

A photograph of an offshore wind farm at sunset. The sky is a mix of soft pinks, oranges, and blues. The water is calm, reflecting the colors of the sky and the silhouettes of the wind turbines. The turbines are arranged in rows, extending into the distance. The overall mood is serene and hopeful, representing clean energy.

Call for Rapid Implementation of Granular Guarantees of Origin in Europe

JULY 2024

We, the undersigned organisations, represent industry leaders, solution providers, and advocates who are strongly committed to the acceleration of the European Union's decarbonisation objectives. We write to express our collective support for the timely **implementation of Granular Guarantees of Origin (GOs) within the established issuing bodies of the EU** as a voluntary instrument for advanced clean energy products. Granular GOs have been enabled and encouraged in the most recent update of the Renewable Energy Directive¹.

Granular GOs Benefits

As the EU electricity markets and decarbonisation objectives evolve, so should additional attributes of the Guarantees of Origin in ensuring electricity origin tracking and source disclosure to consumers. Granular GOs add the sub-hourly time of production to GOs which only contain the date of production today, enabling the matching of produced energy to consumption on an hourly basis.

Granular GOs can contribute to the clean energy transition in several ways:

- **Verifying Renewable Hydrogen:** The Commission's Delegated Acts on renewable hydrogen² will require hourly matching of renewable electricity generation and hydrogen electrolyser production by 2030. Granular GOs can help ensure matching can be verified at scale, and could facilitate the role of intermediaries in PPA contracts. Crucially, this will enable regulatory alignment with potential importers to the EU such as from the United States, which is now set to require Granular GOs for verifying clean hydrogen production³. Harmonised tracking is a prerequisite to establishing global markets for green hydrogen and other green products.
- **Enabling Enhanced Voluntary Green Claims:** The upcoming Green Claims Directive is expected to require companies to ensure that Green Claims are substantiated based on widely recognised scientific evidence and accurate information. By providing more precise information on the origin of green electricity and green hydrogen, Granular GOs can play a role in substantiating more granular clean electricity use claims.
- **Further Signals for Clean Flexibility and Storage:** Increasing the clean flexibility of the electricity system is a critical challenge in ensuring a reliable and stable decarbonised grid. Granular GOs could create further incentives for investment in essential new technologies like storage, demand response, and clean dispatchable generation⁴.

¹ "In the context of a more flexible energy system and growing consumer demand there is a call for a more innovative, digital, technologically advanced and reliable tool to support and document the increasing production of renewable energy. To facilitate digital innovation in that field, Member States should, where appropriate, enable issuing guarantees of origin in fractions and with a closer to real time timestamp." [RED III Preamble](#).

² EU Commission [Delegated Acts on Renewable Hydrogen](#).

³ United States Department of the Treasury [Proposed Rule on Section 45V Credit for Production of Clean Hydrogen](#).

⁴ [Riepen, I & Brown, T \(2023\) - On the means, costs, and system-level impacts of 24/7 carbon-free energy procurement](#).

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- **Advancing Decarbonisation:** Research indicates that granular matching⁵, where consumers match their demand with clean energy supply by the hour, can accelerate emissions reductions and lead to broader system benefits⁶.
 - **Enabling Enhanced Clean Consumer Hedging:** Enhancing hedging for consumers and industry is a key aim of a reformed European Electricity Market Design. Analysis from Eurelectric⁷ has shown that PPAs that deliver high levels of clean power matching to load in real-time help protect consumers from the price volatility of wholesale electricity markets. Granular GOs can help to verify this more advanced PPA structure.
 - **Enabling European Digital Innovation:** Many of the innovative digital companies and start-ups developing the tools required for granular matching are based in Europe⁸. Granular GOs could help to solidify European leadership in energy tracking, presenting opportunities to export solutions as granular matching scales worldwide.
 - **Enhanced Corporate Disclosure:** The rigour of corporate disclosure is increasing through the Corporate Sustainability Reporting Directive⁹. Granular GOs could enable more granular voluntary corporate disclosure. Leading corporations have voluntarily adopted ambitious sustainability goals requiring granular data to demonstrate the true impact of their clean energy procurement¹⁰.

Granular GO Feasibility

The tracking infrastructure required for Granular GOs is currently being demonstrated. The EnergyTag Initiative (an independent non-profit) has worked with stakeholders globally to develop a standard that provides a robust, auditable framework that can be readily integrated into existing registry software¹¹. These standards build upon the existing Association of Issuing Bodies standards, to which almost all EU Issuing Bodies adhere. There have been several successful demonstrations across the globe to test the technical feasibility of implementing granular GOs¹². Some EU Issuing Bodies, such as those part of the Energy Track and Trace initiative, are already prepared to offer Granular Certificates¹³. The next step is for Issuing Bodies across the EU to implement these solutions at scale. Regarding the certificates for renewable, low-carbon and recycled carbon fuels, there should be a level playing field between electricity and gas guarantees of origin.

⁵ [The United Nations - 24/7 Carbon-free Energy Compact explains hourly matching.](#)

⁶ [Riepin, I., & Brown, T. \(2022\). "System-level impacts of 24/7 carbon-free electricity procurement in Europe".](#)

⁷ https://www.eurelectric.org/media/6764/eurelectric_pexapark_247-hedging-analysis.pdf.

⁸ [EnergyTag - Case Studies](#)

⁹ [European Commission - Corporate Sustainability Reporting Directive](#)

¹⁰ [Iron Mountain, Google, and Microsoft](#) announcements.

¹¹ <https://energytag.org/>

¹² [EnergyTag - case studies](#)

¹³ For instance, Energinet offers Granular Certificates as part of the [Energy Track and Trace](#) initiative.

Member States Must Move Quickly to Enable Granular GOs

We urge EU Member States and Issuing Bodies to implement granular GOs in their national legislative frameworks and ensure issuance by Issuing Bodies in a timely fashion. A European system of granular GOs will help accelerate electricity system decarbonisation by sending more accurate price signals and enable the robust verification of green hydrogen and green electricity claims. This will support and accelerate Europe's ambitions to be the world's first climate-neutral continent by 2050. By acting swiftly, the EU has the opportunity to establish global leadership in energy market innovation and accelerate progress towards a truly sustainable future. We stand ready to support Member States and Issuing bodies in this transformation of energy origin tracking in Europe.

Sincerely,

