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UNION FOR THE CO-ORDINATION OF TRANSMISSION OF ELECTRICITY

UCTE LIFE

EDITORIAL

UCTE 2006-2007: Priorities for the new Presidency

The new challenges TSOs have been facing since the start of the liberalization process in the electricity sector in Europe came first from the market side: Grids must play now a decisive role in coping with the dramatically growing cross-border flows due to commercial reasons, and also to the substantial amount of wind energy fed into the grids without simultaneous reinforcement of the transmission in frastructures. How should UCTE tackle these changes? In order to maintain the reliability of operation of the interconnected network, TSOs within UCTE must ensure first of all of that all TSOs comply with the technical standards and requirements defined in the UCTE Operation Handbook. This is the prime objective to be pursued by UCTE. Beyond that, and as an outlook for UCTE on the years 2006-2007 and up to the 2010 horizon, we must ape a vision about how to master the upcoming challenges, essentially in two areas System Operation Challenges and System Development (Internal/External).

UCTE and the system operation challenges

The development of regional electricity markets. The development of regional markets is a fact. Following the initial idea of creating the "IEM" from scratch, it appears that the regional markets - also within the UCTE perimeter - are likely to be the building blocks to be integrated with a view to achieving broader integration of the European market that will necessarily encompass non-EU countries. Meanwhile, this has been clearly recognized e.g. by the EC through launching the mini-forums, most of them within the UCTE area. However, the UCTE "integration objective" is different: it consists in establishing power system security standards as far as possible within each European system and as "independently" as possible of market models: this is the UCTE "security first" objective. This will also table the issue of the different levels of operational coordination that UCTE will need to address for itself - as the major European electricity system remaining always in the focus of the stakeholders' considerations. This development may finally require adapted or even additional security (sub)standards for better market facilitation to be engineered by the TSOs involved.

Operation Handbook (OH) and Compliance Monitoring and Enforcement Process (CMEP). The aim is to complete the OH as scheduled (8 Policies) and launch a CMEP for TSOs in order to monitor their compliance with the UCTE standards. UCTE security standards are to be extended to grid users within the UCTE area: the implicit/explicit different levels of implementation will need to be clearly specified. UCTE shall report at regular intervals about the compliance monitoring activities to be launched in 2006. Besides the function of CMEP for the TSO community itself (better knowledge about the real operational practices), this process is mainly intended to show to stakeholders the effectiveness of UCTE self-regulation as this has been announced at the Florence and Athens Forums over the last years.

Critical Infrastructure Protection (CIP). UCTE in close cooperation with ETSO is already actively contributing to the formulation of the EC program on critical infrastructure protection (CIP) and is participating in a related broader industrial consultation platform among all sectors (electricity, gas and oil). Clarifying the scope, roles and responsibilities in the protection programs is essential for further progress.

Energy Technology Platform

UCTE is part of the advisory board of the Energy Technology Platform launched by the European Commission in order to enhance the research and development activities relevant to the TSO business.

UCTE and the challenges of system development (internal / external)

From the UCTE perspective, there are no geographical limits to the development of the synchronously interconnected UCTE system, as long as such extensions are realized in a legal framework that is compatible with the Multilateral Agreement in which the UCTE standards are embedded. This shall ensure that system security is not jeopardized.

However, "technical" limits could arise if incidental wide-area oscillations became structural and/or and if it was not possible to reach an agreement about the costs for additional security devices/measures with parties requesting the extension.

A very large system could necessitate protective countermeasures to avoid large-scale cascading of severe incidents (black-outs, etc.). Finally, substantial system extensions could lead to an organizational problem, i.e. complex decision-making and coordination mechanisms, etc., with many sub-entities reflecting the different levels of coordination.

J. Penedos

MEMBER NEWS

UCTE AGENDA

UCTE STEERING COMMITTEES	*June 22, 2006 in France* *September 22, 2006 in Luxembourg* *November 23, 2006 in Spain*
ASSEMBLY	*May 4, 2006 in Austria*
Common WG meeting	*September 8, 2006 in The Netherlands*

Tennet

Constructing NorNed, the HVDC link between Norway and the Netherlands

Full-speed construction activities are currently going on between the TSOs TenneT and Statnett to build the HVDC link between the Netherlands and Norway. The marine cable, with a total length of 580 kilometres, will boost the Dutch import and export capacity by 700 MW. This month, the first kilometres of cable will touch the seabed and will be carefully trenched. On both shores, in Feda (Norway) and Eemshaven (Netherlands), preparations are on the way: see the artist illustration below of the converter station at the Eemshaven location.

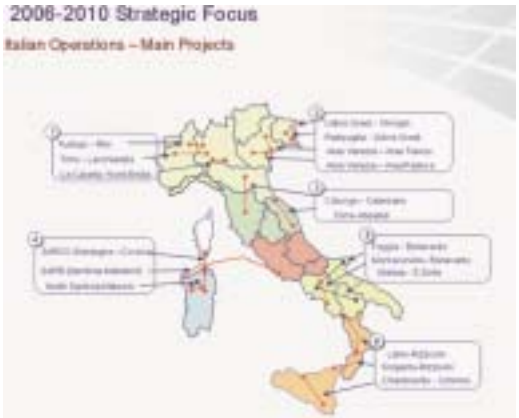
This project will involve an aggregate investment of over 600 million Euros. So by the end of 2007, the Scandinavian and Dutch power markets are to be linked using the power exchanges APX and Nord Pool Spot. This regulated interconnection is in line with EU policy of market coupling under implicit auctions. This cable will increase the reliability of supply in both countries and strengthen the market processes and liquidity of the Dutch market.
At the moment, the TenneT-subsidiary NLink also studies a first link between the Netherlands and the UK market. The financial close of this 260 km cable (600-1320 MW) with an investment of 300-400 million Euros is planned for the end of 2006.

TenneT converter station at Eemshaven location (NL), HVDC-link NorNed

Terna

Terna presented the strategic plan for the period 2006–2010: doubling of investments in the next five years

Terna presented the first strategic plan of the unified Company including the TSO activities, for the period 2006-2010 pointing out investments of more than 2 million Euro, greater efficency on costs, more safety and reliability of the national transmission grid and growing consideration of investment opportunities abroad (with a special focus on the Brazilian network). In Italy, Terna plans to invest a total of over 2 billion Euro (800 millions in the two years 2006-2007 and over 1200 milions in the following three years), doubling the amount already invested in 2001-2005. This increase of investments is mainly due to the development of the national transmission grid through the realisation of the transmission projects included into the Grid Development Plan 2006, set up by Terna on a yearly basis for the following 3 years and submitted for approval to the Ministry of Productive Activities.



In projects planned for construction during the year 2006 include:

- the Sardinia - Italian Peninsula interconnection (SAPEI), a HVDC submarine AC cable, considered as a project of priority strategic interest. At national level, in fact the project was assessed on the basis of the simplified authorisation procedure set up in the so called " legge Obiettivo Law ". At EU level, the project is recognised to be strategic as well, because it is included in the list of projects of common European interest in the field of the Transeuropean Energy Network Programme (TEN E).
- the Sorgente Rizziconi Power line, the 380 kV connection between Sicily and the Calabria region, listed as a common project of EU interest according to TEN E as well.
- the completion of Matera Santa Sofia Line.

The primary aims of these investments are to reduce internal congestions.

MEMBER NEWS

HTSO

Kefallinia Outage

Four islands in the Ionian Sea (from north to south: Corfu, Lefkas, Kefallinia & Zakinthos) are connected to the mainland. The last three are working in a close loop which connects them to Western Greece in the north and to Peloponnesus in the south.
During the night of 23-24 January 2006, heavy snowfall in combination with very strong winds caused the disconnection of the island of Kefallinia both from the north (Lefkas island) and the south (Zakinthos island).
To put it more precisely: at 21:57 on 23 January 2006 the northern line to Lefkas island tripped; later on, the second line to Zakinthos eventually tripped at 01:50 on 24 January 2006.
Due to the ice sleeve formed on the conductors which in some cases was of the order of 20 centimeters the wires sagged to a distance of 2 meters from the earth, inducing the collapse of 3 towers in the northern and 8 towers in the southern part. The efforts concentrated in the rehabilitation of the northern part, which was finally attained at 12:00 on 29 January 2006.
During the disconnection period of 5 ½ days, a small part of load (peak demand at that period 22 MW) was supplied by medium-voltage lines and mobile diesel engines.

REN

First Phase-Shifting Autotransformer connected to the Portuguese grid

On 24 February 2006, REN put the first phase-shifting autotransformer (PSAT) unit successfully into service in the Falagueira substation. This substation is located near the Portuguese central region of Tejo River, collecting power of the two existing hydro power plants. In the near future, a 150 kV double-circuit link coming from the interior north centre of Portugal will be connected to the substation. Besides, it is also part of one of the 400 kV interconnection links between Portugal and Spain called Cedillo (Spain) - Falagueira. The PSAT is a 400/150 kV unit with a rated power of 450 MVA and mainly consists of one three-phase auto-transformer with an excitation winding responsible for the phase shifting, connected in series to a three phase transformer at the 150 kV side. The decision to adopt the PSAT was taken after a series of studies developed by REN and also involving external entities such as the Instituto Superior Técnico (Lisbon Technical University) and the Italian Research Center - CESI.

The machine design and construction was carried out by the Portuguese manufacturer EFACEC. In order to facilitate and reduce transport restrictions, a constructive solution, consisting of three single phase units that are assembled on site as a three phase unit, was adopted.
The decision of intreduce a PSAT in the grid was based on the following benefits:

- It allows a forced power flow from the 150 kV to the 400 kV network, increasing transmission capacity in unfavourable operating conditions.
- It leads to a better balance and flow optimization between the existing 150 and 220 kV different corridors that denote a very high utilization rate, creating new capacity reception margins in the grid.
- It has a positive environmental and economic impact, as it reduces the need to build new 150 and 220 kV lines, and it enables new renewable energy sources to be connected.

Certification for Quality, Environment and Safety Management Systems

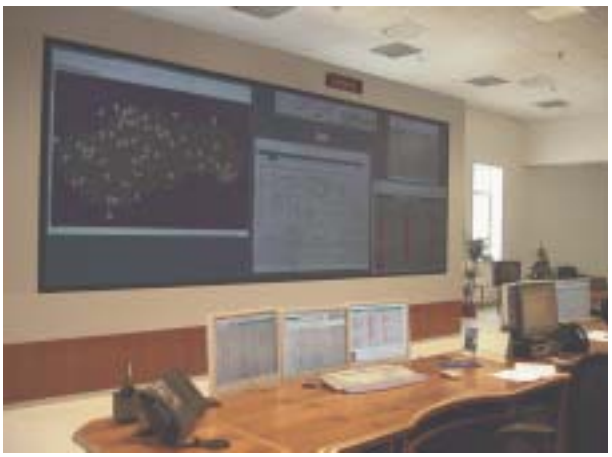
Following the first certification obtained in the year 2000, and all the work developed since then, REN, on the last days of the year 2005, was granted certification for its Quality, Environment and Safety Management Systems, extending to all activities covered by its concession agreement. This represents the achievement of an important milestone that has long been considered in REN's corporate management and strategies and that is essential to allow the company's continued growth according to sustainable development principles.

MEMBER NEWS

SEPS

New Slovak Dispatching Centre - Historical Milestone in Control of SEPS, a. s. Power Grid

Two years after laying of the foundation stone for the new seat of the Slovak dispatching centre the new control system technology was ready to be put into operation on the new premises in Zilina. After 1000 hours of testing period and parallel operation together with the old one the new control system was ready to fulfil all tasks and responsibilities resulting from both national and international obligations. More than 40 domestic and foreign companies contributed their efforts to the design and construction of the modern intelligent building in order to meet all relevant requirements to be satisfied by the control centre systems and to provide the staff with suitable comfort. Under the leadership of Siemens, the dispatching system was designed and implemented by a consortium of leading companies in the world with long-term experience in telecommunications, informatics and control business.



The SINAUT Spectrum dispatching system technology together with process data archive (PDA) and MES system (Manufacturing enterprise system) performs the following functions: SCADA system supporting substation remote control, AGC hierarchic system for control of generation plants, higher EMS functions including network system analyses to optimise operation parameters, cross-border balancing system and ancillary services evaluation. High level of redundancy, operational security, and modular software architecture and communication openness are the main advantages of the system. “Bearing in mind that the newest generation of advanced control technology is one of the prerequisites for secure and reliable operation of interconnected power systems the new Slovak dispatching centre is a real brain answering current electricity market challenging requests”, said Mr. Ladislav Szemet, chairman of the Board and CEO of SEPS, a. s. at the ceremonial opening of the new control centre on 1st March 2006 in Zilina. At this occasion, the Minister of Economy and the Mayor of Zilina as well as guests from neighbouring TSOs expressed their appreciations having the opportunity to get familiar with the system.

Antonio Serrani passed away

UCTE regrets to give notice of the decease of Antonio Serrani (TERNA/Italy). The UCTE Vice-President was victim of a traffic accident in Rome on 14 March 2006. Antonio died at the age of 64. The electricity sector and TSOs within the UCTE and ETSO have lost both an outstanding expert and personality and a dear friend whose entire career was closely linked to the development of the sector. UCTE and ETSO express their deepest sympathy to his family, his friends and colleagues.

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