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1 Implementation of Tracking Systems

1.1 Electricity Disclosure

A system for electricity disclosure has been in place in the Netherlands since 2005. Articles 95j, 95k and 95l of the Dutch Electricity Act¹ implement electricity disclosure as required by EU Directive 2009/28/EC. In the Netherlands, disclosure is under the responsibility of Netherlands Authority for Consumers and Markets (ACM).

Energy source, CO₂ emissions and radioactive waste are to be covered by disclosure information, while energy sources are to be distinguished between:

- Coal
- Natural Gas
- Nuclear
- Other non-renewables (e.g. oil)
- Renewables (breakdown by: Wind, Solar, Hydro, Biomass, Other)

For disclosure of renewables, use of GO is mandatory, while for any other electricity source, bilateral contracts or certificates can be used voluntarily. In any case, suppliers have to inform ACM before 1st of March of the following year about the supplied electricity covered by direct contracts. On March 31st market parties do have to explicitly specify which part of cancelled GO's between January 1st and March 31st do count for disclosure in year X. Additionally, the TSO specifies to the ACM the details of the GO's cancelled by (or on behalf of) each supplier as well as the figures regarding (physical) imports and exports of electricity. As implicit tracking information, a residual mix is applied. Currently expired GOs do not qualify for electricity disclosure at all, therefore the residual mix excludes all renewables, and also electricity disclosed using direct contracts in the case of non-renewable electricity. Calculations of the residual mix are made by ACM based on the gathered information. Suppliers have to publish the updated disclosure statement to their consumers by May of the following year. The current legislation does not specify a net balance mechanism for potential lack of attributes in the domain as compared to the actual consumption.²

Disclosure takes place annually with reference to the calendar year. Suppliers are obliged to disclose both the supplier's portfolio and the portfolio of the individual product which has been delivered to the consumer. Disclosure of the supplier mix refers to the supply mix of that company only within the Dutch domain. In addition to this it has been regulated that suppliers that are part of a (international) group need to disclose the supply mix of the (European) group.

1.1.1 Disclosure Figures

Not available

1.1.2 Environmental Information

Dutch disclosure system includes publication of environmental parameters as required by the Internal Energy Market (IEM) Directive, i.e. CO₂ and nuclear waste.

¹ Electricity Law 1998, latest version coming into force 9 April 2014

² However, this has currently no practical implications as the Netherlands are a major importer of RES-GO and therefore have a surplus of attributes available.



1.1.3 Suppliers Fuel-Mix Calculations

By 1st March, all suppliers have to inform ACM about the supplied electricity covered by direct contracts. Information on cancelled GOs is available to CertiQ, a subsidiary company of the Dutch TSO TenneT. The TSO furthermore determines for every year the amount of electricity imported.

A residual mix is by ACM based on the gathered information as described above.

1.1.4 Recognition of GOs

NL requires "submission of reliable data on sustainable electricity, reliability guaranteed by an authority recognized by the ministry of economic affairs"; in practice, this leads to a restriction of imports to EECS GOs which are recognised unless specific concerns arise.

The ministry decides about recognition and rejects in case of doubts. CertiQ has an advisory role to the Regulator, who will officially advise the Ministry. The CA-RES questionnaire will be used as a basis for such assessment.

GO are not admitted to the Dutch registry if they are not recognised (e.g. where there are suspicions of double counting or if they do not fulfil the requirements set by the RES Directive).

1.1.5 RES-GO System

The RES-GO System has been implemented since 1998 by the "*Electriciteiswet 1998*", article 73-77c. CertiQ B.V., a subsidiary company of the Transmission System Operator TenneT has been appointed as competent body. The following documents about detailed rules and procedures of the GO system are available:

- *Regeling garanties van oorsprong voor duurzame elektriciteit* (December 8, 2003)
- *Wijziging Regeling garanties van oorsprong voor duurzame elektriciteit* (December 17 2004)
- *Wijziging diverse regelingen Economische Zaken* (December 15 2005)
- *Wijziging Regeling garanties van oorsprong voor duurzame elektriciteit en de Algemene uitvoeringsregeling milieukwaliteit electriciteitsproductie* (June 16 2006)
- *Wijziging Regeling garanties van oorsprong en en de regeling certificaten WKK E-wet 1998* (May 7 2007)
- *Wijziging van de Regeling garanties van oorsprong* (October 22 2008)
- *Wijziging regeling GvOs voor Duurzame Elektriciteit ivm vaststellen meetvoorwaarden voor nuttige aanwending warmte* (March 16 2009)

RES-GOs are implemented and operational since 2001 according to EECS, and fulfil therefore all respective requirements. GOs are issued in an electronic registry maintained by CertiQ on a monthly basis for net production, and can be electronically transferred and used for the sole purpose of disclosure for the calendar year for which they are cancelled. GOs are issued for net generation according to EECS regulation. Quality control measures follow the EECS standard, including the following:

- Application documents are checked and can be verified on-site on a random basis. After five years registration expires and plants have to be re-registered.
- For combustion plants, the plant operator has to hand in a production/consumption declaration on a monthly basis.
- Plant operators are obliged to notify any changes to the plant, resulting in a re-registration.

Expiry takes place 12 months after issuing, whereas cancellation will not be possible already as of 12 months after end of production. Imports of GOs are accepted subject to submission of reliable data on sustainable electricity and reliability guaranteed by an authority recognized by the Ministry of Economic Affairs. In practice, imports have been limited to GO within EECS. Any rejection of GOs in practice means blocking their import to the national registry.

It is allowed for end-consumers to use GOs independently from their suppliers, preferably by cancellation in an own end-user account of the registry.

The Dutch GO system also allows for issuing and use of EECS Disclosure GOs for non-RES production on a voluntary basis. It is also worth mentioning that the Dutch legislation also allows for issuing of Heat-GOs from biomass and geothermal energy, with CertiQ as competent body.

The Dutch RES-E GO system is fully implemented and operated according to EECS with CertiQ as responsible competent body.

1.1.6 CHP-GO System

The CHP-GO System has been implemented since 1998 by the "*Electriciteitswet 1998*", article 77ca-ce. CertiQ B.V., a subsidiary company of the Transmission System Operator TenneT has been appointed as competent body. The document "*Regeling certificaten warmtekrachtkoppeling Electriciteitswet 1998*, including 1 "*bijlage*" (appendices) and 3 "*wijzigingen*" (adjustments)" describes the detailed rules and procedures of the CHP-GO system. CHP-GOs are implemented and operational since 2004. However, no CHP-GOs have been issued for the time being.

CHP-GOs refer to 1 MWh each and are to be issued for gross production. Detailed regulation on determining the high efficiency CHP production was passed and published within "*Regeling garanties van oorsprong voor elektriciteit opgewekt in een installatie voor hoogrenderende warmtekrachtkoppeling*, (September 14, 2007)". Producers from RES-CHP have to choose between RES-GOs and CHP-GOs. Like RES-GOs, CHP-GOs are to be issued in an electronic database maintained by CertiQ on a monthly basis. CHP-GOs are not supposed to be transferable, but can be cancelled.

1.1.7 GO Statistics

GO statistics for 2014:

- Issue: 11,6 TWh
- Import: 32,5 TWh
- Export: 7,9 TWh
- Cancel: 37,9 TWh
- Expire: 1,0 TWh

1.2 RES-E Support Schemes

The SDE (*Stimuleringsregeling duurzame energieproductie*) support scheme for renewable electricity came into force on 1 April 2008. It replaced the previous MEP (*Milieukwaliteit Van Electriciteitsproductie*) which was in force between 2003 and August 2006. SDE is the Dutch government main subsidy instrument in support of the application of both renewable electricity and green gas and it is a so-called feed-in premium (FIP) system – producers have to sell the power production to the power market and receive the SDE premium on top. The premiums are technology specific and are adjusted according to the actual wholesale electricity price in order to keep the combined income from power sales and SDE premium stable. The SDE scheme covers electricity generated from hydro, wind, solar photovoltaic, biogas, biomass and heat generated from biomass. The duration of the subsidy is 15 years, except for biogas and biomass which is 12 years.

Thus the SDE subsidy is calculated as follows:

- A *base tariff* is derived from the production costs. This base tariff takes into account the additional costs for the generator of electricity production and sales, including the cost of imbalance settlement;
- The *subsidy tariff* paid equals the *base tariff* minus the *correction tariff*.
- The *correction tariff* is set each concession year at an ex post adjustment level derived from the average electricity market price. This is done to stabilise the average income of the energy producer per unit of energy in successive years.

The subsidies include expenditure ceiling safeguards (quantitative limits, auctions). The available funding and installed power capacity under the SDE is capped annually for each of the technologies and faces an

annual political review. The ceiling to the total subsidy payable over the subsidy period is set yearly by the Minister for the different SDE technology categories

The responsible authority *Agentschap NL* determines the amounts of subsidies to be paid based on the same production measurements that are being used to issue GOs. In this way there cannot be a difference between the amount of electricity supported and the amount of electricity disclosed as renewable.

The Energy Investment Allowance (EIA) is a tax incentive for investment in renewable energy projects, allowing companies to deduct 44% of the investment amount for sustainable energy from the pre-tax profit and therefore to pay less corporate tax. EIA can be awarded over a maximum of €110 million investments per installation and it can be combined with the SDE. The support is yearly updated. Within EIA the supported technologies are: solar photovoltaic; wind turbines (off/onshore); boiler based on biomass; cogeneration plants based on biomass; hydropower; heat pumps, heat pump boiler and biofuel production installations.

2 Proposals for Improvement of the Tracking System

The following proposals are made in accordance with the RE-DISS Best Practice Recommendations,³ which have been agreed by the Participating Domains of the RE-DISS Project.

2.1 Proposals regarding general regulation on tracking systems

See proposals made under the following sections.

2.2 Proposals regarding Disclosure

- BPR [16]: 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 relevant with respect to non-RES production.
- BPR [17], [23]: 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. For Netherlands, this remains relevant with respect to non-RES production.
- BPR [30]: Regulation with respect to contract based tracking should ensure that
 - The rules of the tracking system are transparent and comprehensive and are clearly understood by all participants in the system.
 - Double counting of attributes and loss of disclosure information is minimised within the contract based tracking scheme and also in the interaction of the contract based tracking scheme to GO and other RTS (if applicable). As a precondition for this, the contract based tracking scheme should allow for 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 for calculation of the residual mix.
- BPR [26]: 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.

³ Version 2.2, August 2014

- BPR [35]: 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):
 - 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 [29], [30]: 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.

2.3 Proposals regarding RES-GO

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

- BPR [5a]: 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 [6]: 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 [11b]: GOs should be issued for all electricity production, unless an RTS applies for that production, e.g. for the disclosure of supported electricity.
- BPR [11c]: Competent bodies should consider to make the use of GOs mandatory for all electricity supplied to final consumers.

2.4 Proposals regarding CHP-GO

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

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.
- If using cooperation mechanisms, Member States should take care of regulating the attribution of GO concerning electricity concerned by these mechanisms.

2.5 Proposals regarding Recognition of GO

The Netherlands should publish the set of criteria they apply in order to decide over recognition of GO from other Member States.

2.6 Further proposals regarding Disclosure

- BPR [40]: 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 [41]: Claims made by suppliers and consumers of green or other low-carbon energy relating to carbon emissions or carbon reductions should also be regulated clearly. These regulations should avoid double counting of low-carbon energy in such claims. A decision needs to be taken whether such claims should adequately reflect whether the energy purchased was “additional” or not.

2.7 Matrix of disclosure related problems and country-specific proposals

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	BPRs [12], [16], [17], [23], [29], [30], [36]
Double counting of attributes in implicit tracking mechanisms	BPRs [6], [12], [21], [23], [26], [29], [30]
Double counting within individual supplier's portfolio	BPRs [40], [41]
Loss of disclosure information	BPRs [15b]
Intransparency for consumers	BPRs [11b, c], [23], [26], [29], [30], [35], [36], [40], [41]
Leakage of attributes and/or arbitrage	BPRs [6], [35]
Unintended market barriers	BPR [11b, c]

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