

A close-up photograph of large industrial pipes and valves. The pipes are made of a light-colored metal, possibly stainless steel, and are connected by various fittings and valves. Some of the valves are painted orange. The background is slightly blurred, showing more of the industrial equipment.

## Certificates

# GoO - Guarantee of Origin



In this PDF, you will learn how the systemic level works when purchasing certificates with GoO (Guarantee of Origin) for three purposes: EU ETS, blending requirements, and ESG. We explain the function, use, and benefits of GoOs and give you an overview of the most important points.

As one of the few players in Denmark, we are both biogas producers and sellers of gas certificates – which means we know exactly what we are working with, from production to documentation, when advising you.

## Why is GoO important for you?

A GoO certificate provides your company with verified insight into the origin of your energy. This means you can make your energy consumption more transparent and clearly demonstrate where your energy comes from – whether it is electricity or gas.

With a GoO, you can:

- Document the origin of your energy in your sustainability or ESG reporting.
- Create transparency for customers and partners.
- Support your climate and energy strategy with verifiable data.

Many companies use GoOs as part of their reporting on energy consumption and emissions (Scope 2 – and, increasingly, Scope 1 for biogas), as the certificates provide traceable and verified documentation of the energy they have purchased.

# What is a Guarantee of Origin (GoO)?

A Guarantee of Origin (GoO) is an official certificate that documents where and how a given amount of gas has been produced – for example, from biogas – and is registered in the Danish system under Energinet.

When you purchase non-fossil gas with a GoO certificate, you receive a guarantee of the energy's origin – and credible documentation you can use with customers, partners, and authorities.

## How does it work?

### 1. Certification of production

- The producer of upgraded biogas is registered in an official tracking system (in Denmark: Grexel, administered by Energinet).
- Each MWh of produced biogas is issued a GoO certificate documenting its source and quantity.

### 2. Tracking and registration

- GoO certificates are registered in Energinet's registry (the Danish system for green certificates).
- The certificate can be transferred between parties, but one kWh can only be represented once (to prevent double counting).

### 3. Transfer and use of GoO

- When biogas is sold as “green,” a GoO certificate accompanies the sale.
- The buyer can then document to customers or authorities that the purchased energy is renewable. This is done by cancelling the certificates and recording the documentation.

## Use of GoOs in the energy sector and for ESG-focused companies

### Non-fossil electricity

- Electricity traders and end-users can use GoOs to document that their electricity consumption originates from renewable energy sources such as wind, solar, hydropower, or biogas. This enables the sale and documentation of non-fossil electricity products with full traceability.

### Non-fossil gas

- Gas traders and end-users can likewise document that their gas consumption is based on biogas upgraded to the natural gas grid. The GoO certificate serves as a guarantee that the gas is sustainably produced.

### ESG, reporting, and CO<sub>2</sub> reduction

- Companies working with ESG reporting and climate accounting can use GoOs to document their use of renewable energy – and thereby as a tool to demonstrate progress in their CO<sub>2</sub> reductions:
  - For electricity, GoOs can be used to document renewable energy use and thus reduce Scope 2 emissions using the market-based method recognized by the GHG Protocol.
  - For biogas, using GoOs for Scope 1 emissions is more complex. The GHG Protocol has not yet issued final guidance on the use of biomethane certificates for Scope 1 reporting, so there is no official recognition of GoOs as documentation for Scope 1 reductions. However, several large companies already use biogas certificates in their reporting, reflecting an evolving practice. In cases where a direct pipeline connection exists between biogas production and the consumption site, sustainability documentation poses no issues.
- GoOs can therefore be a valuable and accepted tool for documenting the use of renewable energy in Scope 2, and in certain cases – with full transparency and proper context – also for demonstrating progress in Scope 1. It is, however, recommended to consult relevant standards, auditors, and national regulations to avoid greenwashing and ensure proper application in climate accounting.

### Trading and flexibility

- GoO certificates can be traded independently of the physical energy, allowing green certificates to be matched with specific customer needs or reporting requirements. This provides flexibility in energy trading and documented value in ESG work.

## Benefits of GoO

- Ensures market transparency.
- Enables traceability from producer to end-user.
- Helps companies and consumers document non-fossil energy use.
- Prevents double counting of non-fossil energy.

When using PoS (Proof of Sustainability), the underlying GoO will always be included.



## A strategic partner in non-fossil energy and CO<sub>2</sub> reduction since 19800

At Bigadan, we have been driving sustainable transformation for more than four decades. As owners of the entire value chain, we offer our partners full transparency and traceability.

Our commitment: To support a greener footprint across sectors – whether in heavy transport, large industrial emitters, or the utilisation of challenging bio-waste streams.

Shall we help  
you move  
forward?

Do you need advice on how biogas can help you meet the requirements and regulations you face?

You can be fully confident that you will be guided through the process with expertise, credibility, and cost transparency.

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