).

Stable and reliable



Transelectrica ensures the stable and reliable operation of the Romanian Power System (RPS) and is responsible for electricity transmission services, power system and wholesale electricity market operation, electricity transmission grid and market infrastructure development. It guarantees a regulated third party access to the Romanian electricity transmission network under transparent, non-discriminatory and fair conditions to all market participants, while also serving as the physical main link between electricity supply and demand, making continuously the balancing to match in real time power generation with demand.

Transelectrica's main processes

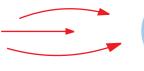


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Adequacy of the transmission grid

Reliable system operation

Support of open, liberalised electricity markets





Licenses

Transelectrica operates according to the Electricity Law and the secondary legislation: the Transmission and System Operator Licenses, Electricity Transmission Grid Code, Electricity Wholesale Market Commercial Code and the Metering Code.

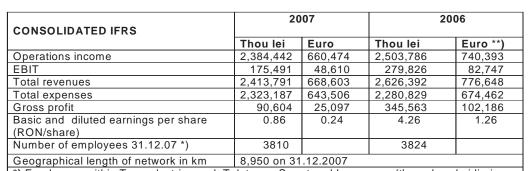
**Shareholders** 



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- The Romanian state through the Ministry of Economy and Finance holds 73.7% of Transelectrica's share capital
- Co Proprietatea Fund holds 13.5% of its share capital
- Other shareholders own 12.8% of the share capital floating on the Bucharest Stock Exchange.

Transelectrica in figures



- \*) Employees within Transelectrica and Teletrans, Smart and Icemenerg (the only subsidiaries material for consolidation
- \*\*) Lei/Euro rate exchange: 3.6102 lei/Euro in 2007 and 3.3817 lei/Euro in 2006



**Mission** 

- To ensure the Romanian power system reliable and stable operation
- To provide national electricity market infrastructure
- To secure a regulated access to the Romanian electricity transmission grid under transparent, nondiscriminatory and fair conditions to all market participants.



**Vision** 

To become the technical and operational authority of the Romanian power system and the keytransmission operator in South-East Europe, while operating the national transmission grid interconnected to UCTE and providing electricity wheeling to the regional and European internal electricity



Strategy

- Further improve the security of supply and operational performance of the Romanian Power System through rehabilitating, modernising and developing its key assets
- Increase profitability of assets by cutting down operation and maintenance controllable costs and getting additional revenues from the telecom infrastructure
- Mitigate environmental impact within admissible European levels
- Maximise grid availability for electricity transactions
- Further develop the interconnection capacity with neighbouring countries
- Target international markets for exporting consultancy services
- Become the regional electricity hub within the South-East Europe

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- Ten Years Business Plan
- Prospective Plan of the Romanian Transmission Grid for the following 10 years, revised each two years
- Technical Transmission Grid Code of the Romanian Power System

- 1.Transmission and System Operator of the Romanian Power **System**
- Operation, maintenance and development of the electricity transmission grid infrastructure
- Dispatching the RPS using the dedicated dispatching infrastructure (telecommunication backbone, EMS/SCADA - Energy Management System/Supervisory Control and Data Acquisition)

#### 2. Electricity Balancing Market Operator

- Development and operation of the balancing market platform



CORE FUNCTIONS

### 3.Commercial Operator of the electricity market, through its legal subsidiary OPCOM

- Operation of various trading platforms (day-ahead, centralised bilateral, forward markets)
- Operation of green certificates trading platform

#### 4. Metering Operator of the wholesale electricity market, through its branch OMEPA

-The electricity metering system for the wholesale electricity market

#### 5.Telecommunication and IT Operator, through its legal subsidiary TELETRANS

-For the telecommunication grid (the optic fiber network installed as OPGW on the overhead high voltage electric lines, digital telecom systems) of the Romanian Power System

**Strategic** documents



Transelectrica's main strategic objective is turning the traditional transmission grid into a smart, market oriented grid.

The national transmission grid, considered as the backbone of the power system, is the high voltage infrastructure dedicated to transmitting power from the generators to the consumers.

As Transmission Operator, Transelectrica manages the electricity transmission grid by keeping the balance between performance/operation, costs (maintenance, rehabilitation, modernization) and risks (ageing, failure, criticality, impact).



MANAGEMENT OF THE TRANSMISSION GRID

Transmission grid at a glance

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Transelectrica manages about 8950 km Overhead Electric Lines in-between 110 kV – 750 kV:

- 155 km at 750 kV
- 4626 km at 400 kV
- 4128 km at 220 kV
- 38 km at 110 kV (only interconnection lines).



Transelectrica operates 77 substations: 32 substations at 400 kV, 44 substations at 220 kV, 1 substation at 750 kV.

Transelectrica has developed new technologies for its facilities by implementing state-of-the-art solutions for new equipment, diagrams and techniques used for repair, updating and development operations. Diagnosis is arrived at by using thermography, live work, and live inspection of OHL from helicopter making use of registered systems in the visible, UV and infrared spectres.

Reinforcing and expanding the infrastructure



Transelectrica sees to a continuous reinforcement and expansion of the transmission infrastructure, with the latest technologies in the field, in order to increase its operational reliability and transmission capacity, while ensuring that its power grid meets current and future market requirements.

Investment objectives



- Developing a large investment program for acquisition of state-of-the-art equipment, technologies and IT&C solutions
- Rehabilitation and modernisation of the transmission infrastructure: digital command controlprotection electric substations for remote operations and overhead interconnection electric lines (OHL)
- Extension and modernisation of the dispatching infrastructure
- New projects of OHLs and interconnection OHLs
- Construction and development of the electricity market infrastructure

Grid modernisation and rehabilitation

The Romanian transmission grid is a hub for regional markets. The major projects under way are:

#### New 400 kV interconnection OHLs:

- Oradea (RO) Bekescsaba (HU), to be completed in 2008
- Sacalaz (RO) Novi Sad (RS)
- Suceava (RO) Balti (MD)

#### 400 kV HVDC undersea cable Constanta (Romania) -Pasakoy (Turkey)

Feasibility Study to be launched in 2008

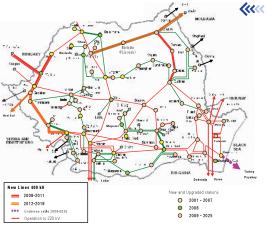


## **Undersea cable Romania - Turkey**

Security of supply

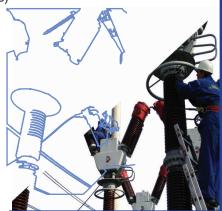
The real - time operation of the Romanian power system relies on a technologically advanced control system leading to a greater stability of the energy quality parameters and supporting the enhancement of the regional electricity market. The power system is operated by the Central Dispatch Center and five territorial control centers in Bacau, Bucuresti, Cluj, Craiova and Timisoara.

Security of electricity supply is one of the Transelectrica's main concerns. The company provides the technical and operational management of the Romanian power system and ensures its safe and stable operation. Actually, Transelectrica's investment, maintenance and operating policy is focused on this objective.



Romanian transmission system network

- Rehabilitation and modernisation of another 10 existing substations
- Extension and reconfiguration in South-East of Romania (Dobrogea), due to massive new generation (5500 MW/3000 MW in renewables)
- Connection to the grid of new major greenfield projects (private investments)



**GUARANTEEING EFFICIENT AND** RELIABLE ELECTRICITY SUPPLY

Since October 10, 2004 the Romanian power system has been functioning synchronously interconnected with the UCTE power system. The process was achieved by Transelectrica, which proved that it can operate a competitive electricity market, in compliance with the EU regulations, while observing all needed technical requirements.



#### Transelectrica provides three major services for power market participants:

Transmission services, delivered to both market participants who are injecting or extracting power in/from the system. The transmission tariffs charged by Transelectrica are regulated by ANRE according to a "revenue-cap" methodology and are published in the Official Gazette.

System services, also regulated by ANRE, are meant to ensure the power system continuous and safe operation while keeping its performance parameters at rated values.

Market administration services, which provide the power exchange trading platform for day-ahead spot transactions to all market participants, while performing the settlement and clearing operations for the spot market, the balancing market and the imbalances. These services are accomplished by Transelectrica's subsidiary, OPCOM, which also provides a centralised green certificates trading floor. The market administration tariff is regulated by ANRE and published in the Official Gazette.

**Services** 

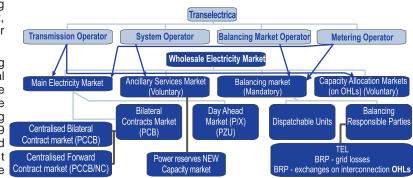


**Balancing Market** 

Since 2005 Transelectrica has been in charge with operating and monitoring the activity for balancing market, ancillary services market and transfer capacity allocation market.

In 2007 the market share of Balancing Market was of 5.92 % from the total consumption, with 1.23 % less than the value registered in 2006. There were 3.49 TWh traded on the balancing market (with an average power of 399 MWh/h), from which the energy used for congestion management represented 0.3 TWh (with an average power of 34.79 MWh/h).

#### Transelectrica in the wholesale power market



Ancillary Services
Market

Transfer Capacity Allocation Market

Consumption

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Reserves were ensured in 2007 both through regulated contracts and monthly auctions. Similar to 2006, the number of participants is reduced, leading to a highly concentrated market with a reduced competition level, especially for the secondary and fast tertiary reserves market in November and December 2007.

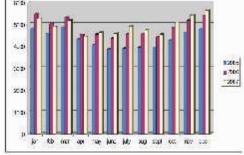
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On the transfer capacity allocation market we perform yearly and monthly auctions for import / export on each border for 50% of the total NTC with one exception on Ukraine border, where the NTC is allocated 100% but it is needed the written

of the Ukrainian TSO in order to use the allocated capacity. The results of 2007 show an increase of the participants' number and an improvement of competition on every border.

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In 2007 the net electricity consumption indicator registered a 1.93% increase compared with 2006, mainly due to the extreme weather conditions in the summer and winter 2007. July was the hottest month in Romania and the last months of the 2007 were colder than in 2005 and 2006.



SUSTAINABLE DEVELOPMENT

One of Transelectrica's main challenges is to make the development of its electrical transmission infrastructure compatible with preserving and protecting the natural environment. As power lines have an effect on people's residential and local environments, Transelectrica has been conducting long-term efforts to reduce the environmental impact of its operations. To this aim, the environmental management system was introduced according to ISO 14001. In order to adapt the transmission grid to the requirements of today's society, Transelectrica has carried out environmental impact studies in all the new developed investment projects. It applies high environmental standards in all its activities, in compliance with the principles assumed by the environmental policy.

Transelectrica gives also full importance to the utilisation of renewable resources. In Romania the concerns on the utilisation of renewable resources have been long registered. However in the last years they rapidly increased due to the benefits provided by authorised institutions.

Traselectrica aims at creating a strong and reliable infrastructure to facilitating sustainable growth, trying to integrate the renewable resources – mainly wind power - into the Romanian Power System, in order to make it compatible with efficient and high-quality service for consumers.

With a view to increasing the share of renewable production in Romania, a system of green certificate was adopted in 2004. According to it, electricity producers from renewable resources can sell the green certificates in the green certificates market. Transelectrica has the task of monthly issuing these certificates according to the declarations made by the producers of renewable power for each power unit and confirmed by the electricity distributor.

International activity

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Transelectrica plays an active role within the international organisations and professional associations it is affiliated to: UCTE, ETSO, EURELECTRIC, WEC, CIGRE, LWA, AMFORUM. Transelectrica is coordinating important international projects, with major impact on the regional infrastructure, jointly promoted with other TSOs and with noteworthy international financial institutions.

The international cooperation activity is mainly focused on two directions:

- to enhance the cooperation at regional level within the regional structures such as: SETSO, SUDEL, ENTSO, Athens Forum, where Transelectrica is represented both at the Steering Committee level and at the Working Group level;
- to enlarge the bilateral cooperation with the european TSO's such as: ESO-EAD –Bulgaria, Terna Italy, RTE France, MAVIR Hungary, TEIAS-Turkey, ELECTROMREZA SRBJIE Serbia, RAO-UES Russia, MOLDELECTRICA R.of Moldova, UKRENERGO-Ukraine etc.

Transelectrica's international activities are targeted at investments in transmission infrastructure and the provision of consultancy services in grid management, TSO operation and know-how exports on third markets.

Management excellence is one of the main values of leadership in Transelectrica. In recognition of the quality of the company's services, the efforts towards consolidating its relations on national and international level and for the quality of its management, in 2007 Transelectrica was awarded with the **Trophy J.M.Juran**, by the Foundation "**The Romanian Award for Quality – J.M.JURAN**". Among other awards lately granted to Transelectrica we mention **The Excellence Award** for the most appreciated public offer on shares – issuers category –, awarded by the Broker Association, **the 1**st **place** in the category of very large industrial enterprises awarded by Romania's Chamber of Commerce and Industry at the 13th Edition of the National Top of Companies and the title of "**Mr. Ron**" awarded by the publication "Financial week" for the good results obtained by the company.

The conformity of the integrated quality management system to the international standards ISO 9001:2000 and ISO 14001:1996 was ascertained by The Romanian Society of Quality Assurance and the International Quality Network.



**MANAGEMENT EXCELLENCE** 

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Transelectrica's structure

Transelectrica is organised in 6 subsidiaries, 8 transmission branches and one metering branch - OMEPA. The company is the sole shareholder of its 6 subsidiaries:

- SC SMART SA provides maintenance services for the Electricity Transmission Network (ETN)
- SC TELETRANS SA provides telecom and IT services for ETN management by the Dispatcher and for Transelectrica's internal needs
  - SC OPCOM SA ensures the organised framework for conducting electricity commercial transactions
  - SC FORMENERG SA provides professional training for the power sector personnel
  - SC ICEMENERG SA provides business research and technical assistance services to thermal power plants, power substations and electricity networks
  - SCICEMENERG SERVICE SA manufactures electricity distribution equipment and control devices for energy
    equipment.

Three of these subsidiaries (ICEMENERG, ICEMENERG Service and FORMENERG) whose activities are beyond the basic activity object of the company are scheduled to be soon privatised.

The 8 Transmission Regional Branches cover the whole Romanian territory. According to the map below, Transelectrica's branches are located in Bacau, Bucharest, Cluj, Constanta, Craiova, Pitesti, Sibiu, Timisoara. Their mission is to operate, modernise, maintain, plan and develop the power transmission grid in the region they belong to.



Location of the 8 Transmission branches on Romania's map

### **CORE VALUES**

Responsibility Transparency Efficiency Impartiality

#### **OUR COMMITTMENT**

To operate and develop the transmission power grid in safe and efficient conditions

To become a major TSO on the regional and European market

To develop partnerships with regional TSOs

To ensure that our services exceed our customer's expectations

To sustain the competitive environment providing best services in a transparent and non-discriminatory management

To focus our concerns and corporate culture on our customers

To keep on achieving a committed and highly qualified personnel, creating a sound corporate culture and meeting the needs of all our customers

To be: - open, courteous and responsive

- customer focused
- environmentally and socially responsible
- community sensitive
- results oriented
- market competitive

To protect our employees, the public and the environment



# Transelectrica - we lead the power

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