



# European-wide developments for green-gas certification (GOs)

03/04/2025 - UBA



# Renewable\* gases in Europe

What are we talking about?

Renewable gases	Biological origin	Biogas	
		Biomethane	
		H <sub>2</sub>	
		???	
	Non-biological origin (from RES electricity)	H <sub>2</sub>	
		Synthetic methane	
		???	
Low Carbon gases	From non-‘renewable’ electricity	H <sub>2</sub>	
		Synthetic methane	
		???	
	From fossil energy sources	H <sub>2</sub>	
		Syngas	
		???	



# The life cycle of a European renewable molecule

## 1 Production phase

### Producer

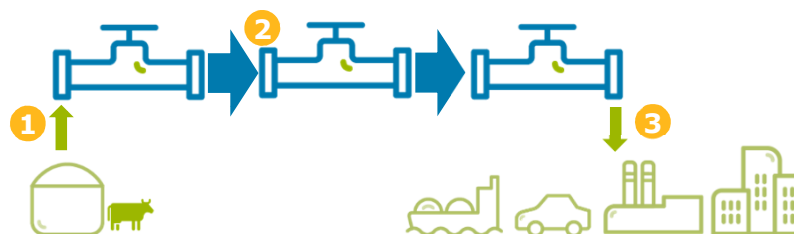
- Subsidies
- Monetization of renewable production

### Supplier

- Tariff exemption at the Entry point

### Member State

- National production targets
- National consumption targets\*



## 2 Pipeline transport

### Supplier

- Tariff exemption at IPs

## 3 Consumption phase

### Supplier

- Disclosure
- Commercial offer
- Transport obligations

### Consumer

- Personal/corporate environmental commitment
- Calculation of carbon footprint and CSRD
- ETS reduction
- Transport obligations in maritime transport

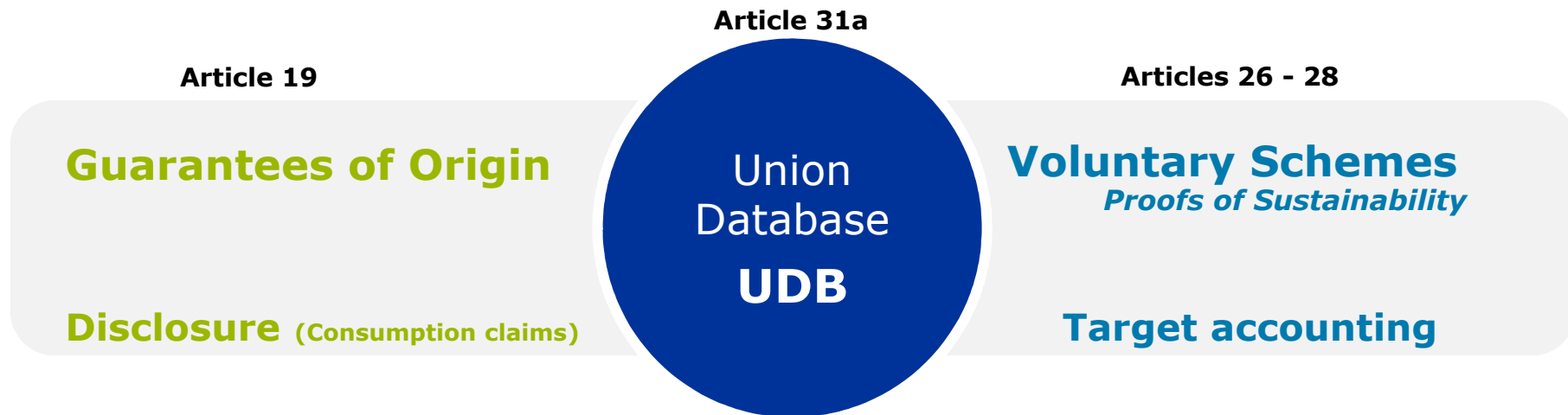
### Member State

- National consumption targets

- **One single molecule**
  - **Different perspectives**
    - **Multiple claims during the different phases of its life cycle**
      - **But make sure that it is consumed only once!**

# Certification of renewable\* gases in Europe

A complex framework: The Renewable Energy Directive (RED III)



## New Gas and Hydrogen package (Directive and Regulation)

Disclosure obligations (on GOs)

Potential use of GOs for low-carbon gases

UDB linked to tariff exemptions at the IPs.

**Certificates of Origin**

# Certification of renewable\* gases in Europe

A complex framework: The Renewable Energy Directive (RED III)



## Guarantees of Origin (GOs)

- The GO Issuing Body is appointed by the MS
- 1 GO per MWh (measured HCV)
- Tradable certificate. A GO moves between accounts in a Registry.
- Book & Claim – GO can be sold without the commodity
- Cancellation of GOs for consumption claims

Features inherited from the certification of renewable electricity



## Proof of Sustainability (PoS)

- Voluntary Schemes Recognized by EUCOM
- 1 PoS per Energy Consignment (measured LCV)
- Not a tradable certificate – an 'attribute' attached to the commodity. A new PoS is issued every time the commodity changes hands.
- Mass Balancing – The attribute follows physically commodity from production to consumption
- The consumer 'holds' the PoS issued by the last supplier. PoSs are not cancelled.

Features inherited from the certification of bioliquids



**Union Database**

# The Union Database

## Union Database



- Art.31a allows for direct interaction of EOs vs. National Database
- Developed (direct interaction) for bioliquids.
- Includes traceability from the sustainable raw materials until consumption.
- Extended to gases in a second phase:
  - Involvement of TSOs/DSOs for injection/withdrawal data
  - LNG to be treated as a liquid not as a gas
  - Requires integration with GO Registries
- Use is mandatory by 21<sup>st</sup> May 2025... but... REDIII has to be transposed.

**A question remains unanswered:**

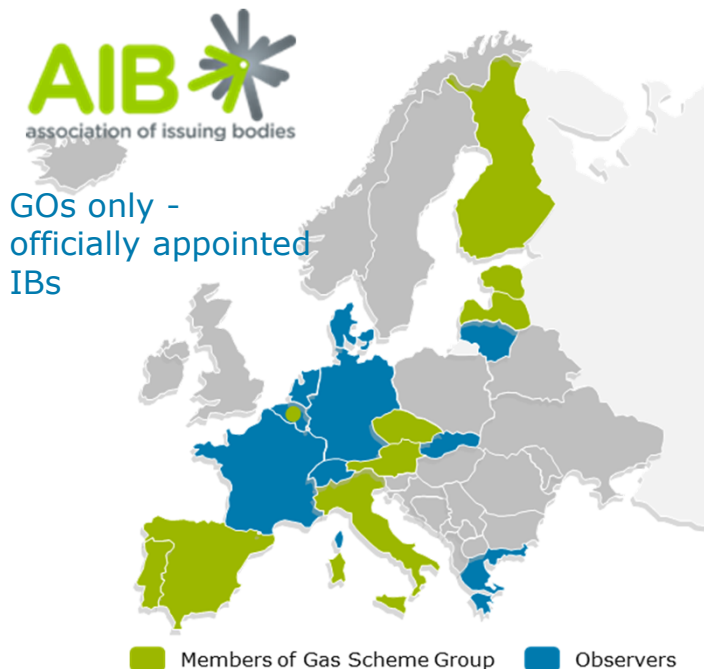
**How is the integration of GO Registries with UDB expected to work?**

# A European Market for renewable\* gases

Importing/Exporting of the Renewable\* certificates



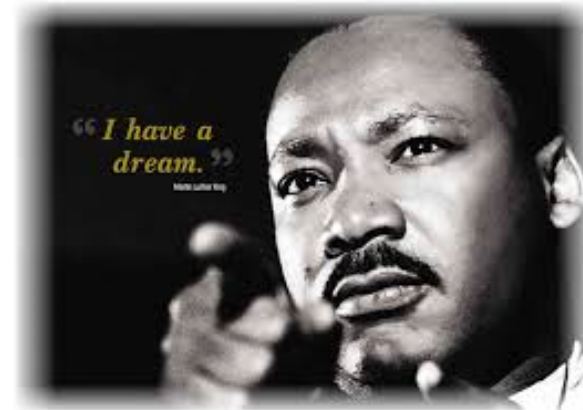
GOs: DK, NL, IE, SK  
+ Certificates of origin



- Increase in the number of GSG Members: facilitating the creation of the renewable gas market:
  - 3 Members 2023 (AT, LV, ES)
  - 9 Members 2024 (+ FI, CZ, IT, BE-Bru, PT, EE)
- Adaptation of EECS rules to the gas specificities
- Facing the challenge: UDB

# If we can dream... the ideal situation with UDB

- A single 'multi-purpose' certificate.
- To be used by all involved parties (Producer, Supplier, Consumer & MS)
- Optimizing the information exchange between parties:
  - Minimizing reporting obligations
  - Minimizing conciliation processes (avoiding mismatching)
- Simplifying the operation for producers, suppliers and consumers.
  - Aligning the certification processes with the gas market rules.
  - A functional helpdesk, quick response in national languages.
- Simplifying the processes established by the MS:
  - At the production points – as subsidy management or GO auctions.
  - At the consumption points - statistics or target accounting.
- A robust system: resilient and secure.
- Fraud resistant – facilitating MS their verification role.





Dankeschön



# Key messages

- Renewable gases is a broad term that includes biogas, biomethane, renewable hydrogen and potentially other gases.
- The certification of renewable gases is needed as during the lifecycle of a green-gas molecule, the 'renewable attribute' is claimed several times by several subjects: producer, supplier, consumer, and Member State.
- These multiple claims are totally legitimate, but the certification system has to ensure that the consumption of one renewable molecule is accounted only once.
- The certification framework set by the Renewable Energy Directive for renewable gases is very complex:
  - Article 19 defines a system of Guarantees of Origin for gases for disclosure and consumption claims – as for electricity.
  - Article 25 and 27 defines the certification under voluntary schemes for target compliance – as for bio-liquids, what has derived in the development of Proofs of Sustainability.
  - Article 31a defines the Union Database and requires the integration of GO Registries with UDB.
- Guarantees of Origin and Proofs of Sustainability are very different certificates, both applying to sustainable-renewable gases.
- GOs and PoSs have to be integrated in the UDB:
  - There is a huge uncertainty on how this is to be done.
  - This is expected to be working by 21<sup>st</sup> May 2025.
- The implementation of UDB is a tremendous challenge and at the same time a great opportunity to simplify and reinforce the certification of renewable gases.