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## 1 Implementation of Tracking Systems

### 1.1 Electricity Disclosure

In Wallonia disclosure is implemented by order of the Walloon Government:

[1] “Arrêté du Gouvernement wallon du 30 novembre 2006 relatif à la promotion de l’électricité produite au moyen de sources d’énergie renouvelables ou de cogénération”

[2] “Arrêté du Gouvernement wallon du 30 mars 2006 relatif aux obligations de service public dans le marché de l’électricité “

[3] “Arrêté ministériel du 13 décembre 2006 établissant la méthode de détermination des sources d’énergie primaire utilisées pour produire de l’électricité”.

[4] “Arrêté du Gouvernement wallon du 13 février 2014 modifiant l’arrêté du gouvernement wallon du 30 novembre 2006 relatif à la promotion de l’électricité produite au moyen de sources d’énergie renouvelables ou de cogénération”.

Article 27§7 of the order [1] states that the Walloon energy regulator CWaPE (Commission Wallonne pour l’Energie) has to make a yearly evaluation report with respect to the supplier fuel mix and the product fuel mix for all products of all active suppliers.

Article 2 of the order [3] states that the CWaPE has to certify the claims on the renewable and HE-CHP (High Efficiency – Combined Heat and Power) character of the electricity produced.

CWaPE is therefore considered the competent body.

Article 11 §2, especially 3rd and 4th paragraph, of order [2] lays a public service obligation on the suppliers to publish the fuel mix information and environmental impacts together with the invoice.

In Wallonia the attributes that should be disclosed are:

- the energy source in the fuel mix;
- information on environmental consequences of electricity production, with respect to CO<sub>2</sub>-emissions and radioactive waste.

Within the disclosure statement the following energy sources have to be distinguished:

- renewable;
- high-efficiency combined heat and power (strictly spoken, this is not a source but a technology);
- natural gas
- other fossil sources;
- nuclear;
- unknown origin.

The renewable sources include wind, solar, geothermal, gulf, tidal, hydro, biomass, landfill gas, sewage gas and other biogas. This distinction is not mandatory in the disclosure statement. The “unknown origin” part cannot exceed 5%.

For renewable energy and for HE-CHP, the GO is the only tracking instrument allowed. Electricity may only be sold as green (or a similar branding) if a corresponding number of GO’s is cancelled. Cancellation of GO’s is also required for the renewable part of the disclosure statement on invoices.

For all other sources, the disclosure is based on contracts, and if this information is not available, on production statistics.



Disclosure is needed both for the product as well as for the company mix and is done annually for the previous calendar year.

The suppliers' portfolio is determined for Wallonia. Some suppliers prefer to have a portfolio for the whole of Belgium. Since the legislation in the other regions is based on the same principles, this can be facilitated by the respective regulators, although the different timings may complicate the disclosure calculations.

### **1.1.1 Disclosure Figures**

For 20 12 the disclosure figures published by CWaPE on their website were the following :

**Table 1: Disclosure Figures for 2012**

Fournisseur	Type de licence	% sources d'énergie renouvelables	% cogénération fossile à haut rendement	% gaz naturel	% autres fossiles	% nucléaire	% inconnu	Fourniture (MWh)
Licence de fourniture générale								
AXPO FRANCE & BENELUX	Générale*	0%	0%	0%	43%	57%	0%**	438.856
Belpower International	Générale	100%	0%	0%	0%	0%	0%	41.703
E.C.S	Générale	34%	6%	11%	5%	42%	2%	6.729.604
EDF Luminus	Générale	20%	0%	21%	6%	51%	2%	4.294.560
Electrabel	Générale*	44%	5%	10%	4%	36%	2%	4.992.604
Elexys	Générale	100%	0%	0%	0%	0%	0%	3.290
Endesa Energia	Générale*	0%	0%	0%	43%	57%	0%**	7.091
Eneco België	Générale	100%	0%	0%	0%	0%	0%	305.552
Energie 2030 Agence	Générale	100%	0%	0%	0%	0%	0%	4.332
Energie Der Nedelanden	Générale*	1%	0%	0%	43%	57%	0%**	374.056
Enovos Luxembourg	Générale*	100%	0%	0%	0%	0%	0%	311
E.on Belgium	Générale*	97%	0%	0%	1%	2%	0%**	924.880
Essent Belgium	Générale	100%	0%	0%	0%	0%	0%	682.354
Lampiris	Générale	100%	0%	0%	0%	0%	0%	1.170.926
Nuon (Eni)	Générale	71%	0%	20%	8%	1%	1%	777.183
Octa+ Energie	Générale	100%	0%	0%	0%	0%	0%	25.020
Scholt Energy Control	Générale*	100%	0%	0%	0%	0%	0%	6.510
Licence de fourniture limitée								
ArcelorMittal Energy	Limitée	0%	0%	0%	21%	75%	4%**	1.331.001
Recybois	Limitée	100%	0%	0%	0%	0%	0%	1.970
Société Européenne de Gestion de l'Énergie	Limitée	0%	0%	0%	43%	57%	0%**	348.136
SEVA	Limitée	0%	0%	0%	43%	57%	0%**	6.710
Wallonie	-	40%	3%	10%	7%	38%	2%	22.466.649
<b>Fuel Mix Résiduel</b>	-	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>43%</b>	<b>57%</b>	<b>0%</b>	-

**Notes:**

\*Activités commerciales orientées grosses entreprises

\*\* Application du Fuel Mix Résiduel car le "% inconnu" declare, du fournisseur ou d'un de ses produits est supérieur à 5%.

### **1.1.2 Environmental Information**

Environmental information is made available at least once a year, either on invoices or by mention of a reference where that information can be found.

### **1.1.3 Suppliers Fuel-Mix Calculations**

The CWaPE thus summarises the disclosure methodology and process in the EECS Domain Protocol for Wallonia :

“Disclosure for RES and CHP is exclusively based on GO. Other sources are simply declared. Disclosure is a 2-step process: the yearly disclosure and the monthly green reporting.

- a) Green reporting: every month, suppliers are required to provide a list of the connection points they deliver green energy to and, for each such connection point, the percentage of green energy contractually promised. Consumption data is added to this list by the network operator. This information allows calculation of the monthly supply of green electricity per supplier i.e. the number of GO's to be cancelled each month by each supplier.
- b) Yearly disclosure: Every year before 31<sup>st</sup> March, each supplier makes a statement for the past year regarding the source and origin of its electricity. By the same date, suppliers are also required to request cancellation any outstanding GO's in order to demonstrate the origin of his renewable and cogeneration power. “

CWape validates the declarations, following which the suppliers can use the new mixes, which usually takes place at the end of summer.

It is to be noted that the fuel mix declaration document for 2013 that had to be fulfilled by suppliers and transmitted to CWaPE by 15<sup>th</sup> February 2014 contains a possibility for suppliers to declare cancellation of Fossil or nuclear GO coming from other Domains.

For electricity from unknown origin, if this is declared in a proportion below 5%, than it can be declared as unknown, otherwise, when the category is above 5%, CWaPE applies the RE-DISS Residual Mix for Belgium, after having deducted the renewable share and expanding the other percentages in order to add them up to 100%, as is explained in the Concerted Action questionnaire fulfilled on 24<sup>th</sup> August 2014. The reason for this operation is that renewable can only be declared in the mix if accounted for by way of GO.

### **1.1.4 Acceptance of GOs**

CWape publishes on their website the list of countries from which GOs can be accepted for disclosure.

**Table 2 : List of countries from which GOs can be accepted for the calculation of the fuel mix**

	Membres de l'EEE	Membres de l'AIB	EECS Product Category	Operational	Scheme member / Authorised Issuing Body	GO acceptées pour le Fuel Mix auprès de la CWaPE
DE	Oui	Oui	GO	2004	Oeko-Institut	Oui
DE	Oui	Oui	GO	2013	UBA	Oui
T	Oui	Oui	GO	2004	E-Control	Oui
BE-BX	Oui	Oui	GO	2008	Brugel	Oui
BE-FL	Oui	Oui	GO	2006	VREG	Oui
BE-WA	Oui	Oui	GO	2008	CWaPE	Oui
BG	Oui	Non	-	-	-	-
CY	Oui	Non	-	-	-	-
DK	Oui	Oui	GO	2004	Energinet.dk	Oui
ES	Oui	Oui	NGC	2008	GCC	-
EE	Oui	Non	-	-	-	-
FI	Oui	Oui	GO	2006	Grexel	Oui
FR	Oui	Oui	GO	2013	Powernext	Oui
GR	Oui	Non	-	-	-	-
HU	Oui	Non	-	-	-	-
IE	Oui	Non	-	-	-	-
IS	Oui	Oui	GO	2011	Landsnet	Oui
IT	Oui	Oui	NGC	2002	GSE	-
LT	Oui	Non	-	-	-	-
LI	Oui	Non	-	-	-	-
LV	Oui	Non	-	-	-	-
LU	Oui	Oui	GO	2009	ILR	Oui
NO	Oui	Oui	GO	2006	Statnett	Oui
MT	Oui	Non	-	-	-	-
PB	Oui	Oui	GO	2004	CertiQ	Oui
PL	Oui	Non	-	-	-	-
PT	Oui	Oui	NGC	2003	REN	-
CZ	Oui	Non	GO	29/12/2013	OTE	-
RO	Oui	Non	-	-	-	-
UK	Oui	Non	-	-	-	-
SK	Oui	Non	-	-	-	-
SI	Oui	Oui	GO	2009	Energy Agency	Oui
SE	Oui	Oui	GO	2006	Grexel	Oui
CH	Non	Oui	GO	2009	Swissgrid	Non

Source : <http://www.cwape.be/?dir=3.6.01>

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

### 1.2.1 RES-GO and CHP GO System

Legislation of RE-GO's and CHP-GO's are included in

- « Arrêté du 30 novembre 2006 relatif à la promotion de l'électricité produite au moyen de sources d'énergie renouvelables ou de cogénération »,

This bylaw provides for how issuing and handling of GO and support certificates should be performed;

- It has been modified by « Arrêté du Gouvernement wallon du 13 février 2014 modifiant l'arrêté du Gouvernement wallon du 30 novembre 2006 relatif à la promotion de l'électricité produite au moyen de sources d'énergie renouvelables ou de cogénération et l'arrêté du Gouvernement wallon du 30 mars 2006 relatif aux obligations de service public dans le marché de l'électricité »

This bylaw modifies the expiry rule into a 12 month expiry rule. Expiry takes place 12 months after the last day of the month of the end of the production period. Certificates are issued quarterly for monthly production periods.

The system has been fully operational for several years now; there is a support system based on tradable certificates, but both certificates are decoupled (contrarily to the current situation in Flanders, which is likely to be modified (see report on Flanders). The regulator CWaPE has been appointed as competent body for both GO-systems.

RE-GO are EECS certificates, which is not the case for CHP-GO which are issued and handled according to the same procedures, but are not EECS certificates.

CWaPE is maintaining the electronic GO-registry, which also covers the support certificates. All producers, suppliers and traders have free access to it. Support certificates and GO are numbered differently which allows to distinguish them easily.

GO can be freely transferred, including imports and exports.

Imported GO can be used for the disclosure statement if they come from a country with which CWaPE has established mutual recognition agreement.

Exports are possible with the new EECS rules. In the past, some countries refused to accept Walloon GO, because the existence of a separate support certificate was feared to cause confusion in customers' minds. Such fears were misplaced and such discrimination is not possible anymore within EECS.

Cancellation of the GO is done according to EECS rules.

It is to be noted that the bylaw "Arrêté du Gouvernement wallon du 23 décembre 2010 relatif aux certificats et labels de garantie d'origine pour les gaz issus de renouvelables" creates GO for biogas.

### 1.2.2 RECs Statistics

**Table 2: EECS RE-GO statistics**

Year	Production based		Transaction based				
	Issued	Cancelled	Internal	Export	Import	Expired	Cancelled
<b>2011</b>	10434100	0	1 627 446	866 036	8 598 216	0	2 292 250
<b>2012</b>	1017991	1 388 219	3 111 407	1 880 861	10 983 778	271 766	10 434 100
<b>2013</b>	1439826	879 712	5 941 627	2 926 263	12 018 684	99 058	7 778 621

Source: CWaPE

### 1.3 RES-E Support Schemes

EECS Domain protocol for Wallonia explains the RES support system in Wallonia as follows: “A certificate based support system has been set up in Wallonia in 2002 in order to stimulate investments in green electricity production and achieve European targets. Reasons for this are:

- Improving security of supply
- Protecting the environment (a.o. GHG) and promoting sustainable development
- Enhancing competition on the electricity market
- Fostering local and regional development

This quota system aims to achieve the lowest support cost for the generated energy output. It has been reviewed in 2007 in order to promote solar electricity and should be reviewed in 2013.

Definitions :

“Production support”: support granted directly to the producer in relation to the generated energy output.

“Green electricity”: renewable or quality CHP electricity which grants right to receive partial or total production support.

“Green certificate”: (“certificat vert / grüne Bescheinigung”) support certificate for electricity in Wallonia, based on environmental performance of the generation.

“Label de garantie d’origine”: guarantee of origin according to Directives 2001/77/EC, 2004/8/EC and 2009/28/EC.

#### Principles

More details can be found in the Green Certificates Specific Annual Report. Even more details are available in the relevant legislation. Suppliers of electricity need to cancel a given quota of green certificates every quarter. They are fined 100 € per missing GC.

Green certificates (GC) are issued to the producer according to the generated electricity and to the environmental performance of the generation (i.e. avoided CO<sub>2</sub> emissions):

$$GC = E_{enp} \times \tau$$

Where

- $E_{enp}$  is the net generated electricity;
- $\tau$  is the periodic banding factor. It is defined as the avoided CO<sub>2</sub> emission ratio. Below 0,1,  $\tau$  is rounded down to 0; above 2,  $\tau$  is rounded down to 2. Therefore,  $\tau$  varies between 0.1 and 2.

This calculation is performed for every generation period. Typical values for  $\tau$  and for income are given in the table below.

Total turnover for green electricity production is Electricity sales + GC sales + GO sales.

Green certificates and guarantees of origin are separate from each other and from the electricity. All are freely tradable. Producers, traders and suppliers therefore hold both a GO account and a GC account at CWAPE. Neither is convertible into the other.

Green certificates or their value for quota obligations may be exported or imported from another country or region with quota obligation provided mutual recognition is established. This mutual recognition is currently only in force with the Brussels Region. A cancellation statement of support certificates is sent to authorities in Brussels.”

## 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 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 of 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

## 2.2 Proposals regarding Disclosure

To improve disclosure, the competences of the CWaPE should include verification of production declarations for Fossil and Nuclear energy as well and calculation of a Residual Mix following the RE-DISS methodology.

- 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 [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 [28]: As a default, the Residual Mix should be calculated on a national level. However, in case that electricity markets of several countries are closely integrated (e.g. in the Nordic region), a regional approach to the Residual Mix may be taken. This should only be done after an agreement has been concluded amongst all countries in this region which ensures a coordinated usage of the regional Residual Mix.
- 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 [31]: In cases that suppliers of electricity intend to use contract based tracking in order to fulfil claims made towards consumers regarding the origin of a certain electricity product (e.g. a green energy product), GO should be used instead of contract based tracking (see also BPR [36]).
- BPR [32]: If a country implements a system where generation attributes are allocated to suppliers and consumers of electricity “ex post” based on the contracts concluded in the electricity market, then such a system should fulfil the requirements mentioned above in order to qualify as a Reliable Tracking System (see item [21])
- 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 GO

- BPR [3b]: GOs which have reached the 12 month lifetime should be collected in the residual mix.
- BPR [11]: The GO system should be extended beyond RES & cogeneration to all types of electricity generation, which should all be handled in one registry.
- BPR [17]: Besides GO, only Reliable Tracking Systems (which may include contract based tracking) and the Residual Mix should be available for usage for disclosure. No other tracking mechanisms should be accepted.

### 2.4 Proposals regarding Acceptance of GO

CWaPE has already implemented rules for acceptance of foreign GOs.

### 2.5 Further proposals regarding Disclosure

- BPR [40]: There should be clear rules for the claims which suppliers of e.g. green power can make to-wards their consumers. There should be rules 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.

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	BPRs: [11], [16], [17], [23], [24], [29]
Double counting of attributes in implicit tracking mechanisms	BPRs: [6], [11], [21], [23], [24], [25], [26a], [27], [28]
Double counting within individual supplier's portfolio	BPRs: [42]
Loss of disclosure information	BPRs: [3b], [11]
Intransparency for consumers	BPRs: [11], [23], [40], [41], [42],
Leakage of attributes and/or arbitrage	BPRs: [6], [28], [34], [35],
Unintended market barriers	BPRs: [4], [20]

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