

## Reliable Disclosure Systems for Europe – RE-DISS Project

### Proposal for electricity disclosure guidelines for Member States

Version 4, December 2012

## 1 Background

In 2004, the Commission has published a note “Labelling provision in Directive 2003/54/EC”, which provides recommendations to Member States how the rules on electricity disclosure could be implemented, which were contained in Directive 2003/54/EC. This note comprises the following elements:

- A number of general regulations on disclosure
- Recommendations regarding the tracking of generation attributes (e.g. the use of statistical averages and estimates as well as double counting, e.g. of RES-E, should be avoided)
- Recommendations regarding the information to be disclosed by electricity retailers
- Proposals for the harmonisation of disclosure labels and the location of disclosure information
- Recommendations regarding the timing of disclosure

Since the publication of this note, a number of changes have taken place, which have significant impact on how electricity disclosure should be implemented by Member States. This includes:

- Directive 2003/54/EC has been replaced by Directive 2009/72/EC
- During the implementation of Directive 2009/28/EC, Member States have developed more comprehensive systems of Guarantees of Origin, which are closely linked to disclosure
- The volume of the European-wide market for Green Power has grown considerably (through the European Energy Certificate System (EECS), some 180 TWh of Guarantees of Origin have been transferred across country borders in 2011, representing some 30% of the total RES-E production in Europe. The main actors in this market include many EU Member States plus Norway and Switzerland.
- Through the work done as part of the IEE projects “E-TRACK” and “RE-DISS”, it became clear that the calculations of figures for electricity disclosure in the Member States must be closely coordinated in order to avoid double counting of RES-E and a related loss of information on power generation from fossil and nuclear energy sources, leading to incorrect information provided to consumers.

This document proposes contents for potential new guidelines to Member States which could be applied in order to foster the further coordination of electricity disclosure between the Member States, and between these and other European countries.

## 2 Relevant text of Directive 2009/72/EC

### Article 3 (9)

Member States shall ensure that electricity suppliers specify in or with the bills and in promotional materials made available to final customers:

- (a) the contribution of each energy source to the overall fuel mix of the supplier over the preceding year in a comprehensible and, at a national level, clearly comparable manner;
- (b) at least the reference to existing reference sources, such as web pages, where information on the environmental impact, in terms of at least CO<sub>2</sub> emissions and the radioactive waste resulting from the electricity produced by the overall fuel mix of the supplier over the preceding year is publicly available;
- (c) information concerning their rights as regards the means of dispute settlement available to them in the event of a dispute.

As regards points (a) and (b) of the first subparagraph with respect to electricity obtained via an electricity exchange or imported from an undertaking situated outside the Community, aggregate figures provided by the exchange or the undertaking in question over the preceding year may be used.

The regulatory authority or another competent national authority shall take the necessary steps to ensure that the information provided by suppliers to their customers pursuant to this Article is reliable and is provided, at a national level, in a clearly comparable manner.

### Recital 45

Member States should ensure that household customers and, where Member States deem it appropriate, small enterprises, enjoy the right to be supplied with electricity of a specified quality at clearly comparable, transparent and reasonable prices.

## 3 Changes compared to Directive 2003/54/EC

Compared to Directive 2003/54/EC, the 2009 Directive contains two explicit changes:

- Disclosure information must be provided in a comprehensible and, at a national level, clearly comparable manner.
- The regulatory authority or another competent national authority shall supervise the reliability and comparability of disclosure information.

These new requirements are addressed in the proposal for new guidelines in the next section.

## 4 Proposed text of new guidelines

The following sections are based on the current text of the guidelines. This text is extended where necessary in order to comply with the changes in the text of the Directive or with the market developments and the methodological framework for tracking of electricity.

For the background of the individual elements in this section, see the E-TRACK and RE-DISS reports.

## 4.1 Introduction

The opening of the electricity market in the European Union for retail competition has given the consumers a choice of supplier. This choice can be based on price, on quality and reliability of service, but can also relate to the generation characteristics of the electricity supplied.

The Electricity Directive, therefore, contains the obligation on suppliers to specify the fuel mix and its related environmental impact of the electricity they sell to final consumers.

The objectives of this specification are fourfold:

- increase market transparency by providing open and easy access to relevant information,
- comply with the consumers right to information regarding purchased products,
- enable consumers to make informed choices about suppliers and their electricity products based on the generation characteristics of the electricity they supply,
- educate consumers and stimulate electricity generation that contributes to a secure and sustainable electricity system.

Article 3 (9) of Directive 2009/72/EC establishes four main obligations for Member States

- I. Ensuring that suppliers provide fuel mix information on or with the bill and environmental information on the fuel mix at least in the form of information on reference sources, such as web-pages.
- II. Ensuring that the information provided by suppliers is presented in a comprehensible and, at a national level, clearly comparable manner.
- III. Ensuring that the information provided by suppliers is reliable.
- IV. Nominating the regulatory authority or another competent national authority to supervise the reliability and comparability of this information.

The provision to specify the fuel mix and its related environmental impact obliges Member States to achieve a certain result and leaves to them the choice of form and methods. While a wide variety of options to implement this provision are open to Member States, it may be desirable to take into account the following suggestions, which are designed to help achieve the objective of transparency for consumers, to reflect the increasing cross-border trade of electricity and of Guarantees of Origin and to make comparisons between various suppliers possible.

## 4.2 General regulations on disclosure

### Reference period and frequency

The disclosed information (fuel mix and its related environmental impact) should relate to the preceding calendar year.

The frequency at which the information is sent out is decided at the Member State level, but should at least be once a year. However, Member States may require the information to be sent out more regularly than once a year if the billing process allows, in order to raise awareness among consumers.

## **Portfolio and product**

The information on fuel mix and environmental impact must be provided on the supplier's portfolio as a minimum.

The portfolio refers to all the electricity sold to final consumers in a given country, both domestic and non-domestic, by the supply company that is named on the bill. Thus it comprises all electricity products of that company, regardless whether these are differentiated in terms of energy mix or not.

Member States should require suppliers to provide product information in addition to their portfolio disclosure, at least in the case that the supplier differentiates products with regard to disclosure-related information. In this case, the supplier should be required to give product and portfolio information to all customers, including those which are consuming a product without specific claims (e.g. a "default" product). This is crucial in order to avoid double counting inside a suppliers' disclosure portfolio through the perception of the information by consumers.

## **Energy source information**

In order to support the comparability of disclosure information, each Member State should develop a standard list of energy sources reflecting the order of importance within the country (from highest to lowest in terms of what is sold nationally) to be used by all suppliers in or with the bills and in promotional material. Member States should consider limiting the list of energy source categories to not more than 10 (including any detailed listing of renewable sources). A category for "other energy sources" should be included at the end of the list. In order to support the exchange of disclosure information across country borders, Member States should agree on a joint minimum list of energy sources to be used in the internal calculations.

Suppliers should display their fuel mix portfolio in line with the standard national list, even if they have to show some sources at 0% (to ensure a uniform display within a country and comparability between suppliers).

Definitions of renewables should be based on those given in the Renewables Directive 2009/28/EC to ensure consistency across Europe.

Member States should promote the addition of the shares of electricity from high-efficient cogeneration and from bioliquids which fulfil the sustainability criteria of Directive 2009/28/EC to the disclosure data used by suppliers.

## **Fuel mix display**

The choice of display format for fuel mix information is ultimately left to Member States. In order to make comparisons between suppliers easily possible, Member States should develop a harmonised display format at least on a Member State level. Member States are encouraged to cooperate in defining harmonised display formats across country borders.

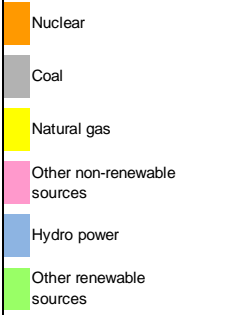
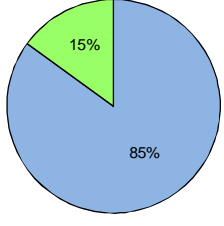
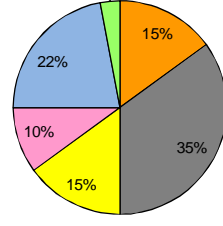
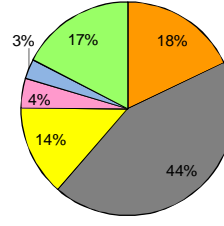
Averages for the national generation mix in the same reference period and the related environmental indicators should be included in the disclosure display for comparison purposes.

It is recommended that one or several pie charts are used to illustrate the supplier's portfolio, product-specific information and national generation averages. An additional table can provide more detailed figures for the shares of the energy sources, e.g. a higher disaggregation of renewable energy sources than displayed in the pie charts, and the environmental indicators.

Numbers in the table should be provided with between two and three valid digits.

Recommended fuel mix display format:

The following format is an example which should be sent to customers of the supplier "Sample Supplier", which are using a renewable energy product with the name "Green". Other consumers of the same supplier should receive a different set of information, highlighting their product mix.

	Product "Green"	All deliveries of "Sample Supplier"	National generation mix
			
Nuclear	0,0%	15,0%	17,9%
Coal	0,0%	35,0%	43,5%
Natural gas	0,0%	15,0%	13,7%
Other non-renewable sources	0,0%	10,0%	4,5%
Hydro power	85,0%	22,0%	3,0%
Other renewable sources	15,0%	3,0%	17,4%
of which wind	5,0%	1,0%	8,1%
of which biomass	10,0%	2,0%	5,0%
of which photovoltaic	0,0%	0,0%	3,2%
High-efficient cogeneration of electricity and heat	5,0%	7,0%	8,5%
CO <sub>2</sub> emissions [g/kWh]	0	486	529
Radioactive waste [µg/kWh]	0	450	537

**Location of fuel mix information**

Member States need to ensure that suppliers display the fuel mix information on the electricity bill sent to consumers, or on a separate insert which is sent out with the bill.

If an insert is chosen, there should be a clear link on the bill to the insert provided with the bill.

Furthermore, the fuel mix information must become part of any promotional materials made available to final customers, e.g. printed brochures, leaflets and websites. On websites, the fuel mix information must be easy to find and clearly marked, so that consumers are encouraged to view this information.

**Environmental indicators**

In addition to the information on the breakdown of energy sources used to generate the electricity supplied, the Directive requires that the consumers are informed on the environmental consequences, in terms of pollution, of the electricity they use. The Directive requires that suppliers provide information at least on the amount of CO<sub>2</sub> and the radioactive waste that is generated by the electricity they use. Member States may require suppliers to inform consumers about additional environmental indicators.

Member States can choose to oblige suppliers to refer to a website where this information can be found, or can oblige suppliers to include the information directly on the bill or on a separate insert with the bill and in promotional material. It is recommended to place the environmental information directly on the bill, because providing only an Internet link can create a hurdle for the consumer to access this information. In the case that a Member State allows suppliers to publish the environmental impact information only on website, a prominent link to this website should be placed on the bill or on the separate insert and also on the promotional material.

In any event, the information on environmental impact provided should at least relate to the portfolio of the supplier. If the supplier has chosen to provide fuel mix information for individual products offered, then it should be obliged to also specify product-specific environmental indicators.

Member States should ensure that the environmental information is easily comprehensible for consumers and can be compared at least on a national level. Member States should thus specify a harmonised display format to be used by all suppliers, which should at least include a table and might be supplemented by a graph, or a bar chart.

The figures on environmental indicators should relate to the same reference period as the fuel mix information. They may be determined based on factors for each energy type, which should be reasonably accurate.

Current plant-specific factors should be used for CO<sub>2</sub> emissions where possible. Alternatively, national average “residual” factors may be used for the calculation, which should represent those emissions not accounted for by plant-specific calculations. The ultimate goal should be to switch to the consistent use of life-cycle data, which includes direct emissions at the plant site and the emissions of upstream processes. In order to reach this goal, Member States should develop such life cycle data for all energy sources.

The calculation of information on radioactive waste should be based on national average factors, which relate to the high-level radioactive waste produced in the process of generating electricity, including the management or reprocessing of spent nuclear fuel.

In order to ensure the accuracy and comparability of disclosure information, the average factors for CO<sub>2</sub> and for radioactive waste should be defined consistently at least on a member state level, e.g. by a competent body. The methodology how the factors are derived should be coordinated between the member states. The average factors may be based on best available data from previous years.

CO<sub>2</sub> figures should be expressed in grams/kWh and radioactive waste should be expressed as micrograms/kWh. This reduces insignificant digits in the figures displayed. Overall averages for the national generation mix in the same reference period should be included in the table for comparison purposes. The environmental indicators should be provided with between two and three valid digits.

#### **Information at Member State level**

It is recommended that an independent body such as the regulatory authority or a national consumer association provides information on all electricity products available to consumers within a certain region, e.g. through a website. This information should contain the fuel mix information and environmental indicators of the products offered, plus the overall information on the supplier portfolios.

#### **Promotional materials**

Promotional materials are materials handed out or sent directly to consumers, but do not include newspaper, magazine, billboard and television advertisements.

Disclosed information displayed on promotional materials should use the same content and format as the information displayed on or with the bill, with suppliers having the option to add further information if they wish.

## 4.3 Tracking of information

### Definition of tracking rules

Member States should define a clear and binding set of rules for the tracking of the generation attributes (fuel mix and environmental indicators). By defining these rules, Member States should take all necessary steps to minimise the risk of double counting of attributes and the corresponding loss of information on other attributes.

The tracking rules should be based on a system of Guarantees of Origin which is complemented by a Residual Mix. Other tracking methods should only be accepted if they are clearly regulated by a competent body. A Residual Mix is not needed in the case that the Guarantees of Origin are covering all electricity generation.

### Usage of Guarantees of Origin

Member States should ensure that only those Guarantees of Origin may be used for disclosure purposes, which have been cancelled in the respective registry operated by the competent body of the country where the electricity was supplied. Exceptions from this rule (so-called “ex-domain cancellations” of Guarantees of Origin) should only be possible under a corresponding agreement between the competent bodies of the two countries involved.

The Guarantees of Origin established by the Renewable Energy Directive (2009/28/EC) and by the Energy Efficiency Directive (2012/27/EC) should be linked clearly to disclosure. In addition to these instruments, Guarantees of Origin for other forms of electricity generation should be made available by Member States in the case that there is a demand in the market. In any case, there should be no issuing of more than one Guarantee of Origin for the same unit of electricity.

Guarantees of Origin should be issued only for the net generation of a power plant (i.e. gross generation minus the consumption of all auxiliaries related to the process of power production). For hydro power plants involving pumped storage GO should only be issued for the net generation which can be attributed to natural inflow into the reservoir.

Guarantees of Origin should be able to convey environmental indicator data for disclosure (CO<sub>2</sub>, and in the case of nuclear energy also on radioactive waste) as well as information on the sustainability of renewable energy. Member States should consider whether it is feasible to add CO<sub>2</sub> data to Guarantees of Origin for electricity from RES.

Guarantees of Origin should be implemented as transferable certificates held in electronic registries. Member States should strive to define a single competent body for the management of all types of Guarantees of Origin.

Member States should strive to implement their systems for Guarantees of Origin under the framework of the European Energy Certificate System (EECS). Alternatively they should at least strive to connect their registries for Guarantees of Origin to the EECS Hub rather than relying on bilateral interfaces between registries.

The lifetime of Guarantees of Origin should be limited to 12 months after the end of the related production period of electricity. Production periods should typically not be longer than a calendar month. Issuing of Guarantees of Origin should be done without delay after the end of each production period.

Cancellations of Guarantees of Origin relating to production periods in a given year X which take place until 31 March of year X+1 should count for disclosure in year X. Cancellations at a later point in time should count for disclosure in year X+1.

Guarantees of Origin which are not cancelled until the end of their lifetime should be regarded expired. Expired Guarantees of Origin should not be transferable or usable any more. Their attributes should be used as part of the “Residual Mix” (see below). This procedure should use the same allocation rules to disclosure years as recommended above for cancellations of Guarantees of Origin.

Member States should strive to remove any tracking systems competing with Guarantees of Origin, such as private certificate systems for electricity. Green power quality labels should be encouraged to operate based on the system of Guarantees of Origin.

### **Usage of other tracking mechanisms**

Member States should regulate whether and how information about contracts concluded in the electricity market can be used for the determination of disclosure information. Such regulations shall ensure the reliability of the tracking system used and should exclude double counting, which might derive e.g. from the coexistence with Guarantees of Origin and with the Residual Mix. Member States are encouraged to cooperate in this area in order to ensure coordination of the conditions for using cross-border electricity contracts for disclosure purposes.

Member States should clarify how electricity which has benefited from a support scheme for RES or for high-efficiency cogeneration should be treated for purposes of disclosure.

### **Introduction of a Residual Mix**

Member States should establish a Residual Mix which can be used as default set of information for disclosure of electricity of unknown origin. The use of uncorrected generation statistics for purposes of disclosure should be avoided.

This mix should be determined based on a methodology which is compatible with the recommendations from the RE-DISS project.<sup>1</sup> Member States should cooperate in order to ensure that the Residual Mixes used on the national level are coordinated with each other and that double counting of attributes and loss of information are minimised.

Member States should endeavour to keep the share of the Residual Mix in the total energy consumption as low as possible.

### **Further issues**

Member States should agree on joint timelines for the use and expiry of Guarantees of Origin referring to a given production year and for the calculation of Residual Mixes. For example the use of Guarantees of Origin relating to electricity production in a given year X could be restricted to disclosure of electricity consumption in the same year X.

Member States should require suppliers to use cancelled Guarantees of Origin as the only means of tracking for products with claims regarding the origin of electricity. Member States may also require suppliers to use cancelled Guarantees of Origin for all electricity supplied, as long as Guarantees of Origin can be issued for all types of electricity generation and adequate rules have been defined how imported electricity can be disclosed.

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<sup>1</sup> This recommendation can be found in an annex to the RE-DISS Best Practice Recommendations, which can be downloaded from the website <http://www.reliable-disclosure.org/documents>.



Member States should agree on harmonised rules how pumping energy used in pumped hydro power plants and how autoproducers (for example in industry) and generators in non-public electricity grids should be treated both for the issuing of Guarantees of Origin as well as for disclosure in general. Furthermore, member states should agree how network losses should be accounted for under disclosure.

Directive 2009/28/EC defines criteria and procedures for the acceptance of imported Guarantees of Origin. Within these criteria and procedures, Member States may refuse to accept Guarantees of Origin in the case that the exporting country has not implemented adequate measures which avoid double counting of disclosure attributes, e.g. proper Residual Mix calculations.

#### **4.4 Supervision of disclosure**

Member States should commission the regulatory authority or another competent national authority to supervise the actual operation of the disclosure scheme with regard to the reliability of the information provided to consumers and the comparability of the information and its display format, at least on a national level.

The tasks which could be assigned to the supervising body should comprise

- the definition of detailed rules for suppliers how disclosure should be implemented, including the regulation of acceptable tracking mechanisms and display formats to be used for fuel mix data and environmental indicators,
- the annual calculation of the Residual Mix, including the related coordination with supervising bodies in other countries,
- the verification of the information provided to consumers (e.g. plausibility checks with the Guarantees of Origin cancelled and random checks of a certain number of disclosure statements and of the claims made by suppliers regarding environmental impacts of electricity products purchased by its customers)
- supervision of the actual operations of suppliers, including the frequency and methods for supplying disclosure information to consumers and the display formats used.

Ideally, the supervising body should also be the competent body for the operation of Guarantees of Origin. If this is not the case, the respective bodies should work together closely in order to ensure the accuracy and reliability of the disclosure information provided to consumers.

In order to enable the supervision of the disclosure data, Member States should require all suppliers to provide all data disclosed to consumers to the supervising body, including an indication, for which volume of electricity a certain set of attributes were used (i.e. the total energy supplied by a supply company plus the energy supplied under individual products, if these are differentiated with regard to the origin of electricity).

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