Stand: 03.06.2013

This questionnaire has been developed by the CA-RES WorkingGroup 10 (on Guarantees of Origin)

It contains about 50 questions and it's purpose is twofold:

To start with it contains 50 important questions to be asked when designing a coherent GO-system, connected in a proper way to electricity disclosure. We recommend basic implementers use these questions to make sure the design of their national system does not contain any loopholes.

Furthermore it is aimed at providing member states with an outline on how to assess the GO system and disclosure of *other* member states. Answers to this questionnaire should be provided before any import of Guarantee of Origin should be considered as full transparency must be provided about operations relating to GO and disclosure (c.f. Art. 15 RES Directive).

General comment: links to relevant legal documents and to websites should be included in this document where possible. Also form templates used in your domain e.g. for applications can be attached.

General Contact Information	Member state response
Country	Germany (DE)
Name and type of the Competent Body for running the GO system(e.g. TSO, NRA, Market Operator, Government Agency)	Umweltbundesamt (UBA) – Federal Environment Agency Governmental Agency on federal level
a. Geographic domain(country or region)	Germany (DE) incl. Offshore (German Exclusive Economic Zone)
b. Including offshore? (Y/N)	Yes
c. Date this GO- registry became legally operational:	01.01.2013
d. Address	Wörlitzer Platz 1 06844 Dessau-Roßlau

e. Contact person	Michael Marty Tel.: 0049 340 2103 2249 Mail: <u>michael.marty@uba.de</u>
If the competent body is not the issuing body, and did delegate or mandate the daily operational business to issue GO, please do specify the contact details of the issuing body and please provide proof of appointment to issue these certificates.	
(Reference to regulation or formal letter of appointment)	
Transfer to other registries since / or planned to become operational by:	June 2013
Previous Issuing Body(ies)	Öko-Institut (within the EECS)
a. Operative from - to	Since 2004 until 31.12.2012
Responsible organisation for disclosure (to be filled out only if not identical to the Competent Body for GO above)	Bundesnetzagentur (BNetzA) – Federal Network Agency Referat 604
a. Address	Tulpenfeld 4 53113 Bonn <u>www.bundesnetzagentur.de</u>
b. Contact person	Diana Fricke, <u>ref-604@bnetza.de</u>
Web link Internet pages (general info page) to the responsible bodies for issuing GO and disclosure.	<u>www.umweltbundesamt.de</u> <u>www.umweltbundesamt.de/energie/hknr/index.htm</u> <u>www.hknr.de</u>

Criteria / Question	Member state response
Implementation of Art. 3 (9) of the Directive 2009/72/EC (on electricity disclosure) by the Member State	
 Are disclosure laws and procedures in place? (Y/N) If not: please state, when it is intended to have the national framework in place and move to question 8 below. 	Yes
a. What are the laws and regulations?	 Electricity disclosure in Germany is regulated by § 42 of the Energy Industry Act (Energiewirtschaftsgesetz – EnWG, in German: <u>http://www.gesetze-im- internet.de/bundesrecht/enwg_2005/gesamt.pdf</u>). It regulates: Suppliers have to provide the fuel mix of year X latest by 1 November of year X+1 together with the annual invoice, with advertising material and on their website. Disclosed fuel mix contains the company's mix, product mix (if any) and (for comparison) the German production mix. Disclosed information contains at least the shares of nuclear, coal, natural gas, other fossil, renewables as supported according to German Renewable Energy Sources Act (EEG), other renewables and the respective emissions of CO₂ and nuclear waste. Furthermore they must disclose the environmental impacts, at least respective the emissions of CO₂ and nuclear waste For shares of unknown origin, the German ENTSO-E mix published by the German Association of Energy and Water Industry (BDEW) has to be used, which shall be corrected "with reasonable effort" in order to avoid double counting (§ 42 (4) Energy Industry Act). Electricity from renewable energy

Criteria / Question	Member state response
	 In order to disclose a certain share of "other renewables" – besides the amount of "renewables supported by the Renewable Energy Sources Act" which is calculated every year and paid for by every consumer –, suppliers are obliged to use RES GO as cancelled in the GO registry of UBA. This obligation does not apply for RES as share of the corrected ENTSO-E mix. All other shares of origin of electricity (nuclear, coal, gas, other fossil fuels, renewables supported by the Renewable Energy Sources Act) are disclosed in accordance with the BDEW guidelines. This however only applies for renewables production as of 2013. For 2012 production, which has to be published by November 2013, the regulations of the 2005 Energy Industry Act still apply. These regulations do not put any specific requirements for documentation and tracking in place. UBA has the competence to check whether the supplier fulfils his duty to cancel the correct amount of GOs. The share of "Renewables supported by feed-in-tariff" are calculated on basis of the Ausgleichsmechanismusverordnung" (http://www.gesetze-im- internet.de/bundesrecht/ausglmech//gesamt.pdf). German electricity branch organisation BDEW has published voluntary guidelines with further specifications. As corrected ENTSO-E mix, BDEW recommends in coordination with the German regulator Bundesnetzagentur (BNetzA) the German production mix excluding all RES production. However, no legally mandatory mix is published. The BDEW guidelines also include a mechanism for ex-post allocation of attributes as based on net trading balances of market parties. According to this methodology, larger German electricity companies publish their traded production mix, so that companies who are net buyers from these companies over the year can use this information for calculation of their own mix. Such calculation is performed with several iterative steps and presumably used by most of the German producers, traders and suppliers. Fo

Criteri	a / Question	Member state response
	b. When did the regulation(s) regarding disclosure come into force? If not when will they become effective?	§ 42 Energy Industry Act which implemented the Art. 3 of the Directive 2009/72/EC came into force on the 4th of August 2011. The disclosure of the so called "other renewable" with RES GO § 42 Abs. 5 EnWG came into force with the registry start of UBA on the 1st of January 2013.
	c. Who is the responsible body for disclosure?	Bundesnetzagentur (BNetzA) – Federal Network Agency, Referat 604
2)	How is electricity of renewable energy disclosed? Which tracking system(s) can be applied?	Cf. answer to question 1) a.
3)	Is the amount of energy corresponding to GOs transferred by an electricity supplier to a third party deducted from the share of energy in its energy mix for the purposes of disclosure? (Art. 15 (8) 2009/28/EC)	Only GO can be used to disclose energy for a renewable energy product. If an electricity supplier transfers renewable energy to a third party he needs to transfer the corresponding GOs as well.
4)	In some countries domestic GOs or certificates different from RL 2009/28/EC GOs are being used. Does this concept exist within your country and do you treat them differently when it comes to disclosure – if so, how?	There still may be some certificates issued on a private basis. They may not be used for tracking or disclosure purposes. They will phase out soon. UBA will neither take them into its GO-register nor accept them for disclosure.
5)	Do you apply the RE-DISS residual mix calculations for untracked electricity? If not how is electricity of unknown origin disclosed?	No, Germany uses the national ENTSO-E-mix for untracked electricity (§ 42 (4) EnWG). Further see number 6). ENTSO-E (Germany) minus RE (EEG and exported/cancelled GOs) plus unused GOs.
6)	Who is responsible to calculate the residual mix?	BDEW calculated the German reference mix and a "corrected" ENTSO-E mix (all RES- E has been deducted) for 2011 production in coordination with the German regulator Bundesnetzagentur, which is the Competent Body for electricity disclosure.
7)	Do you apply the RE-DISS recommendations on deadlines within the disclosure process mentioned hereafter (Y/N) if not: What are the deadlines for this step in the disclosure process?	No.

Criteria / Question	Member state response
a. Deadline for cancellation of GOs	No deadline, but before 01.11.
b. Date when the residual mix will be published	The residual mix is generally published in August by BDEW on a Data-Platform for disclosure.
c. Publication of the fuel mix of the previous year by supplier	01.11. (§ 42 (1) No 1 Energy Industry Act)
The issuing member state has implemented Art. 15 of the Directive 2009/28/EC	
8) On what legal basis is Art. 15 of the RES Directive implemented? What are the laws and regulations?	§ 3 No. 4c, § 55 Renewable Energy Sources Act (http://www.erneuerbare-energien.de/fileadmin/ee- import/files/english/pdf/application/pdf/eeg_2012_en_bf.pdf) § 42 Energy Industry Act (<u>http://www.gesetze-im-internet.de/enwg_2005/_42.html</u>) Herkunftsnachweisverordnung (HkNV – GO-Ordinance, http://www.gesetze-im- internet.de/bundesrecht/hknv/gesamt.pdf) Herkunftsnachweis-Durchführungsverordnung (HkNDV – GO-Executive Ordinance, <u>http://www.gesetze-im-internet.de/bundesrecht/hkndv/gesamt.pdf</u> Herkunftsnachweis-Gebührenverordnung (HkNGebV – GO-Fee Ordinance, <u>http://www.gesetze-im-internet.de/bundesrecht/hkngebv/gesamt.pdf</u> Terms of use (http://www.umweltbundesamt.de/energie/archiv/hknr/nutzungsbeding)ungen_fuer_das _herkunftsnachweisregister.pdf
a. From which production date did the national GO fulfil all criteria of Directive 2009/28? (Or when is it planned to have this framework in place?)	Production from 01.01.2013
 b. If applicable: Which requirements have not yet been implemented? 	No.

Criteria / Question	Member state response
 9) What is the procedure for issuing a GO? (Art. 15 (2) 2009/28/EC) 10) What is the regulation for the expiry and "use" of certificates as stated in article 15(3) of the RES Directive 2009/28/EC? 	 Concerning the registration of an installation cf. the answer to question 38. UBA issues GOs if (cf. § 6 (1) HkNDV for all preconditions) The owner of the installation applies for it, the production device is registered properly which includes the communication with the grid operator via EDIFACT, the production device is allocated to one of possible several accounts of the owner, the grid operator reports UBA the amount of produced energy from renewable energies, where applicable checked by an environmental auditor, the owner of the production device does not receive a feed-in tariff, market premium or a CHP-GO for the same amount of electricity, the electricity was not produced more than 12 months ago. GOs can only be used for 12 month. The validity starts with the month of production. The production period is e.g. the 1st until the 31st of January. GOs can be used until the end of January the following year. The production period lasts in most cases one month (§ 9 (2) HkNDV). UBA cancels a GO older than twelve months automatically (§ 17 (5) 1 HkNDV). This expired GO may not be used for disclosure purposes anymore (§ 17 (5) 2 HkNDV). Cancellation and use are implemented as Art. 15 (3) RES-Directive demands in § 17 (2) HkNDV.
11) Is the appointed competent body the only competent body in your country? (Art. 15 (4) 2009/28/EC)	Yes.
a. If there is more than one, how are responsibilities separated from each other and/or how are geographic regions defined?	
12) If the daily operations have been handed over to another body do you supervise the issuance, transfer and cancellation of GO? (<i>Art. 15 (4) 2009/28/EC</i>)	No other body for daily operations.

Criteria / Question	Member state response
13) Ownership and type of organisation of the issuing body (e.g. private company, government department, energy regulator, TSO)	UBA is an administrative agency on Federal Level. Superior to it is the Federal Republic of Germany.UBA is independent from activities in production, trade and supply of electricity or GOs.
a. Is the company independent of production, trade or supply activities? (Art. 15 (4) 2009/28/EC)	Yes.
The issuing member state ensures that no more than one GO is issued in respect of each unit of energy produced and that the same unit of energy from renewable sources is taken into account only once (Art. 15 (2) 2009/28/EC).	
14) What kind of GOs can be used for disclosure and in what way?	Only RES-GO may be used for disclosure of electricity from renewable energy sources. The supplier has to cancel as many GOs as he delivered "other renewable energy sources" to his consumers. CHP-GOs are issued by the Bundesanstalt für Wirtschaft und Ausfuhrkontrolle (BAFA) - – Federal Office of Economics and Export Control (<u>http://www.bafa.de/bafa/de/energie/kraft_waerme_kopplung/stromverguetung/kwk-anlagen_ueber_50kw_bis_2mw/herkunftsnachweis/index.html</u>). Owners of an installation producing CHP-GOs may not apply for RES-GO for the same amount of electricity (§ 6 (1) No 5 HkNDV).
a. If there are more than one, what kind of measures have you taken to prevent multiple issuance of GO for the same amount of energy?	

Criteria / Question	Member state response
15) Can renewable energy be disclosed in any other way than using GOs (e.g. bilateral contracts or other types of certificates, like industry based schemes)?	 No, the ways to disclose renewable energy are exclusive: "Renewables subsidised by the EEG" via a calculation by the energy supplier. TSO are obliged to publish yearly a quotient that can be used by the energy supplier to calculate the renewable energy part subsidised by the EEG. "other renewable" via GOs.
a. If so, what kind of measures have you taken to ensure that the same unit of energy is taken into account only once?	
16) Do other registry systems in your domain exist which can be used for disclosure purposes (e.g. private certificate schemes)?	No.
a. If so, how do you align the databases?	
17) What technical measures have you taken to prevent double counting of GOs?	 Electronic GO-register Data reports of the grid operator Use of environmental auditors Due to a technical barrier, exported GO cannot be used or transferred anymore in the UBA registry.
18) When importing GOs: What measures have you taken to ensure that exported GO are not used anymore in the exporting or any other state?	 Checking the law in the exporting country. Close exchange with the colleagues of the issuing body exporting the GOs. Taking care of the AIB-Domain Protocols of the exporting countries. Use of the CA-RES questionnaire
19) Have exported and cancelled quantities of electricity been deducted from the residual mix?	Yes.
The issuing member state ensures the function of GO (Art. 15 (2) 2009/28/EC).	
20) Are GOs only being used for disclosure? (Y/N)	Yes.

Criteria / Question	Member state response
a. What type(s) of support scheme(s) are in place?	 Feed-in-tariff (§ 16 EEG) – the owner of the installation receives a fixed tariff Marketpremium (§ 33g EEG) – the owner of the installation has to sell the electricity produced on the market and receives a premium to cover losses according to the feed-in-tariff (management premium) Green energy privilege (§ 39 EEG) – the energy supplier saves a certain amount of the "EEG-Umlage" and may hand it over to the owner of the installation (an only indirect support scheme which is in line with GOs)
b. Are GOs also used as a proof for national support schemes?	No.
c. Do GOs have any other function within the scope of the national support scheme?	No.
d. How do these support and disclosure schemes inter-relate?	 If the owner of the installation receives the feed-in-tariff or the Marketpremium for the same amount of electricity, he may not apply for and will not receive a GO (§ 55 (1) 2 EEG). If the energy supplier makes use of the Green energy privilege and hands over an amount of saved "EEG-Umlage" to the owner of the installation, he may apply for GOs for the same amount of electricity.
The Registry system is electronic, accurate, reliable and fraud-resistant (Art. 15 (5) 2009/28/EC).	
and fraud-resistant (Art. 15 (5) 2009/20/EC).	
21) Do you have an electronic registry?	Yes.
a. If so, who developed & operates it?	ATOS Austria.
b. What technology (e.g. database, spreadsheet)?	Oracle Database.
22) Do you issue, transfer and cancel GOs for the standard size of 1 MWh?	Yes, only for 1 MWh.
23) Are the EECS-Rules implemented by the issuing body?	Yes.

Criteria / Question	Member state response
24) What measures have you taken to ensure sufficient IT-security?	 User-name and password Passwords must be changed annually Captcha mTAN-procedure for important transactions listed in No. 3.3 of the Terms of Use PostIdent for secure identification of users The website is encrypted using https Current IT-security concept Penetration test
25) What measures have you taken to ensure validity of the GO content?	 Only gauged meters may be used Grid operator reports necessary data of produced electricity Use of environmental auditors concerning installations and in some cases amount of produced electricity
26) What measures have you taken to ensure that only one GO is issued for each unit of energy produced?	UBA is the only competent body to issue GOs in Germany. In order to issue GOs UBA uses only validated measures from the grid operator.
27) Do you have written procedures for operating your GO system? If so, please specify.	UBA acts on a legal basis published in the Federal Law Gazette and the Federal Bulletin.
28) What measures have you taken (or would you be prepared to take):	
 a. to limit financial risk to other issuing bodies as a result of (e.g. trading disputes between accountholders)? 	UBA did not limit its own liability.
 b. to limit fraudulent behaviour? (e.g. multiple issuing, transfer and cancellation – for example, inspection of plant) 	UBA uses a technical register which helps avoiding fraudulent behaviour. Moreover, UBA asks for the VAT Identity Number to prevent VAT carousels. If UBA gets aware of fraudulent behaviour it may impose a fine (exclusion from the system, administrative fine) and hands over the case to the body of public prosecutors.
29) Which parts of your operations are (or might be) outsourced, and to whom?	 Hosting of the IT-System: ATOS Austria Reporting necessary data: grid operator Validating data: environmental verifiers

Criteria / Question	Member state response
30) Do you (plan to) issue separate GOs for domestic and international markets? If so, how are these related and how do you prevent double counting?	No.
31) Can certificates be altered once they have been issued? If yes, how, and in what circumstances?	No.
32) Please describe the regulation for metering of electricity production for issuing of GO in your domain.	§ 22 HkNDV describes the procedure: The grid operator meters the electricity produced at the metering points where the installation feeds the electricity into the grid. He has the duty to report these data concerning the relevant metering point; this duty exists only in these cases where there is a relevant "renewable status" (which depends on the support scheme).
c. Do you issue on any basis other than meter readings?	"Yes" in the case of pumped hydro power: The environmental verifier proofs the data of produced and used power the owner of the installation reports to UBA.
d. Do you issue certificates for nett or gross output?	Nett production.
e. If you issue for gross output, how do you handle onsite demand, pumped storage and auxiliaries?	
f. How do you handle the situation that only one meter provides production data for more than one plant?	The owner (there is always one owner) has – firstly – to register the entire installation (e.g. the wind farm) and after that – secondly – every single installation (§ 2 No. 1 HkNDV). In case there is more than one plant (eg. PV and biomass) with different owners using the same meter each owner must state a formula on how to calculate the correct amount of energy of his plant. An auditor needs to validate the formula.
33) How do you issue GO for biomass plants (100% biomass)?	The only special feature is that an environmental auditor has to validate the amount of issued GOs once a year. For this reason the owner of the installation has to hand over a copy of a record of the substances used with details and documentation of the type, quantity, unit and origin of the substances used (§ 23 (1), (2) HkNDV).

Criteria / Question	Member state response
34) How do you issue certificates for co firing plants and on what basis do you allocate biomass?	A co firing plant is an installation that is permitted to burn biomass and other fuel. UBA issues GOs only after the grid operator reported the entire amount of electricity and the environmental auditor checked the amount which derived from biomass by using the copy of a record of the substances used with details and documentation of the type, quantity, unit and origin of the substances used (§ 6 (1) No. 8 HkNDV). For waste incineration plants we offer a template with biomass-content of a variety of different kind of waste (No. 9 Terms of Use).
34a) How do you issue certificates for waste incinerators and on what basis do you allocate waste (biomass)?	Cf. answer to question 34).
35) What are the production periods for production devices in your domain? Are there any exceptions?	Monthly. If the meter cannot be read automatically the production period is the time between two readings of the meter.
36) How often do you issue GOs?	Monthly, except the meter cannot be read automatically.
37) What are the procedures regarding backward issuing?	A GO is only issued if it wouldn`t have to be cancelled at the same time because of expiring

Criteria / Question	Member state response
38) How are production device registrations verified in your domain?	The owner of the production device or his service provider is entitled to register the plant. Before they have to register themselves and proof their power of attorney by sending to UBA a written certificate of authority and – in the case of an organisation – an up-to date copy out of the Commercial Register. The production device has to produce electricity from renewable energy sources; It has to be located in Germany, in the German Exclusive Economic Zone or at least on the border to another country (Austria, Switzerland, France, Luxembourg). The registration deserves all data mentioned in § 10 (2) HkNDV. As long as the owner does not fill in all of these data the installation cannot be registered. The data are cross-checked by UBA.
	 In some cases an environmental verifier has to validate the data the owner sends to UBA. That is especially the case with installations that did not receive a feed-in-tariff, the Marketpremium or used the green-electricity privilege the last years (§ 11 (1) No. 2 HkNDV), that have complicates electricity meters that need calculations (§ 11 (2) HkNDV), that can use biological but also fossil fuels (§ 11 (1) No. 1 HkNDV), that use pumped water for electricity production and have a specific efficiency factor (§ 7 (2) HkNDV), that are situated on the border to another country.
	The owner may report UBA some environmental friendly specifications of the production device, its construction or operation (Annex 3, cf. § 8 (2) HkNDV)).
	An environmental verifier has to approve these "additional contents". After filling in the registration form and checking by the verifier UBA delivers the data to the grid operator to validate the data of the production device the owner sent to UBA (§ 10 (3) HkNDV).
	If the data are valid the grid operator sends to UBA all production data of the installation.

Criteria / Question	Member state response
	Some installations have to be checked by an environmental verifier as stated above. The owner is entitled to report every change to the installation to UBA (§ 12 (1) HKNDV). If he fails to correct data, UBA may impose an administrative penalty (§ 29 No. 4 HkNDV). In some cases the verifier has to refresh his audit (§ 12 (2) HkNDV).
39) What is the frequency and process with which production devices are inspected in your domain?	Every owner of a registered installation has to repeat the application of the installation every five years. UBA may commission an environmental auditor to check an installation by random examination.
40) How do you handle errors within registered information and within GOs?	UBA may correct registered data (§ 3 (4) HkNDV). Every user is obliged to correct his data (§ 20 HkNDV). The owner of an incorrect GO has to apply for cancellation of this GO (§ 17 (6) HkNDV). UBA may issue a new and correct one. If UBA did not issue enough GOs it simply issues the missing ones. If UBA issued too many GOs it may refuse to issue GOs the next time the owner of the installation applies for them (§ 6 (5) HkNDV).
41) Within your domain, do certificates always expire within 12 months of the end of the production period? (Note that expired means something else than cancelled.)	Yes.
a. If not, when do they expire?	
b. What happens with expired certificates?	They are cancelled and may not be used for disclosure purposes anymore.
Issued GOs include the minimum content (Art. 15 (6) 2009/28/EC)	
42) Energy source from which the energy was produced	Yes.
43) The start and end dates of production	Yes.

Criteria / Question	Member state response
44) Electricity; heating or cooling	Only electricity.
45) Identification number, location, type and capacity of the installation	Yes.
46) Investment support	Yes.
47) Funding by any support scheme	Yes.
48) Date when installation became operational	Yes.
49) Date of issue	Yes.
50) Issuing State	Yes.
51) Unique Identification number of GO	Yes.
52) Do you use additional information on GOs like labels or additional info on the sustainability of biomass? What measures have you taken to ensure the reliability of the additional information and do you want this information to be transferred between national registries?	 UBA allows for additional criteria if the environmental auditor confirms them: additional criteria, if the production device is constructed or operated in an environmental friendly way (Annex 3, cf. § 8 (2) HkNDV) "optionale Kopplung" (optional bundling between GO and electricity produced): The owner of the production device may sell his GO to the same electricity supplier he delivers the electricity to via his virtual "accounting grid". UBA does not use labels.
Additional Questions	
53) Are you a member of AIB? Or do you plan a membership of AIB, or to use the Hub without AIB membership?	UBA uses the Hub without AIB membership from June 2013.