LINKING GUARANTEES OF ORIGIN AND THE UNION DATABASE

DESIGN FOLLOWS RESPONSIBILITY

Scenarios for the interaction between national GO registries and Proofs of Sustainability (PoS) in the Union Database (UDB) – summary of an AIB impact assessment, as input to the revision of Implementing Regulation (EU) 2022/996

Executive summary

Renewable gas is tracked for more than one public purpose. Its **Guarantee of Origin (GO)** tells consumers where their energy comes from; a producer-self-declared record in the Union Database (UDB) for monitoring sectoral consumption targets, called **Proof of Sustainability (PoS)**, serves compliance confirmation on a criterion enabling that Member States can count it towards their renewable-energy targets and enabling fuel suppliers to comply with quota. Both are needed. What must be avoided is the same unit of gas being claimed twice. Following RED art.19 and the Gas Directive Annex I 65, Member States meticulously manage the GO system to prevent such double claims. A GO is a highly harmonized tracking instrument residing in economic operators' accounts in interconnected registries operated under Member States' implementation of EN16325, its uniqueness as tracking instrument and usability for consumption claims is under governmental supervision. For the same reason of preventing the claim of consumption of the same renewable gas showing up in more than one place, the Renewable Energy Directive requires GOs to be linked to the UDB, and the revision of Implementing Regulation (EU) 2022/996 is announced to clarify how.

The real choice is about responsibility, not technology. Today, Member States – through the issuing bodies they appoint – are accountable for every GO: they verify it, can block or correct it, act on suspected fraud, and use it for disclosure supervision, support schemes, quotas and the residual mix. The RED keeps them responsible, yet also links the GO to the UDB that monitors for policy target accounting. An implementing Regulation can organise how data flows between systems; it cannot by itself move that accountability.

If responsibility were ever to move to Union level, it would need to come with the means for the Union level to exercise it: powers to investigate, freeze and correct records, and to act on fraud across national markets – tasks today carried out by national authorities with enforcement powers on the ground. Member States would also need to keep the tools they rely on to deliver their own renewable-gas policies. Whether a central model can offer both deserves an explicit political decision, rather than one made implicitly through database design.

AIB's seeks to achieve the RED's aim now, within today's allocation of responsibilities: the GO stays under national custody, the PoS stays in the UDB, and the two are bound by shared identifiers and one coupled cancellation – reached in stages, with a shared gateway to keep costs low. The revised Implementing Regulation should therefore:

- **clarify** what "transferred to the Union database" means, while keeping strong processes for disclosure supervision;
- **set out** which system is authoritative for each data item and event;
- **phase in** the link, so that every Member State can connect, with frontrunners able to go further.

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1 WHY THE LINK BETWEEN GO AND POS MATTERS

Renewable gas injected into the European network can be covered by two instruments for the same unit of energy. The **GO** informs final consumers about the origin of the energy supplied to them and underpins supplier disclosure (RED Article 19; Gas Directive (EU) 2024/1788, Annex I, point 5). The **PoS**, recorded in the UDB as a self-declaration by a producer and a confirmation of an auditor, evidences compliance with the sustainability and greenhouse-gas saving criteria (RED Articles 29–31a), so that the gas can count towards national and sectoral targets (e.g. RED Articles 3 and 25). Both purposes are legitimate and complementary. The risk to manage is that the same MWh is claimed twice, or that a GO and its PoS-record end up with different consumers.

RED Article 31a(4) therefore links them: where GOs have been issued for a consignment of renewable gas, they are transferred to the UDB when the consignment is registered, cancelled after its withdrawal from the interconnected network and, once transferred, not tradable outside the UDB. The revision of Implementing Regulation (EU) 2022/996 is announced to refine the rules for connecting national GO registries to the UDB. This paper summarises an assessment by AIB and its Gas Scheme members of the options for that connection. It is written for policy makers and for the architects who will design the interfaces.

2 THREE RESPONSIBILITY CHAINS

Purpose	Legal basis	Responsible actor	Authoritative system
Disclosure to final consumers (GO)	RED Art. 19; Gas Directive Annex I(5); EN 16325	Member State through designated issuing body; suppliers under supervision of the national regulator or competent authority	National GO registry, or integrated national database
Sustainability and GHG compliance (PoS)	RED Art. 29, 30 and 31a	Economic operator certified under a voluntary or national scheme; certification bodies; Member States and Commission supervise	UDB, directly or through a national database linked under Art. 31a(5)
Target accounting	RED Art. 3, 7 and sectoral targets (e.g. Art. 25)	Member State	National statistics, using UDB consumption records

Design principle. Software can route, copy and validate data; it cannot create or relocate public authority. Where a body is legally responsible for a decision, the binding outcome of that decision should be recorded in a system under that body's control. The other system may hold a linked, read-only copy.

3 THE LEGAL QUESTION BEHIND THE ARCHITECTURE

RED III kept the core of Article 19: Member States, or the competent bodies they designate, supervise the issuance, transfer and cancellation of GOs, ensure accurate, reliable and fraud-resistant electronic systems, produce the residual mix and decide on the recognition of GOs from other Member States. Article 31a(4) keeps Member States responsible for cancellation, yet transfers the GO into the UDB. Read literally, the UDB would hold the record while the Member State remains responsible for what that record means and whether it is reliable.

The whole architecture revolves around one question: **does "transferred to the Union database" require moving the live GO, or can it be met by a linked, non-tradable representation in the UDB while the national registry keeps legal custody?** Custody is more than hosting data. It covers recognising the account holder, authorising transfers, blocking, correcting, expiring and cancelling a GO, keeping the audit trail, and supporting disclosure and mutual recognition. It also includes supervision, error- and fraud-detection measures and, in certain cases, intervention by sanctioning authorities. The Implementing Regulation should state the chosen reading explicitly, rather than leave it to database behaviour.

4 SCENARIOS FOR CONNECTING GO AND POS

The GO issuing bodies assessed four scenarios for linking info between their GO registry with the UDB.

Scenario	Where the live GO sits	Effort and coupling	Legal fit	Assessment
A1 Linked custody – close synchronisation	GO registry; every material event mirrored to the UDB in near real time	Very high; a UDB outage can halt registry operations	Consistent with Art. 19; needs the linked reading of Art. 31a(4)	Viable, but costly and slow to deliver
A2 Linked custody – gateway exchange	GO registry; minimum data and PoS link exchanged at issuance, transfer and cancellation	Medium to high; lower coupling than A1	Consistent with Art. 19; needs the linked reading of Art. 31a(4)	Practical common profile
B Escrowed transfer to the UDB	UDB, from consignment registration until cancellation	Low for registries; high for the UDB (custody, corrections, hand-back, disclosure feeds)	Literal fit with Art. 31a(4), but not with Art. 19; custodial duties not reallocated	Not supportable under the current Directive
C1 Integrated national database (Art. 31a(5))	National database combining GO and PoS reporting, linked to the UDB	Low where such a platform exists; high for basic registries	Supported by Art. 31a(5); GO custody needs confirming Article 31a(5) expressly allows a national database aligned and linked to UDB as the economic operator's channel. A legally coherent C1 architecture keeps GO custody nationally, sends mandatory data to UDB and receives PoS identifiers, validation and correction statuses back.	Strong candidate; fits integrated GO–PoS designs This provides Member States with an alternative implementation model foreseen by Article 31a(5).
C2 Terminal reporting	GO registry; GO–PoS link reported to the UDB at cancellation	Low; higher risk of late mismatches and corrections	Consistent with Art. 19; departs from Art. 31a(4) timing	Fastest to roll-out, Closest to existing chain of Member States' responsibilities, Builds on the now established network of GO registries

For those Member States who are not opting for a National Database (NDB) according to Art. 31a (5), Scenario B looks simplest for registries but moves the complexity into the UDB. Without a matching transfer of custodial duties, liability and enforcement powers in the Directive – including the capacity to detect and act on fraud in each national market – a Member State would remain responsible for a record it no longer controls. National instruments that rely on the GO – support schemes, quotas, tax relief, disclosure supervision, the residual mix – would lose their link, and the same live GO could not also be held in a national database. If such a reallocation were ever wanted, it would belong in the Directive, not in an implementing regulation.

For those Member States who are opting for the NDB according to Art. 31a (5), scenario C1 works. It may have different forms depending on the national context.

5 WHO MASTERS WHICH DATA

Each system may keep a copy of the other's minimum data, but only one is authoritative for each item:

Data item or event	Master system	Deciding actor
GO identity, attributes, account holder, transfers (incl. cross-border via the AIB Hub)	GO registry or national database	Issuing body
GO blocking, correction, expiry; cancellation for disclosure; supervision of supplier claim	Registry of the country of consumption	Issuing body of that country
PoS identity; sustainability, GHG and feedstock data	UDB	Economic operator, verified by certification body
Mass-balance chain, withdrawal, allocation to targets	UDB	Economic operator; Member State validates
GO–PoS link identifier	Created once, held by both	Changed only through versioned, acknowledged messages

Two rules follow. A GO is never transferrable in two systems at the same time. And it is cancelled once, in one place, with that cancellation coupled to the consumption of the linked PoS, and the data needed for disclosure and the residual mix reaching the country of consumption.

Also note that registries can only document "transfer" and not "trade", which involves commercial context beyond the registration of ownership and entitlement on the environmental attributes.

6 A PATHWAY EVERY REGISTRY CAN FOLLOW

Several Member States are developing integrated GO–PoS designs, sometimes called "**GO Plus**": one certificate per MWh that carries the PoS identifier and key sustainability data as structured fields, with a single entry point for market parties. Article 31a(5) supports this route, as it lets the verification of UDB data be complemented by a GO system and allows national databases linked to the UDB. Not every registry or national framework can reach that stage within the next two years, so the rules should allow different speeds on one common base:

- **Common baseline for all registries:** stable GO–PoS identifiers, a minimum GO data set, and defined gateway events (link at issuance, cross-border transfer, cancellation, correction) with acknowledgements – the A2 profile. Cross-border transfers stay registry-to-registry through

the AIB Hub under EECS. A shared access point, for example the AIB Hub, could build the UDB connection once for all registries instead of many times over.

- **Integrated national route** (C1) for Member States ready to combine GO and PoS reporting in one platform under Article 31a(5). Where a national database is aligned and interoperable with the UDB, economic operators can fulfil the same regulatory requirements through the NDB while maintaining full consistency with the UDB framework.
- **First stage for registries not yet connected** (C2): registry-led cancellation with notification to the UDB, time-limited and with a defined match-and-repair procedure.

7 RECOMMENDATIONS FOR THE REVISED IMPLEMENTING REGULATION

1. **Clarify "transfer"** in Article 31a(4) as a linked, non-tradable representation in the UDB, with legal custody of the live GO remaining in the national registry or national database.
2. **Set out field mastership and event authority** for issuance, transfer, blocking, correction, cancellation and expiry, as part of the regulation or a binding technical annex.
3. **Recognise the national-database route** under Article 31a(5) through a common, bidirectional interface profile.
4. **Define one cancellation sequence as the end-state, reached in stages.** In the end-state, the GO is transferred registry-to-registry to an authorised account of the economic operator in the GO registry of the country of consumption, which thereby holds the full GO data needed for disclosure. A cancellation request there triggers the PoS consumption check in the UDB; the GO registry confirms the cancellation and the UDB records the PoS as consumed. As a first stage, registry-led cancellation with notification to the UDB lets every registry connect early. A shared gateway, such as the AIB Hub, would allow the coupling to be built once for all registries.
5. **Settle corrections, expiry and annulment** consistently with the irreversibility of GO cancellation and with residual-mix calculation.
6. **Phase in the obligation:** set the dates from which each stage applies, after joint testing with issuing bodies (including corrections, outages and cross-border cases), so that connection becomes mandatory only once it works end to end.

Strengthening the GO as a harmonised instrument and linking it cleanly to the UDB is the fastest route to a liquid cross-border renewable-gas market without double claims.

The post-2030 framework could settle the interface between Articles 19 and 31a explicitly; meanwhile, AIB and its members are ready to design and test the connection with the Commission, Member States and the UDB team.

8 DISCLAIMER

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Directive (EU) 2018/2001 (as amended by Directive (EU) 2023/2413, "RED"). This document reflects the expert views of AIB as an association, based on its experience in administering the GO system. It does not represent a formal position of individual AIB members. Though members were consulted, not all members have competence or decision-making authority on the matters addressed. The views expressed should not be attributed to individual members unless explicitly stated.