

## UCTE LIFE

### EDITORIAL

#### UCTE issues new system adequacy report ( retrospect on 2004 )

The overall electricity consumption in mainland Europe increased by 1.7 percent, but less than in 2003 thanks to mild weather conditions. Generation capacities increased by 4%: most of capacity developments were in combined cycle plants and renewable sources (up to 20%).

Although the retrospect shows sufficient generation capacities, two incidents leading to black-outs occurred in Greece and in Luxembourg. Congestions in the Eastern part of UCTE were more severe than in 2003. Strong increases of wind generation in Germany led to high unscheduled flows on interconnections (the full "UCTE System Adequacy Retrospect 2004" can be downloaded from <http://www.ucte.org>).

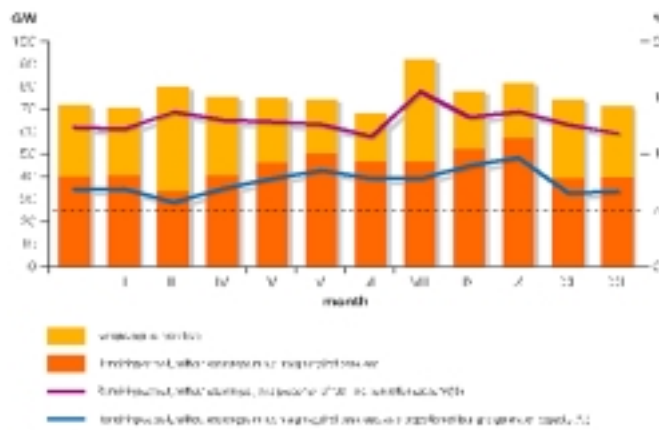
The Union for the Co-ordination of the Transmission of Electricity (UCTE) just released its annual retrospective report on the adequacy of the electric systems in the 22-country region of mainland Europe extending from Portugal to Poland and from Germany to Greece.



The results of the monthly survey show sufficient generation reserves for the sum of the UCTE countries' remaining capacities. According to UCTE experts, some 5 % are needed for secure operation, which was the case on reference days<sup>1</sup> during 2004. Non-hydro renewable generation has once again increased by more than 30%, mainly due to wind power generation development. This strong evolution noticed particularly in Spain and Germany has a significant impact on transmission system operation and brings grids close to their limits.

International exchanges remain on a high level: on average, 11.5% of the UCTE countries' national consumption originate from imports from other UCTE countries.

The most significant event was the successful reconnection of synchronous zones 1 and 2 of UCTE on October 10<sup>th</sup> 2004. UCTE is now a single synchronous zone.



Interconnection capacities were also reinforced between Spain and Portugal, Hungary and Croatia and between Germany and Nordel through the Baltic cable.

Very bad weather conditions affected the Eastern part of UCTE in November, especially Poland and the Czech Republic which lost their interconnection.

Unscheduled flows resulting from wind power variations stressed security limits on the interconnections between Germany, Poland, the Netherlands, Belgium and France and caused the curtailment or reduction of commercial contracts.

<sup>1</sup> 3rd Wednesday of each month

## MEMBER NEWS

### UCTE AGENDA

#### UCTE STEERING COMMITTEES

September 22, 2005 in Greece

November 24, 2005 in Serbia-Montenegro

January 19, 2006 in Croatia

March 23, 2006 in Slovakia

May 3, 2006 in Austria

#### ASSEMBLY

May 4, 2006 in Austria

#### Common WG meeting

September 9, 2005 in Portugal

### E.ON Netz



#### New German Energy Industry Act installs regulation authority

At the end of June, the German legislative assemblies Bundestag (Parliament) and Bundesrat (Federal Council) agreed on a revised Energy Industry Act which will come into force in July 2005. One year after the original end-date scheduled in the EU Electricity Directive of 2003, a regulation authority will be installed. Its main task will be to control transparent and non-discriminatory access to the grid system to all market players. The subsequent regulations on grid fees and grid access are also to be passed still in July.

Despite the turbulent political situation in Germany with likely advanced elections, grid companies and all other relevant players will now be provided with legal certainty and planning reliability. Of major importance for future investments is the clarification of the calculation bases. Grid companies will be allowed to reach interest rates of their equity capital not higher than 6.5 % for old plants.

All grid fees will have to be examined and approved by the regulation authority beforehand (so-called ex-ante regulation). Future regulation through incentives will be designed during the coming year. It is to encourage grid operators to increase efficiency; savings are to be passed on to customers.

Further provisions provide for unbundling of grid and sales companies, and a share of competences among federal and regional regulation authorities. The former will be responsible for major grid operators, the latter for smaller distribution companies with less than 100.000 customers.

### CEPS, a.s. / PSE - Operator S.A.



#### Bilateral General contract for Emergency Deliveries – signed

Following the ideas developed by the TOP 8 Group (top management of eight TSOs from the central-eastern region of UCTE: PSE-Operator S.A., CEPS, a.s., EON – Netz, VE-T, MAVIR, SEPS, a.s., Verbund APG, ELES) and the CENTREL "System Security" Task Force under the supervision of TOP 8, the Czech Transmission System Operator - CEPS a.s. and the Polish Transmission System Operator - PSE-Operator S.A. concluded recently a bilateral General Contract for Emergency Deliveries that lays down the rules for assistance in emergency situations. The CEOs of CEPS a.s. and PSE-Operator S.A. signed the Contract at the end of June 2005.

The General Contract is considered to be a general framework for promoting mutual solidarity between the parties in process of fulfilling responsibilities by TSOs. This Contract enables electricity to be exchanged between Parties in order to prevent or relieve emergency situations in their control areas.

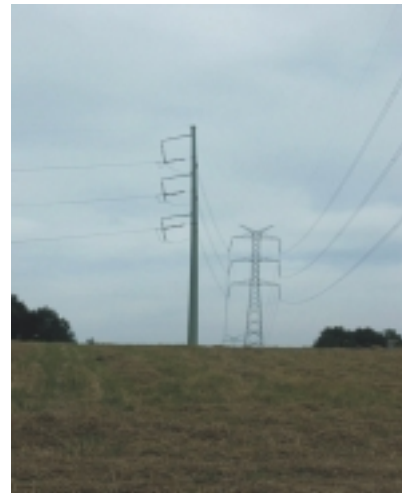
The General Contract covers emergency situations with respect to congestion situations, like overloading of interconnectors, overloading of critical transmission elements, non-compliance with the n-1 criterion, stability problems, voltage problems, sudden unpredictable imbalances, restoration of the power system in whole or in part, and other emergency situations in which the demanding TSO, after undertaking all available measures in its own power system, is still not able to solve the situation in the control area on its own responsibility.

The precondition for the terms of the Contract is that a reduction of existing energy delivery commitments of third parties is not possible and not intended. Furthermore, no part of the Net Transfer Capacity is reserved in advance by Parties and dedicated to the delivery of energy in case of emergency. It is worth mentioning that under any circumstances this energy is not used by TSOs as a measure for minimizing the costs of power system operation and balancing.

The binding price (EUR per MWh) for the realized emergency energy delivery is based on the ex-post settled imbalance price in the supplying party's control area for a given hour and thus covers costs resulting from purchasing the necessary energy volume on the balancing market.

Though there is no legal obligation included in the Contract to fulfill the request of the demanding Party, the Party asked to provide delivery should do its best to fulfill the request considering the existing operational conditions.

Both Transmission System Operators - CEPS, a.s. and PSE-Operator S.A. consider the General Contract for Emergency Deliveries as an important measure to promote co-operation between TSOs.



## MEMBER NEWS

Elia



### Share offering of Elia more than ten times oversubscribed

Belgium's electricity transmission grid operator Elia's initial public offering (IPO) of shares in the second and third week of June has grossed 595 million euro, making it the second biggest IPO in Belgium ever. The offer was more than 10 times oversubscribed with strong demand in Belgium and internationally and the offer period ended five days early.

The shares of Elia have been listed on Eurolist by Euronext in Brussels since 20 June, which was two days earlier than expected. The shares were sold to retail and institutional investors in Belgium and international institutional investors at 26.50 euro, but closed after the first trading day on the Belgian stock exchange at 27.80 euro. At the end of June, the Belgian electricity transmission grid operator had a market capitalisation of more than 1.35 billion euro.

The IPO of Elia consisted of the sale by existing shareholders Electrabel and SPE of 40% of their joint holding, and a capital increase of 150 million euro. Elia will use the proceeds of the capital increase to strengthen its balance sheet and to fund its investments. Until 2009, the Belgian TSO will invest up to 800 million euro in the reinforcement of its network and the interconnection with the neighbouring countries France and the Netherlands. The floating of 40% of the shares of Elia by its historical shareholders Electrabel and SPE marks the end of unbundling of the vertically integrated electricity sector in Belgium, which started in 1999 with the implementation of the first Belgian electricity law.

Elia Chief Executive Officer, Daniel Dobbeni

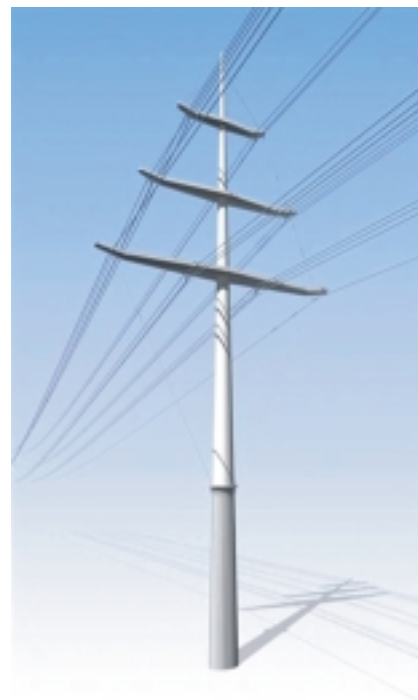


TenneT



### Wintrack: new Dutch HV line concept with reduced magnetic field

Dutch TSO TenneT and Holland Railconsult will develop a new high-voltage line concept featuring significantly reduced magnetic field intensity compared to existing lines. The innovative design, named "Wintrack", uses pylons largely made of plastic, with only a few metal components. It is a key development in view of the adoption by the Dutch government of a more stringent ordinance which would result in the ban on new-build development in close proximity to existing high-voltage lines being extended, for reasons of magnetic fields, to a greater area than is currently the case, as well as clamping down on the scope for construction of new lines. Application of this new standard to an existing 380kV line would imply a ban on new-build development along a strip of some 300 metres on either side of the line, compared with only 75 metres if the Wintrack technology were applied. The new Wintrack pylons are quite a bit smaller and their visual impact is considerably lower than that of their traditional steel counterparts. Although they will cost more at the investment stage, a major benefit of plastic pylons will be their low maintenance requirement, enabling cost savings and larger availability. After a comprehensive Wintrack trial programme, a prototype will be built in 2006 and a trial run organised involving an entire 1,500-metre stretch of the Wintrack high-voltage line. Wintrack offers very good perspectives in densely populated areas. Compared moreover with the alternative of underground cabling, Wintrack is considerably less expensive. The precautionary government policy aimed at avoiding people being exposed to high voltage line-generated magnetic fields for any length of time. The current exposure threshold is set at 100µT (micro Tesla), whereas TenneT for its part has in recent years applied 20µT as reference value. However, the new policy points to the significantly lower threshold of 0.4µT to be applied to plans for new-build development in close proximity to existing high-voltage lines and for newly constructed lines.



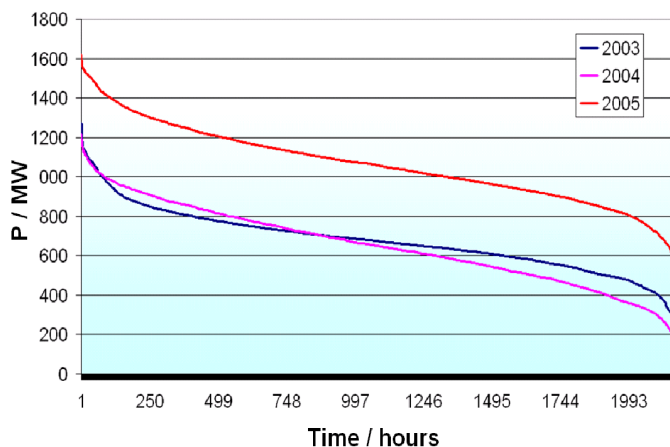
## Restricted Trading as a Result of Technical Restrictions in the Electric Power System

The power flows through the Slovenian transmission network generally end in Italy and depend to a considerable extent on electric power production in France, Germany and Southeastern Europe. Changes in distribution of production have an enormous impact on electric power flows at the Slovenian-Italian border. Under favourable conditions for wind power production, the centre of generation of power imported by Italy shifts from west (France) to east (Germany). Physical power flows thus end along the shortest north / south route, i.e. by increasing flows on the Germany -> Switzerland -> Italy and Germany -> Austria -> Slovenia -> Italy routes. An additional source of undesired electric power flows appears in Southeastern Europe during the increased production of hydroelectric power due to favourable weather conditions. In April 2005, for the first time after the resynchronization, traders took advantage of the new trading possibilities between Western and Southeastern Europe. While electric power prices rose to over 40 EUR/MWh in France and Germany, the Balkans witnessed a drop in prices to 5-10 EUR as a result of favourable hydrological conditions. From January 2004 to March 2005, the physical flows on the Slovenian-Italian border increased to three times the value of commercial arrangements and attained their peak (1600 MW) in March. This further intensified losses and increased system costs.

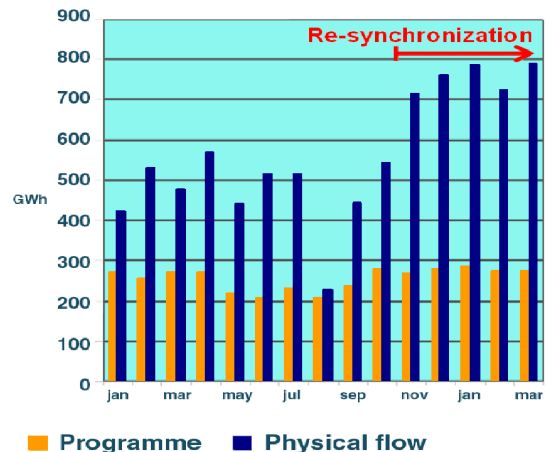
Due to lively trading in the above-mentioned area and the resulting increased flows, Slovenian internal and interconnection transmission lines were at the limits of their capacities, threatening the safe and reliable operation of the Slovenian electric power system. It was therefore necessary to restrict trading at the borders with Italy, Austria and Croatia. In addition, two outages occurred at the Krško Nuclear Power Plant and three outages were reported on the Divača-Melina transmission line due to thunderstorms. Had such restrictions not been implemented, the Slovenian system would have collapsed and could also have seriously threatened the southeastern part of Italy.

Similar to the entire UCTE network, which was primarily constructed for the needs of individual countries and connected for the purpose of providing assistance during breakdowns, the Slovenian electric power network, located between Western and Southeastern Europe, is not dimensioned for such an increased scope of trading.

In our opinion, this problem could primarily be solved by clearly defining the rules of operation of electric power systems, creating a collection of operating principles and rules for system operators, completing the 400 kV loop within the Slovenian network, constructing transmission connections with Italy and Hungary, continuing to develop methods for controlling congestion management, and by developing new technologies for controlling power flows.



The growth of physical flows on SI/IT border for the time period from 1 January till 31 March - Yearly comparison



Physical flows and commercial exchanges on SI/IT border between January 2004 and March 2005

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 Boulevard Saint Michel, 15 B-1040 Brussels - Belgium  
 Tel +32 2 741 6940 - Fax +32 2 741 6949  
 Internet: [www.ucte.org](http://www.ucte.org)

Contributors: UCTE Communication Correspondents  
 Editor: Vattenfall Europe Information Services  
 Internet: [www.vattenfall.de/is](http://www.vattenfall.de/is)