



WORKGROUP COMPLIANCE MONITORING

Compliance monitoring activities in UCTE have already three years. The objective of the Compliance Monitoring Process is to encourage TSOs' compliance with the UCTE Operation Handbook necessary to preserve the reliability of the UCTE synchronous area. In this way Compliance Monitoring contributes to a reliable electric supply in UCTE. For this purpose the UCTE Steering Committee set up in September 2004 the Ad hoc Working Group Compliance Monitoring and Enforcement Process. The main task of this group was to advise to the SC on how to further design the UCTE compliance monitoring program in terms of best balance between efficiency, reasonable workload and credibility of the process.

The first Programme was elaborated for the 2006 process (CMP-2006). The main principles of this first process were as follows:

- Standards and Requirements of Operation Handbook were converted into compliance questionnaires in order to give a common understanding of the OH rules.
- Checking of compliance was performed via reviews of member self-assessments and subsequent relevant information provided by the member TSOs.
- Inputs were entered and submitted electronically via the password protected UCTE extranet by the Control Area Managers.
- In case of non-compliance the affected TSO were obliged to submit a mitigation plan and (if requested by UCTE) subsequent progress reports.

CMP-2006 assumed mandatory assessment of first three Policies of the OH approved in July 2005:

- **Policy 1** – Load-Frequency Control and Performance
- **Policy 2** – Scheduling and Accounting
- **Policy 3** – Operational Security

Compliance/non-compliance was assessed according to the following classification:

- Guaranteed compliant (**GC**)
- Fully compliant (**FC**)
- Level 1 (Mainly compliant) (**L1**)
- Level 2 (Non-compliant) (**L2**)
- Level 3 (Severe non-compliant) (**L3**)

During the self-assessment process TSOs used comments to explain the chosen level of compliance and a reference list of relevant documents. Each TSO had opportunity to make suggestions to improve the OH as well as the compliance monitoring process itself by additional comments.

In 2007 AHG CMEP was transformed into Working Group Compliance Monitoring and Enforcement. Compliance Monitoring Programme 2007 had a little different principles resulted from first experiences and remarks obtained from UCTE members during trial process. Second Compliance Monitoring Program Mandatory assumed assessment of next four Policies of the OH approved in May 2006:

Policy 4 – Co-ordinated operational planning

Policy 5 – Emergency procedures

Policy 6 – Communication infrastructure

Policy 7 – Data exchange

Compliance /non-compliance classification was simplified as the former five levels caused difficulties at applying and assessments were done according to the following levels:

- fully compliant (**FC**)
- sufficiently compliant (**SC**)
- non-compliant (**NC**)
- not applicable (**N.A.**)

Compliance Monitoring Program 2008

The Compliance Monitoring Programs in 2006 and 2007 checked the compliance of TSOs with all UCTE Operation Handbook Policies existing at that time (Policies 1–7).


The Compliance Oversight Report 2008 contains the results achieved in 2008 within the scope of the regular self-assessment process in which the WG CME re-checked the compliance of the UCTE member TSOs with some especially important requirements and standards which are:

- Related to regional coordination and/or exchange of information between neighbouring TSOs and with UCTE (agreements, data exchange, etc.).
- Critical for the operation of the interconnected system (n-1, real time data exchange, etc.).

The WG CME identified the following 16 such rules.

This approach was approved by the UCTE SC. Similarly as in 2006 and 2007, the process was based on TSOs declarations (self-assessment) which were collected via Excel questionnaires and analyzed by the WG CME. It does not contain additional information collected during voluntary audits conducted at VE-T and TenneT.

The Compliance Monitoring Process 2008 was put in place after having introduced a few minor changes in the methodology which resulted from the Compliance Monitoring Processes 2006–2007, but developed new questions to help in-depth investigation going further than the rules themselves in order to check whether the general conclusions from CMP 2006–2007 are still valid.



Aside this Compliance Monitoring Program 2008 it is to be noticed that for the first time UCTE has launched voluntary audits for two voluntary TSOs (VE-T and Tennet) conducted by two teams composed of members of the WG CME. The goal was to check on site the relevance of answers to the CMP 2008, the audits having taken place in October. The results of audits were presented in Annexes to the main Compliance Oversight Report 2008.

In the CMP 2008 the WG CME continued to apply the same three compliance levels already used in 2007:

- Fully compliant **(FC)**
- Sufficiently compliant **(SC)**
- Non-compliant **(NC)**

Because of TSOs' concerns that compliance monitoring via self assessment requires a lot of workload, the Compliance Monitoring Process was designed streamlined and filling of the questionnaire was done through an Excel tool.

General results of Compliance Monitoring Program 2008

Detailed analysis of answers confirm main findings from 2006 and 2007 processes, that there is still a need and space for better coordination and cooperation between TSOs. The compliance monitoring process 2008 positively triggered the bilateral cooperation between neighbouring TSOs leading to an intensive exchange of information between neighbours and clar-

ification of their respective positions related to the monitored OH rules. This contributed to more self-criticisms in case of a lot of TSOs concerning the completeness or even nonexistence of internal or bilateral procedures and improved the quality of answers delivered in the questionnaires

The answers the TSOs delivered in the questionnaires within the scope of the self-assessment process 2008 are significantly better in comparison with those obtained during the last three years in which Compliance Monitoring was applied. The limited set of rules on the one hand and the more detailed questioning and cross-checking border by border on the other hand might be responsible for the more serious self-assessment.

The applied methodology of the self-assessment process proved it's functionality in 2008. Three compliance levels in conjunction with qualitative comments and the need to list the reference documents forced the TSOs to think conscientiously about their answers and delivered a sound set of information to the WG CME. This opened the possibility to closer inspect the TSO's actual situation concerning their compliance with the monitored Operation Handbook rules and to eliminate a large amount of the remaining discrepancies between them during the second part of the self-assessment process in the improvement loop which was performed in July/August.

The compliance monitoring of OH Standards and Requirements by the WG CME and the comments of TSOs gathered in the course of the self-assessment process represent a valuable feedback for the further improvement of the UCTE OH. Main conclusions from

compliance monitoring process concern the necessity of clearness, precise assignment of responsibilities and measurability of standards and requirements in OH.

The compliance monitoring in 2008 has proved that the process itself based on the self assessment has reached its maturity and further improvements do not rise compliance monitoring on a higher level. The workload for the WG CME increased heavily in comparison to the previous years. This might be obvious when reading the COR 2008 and considering that the WG performed two on-site audits (at Vattenfall Transmission and TenneT) in addition to the self-assessment process. Without an extraordinary dedication on behalf of many members of the WG this would have not been possible. This high level of commitment can't be kept in 2009 without a strong support of the UCTE (or ENTSO-E) Secretariat. Preparation of on-site audits, drafting of reports, analyzing self-assessment results, general assistance to the WG CME and coordination of its meetings justify the need for one full-time employee at UCTE (ENTSO-E) to support the Compliance Monitoring Process in the future.

During the Compliance Monitoring Process 2008 the following standards/requirements were identified as those most difficult to comply with:

P4-D-S2

Joint measures

P5-A-S2.3

Procedures for cross-border remedial actions

P5-A-S3.2

Common set of cross-border remedial actions available

P5-A-S4

Limiting the risk and propagation of the disturbance (common emergency procedures to be agreed)

P5-A-R1.1

Inter-TSO actions

P5-A-R1.3

Inter-TSO alarm on system states

P5-B-R2.1

Preparation of actions (common actions to be taken in case of system restoration)

The highest number of levels SC and NC refers mainly to rules related to bilateral agreements (especially to Policy 5 Emergency Operations).

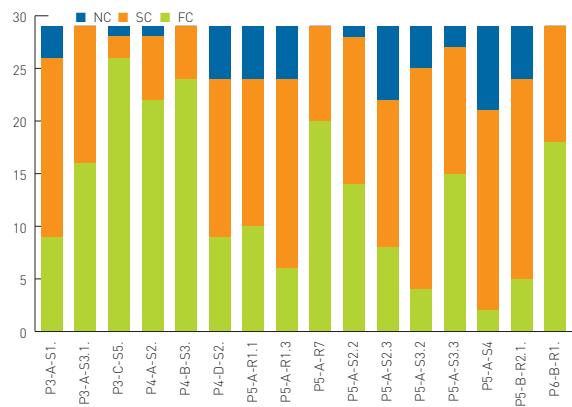


Figure 1. Compliance with monitored OH rules

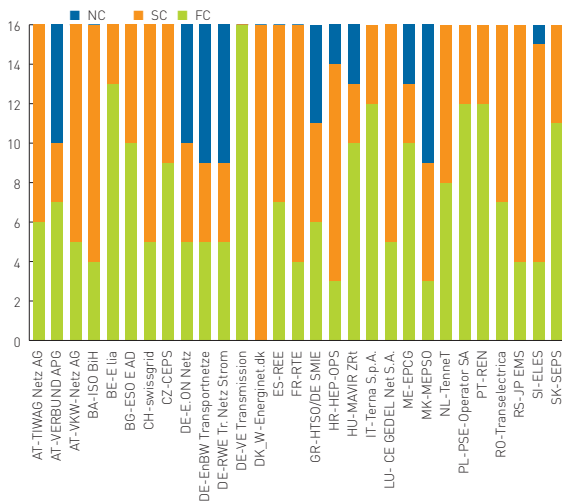
In 2008 in 52 cases TSOs increased their declared compliance level in comparison with 2006 and 2007. In 99 cases TSOs changed the compliance to a lower level in comparison with 2006 and 2007.



In opinion of the WG CME this is not necessarily the evidence of an overall compliance level decreasing, but rather an indication that the TSOs applied the self assessment process more thoroughly in 2008 and that the compliance awareness increased.

The overall compliance of the TSOs with the monitored standards and requirements can be assessed as satisfactory. VE Transmission declared itself fully compliant with all OH rules. On the other hand, several TSOs declared that they have about 50% of the monitored OH rules with which they are only sufficiently compliant or even non-compliant. In case of E.ON Netz, EnBW, APG and RWE the main reason is probably a strong self-criticism. In case of MEPSO the compliance is similar to that declared in 2007. Therefore, the lack of compliance of the latter is beyond any doubt.

There is a need for a harmonisation of the assessment. The lack of precise criteria results in a different assessment of the same situation by different TSOs.



Not all TSO answered the question on the workload, but the mean value for those who answered is about 25 hours (for 16 standards/requirements i.e. 105 minutes in average per standard/requirement) in comparison with 53 hours (for 129 standards/requirements) declared in 2007 (which means an average duration of around 25 min for each). The time spent by the TSO for answering some questions depended also on the number of the neighbours of the given TSO.

The above figures don't contain the additional workload (especially due to harmonization of answers with the neighbours) resulting from the review process between June 9 and August 20, 2008,.

Voluntary compliance audits

In 2008 UCTE for the first time performed the voluntary audits to the middle of October 2008. [VET: 13.10–14.10.2009, TenneT: 16.10 –17.10.2009]. Audit Teams were selected taking into account knowledge of languages and impartiality aspect. For instance there were no Audit Team members from audited TSO or from its neighbours. During audits the auditors reviewed the documents evidencing compliance with OH rules and put additional questions. They had a much better opportunity to clarify issues than within the scope of the self-assessment process.

Figure 2. Compliance with OH rules by TSOs

UCTE - History II

Gradual enlargement

In 1987, the original eight founding members were joined synchronously by Spain, Portugal, Greece and the former Yugoslavia. Subsequently regional groups such as UFIPTI consisting of France, Spain and Portugal or SUDEL made up of Austria, Italy, ex-Yugoslavia and Greece started to develop. These regional groupings formed a platform for discussing and handling operational problems of non-UCTE-wide interest.

In parallel to this evolution in Western, Central and Southern Europe the former COMECON countries Russia, Ukraine, Poland, former East Germany, former Czechoslovakia, Hungary, Romania and Bulgaria founded the IPS (Interconnected Power System)/CDO (Common Dispatching Organization) with headquarters in Prague.

Due to the different control philosophies of the two systems and the resulting frequency differences direct coupling of the two grids was not feasible. Thus possibilities for energy exchanges were limited and could only be performed on a small scale via radial operation. For increased exchanges, new technologies such as HVDC back-to-back links were required. The first DC link was commissioned in 1983 in Dürnrohr/Austria to be followed in 1993 by two more links in Wien Südost/Austria and Etzenricht/Germany.

In 1991 electricity companies in Poland, Slovakia, the Czech Republic and Hungary started their electrical separation from the former IPS / UPS system aiming at parallel operation with the UCTE grid. The foundation of CENTREL by these four countries on 12 October 1992 was the next step on their way to full integration which was achieved upon fulfilment of all technical conditions. These conditions had been defined by UCTE experts in a dedicated "Catalogue of Measures" and allowed finally (after some intermediate testing in the years 1993 and 1994 and synchronisation of the networks of VEAG [former GDR grid] and Bewag [Berlin]) for the synchronous operation on 18 October 1995. Following a year of trial parallel operation, the synchronous operation was declared permanent and the full membership of Poland, Slovakia, the Czech Republic and Hungary achieved in October 1997.

The first observations from 2008 audits indicate that Compliance Audits requires a good preparation of both the Audit Team and the representatives of the audited TSO. The audit itself absorbs a time, patience and full concentration of the participants

Audits in general confirmed self-assessments done by VE-T and TenneT. VE-T and Tennet demonstrated that they are well organized TSOs and that the representatives of VE-T and TenneT were well prepared. The audits took place in an open and friendly atmosphere. In the preparation phase the audit teams should have common understanding about the intention of the audited standards and should in advance set limits for what could be accepted as a level "sufficiently compliant" and where is the "limit" to "not compliant".

Onsite audits are the very good way to check the compliance of a TSO with the OH rules because:

- The audited TSO does a better and deeper self assessment.
- WG CME gets a better view on the transformation processes of OH rules into practices in the member TSOs.
- That can result in a better feedback to the WG O&S and the drafting teams and in a better process of developing OH.

The voluntary pilot audits conducted at VE-T and Tennet clearly demonstrated that the on-site checking of the TSO's compliance with the OH rules is one of the best methods for receiving clear and precise information on the audited TSO and to revise its list of evidences.

The Compliance Monitoring and Enforcement Working Group would like to thank Vattenfall Europe Transmission GmbH and TenneT TSO B.V., and their personnel who invested their time and many hours of work that led up to progress in UCTE compliance monitoring.

UCTE Workshop on Compliance Monitoring

The first European Workshop on Compliance monitoring was held on January 25, 2008 in Brussels. In the Workshop took part 46 participants including UCTE Control Area Managers, members of WG CME, representatives of WG OS, Nordel, ETSO, UKTSOA, European Commission, ERGEG/CEER, NERC. During the Workshop members of Working Group Compliance Monitoring and Enforcement gave presentations on results of compliance monitoring and on practical experiences gathered during compliance monitoring programs 2006 and 2007. Representatives of other TSOs associations (NORDEL, UKTSOA, NERC) presented experiences of compliance monitoring in their organisations.

Participants generally welcomed the UCTE Workshop as an open opportunity to present the key results of compliance monitoring programs 2006 and 2007, to exchange views based on the return of experience from UCTE Control Area Managers, to promote a common understanding on compliance process principles, and discuss the future of the compliance monitoring in Europe, which will substantially contribute to increase transparency of enforceability constraints impacting system operation.