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The first phase of construction of a future 400 kV axis in the central region of the country was finalized on 4 May 2006. This phase consists of a 60 km line between the Valdigem substation and the new Bodiosa substation, the latter one being equipped with a power transformer of 126 MVA. The new line and substation are insulated for the 400 kV level, while they are currently still functioning at 220 kV. With a total cost of 31.7 Mio. EUR, the two main targets of this phase of the project are the reinforcement of supply to the region, following the normal growth of demand, and the connection of important wind farms to the grid. In the near future, this line will be extended to the Anadia region, closer to the sea, and the new axis will enable a significant amount of renewable energy (hydro and wind) planned to be installed in the North-Eastern part of Portugal to be transmitted to the South.

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After a long process that started in 1992, the Estoi substation feeding the Eastern part of Algarve, one of the most important tourist regions of Portugal, received the second 150 kV line (the transmission level in the South of the country) which is essential for guaranteeing adequate security of supply levels. During these 14 years, the project has been changed several times due to the strong opposition of land owners and tour operators. The cost of the line that covers about 54 km in length, was more than 35% higher than that of a normal line of equivalent length. At court, lawsuits against REN are still going on claiming for the impeachment of the line.
**Major Restructuring for HTSO**

The last law regulating issues of the electricity market in Greece has brought major organizational changes in the structure of HTSO, the Transmission System Operator of Greece.

HTSO, THE GREEK TSO, UNDER RESTRUCTURING

The big change is that HTSO, currently responsible for the high-voltage network, will also take charge of the operation of the medium and low-voltage network by mid-2007. HTSO will thus take over operation of all wires of all voltage levels in the mainland of Greece. Isolated islands and the Athens Airport will however have separate operators. The ownership of the network remains with PPC, the incumbent electricity company that is obliged to enhance independence of its units dealing with network issues.

**HEP-OPS**

HEP-Operator prijenosnog sustava d.o.o. was registered as the Croatian transmission system operator following changes in the Croatian energy legislation (that took place at the end of 2004) and started its operation on 4 April 2005. The legal name of the new company is "HEP-Operator prijenosnog sustava d.o.o." (in English translation: HEP Transmission System Operator LLC) or in acronym: HEP-OPS (HEP-TSO). This new member of the HEP group is responsible for control, operation, maintenance, development and construction of the Croatian transmission system formed by merging two former members of the HEP group (HEP Transmission LLC and CROSIMO LLC). The president of the Supervisory Board of HEP-Transmission LLC, Mr. Ivica Toljan, took over the same position for the new company, as is the case with the CEO of HEP-OPS, Mr. Miroslav Mesić, who was previously CEO of HEP-Transmission LLC.

The operational training is partly organised within APG, the training of emergency situations and network restoration is realised by - Train-the-Trainer Programme - Simulator training - Concept of further education - Regular and event-driven seminars - Period of validity and how to regain the professional qualification - Examination procedures - Proceedings of the basic education - Description of the training modules and measures in detail - Roles in the educational process - Required degrees/skills of trainees and the respective qualification levels in APG. The main points of the concept are:

- Analysis of all the elements of the network, the main points being the number of elements, reliability, safety, and costs.
- Identification of the critical points in the network.
- Description of the network infrastructure and its associated elements.
- Planning and implementation of the training programme.
- Evaluation of the effectiveness of the training programme.
- Continual improvement of the training programme.

The operational training is partly organised within APG, the training of emergency situations and network restoration is realised by means of an external simulator training that considers also the reaction of communication and coordination with other stakeholders. The integration of specific grid operators in Austria could be an important next step. Participation of adjacent TSOs will be a challenge for the future.
UCTE AGENDA

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During the first period, HEP-OPS continued to work with merged organisational schemes of the previously existing transmission system operation. In order to respond to increasingly demanding tasks aimed at serving market participants, a completely new organisational scheme was put into force on 1st November 2005. In accordance with the UCTE Articles of Association, a transfer of membership within UCTE to HEP-OPS was notified at the end of 2005 and finally approved by the UCTE General Assembly on 4 May 2006. To enable market participants and other stakeholders to have better access to useful information, the new HEP-OPS website www.hep.hr/ops was created and launched recently.

MEMBER NEWS

HTSO

Major Restructuring for HTSO
(The TSO of Greece)

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MEMBER NEWS

TERNA

The development of electricity infrastructures on the territory: The "Strategic Environmental Assessment" (SEA)

On 31 March 2006, the Ministry of Economic Development (previous Ministry of Productive Activities) approved the 2006 Grid Development Plan drawn up by Terna on a yearly basis which sets the development of the national high-voltage and extra-high-voltage transmission grid and its interconnection with the neighbouring countries. In order to get the support of the local authorities and the regions for the authorisation and the following construction of the electricity transmission lines, Terna signed a Memorandum of Understanding with 12 Italian regions for the application of the SEA to the Grid Development Plan. The objective is to find the most suitable solutions to meet the requirements for both the development of the electricity infrastructures and the environmental and urban needs. Terna recently signed two Memoranda of Understanding with the Sardinian Region and with the autonomous Province of Trento, respectively. The new methodological approach is based on SEA, a consultation process for plans and programs with significant environmental and social impact on the territory as provided by the EU Directive 2001/40/EC brought into force last April by Italian law. In 2002, Terna started to test and integrate on a voluntary basis this new environmental assessment process to the Grid Development Plan with the assistance of the Ministry of Environment and Territory. With a preventive involvement of the regions and local authorities concerned, the SEA process is based on the identification of the so-called environmental “corridors” within which the routes of the electricity transmission infrastructures would have the least possible impact on the territory. Thanks to this new approach the works planning phase follows, rather than precedes, the phase of dialogue and agreement for the realisation of an asset of common interest. The main benefit of this methodology is twofold: a better understanding of the electricity requirements and objectives for the development of the national electricity grid, and the optimisation of the location of the new infrastructures on the territory. In laying out the route of the new infrastructures during the assessment, Terna also proposes actions of rationalisation of the affected area, such as dismissing of the existing lines, if necessary, or their movement to an alternative site, with a consistent reduction of the environmental impact on the territory.

Application of the SEA to the Grid Development Plan is yielding its first results. In fact, several new power lines and other grid-related works have indeed been authorised, such as the completion of the “Matera-S.Sofia” power line, in the province of Potenza.

VERBUND AUSTRIAN POWER GRID

During the last years, the security-of-supply-topic has become more and more important due to increasing stress on the UCTE grid. As a result, the operating personnel has to deal with a growing number of dangerous conditions in the network. Considerable the fact that appropriate education and training of the operators are key issues for secure grid operation. Verbund APG decided in 2005 to start the project “Basic and Further Education at Mains Operation” for a new concept that should determine all relevant procedures and respective responsibilities. In April 2006, the project was finished.

The new education and training concept covers all the needed processes taking into account the different levels of responsibilities and the respective qualification levels in APG. The main points of the concept are:

- Professional qualifications, targets and target groups
- Required degrees/skills of trainees
- Roles in the educational process
- Contents of the theoretical and practical education
- Description of the training modules and measures in detail
- Proceedings of the basic education
- Examination procedures
- Period of validity and how to regain the professional qualification
- Concept of further education-regular and event-driven seminars
- Simulator training
- Train-the-Trainer Programme
- Updating the concept and educational documents

The operational training is partly organised within APG, the training of emergency situations and network restoration is realised by means of an external simulator training that considers also the reaction of communication to generators. The integration of specific grid operators in Austria could be an important next step. Participation of adjacent TSOs will be a challenge for the future.
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REN S.A.

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EDITORIAL

New UCTE Internal Working Structure
Starting with 1st of January 2007 a new UCTE Internal Working Structure will be implemented. The decision was taken by the Steering Committee at the meeting on 22nd of June 2006 in Paris.

The new structure separates the UCTE core business activities (Competence Centers) from supporting activities (Service Centers) and studies/extension activities (Projects) in order to clarify interfaces, processes and work to be done. It also visualizes and facilitates an “interaction matrix” between all working bodies needed for the different activities to be performed by the Association.