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Importance of certificate trading increases with the reporting obligation ESG

From marketing to reporting tool

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Summary

Policies around certificate trading have emerged to encourage renewable energy projects. There are certificates for the use of gases, thermal energy, fuels, and electricity. This Theme Report focuses mainly on the market for Guarantees of Origin (GOs) for electricity.

GOs for electricity are certificates that guarantee that a quantity of electricity has been generated from certain energy sources. GOs are tradable within the European Economic Area (EEA) and are managed in the Netherlands by VertiCer. However, the market for GOs is complex due to varying national regulations and the lack of harmonised policies within the EU. At the same time, new EU policies have been adopted that impose reporting requirements on the environmental impact of companies. This may ensure that the market for GOs will receive new demand impulses, as companies can use GOs as part of their sustainability reporting.

On an annual basis, the Netherlands consumes relatively more GOs than it produces. In the short term, the supply of GOs is mainly influenced by weather conditions. In the longer term, the growth of renewable electricity generation capacity is an important supply factor. On the other hand, electricity consumption, macroeconomic conditions, policy measures and social pressure are important demand factors.

Zooming out to the market dynamics in Europe, we see that besides the Netherlands, Germany also has a large demand surplus. This is partly caused by the policy in Germany which ensures that subsidized renewable electricity generation is not eligible to apply for GOs. The demand surpluses that occur in certain countries are roughly offset by supply surpluses in countries such as Norway, Sweden, and France. These are countries where relatively large amounts of hydropower GOs come from.

The price movements of GOs have been highly volatile in recent years. Prices of European GOs peaked at around 10 euros per megawatt hour in the months of October and November of 2022. A major cause of this was the drought in Norway in that particular year, which put considerable pressure on the supply of GOs from hydropower. In 2023, high prices between three and eight euros per megawatt hour also prevailed for a long time. Meanwhile, prices have somewhat normalised to below three euros per megawatt hour. Major reasons for the drop in prices since the peak are the normalisation of hydropower levels, the rapid growth of electricity from renewable sources in 2023, and the UK's decision to stop accepting European GOs. Demand for GOs is expected to increase in 2025, partly due to policy changes that make their use more interesting for companies.

In the future, GOs for hydrogen will play an increasingly important role. These GOs were introduced in 2022. Besides these GOs, in this Theme Report we also look at the main trends and developments in the GO markets of green gas, thermal energy, and fuels, respectively.

General certificate trading

Certificate trading in general emerged as a policy tool to encourage renewable energy projects. These certificates can be used to prove the origin of energy. Through certificate trading, financial incentives are offered to renewable energy producers. In addition to selling the actual renewable energy, they can also generate revenue from the sale of these certificates. It also offers certificate buyers the opportunity to meet sustainability requirements.

There are certificates for gases, heat, fuels, and electricity. This report focuses mainly on the policy surrounding the Guarantee of Origin (GO) of electricity and its market dynamics. To give a complete overview of all green certificates, the main aspects of the other green certificates are explained next. Here, green certificates for gas, thermal energy, and fuels are discussed successively.

Certificates for electricity, gas, and thermal energy are referred to in the market as GOs. GOs are certificates that demonstrate the origin of energy. A GO corresponds to the production of one megawatt hour (MWh) of energy. Green certificates for fuels are called renewable fuel units (HBEs). One HBE is equivalent to one gigajoule (GJ). For comparison, 1 MWh is equivalent to 3.6 GJ.

GOs for electricity

Dutch GOs are managed by VertiCer, a subsidiary of TenneT and Gasunie, which oversees certification. Because GOs are tradable in the EEA (EU plus Norway, Iceland, and Liechtenstein), a country can consume more GOs than it generates renewable electricity. These EU GOs, which are standardized in the European Energy Certificate System (EECS), show that a corresponding amount of green electricity has been fed into the electricity grid somewhere in Europe. Regulations require that its generation must have taken place sometime in the previous 12 months, although some countries use an 18-month validity period. Each MWh generated can only be claimed once in a GO, so no more GOs are created than the total amount of electricity generated.

By means of GOs, you can make a claim on a certain type of generated energy. You can thus 'cover' energy consumed on an annual basis with certificates of wind energy produced in the Netherlands, for example, and thus demonstrate that you are buying renewable energy. In this way, Guarantees of Origin serve the administrative greening of energy-consuming organisations.

In the Netherlands, proceeds from GOs basically benefit companies investing in renewable energy. Thus, GOs can slightly alleviate financing needs. As in the case of electricity trade, trade in GOs has several actors: producers, suppliers, grid operators, and customers. In doing so, transactions of GOs are processed administratively through national emission authorities.

Policy around GOs for electricity

In 2009, the EU implemented the Renewable Energy Directive (RED). This policy aims to encourage the development of renewable energy in all sectors of the European economy. Since its introduction, the share of renewable energy in the EU energy consumption has increased from 12.5% in 2010 to 23% in 2022. By 2030, the target of 42.5% renewable energy should be reached. In 2018 and 2023, the RED was revised and updated, introducing RED II and RED III respectively. The policy also encourages various sectors to electrify. One component of the RED is the policy around GOs.

Corporate Sustainability Reporting Directive

From January 2023, the EU will have the Corporate Sustainability Reporting Directive in force. One of the aims of this directive is to modernise and improve companies' environmental reporting. This adds an obligation for companies to report on sustainability in their business and supply chain. This involves the three ESG topics: environment, social and governance. The Corporate Sustainability Reporting Directive covers all companies meeting two of the following criteria: 1) turnover higher than EUR 50 million per year; 2) balance sheet total higher than EUR 25 million; 3) more than 250 employees (on average).

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