

EDITORIAL

Major blackouts in Europe and North-America raise fundamental questions about the reliability of transmission systems

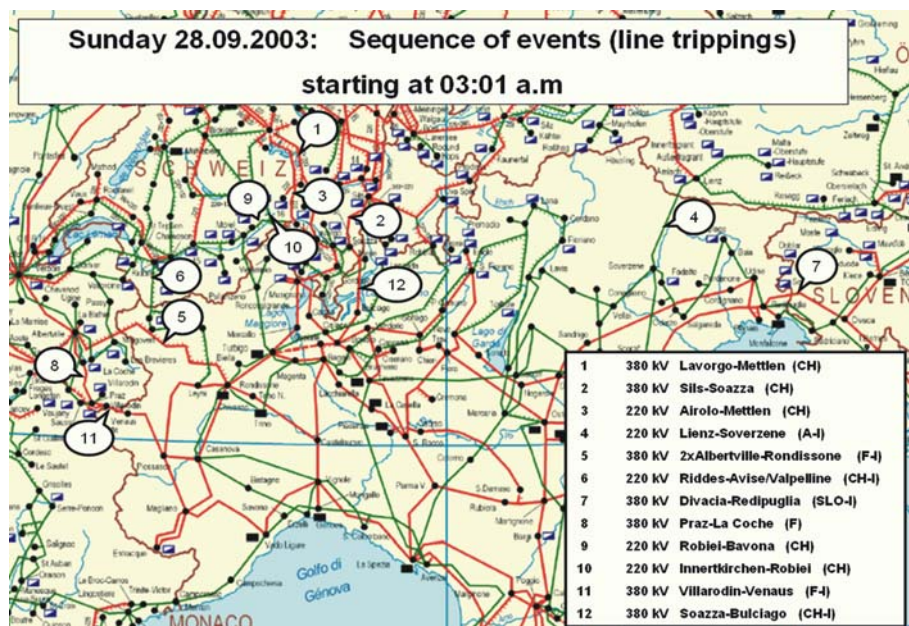
UCTE, the TSO association focusing on reliability issues of transmission grids on the European mainland, is committed to transparent information related to its tasks of ensuring reliable interconnected operations in mainland Europe and establishing common and binding reliability standards for the interconnected network. **What happened?**

USA:

According to the report of the US-Canada Power Outage Task Force investigating the black-out of August 14 between Ohio, Michigan, Ontario and New York, the sequence of events began with forced outages of three large generating units in Ohio and Michigan and continued with the outages of eight important 345 kV transmission lines in Ohio. At that point, further generating unit and line outages occurred in very quick succession, leading to dramatic reversals in loop flows and the well-reported cascading wide-spread black-out. Transmission congestion, loop flows and instability are also various aspects of European reliability to which UCTE has frequently drawn attention during recent years.

ITALY:

After several smaller failures of electricity systems (Italy, London, Sweden, Denmark), the most severe black-out in Europe occurred on 28 September in Italy. First reports show that the initial failure of an inner-Swiss line was due to a rather usual operational problem (a tree falling on the line). 20 minutes later, a second line in Switzerland tripped, and this second event caused the almost immediate tripping of all lines between Italy and the rest of Europe. According to UCTE rules, immediate actions were taken in all UCTE countries to reduce the rise in frequency on the European networks.



What lessons to be learnt?

In the aftermath of the Italian black-out, UCTE decided to set up an Investigation Committee charged to analyze the Italian black-out. This committee comprises all five directly affected Transmission System Operators (TSOs) in Italy, Switzerland, France, Austria and Slovenia, as well as UCTE experts from TSOs that were not involved in these events. A first interim report will be delivered on 20 October. Before this interim report is available, further comments on possible causes of this event would be premature. In a second investigation step, UCTE will review its relevant operational rules. In this context, particular emphasis will be laid on changes in operational schemes resulting from the liberalization of the European electricity market.

UCTE reports on system adequacy have repeatedly pointed to the especially tense situation in Italy with a structural dependency on bulk electricity imports. More generally, UCTE together with ETSO called already for a regulatory framework that should be based upon a sound design for economic signals in order to avoid catastrophic technical repercussions.

Furthermore, TSOs are increasingly facing administrative obstacles to build new 380 kV interconnection facilities. Authorization procedures tend to be longer and longer, leading to a risk in terms of transmission adequacy and security of supply. In this respect, easier procedures for the implementation of electric transmission infrastructures which are of prime importance would be most welcome. Especially projects labeled by the EU as being "of common interest" in the field of trans-European networks should swiftly be prioritized at national level.

Therefore, UCTE points out that there is an urgent need for:

- a Europe-wide harmonized regulatory framework providing, inter alia, adequate signals for investments in both generation and transmission infrastructures;
- removal of administrative barriers to the construction of transmission infrastructure;
- continued support by the EU and regulators concerning the transformation of UCTE rules into a set of enforceable common security and reliability standards to be observed by TSOs and network users.

MEMBER NEWS

UCTE AGENDA

UCTE STEERING COMMITTEES

September 25, 2003 in Portugal

November 27, 2003 in Greece

January 22, 2004 in FYROM

March 25, 2004 in Germany

May 12, 2004 in Hungary

June 24, 2004 in Poland

UCTE GENERAL ASSEMBLY

May 13, 2004 in Hungary

CONFERENCES

Electricity Market from Lisbon to Vladivostok?

Environmental, Market and Technical Prerequisites

November 13-14, 2003 in Brussels

ELIA



Daniel Dobbeni nominated for Chairman of the Management Committee of Elia

On 29 July 2003, the Board of Directors of Elia decided to appoint Daniel Dobbeni CEO and to nominate him for Chairman of the Management Committee of Elia. Yvan Hella is his predecessor in this function.

Daniel Dobbeni (born 1952) is a graduate engineer, specialized in nuclear physics. The creation of an independent system operator, Elia, led to his appointment as manager of the „Energy Movements“ department in 1999. This department is responsible for the management of system operation and grid access. Daniel Dobbeni set up various projects to facilitate the free market operation in Belgium. Some important realizations are amongst others: the creation of the hub, the introduction of the nomination system, the auctioning system on the Dutch-Belgian border and the common allocation system with RTE on the south border. Daniel Dobbeni is also active at the international level: he is involved in the creation of a single European electricity market. Last June, he was appointed Chairman of the Steering Committee of ETSO.

Daniel Dobbeni is the Board of Directors' choice to further develop Elia's role in a free market in the years to come.

VDN



New German TransmissionCode

The German GridCode 2000 needed updating in some important aspects, among others to the network access and usage conditions agreed in the latest version of the Associations' Agreement on network pricing. After the merger of the former association of German TSOs, DVG, with the network-related part of the utility association VDEW into the association of network operators, VDN in 2001, the opportunity was taken to jointly update the DVG's GridCode and the VDEW's DistributionCode. The result, recently published in www.vdn-berlin.de and available in English from Oct. 6 on, are the VDN's TransmissionCode 2003 and DistributionCode 2003. The Codes were elaborated in VDN project groups and discussed with the associations of all network user groups in a consultation process. This update will likely not be the last, however, since a new energy law is in preparation which will implement the new EU Directive, in particular define the tasks of the new German regulatory agency as well as principles for network pricing, unbundling etc.

In a Monitoring Report to Parliament, the responsible Ministry has recently evaluated the experience with the Association Agreements and recommended that the existing regulatory authority for telecommunications and mail also regulate electricity and gas issues starting July, 2004.

VERBUND APG



Austrian supply network narrowly escaped blackout

Breakdown of the Hungary-Croatia 380 kV line triggered chain reaction - Construction of the 380 kV ring in Austria absolutely essential

Due to the increased power flow caused by an outage of the Hungary-Croatia 380 kV line Heviz – Tumbri, a critical situation occurred in the supra-regional Austrian power grid on 27 August 2003. The heavy overload on the Austrian 220 kV line from the Ternitz substation to the Hessenberg substation was reduced through far-reaching measures immediately launched by VERBUND-Austrian Power Grid AG (APG). Thus, a potential widespread blackout in Austria was prevented.

On 27 August 2003 around 9:15 a.m., the Hungary-Croatia 380 kV line (Heviz-Tumbri) transporting about 750 MW tripped. Due to the meshed Europe-wide electricity network, the power flow increased substantially within the Austrian grid. The North-South lines, which date back to the 1960s, were heavily overloaded. The overload of the Ternitz-Hessenberg 220 kV line triggered the automatic disconnection device opening the defined breaking points on the connection to the Czech Republic. Through this measure, the loading of the North-South lines within Austria could be reduced to a reasonable value. Additional immediate switching actions and the supply of all power plants available within the network area of APG were required to keep up the main power supply and to avoid a voltage collapse. Critical situations due to overloading of 220 kV lines in the North South direction within Austria are increasing and would not occur if the urgently needed 380 kV ring was already completed. This shows again that the quick construction of the 380 kV ring in Austria is absolutely essential for the functioning of the European liberalized market and for the planned expansion of the UCTE network; furthermore, it is indispensable to the maintenance of the security of supply within Austria.

MEMBER NEWS

RTE



Gestionnaire
du Réseau de Transport d'Electricité

RTE confronted with the heat wave

The heat wave and drought which struck France and a large part of Europe during the month of August have had repercussions on the power system.

On the one hand, electricity consumption was 10% higher than in 2002, partly as a result of cooling processes (air conditioning, refrigeration, freezing, etc.). At the same time, the electricity output was lower due to the exceptional climatic conditions. The low flow rate of rivers and waterways reduced the generation of hydroelectricity and led to restricted operation of thermal power plants (coal, fuel-oil and nuclear).

After that, the notable drop in temperatures led to a decrease in the volume of consumption in France. Three other factors also contributed to the improvement of the situation.

- The dispensations granted by the public authorities to EDF permitting the company's power plants to release warmer water made it possible to maintain the electricity generation level.
- Calling upon the public-spiritedness of the French bore fruit. A reduction in electricity demand of 200 to 300 MW can be ascribed to the efforts made by the French people, and to the changes in their behaviour regarding electricity consumption. At the same time, major French industrial groups spontaneously accepted to reduce the volume of energy that was supposed to be supplied to them.
- The abatement of the heat wave throughout Europe led to the easing of the European electricity market and enabled the solidarity between the various European TSOs to become effective by making significant amounts of energy available, whenever necessary.

RTE therefore did not have to carry out load shedding, but nevertheless remained extremely vigilant so as to cope with any eventuality and avoid at all costs cascading events that may lead to widespread power failures, such as those which affected the eastern part of the United States.

PSE SA



Burshtyn Island included in the UCTE grid

At its latest meeting on 25 September 2003, the UCTE Steering Committee finally approved permanent synchronous operation of the Burshtyn Island with the interconnected UCTE power systems. Burshtyn Island has been incorporated into the Accounting and Control Block of CENTREL, coordinated by PSE SA. This decision ended the process of relevant preparatory activities carried out by the Ukrainian side with the assistance of UCTE specialists.

The so-called Burshtyn Power Plant Island is situated in the western part of Ukraine, and so far has formed the southern part of the Ukrainian Western Power System. The Island bordering on Slovakia, Hungary and Romania covers an area of about 27000 km², and has a population of nearly 3 million people.

The Burshtyn Island is separated from the main grid of Ukraine by physical disconnections (dismantling of the three phases of hardwired connections) at three substations: Zakhidnoukrainska, Stry and Burshtyn.

The one-year trial period started on 1st July 2002. The test in interconnected operation verified, among others, that the necessary amount of primary and secondary control power is available at all times, and that there is a faultless operation of the load and frequency control.

Taking into consideration the results of the one-year trial operation of the Burshtyn Island as well as the state of fulfilment of the requirements of the Catalogue of Measures, the Technical Committee UCTE/Ukraine confirmed that the candidate power system is able to operate synchronously with the UCTE network, which was the basis for the final decision taken by the UCTE Steering Committee.



MEMBER NEWS

SEPS, a.s.



Major challenges to the new SEPS, a. s., Board of Directors

Slovenská električká prenosová sústava, a. s. (SEPS, a. s.), the transmission system operator in the Slovak Republic, has changed its management, one and a half years after the company's establishment as an independent legal entity.

The Slovak National Property Fund, the sole shareholder of SEPS, a. s., has decided to make changes to the company's Board of Directors. On 4 July 2003, after having removed four Board members from office, the Slovak Vice-Prime Minister and Minister for Economic Affairs appointed Mr. Štefan Bugár new Chairman of the Board of Directors of SEPS, a. s.. Also three other new members were nominated to the new Board, only one member has remained at his position. The Minister appreciated the hitherto results achieved by the company which has experienced a dynamic development within a short time.

Major challenges to the new management of the company for the near future are to build up the new Slovak Dispatch Centre and realize a new dispatch control system, and to reconstruct the Krizovany substation (new 400/110kV transformation). The new Slovak legal framework relating to the new EC Directive 2003/54/EC and the Regulation No. 1228/2003 will also entail new obligations for the company, especially with regard to market operator activities aimed at avoiding congestion in both internal and cross-border infrastructure.



VERBUND APG



Position Paper of APG on "380 kV cables in the transmission grid"

The cable technology has made remarkable progress during the last years. Especially the development of XLPE-cables has improved the performance of underground cables. Despite this evolution, the use of 380 kV cables in the transmission grid has not led to a breakthrough world-wide.

Following observation of the international market and own investigations, APG has come to the conclusion that underground cables in 380 kV transmission grids have not yet reached a level that would make their installation sufficiently interesting at the moment.

The reason for that is their high price as compared to overhead lines (price factor approx. 8 when buried in trenches and factor 10 when laid in tunnels), their much shorter lifetime in comparison with overhead lines (cables 30-40 years, after which they must be removed and reinstalled, whereas overhead lines have a lifetime of up to 100 years) and their relatively high impact on the soil (due to their massive presence and warming up of the soil). The time required for the repair of underground cables is much longer than for overhead lines, resulting thus in a disadvantage for the operation of a cable line (the repair time for overhead lines totals some days, that for underground cables some weeks).

One point in favour of underground cables is their lower visibility as compared with overhead lines. However, measured against their disadvantages (longer time for construction, permanent occupation of land, and certain restrictions for agriculture, joints bays, etc.) the result of the overall analysis does not weigh in favour of cables.

APG continues to observe the development in the field of 380 kV cables with great interest.

For the time being, APG considers that 380 kV cables offer advantages in urban areas where overhead lines cannot be constructed, but not in rural areas.

Therefore, APG supports the development of a strong and reliable 380 kV overhead grid.

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