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## 1 Implementation of Tracking Systems

### 1.1 Electricity Disclosure

The Ministry of Ecology, Sustainable Development and Energy is the Competent Authority for Disclosure.

The disclosure obligation from Directive 2003/54/EC was transposed in the article 5 of Decree n°2004-388 from the Ministry of Economy, Finances and Industry on 30 April 2004. This decree was consolidated by Decree n°2012-62 from 20<sup>th</sup> January 2012. The contents are summarised below.

Disclosure applies to the calendar year and is an obligation on all suppliers to end consumers. Since 1<sup>st</sup> July 2004, these suppliers have to indicate on their bill, or an attached document, the share of different primary energy sources that have been used to produce the electricity sold during the preceding year. There is no list of mandatory categories to disclose. Disclosure applies to the supplier's portfolio. Suppliers also have to indicate in which documents consumers can find information on the quantity of CO<sub>2</sub> emissions and/or radioactive waste per kWh produced from these primary energy sources.

Market players that are trading electricity on exchanges have to supply the market operator with the same information for each offer. The market operator then aggregates data for one year and establishes the breakdown for the different primary energy sources on this market. This information should then be communicated to buyers.

From 1<sup>st</sup> January 2012 onwards, GOs have been the only certification accepted to prove renewable origin of the electricity in the commercial offers from suppliers (Ordinance 2011-1105). No other tracking instrument can be used for green offers.

When electricity offers are certified by a system that has a legal basis such as a guarantee of origin established under national law, the market operators should not count this information in the general data and exclude the electricity from these yearly market statistics. The buyer of this electricity can use the certification in his disclosure obligation.

The deadline for submitting the disclosure information related to year X to the Ministry in charge of Energy is 31<sup>st</sup> of December of year X+1.

Agents from the Ministry or from the regulator CRE (Commission de Régulation de l'Énergie) have the power to enquire in order to verify disclosed data.

#### 1.1.1 Disclosure Figures

Following a formal request from the Energy and Climate Authority department of the Ministry of Ecology, Powernext, which is the Competent Authority for GOs as appointed by the French Ministry of Ecology, published in 2014 for the first time the composition of the French Residual Mix as calculated by the RE-DISS team. Powernext recommends to use RE-DISS values for RM for all energy from unknown origin, including purchases on the power exchange. The formal request from the Ministry of Ecology requires Powernext to publish this residual mix every year while it is the Competent Authority for GOs.

Table 1: Compared composition of national mixes as calculated by RE-DISS for 2014

	Production Mix	Final Residual Mix	Total Supplier Mix
<b>Renewables</b>			
Total	<b>17,25%</b>	<b>14,35%</b>	<b>15,79%</b>
Unspecified	0,00%	0,00%	0,00%



Solar	1,11%	1,15%	1,13%
Wind	3,17%	3,28%	3,23%
Hydro&Marine	11,73%	8,69%	10,16%
Geothermal	0,00%	0,00%	0,00%
Biomass	1,23%	1,22%	1,26%
<b>Nuclear</b>	<b>77,63%</b>	<b>80,35%</b>	<b>79,00%</b>
<b>Fossil</b>			
Total	<b>5,12%</b>	<b>5,30%</b>	<b>5,21%</b>
Unspecified	0,00%	0,00%	0,00%
Lignite	0,00%	0,00%	0,00%
Hard coal	1,55%	1,60%	1,57%
Gas	2,68%	2,78%	2,73%
Oil	0,89%	0,92%	0,90%
<b>CO2 emissions (gCO<sub>2</sub>/kWh)</b>	31,13	32,22	31,68

Source: RE-DISS 2015

Suppliers' fuel mix disclosure takes very different forms, as no format is imposed by the decree.

### 1.1.2 Environmental Information

Suppliers do not have the obligation to disclose environmental information in the electricity bills, but they have to indicate in these bills where the end consumer can find information on carbon dioxide emissions and/or radioactive waste per kWh produced from these primary energy sources for the given supplier.

### 1.1.3 Suppliers Fuel-Mix Calculations

Regulations concerning Fuel Mix calculations are not very detailed and no guidelines were issued by the regulator, the Ministry or the suppliers. A national residual mix is published by Pownext, the Competent Authority, following a formal request from the Energy and Climate Authority department of the Ministry of Ecology. In practice, EPEX SPOT, the electricity exchange, does not provide for an exchange mix because they do not receive this information from sellers. So they used to direct their net buyers to the ENTSO-E mix. EPEX SPOT now direct their net buyers to use the RE-DISS residual mix published by Pownext, which is an improvement.

Suppliers integrate the best available information they have: contracts, own production, exchange mix and they can also integrate GO in their supplier mix. Regarding product mix, from 1<sup>st</sup> January 2012 onwards, GO have been the only certification accepted to prove renewable origin of the electricity in the commercial offers from suppliers (Ordinance 2011-1105). No other tracking instrument can be used for green offers.

### 1.1.4 Acceptance of GO

The acceptance of GOs is the responsibility of the Ministry of Ecology. If a request should happen where there is no agreement in place between countries, Pownext could make a recommendation to the Ministry, that would decide in the end.

## 1.2 Guarantees of Origin for Electricity from Renewable Energy Sources and High-Efficient Cogeneration

Guarantees of origin for RES and CHP were established within the framework law on energy from 13<sup>th</sup> July 2005 in article 33. This was later codified in the Code de l'énergie (article L314-14 to L314-17) in May 2011 and modified in September 2011 by Ordinance n°2011-1105.

The issuing body was designated by the administrative authorities. A first decree, n°2006-1118 from 5<sup>th</sup> September 2006, provided that the TSO or the DSO were responsible for issuing GO, depending on the grid to which producers were connected. GO could be issued also for non-grid connected producers and in this case, the TSO was the issuing body. RTE (the TSO) was in charge of the registry. DSOs had to transfer a copy of the GO that they have been issuing to RTE within 8 days after the issuing date.

Following Ordinance from the 19/12/12 published on the 15/01/13, the responsibility for Issuing Body was transferred to Powernext, the French power exchange, with effect from the 1<sup>st</sup> May 2013.

GO are issued on a voluntary basis upon demand of the entitled stakeholders.

GO are issued against payment. The cost has two components: one fixed part and one variable part. Fixed part is a yearly fee of 2000 € per account holder of the registry and 450 € per production device for a three year registration. Variable part is 0,03€ per GO issued, 0,01€ per GO transferred, exported, imported or cancelled.

Up until the 31<sup>st</sup> December 2011, most GO were being cancelled for foreign consumers (as shown in the public part of the former RTE registry) and RECS certificates were used to back offers which contain a defined share of renewable electricity. From the 1<sup>st</sup> January 2012, following ordinance 2011-1105 from 14 September 2011, GO became the only certification accepted to prove renewable origin of the electricity in the commercial offers from suppliers.

Decree n°2012-62 from 20<sup>th</sup> January 2012 concluded the transposition of directive 2009/28. It deals with additional information that should be carried by GOs to be in line with the requirements of the directive (such as location, type and level of support, type of energy...). Following this decree, the designation of a new Authorised Issuing Body that would issue GO according to directive 2009/28 was organised. Ordinance from the 19/12/12 published on the 15/01/13, Powernext was designated as Authorised Issuing Body for a period of 5 years.

### 1.2.1 RES-GO System

RES-GO have been issued since January 2007, first by RTE, then by Powernext. In 2013, following the announcement of their nomination as authorised issuing body for GOs, Powernext applied for membership in AIB. They were accepted in the EECS electricity scheme in July 2013.

### 1.2.2 CHP-GO System

CHP-GO can be issued, but so far none was. Renewables and CHP are covered by the same type of GO and share one registry. From the texts it is not very clear if there will be one or two GO for biomass CHP, but Powernext has planned that they will issue only one GO.

### 1.2.3 GO statistics

The statistics of transactions on EECS GOs are the following :

Number of GOs per year	2013	2015
Issue	19 619 260	
Transfer	2 043 977	
Export	7 876 492	
Import	1 250 025	
Expiry	11 941 195	
Cancellation	10 575 993	

Source: AIB

## 1.3 RES-E Support Schemes

Feed-in tariffs (FiT) in combination with large calls for tenders are the main tool for supporting RES-E. It is specified that when RES-E is being supported by feed-in tariffs, then the buyer of electricity (for the moment EDF and some local distribution companies) also gets with the electricity the right to issue GO for the quantity bought (Art L314-14 of the Energy Code). If then the buyer of the electricity chooses to sell the GO thus acquired, he has to reimburse the product of the sale to the State as he gets compensation for costs incurred because of the obligation to pay the FIT to RES producers.

The new law on Energy Transition, that was adopted on 22 July 2015 introduces a premium on top of the market price. A decree should define the details regarding technologies, entry into force, level of premium. The law already specifies that the calculation formula which will define the level of the premium, will take into account the revenues generated by the sale of GOs.

## 2 Proposals for Improvement of the Tracking System

### 2.1 Proposals regarding general regulation on tracking systems

To improve the tracking system in place the following BPRs<sup>1</sup> should be applied:

- BPR [23] – Other Reliable Tracking Systems (RTS) should be defined where appropriate based on criteria of added value, reliability and transparency
- BPR [24] – RTS can comprise, where applicable:
  - Homogeneous disclosure mixes for regulated market segments where no choice of supplier or different products exists,
  - Support systems whose interaction with disclosure requires a certain allocation of the attributes of supported generation (e.g. a pro-rata allocation to all consumers in a country where RES electricity is supported by a feed-in tariff),
  - Contract based tracking

<sup>1</sup> Version 2.1, 1<sup>st</sup> December 2012

## 2.2 Proposals regarding Disclosure

A residual mix should legally be introduced in order to account for untracked consumption and it should be calculated according to the RE-DISS methodology, following the RE-DISS schedule for RM calculations. (BPR [25-27]):

- BPR [25] All countries should provide a Residual Mix (RM) as a default set of data for disclosure of energy volumes for which no attributes are available based on cancelled GO or based on other Reliable Tracking Systems. The use of uncorrected generation statistics (e.g. on national or UCTE, Nordel etc. levels) should be avoided.
- BPR [26a]: The calculation of the Residual Mix should follow the methodology developed in the RE-DISS project.
- BPR [26b]: As part of this methodology, competent bodies from all countries in Europe should cooperate in order to adjust their Residual Mixes in reflection of cross-border transfers of physical energy, GO and RTS.
- BPR [27]: For purposes of this cross-border adjustment, competent bodies should use data provided by RE-DISS. They should also support the collection of input data for the related calculations by the RE-DISS project team.
- BPR [29] If contract based tracking is allowed in a country, it should be regulated clearly.
- BPR [30] Such regulations should ensure that
  - The rules of the tracking system are transparent and comprehensive and are clearly understood by all participants in the system.
  - Double counting of attributes and loss of disclosure information is minimised within the contract based tracking scheme and also in the interaction of the contract based tracking scheme to GO and other RTS (if applicable). As a precondition for this, the contract based tracking scheme should be able to provide comprehensive statistics about the volumes and types of electricity attributes which are tracked through it.
  - The relevant information for disclosure purposes should be available in time to meet the timing requirements
- BPR [34] The deadline for cancelling GO for purposes of disclosure in a given year X should be 31 March of year X+1 (see BPR 5b).
- BPR [35] The timing of the calculation of the Residual Mix should be coordinated across Europe:
  - By 30 April X+1 all countries should determine their preliminary domestic Residual Mix and whether they have a surplus or deficit of attributes.
  - By 15 May X+1, the European Attribute Mix should be determined.
  - By 31 May X+1, the final national Residual Mixes should be published.
  - As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.

## 2.3 Proposals regarding RE-GO and CHP-GO

The RE-GO and CHP-GO system is very much in line with the RE-DISS BPR, since Powernext is issuing EECS GOs. Still the system could be improved through the implementation of the following BPRs:

- BPR [1a] Metered production periods for issuing GOs should not be longer than a calendar month.
- BPR [2] If possible, issuing of GOs should be done DIRECTLY after the end of each production period
- BPR [3 a] Lifetime of GO should be limited to 12 months after the end of the production period.

- BPR [3 b] GOs that have reached this lifetime should be collected into the Residual Mix
- BPR [4] An extension to this lifetime can be granted if a GO could not be issued for more than [six] months after the end of the production period for reasons which were not fully under the control of the plant operator. In this case, the lifetime of the GO might be extended to [six] months after issuing the GO.
- BPR [5a] Cancellations of GO relating to production periods in a given year X which take place until a given deadline in year X+1 should count for disclosure in year X. Later cancellations should count for disclosure in year X+1. (In case that disclosure periods differ from the calendar year (see item BPR [31]), the deadline should be defined accordingly.)
- BPR [5 b] Deadline is set on 31 March X+1
- BPR [6] The same allocation rule should apply for expired GO (see item [3]): The date of expiry thus determines the disclosure period for which information from expired GO will be used.
- BPR [11a] The GO system should be extended beyond RES & cogeneration to all types of electricity generation.
- BPR [11b]: GOs should be issued for all electricity production, unless an RTS applies for that production, e.g. for the disclosure of supported electricity
- BPR [11c]: Competent bodies should consider to make the use of GOs mandatory for all electricity supplied to final consumers.
- BPR [19] European countries should clarify whether and under which conditions the use of GOs by end consumers is allowed. Such GO use should not be based on ex-domain cancellations performed in other countries. If consumers are allowed to use GOs themselves, a correction should be implemented in the disclosure scheme which compensates for any "double disclosure" of energy consumed.

## 2.4 Proposals regarding Acceptance of GO

- BPR [20a]: European countries should choose one of the two following options and apply it consistently for all foreign GO :
  - Rejection of GOs only relates to the cancellation of GOs and subsequent use for disclosure purposes in the respective country and should not restrict the transfers of GOs between the registry of the considered country and the registries of their countries. This means that the decision about the recognition of a GO should not hinder its import into the considered country.
  - Rejection of GOs implies blocking their import to the national registry
- BPR [20b]: The choice of one or the other option should be transparent for all market parties and clearly communicated.
- BPR [21]: Within the rules set by the respective Directives, Member States should consider to reject the recognition of GO from other countries for disclosure in case that these countries have not implemented adequate measures which avoid double counting, e.g. a proper determination of a Residual Mix for disclosure.

## 2.5 Further proposals regarding Disclosure

Further proposals could be implemented to improve the Disclosure system, once the first proposals regarding Disclosure are met:

- BPR [36] All countries should clarify the relation between their support schemes for RES & cogeneration on the one side and GO and disclosure schemes on the other side. Where necessary, the support schemes should be defined as RTS
- BPR [38] All electricity products offered by suppliers with claims regarding the origin of the energy (e.g. green or low-carbon power) should be based exclusively on cancelled GO. No

other tracking systems should be allowed, with the exception of mechanisms defined by law, e.g. a pro-rata allocation of generation attributes to all consumers which is related to a support scheme (see BPR [22])

- BPR [39b] Suppliers offering two or more products which are differentiated regarding the origin of the energy should be required to give product-related disclosure information to all their customers, including those which are buying the “default” product of the supplier.
- BPR [40] There should be clear rules for the claims which suppliers of e.g. green power can make towards their consumers. There should be rules on how the “additionality” of such products can be measured (the effect which the product has on actually reducing the environmental impact of power generation), and suppliers should be required to provide to consumers the rating of each product based on these rules.
- BPR [41] Claims made by suppliers and consumers of green or other low-carbon energy relating to carbon emissions or carbon reductions should also be regulated clearly. These regulations should avoid double counting of low-carbon energy in such claims. A decision needs to be taken whether such claims should adequately reflect whether the energy purchased was “additional” or not.
  - BPR [42]: In case that suppliers are serving final consumers in several countries rules must be developed and implemented consistently in the countries involved on whether the company disclosure mix of these suppliers should relate to all consumers or only to those in a single country.
  - BPR [43]: The following recommendations should be followed with respect to the relation of disclosure to cooperation mechanisms (Art 6 - 11 of Directive 1009/28/EC):
    - a) If EU MS or MS or any other country agree on Joint Projects, such agreements should also clarify the allocation of attributes (via GO, RTS or Residual Mix) issued from the respective power plants
    - b) If EU MS agree on Joint Support Schemes, such agreements should also clarify the allocation of attributes (via GO, RTS or Residual Mix) issued from the power plants supported under these schemes
  - BPR [44]: Suppliers should follow the RE-DISS methodology for the calculations of their disclosure figures.

## 2.6 Matrix of disclosure related problems and country-specific proposals

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	BPRs: [11a], [21], [23], [24], [29], [30], [36], [38],
Double counting of attributes in implicit tracking mechanisms	BPRs: [5a], [5b], [6], [11a], [23], [24], [25], [26a], [26b], [27], [28], [29], [30],
Double counting within individual supplier's portfolio	BPR: [39b], [42]
Loss of disclosure information	BPRs: [3b], [11a], [19], [22], [39a],
Intransparency for consumers	BPRs: [11a], [11b], [11c], [23], [39a], [39b], [40], [41], [42],
Leakage of attributes and/or arbitrage	BPRs: [1a], [2], [3a], [5a], [5b], [6], [19], [34], [35]
Unintended market barriers	BPRs: [4], [11b], [11c], [20a], [20b], [21]

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