

## Questionnaire

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	<i>Norway</i>
Name and type of the Competent Body for running the GO system(e.g. TSO, NRA, Market Operator, Government Agency)	<i>Norwegian Water Resources and Energy Directorate (NVE) Government Agency</i>
<i>a. Geographic domain(country or region)</i>	<i>Norway</i>
<i>b. Including offshore? (Y/N)</i>	<i>Y</i>
<i>c. Date this GO- registry became legally operational:</i>	<i>In 2008</i>

<i>d. Address</i>	<i>Middelthunsgt 29, 0301 Oslo, Norway</i>
<i>e. Contact person</i>	<i>Anne Vera Skriverhaug</i>
<p>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 <i>provide proof of appointment to issue these certificates</i></p> <p><i>(Reference to regulation or formal letter of appointment)</i></p>	<p><i>Statnett SF (TSO) is the issuing body in Norway.</i></p> <p><i>Contact details:</i>  <i>PB 4904 Nydalen</i>  <i>0423 Oslo</i></p> <p><a href="http://www.statnett.no">www.statnett.no</a></p> <p><i>Contact person: Ivar Munch Clausen</i></p> <p><i>Statnett was appointed by the Ministry of Petroleum and Energy to be the issuing body.</i></p> <p><a href="http://www.statnett.no/Kraftsystemet/Kraftmarkedet/Opprinnelsesgarantier/">http://www.statnett.no/Kraftsystemet/Kraftmarkedet/Opprinnelsesgarantier/</a></p>
Transfer to other registries since / or planned to become operational by:	<i>Yes. Has been connected to the AIB Hub since its beginning.</i>
Previous Issuing Body(ies)	<i>None</i>
<i>a. Operative from - to</i>	
Responsible organisation for disclosure (to be filled out only if not identical to the Competent Body for GO above)	<i>NVE, same as for GOs</i>

<i>a. Address</i>	<i>Middelthunsgt 29, 0301 Oslo, Norway</i>
<i>b. Contact person</i>	<i>Guro Grøtterud, ggro@nve.no</i>
Web link Internet pages (general info page) to the responsible bodies for issuing GO and disclosure.	<p>GO: <a href="http://www.nve.no">www.nve.no</a> and <a href="http://www.statnett.no">www.statnett.no</a></p> <p>The registry: <a href="http://necs.statnett.no/Lists/PublicPages/Statistics.aspx">http://necs.statnett.no/Lists/PublicPages/Statistics.aspx</a></p> <p>The disclosure: <a href="https://www.nve.no/energy-market-and-regulation/retail-market/electricity-disclosure-2015/">https://www.nve.no/energy-market-and-regulation/retail-market/electricity-disclosure-2015/</a></p>

<b>Criteria / Question</b>	<b>Information</b>	<b>Member state response</b>
<b>Implementation of Art. 9 of the Directive 2009/72/EC (on electricity disclosure) by the Member State</b>		
1) Are disclosure laws and procedures in place? (Y/N) <i>If not: please state, when it is intended to have the national framework in place and move to question 8) below?</i>		Yes

Criteria / Question	Information	Member state response
<p>a. what are the laws and regulations?</p>	<p>Reference and detailed description, particularly including the linkage between GO and disclosure</p>	<p>Regulation disclosure:  FOR 1999-03-11 nr 301: Regulations on metering, billing settlement §8-5:  <a href="http://www.lovddata.no/for/sf/oe/te-19990311-0301-008.html#8-5">http://www.lovddata.no/for/sf/oe/te-19990311-0301-008.html#8-5</a></p> <p>Electricity suppliers who do not prepare an individual electricity disclosure based on guarantees of origin, need to refer to the electricity disclosure calculated by NVE to inform their customers about how the electricity they sold in the previous year was generated. For customers purchasing electricity for which guarantees of origin have been redeemed only partly, the remaining part of their consumption must be disclosed as equal to the mix in the disclosure calculated by NVE.</p>

Criteria / Question	Information	Member state response
<p>b. <i>When did the regulation(s) regarding disclosure come into force? If not when will they become effective?</i></p>		<p>1.1.2007</p>
<p>c. <i>Who is the responsible body for disclosure?</i></p>		<p>NVE</p>
<p>2) How is electricity of renewable energy disclosed? Which tracking system(s) can be applied?</p>	<p><i>Describe</i></p>	<p><i>Using GOs is the only way of tracking electricity from RES in Norway.</i></p> <p><i>See also answer 1a)</i></p>
<p>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)</p>	<p><i>Describe and Reference</i></p>	<p><i>In Norway the GOs are transferred separately from the physical electricity. The only way to claim the use of electricity from renewable sources is by cancelling RES GOs.</i></p>

Criteria / Question	Information	Member state response
<p>4) In some countries domestic GOs or certificates different from EU 2009/28 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?</p>	<p><i>Describe</i></p>	<p><i>In Norway we also have el-certificates. These are only used for support and can not be used for disclosure.</i></p>
<p>5) Do you apply the RE-DISS residual mix calculations for untracked electricity? If not how is electricity of unknown origin disclosed?</p>	<p><i>Describe; preferably use a written formula</i></p>	<p><i>Yes, Norway apply the Re-DISS residual mix.</i></p>
<p>6) Who is responsible to calculate the residual mix??</p>		<p><i>Residual mix is calculated and published by NVE based on the results from RE-DISS</i></p>
<p>7) <i>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?</i></p>		<p><i>Yes, from year 2012 we are using the same deadlines.</i></p>

Criteria / Question	Information	Member state response
a. <i>Deadline for cancellation of GOs</i>		
b. <i>Date when the residual mix will be published</i>		
c. <i>Publication of the fuel mix of the previous year by supplier.</i>		
<b>The issuing member state has implemented Art. 15 of the Directive 2009/28/EC</b>		
8) On what legal basis is Art. 15 of the RES Directive implemented? what are the laws and regulations?	Reference and detailed description (meaning web link or pdf) of law AND applicable regulations or by-laws. Preferably also with guidance on which articles do apply.	The regulation is:  <a href="http://www.lovddata.no/cgi-wift/wiftldles?doc=/app/gratis/www/docroot/for/sf/oe/oe-20071214-1652.html&amp;emne=opprinnelsesgaranti*&amp;">http://www.lovddata.no/cgi-wift/wiftldles?doc=/app/gratis/www/docroot/for/sf/oe/oe-20071214-1652.html&amp;emne=opprinnelsesgaranti*&amp;</a>  This is the regulation of GOs in Norway.

Criteria / Question	Information	Member state response
<p>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?)</p>		<p>The first version of this regulation was in place in December 2007. The regulation was updated in January 2012 to include new rules from the Directive 2009/28.</p>
<p>b. If applicable: Which requirements have not yet been implemented?</p>		<p>None</p>
<p>9) What is the procedure for issuing a GO (Art. 15 (2) 2009/28/EC)</p>	<p>Describe the process how a production device will be registered and in which way the production data will be collected. Please elaborate on the question in which way there is an independent check or audit on this information and by whom.</p>	<p>GOs are automatically issued for all production devices that are approved for receiving GOs. Norwegian regulation allows issuance of GOs for electricity of all sources and technologies, but not for heating and cooling. For further details on the issuing procedures, please refer to the domain protocol. (<a href="http://necs.statnett.no/Lists/PublicPages/Info.aspx">http://necs.statnett.no/Lists/PublicPages/Info.aspx</a>)</p>



Criteria / Question	Information	Member state response
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	<i>Describe and Specify (please elaborate especially on the definition of production period – month, calendar month, year, etc?)</i>	<i>Expiry of all GOs is done automatically in the registry on the day which is 12 months after the end-production date of the GO. "Use" means cancellation of the GO in the registry, after which point it is no longer available for use or transfer.</i>
11) Is the appointed competent body the only competent body in your country? (Art. 15 (4) 2009/28/EC)		Yes
a. <i>If there is more than one, how are responsibilities separated from each other and/or how are geographic regions defined?</i>		
12) If the daily operations have been handed over to another body do you supervise the issuance, transfer and cancellation of GO? (Art. 15 (4) 2009/28/EC)	<i>Please explain: how is it done (what kind of measures have been taken) and by whom (competent body, regulator?)</i>	<i>Statnett is doing the daily operations. NVE is supervising when necessary.</i>

Criteria / Question	Information	Member state response
13) Ownership and type of organisation of the issuing body (e.g. private company, government department, energy regulator, TSO ...)	<i>Owner &amp; type</i>	<i>Statnett is owned by the government. It is the TSO in Norway</i>
<i>a. Is the company independent of production, trade or supply activities? (Art. 15 (4) 2009/28/EC)</i>		Yes
<p><b>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).</b></p>		
14) What kind of GOs can be used for disclosure and in what way?	<i>Describe; e.g. relationship between CHP-GO and RES-GO</i>	<i>Only GOs cancelled in the register operated by Statnett can be used for declaration. Includes CHP.</i>

Criteria / Question	Information	Member state response
<p>a. <i>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?</i></p>	<p><i>Describe</i></p>	
<p>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)?</p>		<p><i>No</i></p>
<p>a. <i>If so, what kind of measures have you taken to ensure that the same unit of energy is taken into account only once?</i></p>		
<p>16) Do other registry systems in your domain exist which can be used for disclosure purposes (e.g. private certificate schemes)?</p>		<p><i>No</i></p>

Criteria / Question	Information	Member state response
a. <i>If so, how do you align the databases?</i>		
17) What technical measures have you taken to prevent double counting of GOs ?	<i>Describe</i>	<i>The GOs only exists in the registry. They can only be used once and for one purpose.</i>
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?	<i>Specify</i>	<i>The calculation method in Norway is transparent, therefore all other countries can see how the GOs are used.</i>
19) Have exported and cancelled quantities of electricity been deducted from the residual mix?		Yes
<b>The issuing member state ensures the function of GO (Art. 15 (2) 2009/28/EC).</b>		

Criteria / Question	Information	Member state response
20) Are GOs only being used for disclosure? (Y/N)	<i>If no please specify some more by answering the questions below</i>	No  <i>Can be used for disclosure within a voluntary scheme developed by the industry/industry standard, but this standard is a parallel to the disclosure – GOs used for disclosure cannot be used for different customers within the voluntary scheme.</i>
a. <i>What type(s) of support scheme(s) are in place?</i>	<i>Please describe the support schemes that have been notified to the commission and that can be applicable to producers of renewable energy.</i>	The Swedish-Norwegian Certificate Scheme  <a href="https://www.nve.no/Media/4750/el-certifikat-2015-en_web.pdf">https://www.nve.no/Media/4750/el-certifikat-2015-en_web.pdf</a>
b. <i>Are GOs also used as a proof for national support schemes?</i>		No
c. <i>Do GOs have any other function within the scope of the national support scheme?</i>		No

Criteria / Question	Information	Member state response
d. How do these support and disclosure schemes inter-relate?	<i>Describe (e.g. how supported electricity is disclosed)</i>	<i>GOs and our national support scheme for renewable energy do not have any connection. Producers eligible for electricity certificates through our support scheme may also receive GOs for the same production. If so is the case, it will be indicated on the GO for the production who has also received electricity certificates</i>
<b>The Registry system is electronic, accurate, reliable and fraud-resistant (Art. 15 (5) 2009/28/EC).</b>		
21) Do you have an electronic registry?		Yes
a. <i>If so, who developed &amp; operates it?</i>	<i>Identity of developer and operator</i>	<i>Grexel</i>
b. <i>What technology (e.g. database, spreadsheet ...)?</i>		<i>SQL database</i>
22) Do you issue, transfer and cancel GOs for the standard size of 1 MWh?	<b>Please also specify if there are any exceptions to the general rule.</b>	Yes

Criteria / Question	Information	Member state response
23) Are the EECS-Rules implemented by the issuing body?		Yes
24) What measures have you taken to ensure sufficient IT-security?	<i>Describe and specify. Please elaborate especially on the way to get access to accounts (fraud resistance)</i>	<i>Personal client certificates for connecting to the registry, recent test for robustness of system, and a new test planned for 2013/2014.</i>
25) What measures have you taken to ensure validity of the GO content?	<i>Describe (e.g. electricity is only measured by gauged electric meter; audits of production data, on site inspections))</i>	<i>Only electronic metering records received through the responsible for Balance and Settlement at Statnett are used for issuance of GOs. The information registered on the production devices are reviewed by production registrar every 5 years, and the account holders are obliged through written contract to keep the information on the production devices updated and correct.</i>

Criteria / Question	Information	Member state response
26) What measures have you taken to ensure that only one GO is issued for each unit of energy produced?	<i>Describe</i>	<i>Only verified electronic metering records are used for issuances, and these metering data are imported into the registry system at each issuance, linked to a particular production device.</i>
27) Do you have written procedures for operating your GO system? If so, please specify.		<i>Yes, the domain protocol is the public description of how the system is operated. In addition we have internal routine documents with operational procedures which are frequently updated</i>
28) What measures have you taken (or would you be prepared to take):		
a. <i>to limit financial risk to other issuing bodies as a result of (e.g.) trading disputes between accountholders?</i>		<i>The contract signed with all account holders limits ours, and other IBs,' liability to a certain sum pr instance.</i>



Criteria / Question	Information	Member state response
<p><i>b. to limit fraudulent behaviour? (e.g. multiple issuing, transfer and cancellation – for example, inspection of plant)</i></p>		<p><i>We cooperate closely with the Norwegian Tax Authorities to avoid fraud through the trade of GOs.</i></p> <p><i>NVE does random inspections of the plants.</i></p>
<p>29) Which parts of your operations are (or might be) outsourced, and to whom?</p>	<p><i>Specify</i></p>	<p><i>Only the development of the registry and the administration of the database + server hosting is outsourced</i></p>
<p>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?</p>		<p><i>No</i></p>

Criteria / Question	Information	Member state response
31) Can certificates be altered once they have been issued? If yes, how, and in what circumstances?		<i>Only if an error is discovered and the certificates still remain in our registry. We would then withdraw them and issue new, correct certificates. If the certificates have already left our registry we would contact the IB they were sent to, and ask them to transfer them back, so we can withdraw and correct them.</i>
32) Please describe the regulation for metering of electricity production for issuing of GO in your domain.	<i>Describe, including information on the authorised measurement body, way of provision of meter readings, estimation and profiling, as well as measurement of input/output for combustion fuels,</i>	<i>Settlement responsible provides the electronic, and verified, metering records before each weekly GO issuance. The metered data are collected in line with the specifications set forth in the regulation <a href="#">FOR-2012-01-16-75</a>.</i>
c. <i>Do you issue on any basis other than meter readings?</i>	<i>Describe (if "yes")</i>	NO

Criteria / Question	Information	Member state response
<p>d. Do you issue certificates for nett or gross output?</p>		<p>Meter records received by Balance and Settlement are most often gross, while the issuance of GOs are nett. The device owner can provide documentation of a correction factor on the gross metering data which represents the consumption for auxiliaries. If no such documentation is provided, a standard reduction factor is used.</p>
<p>e. If you issue for gross output, how do you handle onsite demand, pumped storage and auxiliaries?</p>	<p>Describe</p>	<p>As described above.</p> <p>Pumped storage is reported on separate metering codes, and is subtracted from the production metering data before issuance of GOs.</p>

Criteria / Question	Information	Member state response
<p><i>f. How do you handle the situation that only one meter provides production data for more than one plant?</i></p>	<p><i>Describe (e.g. an accredited organisation to differentiate, a formula by the plant operator, a pro rata)</i></p>	<p><i>This is not in accordance with the regulations, so if such a configuration exists, the production plants would have to establish new meters</i></p>
<p>33) How do you issue GO for biomass plants (100% biomass)</p>	<p><i>Describe and explain</i></p>	<p><i>There are no such plants in Norway at the moment.</i></p> <p><i>Manually reports in detail on input factors in the certificate registry will be required. Statnett SF will have to verify the declaration upon issuing of certificates.</i></p> <p><i>Production Declarations are subject to verification and audits by the Production Auditor on a random and periodic basis. (NVE)</i></p>

Criteria / Question	Information	Member state response
34) How do you issue certificates for co firing plants and on what basis do you allocate biomass?	<i>Describe and explain (e.g. we use a formula to calculate biomass percentage, there will be an audit etc)</i>	<i>For plants with different possible energy sources, the metering records are collected as for all other plants, but the plant owner must declare in the registry system and in parallel by written statement the energy source compositions of the produced electricity before issuance.</i>
36a) How do you issue certificates for waste incinerators and on what basis do you allocate waste (biomass)?	<i>Describe and explain</i>	<i>According to the regulation, issuance of GOs from waste incinerators should be done in accordance to the production of electrical energy from each energy source. There are currently no such production devices approved for GOs in Norway.</i>
35) What are the production periods for production devices in your domain? Are there any exceptions?	<i>Specify (e.g. "monthly but for small scale PV which will be issued yearly")</i>	<i>Weekly for all devices not requiring energy source declarations</i>
36) How often do you issue GOs?		<i>Weekly for all devices not requiring energy source declarations</i>

Criteria / Question	Information	Member state response
37) What are the procedures regarding backward issuing?	<i>Describe</i>	<i>If a plant approved for GO have not been issued certificates due to a breach of routines of either Statnett or NVE, there is a possibility to for backward issuing based on electronic metering records received from the Balance and Settlement at Statnett.</i>
38) How are production device registrations verified in your domain?	<i>Specify, Including process, verified documents and list of registered parameters</i>	<p><i>The production device has to be approved by NVE before GOs can be issued. This approval lasts for 5 years. In order to be approved the owner has to fill in an application electronically and send it to NVE.</i></p> <p><i>In addition to getting an approval from NVE, the production device is approved by Statnett in order to receive an account in the registry.</i></p>

Criteria / Question	Information	Member state response
39) What is the frequency and process with which production devices are inspected in your domain?	<i>Describe, including conduct of audits/ad-hoc audits, criteria for selection of Auditor, scope of audit, process for addressing corrective action</i>	<i>The production devices in the Norwegian domain are 99% hydro power plants. These plants are inspected randomly by NVE for other reasons than issuing of GOs.</i>
40) How do you handle errors within registered information and within GOs?	<i>Describe and specify for the categories metering errors, resettlements and other errors.</i>	<i>Errors are handled by Statnett.</i>
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
<i>a. If not, when do they expire?</i>	<i>Specify</i>	
<i>b. What happens with expired certificates?</i>		<i>They will be included in the residual mix</i>

Criteria / Question	Information	Member state response
<b>Issued GOs include the minimum content (Art. 15 (6) 2009/28/EC)</b>		
42) Energy source from which the energy was produced		Yes
43) The start and end dates of production		Yes
44) Electricity; heating or cooling		Yes
45) Identification number, location, type and capacity of the installation		Yes
46) Investment support	<i>Yes/ no, type and scope</i>	Yes
47) Funding by any support scheme	<i>Yes/ no, type and scope (including all the support schemes that have been notified to the commission and that can be applicable to producers of renewable energy.)</i>	<i>Yes, but not the amount</i>
48) Date when installation became operational		Yes
49) Date of issue		Yes



Criteria / Question	Information	Member state response
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?	<i>Describe and specify</i>	No
<b>Additional Questions</b>		
53) Are you a member of AIB? Or do you plan a membership of AIB, or to use the Hub without AIB membership?	<i>Membership or Use of Hub</i>	<i>Yes, Statnett is a member</i>

