

Towards the 1st EU-wide Guarantee of Origin for Green Hydrogen

The CertifHy Project has finalized its work on developing a framework of the first EU-wide guarantees of origin (GO) for Premium Hydrogen (green and low-carbon hydrogen). At the CertifHy event on 19th October 2016 in Brussels the CertifHy consortium presented the project results and next steps to a large audience, consisting of leading industry, policy makers, industry associations and a standardization body. Additionally, speakers from a wide-range of international leading organizations such as European Commission, FCH JU (Fuel Cell and Hydrogen Joint Undertaking), Hydrogen Europe, Air Liquide, BMW, Hydrogenics, Ekoenergy, Association of Issuing Bodies, Linde and Uniper looked at the topic from different point of views.

‘A promising EU-project’

From November 2014 until October 2016 the CertifHy project identified a framework for the first EU-wide GO for Premium Hydrogen including a definition for green and low-carbon hydrogen, a detailed proposal for a GO system and a roadmap for implementation. The project is funded by FCU JU, the public-private partnership that manages H2020 funds in regards to hydrogen and fuel cell technologies. Bart Biebuyck, the executive director of FCH JU, stated during the CertifHy event: “CertifHy is a promising project with good support from the industry”. The project is coordinated by Hincio, with the Dutch Energy Research Center ECN, TÜV SÜD and Ludwig Bölkow Systemtechnik as consortium partners. A large variety of global players support it as affiliated partners such as Air Liquide, Air Products, AkzoNobel, Areva H2Gen, BMW, Colruyt Group, EDF, Group Machiels, Hydrogenics, Linde, OMV, Shell, Total and Uniper that were part of the on-going step-by-step consulting process throughout the last two years. In addition, a wide range of global leading organizations such as Toyota, BMW, Air Liquide or Linde officially endorse CertifHy.

A new market for Premium Hydrogen

Global demand for hydrogen is foreseen to reach 50 Million tons by 2025 mainly used in industry and transport. It is predicted to grow 3,5 percent per year. Today 95 percent of all hydrogen is produced from fossil resources. For hydrogen to become a climate-friendly alternative to fossil fuels, it is necessary to ensure minimal impact on natural resources in the whole life cycle. It is expected that 50 - 60 percent of all hydrogen for the growing market of transportation will originate from renewable or low-carbon sources by 2030. In order to allow Premium hydrogen to be traded, a tracking system ensuring the quality of hydrogen is necessary. The proposed GO for Premium Hydrogen decouples the green attribute from the physical flow of the product and makes Premium Hydrogen available EU-wide, independently from its production sites.

Potential impact of Green Hydrogen

Green Hydrogen can help Europe become the number one in renewables and reach EU targets of cutting 80 – 95 % of greenhouse gas emissions by 2050. Premium Hydrogen GOs can boost demand and supply of Premium Hydrogen, create market pull, lead to transparency and consumer empowerment and enhance the business case for Premium Hydrogen. It can help decarbonizing transport and industry and increasing consumption of Premium Hydrogen as highlighted by Guy De Reals from Air Liquide and Bernardo Mota from BMW during their presentations at the CertifHy event. Furthermore, a GO for Premium Hydrogen can enhance renewable energy use and can contribute to the development of energy storage and energy security.

The Future of Premium Hydrogen GOs

After having developed the framework for Premium Hydrogen and a roadmap for implementation, the next steps are to strengthening the momentum by building a supervisory board, assuring legal safeguard and creating buy-in for the scheme. At the same time, it is necessary to build the GO infrastructure and test it by pilot projects. “It is an ambitious, but realistic roadmap. It will require a lot of energy and funding to realize it.”, as Philip Good from the European Commission stated during the panel discussion. That way green hydrogen can become an important cornerstone of tomorrow’s energy system.

More information:

For further information, feel free to visit www.certifyhy.eu or contact us.

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