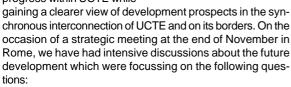
QUARTERLY BULLETIN OF INFORMATION FROM UCTE. UNION FOR THE CO-ORDINATION OF TRANSMISSION OF ELECTRICITY



PRESIDENT'S FOREWORD

Dear readers.

We have made considerable progress within UCTE while



- What do we have to do in order to refine today's synchronous interconnection with its high quality level?
- Basically, what is our position on the question of interconnection extension?

It is obvious that such fundamental issues are also discussed in a controversial manner in view of the naturally wide variety of experience, wishes and targets in our Union covering the European Continent.

However, there is one principle on which we always agreed: no extension of the interconnected power system must reduce or even jeopardise the current high level of security! Under this premise, we have managed to outline the future development in a co-operative and reliable manner. The editorial informs you about the cornerstones for our work which result from this outline.

We have succeeded in speeding up our activities which is substantially attributable to our Working Groups representing the driving force for our work. The commitment and the interest of the numerous experts from member companies are bearing fruit: The European Commission has included us as partners in essential discussions on the refinement of electricity infrastructures in Europe. Our partner associations acknowledge that UCTE is responsible for all technical security and reliability issues.

Ultimately, this is all to be attributed to the personal commitment of experts from the 31 member companies of UCTE. Let me take the opportunity of the forthcoming turn of the year to extend to all of you, also on behalf of my colleagues in the UCTE Bureau, my sincere thanks for the work accomplished.

I wish you and your families a Merry Christmas and a successful and happy New Year!

Martin Fuchs

Clarke ful

EDITORIAL

TOWARDS A SYSTEM DEVELOPMENT STRATEGY

The "essence" of UCTE

UCTE is an association of TSOs, each of them individually committed to a common set of standards for the reliable operation of the UCTE interconnected system and its development. These are essential prerequisites for the establishment of robust competitive markets.

Over 51 years, the association has experienced continuing growth from 8 to 21 member countries. The synchronous area may further develop beyond the association borders, but a precondition for any extension will remain to keep the reliability of the system at the present high level. UCTE membership does and will in the future imply compliance with the full set of technical standards that has been developed up to now and presently re-shaped into a UCTE Operation Handbook the first version of which was successfully presented at the last European Regulatory Forum on 18 October 2002.

Which forms of relations can be developed with areas neighboring the UCTE system?

In the case of existing HVDC interconnections, the relation between UCTE and the adjacent areas is managed by agreements concluded by the concerned UCTE member.

In the case of new HVDC interconnections, UCTE governing bodies may decide, on motivated grounds of interoperability and/or security, that the concerned interconnection shall be submitted to an approval procedure. In accordance with this procedure, such HVDC interconnection shall in principle be governed by an Interface Agreement, signed from the UCTE side by one or more members.

In the case of new AC interconnections, the possible formulas to be considered for the relation between UCTE and other synchronously connected areas are: Inter-Area Cooperation Agreements and, as an alternative solution, Interface Cooperation Agreements.

- 1. Inter-Area Cooperation Agreements between the UCTE members and the TSO (or group of TSOs) of a synchronously connected non-UCTE area will define the operational and system conditions of the respective areas which are necessary to ensure a well-functioning synchronous interconnection (comprising a.o. control characteristics and parameters, stability issues, etc.). Such an Inter-Area Cooperation Agreement is the basic option for co-operation between UCTE and the TSOs of the interconnected areas.
- 2. Interface Cooperation Agreements between UCTE members and the TSO (or group of TSOs) at the other side of the Interface, defining operation rules and disconnection criteria at the Interface might be developed in the future.

The choice between both types of Agreements shall be based on criteria such as: the strength of mutual interaction between the systems, the possibility of system decoupling without jeopardizing system security, the responsibilities assumed by the UCTE member(s) adjacent to the extension, etc.

MEMBER NEWS

UCTE AGENDA

STATISTICAL WORKSHOP

May 23, 2003 in Brussels

UCTE STEERING COMMITTEES

January 23, 2003 in Luxemburg March 13, 2003 in Belgrade May 7, 2003 in Spain June 26, 2003 in France September 25, 2003 in Portugal November 27, 2003 in Greece

UCTE GENERAL ASSEMBLY

May 8, 2003 in Spain

GRTN



Electricity Import and Export for 2003

GRTN, RTE and the Swiss TSOs have reached an agreement concerning the definition of the amounts of capacity to be allocated for electricity imports in 2003.

The net transfer capacity for imports from abroad will increase of 300 MW to reach the total amount of 6.300 MW in 2003, as against 6.000 MW in 2002. The capacity at the French-Swiss border will be 5.700 MW, while the import capacity at the Austrian-Slovenian border will remain the same as in 2002 (600 MW).

Consequently, the total transfer capacity available for new contracts in 2003 will increase by 900 MW. In fact, apart from the 300 MW attribuatable to the extension of the interconnection at the French-Swiss border, the other 600 MW are result from ENEL "take or pay" contracts that will expire on 31.12.02.

Next step will be the agreement of the Regulators to set up the arrangements and the rules to be followed for imports and exports in 2003.

At the same time GRTN and HTSO have started a test operation period from 23 September 2002 till 15 November 2002 when the available transmission capacity of the interconnection at the Italian-Greek border will be allocated for imports and exports. As at the northern border, GRTN is waiting for the arrangements and the rules of the Italian Regulator concerning the allocation of the available capacity.

APG and RWE

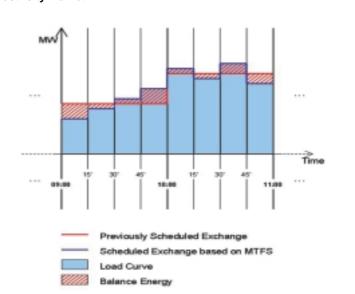




Verbund-APG and RWE Net at the Forefront of the European Electricity Market

The control block managers Verbund-Austrian Power Grid (APG) and RWE Net, together with the respective control areas, were the first TSOs in Europe to create the technical and organizational conditions for the exchange of electricity in 15-minute intervals in units of 1 kW between the Austrian and the German control block. So far, this has only been possible with hourly programs in units of 100 kW while in the respective control areas the demand for balance energy is primarily determined on a ¼-hour-basis and in kWh. One of the advantages of the so-called Multi-Time-Frame System (MTFS) is that the demand for balance energy is significantly reduced because the scheduled exchange can be adjusted according to the load curve. In addition, the MTFS also allows opening the market for balance energy across the borders of the individual control areas (see Figure).

With the introduction of the new system as of 1stNovember 2002, the two TSOs have made a substantial contribution to the further opening-up of the European electricity market. The implementation of this new system is an important step towards the realization of a flexible pan-European market for balance energy.



MEMBER NEWS

ELIA



Small is beautiful..... and complex

Belgium is a small and beautiful country somewhere on the line between the North and the South of Europe. However small in size, it is also a very complex place, made up of four political entities: one federal (national) and three on a regional level (Flanders, Wallonia and Brussels). The federal and regional authorities share a number of competences in the field of energy. As a result, the country has no less than four separate grid codes and an equal number of market regulators.

Another specificity of the Belgian electricity market is related to the fact that the country's interconnection grid serves an active cross-border market, both by domestic and neighboring market players. This results in rather frequently congested conditions, needing congestion management and allocation mechanism to be co-ordinated with several regulators and fellow TSOs.

To make this picture complete, we should also mention the fact that no less than three Power Exchanges became active in adjacent countries in recent years.

It is no surprise that all this results in a very complex and ever changing environment. ELIA, combining the roles of the single national Transmission System Operator at 150-380 kV and three regional Distribution System Operators for the 30-70 kV voltage levels, faces the interesting challenge of coping with all these aspects. Small we said?

EPS



EPS' grid development plan realization

EPS has finalized the tender documentation for construction of the 400/110 kV substations Belgrade 20, Sombor 3, Jagodina 4, and extension of the existing 220/110 kV SS Sremska Mitrovica for the 400 kV part. The tenders for the new 400 kV line SS Sombor 3 – SS Subotica 3 and introduction of the existing line 400 kV SS Pancevo 2 – SS Belgrade 8 into SS Belgrade 20 have been also finished. This tender documentation was given consent by the consultant, Eurowatt, and was submitted to approval to EBRD. After a positive answer from EBRD, expected to be communicated in mid-December 2002, the tender will be published on the EBRD Internet site, in Development Business, in the Republic of Serbia's Official Gazette and in a daily magazine in the Republic of Serbia.

Three months after the tender notice, the most favourable offer will be selected. Within one month after the final selection, agreements with selected contractors will be signed so that the work for the construction of these installations is likely to start at the end of May 2003.

PSE

PSESA

On the way to the EU accession

As the power market liberalisation in Poland is quickly developing, combined with the new power sector restructuring plans, the more and more important are the final legislation modifications aimed at adapting provisions of the Polish Energy Law Act to the legal regulations or the European Union, and especially to the IEM Directive. The Polish Energy Law Act of 1997 (with its largest amendments in 2000) and its secondary legislation were already adopted with a high level of conformity to the EU requirements. Following negotiations with EU on the Energy Chapter, successfully concluded in July 2001, the next series of necessary amendments to the Energy Law was adopted by the Polish Parliament in July 2002. Though this law together with the amendments will enter into force on 1 January 2003, the specific provisions relating to the EU integration will be effective only from the day of Poland's accession to the European Union.

The most important amendments include: different requirements of informing the European Commission on specific issues; TPA rule covering also electricity from EU countries; negative reciprocity clause; concessions available also for entities based in any EU Member State. Other amendments relate mainly to different aspects of functioning of the energy companies within the new market framework aimed at facilitating competition and ensuring a level playing field for all market participants, including final customers.

HTSO



Latest news from Greece

1. New international tie-lines During spring and summer, energy w

During spring and summer, energy was exchanged on an experimental basis between Italy and Greece. For the following TestOperation Period (T.O.P.) from 23 September to 15 November 2002, capacity on the cable was allocated in both directions to participants in the two countries. The Test Operation Period will be possibly extended till the end of the year.

2. New generating units

The steam turbine unit - $164.3 \, \text{MW}$ - of a combined-cycle natural gas station (its two gas turbine units of an installed capacity of 2 x $156 \, \text{MW}$ were comissioned in 2001) in Komotini, Thrace, was put into operation during May 2002.

3. Evolution of the control systems

Till the end of the year, an invitation for a bidding procedure regarding the provision of consultancy services related to the implementation of an Integrated Enterprise Information System (IEIS) is expected to appear. The project, financed by the European Regional Development Fund, includes the investigation, concept, study, procurement, installation and commissioning of the IEIS; it is likely to lead to a dramatic change of the existing EMS.

4.Restructuring of the energy market

The Ministry of Development in cooperation with the Regulating Authority for Energy (RAE) is planning some changes in the existing legal framework in order to facilitate the opening up of the market.

OVERLEAF

ETRANS



ETRANS has been performing the Day Ahead Congestion Forecast for the Swiss TSOs since 2000

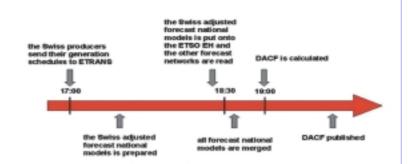
From 2000 on, the Day Ahead Congestion Forecast (DACF) procedure was initiated in several European areas that eventually merged. DACF is now coordinated by the UCTE subgroup "Network Models and Forecast Tools". ETRANS participated in the DACF on a weekly basis from the beginning, and every working day since August 2002.

A DACF calculation for a specific hour of the next day is performed as follows:

Every day at 5 p.m., the Swiss TSOs furnish ETRANS their generation schedules for the next day. On the basis of these generation schedules, the expected topology and the expected Swiss consumption, ETRANS builds the Swiss forecast dataset that it exchanges with the other DACF participants (cf. Figure 1).

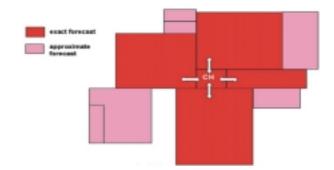
Once all forecast datasets have been collected, they are merged and completed with adapted default network models of the DACF non-participants (cf. Figure 2) in order to form the complete UCTE forecast dataset. That dataset is then calculated; if overloads are detected, they are published on the ETRANS homepage, where they are accessible to registered users.

DACF Daily Activities: Swiss Situation



Day Ahead Forecasting (DACF) Method

The pieces of the UCTE grid provided by various TSOs are put together by each TSO according to his need



With the opening of the electricity markets around Switzerland and because of the geographical position of Switzerland in the middle of the UCTE interconnected grid, the transit flows crossing Switzerland have dramatically increased during the last years. The DACF procedure is an important step towards an international co-ordinated congestion management in the event of critical situations on the Swiss transmission grid.

UCTE NEWSGRID - N.2

Quarterly Newsletter from Union for the Co-ordination of Transmission of Electricity (UCTE)

Boulevard Saint Michel, 15 B-1040 Brussels - Belgium

Tel +32 2 741 6940 - Fax +32 2 741 6949

Internet: www.ucte.org

Contributors: UCTE Communication Correspondents Editor: ifsc informationservices gmbh Internet: www.ifsc.de