

September 10, 2012  
Page 1/1**Cover Letter: Best Practice - Disclosure**

**To:** Reliable Disclosure for Europe (RE-DISS) c/o Christof Timpe  
**From:** RECS International Secretariat  
**Subject:** RECS International: Supplemental Best Practice Regarding Electricity Supplier Made Electricity Products

**Dear RE-DISS Advisory Group,**

In the light of recent events RECS International felt it important to express their opinion regarding where the focus of disclosure and supplier-made electricity products should be. In the attached document, entitled, "Best Practice Disclosure" RECS International elaborates further on the below statements.

RECS International is of opinion that for a clear, transparent, accurate and fair electricity market and to protect the consumer, electricity supply companies must use a clear definition of all electricity products. These products are either (1) fully tracked products or (2) partially/untracked products:

- In the case of a fully tracked electricity product:
  - The products electricity delivery is tracked via GOs produced in year X and cancelled in year X (with a three month administration period in year X+1).
  - The lifetime of GOs (beyond March of year X) is in practice shorter than one-year. This is a result of a necessary closing date for all year X GOs in March of year X+1 (the administration period).
  - This administration period or closing date for the use of GOs in supplier-made electricity products should be standardized across all member states.
- In the case of partially/untracked electricity products:
  - The country residual mix must be used when disclosing the fuel-mix to consumers.
  - A GO produced in year X and cancelled in year X can be used to change this fuel-mix to the consumer's of the supplying company if that company so chooses to provide a different (but not fully tracked) mix to their consumers.

RECS International is proud of the work done by RE-DISS and looks forward to seeing future disclosure developments. These are however points that cannot be ignored. It is our opinion that RE-DISS should better define basic industry-wide standards defining how supplier-made electricity products are created and the vintage year from which the GOs, defining the electricity product, were produced.

The RECS International Secretariat

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**Best Practice - Disclosure**

**To:** Open Public Memo  
**From:** Secretariat RECS International  
**Subject:** Position RECS International Best Practice Disclosure

**1. Introduction**

European law states that electricity supply companies must inform their consumers about the fuel mix, carbon emissions and nuclear waste they have consumed. Problems arise through how this is communicated and calculated. A tracked electricity product is supplied in the current year, year X, but the information given to consumers often contains a non-tracked electricity product from the previous year, year X-1. Tracked electricity products, coming from year X, are delivered to the customer in the same year the tracked electricity is produced, year X, whereas the untracked electricity portion, also being delivered in the current year is originating from information from the previous year, year X-1.

These electricity systems are naturally complex and not easy to understand, but the limited amount of standardization, including in the example above, makes it more difficult for the consumer to make an educated choice in their electricity consumption, their electricity product. (Inter)-national regulation is at best not standardized and in some cases regulation is completely missing. RECS International believes that proper regulations, leading to more standardised approaches will deliver better information to consumers. In this memo RECS International presents the key elements for a standardised approach for tracking specific electricity products and disclosure systems.

**2. The situation we are in now****2.1 Why disclosure?**

Tracking electricity was introduced to differentiate electricity products and to give the electricity consumer a choice in their electricity consumption. Since physical electricity flows cannot be followed through the grid a book-and-claim system has been regulated in the European RES Directive for the purpose of proving to final consumers the share of [renewable] electricity in a suppliers fuel mix. This book-and-claim system is based on the Guarantee of Origin (GO) certificate in Europe.

The information given to the consumer via the GO system allows them to make a choice in their electricity consumption, but, the information they receive must first be correct, transparent and accurate.

**2.2 The three categories of products, in practice:**

In practice we see three categories of electricity products offered by supplying companies to the end-consumers (both large and small consumers alike):

- Electricity products from specifically tracked electricity (with GOs)
- Electricity products based on the residual mix (the electricity that is untracked)
- Electricity products based on partially tracked, partially residual mix electricity (partly GOs, partly untracked)



### *2.2.1 Electricity products from specifically tracked*

RECS International is of the opinion that only one tracking certificate can be used per country or region (also known as a domain). This is because multiple tracking certificates could potentially interact and 'double attribute' green electricity services. In nearly all domains only one tracking certificate exists, the internationally recognized GO tracking certificate. The internationally recognized GO system most often adhere to a basic set of quality standards (See annex A for the criteria of qualified GO systems).

### *2.2.2 Electricity products based on residual mix*

All other electricity that is untracked creates another product known as the residual mix. Since a very large portion of renewable electricity is tracked in Europe, the residual mix tends to be of a lower quality (higher CO2/higher nuclear waste) than a tracked electricity product. However, some countries are beginning to track all electricity sources meaning each consumer will know exactly what green electricity and/or grey electricity they have consumed (See annex B for a detailed description of residual mix).

### *2.2.3 Electricity products based on residual mix, combined with tracked electricity*

If the supplier is delivering products based on the residual mix they are encouraged to cancel specific tracked electricity in order to change their customers individual residual mix. This will be described in more detail in section 3.4.2, "Improving residual electricity".

## **3. Discussion**

### **3.1 Residual mix**

As soon as the tracking of electricity is allowed within a domain the 'grid mix' and the associated 'grid average emission factor' can no longer exist. The tracking of electricity, and eventual purchase of the electricity attributes by a consumer changes the 'grid mix' which must become a residual mix. If large volumes of renewable electricity are taken out of the mix and supplied specifically to consumers who have purchased those rights, the 'grid mix' will be changed significantly. By using a 'grid mix' as if there is no tracking taking place within a domain, incorrect information will mislead the consumer. Even small amounts of electricity tracking from non-renewable sources can change the 'grid mix' and mislead the consumer.

RECS International is of the opinion that if one can track electricity within a specific region or domain there is no longer the possibility to use a 'grid average emission factor'. One must always calculate a residual mix for that domain. (In annex B we have provided basic criteria for the calculation of a residual mix)

### **3.2 Proof of tracked electricity**

Tracked electricity is proven in Europe by the cancellation of a GO. In some countries the use and cancelation of the GO are mandatory in supplier delivered electricity products (both renewable and non-renewable). In most of these countries it is also stated that the GO must be produced (meaning the renewable electricity must be produced) in the same year the tracked electricity is delivered as an electricity product. The year renewable electricity is produced is called the vintage year.

This means, that all standardized countries regulate that tracked electricity delivered in the current year, year X, must be based on GOs produced in that same year, year X. In most cases the market players tracking and trading electricity have two or three months time to update their bookkeeping at



the end of the year. This means that a GO produced in the current year, year X, can be used for an electricity product in the current year or until February or March of the next year, year X+1 (assuming the 12-month lifetime of the GO has not already passed). This means that the lifetime of a December GO is in most cases two or three months, depending upon national regulation.

RECS International is of the opinion that the closing date for current year GOs, produced in year X, should all have the same closing date in year X+1. This closing date should be standardized across all EU member states.

### **3.3 Proof of residual electricity**

Since Europe has a mandated tracking system, untracked electricity must per definition be disclosed as a residual mix. However, in many countries the residual mix is not used by market players and not mandated in national regulation. This can lead to substantial double counting of green electricity. European projects, such as Reliable Disclosure Systems for Europe (RE-DISS), have been developed to provide standardization in the field of residual mix calculation and use.

Regardless of residual mix compliance issues the consumer is always protected via the use of tracked electricity and cancellation of GOs. A consumer delivering a residual mix from the previous year, year X-1, is able to cancel GOs in year X to prove a differing personal, or company fuel-mix than the domains residual mix.

### **3.4 Looking from a company perspective**

#### *3.4.1 A company with only tracked electricity products*

In practice we see a number of electricity supply companies delivering only tracked electricity products to their consumers. This information, as previously mentioned, is tracked and hence based on the current years production, year X. RECS International believes this is the best form of communicating fuel-mix information to consumers. This information contains then no residual mix and is not based on the production figures of the previous year.

The same remains true for supply companies that have more than one tracked electricity product. Some supply companies track all their electricity production, renewable and non-renewable. In this way they are able deliver both a tracked renewable electricity product and a tracked-fossil/nuclear electricity product. The consumer is able to choose their product. Since both the products are tracked, they are both being determined by the production in the current year, year X.

Electricity supply companies that have tracked electricity products and untracked electricity products can also exist. In this case the administration of the cancelled GO must be organised in such a way that proper auditing is possible (it is suggested that outside audits are always done but auditing is critical in such a scenario). The supply company must prove that the tracked electricity products are backed up by qualified GOs from the current year, year X, and that tracked electricity products do not contain any residual-mix or untracked electricity. The consumers purchasing the untracked electricity product will receive residual mix information based on the previous year, year X-1.

#### *3.4.2 Improving residual electricity*

In the opinion of RECS International a supply company should never be able to cancel GOs in the previous year, year X-1, in an attempt to improve their products in the current year, year X. If a electricity supply company is not pleased with the electricity product they are delivering to their



consumers (a product based on the domain's residual mix) they can cancel GOs from the current year's electricity production, year X.

This is in conflict with the expiration of GOs that can take place if GOs are not cancelled. A December produced GO, for example, has until February or March the next year, year X+1 to be cancelled. If it is not cancelled before that deadline (or the 12-month lifetime of the GO has passed), the domain will consider these GOs untradeable and include them in the residual mix of year X-1. These residual mix figures, for clarity, are delivered to the consumer in year X.

In this way a domain can 'expire' GOs in the previous, year X-1, for the current year, year X (although the residual mix has still not been delivered to consumers by the competent bodies). A electricity supply company however will never be able to cancel a GO outside of year X and instead needs to 'improve' their current years residual mix (based on the previous year's production, year X-1) with GO cancelations from the current year, year X.

### **3.5 Looking from a country point of view**

It is possible for a country to put non-discriminatory requirements on the borders for import. An example of this could be if a country has phased out nuclear electricity domestically and is attempting to forbid imports of that production technology. If the country instead cancels fossil fuel or renewable electricity GOs for all their imports (and GO exports) they will be able to claim no nuclear electricity consumption in their residual mix. Unfortunately, if import electricity is not specifically tracked they will not be able to claim a fully non-nuclear residual mix due to the unknown portions of the untracked, residual mix electricity.

### **3.6 Carbon accounting**

European legislation mandates that disclosure figures be provided in regards to carbon emissions as well as nuclear waste. In this memo we restrict ourselves to carbon accounting only, knowing that the same approach can be used for nuclear waste.

Most approaches to calculate emissions involve adding up all the emissions<sup>1</sup> produced during the production of electricity at a particular site, often tied to existing systems such as EU-ETS, and dividing these emissions based on those who have consumed various portions of that production<sup>2</sup>. This is easily done with tracked electricity. If ten people each account of 10% of the total consumption of an electricity plant the emissions each person is responsible for is 10% of the plants total emissions. This is the basic concept behind, scope II carbon accounting. Their consumption and subsequent emissions was tracked, proved then cancelled via the GO.

Calculating the emissions an end-user is responsible for, if they consume a residual mix electricity product (untracked electricity), is the same general process. All emissions of all sources still in the residual mix are divided up by the total volume of the residual mix. Each user can then determine the volume of their consumption and hence their scope II carbon emissions.

<sup>1</sup> At the moment only emissions 'during operation' are taken in account. It is possible to use emissions based on LCA, but than the approach need to be consistent and an LCA is need for all sources.

<sup>2</sup> Grid losses are often 'consumed' by the grid operator/distribution network.



In this approach specific emissions on the production side are 'allocated' to specific end-users. In fact this is a basis for further liberalisation of the electricity sector. Apart from choosing your own supplier, the consumer can now also make a choice in the electricity products being offered by suppliers. The consumer is able to then choose an electricity product, not just based on price, but also the environmental attributes associated with their chosen electricity product.

#### **Annex A. Criteria qualified GO systems**

In order to inform consumers for all type of electricity products only the official GO system must be used. But to make the GO systems work properly some minimum criteria needs to be fulfilled.

- Only the official GO system can be used. All members states are suppose to have such a system for electricity produced in their domain and consumed in their domain. These GOs must be easily recognized by outside domains in an effort to easily transfer electricity information between member states.
- RECS International is of the opinion that there is one additional requirement for national systems that needs implementation via EU regulation. All national issuing bodies must report to RE-DISS or EPED their cancelled GOs at the end of the year. This must be done in order to enable the calculation of the residual mix completely and accurately. This is the only way to exclude double counting and that must be made mandatory Europe-wide.

Apart from this RECS International is of the opinion that additional requirements can be formulated for around the import and export of GO certificates. Import and export rules need to be monitored in order to avoid the double counting, double selling and claiming of renewable electricity. RECS International has for this reason some recommendations:

- The registry of the issuing body is preferably connected to the AIB hub. This guarantees that the GO is standardised and cannot be used twice.
- Cancellation statements can be used, but these need to be registered properly in the registries. The Association of Issuing Bodies has regulated this satisfactory manner.

#### **Annex B. Residual Mix**

The basic principles behind a residual mix calculation are:

- The production of all electricity per country is the basis. First that national fuel mix is determined (Note: This national fuel mix is often in the percentage of emissions technologies and not a specific emission factor (i.e. grams CO<sub>2</sub>/kWh)
- The national fuel mix is corrected by net-physical import and/or export of the domain.
- This corrected national fuel mix is then improved by including the information regarding tracked electricity, meaning, the import and export of GOs are calculated (All tracked electricity is calculated: renewable as well as fossil and nuclear GOs).
- All tracked electricity (meaning issued and cancelled GOs) are taken out of the mix and the residual mix is determined.
- Note:
  - In some countries subsidised electricity did not receive a GO and is earmarked as renewable in the residual mix. In such a situation there is no proper tracking mechanism but it is included in the German residual mix as if it were tracked electricity and allocated on behalf of the German residual mix.