Press Release – 20 April 2021

Hydrogenizing Barcelona

The **Hydrogenizing Barcelona Initiative**, launched in 2020, has brought together an international consortium of more than 20 companies, research institutes and public entities, with the institutional support of the Port of Barcelona, to jointly work towards the implementation of a hydrogen economy in the Barcelona metropolitan area and its wider (inter)national area of influence.

The Hydrogenizing BCN Initiative has the ambition to make the green hydrogen economy become a reality, and proposes to achieve this ambition through close public/private cooperation and the development of economically viable green hydrogen-based business models. The Hydrogenizing BCN Initiative will also strive to create an inclusive eco-system for SME's enabling them to participate in the green hydrogen economy evolution, creating more sustainable business opportunities and added value jobs.

Green hydrogen as an energy vector and the development of the hydrogen economy are core areas of the European Union's Green Deal. The ambition of the Hydrogenizing Barcelona Initiative is to enhance the acceleration of the energy transition through the deployment of green hydrogen projects.

The **Port of Barcelona** was identified by co-developers Kopala International and Resilient Group as the ideal location to develop a long-term green hydrogen-based strategy as a key component of the energy transition in Barcelona and the region of Catalunya. Green hydrogen has the potential to significantly accelerate the decarbonisation of several sectors including heavy duty transportation, port and maritime activities, general mobility in the metropolitan area, as well as replace grey hydrogen in industry and decrease the carbon content of the natural gas networks. These sectors represent robust latent demand for green hydrogen, and consortium partners are working actively to enlarge and align this diversified offtake ecosystem.

The implementation of the initiative will not only accelerate decarbonisation, but also lead to cleaner air, and trigger new economic growth in the region as the new hydrogen production infrastructures, fuel cell vehicles and related equipment, and respective services ecosystem are developed.

Because green hydrogen is produced from water and electricity sourced from renewables, it reduces dependency on fossil fuels, increases security of supply and reinforces national and regional industrial value chains. It is the missing link for the full and accelerated implementation of Europe's Green Deal.

The Hydrogenizing Barcelona Initiative will be implemented in several phases. The first and ramp-up phase, **H2BCN**, will see a combination of PEM (H2B2), Alkaline (John Cockerill) and AEM (Enapter) electrolysers deployed to a total capacity of 20MW, powered by rooftop PV (BayWa r.e.) in the Zona Franca area and virtual green PPAs, producing enough green hydrogen for approximately 200 Fuel Cell trucks (Hyzon) and other FCEV vehicles. These vehicles will be introduced in daily operations by logistics operators (Butransa & Primafrio Group). In December 2020 an Expression of Interest to the Spanish Government was entered by the project promotors for this phase.

A second phase will scale up the hydrogen production capacity by 100MW, for which the **Project100** proposal was submitted in February 2021 under the Green Deal Call. This proposal is coordinated by Resilient Group, as electrolyser co-developer and owner-operator, jointly with Kopala International, and alkaline electrolyser manufacturer John Cockerill. A strong consortium including Engineering Company Técnicas Reunidas, Gas grid operator Redexis, IT specialist Alvic in service stations and renewable energy firm BayWa r.e. are supported by the research and innovation specialists from Fraunhofer ISE, IREC, Enercoutim and Aalborg University. The Port of Barcelona completes the consortium, with investment structuring from Cube Infrastructure Managers.

The implementation of Project100 will bring several innovations by way of significant electrolyser improvements, digital enhancements, and integration with a VPP to generate significant flexibility and optimization.

Further project proposals are expected to be added and submitted for funding as the initiative expands and looks forward to gain further scale.

H2BCN & Project100 Consortium Participants

- **Alvic** – Plant management IT integration
- **BayWa r.e.** - Supply green electricity from PV and wind.
- **Butransa** – HRS operator & logistics operator hydrogen consumer
- **Cetaqua** – Supply regenerated water for electrolysis.
- **Cube Infrastructure Managers** – Institutional investor
- **Enapter** – Supply of AEM electrolyser
- **Frauenhofer Institute** – Scientific partner

- **H2B2** – Supply of PEM electrolyser
- **Hyzon Europe** – Fuel Cell truck manufacturer
- **IREC** – Scientific partner
- **John Cockerill** – Supply of Alkaline electrolyser
- **Kopala International** – Initiative promotor & electrolyser investor
- **Port of Barcelona** – Institutional support
- **Primafrio Group** – Logistics operator & hydrogen consumer
- **Redexis** – Storage, compression & HRS infrastructure investor
- **Resilient Group** – Initiative promotor & electrolyser investor
- **Técnicas Reunidas** – Project engineering
- **Aalborg University** – Scientific partner

Partner quotes

On the Hydrogenizing Barcelona initiative, the President of the Port Authority of Barcelona, Mercè Conesa, considers that hydrogen is under consideration in the Port's strategy for the Energy transition, for applications such as transport and Energy storage[1].

Marc Rechter, CEO of the Resilient Group, co-developer of Hydrogenizing Barcelona, shared that "Hydrogen is an essential component of the energy transition, and demonstration projects are needed to fine-tune and scale up new business models that will develop the hydrogen economy".

Jeffrey Dost, CEO of Kopala International, creator and promotor of the Hydrogenizing BCN Initiative, considers that "If we want the world to become sustainable and the green hydrogen economy a reality, we must make that the citizens can benefit in their daily live from green hydrogen and that green hydrogen creates quality jobs for them".

Roc Arisa, Managing Director of Alvic, comments that the main objective of his company, is to help traditional service stations migrate to new technologies and energies.

[1] https://www.europapress.es/catalunya/noticia-puerto-barcelona-estudia-hidrogeno-combustible-evalua-energia-fotovoltaica-20201217131903.html

Francesc Aguilar, BUTRANSA Transport Manager, states ¨ replacing fossil energy imports by local production of green Hydrogen is exactly what Catalonia needs to achieve trade balance neutrality or even economic surplus."

Juan Conesa, CEO & founder of Grupo Primafrio: "The ecological transition is today more than ever a step needed to stop the climate change and integrate the zero-emission logistics in our daily life. Green Hydrogen is the best opportunity human being met in the history to guarantee and preserve our next generation life and biodiversity".

Where to find Hydrogenizing BCN:

Hydrogenizingbcn.com

Hydrogenizingbcn.es

Hydrogenizingbcn.cat

Hydrogenizingbcn.eu