

## UCTE LIFE

### EDITORIAL



### Discussions on power connection between EU and Russia move into gear - Crucial points identified

Since the end of 2001, talks have been held, on demand by the Russian State Electricity Company RAO "UES of Russia", between UCTE and RAO "UES of Russia" concerning the realization of a synchronous interconnection between the electricity systems of the CIS (Commonwealth of Independent States) and the Baltic states on the one hand and the UCTE electricity system on the other.

The Union for the Co-ordination of Transmission of Electricity (UCTE), the technical organization of the Transmission System Operators in Europe, has presented on 25th March in Brussels the state of play of its preliminary technical investigations.






The investigations show that with the present pattern of commercial exchanges between the market players within the UCTE system, the central European grids are already operated near the limits. As a consequence, the additional transits potentially coming from the CIS countries will have to be limited at values which are significantly lower than the physical limits of the existing (presently unused) lines between the two systems. Furthermore, the first analysis has confirmed that all new players will have to comply with the rules that have been put in place in order to allow TSO to manage the flows on the network, that is to say to guarantee the security of the network.

UCTE is prepared to continue the necessary investigations in order to define under which conditions an interconnection of such big systems could be feasible and operated under stable conditions. UCTE is thus working on the terms of reference of a study which will be on the agenda of the next UCTE General Assembly in May.

Nevertheless, UCTE wants to stress the following points:

- the funding of the studies must be agreed between the interested parties;
- due to the high complexity of the issue, the time needed for the study is estimated at about two years;
- the study will address the technical feasibility issues and also the organization and rules that have to be put in place in order to allow the management of the security of the system. These rules will lead to multilateral agreements legally binding the different stakeholders such as, TSO, Producers or vertically integrated companies;
- finally, the results of the study may show that investments on the various components of the system (power plants, network, ...) are needed to guarantee its stable operation.

### SYNCHRONOUS UCTE REGIONS

-  1<sup>st</sup> synchronous UCTE region
-  Synchronous Operation with 1<sup>st</sup> UCTE region
-  2nd synchronous UCTE region
-  Synchronous Operation with 2nd UCTE region
-  Associate member of UCTE



## MEMBER NEWS

### UCTE EVENTS

#### UCTE GENERAL ASSEMBLY

May 8, 2003 in Spain

#### UCTE STEERING COMMITTEES

May 7, 2003 in Spain

September 25, 2003 in Portugal

November 27, 2003 in Greece

#### UCTE / EU HIGH-LEVEL WORKSHOP on System Reliability and System Development

June 4, 2003 in Brussels

#### STATISTICAL WORKSHOP

May 23, 2003 in Brussels

### HTSO



#### Hellenic Transmission System Operator

More than two years of a legally open electricity market plus an annual market increase rate of 4-5% have not yielded yet new independent capacity.

Changes are now considered in the regulatory framework to facilitate new investments and realize the desperately needed additional generation capacity.

Changes could affect market operation conditions and licensing procedures. Furthermore, a mechanism is likely to be established that would support new investors in their first years of operation.

### E.ON Netz

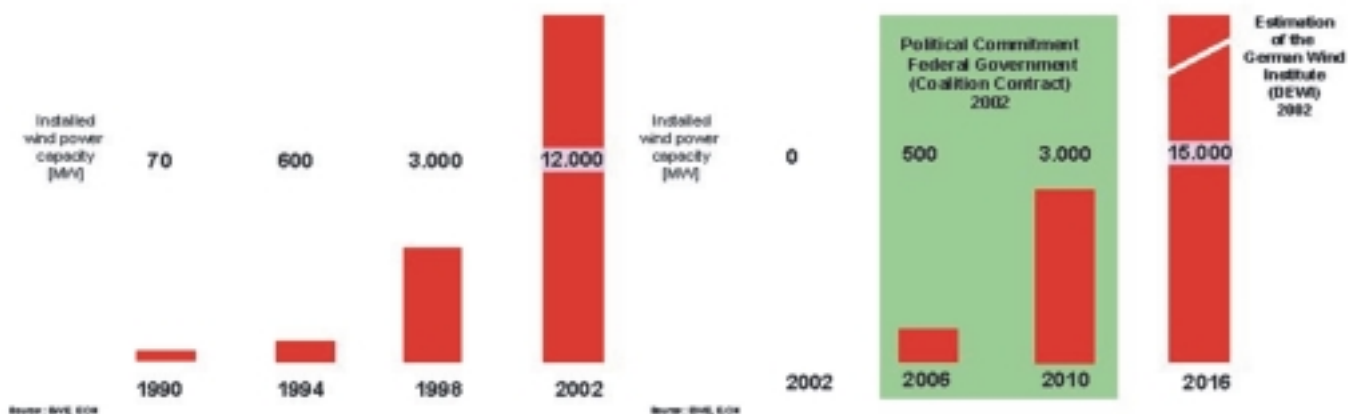


#### Wind energy boom in Germany triggers the construction of new EHV/HV lines

At the end of 2002, wind power capacity connected to the networks in the Federal Republic of Germany totalled about 12.000 Megawatt. This corresponded to an increase of almost 30 % as against 2001. During the past year, 16.5 billion kilowatt-hours were produced from wind, which meant an increase of more than 50 % as compared to the preceding year. The wind power boom is attributable to the intensive promotion pursued by politics. For instance, there is a statutory obligation placed on network operators to give preference to electricity supplied from wind power plants and to pay for it the prescribed minimum rates of up to 9 €/t/kWh. More than 50 % of the wind power generating capacity installed in Germany is supplied to the control area of E.ON Netz GmbH. This wind power boom is already entailing serious congestion on the networks of the Northern Federal Laender of Schleswig-Holstein and Lower Saxony. As a result, it is likely that new HV and EHV lines of a total length of 300 km need to be constructed in these German Laender in the E.ON network area due to the increase in wind power capacity during the next years. Some of the measures that need to be taken in this respect have been initiated during the last months. According to estimations of independent experts, the construction of additional HV and EHV lines of a total route length of up to 1.000 km might become necessary in the control area of E.ON Netz during the next 12 years if the figures forecasted today in terms of wind power development, both onshore and offshore, will be reached in reality.

German wind power on-shore: growing rapidly

German wind power off-shore: facing a boom



## MEMBER NEWS

PSE SA



### The year 2002 in the Polish Power System

In the year 2002, further market developments and restructuring activities were undertaken in Poland in order to better prepare companies in the power sector for functioning on the common European market. The main characteristics of this year, as well as major challenges for the year 2003 are listed below.

Economic issues:

- final conclusion of all negotiation charters (including energy issues) in the EU integration process (December 2002),
- introduction of amendments to the Energy Law Act aimed at harmonisation of laws with EU legislation,
- revised Polish Energy Policy Guidelines till 2020 ensuring further progress of the competitiveness within the power sector,
- development of balancing market mechanisms (new settlement price setting),
- development of new instruments (futures) on the Polish Power Exchange (Gielda Energii).

Technical issues:

- transmission network developments - new transformer in the Mikulowa network substation,
- no occurrence of any specific events that would affect system operation,
- peak load on 12 December 2002 amounted to 23.207 MW (increase of 1% as compared to peak load in 2001).

Activities for 2003:

- further restructuring and consolidation of power companies,
- solution to stranded costs related to long-term contracts,
- implementation of the new governmental Plan on Competitive Power Market Development leading to the creation of fully liberalised market conditions.

EPS



### ELECTRIC POWER INDUSTRY of SERBIA

#### 400 kV OHL SS Niš 2 - (SS Leskovac - SS Vranje - border) - SS Skoplje 5

Two experts' meetings of the Electric Power Industry of Serbia took place in July 2002 and January 2003, respectively, to discuss the feasibility of construction of the 400 kV overhead line extending from the 400/220/110 kV SS Niš 2 to the FYROM border and further to the new 400/110 SS Skoplje 5. On the occasion of the meeting in January, which was also attended by representatives of the Electric Power Utility of FYROM, the EPS experts' team adopted a Project Task for the elaboration of the general design of the line SS Niš 2 - border - SS Skoplje 5 and a Program Task for the elaboration of the Feasibility Study entitled "Technical and economic aspects of connecting electric power systems of Serbia and FYROM via 400 kV OHL SS Niš 2 - SS Skoplje 5".

The construction of the 400 kV line requires an extension of the existing 400 kV part of the substation Niš 2 introducing a new line bay. According to the first construction phase, this line is to be looped into the existing 220/110 kV SS Leskovac 2 (50 km to the south from SS Niš 2) for which the Study will equally consider two extension variants: 400/220 kV and 400/110 kV, taking account of the summer and winter consumers' load structure of this substation in 2005. The study will consider both the variant of extending the existing 220/110 kV SS Leskovac 2 as 400/220 kV or 400/110 kV, and the extension of the existing 110/35 kV SS Vranje as 400/110 kV (70 km to the south from the SS Leskovac towards the border between Serbia and FYROM), taking account of the consumers' load for winter 2010.

The overhead-line construction is expected to start in 2003. Funds for the construction will be provided from the project of "Greek plan for the Balkans reconstruction", verified by the Greek Parliament on January 7<sup>th</sup>, 2003, and partly from EPS own funds.



## MEMBER NEWS

GRTN



### Growing imports IN ITALY: + 4.6 % in 2002 and + 4.7% in the first two months of 2003

Looking at the most relevant results of the management and operation of the Italian Power System, as published by GRTN in the last "Provisional data on Operation of the Italian Power System in 2002", the electricity demand in Italy reached 310.4 Billion of KWh in 2002, which corresponded to an increase of 1.8 % as against 2001. The demand in 2002 has been covered at 83.7% through domestic production (+1.3% as against 2001) and at 16.3% through foreign exchanges (+ 4.6 % as compared to 2001). In 2002, the electricity imports from other countries had a sustained growth rate: net imports increased from 48.377,3 GWh in 2001 to 50.597,6 GWh in 2002. This growth in physical exchanges with foreign countries is also due to the commissioning of the new 400 kV DC interconnection with Greece where the difference between imports and exports totalled 138 GWh.

Over the first two months of 2003, electricity demand has been met at 83.1% from national production and at 16.9 % from foreign imports. From the beginning of 2003, foreign supply has covered the national consumption of electricity to the amount of 9.1 GWh. 85.7 % of the physical flows from imports came from the north-west border, and 14.3 % from the north-east border. Looking at the physical exchanges on the new 400 kV DC interconnection with Greece, the physical exchanges registered had been 3254 MWh during the last days of February (see the picture right hand side).



HEP



HRVATSKA ELEKTROPRIVREDA D.D.

### Reconstruction / Construction of Transmission facilities

The most intensive activities currently under way in HEP are capital investments in the reconstruction of its destroyed transmission facilities (reconstruction of the 400 kV Ernestinovo substation in eastern Croatia), and the construction of the new 400 kV Zerjavinec substation near Zagreb, the country's capital. All activities are well harmonized and performed according to the tight time schedule. For example, within the Zerjavinec project all installation projects on the 400 kV supporting insulators, as well as the 400 kV busbars have been successfully completed. The Ernestinovo project made even greater progress (illustrated by photos enclosed). Another transmission facility which was also destroyed 10 years ago during the war is the interconnecting transmission line between Croatia and Bosnia and Herzegovina, the 220 kV Medjuric (HR) - Prijedor (BiH), namely its Croatian section extending over 33 km. The destroyed section whose major part is situated between the rivers Sava and Una on the borderline between the two countries had to be disposed of mines before the reconstruction activities could be pursued. The reconstruction was successfully performed under difficult working conditions, and was even completed at an earlier date than previously envisaged. HEP has financed the project entirely from its own funds (2.5 million EURO). The remaining part still to be reconstructed is the line crossing the river Una. According to the declared intentions of the parties involved -Croatia and Bosnia and Herzegovina- the line is expected to be operational at 220 kV in spring 2003. This line is of great importance not only for the reconnection of the systems of Croatia and Bosnia and Herzegovina, but also for the entire UCTE as its operation meets one of the technical prerequisites for successful reconnection of the two UCTE synchronous zones.



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