CEER

Council of European Energy Regulators

Fostering energy markets, empowering **consumers**.

A CEER Public Consultation Paper on

Advice on "green" electricity

Ref: C13-CEM-64-05
16-December-2013

Council of European Energy Regulators asbl
Cours Saint-Michel 30a, Box F – 1040 Brussels, Belgium
Arrondissement judiciaire de Bruxelles – RPM 0861.035.445

INFORMATION PAGE

Abstract

This document (C13-CEM-64-05) presents draft recommendations on how to make the system for disclosing how electricity has been produced more coherent and reliable, and information on disclosure more transparent, so that customers can make a decision based on information they can trust. The present report raises a series of questions for public consultation. As we seek to put customers at the centre of CEER’s work, CEER analyses the disclosure system from the customers’ perspective. The draft recommendations aim to empower electricity customers by providing them with adequate, reliable and consistent information and by developing a reliable, trustworthy and transparent disclosure system and pushing forward the integration of the European electricity market.

This advice is considered timely given the current developments in the renewable sector and the growing interest of customers in electricity generated from renewable sources.

This public consultation is addressed to a wide audience, including NRAs, policy makers, consumer and environmental organisations, electricity suppliers, traders and to the energy sector in general.

Target Audience

NRAs, policy makers (European Commission and national authorities), consumer and environmental organisations, electricity suppliers, traders and energy sector in general

Keywords

Bills, customer protection and empowerment.

If you have any queries relating to this paper please contact:
Ms Natalie McCoy
Tel. +32 (0)2 788 73 30
Email: natalie.mccoy@ceer.eu

Related Documents

CEER documents

CEER has done work on the cost and financing of renewable support schemes:

- Status Review on Customer Access to Information on Energy costs, sources and energy efficiency schemes, Ref: C13-CEM-65-04, 17 December 2013
- CEER Report on Renewable Energy Support in Europe, Ref: C10-SDE-19-04a, 4-May-2011
- CEER Status Review of Renewable Support Schemes in Europe, Ref: C12-SDE-33-03, 3 December 2012 - revised on 25 June 2013
- CEER Guidelines of good practice on price comparison tools, Ref. C12-CEM-54-03, 9 July 2012

External documents

Legislative documents:

- Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC
- Directive 2009/28/EC of the European Parliament and the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC
- Directive 2004/8/EC of the European parliament and of the council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC
- Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC

Non-legislative documents:

- Concentrated Action - Directive on the promotion of the use of energy from renewable sources, Executive summary, 2013
- ECOHZ Position paper: Strengthening the market for renewable electricity in Europe Guarantees of Origin, January 2013
- BEUC Position paper: BEUC calls for an effective ban on misleading green claims, December 2011

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In recent years, we have observed across Europe a growing interest by customers in electricity generated from renewable sources and the willingness to use this electricity. Nevertheless, electricity customers’ lack of understanding about issues related to disclosure of the source of that energy and the lack of trust in the disclosure system creates the need for a broad discussion on these issues. As CEER puts customers at the centre of its work, we have analysed this topic from a customer perspective.

The purpose of this public consultation is to elaborate approaches and present draft recommendations on how to make disclosure of how electricity has been produced (often called its ‘origin’) more transparent, resistant to fraud, reliable and consistent. This would enable customers to make a well-considered choice concerning their electricity, based on reliable and consistent information they can trust. Such a disclosure system enhances competition in the energy market by providing more reliable choice which is why electricity disclosure and its main instrument – the Guarantee of Origin (GO) – is essential to creating a voluntary, consumer-driven market for renewables.

CEER hereby presents its initial thinking on these issues, with the aim to empower electricity customers by providing them with adequate, reliable and consistent information and by developing a trustworthy disclosure system. These draft recommendations originated, inter alia, from a broad discussion at a CEER workshop in April 2013, where stakeholders were given the opportunity to bring forward their perspective on disclosure systems and on how to present that information to customers. Within CEER, we based on work a cross section of our regulatory expertise, drawing from our customer issues and sustainable development groups.

Content and structure of the document

Useful and reliable information for customers on the source of their electricity relies on the ‘disclosure’ system. As knowledge of disclosure is generally rather low, CEER’s approach when writing this advice was not only to develop draft recommendations, but also to provide a better understanding of the subject itself. The document is therefore structured as follows.

The first part of the document emphasises the need for the development of “advice on green electricity” by providing background information. In chapter 2, the emphasis is placed on an explanation of disclosure systems in general, and on the need for an efficient and transparent disclosure system, in particular. Chapter 3 includes the legal framework for disclosure, GOs and the respective EU Directives, including a section on progress already achieved and the main initiatives and stakeholders that are involved in the discussion around disclosure and that are contributing to the development of an efficient disclosure system.

Finally, the fourth part of the document contains the core issues for this public consultation. Stakeholders who feel sufficiently aware of the legal and technical aspects of disclosure can directly go to this chapter.

Public consultation questions

1) Do you agree that further improvement is needed concerning the terminology that is used to inform the customer of electricity offers based on renewables and to promote these offers in marketing?

It is important that electricity customers are provided with adequate, reliable and comprehensive information on the origins of their electricity. By having access to such information, customers can be empowered to choose their electricity supplier and electricity contract not only based on issues related to price. Empowerment of customers can be pursued in different ways:

2) Do you agree that all price comparison tools should provide customers with an overview of electricity products, including specific information on the origin of the electricity that will be supplied?
3) Do you agree that the national regulatory authority (NRA, or other competent body) should develop a harmonised format on how information concerning the origin of electricity is displayed and should specify the level of detail required on electricity bills for this information?
4) Do you agree that two levels of information should be provided to customers? Complementing the bill, additional information such as the geographic origin, the technology and the product mix could be made available on the supplier’s website. In that case, a reference on the bill should draw customers’ attention to this additional information.
5) Do you support the idea that if a supplier also publishes the product mix on the bill for some customers, the publication of the product mix should be done consistently for all of its customers in order to minimise the risk of “double counting” within one company?
6) Do you agree that the publication of an annual disclosure report by NRAs (or other competent bodies) is a good practice?

In addition to providing adequate information to customers, further development, improvement and integration of existing disclosure systems are necessary, if customer trust is to be strengthened and the EU’s internal energy market further developed. CEER would welcome stakeholders’ views on a more harmonised approach regarding:

7) Do you agree that further harmonisation of the existing disclosure systems at European level necessary?
8) Do you agree that GOs should be used as a common and reliable basis for all disclosure systems?
9) Do you agree that the issuing of RES-GOs should be mandatory for all electricity produced with renewable sources?

GOs play a crucial role in providing electricity customers with reliable information on their electricity: GO is the only tracking mechanism with a clear legal basis. GOs contain a variety of valuable information (such as geographic origin, technology) that can stimulate customer interest:

10) Do you agree that issuing of GOs should be extended to all sources of electricity to make the basis for the disclosure system more consistent and reliable, but also to provide opportunities for market offers for electricity based upon specific non-renewable sources in a trustworthy manner? Should this be mandatory or voluntary?
11) Do you agree that the integration of electricity markets at European level should ideally be accompanied by actively developing a European RES-GO market?

Recent developments in the renewables sector have led to a controversial debate about support schemes for renewables that also influence discussions on disclosure to a certain degree. In the light of this:

12) Do you agree that when informing customers about their energy, RES-support schemes and disclosure should be seen as separate issues with their own instruments?
13) Do you feel that it is necessary to recognise all GOs for disclosure purposes, irrespective of whether GOs come from supported or not-supported electricity?

Finally, the document covers issues related to “green” electricity labels, which are increasingly introduced in the market due to growing customer interest in electricity originating from renewable sources. Nonetheless, GOs are the necessary instrument for providing information to customers. Therefore, labels should not undermine the importance and reliability of disclosure systems.

14) Do you agree that “green” power quality labels should mandatorily be using GOs as their unique tracking mechanism?
15) Do you feel that it would benefit customers if a labelling model would be implemented alongside the GO, so that label(s) can provide “additionality” for those customers that demand it?

Stakeholders are invited to participate in the public consultation which closes on **7 February 2014.** The results of the consultation will be presented at a public hearing, which will take place in Q2 2014. Following this public hearing, CEER will develop its final advice, aiming to publish it around mid-2014.

1 Introduction - Why a CEER consultation paper on Green Electricity?

In some countries, we can observe a growing interest by customers in electricity generated from renewable sources and the willingness to use this electricity. Customers are motivated to choose “green” electricity contracts, which guarantee them electricity from renewable sources. More and more electricity customers base their choice of a supplier and an electricity product not only on the price and the service level provided, but also on whether or not the electricity supplied is from renewable energy sources. This can become a driving force for promoting renewable electricity production from the demand side.

The situation is very diverse across Europe. Whereas this market is developing in countries such as Portugal and Great Britain (0.5% of the retail market), in Austria and Belgium, already 13.91% and 13.36% of contracts were ‘green’ by the time this advice was drafted. In Spain, there are 24 supply companies with offers at low voltage while in Austria 56 suppliers hold a supply mix of 100% renewables. The number of electricity public offers in Spain is 189. The market share of green offers accounts for 35% of domestic low voltage public offers and 19% of business low voltage public offers. The most developed case can be found in Luxembourg, where the number of ‘green’ contracts accounts for 85% of the retail market. All national suppliers have green electricity domestic offers, with 5 suppliers offering only green electricity to their retail customers[1]. In several European countries, customers are already being offered not only the choice between green and grey electricity contracts, but also more diversified options, such as:

- the Netherlands: Dutch wind (HollandseWind® by Eneco)

It is also important to include the demand by customers for the various national Eco Labels, which has shown a steady increase over the past years:

- Germany: OK. Power. The label promotes use of and investment in new renewable power plants. Offered by several electricity suppliers.
- Germany: EE01. Stricter focus on age criteria. Promotes use of and investment in new renewable power. Offered by several electricity suppliers.
- Europe: EKOenergy. Pan-European. Environmental criteria, fund allocation for environmental protection initiatives and new renewable power plants.

Also, building standards refer to guarantee of origin (GO) certified power:

- LEED (US-based) and BREEAM (Europe-based). Certified renewable power (with GO) ensures additional points in certification score. LEED explicitly recommends the use of EKOenergy labelled electricity.
- Attributes to renewable production: GO from power producers with no fossil link, no nuclear link deemed important among some corporate customers.

[1] This information is taken from CEER’s internal database (data from February 2013) and from ECOHZ, a Norwegian company active in renewable electricity markets.

The consumption of electricity tracked by GOs has shown significant development since this system was established in 2001. In 2011, 33% of all electricity produced from renewable sources is documented by GOs, accounting for some 230 TWh[2]. The demand for GO-tracked electricity is growing steadily in many countries.

Nevertheless, there are also critical voices, as is evidenced by BEUC: “While green electricity offers have stimulated customers to switch energy providers, the effect on the energy mix of companies through this increased demand remains limited”[3]. Despite this development, the level of awareness and knowledge of domestic customers is rather low regarding issues related to disclosure of electricity sources and offers of electricity based on renewable sources. Tracking systems for the attributes of electricity generation and their disclosure are complex and often difficult to understand for customers. This lack of understanding creates the need for a broad discussion about these issues.

Such a broad discussion is important, as so-called “green tariffs” for electricity produced from renewables can strongly influence the development of electricity markets and can serve several purposes. They can act as a mechanism to help drive investment in new renewable capacity. At the same time, they can be a vehicle for customers to register a societal and/or personal preference in their choice of tariff and an assurance system to ensure customers are receiving energy generated by renewable sources.

In many countries, the offer of “green” electricity contracts is regulated, e.g. by stating that a contract can only be marketed as green when the renewable origin of the electricity supplied is proven by the use of a standardised instrument, such as a Guarantee of Origin (GO).

Green electricity marketing also raises new issues and attracts in some cases criticism, amongst others from consumer associations and environmental NGOs.

More generally, customers are entitled to reliable and relevant information on the source of their electricity. Customers need to be able to trust this information and only if they do, can this information empower and allow them to make a choice of electricity supplier not only on the basis of price or service performance levels, but also to incorporate an environmental and sustainable dimension in their behaviour.

Market functioning is improved when customers are given adequate information. As such, information on energy sources (energy mix) and technology used for producing electricity can enhance market functioning. Also, there is a need to assure customers that the information they receive is reliable. GOs are a way to achieve this objective. Reliable, clear information can make electricity markets more competitive by providing more choice to customers and can be a driver for integration of the European energy market: trading electricity cross-border also needs a cross-border information system.

[2] ECOHZ Position paper: Strengthening the market for renewable electricity in Europe *Guarantees of Origin, January 2013.*

[3] BEUC’s response to ERGEG public consultation on GGP on Retail Market Monitoring, June 2010

Also at policy level, the issue of promoting electricity production based on renewable sources is a primary concern. One of the aims of the European Union’s Climate and Energy Package is to reach a 20% share of renewable energy generation in EU energy consumption by 2020, in a cost-effective and economically efficient manner. With the implementation of the Renewable Energy Directive[4] (hereinafter RES Directive) and national policies set out in National Renewable Energy Action plans, most Member States experienced significant growth in renewable energy. This market growth of electricity generated from renewable sources raises several issues that need close attention.

In many EU Member States, a broad public debate on electricity based on renewable sources has recently been taking place, drawing people’s attention to recent developments in the renewable sector.

According to a Eurobarometer survey published in July 2013 on “Attitudes of Europeans towards building the single market for green products,” 80% of Europeans are concerned by the environmental impact of their purchases. The same study reveals however, that only 25% ‘regularly’ buy green products. One reason for this low number is the lack of information and the distrust towards producers’ self-claims about the environmental performance of their products. The Eurobarometer states that more than half of Europeans would be willing to change their purchasing habits for environmental reasons as they are fully or fairly confident that products indicated as environmental-friendly cause less damage to the environment and are good value for money. However, fewer feel fully informed about these issues.[5] Although the Eurobarometer does not specifically refer to electricity products as such, it gives a general overview of consumer behaviour.

In general, it can be said that knowledge levels of domestic customers as regards questions related to electricity disclosure is rather low. Tracking systems for the attributes of electricity generation and their disclosure are complex and therefore difficult to understand for customers.

The point could be made that there are at least two groups of customers: a large group which is only looking for trustworthy information and / or a label on their energy mix and electricity product and a smaller group which is more engaged in themes such as sustainability and renewables and is interested in detailed information.

[4] Directive 2009/28/EC of the European Parliament and the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

[5] Attitudes of Europeans Towards Building The Single Market for Green Products, July 2013

CEER is stepping up its efforts on these issues. We believe customers should be at the center of energy policy development. It is therefore of great importance to deal with these developments from a customer perspective. In the light of this, the purpose of this paper is to develop advice on approaches to make the disclosure system more coherent and reliable and information on disclosure more transparent, so that the customer can make a decision based on reliable information they can trust. A reliable disclosure system enhances not only competition in the energy market by providing more choice to customers, but also empowers energy customers by providing them with more choice. Electricity disclosure and its main instrument – the Guarantees of Origin (GO) – can be essential for creating a voluntary, consumer-driven market for renewables. GOs can be a fundamental tool to support consumer awareness and choice in a European power market, as only well-informed customers are able to make a choice that is not based on electricity prices alone. This is essential since empowered and well-informed customers can be a key driver for the successful transformation of the energy system.

This report is considered timely given the current developments in the renewables sector. With this advice, CEER also wants to respond to the European Council Conclusions on renewable energy of 3 December 2012, where a need for a consistent application of fuel mix disclosure at EU level was identified, as this would ensure that customers are provided with accurate and complete information on all fuel mix consumption within each Member State.

Following the public consultation, which will be supported by a public hearing, CEER will develop its final recommendations on green electricity offers, and aims to publish them by mid-2014.

2 Why do we need an efficient disclosure system?

The electricity *system* can be characterised in technical terms, such as frequency, voltage and short-circuit strength. In the context of the electricity *market* however, with regard to energy policy and consumer interests, other information can be relevant, e.g. the fuel source from which a certain volume of electricity was generated, the technology used to produce the electricity or the associated environmental impacts. These types of information related to electricity generation are called *attributes*.

In liberalised electricity markets, customers are able to choose not only their energy supplier, but also a particular energy product. As a result, they have the possibility to choose among different offers in terms of price, but also in terms of company profile and the sources of energy and technologies used for electricity production. In order to make visible to customers what is happening “behind the socket”, the European Union has introduced a requirement for electricity suppliers to disclose to their customers the origins of the energy they have delivered. The objective of this provision is to enable customers to be able make an informed choice about the energy they buy, taking into account both price and criteria related to the type of electricity generation (fuel mix used, CO_2 emissions and radioactive waste production).

Pursuant to the European Union’s Eurobarometer survey on “Attitudes of Europeans towards building the single market for green products” only half of EU citizens generally trust producers’ claims about the environmental performance of their products. More than the half of the respondents believe that labels do not provide enough information about their environmental impact. Most people would welcome additional environmental information on product labels.

As customers are generally willing to consider environmental issues if they have adequate information, an efficient and reliable disclosure system is a key component to empower customers. An efficient disclosure system should:

- meet its objective of informing customers on the origins of the electricity they consume (and on environmental impacts, namely CO_2 emissions and nuclear waste, according to EU Directive 2009/72/EC[6]), and
- be effective while not being too complex or costly to the suppliers who have to implement it. This would enhance the trust of customers towards product information.

To meet these challenges, all EU Member States are required to establish and maintain a Renewable Energy Guarantees of Origin (RES-GO) certification scheme according to Article 3.9 of Directive 2009/28/EC on promotion of renewable energy sources (RES Directive). The purpose of the scheme is to promote and increase the contribution of renewable energy sources (RES) to electricity production across the EU, providing a common platform to facilitate the trade of renewable electricity between Member States. In addition, the scheme sets out to provide increased transparency to customers, allowing them the choice to purchase renewable or non-renewable electricity.

[6] Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

The scheme serves to enable producers, traders and suppliers to demonstrate that the electricity they sell is renewable.

However, the implementation of the provisions for electricity disclosure and GOs have led to the development of different systems in different Member States (MS). While all systems need to be based on the concept of the GO as prescribed in the Directive, the content of the concept of disclosure can be different in each MS, as can the methodology for tracking the electricity coming from renewable sources.

The development of a green electricity market at European level is not supported by this situation. This makes the cross-border trade of electricity from renewable sources more difficult and makes the system more expensive. Some countries have even extended the instrument of the GO to all types of electricity generation (e.g. Austria, Switzerland…).

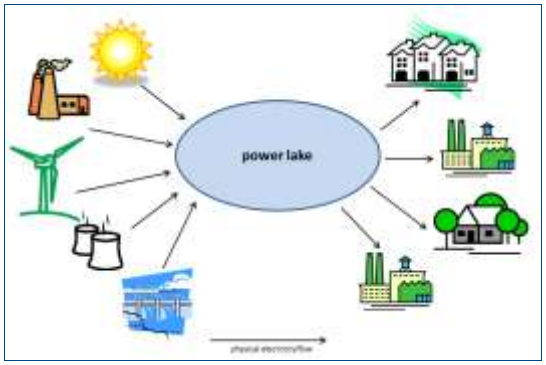
There has been a spontaneous harmonisation among many MS on disclosure and RES-GOs through initiatives such as CEN-CENELEC, E-TRACK, EPED, AIB, RE-DISS, RECS International, etc (See Annex 3). CEER believes that the need for further integration of the different disclosure systems and for a common framework for disclosure supported by a harmonised tracking system is motivated by the need for an efficient and reliable system at European level. National solutions can be reliable, but integrating them into the European market can be very costly. Therefore, a harmonised solution is preferable from an efficiency perspective.

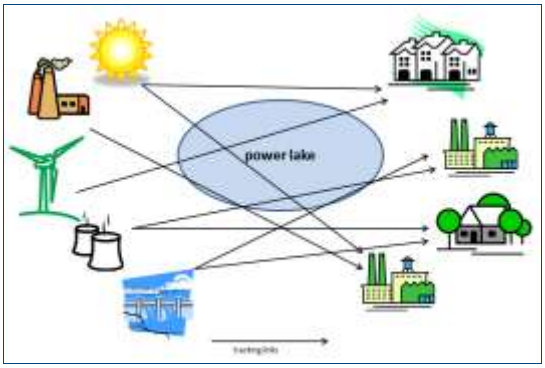
It is largely agreed upon among experts that such harmonisation of electricity disclosure is needed. However, there is also a need to explain to customers the complexity of electricity disclosure and to motivate the need for a reliable “book and claim”[7] system from a customer perspective.

Consumers have to be able to trust the disclosure system. While the majority of customers may simply want a system that is reliable, and do not want to be confronted with additional and more detailed information, a smaller number of customers want to be provided with additional information. This means that these interested customers should have access to information on how the electricity markets work. They should be aware of the fact that the physical flow of electricity from generation to consumption follows physical laws, and that the flow does not directly correspond to commercial relationships in the electricity market. In other words, electrons do not flow according to contracts and the tracking of attributes does not follow the physical flow in the transmission and distribution systems. This means, that GO certificates can end up somewhere entirely different from the physical energy itself.

[7] “Book and claim” refers to systems designed to overcome the logistical complexities of interwoven supply chains. Electricity producers who can prove that they are generating electricity with renewable sources can register for GOs, The electricity itself is bought and sold in the usual way, with no need for costly segregation or tracing. Another sector in which the Book&Claim concept has already established its worth is the palm oil industry, in the guise of GreenPalm. The GreenPalm programme has been exclusively endorsed by the Roundtable on Sustainable Palm Oil (RSPO).

This phenomenon may be explained to customers by the well-known “power lake” metaphor.





In this metaphor, the electricity grid is seen as a lake, into which all produced electricity flows and from which the electricity is taken to supply customers. Therefore, electricity from renewables is mixed with electricity from other sources and it is not possible to ‘source’ the electricity as it comes back out of the lake. This metaphor may serve as an explanation to customers who are unaware of the fact that when electricity is produced from renewable sources, the electrons themselves and the GO that proves the renewable origins of the electrons are separated and that the GO can be traded independently.

Furthermore, this metaphor also serves as an explanation for the fact that electricity as such does not have a colour and that it is always neutral and possesses the same physical features. The only thing that differs is the source of electricity, i.e. its production. Electricity is not “green” although it has been produced by renewables, just as electricity generated by coal never is black. Therefore, the “water” of the “power lake” does not have a colour and once mixed, the different sources of electricity in the lake cannot be distinguished one from the other.

In addition to information on electricity markets in general, customers should also have access to information concerning national electricity production. In particular, interested customers should be able to receive information that national electricity production may substantially differ from the electricity purchased to supply customers of the same country. This issue gains even more importance with the development of integrated markets across Europe.

It is essential for customers to be aware of these issues in order to be able to make a well-considered choice. Understanding the electricity market is a key requirement for customers to be able to become actively involved in the market. Furthermore, this knowledge is crucial for customers to understand the importance of an efficient electricity disclosure system in Europe.

3 Legal Framework

Guarantee of Origin

Directive 2001/77/EC introduced a duty on all Member States to develop a reliable scheme for Renewable Energy Guarantees of Origin (RES-GOs). The Directive set a broad duty for each Member State to establish the scheme. In practice, the structure of each Member State’s scheme may differ.

Eight years later, ***Directive 2009/28/EC*** *of the European Parliament and the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC* introduced changes to the RES-GO scheme (RES Directive).

This Directive clarifies the purpose of Guarantees of Origin (GO) as evidence of the origin of electricity generated from renewable energy sources and specifies the minimum information included in the GO.

Disclosure

Directive 2003/54/EC[8] introduced a requirement which obligates all suppliers of electricity to final customers to disclose to their customers the contribution of different energy sources to the supplier’s portfolio for the preceding year. In addition, suppliers are also obliged to disclose related environmental impact indicators, such as CO_2 emissions and the production of nuclear waste.

Directive 2009/72/EC *of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC* noted this requirement and underlined the role of energy regulatory authorities in this task (Electricity Directive).

Electricity disclosure is an instrument that aims to provide relevant information about power generation to the customers. This information should enable customers to make a choice that is not based solely on electricity prices. In a liberalised market, disclosure requires some form of tracking; in other words, a process of assigning the attributes of electricity generation to electricity consumption.

Disclosure is therefore an objective information scheme for the whole electricity market, providing customers with information upon which they can make a well-informed choice following their individual preferences.

Recent assessments have shown that Member States have implemented national legislation on disclosure in different ways, sometimes also allowing for disclosure of differentiated product information (e.g. a green power product and a standard product).

[8] Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC

3.1 Progress already achieved, main initiatives and stakeholders

European Directives

European Directives set the regulatory framework for the GO system and for disclosure of the source of the electricity. We can find useful guides (mandatory in some aspects, as Directives must be transposed by Member States) in the mentioned framework:

Definition and purpose of the GO system

Guarantees of Origin are clearly defined in the Directives as proof of the origin of electricity from renewable sources (RES Directive) or high efficiency cogeneration (Cogeneration Directive 2004/8/EC) and are the only tracking instrument with a clear legal basis.

Directive 2009/28/EC defines the Guarantee of Origin (Article 2.j) as:
“(j) ‘guarantee of origin’ means an electronic document which has the sole function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources as required by Article 3(6) of Directive 2003/54/EC;”

According to Article 15, the purpose of the GO system is to provide to final customers the share of energy from renewable sources in an energy supplier’s mix.

Guarantee of Origin and support schemes

In order to clarify the function of the GO system, the RES Directive (Recital 52) underlines the difference between the purpose of the GO system (transparency, reliability of the information) and the purpose of support systems, such as green certificates.

“(52)… It is important to distinguish between green certificates used for support schemes and guarantees of origin.”

Import and export

The RES Directive allows transfers of GO between Member States (Article 15):

“15. 9. Member States shall recognise guarantees of origin issued by other Member States in accordance with this Directive exclusively as proof of the elements referred to in paragraph 1 and paragraph 6(a) to (f). A Member State may refuse to recognise a guarantee of origin only when it has well-founded doubts about its accuracy, reliability or veracity. The Member State shall notify the Commission of such a refusal and its justification.

15.10. If the Commission finds that a refusal to recognise a guarantee of origin is unfounded, the Commission may adopt a decision requiring the Member State in question to recognise it.”

Renewable definition

A frequent issue in discussions about these policies is the use of the words “green”, “renewable”, etc. in different countries. We can find a clear definition of “renewable” in the Directives.

The RES Directive (Article 2.a) and the Electricity Directive (Article 2.30):
“ ‘renewable energy sources’ means renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases”

Disclosure of electricity

The Electricity Directive sets obligations on supply companies in Member States in terms of information and transparency to consumers (Article 3.9):

“Article 3. Public service obligations and customer protection.
…
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_2 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.”

National Regulatory Authority (NRA)

NRAs, or other national authorities, are mentioned in the Electricity Directive (Article 3.9) as an important part of the system. This Directive sets out clear responsibilities about information provided:

“9. …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.”

CEN-CENELEC Joint Working Group on Guarantees of origin and Energy certificates

The European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC) develop voluntary standards on a range of products and services across Europe. Following the conclusions of a working group on energy certificates within the CEN-CENELEC Sector Forum on Energy Management and the organisation by CEN-CENELEC of a seminar on 'guarantees of origin and energy certificate systems' on 23 April 2008, a CEN-CENELEC Joint Working Group was created in April 2010. This CEN-CLC/JWG 2 'Guarantees of origin and energy certificates' works on European standardisation of guarantees of origin for trading and/or disclosure/labelling of electricity and CHP (co-generation of heat and power) and energy certificates.

The objective for this European Standard is that it should contain standardisation of guarantees of origin in line with the relevant Directives and existing voluntary schemes with the aim to create a standardised GO that can be used mainly for disclosure/labelling and trading.

European Council Conclusions on Renewable Energy, December 2012

“In relation to guarantees of origin, to further empower customers, clarifications by the Commission would be welcomed on the best way to achieve consistent application of fuel mix disclosure at EU level which ensures that customers are provided with accurate and complete information on all fuel mix consumption within each Member State”.

European Commission supported research programmes

Several research programmes have been financed and supported by the European Commission (see Annex 3 for further details). They provide relevant conclusions on disclosure and provision of information to the customer on the origin of electricity:

- **E-TRACK**

The E-TRACK Project provides a detailed insight into the tracking of electricity, the requirements for the design and operation of tracking systems, which are set by market players, EU and Member States' legislation. The project covers 30 European countries and offers a blue print for a Europe-wide standard for these tracking systems.

Phase I of the project was completed in June 2007. Phase II of the project refined the proposed tracking standard, by integrating the new guarantees of origin for cogeneration, the implementation of which was due in 2007. As a result, a strategy for the further development of energy-related certification schemes was elaborated.

- **EPED**

European Platform for Electricity Disclosure (EPED) was a platform for competent bodies with the aim of establishing a European standard for electricity disclosure. The core of the disclosure standard is calculation of the residual mix to minimise the risk of double counting. EPED was the predecessor of the RE-DISS project.

- **RE-DISS**

The RE-DISS project was co-funded by the Intelligent Energy Europe Programme of the European Union and supported by the European Commission. It aimed at improving significantly the reliability and accuracy of the information given to European electricity customers regarding the origin of the electricity they are consuming.

The project sought to support European countries in properly implementing the requirements set out in the RES Directive as well as in the Cogeneration Directive and the Electricity Directive. The project established and supported a group of "Competent Bodies" which have been designated by major European countries and which are dedicated to improve the procedures for Guarantees of Origin and electricity disclosure in their countries.

The follow-up project RE-DISS II started up in 2013. RE-DISS II hopes to facilitate the establishment of a more reliable tracking system for Europe, to further reduce double counting of e.g. RES electricity and improve the value of disclosure information for consumers.

3.2 Other initiatives contributing to better disclosure and the potential for better information to customers

- **AIB**

The purpose of the Association of Issuing Bodies (AIB) is to develop, use and promote a standardised system: the European Energy Certificate System - "EECS". EECS is based on structures and procedures which ensure the reliable operation of international certificate schemes. In order to further facilitate the international exchange of energy certificates, the AIB operates an inter-registry telecommunications Hub.

- **The European energy certificate system (EECS)**

Each EECS certificate is uniquely identifiable, transferable and therefore tradable, and contains standard information on the source of the energy, and its method of production. The Principles and Rules of Operation of the European Energy Certificate System (the EECS Rules) define a certificate as an electronic document which identifies the source and method of production of a unit of energy, and relates to a specific purpose.

- **EECS and the CEN standard**

The EECS Rules provided the foundation for the proposed CEN standard. This version is the latest available, and is currently being revised prior to decision-making by CEN member organisations.

- **RECS International**

RECS International is a group of market participants that trade in renewable energy certificates throughout Europe. More than 250 members trade certificates in over 22 (mostly European) countries. To protect its investment in a secure, workable and efficient market, RECS works closely with the Association of Issuing Bodies (AIB).

4 Questions for public consultation

4.1 Green marketing

4.1.1 Improvement of marketing terminology

Green electricity marketing programmes have been increasingly implemented in recent years. In order to distinguish their offers from others, suppliers as well as organisation that manage “ecolabels” have developed new strategies to market and sell electricity produced from renewable energy. Subjective and not-measurable attributes, such as “sustainable” and “green” are increasingly used to define electricity. This use of such ambiguous attributes can result in a potential risk of “green washing”, as there is no legal definition for many of these terms. This should be taken into consideration by customers when choosing their electricity product.

In Norway for example, the Consumer Ombudsman published an industrial norm for the energy industry, saying that environmental claims should not be used for the marketing of electricity. The background of this is that the environmental consequences of different forms of power production are very difficult to compare, according to the Consumer Ombudsman. Therefore, traders in Norway are not allowed to use labels like “eco-friendly”, “green” or “sustainable”. Objective claims like “wind power” or “hydro power” must be used instead.

This also addresses the problem that electricity generated by various renewable sources or electricity which is labelled as “green electricity”, does not always represent the same level of sustainability and environmental effect depending on the renewable source.

The absence of an EU-wide legal definition of “green electricity” increases the potential for green washing. Some suppliers and electricity labels make quite an effort to market their electricity products as “greener” than they actually are. Often, suppliers advertise their products as green products because of their lower CO_2 emissions in comparison to other, traditional fossil fuelled technologies: by specifying “green electricity” for example as low-carbon electricity, suppliers could even consider nuclear power as green. Efficient generation technologies such as Combined Cycle Gas Turbine (CCGT) could be considered as “green” as they produce far less CO_2 emissions than coal-fired power plants. However, in reality, both generation technologies have a significant impact on the environment and would not be considered as “green” by the majority of customers. These are examples which illustrate the risk of green washing by using ambiguous terms such as “green” and by providing misleading information.

In order to avoid green washing of electricity as stated above, it is worth thinking about further improvement of the terminology. As no legal definition of “green electricity” exists and the use of this expression is not regulated, CEER would welcome the use of the terminology “electricity based on renewable sources” or “electricity originating from renewable sources”. Nonetheless, CEER does not support banning the use of attributes such as “green” and “sustainable” in marketing and customer information.

As EU Directives clearly define what a renewable source is, the risk of green washing electricity by market actors can be minimised by using these definitions as a starting reference point. CEER believes that the European Commission should take the necessary steps to push forward the improvement of the terminology used in this area.

Question 1: Do you agree that further improvement is needed concerning the terminology that is used to inform the customer on electricity offers based on renewables and to promote these offers in marketing?

4.2 The customer side

This section refers to issues that may concern customers when they are looking for a new electricity contract. This mainly has to do with the provision of reliable and complete information to customers.

4.2.1 Reliable, more complete and more empowering information for customers

Empowering customers requires providing them with adequate, reliable and complete information.

According to the results of the Eurobarometer survey on “Attitudes of Europeans towards building the single market for green products” more than three quarters of respondents are willing to consider environmental factors when purchasing products, and would even be willing to pay more for environmentally-friendly products if they were confident that the products were truly environmentally-friendly.[9]

However, only half of EU citizens feel fully or fairly informed about these issues and only 26% ‘often’ buy environmentally-friendly products. Although this study includes all ‘green’ products and does not focus on electricity as such, several assumptions regarding the energy sector can be drawn from it. The survey indicates that in general, consumers are poorly informed about electricity issues, although a lot of information concerning the generation of electricity and its sources is already available through different instruments, e.g. GOs and its use for disclosure.

This raises the question of how this already available information can best be used to inform customers about their options and possibilities. CEER sees price comparison tools as an important information channel to inform and empower electricity customers.

4.2.2 Consistent information on origins of electricity in price comparison tools

As a result of the liberalisation of energy markets, electricity customers are able to choose their own electricity supplier. This has led to a growing number of suppliers and electricity products within recent years. EU Directives foresee the publication of relevant information on the electricity bill, but this still makes it difficult for customers to compare their product with other existing ones, especially as electricity offers vary in price, quality and services.

[9] Attitudes of Europeans Towards Building the Single Market for Green Products, July 2013.

Customers are confronted with a large and complex variety of information. One tool that would not only allow a simple and compact display of such information but would also facilitate its comparison is the price comparison tool (PCT). The PCT, which provides customers with an overview of existing electricity products from all suppliers, should provide detailed information about their electricity offers. Such PCTs are already offered by several NRAs and different NGOs and consumer bodies across Europe.

To empower customers, all PCTs, regardless of who is operating them, should provide a clear indication of whether the electricity contract guarantees that the source of the electricity that is supplied is renewable. Furthermore, the PCT should make it possible for users to look up information on the fuel mix of the potential supplier.

This way, customers would be able to make a choice which is not based solely on price and to take account of energy sources as well. Furthermore, the consistent presentation and format of each product in the tariff calculator would minimise confusion amongst customers. Such a tool would mean a tremendous step towards empowering customers.

As the awareness of customers on issues such as energy price has risen due to growing competition amongst energy suppliers, a variety of different PCTs have been developed. NRAs have identified the positive effects that such tools entail. Private companies, NGOs and consumer bodies have also developed PCTs, which are often based on differing methodologies. This use of different methodologies implies that results and the level of information of such PCTs can significantly vary, as organisations pursue their own aims and have different frames of reference. In 2012, CEER published voluntary guidelines of good practice on price comparison tools[10], with the aim of encouraging simplicity, transparency and reliability in their design and usability. The recommendations cover such aspects as: independence, transparency, exhaustiveness, clarity and comprehensibility, correct and accurate, user-friendliness, accessibility and customer empowerment.

Question 2: Do you agree that all price comparison tools should provide customers with an overview of electricity products, including specific information on the origin of the electricity that will be supplied?

A list of websites hosting such price comparison tools can be found in Annex 4.

4.2.3 Harmonisation of how information on origin of electricity is presented on bills

NRAs must ensure that electricity suppliers use the same methodology when providing information to their customers on the origin of their electricity, but even then, as electricity bills include a lot of information, invoices can easily become confusing for customers. Therefore, it is of great importance to display the information on the origin of electricity in a comprehensive and clear manner. A sample invoice developed by the NRA or another competent body could serve as a guide for suppliers on how to display on their invoices in a clear manner information concerning the origin of electricity.

[10] CEER Guidelines of good practice on price comparison tools, 9 July 2012

The choice of standardised format for fuel mix information is ultimately left to Member States. In order to facilitate comparisons between suppliers, Member States should develop a harmonised format for presenting this information at least on a national level.

The information regarding the electricity mix should be neutral. Considerations concerning an evaluation of the geographic origin and/or the technology used to produce the electricity supply should be made by the customer, based on the reliable information presented on the bill.

This approach of harmonising the presentation of all relevant information about the origin of the electricity on the bill would not only create less confusion among customers, but would also facilitate the comparison of suppliers’ fuel mix. This harmonised format should present all relevant information according to the EU Directives in an easily comprehensible manner for customers.

As a next step, it would be worth considering whether Member States could be encouraged to cooperate in defining this harmonised presentation at a European level.

Question 3: Do you agree that the national regulatory authority (NRA, or other competent body) should develop a harmonised format on how information concerning the origin of electricity is displayed and should specify the level of detail required on electricity bills for this information?

4.2.4 Providing customers with additional information on the basis for the GO

Recently, many “green electricity offers” came under criticism from NGOs and consumer bodies for supposedly misleading customers by providing inadequate information. More frequently, consumer bodies and environmental NGOs are addressing the issue that even renewable electricity products can vary significantly in terms of environmental impact and sustainability. Statements like “some renewable energy products are not green enough” are steadily growing louder in some Member States.

This is an indication that (certain) customers are demanding to be able to make a more diversified choice, not just between “green” or “grey” electricity. In order to be able to do so, customers need adequate and reliable information that is based on facts rather than on assumptions.

It is important to recognise that electricity customers are not a homogenous group, but pursue their own interests and have different levels of knowledge on these topics. This raises the question of which level of detail should be provided to customers. On the one hand, customers should have access to detailed information in order to be able to make a well-considered choice. On the other hand, the provision of too much and overly detailed information can lead to confusion and disinterest of customers. CEER has examined this issue in its recent Status Review on customer access to information on energy costs, sources and energy efficiency schemes.[11]

Different information is relevant to the customer at different moments: when choosing a new supplier and/or electricity contract, the supplier’s fuel mix can be relevant. However, a contract that guarantees 100% electricity from renewable sources can be offered by suppliers that have a diversified production or sourcing portfolio. During the phase where the customer has a green electricity contract, the most relevant information is on the source of the supplied electricity, the product mix. Therefore, information in general should be made available to the customers at two levels:

The *mandatory level* should contain information that suppliers should show to customers, according the minimum data required by the Directives. The Electricity Directive obliges electricity suppliers to specify in their bill and in promotional materials the contribution of each energy source to the overall fuel mix of the supplier. In addition, they are obliged to publish information on the environmental impact, in terms of at least CO_2 emissions and radioactive waste resulting from the electricity produced.

Referring to the abovementioned “dilemma”, the availability of more detailed information on the geographic origin of the electricity and the technology would benefit customers. Therefore, at the *voluntary level*, detailed information with a high level of data, including additional information that already exists due to the GO system, should be made available.

As already indicated, GOs include a lot of information that could be of interest for (certain groups of) customers. Customers should not only receive information about whether or not the electricity they consume is generated by renewable sources. Empowered customers also show increased interest in knowing the geographic origin of electricity and the source by which it is produced.

Therefore, it is of great importance to provide access to this information. In order not to overload customers with information on the bill, the provision of such detailed information on the supplier’s website could be useful. This way, customers with a high demand for information and environmental commitment are able easily to access detailed information. At the same time, customers who are not interested in additional information will not be confused by further information on their bill. A reference note, which draws the attention of customers to additional information on the website, could be displayed on the bill.

[11] Status Review on Customer Access to Information, December 2013

This approach would take into account the statement of EU Environment Commissioner Janez Potočnik, who believes that better labeling could help reduce the lack of information on the consumer side. At the same time, CEER wants to point out that although certain information (energy source, geographic origin) can be of great importance to customers to make their choice on electricity offers, GOs are introduced by the Directive only for the purpose of disclosure. As GOs are virtual documents and introduced for disclosure purposes only, customers should not be confronted with GOs as such. A direct use of GOs by end users is not recommended and would even contradict EU Directives.

For customers to be thoroughly informed, two levels of information could be provided to customers. Level 1 should be the mandatory information that is already provided on the bill (supplier mix, related CO_2 emissions and radioactive waste) as required by the Directives. Level 2 would then be additional information such as the geographic origin, the technology and the product mix; these could be made available on the supplier’s website. In that case, a reference should be displayed on the bill in order to draw customers’ attention to this additional information available on the website.

Question 4: Do you agree that two levels of information should be provided to customers? Complementing the bill, additional information such as the geographical origin, the technology and the product mix could be made available on the supplier’s website. In that case, a reference on the bill should draw customers’ attention to this additional information.

4.2.5 Consistent publication of product and supplier mix

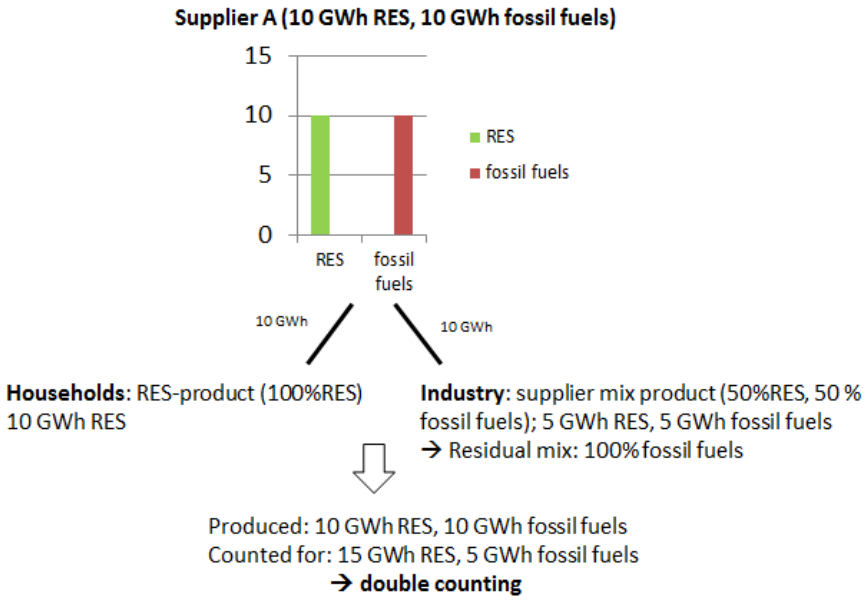
This section relates to issues that may concern customers after they have signed the contract for a “renewables” product. As stated in the Electricity Directive, information on the environmental impact, as well as the contribution of each energy source to the overall fuel mix, must be provided on the supplier’s portfolio,[12] as a minimum.

Nonetheless, some suppliers also provide information on the bill on the specific product mix. In this case, it is of great importance that the publication of the product mix should take place in a consistent manner. If a supplier provides information on the product mix to one consumer, it should do so to all of its customers. This is crucial in order to avoid a deception of customers. The graph below explains the problem that can arise due to an inconsistent publication of the product mix and the supplier mix.

[12] The portfolio refers to all electricity sold to final customers in a given year (both domestic and non-domestic) by one supplier. Therefore, it comprises all electricity products of that supplier, regardless whether these are differentiated in terms of energy mix or not.

Say that supplier A sells in total 10 GWh generated from renewables and 10 GWh generated from fossil fuels. In total, all household customers consume 10 GWh electricity, and the industrial customers also consume 10 GWh. All household customers have chosen a product that guarantees 100% electricity from renewable sources. Consequently, the industrial customers consume 100% electricity from fossil fuels. As the industry does not have a specific product mix, their bill only provides information on the supplier mix (50% RES, 50% fossil fuels). This way, the industrial customers are led to believe that they receive this supply mix. However, this is not the case as all electricity from renewables has already been sold to the household customers. This approach leads to a specific form of double counting, which can also be seen as green washing.

In order to avoid this problem, suppliers should provide all of their customers with the same degree of information about their particular product mix. This means, that if they decide to do it for one customer or product, then they have to publish the product mix to all of their customers. In this particular case, this would mean that the supplier would not only have to provide information to the industrial customers on the supplier mix, but also on the (residual) product mix, which is 100% electricity from fossil fuels for industrial customers.



In order to avoid confusion, the additional information on the product mix could be provided on the supplier’s website. This would be in the interest of more demanding customers. Through a reference to the website on the electricity bill, interested consumers could be made aware of additional and more detailed information. Additional information on the product mix, made available on the supplier’s website, would not only minimise the risk of double counting within a supplier, but would also provide additional clarification to interested customers. This is best explained by another example: customer A has consciously chosen an electricity offer that consists of 100% electricity generated from renewable sources. In addition to this particular 100% RES tariff, the supplier also provides other offers with a different product mix.

As a consequence, the supplier fuel mix can strongly vary from the product mix of the product that customer A has chosen. The sole display of the supplier mix on the bill may create confusion as the customer, who has chosen a renewables contract, only sees the supplier fuel mix that also includes fossil fuels. By also displaying the product fuel mix on the website, this confusion amongst customers can be avoided.

In conclusion, potential deception of customers can be traced back to the (inconsistent) publication of the product mix on the bill. Therefore, in general only the supplier mix should be published on the electricity bill. Further information on the specific product mix could be made available on the website in the personal customer account.

Question 5: Do you support the idea that if a supplier also publishes the product mix on the bill for some customers, the publication of the product mix should be done consistently for all of its customers in order to minimise the risk of “double counting” within one company?

4.2.6 Publication of an annual disclosure report

Another instrument that could enhance customer’s knowledge and awareness concerning the origin of the electricity they use is a yearly disclosure report to be published by the NRA or other competent body. Such a report should contain the results from the monitoring of disclosure activities of each supplier. As regulatory authorities are obliged by the EU Directive to ensure that suppliers disclose their energy mix, the elaboration of such a report would represent little additional work for NRAs, and would have a great impact on improving customers’ knowledge. Experience has shown that in countries where such reports are already published, the report is well received not only by NGOs but also by consumer bodies and customers themselves. Examples of existing disclosure reports can be found in Annex 5.

Question 6: Do you agree that the publication of an annual disclosure report by NRAs (or other competent bodies) is a good practice?

4.3 Guarantees of Origin (GO)

4.3.1 Europe-wide harmonisation of national disclosure systems

As already mentioned, the implementation of EU Directives with regard to disclosure has led to the development of different systems in different Member States. The RES Directive clearly states that only GOs should be used for the purpose of proving to final customers that a given share or quantity of energy originates from renewable sources.

Currently, other tracking mechanisms which are similar to GOs are also being used, but do not have the same status, such as the RECS certificates and some green power quality labels. In some systems, GOs may not only be used by suppliers of final customers, but also by (usually large) customers who purchase energy and GOs separately and cancel them for their own purpose. There is a manifest risk that energy might be associated with generation attributes twice (double counting) by using overlapping tracking mechanisms.

As cross-border transactions in the electricity sector are growing rapidly due to the completion of the internal energy market, the task of disclosure can no longer be done on a national scale only. National systems can be reliable on a national level, but due to growing cross-border trade this procedure is no longer a sufficient, effective and efficient solution. As a consequence, a new approach has to be developed that takes into account growing cross-border trade. Contract-based tracking would theoretically still be possible on an international scale, but would be very complicated and resource-intensive at the same time. The use of GOs should clearly be preferred due to reasons of efficiency.

Through voluntary cooperation within AIB, there has been a spontaneous harmonisation among many Member States. However, the need for further integration of the different disclosure systems is motivated by the need for an efficient and reliable system at European level. National solutions can be reliable, but their integration into the European market would be very costly. Therefore, from an efficiency and affordability perspective, a harmonised solution is preferable. The coherent implementation of the RES Directive in all European countries has to be promoted.

As a first step, the differences between existing disclosure systems of different countries have to be identified and made transparent. This way, it is possible to closely compare the different systems and to draw appropriate conclusions. As a second and more important step, the different disclosure systems should be harmonised. The objective should be to create a common and reliable basis for disclosure systems at European level, namely the use of GOs as a common basis. This is also stated in the RES Directive. As the GOs are the only tracking instrument with a clear legal basis at European level, GOs should be the only tracking certificate used for disclosure. Other tracking systems of similar purpose and functions as GO should, therefore, be converted to GOs.

Question 7: Do you agree that further harmonisation of the existing disclosure systems at a European level is necessary?

GOs are essential for creating a consumer-driven market for renewables. They give customers confidence about the source of the electricity and also enable them to shape the transformation of the energy system. GOs constitute a change-enabling instrument complying with customers’ right to information on purchased energy products. Therefore, the use of GOs as a basis for disclosure would support the EU’s increased focus on the role of customers in changing energy behaviours.

Furthermore, it is useful to define certain extra criteria that GOs and disclosure should fulfil:

- GOs should be issued only for net generation of a power plant to avoid the risk of double counting. Electricity used by the power plant itself is not injected into the grid. Therefore, no GOs should be issued for the amount of electricity used by the power plant or a customer directly taking power from the plant, which is never injected into the grid. For hydro power plants with pumped storage this would mean that GOs should be issued only for the generation which can be attributed to natural inflow into the reservoir.
- GOs should be implemented exclusively as internationally transferable certificates (as stated in the RES Directive) held in electronic registries.
- There is a need for harmonisation of the timing of the most relevant steps for calculating disclosure data across Europe. This approach would minimise the risk of market distortions and possibilities for arbitrage deals between countries with different deadlines. As a first step, electricity disclosure should be based on calendar years across Europe. As a second step, the deadline for cancelling GOs for purposes of disclosure in a given year X should be the 31 March of the year x+1.

GOs are an essential instrument for the creation of a consumer-driven market of renewables as they (indirectly) provide reliable information to customers who then are able to make a well-considered decision.

Question 8: Do you agree that GOs should be used as a common and reliable basis for all disclosure systems?

4.3.2 Mandatory issuing of RES-GOs

In the RES Directive, GOs are issued in response to a request from a producer of electricity from renewable sources. Hence, the producer has the right to request the issuing of GOs. However, to strengthen the disclosure system and make it more reliable and transparent, the issuing of GOs should no longer be voluntary, in response to a request from a producer, but be mandatory for all electricity produced. Complete and correct information on how much electricity generated from renewable sources is produced requires the implementation of mandatory issuing of RES-GOs.

Question 9: Do you agree that the issuing of RES-GOs should be mandatory for all electricity produced with renewable sources?

4.3.3 Extension of GOs to all sources of electricity

Although GOs are defined in the RES Directive as an instrument only for electricity generated by renewable sources, the question arises whether it is necessary to expand the issuing of GOs to different energy sources to avoid the problems of “double counting” or “double disclosure”.

As different methodologies and non-harmonised instruments are being used simultaneously for tracking electricity from production to consumption (GOs, electricity contracts, production statistics, etc…) attributes of a particular electricity volume can be covered by different mechanisms in parallel. Therefore, a high risk of multiple counting of electricity generated by renewable sources arises - whereby more electricity generated by renewable sources is disclosed and sold to customers than actually produced. In such a scenario, the total of attributes disclosed to final customers does not match the total of attributes of electricity generation. GOs have helped remedy this problem but the potential of the current GO system is almost used up.

Furthermore, customers should have the right to have reliable and guaranteed information concerning their electricity mix, irrespective of whether or not they are supplied with electricity from renewables. The extension of GOs to all electricity sources would also provide opportunities for dependable and trustworthy market offers for electricity which are not based on specific non-renewable sources. This, for example, is the case in Sweden, where one and the same supplier offers specific contracts which are either based on renewables or nuclear.

Therefore, the extension of GOs to all electricity would avoid the problem of double counting and would make disclosure more reliable and consistent. This approach would avoid the existence of different tracking mechanisms and would create a disclosure system that is more transparent and safer against fraud. It would also facilitate the monitoring of disclosure by the competent body.

The extension of GOs to all sources of electricity has already been implemented into national law in some Member States. Experience has shown that the expansion of GOs to energy of all sources has led to a significant rise of people’s awareness towards and acceptance of disclosure.

Question 10: Do you agree that issuing of GOs should be extended to all sources of electricity to make the basis of the disclosure system more consistent and reliable, but also to provide opportunities for market offers for electricity based upon specific non-renewable sources in a trustworthy manner? Should this be mandatory or voluntary?

4.3.4 Integration of European energy markets through the trading of GOs

Given the integration of electricity trading at wholesale market level, the development of the physical electricity markets and the GO markets must go hand in hand. The electricity output of some renewable energy sources, including those based on intermittent solar and wind energy, can vary considerably over short periods of time due to changing weather conditions. The risk of instability increases with a high volume of electricity produced by renewable sources that are integrated into the grid. Different tools and instruments have been used to deal with this intermittency problem. Cross-border trade in electricity has been considered a useful tool for tackling this problem as it enables countries to gain access to more diversified energy sources. Cross-border trade of electricity will become increasingly important in the context of a growing share of intermittent renewables and is a useful strategy for dealing with this variability problem.

The rapid increase of the volume trade in electricity generated from renewable energy sources should also be analysed in the context of the GO and disclosure system. Renewable energy potentials are distributed unevenly across Europe. The idea of trading GOs at a European level would therefore facilitate a cost-efficient achievement of the 20/20/20 targets for each Member State.

So far, the implementation of the GO system has primarily had a national focus in most countries. As CEER recommends a European wide harmonisation of the disclosure system based on GOs, CEER also sees the need for a transparent, secure and non-discriminatory European market for GOs. Until now, GOs have been traded over-the-counter in a non-transparent manner.

From a long-term perspective, it is worth considering whether the introduction of a market platform would make the trading of GOs more transparent. Customers would benefit insofar as the costs of the traded GOs would be made transparent and GO-trading could be more cost-efficient.

Question 11: Do you agree that the integration of electricity markets at European level should ideally be accompanied by actively developing a European RES-GO market?

4.3.5 Clear separation of disclosure and RES support when providing information to customers

When informing customers about their energy, RES-support schemes and disclosure should be considered two separate issues with their own instruments. While GOs are defined as the instrument for *disclosure* of the source of electricity, feed-in tariffs, green certificates, investment support, etc. are instruments for RES *support*. This separation can also be found in the relevant Directives. If Member State support schemes use transferable certificates, these certificates should be separated from GOs and should not be used for disclosure purposes.

Note that the RES Directive states that Member States can opt not to issue GOs for electricity that benefit from RES subsidies. As a result, in some countries subsidised-RES receive a GO, but not in others. There is a need for harmonisation in this respect as this creates difficulties for disclosure and the calculation of the residual fuel mix.

Question 12: Do you agree that when informing customers, RES-support schemes and disclosure should be seen as separate issues with their own instruments?

As the issues of disclosure and RES subsidies should be considered separately, all GOs should be recognised for disclosure purposes, irrespective of whether GOs are from supported or not-supported electricity. In any case, GOs include relevant information about possible support of the concerned amount of electricity in a transparent manner, so that no differentiation between GOs of not-supported and supported electricity needs to be made for disclosure. To avoid the risk of double support and over subsidising of RES production, Member States should have the liberty to take appropriate measures. Possible measures could include the subtraction of the GO value from the RES support or the issuing of GOs without a tradable value.

Question 13: Do you feel that it is necessary to recognise all GOs for disclosure purposes, irrespective of whether GOs are from supported or not-supported electricity?

4.4 Green electricity labels

4.4.1 Use of GOs as the unique tracking instrument and basis for “green” electricity labels

Customers have shown an increased interest in electricity originating from renewable sources. They are interested in carbon neutrality and have strengthened their awareness of other ecological problems and issues concerning sustainability. As an answer to this growing demand, a number of renewable electricity labels were introduced to the market with the aim of helping customers find the appropriate electricity product for their own particular interest.

The growing number of existing labels, however, has led to a complex and inscrutable situation for customers: the Eurobarometer survey on “Attitudes of Europeans towards building the single market for green products” indicates, that only half of the EU’s citizens trust the claims that producers of environmental-friendly products make and that the majority (81%) would like environmental information on product labels. Although the study does not observe only the energy sector, it describes very well the concerns of electricity customers towards electricity “green” labels.

Experience has shown that customers are willing to pay a premium for green electricity, but this willingness to pay for greater ecological value depends a great deal on how well the electricity supplier can document and market the environmental benefits of the electricity generated from renewable sources.

The assessment criteria used by labels are of uneven quality, especially in respect of sustainability issues. Each labelling system has its own range of criteria which can significantly differ from other labels. Each label guarantees a particular quality based on self-defined criteria which is why it is not easily comparable to other labels. Furthermore, the majority of labels do not apply across national borders and operate only within a national framework. These issues produce uncertainty among customers.

This inconsistency of credibility amongst labels has led to a controversial discussion on the usefulness of labels. The belief that labels should not be used at all clashes with the viewpoint that only labels with a good book and claim system are acceptable. This again is contradicted by another position in this debate, which believes that any label should be acceptable and that therefore no regulation should be put in place.

In order to guarantee the credibility and trustworthiness of electricity products which claim additional criteria, a holistic and more centralised approach is needed.

For customers who feel that having an electricity contract based on GOs does not in itself respond to their expectations, labels can be a possible solution, under certain circumstances. Nonetheless, the important role that GOs play in disclosure needs to be stressed and labels should not undermine the reliability and validity of GOs.

In order for labels to fulfil their intended value, namely to assure customers that the electricity purchased is not only based on renewables, but is also measured against additional sustainability criteria, labels should feature certain characteristics:

- To be able to ensure the credibility of labels, a harmonised disclosure methodology should be put in place. Labels should therefore be based on GOs as the unique tracking mechanism. This approach would also take into account the concern of customers to avoid double counting of the added value of green labelled electricity.
- To guarantee reliable and trustworthy labelling of electricity, a good “book and claim” system is needed;
- The ability of the label to trace the electricity back to its origin is of great importance to customers. Through the use of GO as a minimum criteria for labels, this can be done in a cost efficient way and without any additional effort of the electricity supplier.

Therefore, GOs should be the only tracking instrument used for labelling green electricity. In contrast to labels, the GO should not incorporate any aspects of “additionality”, i.e. the relationship between the green electricity and any new investments in renewables. Incorporating “additionality” should be the added value of a label. In order to guarantee a reliable label system, audits could be introduced. Furthermore, attention could be placed on consumer education in order to increase awareness about the risks of green washing.

Question 14: Do you agree that green power quality labels should mandatorily use GOs as their unique tracking mechanism?

4.4.2 Implementation of a labelling model alongside a GO and relevance for “additionality” purposes

The fact that there is a demand for “additionality” among certain groups of electricity customers means that a labelling model which goes beyond the GO would be welcomed. While the GO guarantees that the energy originates from electricity based on renewable sources, the label could provide an aspect of additionality. This would guarantee the credibility and trustworthiness of electricity products, but at the same time, would leave the possibility and flexibility for product development. This label should not be an initiative from the NRA, but from private initiatives. It is, however, very important that labels use the GO as a basis from which to build.

Bearing this in mind, this approach would turn the consumer into an involved actor in the development of renewable energy. Customers should be able to choose not to finance non-sustainable sources of energy. As customers should be one of the main drivers of renewable energy, they should be able to push for renewable development through new investment in production capacity.

Labels that are based on GOs and that incorporate additionality can be an answer for more demanding customers who want to go beyond the renewable origin of the power they buy and who want to actively contribute to investment in renewable production.

Question 15: Do you feel that it would benefit customers if a labelling model would be implemented alongside the GO, so that label(s) can provide additionality for those customers that demand it?

4.4.3 The role of suppliers as market players

For the sake of completeness, CEER would also like to point to the important role of market players in the context of disclosure. The following should not be considered as recommendations, but rather as a call for action to electricity suppliers. Although no draft recommendations have been developed on this specific issue, CEER believes that raising this question is important to be able to provide a complete picture of how green electricity offers are managed and marketed.

Suppliers are market players acting in close contact with customers; they bear a great responsibility with regard to the provision of information. It is of great importance that suppliers provide their customers with consistent and comprehensive information. Especially when it comes to information about the product fuel mix and the supplier fuel mix, suppliers must act carefully. The above-mentioned potential confusion for customers that arises from different fuel mixes should be taken into considerations by suppliers.

In compliance with certain EU Directives, electricity suppliers are obliged to inform their customers on a range of issues. As stated in the Electricity Directive, the supplier is obliged to specify in or with the bills and in promotional materials made available to final customers the contribution of each energy source to the overall fuel mix of the supplier and at least the reference to existing reference sources, where information on the environmental impact is publicly available.

In order to facilitate the comparison of such information for customers, it is crucial that the format of the display of such disclosure data is consistent in a long-term perspective.

The establishment of help desks or customer care centres within a supply company would be a good approach to enhance engagement with customers. Well-qualified staff who receive special training on disclosure related issues can provide enquiring customers with adequate and reliable information. Such customer care centres could also provide personalised information on consumption. This approach may even raise customers’ trust in the company, which is of course also in the interest of the supplier.

5 Public consultation and next steps

This CEER public consultation, launched on 17 December 2013, is carried out through a dedicated online questionnaire on the CEER website. CEER invites all interested stakeholders to respond to this public consultation. The deadline for responses is **7 February 2014**. CEER welcomes wider comments on the issues raised in the comments box for each question. All responses, except confidential material, will be published on the website www.ceer.eu.

After the consultation period, CEER will analyse all the responses received. The results of the consultation will be presented at a public hearing Q2 2014. Following this public hearing, CEER will develop its final advice, aiming to publish it around mid-2014.

Annex 1 – CEER

The Council of European Energy Regulators (CEER) is the voice of Europe's national regulators of electricity and gas at EU and international level. Through CEER, a not-for-profit association, the national regulators cooperate and exchange best practice. A key objective of CEER is to facilitate the creation of a single, competitive, efficient and sustainable EU internal energy market that works in the public interest.

CEER works closely with (and supports) the Agency for the Cooperation of Energy Regulators (ACER). ACER, which has its seat in Ljubljana, is an EU Agency with its own staff and resources. CEER, based in Brussels, deals with many complementary (and not overlapping) issues to ACER's work such as international issues, smart grids, sustainability and customer issues.

The work of CEER is structured according to a number of working groups and task forces, composed of staff members of the national energy regulatory authorities, and supported by the CEER Secretariat.

This report was prepared by the Consumer Empowerment (CEM) Task Force of CEER’s CRM Working Group. CEER wishes to thank in particular the regulatory experts closely involved in the preparation of this report.

Annex 2 – List of abbreviations

Term	Definition
AIB	Association of Issuing Bodies
BEUC	European Consumers Organisation
CCGT	Combined Cycle Gas Turbine
CEER	Council of European Energy Regulators
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
EESC	European Energy Certificate System
EPED	European Platform for Electricity Disclosure
EU	European Union
GGP	Guidelines of Good Practice
GO	Guarantee of Origin
MS	Member State
NGO	Non-governmental Organisation
NRA	National (energy) Regulatory Authority
PCT	Price Comparison Tool
RE-DISS	Reliable Disclosure System for Europe
RES	Renewable Energy Sources
RES-GO	Renewable Energy Guarantee of Origin

Annex 3 - Regulatory building blocks

Definition and purpose of the GO system

Directive 2009/28/EC defines the Guarantee of Origin (Article 2.j) as:
“(j) ‘guarantee of origin’ means an electronic document which has the sole function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources as required by Article 3(6) of Directive 2003/54/EC;

The purpose of GO system is also defined in 2009/28/EC (Article 15):

“Article 15
Guarantees of origin of electricity, heating and cooling produced from renewable energy sources

1. *For the purposes of proving to final customers the share or quantity of energy from renewable sources in an energy supplier’s energy mix in accordance with Article 3(6) of Directive 2003/54/EC, Member States shall ensure that the origin of electricity produced from renewable energy sources can be guaranteed as such within the meaning of this Directive, in accordance with objective, transparent and non-discriminatory criteria.”*

And also in recital 52 of the same Directive 2009/28/EC:
“(52) Guarantees of origin issued for the purpose of this Directive have the sole function of proving to a final customer that a given share or quantity of energy was produced from renewable sources. A guarantee of origin can be transferred, independently of the energy to which it relates, from one holder to another. However, with a view to ensuring that a unit of electricity from renewable energy sources is disclosed to a customer only once, double counting and double disclosure of guarantees of origin should be avoided. Energy from renewable sources in relation to which the accompanying guarantee of origin has been sold separately by the producer should not be disclosed or sold to the final customer as energy from renewable sources...”

In the “*Directive 2004/8/EC of the European Parliament and the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC*”, GO are used also for electric energy produced by high efficiency cogeneration:

“Article 5
Guarantee of origin of electricity from high-efficiency cogeneration
1. On the basis of the harmonised efficiency reference values referred to in Article 4(1), Member States shall, not later than six months after adoption of these values, ensure that the origin of electricity produced from high-efficiency cogeneration can be guaranteed according to objective, transparent and non-discriminatory criteria laid down by each Member State. They shall ensure that this guarantee of origin of the electricity enable producers to demonstrate that the electricity they sell is produced from high efficiency cogeneration and is issued to this effect in response to a request from the producer.”

Import and export

Directive 2009/28/EC allows transfers of GO between Member States (Article 15):

“15. 9. Member States shall recognise guarantees of origin issued by other Member States in accordance with this Directive exclusively as proof of the elements referred to in paragraph 1 and paragraph 6(a) to (f). A Member State may refuse to recognise a guarantee of origin only when it has well-founded doubts about its accuracy, reliability or veracity. The Member State shall notify the Commission of such a refusal and its justification.

15.10. If the Commission finds that a refusal to recognise a guarantee of origin is unfounded, the Commission may adopt a decision requiring the Member State in question to recognise it.”

CEN-CENELEC Joint Working Group on guarantees of origin and energy certificates

Following the conclusions of a working group on Energy certificates within the CEN-CENELEC Sector Forum on Energy Management and the organisation by CEN and CENELEC of a seminar on 'Guarantees of origin and Energy certificate systems' on 23 April 2008, SIS (Swedish Standards Institute) submitted a proposal for new standardisation work in this area to CEN and CENELEC in December 2009.

The CEN and CENELEC Technical Boards approved this proposal and as a result a new CEN-CENELEC Joint Working Group was created in April 2010. CEN-CLC/JWG 2 'Guarantees of origin and Energy certificates' works on European standardisation on guarantees of origin for trading and/or disclosure/labelling of electricity and CHP (co-generation of heat and power) and on energy certificates.

The objective for this European Standard is that it should contain standardisation of Guarantees of Origin in line with the relevant Directives and existing voluntary schemes with the aim to create a standardised GO that can be used for mainly disclosure/labelling and trading.

There is an increasing demand from the end customers’ side regarding reliable accounting of the origin of energy production. There is also an obligation for electricity suppliers to provide reliable disclosure information to end customers. A standardised system for GOs can fulfil these requirements.

Standardisation of Guarantees of Origin will create a tool for fulfilling the requirements in the revised Renewable Energy Directive, the Electricity Directive and the Cogeneration Directive and to create a basis for further development of certification regarding the original electricity production. In this way a harmonised way to prove the origin of the electricity produced will be developed. These GOs can be used for trading and/or for disclosure/labelling of electricity. All Member States shall recognise the GOs issued by other Member States. Further, the system must be fraud-resistant and avoid double-counting. Therefore, a European Standard for GOs for all member states is important.

The content of the standard can, after necessary modifications, for example be applied to heating, cooling, and gas (including biogas). These modifications, however, will not be included in this standard.

The elaboration and publication of European Standards will allow certification bodies to develop their activities on consensual and recognized practices and this will increase the credibility of the certificates they deliver.

E-TRACK

The E-TRACK Project provides a detailed insight into the tracking of electricity, the requirements for the design and operation of tracking systems, which are set by market players, EU and Member States' legislation. Covering 30 European countries it offers a blue print for a European-wide standard for these tracking systems. This website provides industry, policy makers, regulators, consumer groups and other stakeholders with a place to obtain information regarding the tracking of electricity and related issues, to get involved in the discussions, and to find out about the E-TRACK Project, phases I and II.

Phase I of the project was completed in June 2007. All reports are available on this website under the item E-TRACK - Phase I –Archives.

Phase II of the project has refined the proposed tracking standard, by integrating the new Guarantees of Origin for cogeneration, the implementation of which was due in 2007. This phase also focused on the specific requirements from new Member States. Furthermore, consumer organisations' requirements on tracking systems and the related policies and the views of non-domestic consumer groups are also portrayed in one of the project reports. Finally, the action has developed a strategy for the further development of energy-related certification schemes and their potential integration.

The project was concluded in September 2009. A follow-up project started in Spring 2010.

EPED

European Platform for Electricity Disclosure (EPED) is a platform for competent bodies that are establishing a European standard for Electricity Disclosure. The core of the disclosure standard is calculation of the residual mix to minimize the risk of double counting. This way, customers can be protected against offers from suppliers based on false fuel mix calculation.

RE-DISS

The RE-DISS project "Reliable Disclosure Systems for Europe (RE-DISS)" is funded by the Intelligent Energy Europe Program of the European Commission and aims at improving significantly the reliability and accuracy of the information given to customers of electricity in Europe regarding the origin of the electricity they are consuming. Such information is given to all customers through the regime of electricity source disclosure, which is a requirement on all European suppliers of electricity.

The background of the project is formed by the formal tools of the Guarantees of Origin for electricity from renewable sources (RES) and from high-efficient cogeneration, which are defined by European Directives. The project aims at supporting European countries to properly implement the requirements set out in the RES Directive as well as in the Cogeneration Directive and the Electricity Directive. The project establishes and supports a group of "Competent Bodies" which have been designated by major European countries and which are dedicated to improve the procedures for Guarantees of Origin and electricity disclosure in their countries.

The RE-DISS project was launched in mid April 2010 and ended in October 2012. The project builds upon the results and recommendations from the E-TRACK project, which has developed a standard for systems tracking electricity attributes in Europe for the purpose of disclosure.

Other initiatives contributing to better disclosure and the potential for better information to the customers

- **AIB**

The purpose of the AIB is to develop, use and promote a standardised system: the European Energy Certificate System - "EECS".

EECS is based on structures and procedures which ensure the reliable operation of international certificate schemes. These schemes satisfy the criteria of objectivity, non-discrimination, transparency and costs effectiveness, in order to facilitate the international exchange of certificates.

In order to further facilitate the international exchange between of energy certificates, the AIB operates an inter-registry telecommunications Hub.

The European Energy Certificate System (EECS) offers a framework for creating and transferring electronic documents (EECS Certificates). For each megawatt-hour of energy, EECS certifies the quality of its source and/or the method of its production. The EECS Rules ensure that EECS energy certificate systems are reliable, secure and inter-operable - these harmonised standards enable the owners of EECS Certificates to transfer them to other domestic and international account holders.

- **The European Energy Certificate System EECS: the concept**

Each EECS certificate is uniquely identifiable, transferable and therefore tradable, and contains standard information on the source of the energy, and its method of production.

The Principles and Rules of Operation of the European Energy Certificate System (the EECS Rules) define a certificate as an electronic document which identifies the source and method of production of a unit of energy, and relates to a specific purpose – such as energy source disclosure or compliance with an obligation. It also prohibits certificate holders from separately claiming or conferring rights or title to any element of this benefit, and for this purpose.

Certificates are created, change owners and are eventually made untransferable under a carefully developed and managed control infrastructure, the EECS Rules, as interpreted by each country or region according to its "Domain Protocol". The adequacy of this interpretation is assured by the other AIB members as a condition of membership.

- **EECS and the CEN standard**

The EECS Rules provided the foundation of the proposed CEN standard. This version is the latest available, and is currently being revised prior to decision-making by CEN member organisations.

- **RECS International**

RECS International is a group of market participants that trade in renewable energy certificates throughout Europe. It started in 2001, as a voluntary initiative to create a uniform system for cross-border certificate trading, and there are now more than 250 members trading certificates in over 22 (mostly European) countries.

To protect its investment in a secure, workable and efficient market, RECS works closely with the Association of Issuing Bodies (AIB), holding quarterly international meetings and sponsoring workshops and open seminars.

In addition, RECS International effectively lobbies national and European governments for harmonisation of the pan-European market for certificate trading.

Annex 4 - Examples of websites hosting price comparison tools

Commission pour la Régulation de l'Electricité et du Gaz (CREG):
http://www.brusim.be/proc/simulation;jsessionid=D227BF257C7748B5D8C73084D26B3496?execution=e1s1

Comsión Nacional de la Competencia y de los Mercados:
http://www.comparador.cne.es/comparador/index.cfm?js=1&e=N

E-Control, Austrian Energy Regulator:
http://www.e-control.at/de/konsumenten/service-und-beratung/toolbox/tarifkalkulator/tarifkalkulator-application?sav_ref=http://www.e-control.at/de/home&js=1&sw=1680

Energie-info: http://www.energie-info.fr/

Institut Luxembourgeois de Régulation: http://www.calculix.lu/web/tk/tk

Annex 5 - Examples of existing disclosure reports

Institut Luxembourgeois de Régulation:
http://www.ilr.public.lu/electricite/documents_NEW/rapport_etiquetage/rapport_biannuel_etiquetage_2011-2012.pdf (Fench)

E-Control, Austrian Energy Regulator:
http://www.e-control.at/portal/page/portal/medienbibliothek/oeko-energie/dokumente/pdfs/Stromkennzeichnungsbericht2013.pdf (German)

VREG, Flemish Energy Regulator:
http://www.vreg.be/sites/default/files/rapporten/rapp-2013-04_brandstofmix_2012.pdf (Dutch)