

RENEWABLE HYDROGEN CERTIFICATION

ENSURING SAFE,
SUSTAINABLE PRODUCTION
OF RENEWABLE HYDROGEN



BUREAU
VERITAS

H₂
HYDROGEN

SAFE, SUSTAINABLE AND RENEWABLE HYDROGEN

THROUGHOUT THE VALUE CHAIN

As a trusted partner in supporting the acceleration of hydrogen deployment, Bureau Veritas offers its Renewable Hydrogen Label. The label brings transparency and assurance that hydrogen is produced using safe and sustainable practices, and from renewable energy sources.

In the nascent renewable hydrogen (also known as “green hydrogen”) market, regulations and standards for safe and sustainable production, transport, storage and usage are still under development.

The Renewable Hydrogen Label developed by Bureau Veritas is based on a voluntary certification scheme that proposes a unique methodology applying globally to hydrogen production across the value chain.

The label stipulates that hydrogen production must be certified according to three criteria: safety, sustainability and renewable energy input. Alongside these requirements, Bureau Veritas provides a methodology for calculating the carbon footprint of the hydrogen production plant, including the carbon intensity threshold necessary to obtain the label.

THE LABEL'S 3 PILLARS

SAFETY, SUSTAINABILITY AND RENEWABLES INPUT

1 Safety is an absolute for Bureau Veritas, and ensuring hydrogen production safety is of paramount importance. The Safety pillar in the Renewable Hydrogen Label applies safety standards and best practices with process and occupational safety from design through construction and operations.

2 Beyond carbon footprint, the Sustainability pillar accounts for an asset's water consumption and other environmental impacts. It also incorporates a maturity assessment with regard to ESG criteria.

3 To obtain the label, the Renewables Input pillar requires operators to use 100% renewable electricity and achieve an overall carbon footprint below 2kg CO₂eq / kg H₂ produced.

BUREAU VERITAS HAS BEEN A MEMBER OF THE HYDROGEN COUNCIL SINCE 2020.

OUR 2-STEP CERTIFICATION PROCESS



DESIGN STAGE CERTIFICATE

- Certificate of conformity
- Full lifecycle assessment methodology
- Remote assessment
- No surveillance activities
- Carbon intensity threshold to increase transparency



OPERATIONAL STAGE CERTIFICATE AND LABEL

- 3-year validity
- Annual surveillance audits
- Mix of remote assessment and onsite verification
- Carbon intensity threshold to increase transparency
- Annual onsite verification of renewables input vs hydrogen output
- Monthly or quarterly audits of renewable input, depending on regulation
- Prerequisite: valid BV certificate of operational hydrogen plant



TECHNICAL INSIGHTS PAVING THE WAY FOR TRACEABILITY

Through its Renewable Hydrogen Label, Bureau Veritas has created a unique methodology that applies the same way across the globe.

This encompasses a full lifecycle assessment (LCA) methodology that considers upstream emissions related to power and water supplies. It puts in place a strict carbon footprint threshold set as a non-disputable requirement to obtaining the certificate.

The label can only be achieved after certification of the production asset and through verification of the quantity of hydrogen produced. And it is a program that is built to embark upon a regulation evolution, by design.

SHAPING A WORLD OF TRUST

Bureau Veritas is a Business to Business to Society company, contributing to transforming the world we live in. A world leader in testing, inspection and certification, we help clients across all industries address challenges in quality, health & safety, environmental protection and social responsibility.

POWER FOR TODAY AND TOMORROW

Your partner in the energy transition, Bureau Veritas helps society to meet today's energy needs and transition to a low-carbon future.



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Shaping a World of Trust

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