

5th CEER Benchmarking Report on the Quality of Electricity Supply



Energy Regulators...

...working through the Council of European Energy Regulators (CEER), aim to create well-functioning and competitive EU energy markets so that consumers get fair prices, the widest choice of supplier and the best quality of supply possible.

Regulators believe that all users should be provided with electricity of adequate quality. As part of this pledge to ensure good quality CEER:

- Periodically benchmarks and documents the quality of electricity supply in terms of its levels and its regulation across Europe;
- Spreads best practice on quality of supply regulation including incentive/penalty regimes;
- Drives forward improvements in existing European quality of supply standards in order to achieve standards that are satisfactory from a regulatory point of view.

Target audience

The 5th CEER Benchmarking Report on the Quality of Electricity Supply (2011) provides extensive data from 26 European countries. In addition to National Regulatory Authorities (NRAs) from its member countries, CEER is pleased that NRAs from the Energy Community Regulatory Board (ECRB) have undertaken their first ever joint benchmarking report (included as an Annex to the present report). Furthermore, information on continuity of supply and voltage quality aspects in Switzerland has been incorporated directly into this report as case studies, with information provided by the Swiss NRA, EICOM.

The 5th Benchmarking Report is an important reference tool for managers and personnel from utilities, regulatory authorities, electricity manufacturers, customer organisations, policy makers, EU institution officials and others who need to understand the changes taking place in the electricity distribution and transmission business.



Structure of the 5th Benchmarking Report

This 5th Benchmarking Report, including the ECRB annex, addresses the three major aspects of quality of electricity supply:

- (1) The availability of electricity (continuity of supply);
- (2) Its technical properties (voltage quality); and
- (3) The speed and accuracy with which customer requests are handled (commercial quality).

This high-level Fact Sheet accompanies the comprehensive (260 pages) 5th Benchmarking Report, which points to remarkable improvements in continuity of supply across Europe and demonstrates how quality/incentive regulation is an important tool which aims to strike the right balance between cost efficiency and quality of supply. The full report includes a chapter for each of the topics above, as well as the dedicated annex on the situation in the Energy Community. Packed with data and figures, the report analyses progress since the last edition (4th Report) in 2008 and provides recommendations for further improvements in the regulation of the quality of electricity supply.

Please consult the full report on www.energy-regulators.eu for greater insight into these complex issues.

Continuity of supply

chapter 1

This chapter benchmarks the rules and indicators for measuring continuity of supply, analysing the continuity of supply data provided by 26 CEER countries. The chapter focuses on continuity standards and incentives which are (or are expected to be) adopted in CEER countries. The analysis of continuity of supply leads to a set of findings and corresponding recommendations for future action from the regulators.



Recommendations

- Expand the monitoring of continuity of supply
- Harmonise continuity of supply indicators and data collection procedures
- Investigate continuity of supply trends for a periodic review of regulation
- Assess disaggregated continuity data in order to identify priorities
- Promote cost-benefit analysis to improve the efficiency of expenditure on networks
- Implement an incentive scheme for maintaining or improving general continuity levels
- Implement compensation payments for network users affected by very long interruptions
- Exchange information on continuity of supply and its regulation

Monitoring schemes for continuity of supply are in place in 26 reporting countries, with all 26 monitoring unplanned interruptions and 24 monitoring planned interruptions. In addition, slightly more than half the countries (17 out of 26) consider incidents at all voltage levels in their continuity of supply statistics. The report confirms that European countries use different indicators and different weighting methods when evaluating interruptions. The data also shows a trend towards increasing stability in continuity of supply improvements: 9 countries with data going back at least 3 years show a decreasing duration of interruptions and another 6 (characterised by good or very good continuity levels), maintain consistently stable values. Also, continuity varies depending on the population density and the voltage level and can be affected by the network characteristics. Many regulators use reward or penalty schemes or incentives to optimise the continuity of supply levels, applying different formulations.

What you'll find in this chapter

- Definitions of the main continuity indicators, including SAIDI, SAIFI, ENS, AIT, etc.
- Comparative data on interruptions in different countries
- Examples of regulatory tools and incentives for continuity
- Case studies from France, Sweden and Switzerland



Voltage quality

chapter 2



This chapter describes standards and requirements for voltage quality and summarises the outcome of the cooperation process between CEER and CENELEC, which led to important improvements in the EN 50160 standard on voltage characteristics in Europe. The chapter also contains a comparison of voltage quality regulations and provides details on the monitoring schemes applied in CEER countries as well as data on actual voltage quality levels, where such data is available. The chapter is based on input from 25 CEER countries.

Recommendations

- Further improve EN 50160 as a harmonised instrument for voltage quality regulation
- Perform cost-estimation studies of voltage disturbances
- Ensure individual voltage quality verification
- Set reasonable emission limits for network users
- The scope of continuous voltage quality monitoring programmes should be broadened
- Exploit the possibilities offered by smart meters without excessive price increase for customers
- Define harmonised characteristics and indices for voltage dips
- Ensure availability and regular publication of voltage quality data

What you'll find in this chapter

- Update on EN 50160 standard and other regulations
- Report of cooperation between CEER and CENELEC and standardisation
- Examples of national monitoring schemes
- Data on actual voltage quality levels from different countries
- Case studies from France, Hungary, Italy, Norway, Slovenia, Sweden and Switzerland



The CEER report reveals that the EN 50160 standard for voltage quality is used in many countries, although a growing number of countries are setting national requirements on voltage quality that deviate from, and are stricter than, EN 50160. Verification of actual voltage quality levels at individual connection points is guaranteed in most countries; however, the regulation of emission levels of network users varies across countries. Meanwhile, although continuous voltage quality monitoring systems were reported by more than half of the countries (14), the report finds that there are differences between countries in the choice of monitored voltage quality parameters and in the reported voltage dip data. Interestingly, the implementation of smart meters is increasing national attention to the evaluation of voltage quality and its deviations, with 10 countries reporting developments in this field. The report also found that voltage quality data is publicly available in some European countries.

Commercial quality

chapter 5



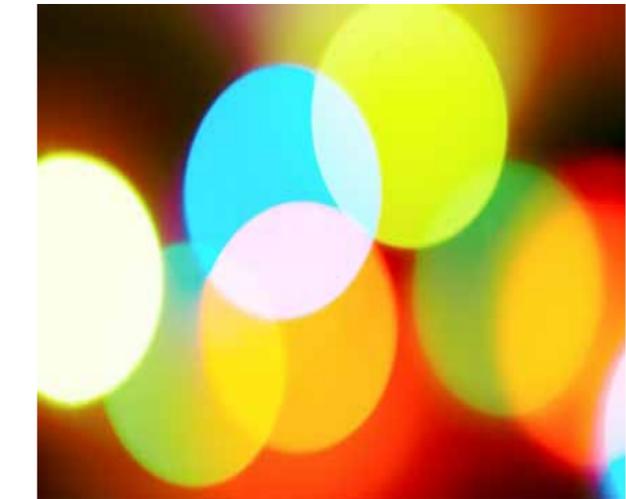
The 5th Benchmarking Report focuses more on commercial performance of the DSOs and less on commercial performance in the competitive supply sector. It discusses the main aspects of commercial quality and categorises standards into four groups, providing the list of standards surveyed and the approaches used to regulate commercial quality. The information is based on input from 18 CEER countries.

Recommendations

- Periodically review the national regulations of commercial quality
- Enforce Guaranteed Standards (GSs) in order to protect customers better
- Properly prioritise the national regulations of commercial quality
- Maximise the benefits of high tech developments for customers
- Develop the regulation of customer relations

What you'll find in this chapter

- Overview of commercial quality groups (connection, customer care, technical service, metering and billing)
- Definitions of the types of requirements/standards (GSs, OSs, OARs, OMs)
- Detailed list and breakdown of Commercial Quality standards applied in different countries
- Comparative list of financial compensation linked to customer services



CEER's data analysis confirms that commercial quality standards are widely used in European countries with reports of 208 national commercial quality standards attached to 15 performances requested by customers. More specifically, there is a general trend over time to move from Overall Standards (OSs) to Guaranteed Standards (GSs). The report also shows that priority is given to standards on connecting new customers to the network, minimising the amount of time that existing customers are interrupted and also on minimising the inconvenience of interruptions. As regards the timeliness of customer queries, the data reveals that current standards focus on written forms of communication, but non-written forms of communication like telephone (fixed and cell-phone) and internet are growing, while in some countries the more traditional approach of visiting local customer centres continues. Against this backdrop, new high tech developments, which provide proven opportunities for improving quality for customers, are changing the way some commercial services are done.

Annex analysing status quo in the Energy Community contracting parties



A dedicated annex of the 5th Benchmarking Report provides an overview of the existing quality service regulation frameworks applied in the Energy Community's nine Contracting Parties (CP). A special focus is put on general experiences, experience with implementation processes and possible future improvements of the systems in place. Most of the observed jurisdictions are only in the very early stages of developing service quality regulation. Review and analysis of collected data on continuity of supply show differences in timing, scope and development of continuity of supply monitoring, voltage quality data collection and analysis and regulation of commercial quality. With separate sections on the three major types of quality – continuity, voltage and commercial – the Energy Community has analysed the data from nine CPs and comes to a series of findings and recommendations for each type, respectively.

Extract of recommendations on continuity of supply

- Efficient rules for automatic logging of interruptions have to be introduced
- Monitoring of all basic interruption types should be introduced, based on harmonised definitions
- Interruptions should also be monitored of LV Level
- Proper use and transparency of concepts of “exceptional events”
- The number of continuity indices used should be extended and the data should be published regularly
- All Contracting Parties should carry out audits of continuity data
- Gradual implementation of incentive mechanisms



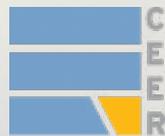
Extract of recommendations on voltage quality

- Although EN 50160 is implemented in most Contracting Parties, mainly as a voluntary standard but also by legislation and regulation, application of EN 50160 and IEC 61000-x-x in the CP should be ensured through standardisation, legislation and regulation
- Voltage quality monitoring systems should be implemented
- Introduction and development of individual voltage quality verification provisions

Extract of recommendations on commercial quality

- Existing standards that apply to all customers should be more specific and should be based on specific and precise definitions
- Commercial quality standards should be created having in mind different entities (DSOs, suppliers, USPs, etc.) and different market models

You can find the full report at: bit.ly/5brCEER



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