

[REDACTED]

[REDACTED]

Oslo, 11 November 2020

[REDACTED]

Dear Sir,

Memorandum on certain aspects of the use of guarantees of origin in Norway

1 Introduction

This memorandum deals with certain aspects of the use of guarantees of origin ("GoO") in Norway, in accordance with our engagement letter dated 3 September 2020.

A GoO is an electronic document that verifies to an electricity customer that a quantity of electricity, corresponding to a quantity or share of the electricity it consumes, has been produced from a specified renewable energy source ("RES").

GoOs are issued to electricity producers for approved plants, based on the electricity produced and measured from the plant by Statnett, the TSO, who is also the registrar for the GoO registry in Norway. A GoO is issued for each 1MWh of electricity produced (measured on a net production basis). GoOs shall in principle be issued continuously following the receipt of measurement data from the plant, however the registrar is allowed a reasonable delay for control and administrative purposes before the GoO is issued. Once issued, the GoO can either be used by the power producer itself or be sold to other businesses and consumers.

The Norwegian GoO scheme originates from the Renewable Energy Directive 2009/28/EC (the "RES Directive"), which is implemented in Norway through the regulation on guarantees of origin for the production of electrical energy¹ (the "GoO Regulation") by virtue of the act on generation, conversion, transmission, trading, distribution and use of energy etc² (the "Energy Act"). Additional provisions relating to the use of GoOs can be found in the regulation on metering, billing, invoicing of grid service and electrical energy, the grid company's neutrality, etc³ (the

¹ FOR-2007-12-14-1652: Forskrift om opprinnelsesgarantier for produksjon av elektrisk energi

² LOV-1990-06-29-50: Lov om produksjon, omforming, overføring, omsetning, fordeling og bruk av energi m.m. (energiloven)

³ FOR-1999-03-11-301: Forskrift om måling, avregning, fakturering av netjenester og elektrisk energi, nettselskapets nøytralitet mv.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

“Grid Settlement Regulation”). Unofficial English language translations of the relevant parts of these laws and regulations are attached hereto:

Enclosure 1 GoO Regulations (English translation)

Enclosure 2 Grid Settlement Regulation (English translation)

Enclosure 3 Energy Act (English Translation)

We note that GoOs are different from, and complimentary to, the *electricity certificates* that are also used in connection with the production and sales of electricity from renewable sources in Norway (and Sweden). While the use of GoOs is voluntary, electricity suppliers (and certain types of final consumers) have a duty to cover a portion of the electricity they sell by purchase of electricity certificates.

You have requested that we answer specific questions in relation to the Norwegian GoO scheme, as set out in your questionnaire attached to your e-mail dated 9 October 2020. For ease of reference, the questions are also cited directly in the text below. Some of them have been modified slightly for editorial reasons.

This memorandum is subject to the qualifications set out in section 3 below.

2 Questions and answers

2.1 Electricity disclosure by electricity suppliers

2.1.1 *Is it legally possible in Norway that an electricity supplier states to final consumers in the electricity disclosure that it delivers electricity from RES without cancelling a GoO (apart from the disclosure of renewable energies in the Norwegian residual mix), e.g. by proving a contract on receiving RES from an electricity producer/ trader?*

We assume that by “legally possible” you mean “legally permissible”.

There is no explicit provision in Norwegian law to this extent, but §12 of the GoO Regulation requires a holder of a GoO to redeem the GoO if used for documentation purposes, which includes information to end users and the general public. A GoO is only permitted to be used once and for one purpose, and shall be deemed as used (cancelled) when it has been redeemed.

The official remarks to § 12 of the GoO Regulation from the Ministry of Petroleum and Energy states the following (our office translation):

Redemption of a guarantee of origin shall be understood as taking it out of circulation so that it can no longer be traded. This can be done by the registrar at the request of the holder of the guarantees of origin, or directly by the holder if the technical solution allows it.

[REDACTED]

A guarantee of origin is considered used when it is redeemed. The purpose of redeeming guarantees of origin is to prevent a guarantee of origin from being used several times. A guarantee of origin can only be used for one purpose and only once. It is not permitted, for example, to first use a guarantee of origin for consumer-oriented information in Norway, and then export the guarantee of origin. This reflects that the electrical energy represented by the guarantee of origin can only be used once.

The regulations do not directly regulate the use of guarantees of origin. However, there are some restrictions on the use of guarantees of origin. Guarantees of origin are a tool for documenting the production of electrical energy, and can have several uses. It is up to the market, and potential regulations from the authorities, to decide when and how a guarantee of origin is used.

Documentation purposes are information on the type of production of electrical energy that forms the basis for the guarantee of origin. The information may be aimed, for example, at end users of electricity or the general public.

Guarantees of origin can be used to change individual product declarations in accordance with [the Grid Settlement Regulation].

§ 8-5 of the Grid Settlement Regulation requires electricity suppliers to declare the origin of their electricity in the past year to its end users. The electricity supplier would be required to redeem a corresponding amount of GoOs if it declares to use electricity from RES (other than by reference to the Norwegian or Nordic residual mix).

Electricity suppliers who chose to declare their sales under § 8-5 of the Grid Settlement Regulation by reference to the residual mix shall use the electricity disclosure mix calculated by NVE. The NVE bases its energy mix calculations on electricity sales in Norway that are not covered by the purchase of GoOs within a year, and the mix of energy sources is based on the following:⁴

- Known energy sources, i.e. power production in Norway for which no GoOs have been issued, or expired GoOs (i.e. GoOs that have not been used within 12 months).
- The European residual mix, i.e. an estimate for the distribution of European power production for which no GoOs have been issued.

As power production in Norway is mainly from RES, GoOs are issued for almost all production in Norway. This part is therefore replaced by the estimate for the European residual mix, as determined annually by the AIB (Association of Issuing Bodies). This represents an estimate for the composition of European power production that is not documented with guarantees of origin, and consequently consists of a significant share of non-RES power. In order for RES properties not to be counted more than once for the same

⁴ <https://www.nve.no/energiforsyning/opprinnelsesgarantier/varedeklarasjon-for-stromleverandorer>

power, unsold GoOs can also be included in the product declaration for electricity suppliers that show power purchases without GoOs.

The Norwegian water resources and energy directorate ("NVE"), that is the supervisory authority for the Norwegian GoO scheme, has provided the following comments on the electricity disclosure obligations on their website:⁵

Power suppliers not buying Guarantees of Origin (GOs) must refer to the electricity disclosure published by NVE in their statements. The calculated electricity disclosure is based on European trade with GOs.

[...]

Power suppliers are obliged by the revised Electricity Market Directive (2009/72/EC) to disclose information regarding their energy mix the previous year to consumers.

A disclosure statement shall be provided to the consumer in the marketing and billing of the electricity by referring to this webpage. This is regulated in Regulations on power sales and network services.

The GO scheme gives the customer a possibility to express their preference of buying electricity with a renewable origin by demanding electricity with GOs. Power suppliers that wish to make an individual disclosure statement that give the consumer documentation of the origin of the produced electricity must buy GOs. GOs bought by a power supplier and used for individual disclosure statements, must be cancelled to prevent them of being sold more than once.

Power suppliers that sell electricity to customers without GOs must use NVE's calculated electricity disclosure as their statement. The electricity disclosure does not refer to the actual delivery of electricity to end users in Norway.

In the introductory section of the official remarks to the GoO Regulation, it is also stated by the Ministry of Petroleum and Energy that (our office translation):

The product declaration arrangement means that the power suppliers inform their end users about the origin of their supply of electrical energy in the previous year. Other areas of use are also pertinent, and are largely up to the players in the market.

It would be contrary to the above obligations, and the general prohibition against false marketing under the Marketing Act⁶, for an electricity supplier to state that it delivers

⁵ See <https://www.nve.no/energy-supply/electricity-disclosure/>

⁶ LOV-2009-01-09-2: Lov om kontroll med markedsføring og avtalevilkår mv. (markedsføringsloven). The Marketing Act prohibits erroneous and misleading advertising, and also contains a general ban against unreasonable and misleading business practices, however a more in-depth account of the Marketing Act is outside the scope of this opinion.

electricity from RES (other than by reference to the Norwegian or Nordic residual mix) without cancelling a corresponding amount of GoOs.

- 2.1.2 *In the case that it is possible that an electricity supplier states to its final consumers that it delivers electricity from RES on a contractual basis and without cancelling a GoO: Are there legal provisions preventing that the producer of GoO delivering the electricity from RES on a contractual basis to an electricity supplier as electricity from RES receives GoOs for the same amount of electricity?*

See 2.1.1 above. It is of course "possible", as a matter of fact, that an electricity supplier states to its final consumers that it delivers electricity from RES (other than by reference to the Norwegian or Nordic residual mix) on a contractual basis without cancelling a GoO, but it would not be legally permissible.

- 2.1.3 *In the case that legal provisions prohibit the disclosure of electricity from RES without using a GoO: Are there legal provisions ensuring that electricity companies comply with the aforementioned prohibition?*

See 2.1.1 above. There is no legal provision prohibiting the disclosure of electricity from RES without using a GoO, as both "residual mix" and "GoO based" disclosure methods are permitted.

Disclosure by reference to use of GoOs would require that a corresponding amount of GoOs are redeemed.

2.2 Electricity disclosure of final consumers/ companies

- 2.2.1 *Are companies/ final consumers entitled to electricity disclosure in Norway for the electricity they consume themselves?*

Legal disclosure obligations only apply to electricity suppliers, ref § 8-5 of the Grid Settlement Regulation and 2.1.1 above.

Companies that are final consumers are entitled, but not required, to disclose the electricity they consume themselves. Companies who choose to disclose their electricity consumption outside of a legal disclosure obligation must adhere to the Marketing Act, as set out in 2.1.1 above, but would otherwise not be subject to any particular legal obligation.

It is possible for final consumers to have an account at the GoO registry and redeem GoOs for its own electricity consumption. There are no formal requirements for other relations to the electricity markets in order to become an account holder in the GoO registry.⁷

⁷ See <https://necs.statnett.no/gomember>

2.2.2 *If final consumers are entitled to electricity disclosure in Norway: What are the legal ramifications for disclosing electricity from RES for final consumers? With regard to this question in particular the following points are relevant:*

- a. *Are final consumers obliged to cancel GoOs for disclosing electricity from RES? If not, how can final consumers prove to consume electricity from RES?*

Final consumers are not required to disclose their electricity consumption, but there is no legal provisions prohibiting electricity disclosure either. See 2.2.1 above.

If a final consumer claims to use electricity from RES (other than by reference to the Norwegian or Nordic residual mix) as part of its marketing efforts or similar, the final consumer would be required to either (i) redeem a corresponding amount of GoOs, or (ii) document that it has acquired the electricity from a RES compliant electricity supplier. Otherwise this would most likely be deemed false marketing.

- b. *Is it legally possible for final consumers to disclose the energy sources for the electricity on the basis of the so-called "location-based method", i.e. using the energy mix in the electricity grid in Norway (being almost 100 % from RES).*

Yes. There is no legal prohibition against the so-called "location based method". Final consumers also do not have any obligation to use the energy mix calculated by NVE; this is different than for electricity suppliers who are obliged to use the NVE determined mix when declaring RES without the use of GoOs (see 2.1.3 above).

We understand the "location based method" as a method of reporting where reference is made to the production energy mix in the country (or other specified area) where the electricity is consumed, and not to GoOs.

2.3 Analysis of the electricity disclosure of large-scale final consumers

2.3.1 Our analysis

You have asked us to analyse the electricity disclosure of three to five industrial large-scale final consumers in Norway. You have specified that the analysis can be based on publicly accessible data, and that we are free to choose the industrial customers to be assessed, although large companies would be preferred. You have informed us that the aim of the analysis is to establish that the applicable companies have an electricity disclosure that reflects the problems discussed in section 2.2 above. For sake of good order we note that results presented by us are based on a random selection of companies within what we deem to be larger companies. The selection does not seek to specifically target companies who report in a certain manner.

Only electricity suppliers have a statutory duty to disclose the origin of their electricity in the past year to its end users in Norway, pursuant to §8-5 of the Grid Settlement Regulation. In our experience most final consumers do not publicly disclose their electricity mix composition, and we have found limited specific examples of such reporting by using publicly available search engines (i.e. Google search). The companies who do report this seem, at least by their own references, to base their reporting on the Greenhouse Gas Protocol reporting standards.

According to our search, the following companies used the following disclosure of electricity consumed for the calendar year 2019:

Company	Industry	Disclosure method
Sporveien AS	Public transport	Mix of location based and GoOs ⁸
Sparebank1 Gruppen AS	Financial services	Location based (Nordic mix) ⁹
Norwegian Property ASA	Real estate	Location based (Nordic mix) ¹⁰
BaneNOR SF	Railway infrastructure	Location based (Norwegian mix) ¹¹

2.3.2 Oslo Economics study

In 2018, a study regarding the use of GoOs and product declarations for electricity was conducted by Oslo Economics AS, on behalf of the Norwegian Ministry of Petroleum and Energy. The study was *inter alia* based on interviews with leading market players (amongst other sources). The report from the study (the "Report") is publicly available¹², but only in Norwegian language.

The Report concludes that industrial large-scale final consumers in Norway like Alcoa (aluminium production), Hydro (aluminium production), Borregaard (biorefinery) primarily uses the location based method, with reference to the Norwegian energy mix, whereas other large-scale final consumers like Bane NOR (train infrastructure), Green Mountain (Data Center), DNB (Finance), Google (digital services), Facebook (digital services), Posten (postal distribution) either purchase electricity that is supplied with a GoO "certification", or purchase GoOs separately to their (otherwise uncertified) electricity supply.

In respect of the potential for double marketing, the Report states the following on p 6 (our office translation):

The large Norwegian industrial companies we have interviewed choose to disregard NVE's product declaration for power purchases without guarantees of origin when documenting the energy sources for their power consumption. Instead, they document the energy sources for their electricity consumption by showing that the production mix in Norway is 98 percent renewable, which many of their customers accept/prefer. At the same time, the guarantees of origin for part of the same power has been sold, mainly to foreign companies, who use this to document that their electricity consumption is renewable. The fact that

⁸ https://sporveien.com/inter/samfunnsansvar/artikkel?p_document_id=3014017

⁹ <https://www.sparebank1.no/content/dam/SB1/bank/bank/rapporter/sparebank1-gruppen/sparebank1-gruppen-as-klimaregnskap-2018.pdf>

¹⁰ https://www.norwegianproperty.no/wp-content/uploads/2020/04/NPRO-Klimaregnskap-2019_03.04.2020.pdf

¹¹ <https://arsrapport.banenor.no/2019/baerekraft/klimaregnskap>

¹² <https://www.regjeringen.no/contentassets/0e77f451e93c40e8a4dadef1cda08d86/oslo-economics---utredning-om-opprinnelsesgarantier-og-varedeklarasjoner-for-strom-1974299.pdf>

different methods are used to document the energy sources of the same electricity means that some of the same renewable energy sources are marketed twice.

A similar statement is made on p 23 of the Report (our office translation):

The Norwegian industrial companies we interviewed (Hydro, Alcoa, Borregaard) document that their energy sources are renewable by pointing out that the production mix in Norway is 98 percent renewable, sometimes also that the trading capacity in / out of Norway is limited. At the same time, the guarantees of origin are sold for part of the same power, mainly to foreign companies, who can use them to document their electricity consumption is renewable. As different methods are used to document the energy sources for the same electricity means that some of the same renewable energy sources in practice are marketed twice.

This means that Oslo Economics has identified a potential for double marketing, and seemingly also that they have found some evidence of this, but the extent of such double marketing is not clear from this statement or the report.

The Report also notes that although Norwegian GoOs are generally priced on par with the GoOs from other EU countries, they are priced lower than GoOs from certain countries such as Switzerland and the Netherlands. The Report speculates on what the cause of lower pricing could be, and suggests that this could be partly due to double marketing.

Specifically, the Report (p 32) states the following in respect of why Norwegian GoOs are priced lower than some other GoOs (our office translation):

- There is little demand for Norwegian guarantees of origin in Norway, partly because many Norwegian electricity customers deem that they get renewable energy anyway.*
- Some foreign electricity customers may consider that guarantees of origin from Norway are less credible, as their trading volume exceeds physical transmission capacity.*
- Some foreign electricity customers may consider guarantees of origin from Norway as less credible because the physical production mix is used to document energy sources, while sale of guarantees of origin from equivalent production takes place at the at the same time, allows the power consumption of some of the same energy sources are marketed two times.*

We are not familiar with other sources than the Report claiming the occurrence of double marketing in Norway: From various Google searches we have found numerous news articles etc, stating that double marketing occurs, but they mainly seem to reflect the findings of the Report.

The Report also contains a further analysis of these issues, including why these companies report as they do and the potential effects of double marketing, but it goes beyond the scope of this memorandum to repeat these findings.

2.4 Wrong information on GoO

2.4.1 *Assertion: GoO could be issued with the information "no support" although these production units would receive a financial support later.*

A GoO would reflect the situation at the time of its issue, and should be read as a "snapshot" only.

§ 5 e) of the GoO Regulation requires that a GoO from renewable energy sources contain information about whether, and to what extent, the plant has received investment support or otherwise benefited from a national support scheme. There are corresponding requirements for GoOs from other energy sources.

From wording the provision only applies if case the plant has actually "received" (i.e. past tense) support at the time of issue of the GoO. There is no legal obligation to list that the plant may be eligible for support at a later time, and under current Norwegian support schemes it also seems very unlikely that a plant would be eligible to receive "retroactive" support: Plants are generally only given investment support (which would be awarded prior to commissioning and issue of the GoOs) or production support (which is only awarded for future production).

Theoretically one could conceive that a plant could receive a form of retroactive support in extraordinary cases, e.g. as a result of a correction of an unjustified denial of support or similar, but this would in our view be a rather unpractical and rare scenario. The plant owner would in any event be legally obliged to report any changes to its support, but there is no legal obligation to update a "no support" GoO that has already been issued in this scenario.

It is also possible that a plant receives production support for future production, but such support would not be deemed relevant to GoOs issued based on prior production from that plant.

Please note that our comments here do not address situations where a GoO contains erroneous information due to erroneous (illegal) reporting by the plant owner regarding the support received.

2.4.2 *Assertion: The date of commissioning of the energy plant (as stated on the GoO) would be wrong as there are no legal rules under which circumstances a restored energy plant receives a new date of commissioning*

A GoO would reflect the situation at the time of its issue, and should be read as a "snapshot" only.

As GoOs are only issued in arrears, based on the actual production of a plant, it seems highly unlikely that the date of commissioning as stated on the GoO would be "wrong" in the sense that it would not reflect the applicable date of commissioning at the time of the issue of the GoO.

§ 5 f) of the GoO Regulation requires that the date of commissioning is listed, and this should reflect the applicable date of commissioning at the time of the issue of the GoO. For this purpose, the commissioning date is defined as the first date that the plant delivers electricity to the grid.

The plant owner would have an obligation to report any changes to the commissioning date, but there are no specific legal provisions addressing updates of already issued GoOs in circumstances where a restored plant receives a new date of commissioning.

2.5 General questions

2.5.1 *Do you know any other issues which might result in doubts about the accuracy, reliability or veracity of Norwegian GoOs, in particular as a result of a double counting of electricity from RES produced in Norway*

We are not aware of any issues that would entail that the accuracy, reliability or veracity of Norwegian GoOs would be unreliable, or that there is any double counting of electricity from RES (other than by reference to the Norwegian residual mix).

2.6 Application of new Renewable Energy Directive

2.6.1 *When does the new Renewable Energy Directive (2018/2001/EU) come into force in Norway and when is it to be implemented into national law in Norway (the deadline for member states to implement it is 30 June 2021)?*

An exact date for this has not yet been determined. The directive is currently under assessment for EEA/EFTA relevance.

3 Qualifications

This memorandum is subject to the following qualifications:

- a) This memorandum is given only as to, and based on, circumstances and matters of fact existing on the date of this memorandum.
- b) Our views and assessments are strictly limited to Norwegian law, and nothing herein shall be interpreted as expressing or implying any opinion on laws or statutes other than those which are applicable in Norway. We provide no opinion herein on the RES Directive, or whether Norwegian law correctly implements the RES Directive.

- [REDACTED]
- c) To the extent that we express any view on or refer to factual matters, this is merely an expression of our current factual knowledge and what we in good faith believe to be true and correct. We do not guarantee the accuracy or completeness of such information.
 - d) References to other persons' views, statements or assertions shall not mean that we agree with them, and we have not made any investigation or verification of the accuracy or completeness of such information.
 - e) This memorandum is drafted in the English language, whereas Norwegian laws and regulations are in Norwegian language. Although we have made reasonable and good-faith efforts to translate from Norwegian into English language where applicable, there may not be any direct and faithful translation of the relevant legal concept or information into English language. This may also be a potential source of inaccuracy, which must be considered by the reader.
 - f) This memorandum may be relied upon by the addressee only. It may not be relied upon by any other person except with our prior written consent.
 - g) This memorandum may not be published, quoted or otherwise made available to any third party without our prior written consent.
 - h) We acknowledge and agree that this opinion may be attached to your own advice to your client [REDACTED], and that it may be shared with the Client, its group companies and its professional advisors in that context.

Yours sincerely,

[REDACTED]

[sign]

[REDACTED]

[sign]

[REDACTED]