

Energy regulators' pledge to ensuring good quality of electricity supply



A FactSheet on the CEER's 4th Benchmarking Report on Quality of Electricity Supply and its pledge to ensuring good quality of supply in Europe

Regulators quality pledge

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

The regulators believe that all users should be provided with *electricity of adequate quality*. As part of its pledge to ensure good quality, the 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.

The regulators believe that the quality of electricity supply should not be compromised in liberalised energy markets.

Target Audience

The Council of European Energy Regulators (CEER) 4th Benchmarking Report on the Quality of Electricity Supply (2008):

- provides *extensive data* from 27 European countries.
- *contributes to a better understanding of the quality of electricity supply levels and policies in Europe*, including the applications (current and foreseen) of smart metering in quality of supply regulation.
- *is an important reference tool* for managers and personnel from utilities, regulatory authorities, electricity manufacturers, customer organisations, standardisation organisations, policy makers, EU Institution officials and others who need to understand the changes taking place in the electricity distribution and transmission business.

3rd Package and Quality of Supply Regulation

In order to *ensure that quality is not compromised* at the expense of company cost reduction measures, an increasing number of regulators include quality factors in their regulatory framework. The objective is to *incentivise (or penalise) distribution companies to fulfil (or failure to fulfil) their responsibility of providing consumers with an adequate supply of electricity*.

The 3rd Energy Liberalisation Package of legislation, once implemented, will ensure that *all regulators will have a role in monitoring compliance with and reviewing past performance of network security and reliability rules as well as setting or approving standards and requirements for quality of service and supply*. This is likely to result in minimum requirements and quality incentives for electricity companies being standard regulatory tools across Europe in the future.



Structure of the 4th Benchmarking Report

The 4th Benchmarking Report covers 3 types of electricity quality:

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

This high-level FactSheet to the comprehensive (200+ page) 4th Benchmarking Report points to remarkable improvements in continuity of supply across Europe and demonstrates how quality/incentive regulation is an important tool *which aim to strike the right balance between cost efficiency and quality of supply*.

Please consult the full report (4th Benchmarking Report on Quality of Electricity Supply) on www.energy-regulators.eu for greater insight into these complex issues.

The Continuity Chapter benchmarks the number and frequency of supply interruptions

Facts and Figures



Chapter 2 details the *durations and frequency of planned and unplanned interruptions* across 21 countries, compares *urban versus rural* interruptions in 6 countries and documents the type of continuity of supply *monitoring and on-site audits* carried out in each country.

CEER's 2008 benchmarking exercise found:

- All *21 countries monitor unplanned interruptions of long duration* (i.e. 3 minutes or more), and about *half also monitor shorter interruptions*. Several have estimated customers' costs related to short and long interruptions.
- *Continuity of electricity supply in Europe is improving*, with customer minutes lost per year decreasing almost continuously since 2002, and the number of unplanned interruptions (excluding exceptional events) stabilising.
- Countries use different indicators to measure the length of interruptions (e.g. customer minutes lost per year) and frequency (i.e. number) of electricity supply interruptions per year. This makes it *difficult to directly compare the continuity of supply across different countries*.
- *Continuity of supply is better in urban than in suburban and rural areas*.

CEER's message

- The fewer the number of electricity supply interruptions and the shorter they are, the better for Europe's consumers and businesses.
- *Regulators' incentive-penalty regimes for quality are necessary* tools in improving the continuity of electricity supply¹ and a well-functioning electricity market.
- Most countries collect some *information on the cause of interruptions*. This information is important for the regulators and is essential to enable system operators to improve the continuity of supply.
- While the mean value is generally satisfactory, *there is a need to improve the quality of the "worst-served" customers*.

What we do to improve continuity of supply and why?

- Through its Quality Benchmarking Reports and workshops for regulators, *CEER exchanges best practices on quality incentive regimes* and *increases the penetration of quality factors when regulating the distribution companies*.
- The energy regulators are working with the European Committee for Electrotechnical Standardization (CENELEC) to *develop harmonised continuity indicators*, so as to improve the effectiveness of continuity of supply monitoring schemes.
- Regulators *seek to guarantee that each user can be provided with at least a minimum level of quality* and also promote quality improvements generally.

Results

- In sharing best practice experiences on quality of supply *many countries now have regulation and incentives for improving continuity of supply*.
- The *3rd Package vests powers on regulators* to set standards and requirements for quality of supply (which includes continuity quality) and to monitor compliance with them.

¹ Some countries have Guaranteed Standards whereby the customer is financially compensated by the network operator for unplanned power cuts. In most countries with quality/penalty regimes, it is not a compensation paid out but rather the regulator reduces the allowed revenue of the Distribution System Operator (DSO).

The Voltage Chapter benchmarks regulations in force, monitoring systems and existing levels

Facts and Figures



Chapter 3 provides, inter alia, a comprehensive overview of Europe's existing *voltage quality regulations* and experiences with voltage disturbance *monitoring systems*. 6 countries present *data on voltage dips* and some other disturbances and 3 countries present *estimates of customer costs due to poor voltage quality*.

CEER's 2008 benchmarking exercise found:

- 16 countries reported voltage quality verifications for individual customers.
- 11 European countries have voltage quality monitoring systems in place. However, these suffer from a lack of harmonisation across countries.
- Several countries have introduced requirements different to the CENELEC standard (EN 50160), mainly due to dissatisfaction with the standard.

CEER's message

- *Voltage dips and other voltage disturbances can cause severe problems* for customers and can carry *heavy costs for businesses*².
- Europe's energy *regulators are not satisfied with the European norm on voltage quality (EN 50160)*³, advocating that certain improvements need to be made.
- *Voltage quality should be continuously monitored*. System operators should be obliged to provide verification of voltage quality to individual customers upon their requests.

What we did and why?

- *CEER cooperates with the EU body representing the electricity industry (EURELECTRIC)* in an effort to raise their voices on the need for improved harmonisation of voltage quality monitoring systems, to highlight the effects of voltage quality disturbances; and to find solutions to deploy them.
- Following the *regulators' 2007 public consultation on voltage quality, the regulators proposed a series of needed improvements to European standard (EN 50160)* and recommended to CENELEC to better involve consumer organisations in the process. In January 2009, *CEER signed a memorandum of understanding with CENELEC* to enhance our ongoing cooperation.
- *CEER also seeks to increase customer awareness*, encouraging them to complain to the distribution company if they suffer from poor voltage quality.

Results

- In 2009, CEER and EURELECTRIC organised a joint roundtable on Continuity of Supply and Voltage Quality at the CIRED 2009 Conference (11 June, Prague) and a workshop on Voltage Quality Monitoring (18 Nov., Brussels).
- The *3rd Package vests powers on regulators to set standards and requirements for quality of supply (which includes voltage) and to monitor compliance*.

² When the voltage (the usefulness) is very poor; several problems may arise in the use of electrical appliances and electrical processes; e.g. malfunction, breakdown, trip, damage, reduced efficiency, flickering lights, a stop in production and even fire. The biggest problem for residential customers is the slow supply voltage variations.

³ CENELEC Standard EN 50160 requires 10-min. mean values of supply voltage variations to be within +/- 10% of the nominal voltage (normally 230 V for domestic customers) for 95 % of the week. For 5 % of the week, the standard requires the same values only to be within +10/-15%. Even if DSOs meet this standard, many customers still suffer. This is due to both the 5 % interval being too long (i.e. 5% of the time amounts to 720 minutes or one full working day) and due to the fact that a 10-min. value will hide severe deviations. CEER position is that supply voltage variations should be within +/- 10% for 100% of the time, and in addition to reduce the 10-min. period or introduce limits for faster phenomena.

The Commercial Chapter benchmarks existing standards and levels in force

Facts and Figures



Chapter 4 of the report details the number and type of “commercial quality” (i.e. *customer service*) standards that distribution companies are required to meet and, in the case of Guaranteed Standards (GSs), the amount of compensation to be paid to consumers if they do not meet the requirement.

The report shows:

- *Commercial quality standards exist in several countries* for connection; customer care; technical service; and metering and billing.
- Three types of commercial standards exist.
“Guaranteed Standards” (GS) whereby the distribution company has to pay compensation to the customer if it does not meet the customer service standards set by the regulator. Sometimes the customer needs to make a claim, whereas other times the payment is automatic.
“Overall Standards” (OS) refer to a given set (e.g. percentage) of cases - for instance, all customer requests in a given region for a given transaction – that must be met with respect to the whole population in that set.
“Other Available Requirements” (OAR) in order to achieve a certain quality level. If not met, the regulator can issue a sanction (e.g. a financial penalty).
- *The use of the three types of standards, the amounts of compensation to be paid and sanctions to be issued differ across countries.* For example, in Hungary a household customer can claim ?20 if their distribution company does not keep its appointment within 4 hours of the agreed time, whereas in Italy it is ?30 within 3 hours.

CEER's messages

- *Money-back “Guaranteed Standards” or setting minimum requirements (OAR) where the regulator can impose a sanction are the best tools* for ensuring proper commercial quality.
- *Customer awareness* of their entitlements is of key importance to delivering good customer service.

What we did and why?

- As a first step the *CEER has benchmarked the commercial quality (i.e. customer service) across Europe.*
- The next step is *increasing consumer's awareness* (e.g. through national based factsheets, workshops and working with consumer associations) of their entitlements if suppliers of Distribution System Operators (DSOs) do not provide an adequate customer service.

Results

- The 3rd Package includes new consumer rights, vests powers on regulators to ensure consumer rights provisions are enforced, allows regulators to *set standards and requirements for quality of supply (which includes commercial quality) and to monitor compliance with them.*



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