Towards the prevention of congestion on the Portuguese Spanish border

Portugal and Spain have developed over the years seven interconnections at the levels of 220 kV (three) and 400 kV (four). Initially, they had been planned for security reasons, and in this respect they have played important roles for both countries. Meanwhile, the European Union launched the Internal Electricity Market to which Portugal and Spain are contributing with the construction of the Iberian Electricity Market (MIBEL). During the last years, planning of interconnections has taken account of electricity trading between the two countries, in addition to security aspects.

In the recent 21st level meeting between the Portuguese and Spanish governments, held in Évora on November 18th and 19th, both parties decided the establishment of another two interconnections, one in the northwestern part of the Portuguese border, near the Atlantic Ocean, between Minho (Portuguese side) and Galiza (Spanish side), and the other at the southeast, between Algarve (Portugal) and Andaluzia (Spain) which should come into service before 2011. In addition, the TSOs of both countries, REN – Rede Eléctrica Nacional and RED Eléctrica de España, have been in charge of studying the improvement of the interconnections at the northeastern part of the Portuguese border and of establishing a calendar for its deployment. With the ongoing upgrading and uprating work performed by the two countries on internal lines and this new agreement, it is expected that after 2006 and in the long term, the trade between the two countries will be possible practically without any congestion.

ETRANS to introduce a “schedule-balance-group” system and auctions

ETRANS holds a historically significant position in the European electricity market. Located in the heart of Europe, it acts as a major electricity hub where every day large amounts of electrical power flow from north to south and from west to east. Technically speaking Switzerland has been connected to the European grid for a long time. As far as political and economic synchronization with our neighbouring countries is concerned, ETRANS is just about to complete two important projects, the introduction of the “schedule-balance-group” system and new congestion management measures, i.e. auctions on the northern and eastern borders of Switzerland. The “schedule-balance-group” system allows for scheduling processes in line with ESS, ETSO Scheduling System, and with auctions cross-border capacity may be allocated in a market-based and transparent way. Due to several technical and organizational questions related to the transitory month of December 2005 to the introduction of new congestion management measures at the Swiss borders in January 2006, the previous date for the introduction of the “schedule-balance-group” system was postponed to mid-December.

This change of paradigm in the schedule management of Switzerland with other countries demands transitory congestion management rules. These rules must be applicable in organizational terms and also take account of the Swiss electricity grid operators’ supply and procurement obligations until the end of 2005. By introducing the “schedule-balance-group” system in mid-December, the necessary coordination can be implemented and the transition period can be reduced to a minimum, still leaving sufficient time for an introductory period for the new systems and business processes until the start of the auctions. ETRANS is confident that the new congestion management measures, coordinated with the neighbouring TSOs and based on the “schedule-balance-group” system will successfully come into effect by January 1st, 2006.


Reacting to stakeholder comments, UCTE has made continuous efforts to improve the system adequacy forecast reports:

- the time horizon has been progressively extended up to ten years,
- different forecast scenarios were introduced and allow for a more dynamic monitoring of the system adequacy in the UCTE system as a prerequisite for the security of supply.

Taken as a whole, the UCTE System Adequacy should stay at an acceptable level over the 2006-2008 period: substantial developments of generation capacities, among which renewable energy sources represent a growing share. The period 2008 to 2010 shows a decrease of firmly decided power plants commissioning; the security margin is slightly decreasing but stay at a reasonable level. Between 2010 and 2015 security will be at risk if further investments are not decided in due time. More than 10 GW firm investment decisions would be necessary to counter-balance the potential deficit in generation.

Regional conclusions
The CENTREL block ( Czech Republic, Hungary, Poland and Slovakia) seems to have a long term oriented export position. But future environmental legislation could affect this position. In the UCTE main block, which represents the main part of the installed capacity and was until now exporting towards the surrounding areas, the Remaining Capacity is decreasing and barely matches the indicative adequacy margin in 2010. This block could become a net importer under unfavourable conditions and/or in case the foreseen investments (according to TSOs’ knowledge) would not be realized.

Adequacy in the Iberian block is reached till 2008. The Remaining Capacity decreases from this date on. Additional investments, probable but depending on market conditions, and the development of interconnections are needed to ensure reliability for this region. A strong development in generation is expected in Italy: the margins are significantly improving and the situation of this system is much more comfortable than in the past. Serbia and Montenegro, FYROM and Greece stay in a weak position concerning generation adequacy. Power exchanges inside this area and with Central Europe - made possible after the reconnection of the second UCTE zone in 2004 - will be of utmost importance for the reliability of this region. Generation adequacy should be maintained at a satisfactory level in Romania and Bulgaria over the period 2006-2010.

Trends
The present forecast confirms the increasing role of renewable energy sources, mainly wind power, in the generation mix of the UCTE system. They should represent at least 13% of the generating capacity in 2015. This development is very likely to trigger problems about the availability of a sufficient balancing power and to generate large short-term variations of flows across the international transmission system; new 400 kV lines are necessary in some countries. The projects concerning the development of the international interconnections should help to improve the reliability of the surrounding blocks and of deficit areas, but are limited or delayed by difficulties to get the necessary authorizations. The comparison with the previous reports shows an increase of the Remaining Capacity at all time horizons. In the short term this increase results from a consolidation of forecasts but also reflects some uncertainties affecting the information available to TSOs. Concerning the medium and long-term, it appears too early to draw any firm conclusion as to whether this trend reflects the ability of the market to deliver appropriate signals for investments. This is still to be confirmed in the coming years.

On October 11th 2005, an International Workshop took place in Zagreb under the slogan “Follow up - One year after UCTE reconnection”. The workshop organized by HEP aimed at celebrating one year of successful operation after reconnection with the UCTE grid as well as providing expert knowledge and experience from TSOs on the subject. The many distinguished representatives of UCTE, TSOs, traders, regulators and other stakeholders from Croatia and abroad were gathered. With a movie especially made for this purpose, the participants recalled the actual process of reconnecting the grids separated from the UCTE system, highlighting the joint work of TSOs involved under the coordination of HEP. Representatives of HEP, ELES, ETRANS, MAVIR, RWE TS, TRANELECTRICA, ISO BiH and EMS presented their operational experience gained after reconnection. Generally, it was recognized that the reconnection of the 1st and 2nd UCTE synchronous zones had led to positive technical and commercial effects, especially for UCTE members in the southeast part of the European interconnected grid. Among other technical benefits, increased security of grid operation, improved voltage profile, increased reliability and quality of power system supply as well increased frequency stability should be particularly stressed.

After reconnection, a significant increase in electricity trading was noticed, especially in cross-border trade, facilitating the process of liberalization of electricity markets, particularly in South-Eastern Europe. It was pointed out that experience gained from the UCTE reconnection should be used for a possible future enlargement of the UCTE synchronous area towards Turkey and UPS/IPS electric power systems. The benefit of having similar annual or periodical thematically oriented events or other workshops after UCTE reconnection was underlined with a view to exchanging experience on specific issues and topics. Workshop participants summarized the discussion in the form of conclusions that were made publicly available on the HEP web site (www.hep.hr/rekonekcija) along with all workshop presentations.

PSE Operator S.A.

Anniversary of CENTREL synchronous operation with UCTE.

On 18 October 2005, it was ten years that the CENTREL power systems were interconnected with the UCTE (former UCPE) network. The synchronous operation with the UCTE system had been preceded by a three-year period of very intensive adaptation of the Czech, Polish, Hungarian and Slovak systems to the UCTE requirements, followed by careful detailed tests. The efforts of all CENTREL members were rewarded on 15 October 1995, through interconnection of all four systems to the UCTE network. The 10th Anniversary Ceremony was hosted by PSE-Operator and took place on 17 and 18 October 2005 in Warsaw. PSE-Operator entertained around 60 people, especially the representatives of the UCTE management, the top management of many European TSOs and the most important guests - participants directly involved in the events ten years ago.

The Gala Dinner was a good opportunity to review the development of cooperation and technology, and to take a look into future challenges for present TSOs. The official addresses were delivered by:

- Mr. Walter Fremuth
- Mr. Jose Haltz
- Mr. Miroslav Ibrá
- Mr. Jurgen Stotz
- Mr. Gerard Maas
- Mr. Jose Penados

Mr. Jose Haltz, President elect of UCTE for the term 2006-2007.

On this opportunity, PSE-Operator also presented the project of future seat of company which aroused a big interest among the participants.

Terna

Terna, Rete Elettrica Nazionale is the new Transmission System Operator in Italy.

Starting from 1st November 2005, the ownership and the management of the Italian Electricity Transmission Grid have been unified into one single company, Terna-Rete Elettrica Nazionale, in accordance with the provisions outlined by the Italian law n. 290/2003 and the subsequent Prime Minister’s Decree dated 11 May 2004. The unification should grant greater efficiency, security and reliability of the power system. The unification has been implemented through the acquisition by Terna SpA of the TSO activities of the GRTN, including dispatching, network planning and development activities. As a consequence of this unification, Terna is the owner and operator of about 35,000 km of the high-voltage electricity network (of which 17,457 km at 380/220 kV and 17,501 km at 150/120 kV), representing more than 90% of the National Electricity Transmission Grid. Terna also owns 300 transforming and switching stations and 3 remote grid management centres. In addition, since 31 December 2003 Terna has been controlling two Brazilian companies: Novatrans Energia S.A. and TSIB (Transmissora Sudeste-Nordeste S.A.), holding both a 30-year concession to operate the same services as those that Terna provides in Italy and for which it is remunerated. The major shareholders of the new Italian TSO are: Cassa Depositi Prestiti SPA (29.99%), Enel SPA (6.14%) and Assicurazioni Generali SPA (5.29%). The rest of the shares are floating on the Italian stock market. The independence and the unbundling requirements set in the European directives are met by the Italian TSO both by complying with the Italian Law and by implementing a convenient Corporate Governance framework. Originally, Terna and GRTN had been unbundled at the start of the electricity liberalisation process (1999) in order to make the management of the power system independent of its operation, once broadly in the hands of Enel, the previous vertically-integrated energy operator. Once the dominant player abandoned most of its shareholding, a more effective integrated structure has been restored.

To learn more about the new Italian TSO visit the website www.terna.it.
**UCTE AGENDA**

| UCTE STEERING COMMITTEES | January 19, 2006 in Croatia  
March 23, 2006 in Slovakia  
November 23, 2006 in Spain | June 22, 2006 in France  
September 21, 2006 in Luxembourg |
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<td>ASSEMBLY</td>
<td>May 4, 2006 in Austria</td>
<td>September 8, 2006 in The Netherlands</td>
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<td>Common WG meeting</td>
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After reconnection, a significant increase in electricity trading was noticed, especially in cross-border trade, facilitating the process of liberalization of electricity markets, particularly in South-Eastern Europe. It was pointed out that experience gained from the UCTE reconnection should be used for a possible future enlargement of the UCTE synchronous area towards Turkey and UPS/IPS electric power systems. The benefit of having similar annual or periodical therapeutically oriented events or other workshops after UCTE reconnection was underlined with a view to exchanging experience on specific issues and topics. Workshop participants summarized the discussion in the form of conclusions that were made publicly available on the RTE website (www.rte.hr/rekonekcija) along with all workshop presentations.

**HEP**

On November 23, 2005, the HEP organised an International Workshop in Spain under the slogan “PSE-Operator: A decade of successful operation in the synchronous area towards Turkey and UPS/IPS electricity markets.” The workshop aimed at reviewing the development of cooperation and technology and to take a look into future challenges for present TSOs. The official addresses were delivered by:

- Mr. Walter Fremuth, President of UCTE during the time of preparation of interconnection;
- Mr. Josef Halti, President of UCTE in the year when full membership was granted to all CENTREL group members (2001);
- Mr. Gerhard Maas, Chairman of the UCTE Steering Committee;
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