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## Introduction

The IEE-funded project “Reliable Disclosure Systems for Europe” (RE-DISS) supports Competent Authorities for Electricity Disclosure and Guarantees of Origin (GO) of European countries in their task to implement changes as required by the Renewables Directive 2009/28/EC and in improving their systems for disclosure and GO in general. RE-DISS activities therefore particularly include the provision of a multilateral communication platform for interested Competent Bodies. This is considered essential for improving a coordinated implementation of the national systems in order to allow for provision of correct and meaningful information to all stakeholders, particularly end consumers of electricity. A core element of such coordination is the provision of relevant information for calculation of a European Residual Mix as default value for implicit electricity tracking, and the use of such Residual Mix information in national disclosure schemes where applicable.

Recommendations are developed by the project team based on preceding work which has been carried out in the E-TRACK projects (Phase I and Phase II) and are summarised in the RE-DISS Best Practice Recommendations (last updated October 2012, Version 2.0). Countries which have agreed to contribute to the work of RE-DISS and also to implement major parts of the RE-DISS recommendations (so called “Participating Domains”) are individually analysed and consulted, and country specific recommendations are provided. These recommendations are based on the country analyses and the respective discrepancies to the RE-DISS Best Practice Recommendations.<sup>1</sup> The following recommendations have been given to eleven Participating Domains at the last revision of the respective country profile during the RE-DISS project, all having taken place between July and October 2012. For all countries, also a cross-reference matrix is provided showing which type of disclosure-related problem the individual recommendations are supposed to tackle.

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<sup>1</sup> Please note that the references to the number of the respective Best Practice Recommendation are based on version 2.0 of the BPR. However, version 2.0 has also introduced three new recommendations as compared to the former version, which has been applied for selection of the country-specific sets of recommendations. Therefore, these new recommendations are not reflected in this summary. These new recommendations require the individual domains to specify criteria for acceptance of imported GO, to regulate the use of GO directly by end consumers and to regulate the allocation of GO if flexibility mechanisms for national target accounting are being applied.

## Austria (last updated October 2012)

### Proposals Regarding Disclosure

The following are recommendations for Austria to improve its disclosure system:

1. There is no concept of residual mix, so that ENTSO-E figures have to be used (BPR [17, 25, 26]).
2. The Austrian government should reflect the timing of disclosure and in the light of transparency only allow the disclosure period based on the calendar year (BPR [31]).
3. The timing of the disclosure process should be thought of, as currently the proposed deadline for cancelling GOs for the purposes of disclosure is 31 March of year X+1 whereas Austria uses 4 month after the end of the calendar or fiscal year to finalise disclosure (BPR [32]).
4. Austria does not support the display of products under the section “disclosure” on the annual bills and advertising materials as the experience shows that this only leads to confusion on customer’s level. Therefore Austria proposes to concentrate on the disclosure requirements given by the EU-directive 2009/72/EC (BPR [37]).
5. Clear rules should be established for claims made by suppliers (BPR [40, 41]).

Currently no revisions of the disclosure law are planned in Austria.

### Proposals Regarding GOs

#### Proposals Regarding the RES-GO System

The Austrian RE-GO system and the CHP-GO system are advanced and only small adaptations are required in the perspective of RE-DISS:

6. Certificates currently only expire without a flag in the database. “Real” expiry should be implemented (BPR [6]).
7. The residual mix calculated by RE-DISS can currently not be used as the Austrian Electricity Act stipulates the application of the ENTSO-E mix corrected by the renewables share to electricity of unknown origin (BPR [25, 26, 28]).
8. Set clear regulations on the basis period for disclosure (BPR [31]).

#### Proposals regarding the CHP-GO System

The proposals for RES-GO are the same as for CHP-GO.

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	1, 2, 3, 4, 7
Double counting of attributes in explicit and implicit tracking mechanisms	1, 3, 6, 7
Double counting within individual supplier's portfolio	
Loss of disclosure information	5
Intransparency for consumers	5
Leakage of attributes and/or arbitrage	1, 2, 6, 7
Unintended Market Barriers	

## Belgium-Flanders (last updated October 2012)

### Proposals regarding general regulation on tracking systems

As from the opening of the market the tracking of green electricity has been based on the use of the GO, and is under the control of the regulator. This has the advantage that the disclosure system is reliable, but it still is incomplete. Suggestions for completion of the tracking system and the information towards consumers are listed up in the next two sections.

For transparency reasons and for increasing market liquidity, it is proposed that the support certificate and the disclosure certificate should be split up.

### Proposals regarding Disclosure

The general principle of disclosure, as set forth in the Energy decree, is in line with the prescriptions of the Directive 2009/72/EC.

However, the practical procedure described in the Energy decision has to be amended:

1. The suppliers have to know how to apply the information obligation relating to the environmental consequences of electricity production (BPR [22]).
2. The timing of the procedure should be revised in order to give the suppliers the time to collect the information, the regulator to verify these input data and to validate the calculations, and finally for the supplier again to change their bills and promotion material (BPR [35]).
3. The calculation methodology should be adapted: it is based on production statistics and, even when these figures are corrected, the methodology doesn't reflect the suppliers mix in an consistent way (BPR [29, 30, 32]).
4. There is no concept of residual mix, so that ENTSO-E figures have to be used (for instance when a supplier is active on the power exchange) (BPR [17, 25, 26]).
5. Clear rules should be established for claims made by suppliers (BPR [40, 41]).
6. Consistent implementation is needed for suppliers active in several countries (BPR [42]).

VREG will propose to the government a revision of the disclosure system at the end of 2012. For practical reasons these changes could only be discussed after the revision of the support system, including the decoupling of the support certificate and the GO.

The disclosure methodology relates to the electricity which is sold via the electricity grids. An open question is whether or not electricity sold on site should also be accounted for. Production from RE sources or HE-CHP which is not injected into the grid, gets a GO, but this is immediately cancelled and not further used in the calculations.

### Proposals regarding GO

The RE-GO system and the CHP-GO system are quite advanced and can be maintained with the small amendments mentioned before:

7. Clear rules for expired GO's should be implemented (BPR [6]).
8. Develop clear guidelines for refusal of GO's (BPR [8, 20]).
9. VREG has started up the discussions with the Flemish government on the extension of the GO-system towards other energy sources, but no clear policy line has been spelled out. This extension would imply that all fossil and nuclear production plants would be registered and that GO's for these plants would also be issued (BPR [11]).

However, starting from the current system, the implementation of a full GO-system seems feasible with little extra resources and effort.

10. The GO for a renewable CHP-installation should combine all elements of information (BPR [15]).

**Matrix of disclosure related problems and country-specific proposals**

<b>Problem</b>	<b>Country-specific proposal</b>
Possible double counting in different explicit tracking instruments	-
Double counting of attributes in explicit and implicit tracking mechanisms	3, 4
Double counting within individual supplier's portfolio	-
Loss of disclosure information	-
Intransparency for consumers	1, 5, 10
Leakage of attributes and/or arbitrage	2, 6, 7
Unintended market barriers	8

## Belgium-Wallonia (last updated October 2012)

### Proposals regarding general regulation on tracking systems

As from the opening of the market the tracking of green electricity has been based on the use of the GO, and is under the control of the regulator. This has the advantage that the disclosure system of RES-E and CHP-E is reliable, but it still is incomplete since other sources are not covered. Suggestions for completion of the tracking system and the information towards consumers are listed up in the next two sections.

### Proposals regarding Disclosure

The general principle of disclosure is in line with the prescriptions of the Directive 2009/72/EC.

However, the practical procedure has to be amended:

1. The suppliers have to know how to apply the information obligation relating to the environmental consequences of electricity production (BPR [22]).
2. The timing of the procedure should be revised in order to give the suppliers the time to collect the information, the regulator to verify these input data and to validate the calculations, and finally for the supplier again to change their invoices and promotion material (BPR [35]).
3. The calculation methodology should be adapted: it is based on contract information and production statistics and, even when these figures are corrected, the methodology doesn't reflect the suppliers mix in an consistent way (BPR [29, 30, 32]).
4. There is no concept of residual mix (BPR [17, 25, 26]).
5. The new data format for reporting green contracts and consumption should allow timely cancellation of GO's once a month. It should also speed the reporting process (BPR [1]).
6. Clear rules should be established for claims made by suppliers (BPR [40, 41]).
7. Consistent implementation is needed for suppliers active in several countries (BPR [42]).

Furthermore, there are some points of attention.

The disclosure methodology relates to the electricity that is sold (i.e. supplied) through the grid or on-site. Legislation should be strengthened imposing the same obligation for electricity sold on-site. Production from RE sources or HE-CHP that is not injected into the grid, gets a GO, but this is immediately cancelled and not further used in the calculations (alternatively, many of those GO's are never issued in the first place).

One could argue that it would simplify the reporting of energy sources if the available sources were limited to renewable, fossil and nuclear. This proposal would however have the disadvantage of making do with the CHP (arguably a technology rather than a source). This discussion has yet to take place.

### Proposals regarding GO

The RE-GO system and the CHP-GO system are quite advanced and can be maintained with small amendments:

8. The GO lifetime should be regulated according to 12 months' lifetime rule. Expiry rule should be slightly adapted in order to reflect the RE-DISS Best Practice Recommendation (Current expiry rule govern that GO's expire about a year later) (BPR [3, 4, 6]).
9. Develop clear guidelines for refusal of GO's (BPR [8, 20, 21]).
10. Although it would be welcome, there are no on-going discussions with respect to the extension of the GO-system towards other energy sources. This extension would imply that all fossil and nuclear production plants would be registered and that GO's for these plants would also be issued (BPR [11]).

However, starting from the current system, the implementation of a full GO-system seems feasible with little extra resources and effort.

**Matrix of disclosure related problems and country-specific proposals**

<b>Problem</b>	<b>Country-specific proposal</b>
Possible double counting in different explicit tracking instruments	-
Double counting of attributes in explicit and implicit tracking mechanisms	3, 4
Double counting within individual supplier's portfolio	-
Loss of disclosure information	-
Intransparency for consumers	1, 6
Leakage of attributes and/or arbitrage	2, 7, 8
Unintended market barriers	9

## Denmark (last updated July 2012)

### Proposals regarding Disclosure

1. Contract-based tracking should only be possible if this can be considered as a reliable tracking system. For that purpose, Denmark should assure that according information on contract based tracking is not only made available to Energinet.dk for calculation of the national residual mix, but that this information is also provided to RE-DISS and competent bodies of exporting countries in case that the contract covers an international transaction. (BPR [29, 30])
2. 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, GO should be used instead of contract based tracking also for non-RES production. (BPR [31])  
In case product marketing for non RES-E products becomes relevant, this requires use of a comprehensive disclosure GO scheme like already provided through EECS.
3. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
4. 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 [41])
5. 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 [42])

### Proposals regarding GO

6. Within the rules set by the respective Directives, Denmark 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.
  - Within the rules set by the respective Directives, Denmark should consider their criteria for the acceptance of imported GO for purposes of disclosure.
  - These criteria should address imports at least from all EU member states, other members of the European Economic Area (EEA) and Switzerland. The parties to the Energy Community Treaty should be considered as well, as soon as GO imports from these countries become relevant.
  - The criteria should specify the electronic interfaces, specifying data format and contents of GO to be imported, which the respective country accepts for imports of GO (such as the EECS Hub and any other interfaces accepted).
  - Conditions for the recognition of GO from other countries should be that they were issued based on Art. 15 of Directive 2009/28/EC or compatible national legislation, and that they meet the explicit requirements set in Art. 15, e.g. regarding the information content of the GO.
  - The recognition of GO from other countries should be rejected in case that these countries have not implemented an electricity disclosure system.
  - The recognition of GO from other countries should be rejected in case that the county which has issued the GO or the country which is exporting the GO have not implemented adequate measures which effectively avoid double counting of the attributes represented by the GO. Such adequate measures should ensure the exclusivity of the GO for

representing the attributes of the underlying electricity generation, implement clear rules for disclosure, establish a proper Residual Mix or equivalent measures, and ensure their actual use. Furthermore, the adequate measures should ensure that attributes of exported GO are subtracted from the Residual Mix of the exporting country and cannot be used for disclosure at any time in the issuing or the exporting country by explicit mechanisms, unless the GO is re-imported and cancelled there.

Denmark should cooperate with other European countries in order to establish a register of their decisions taken regarding the acceptance of imported GO, which gives guidance to other competent bodies and also provides transparency for market actors.  
(BPR [21])

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	1, 2, 6
Double counting of attributes in explicit and implicit tracking mechanisms	1, 2, 6
Double counting within individual supplier's portfolio	
Loss of disclosure information	
Intransparency for consumers	3, 4, 5
Leakage of attributes and/or arbitrage	
Unintended market barriers	



## Finland (last updated October 2012)

### Proposals regarding Disclosure

The coming into force of the new law amendment will set the tracking scheme of Finland mostly in line with RE-DISS Best Practices. However it allows for contract-based tracking of nuclear and fossil attributes for influencing the general supplier mix (but all electricity products must be based on GOs). Although this doesn't cause double counting of RES, the recommendation of RE-DISS is to consider all electricity, for which a guarantee of origin is not cancelled, as unknown and disclose it with the residual mix. Since no official data is currently collected for contract-based tracking, it is not considered in the residual mix calculation.

1. If contract based tracking is allowed in a country, it should be regulated clearly (BPR [29]).
2. Such regulations should ensure that (BPR [30])
  - 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 set out in chapter 7.

It is not completely clear whether the new legislation requires suppliers to disclose product-related mixes. If not, suppliers could use their total mix for default disclosure, which leads to double counting within the suppliers' portfolio. Energy Market Authority of Finland should make sure that suppliers disclose product related mixes when fulfilling the legislation.

3. 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 "residual" product of the supplier (BPR [39]).

Claims of additionality and low-carbon content of electricity should be regulated. Furthermore, especially in the Nordic market, the competent body should develop and publish harmonized rules for suppliers that sell electricity in several countries.

4. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40]).
5. 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 [41]).
6. 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 [42]).

In the first version of the amendment, it was stated that disclosure of electricity from outside the EEA should be based on the announcement of the vendor. It was unclear whether this also applied renewable electricity, but in any case this should not be allowed. Instead, this electricity should be considered as unknown and disclosed with the residual mix, unless a GO is cancelled.

## Proposals regarding GO

### Proposals regarding the RE-GO System

The new law amendment will set the legislation of Finland fully compliant with Article 15 of Directive 2009/28/EC. One further recommendation of RE-DISS is to enable issuance of GOs for all energy sources, and not just for renewables. This way, also domestics nuclear and fossil GOs would be available for suppliers to affect their fuel mix, and it would be very straightforward that all electricity for which a GO is not cancelled is unknown and should be disclosed with the residual mix.

7. The GO system should be extended beyond RES & cogeneration to all types of electricity generation (BPR [11]).

The new law amendment sets no possible extension for GO lifetime in case of errors in issuing.

8. "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 of the GO." (BPR [4]).

### Proposals regarding the RE-GO System

CHP-GO system is not yet implemented in practice in Finland.

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	1, 2, 7
Double counting of attributes in explicit and implicit tracking mechanisms	1, 2, 7
Double counting within individual supplier's portfolio	3, 6
Loss of disclosure information	-
Intransparency for consumers	4,5
Leakage of attributes and/or arbitrage	8
Unintended market barriers	-

## Italy (last updated October 2012)

### Proposals regarding Disclosure

Since the E-TRACK II project, a lot of progress has been made. Below, the recommendations that were made at the time on the Italian system are listed. For each recommendation, the status as of October 2012 is given.

E-TRACK II recommended to introduce the following disclosure regulations:

- Choose one body (GSE) for centralising disclosure calculations: *done*
- Introduce principle of explicit tracking based on certificates or contract based tracking for own conventional production capacities + residual mix: *done*. GOs are now used in parallel to a residual mix.
- Introduce mandatory redemption of GO upon use: *done for disclosure of supplier mix*
- Introduce a supplier residual mix that does not include green products: *not done*
- Introduce regulations for taking into account contracts (bilateral agreement made on the electricity market or OTC) when calculating the residual mix: *bilateral contracts are not accepted anymore for renewable electricity*.
- Introduce regulations for allocation of attributes for FIT electricity and production supported by green certificates: *done*
- Calculation of residual mix to follow the E-TRACK recommendations : *many recommendations have been followed, but still some progress to be done (cf below on RE-DISS BPR)*
- Clearly state the use of GO / RECS / Green certificates / imported GOs for the exemption of green quota: *done*. GOs are not eligible anymore for green quotas.

On top of the remaining recommendations stated above, the refining of disclosure procedure leads to formulate the following RE-DISS BPR:

1. Green power quality labels should use GO as the unique tracking mechanism. (BPR [18])
2. Any such rejection should only relate to the actual use of cancelled GO for disclosure purposes in the respective country and should not restrict the transfers of GO between the registries of different countries. (BPR [20])
3. 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 (BPR [21])
4. Full disclosure schemes should be implemented, including the disclosure of CO2 emissions and radioactive waste. (BPR [22])
5. Other Reliable Tracking Systems (RTS) should be defined where appropriate based on criteria of added value, reliability and transparency. (BPR [23])
6. RTS can comprise, where applicable:
  - Homogenous 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 (BPR [24])
7. The calculation of the Residual Mix should follow the methodology developed in the RE-DISS project. 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 [26])
8. 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 [27])
  9. 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. (BPR [35])
  10. 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. (BPR [38])
  11. 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 [39])
  12. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
  13. 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 [41])

## Proposals regarding GO

### Proposals regarding the RE-GO System

Since the E-TRACK II project, a lot of progress has been made. Below, the recommendations that were made at the time on the Italian system are presented. For each recommendation, the status as of October 2012.

E-TRACK II recommended to make following improvements to GOs:

- Issuing and handling of GO in electronic form only: *done*
  - Life cycle: Issuing, transfer, cancellation: *done*
  - Cancellation always linked to Disclosure: *done*
- Make Italian GO fully compatible with European standards (EECS): *still to come*
- Earmarking of GO when production receives support: *done*
- One single GO for electricity from CHP plants using renewable energy (One central registry for CHP and RE-GO): *still to be done*
- Coordinate GO et RECS registries (no possibilities to issue two certificates for the same MWh): *still to be done, but most probably RECS certificates will disappear with the implementation of EECS-GOs.*

- Imports of GO are accepted only if the country issuing the GO is using a Residual Mix for purposes of Disclosure: *no regulation in this respect*
- Imports of GOs should be used in the Italian disclosure system: *done*

On top of the remaining recommendations stated above, the refining of GO procedure leads to formulate the following BPRs below:

14. If possible, issuing of GOs should be done DIRECTLY after the end of each production period. (BPR [2])
15. Lifetime of GO should be limited to 12 months after the end of the production period. GOs that have reached this lifetime should be collected into the Residual Mix. (BPR [3])
16. 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 of the GO. (BPR [4])
17. Cancellations of GO relating to production periods in a given year X which take place until 31 March of year X+1 should count for disclosure in year X. Later cancellations should count for disclosure in year X+1. (In case that disclosure periods differ from the calendar year (see item [33]), the deadline should be defined accordingly. (BPR [5])
18. The same allocation rule should apply for expired GO: The date of expiry thus determines the disclosure period for which information from expired GO will be used. (BPR [6])
19. The implementation of GO in all countries in Europe should be based on the European Energy Certificate System (EECS) operated by the Association of Issuing Bodies (AIB). In case that national GO systems are established outside of EECS, then EECS should at least be used for transfers between registries. (BPR [7])
20. In case that not all European countries are members of EECS, appropriate connections between the EECS system and non-EECS members as well as in between different non-EECS members will need to be established. These include inter alia procedures for assessing the reliability and accuracy of the GO issued in a certain country and interfaces for the electronic transfer of GO. (BPR [8])
21. The GO system should be extended beyond RES & cogeneration to all types of electricity generation. (BPR [11])
22. All types of GO should be handled in one comprehensive registry system per country. (For an exception from this recommendation see the coexistence of national GO systems and EECS). (BPR [12])
23. Only one GO should be issued per unit of electricity, which should combine the functionalities of a RES-GO and a cogeneration GO. (BPR [15])

### **Proposals regarding the CHP-GO System**

At the time being, there is no CHP-GO system for all Italy, and thus a CHP-GO system could be developed.

Thus the following RE-DISS BPR could be taken in the development of the CHP-GO system:

24. Establish and implement a CHP-GO system, fully operational and aligned with the disclosure system in place. (BPR [12])
25. Keep track of CHP-GO in electronic registries. (BPR [12])
26. Only one GO should be issued per unit of electricity, which should combine the functionalities of a RES-GO and a cogeneration GO. (BPR [15])
27. Metering should be performed on a calendar month basis (or even more often). Longer intervals up to one year are acceptable if they do not run across the start and end dates of the disclosure periods. (BPR [1])
28. Issuing of CHP-GO should be done without delay after the end of the metering period. (BPR [2])

29. The lifetime of CHP-GO should be limited to 12 months after the end of the metering period. CHP-GO which have exceeded this lifetime are collected into the Residual Mix. (BPR [3])
30. Cancellations of GO relating to metering periods in a given year X which take place until 31 March of year X+1 should count towards disclosure in year X. Later cancellations should count towards disclosure in year X+1. (BPR [5])
31. The same allocation rule applies for collections of expired GO. (BPR [6])
32. The implementation of the CHP-GO system should be based on EECS operated by AIB. (BPR [7])
33. In the case that a CHP-GO system is not implemented based on EECS, it should follow EECS requirements to facilitate making connections between EECs systems and non-EECS systems. If this is not undertaken, an adequate level of ambition as in the EECS system should be achieved and procedures for recognition and electronic transfer of GO to EECS members and other non-EECS member countries should be established. (BPR [8])

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	12, 21, 26, 1, 4, 5, 6, 10
Double counting of attributes in explicit and implicit tracking mechanisms	2, 4, 5, 7, 8
Double counting within individual supplier's portfolio	11
Loss of disclosure information, Intransparency for consumers	4, 5, 21, 11, 12, 13
Leakage of attributes and/or arbitrage	14-18, 27-31, 19, 20, 32, 33, 21, 9
Unintended market barriers	3, 20

## Luxembourg (last updated October 2012)

### Proposals regarding Disclosure

1. Cancellations of GO relating to production periods in a given year X which take place until 31 March of year X+1 should count for disclosure in year X. Later cancellations should count for disclosure in year X+1. (BPR [5])
2. GO should be the only “tracking certificate” used. Any other tracking systems of a similar purpose and function as GO should be converted to GO. (BPR [16])
3. Besides GO, only Reliable Tracking Systems and the Residual Mix should be available for usage for disclosure. No other tracking mechanisms should be accepted. (BPR [16])
4. Green power quality labels should use GO as the unique tracking mechanism. (BPR [18])
5. (Other) Reliable Tracking Systems (RTS) should be defined where appropriate based on criteria of added value, reliability and transparency. RTS can comprise, where applicable:
  - a. Homogenous disclosure mixes for regulated market segments where no choice of supplier or different products exists,
  - b. 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),
  - c. Contract based tracking.(BPR [23], [24])
6. The calculation of the Residual Mix should follow the methodology developed in the RE DISS project. As part of this methodology, ILR should ensure that double counting between GO they have issued, other Reliable Tracking Systems in use in their country and the Residual Mix is excluded. ILR should cooperate with competent bodies from all countries in Europe in order to adjust their Residual Mixes in reflection of cross border transfers of physical energy, GO and RTS. For this purpose, ILR 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 [26], [27])
7. If contract based tracking is further allowed in Luxembourg, it should be regulated clearly. Such regulations should ensure that
  - a. The rules of the tracking system are transparent and comprehensive and are clearly understood by all participants in the system.
  - b. 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.
  - c. The relevant information for disclosure purposes should be available in time to meet the timing requirements according to the RE-DISS Best Practice Recommendations.(BPR [29], [30])
8. 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 in addition to the contract. (BPR [31])
9. The deadline for cancelling GO for purposes of disclosure in a given year X should be 31 March of year X+1. (BPR [34])
10. ILR should strive to coordinate the timing of the calculation of the Residual Mix with other competent bodies across Europe according to the following timeline:
  - a. By 30 April X+1 all countries should determine their preliminary domestic Residual Mix and whether they have a surplus or deficit of attributes.
  - b. By 15 May X+1, the European Attribute Mix should be determined.

- c. By 31 May X+1, the final national Residual Mixes should be published.
  - d. As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.  
(BPR [35])
11. 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 related to the national support scheme. (BPR [38])
  12. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
  13. 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 [41])
  14. 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 [42])

### Proposals regarding GO

15. The metered production periods for purposes of issuing GO should not be longer than a calendar month and where possible should not run across the start and end dates of the disclosure periods. Longer intervals up to one year are acceptable e.g. for very small plants. If possible, issuing of GO should be done without delay after the end of each production period. (BPR [1], [2])
16. The lifetime of GO should be limited to 12 months after the end of the production period. GO which have reached this lifetime should be collected into the Residual Mix. 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 of the GO. (BPR [3], [4])
17. The GO system should be extended beyond RES & cogeneration to all types of electricity generation. This also includes implementation of a Go system for HE-CHP. (BPR [11])
18. Any rejection of GO should only relate to the actual use of cancelled GO for disclosure purposes in the respective country and should not restrict the transfers of GO between the registries of different countries. This means that the decision about the recognition of a GO should not hinder its import into Luxembourg. Within the rules set by the respective Directives, Luxembourg should consider their criteria for the acceptance of imported GO for purposes of disclosure.
  - a. These criteria should address imports at least from all EU member states, other members of the European Economic Area (EEA) and Switzerland. The parties to the Energy Community Treaty should be considered as well, as soon as GO imports from these countries become relevant.
  - b. The criteria should specify the electronic interfaces, specifying data format and contents of GO to be imported, which the respective country accepts for imports of GO (such as the EECS Hub and any other interfaces accepted).
  - c. Conditions for the recognition of GO from other countries should be that they were issued based on Art. 15 of Directive 2009/28/EC or compatible national legislation, and that they meet the explicit requirements set in Art. 15, e.g. regarding the information content of the GO.



- d. The recognition of GO from other countries should be rejected in case that these countries have not implemented an electricity disclosure system.
- e. The recognition of GO from other countries should be rejected in case that the county which has issued the GO or the country which is exporting the GO have not implemented adequate measures which effectively avoid double counting of the attributes represented by the GO. Such adequate measures should ensure the exclusivity of the GO for representing the attributes of the underlying electricity generation, implement clear rules for disclosure, establish a proper Residual Mix (see chapter 5) or equivalent measures, and ensure their actual use. Furthermore, the adequate measures should ensure that attributes of exported GO are subtracted from the Residual Mix of the exporting country and cannot be used for disclosure at any time in the issuing or the exporting country by explicit mechanisms, unless the GO is re-imported and cancelled there.

European countries should establish a register of their decisions taken regarding the acceptance of imported GO, which gives guidance to other competent bodies and also provides transparency for market actors.

(BPR [20], [21])

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	2, 3, 4, 5, 17
Double counting of attributes in explicit and implicit tracking mechanisms	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 17
Double counting within individual supplier's portfolio	
Loss of disclosure information	6, 7, 16
Intransparency for consumers	4, 11, 12, 13, 15, 17
Leakage of attributes and/or arbitrage	1, 9, 10, 15, 16
Unintended market barriers	18

## Netherlands (last updated October 2012)

### Proposals regarding Disclosure

1. GO should be the only “tracking certificate” used. Any other tracking systems of a similar purpose and function as GO should be converted to GO. For Netherlands, this remains valid with respect to non-RES production. (BPR [16])
2. Besides GO, only Reliable Tracking Systems (which may include contract based tracking, see below) and the Residual Mix should be available for usage for disclosure. No other tracking mechanisms should be accepted. Reliable Tracking Systems (RTS) should be defined where appropriate based on criteria of added value, reliability and transparency. (BPR [17], [23])
3. Regulation with respect to contract based tracking should ensure that
  - a. The rules of the tracking system are transparent and comprehensive and are clearly understood by all participants in the system.
  - b. 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.
  - c. The relevant information for disclosure purposes should be available in time to meet the timing requirements for calculation of the residual mix.

(BPR [30])

4. Although the principle of residual mix calculation is already applied in the Netherlands, this should be extended in order to coordinate information with other domains. This particularly is relevant with respect to import and export (i.e. provision) of residual mix information. However, due to the large import volumes of GO the Netherlands can be expected to be rather an exporter of residual mix disclosure attributes. (BPR [26])
5. The following timing of the calculation of the Residual Mix should be followed in coordination with other countries across Europe (this is particularly relevant as the Netherlands are exporter of attributes to the European Attribute Mix):
  - a. By 30 April X+1 all countries should determine their preliminary domestic Residual Mix and whether they have a surplus or deficit of attributes.
  - b. By 15 May X+1, the European Attribute Mix should be determined.
  - c. By 31 May X+1, the final national Residual Mixes should be published.
  - d. As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.

(BPR [35])

6. It should be further clarified to which extent the application of contract-based tracking has to be improved in order to avoid double counting of the covered attributes. This does not only mean that the Residual Mix has to take this into account based on notification by the suppliers, but should particularly also clarify international coordination in case that the contract based supply refers to an international contract. This might include a mandatory notification of the regulator about any international contract based tracking. (BPR [29], [30])
7. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
8. 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 [41])

## Proposals regarding GO

### Proposals regarding the RES-GO System

Please note that these recommendations also apply for GO for other fuels than RES.

9. The deadline for cancelling GO for purposes of disclosure in a given year X should be 31 March of year X+1. (BPR [5])
10. It shall be assured that cancellations of GO relating to production periods in a given year X which take place until 31 March of year X+1 should count for disclosure in year X. Later cancellations should count for disclosure in year X+1. (BPR [5])
11. The same allocation rule should apply for expired GO: the date of expiry thus determines the disclosure period for which information from expired GO will be used. This of course includes that expired GO are taken into account within the Residual Mix in the Netherlands. (BPR [5])
12. Within the rules set by the respective Directives, the Netherlands should consider their criteria for the acceptance of imported GO for purposes of disclosure.
  - a. These criteria should address imports at least from all EU member states, other members of the European Economic Area (EEA) and Switzerland. The parties to the Energy Community Treaty should be considered as well, as soon as GO imports from these countries become relevant.
  - b. The criteria should specify the electronic interfaces, specifying data format and contents of GO to be imported, which the respective country accepts for imports of GO (such as the EECS Hub and any other interfaces accepted).
  - c. Conditions for the recognition of GO from other countries should be that they were issued based on Art. 15 of Directive 2009/28/EC or compatible national legislation, and that they meet the explicit requirements set in Art. 15, e.g. regarding the information content of the GO.
  - d. The recognition of GO from other countries should be rejected in case that these countries have not implemented an electricity disclosure system.
  - e. The recognition of GO from other countries should be rejected in case that the country which has issued the GO or the country which is exporting the GO have not implemented adequate measures which effectively avoid double counting of the attributes represented by the GO. Such adequate measures should ensure the exclusivity of the GO for representing the attributes of the underlying electricity generation, implement clear rules for disclosure, establish a proper Residual Mix or equivalent measures, and ensure their actual use. Furthermore, the adequate measures should ensure that attributes of exported GO are subtracted from the Residual Mix of the exporting country and cannot be used for disclosure at any time in the issuing or the exporting country by explicit mechanisms, unless the GO is re-imported and cancelled there.

(BPR [21])

### Proposals regarding the CHP-GO System

13. CHP-GO should be implemented within EECS as tradable instrument. (BPR [12], [15])
14. Only one GO should be issued per unit of electricity, which should combine the functionalities of a RES-GO and a CHP GO. (BPR [15])
15. Disclosure allocation of supported CHP production shall be clarified. (BPR [36])

See also proposals regarding the RES-GO system.

Furthermore, it shall be noted that the participating domains of the RE-DISS project have decided that the Best Practice Recommendations should also include the following recommendations, which should

generally be considered by all Competent Bodies in order to assess relevance for their individual domains:

- Member States should at least publish the set of criteria they apply in order to decide over recognition of GO from other Member States.
- Member States should clearly regulate the use of GO directly by end consumers.
- If using cooperation mechanisms, Member States should take care of regulating the attribution of GO concerning electricity concerned by these mechanisms.

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	1, 2
Double counting of attributes in explicit and implicit tracking mechanisms	2, 3, 4, 6, 12
Double counting within individual supplier's portfolio	
Loss of disclosure information	11
Intransparency for consumers	7, 8, 14, 15
Leakage of attributes and/or arbitrage	5, 9, 10, 11
Unintended market barriers	13

## Norway (last updated October 2012)

### Proposals regarding Disclosure

1. Full disclosure schemes should be implemented, including the disclosure of CO<sub>2</sub> emissions and radioactive waste. This particularly does include the requirement established by the Internal Market Directive to provide disclosure information not only on a central website, but explicitly on the invoices and other materials sent to end consumers. (BPR [22])
2. Although Norway has already implemented major elements for calculation of a national Residual Mix, the calculation of the Residual Mix has to be improved to follow the methodology developed in the RE-DISS project more closely. As part of this methodology, competent bodies should ensure that double counting between GO they have issued, other Reliable Tracking Systems in use in their country and the Residual Mix is excluded. The most important element for Norway is to assure that any attribute which is counted to the national residual mix cannot be explicitly used separately, as has been the case for GO when being exported and cancelled after 28<sup>th</sup> February in year X+1. (BPR [26])
3. NVE and Statnett should cooperate with other competent bodies from all countries in Europe in order to adjust their Residual Mixes in reflection of cross border transfers of physical energy, GO and RTS. For this purpose, 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 [27])
4. GO which have reached the end of the lifetime (limited to 12 months after the end of the production period) should be collected into the Residual Mix. GO should not be collected to the Residual Mix if they can still be transferred and cancelled. [(BPR [3])
5. The following timeline should be followed in coordination with other competent bodies:
  - f. The deadline for cancelling GO for purposes of disclosure in a given year X should be 31 March of year X+1 at the latest according to the RE-DISS Best Practice Recommendations – currently Norway even requires cancellation by end of February of year X+1. (BPR [34])
  - g. The timing of the calculation of the Residual Mix should be coordinated across Europe:
    - i. By 30 April X+1 at the latest all countries should determine their preliminary domestic Residual Mix and whether they have a surplus or deficit of attributes.
    - ii. By 15 May X+1, the European Attribute Mix should be determined.
    - iii. By 31 May X+1, the final national Residual Mixes should be published.
    - iv. As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.

(BPR [35])
6. 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 “residual” product of the supplier. As required by Article 9 of the Internal Market Directive, this includes provision of the total supplier mix also to “green product” costumers of a supplier, and the provision of a central Norwegian Residual Mix (if being applicable) not only on the website of NVE, but on invoices being sent to the end-consumer. (BPR [39])
7. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
8. 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 [41])

9. 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. This particularly becomes relevant for publication of the supplier mix according to recommendations 6 above in addition to the product specific mix which is currently provided (either based on cancelled GO or on the national residual mix as calculated by NVE). (BPR [42])
10. Suppliers should apply the following steps in order to determine their disclosure figures additionally to the regulations which are already applicable in Norway:
  - h. Typically the volume of electricity sold to final consumers is larger than that of the generation attributes acquired through “explicit” tracking mechanisms. In this case the missing generation attributes should be “filled up” from the Residual Mix for the respective country, which will be determined and published by NVE.
  - i. The overall supplier disclosure mix consists of the attributes of all electricity sold to final consumers, including all products which might be differentiated.
  - j. If electricity products which are differentiated regarding the origin of the energy have been offered to part of the consumers then these consumers will receive product-related disclosure information based on the GO cancelled for this purpose. However, in this case such product-related disclosure information should also be given to those consumers which have not purchased a specific product. This means that a “residual product” should be defined which consists of the disclosure mix of the supplier minus the attributes of all separated products. This information should be disclosed as product-specific disclosure data to the consumers which are receiving the “residual product”.<sup>2</sup>
  - k. CO<sub>2</sub> emissions and radioactive waste should be disclosed on the supplier and product levels in direct relation to the fuel mix which is being disclosed.  
(BPR [44])

### Proposals regarding GO

11. Within the rules set by the respective Directives, Norway 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.
  - l. Within the rules set by the respective Directives, Norway should consider their criteria for the acceptance of imported GO for purposes of disclosure.
  - m. These criteria should address imports at least from all EU member states, other members of the European Economic Area (EEA) and Switzerland. The parties to the Energy Community Treaty should be considered as well, as soon as GO imports from these countries become relevant.
  - n. The criteria should specify the electronic interfaces, specifying data format and contents of GO to be imported, which the respective country accepts for imports of GO (such as the EECs Hub and any other interfaces accepted).
  - o. Conditions for the recognition of GO from other countries should be that they were issued based on Art. 15 of Directive 2009/28/EC or compatible national legislation, and that they meet the explicit requirements set in Art. 15, e.g. regarding the information content of the GO.
  - p. The recognition of GO from other countries should be rejected in case that these countries have not implemented an electricity disclosure system.

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<sup>2</sup> This recommendation avoids the implicit double counting of attributes which might be part of e.g. a green power product and which also appears in the overall disclosure mix of the supplier. See the E-TRACK final report for more details.

- q. The recognition of GO from other countries should be rejected in case that the country which has issued the GO or the country which is exporting the GO have not implemented adequate measures which effectively avoid double counting of the attributes represented by the GO. Such adequate measures should ensure the exclusivity of the GO for representing the attributes of the underlying electricity generation, implement clear rules for disclosure, establish a proper Residual Mix or equivalent measures, and ensure their actual use. Furthermore, the adequate measures should ensure that attributes of exported GO are subtracted from the Residual Mix of the exporting country and cannot be used for disclosure at any time in the issuing or the exporting country by explicit mechanisms, unless the GO is re-imported and cancelled there.

Norway should cooperate with other European countries in order to establish a register of their decisions taken regarding the acceptance of imported GO, which gives guidance to other competent bodies and also provides transparency for market actors.

(BPR [21])

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	
Double counting of attributes in explicit and implicit tracking mechanisms	2, 4, 5, 9
Double counting within individual supplier's portfolio	
Loss of disclosure information	1, 3
Intransparency for consumers	1, 6, 7, 8, 10
Leakage of attributes and/or arbitrage	4, 5
Unintended market barriers	11

## Sweden (last updated October 2012)

### Proposals regarding Disclosure

The EI report clearly states that the Nordic residual mix should be used as the residual mix in Sweden. This practice is only reliable if all countries within the Nordic area (Denmark, Finland, Norway and Sweden) use this mix instead of their national mix. Currently Denmark and Norway use the national mix and even Finland is moving towards the national mix according to the current version of the law-draft regarding guarantees of origin and disclosure. So for the time being, it is recommended that Sweden uses the national mix and switches to Nordic mix only if all Nordic countries agree to this.

1. 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 between all countries in this region which ensures a coordinated usage of the regional Residual Mix. (BPR [28])

### Proposals Regarding GO

#### Proposals regarding the RE-GO System

The lifetime of GOs should be extendable in case of errors in issuing.

2. 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 of the GO. (BPR [4])

The detailed regulation of disclosure information given by suppliers to consumers is still lacking from the EI report. Therefore it is recommended that the disclosure information should always refer to the electricity product bought by the consumer or the residual mix of the supplier (national residual mix corrected with the GOs cancelled by the supplier for the purpose of its default mix). CO<sub>2</sub> emissions and radioactive waste should be disclosed on the supplier and product levels in direct relation to the fuel mix which is being disclosed. Furthermore, especially in the Nordic market, rules for supplier who sell electricity in several countries should be made clear.

3. 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 [39])
4. 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 [42])

Claims of additionality and low-carbon content of electricity should be regulated.

5. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
6. 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 [41])

#### Proposals regarding the RE-GO System

CHP-GO system is not yet implemented in practice in Sweden.



**Matrix of disclosure related problems and country-specific proposals**

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	
Double counting of attributes in explicit and implicit tracking mechanisms	1
Double counting within individual supplier's portfolio	3,4
Loss of disclosure information	
Intransparency for consumers	5,6
Leakage of attributes and/or arbitrage	2
Unintended market barriers	

## Switzerland (last updated August 2012)

### Proposals regarding Disclosure

1. Cancellations of GO relating to production periods in a given year X which take place until 31 March of year X+1 should count for disclosure in year X. Later cancellations should count for disclosure in year X+1. This would also require revision of the timeline which currently applies within Switzerland. (BPR [5])
2. GO should be the only “tracking certificate” used. Any other tracking systems of a similar purpose and function as GO should be converted to GO. (BPR [16])
3. (Other) Reliable Tracking Systems (RTS) should be defined where appropriate based on criteria of added value, reliability and transparency. (BPR [23])
4. If contract based tracking is to be allowed besides GO as explicit tracking instrument, it shall be regulated so that
  - a. The rules of the tracking system are transparent and comprehensive and are clearly understood by all participants in the system.
  - b. 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.
  - c. The relevant information for disclosure purposes should be available in time to meet the timing requirements for the coordinated calculation of a European Residual Mix. This means that this information has to be collected centrally in order to have a national residual mix calculated by end of April of year X+1.
  - d. 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. (BPR [29, 30])
5. Full disclosure schemes should be implemented, including the disclosure of CO<sub>2</sub> emissions and radioactive waste. (BPR [22])
6. Instead of allowing for an “unknown” share in the disclosure statement, the Swiss Government should provide a Residual Mix 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 (RTS). (BPR [25-28])
  - a. The calculation of the Residual Mix should follow the methodology developed in the RE-DISS project. 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.
  - b. For purposes of this cross-border adjustment, SFOE should use data provided by RE-DISS. SFOE should also continue to support the collection of input data for the related calculations by the RE-DISS project team.
7. Timing of Disclosure:
  - a. The deadline for cancelling GO for purposes of disclosure in a given year X should be 31 March of year X+1. (BPR [34])
  - b. The timing of the calculation of the Residual Mix should be coordinated across Europe:
    - i. By 30 April X+1 all countries should determine their preliminary domestic Residual Mix and whether they have a surplus or deficit of attributes.
    - ii. By 15 May X+1, the European Attribute Mix should be determined.
    - iii. By 31 May X+1, the final national Residual Mixes should be published.

- iv. As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.  
(BPR [35])
8. 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. (BPR [38])
9. Green power quality labels should use GO as the unique tracking mechanism. (BPR [18])
10. 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. For the Swiss regulation, this is relevant in case that e.g. a green product is marketed towards some consumers, but the respective supplier chooses to disclose the supplier share in line with the national disclosure legislation, and additionally discloses the green product share on a voluntary basis. (BPR [39])
11. There should be clear rules for the claims which suppliers of e.g. green power can make towards 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 [40])
12. 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 [41])

### Proposals regarding GO

13. The lifetime of GO should be limited to 12 months after the end of the production period in order to be in line with the EU RES Directive.<sup>3</sup> GO which have reached this lifetime should expire and be collected into the Residual Mix. (BPR [3])
14. The GO system should be implemented under EECS. If the existing separate national system is to be kept, this shall be further developed in order to provide missing features compared to EECS, particularly including provision of statistical information. (BPR [7])
15. So-called ex-domain cancellations of GO, where a GO is cancelled in one registry and a proof of cancellation is then transferred to another country in order to be used there for disclosure purposes, should only be used if there is no possibility for a secure electronic transfer and if there is an agreement on such ex-domain cancellations between the competent bodies involved. Statistical information on all ex-domain cancellations relating to a disclosure year should be made available differentiated by energy source<sup>4</sup> in order to support Residual Mix calculations. (BPR [9])
16. Within the rules set by the respective European Directives, Switzerland 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. (BPR [21])

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<sup>3</sup> One should note that the existing regulation to extent this expiry date for production which takes place early in the year in principle is feasible for exclusion of double counting. However, in order to allow for a sound calculation of the Residual Mix, a shift of the cut-off date to end of March of year X+1 would be needed.

<sup>4</sup> This information should be provided using a structure for energy sources which corresponds to the highest hierarchy level of fuel codes in the EECS Fact Sheet 5 (see [http://www.aib.net.org/portal/page/portal/AIB\\_HOME/EECS/Fact\\_Sheets](http://www.aib.net.org/portal/page/portal/AIB_HOME/EECS/Fact_Sheets))

Furthermore, it shall be noted that the participating domains of the RE-DISS project have decided that the Best Practice Recommendations should also include the following recommendations, which should generally be considered by all Competent Bodies in order to assess relevance for their individual domains:

- Member States should at least publish the set of criteria they apply in order to decide over recognition of GO from other Member States.
- Member States should clearly regulate the use of GO directly by end consumers.
- If using cooperation mechanisms, Member States should take care of regulating the attribution of GO concerning electricity concerned by these mechanisms.

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

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	2, 3, 4, 8, 16
Double counting of attributes in explicit and implicit tracking mechanisms	2, 3, 8, 14, 15, 16
Double counting within individual supplier's portfolio	10
Loss of disclosure information	6
Intransparency for consumers	5, 6, 8, 9, 11, 12
Leakage of attributes and/or arbitrage	1, 7, 13
Unintended market barriers	-