

HyLAW



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Fundación Hidrógeno Aragón

HyLAW
Hydrogen law



22/05/2019
Huesca, Ely4Off & Elyntegration WS

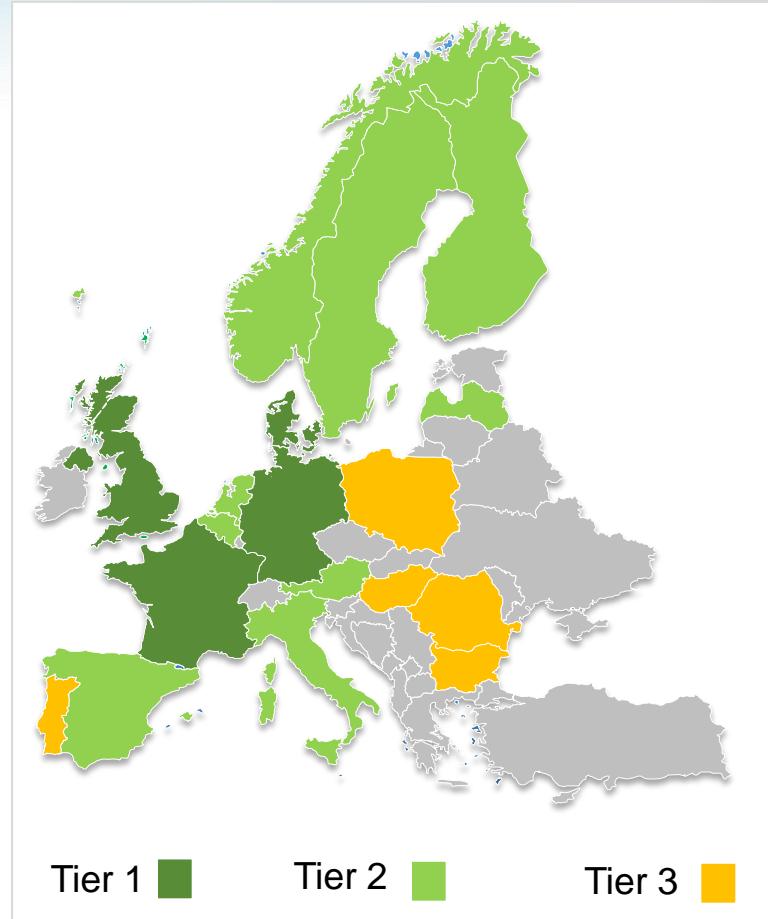
The HyLAW project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 737977. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme, Hydrogen Europe and Hydrogen Europe Research



Grant Agreement No 737977

Welcome to HyLAW

- Start: 01/01/2017
- End: 31/03/2019
- Coordinator:  Hydrogen Europe
- 23 members of 17 countries
- Países agrupados por nivel de desarrollo:
 - Tier 1 : FCH front running countries
 - Tier 2 : FCH fast following countries
 - Tier 3 : FCH emerging countries



Tier 1



Tier 2



Tier 3



Hydrogen Production with Electrolyser



Hydrogen Production

H₂ production directives designed for large scale emission emitting industrial processes

- Linked with Chemical Industry.
 - Automatically categorized as industrial process.
 - Same requirements for electrolysis or SMR
 - Same requirements for any scale of production
- An electrolyser can only be placed on industrial soil

Hydrogen production is restricted to industrial zones

Lack clarity
EIA, SEA, IED,
SEVESO Directives

Emitting and
Non-Emitting prod"

Definition of
"industrial escale"

Photovoltaic field
Urban Gas Station
Storage of energy in buildings

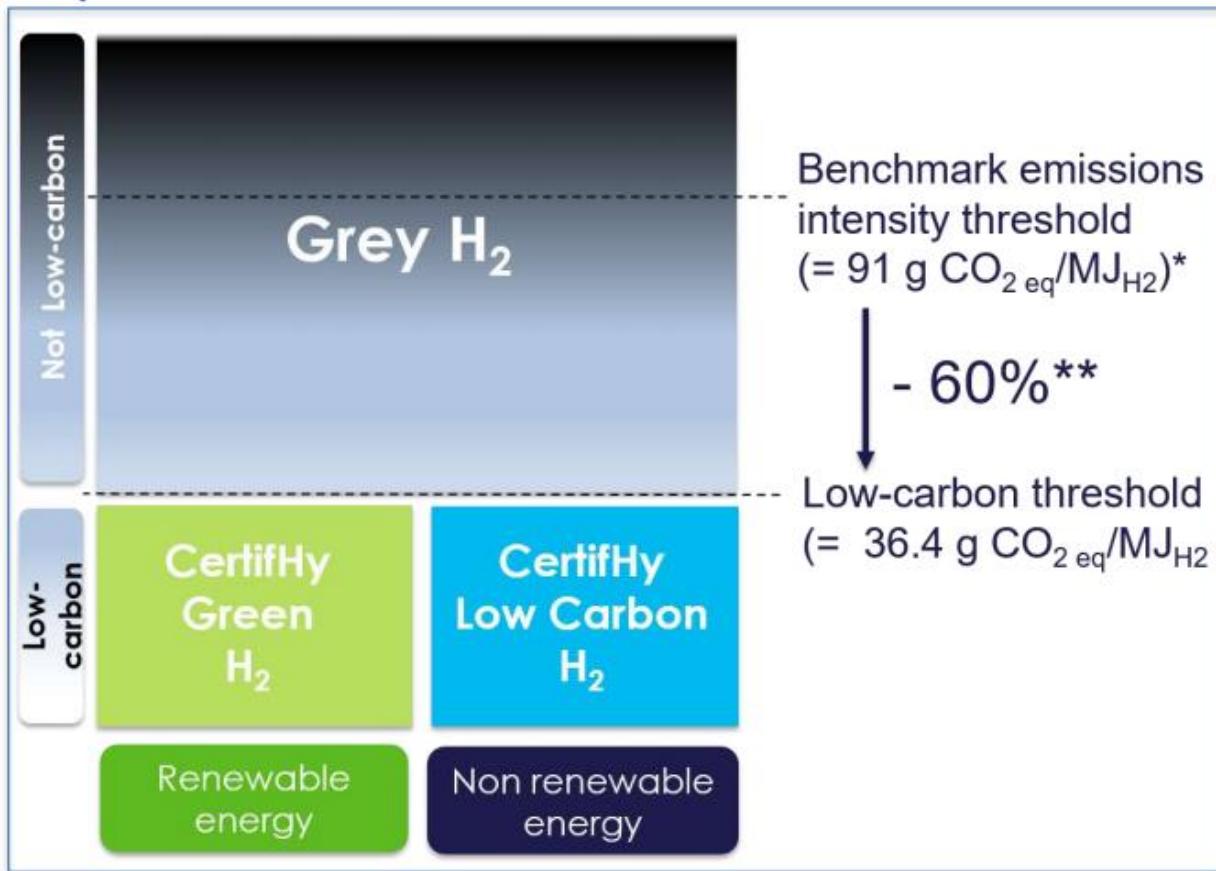
→ IED environmental requiremementes irrespective of the production method, scale or final use

Small HRS same processes as Wind Farm of 50 MW

Hydrogen Guarantee of Origin

The need to promote Green Hydrogen

- Need to certificate the carbon intensity of H₂
 - Similar to electricity



2. Estaciones de Repostaje de Hidrógeno

Existe un problema con la certificación de calidad del hidrógeno como combustible

- El RD 639/2016 establece la ISO 14687-2:2012 como una **norma armonizada vinculada legalmente** a las ERH.
- La ISO 14687-2 establece el límite en la concentración de contaminantes presentes en el hidrógeno.
- 8 equipos de medición distintos son necesarios para establecer la concentración de los 14 contaminantes especificados por la ISO (precisión orden ppm y ppb).

METROHYVE

- **Ningún laboratorio de España**, y pocos del mundo son capaces de certificar la calidad del hidrógeno según la ISO.
- Sin embargo esta norma es de obligado cumplimiento desde el 18 de noviembre de 2017.

Power to Hydrogen

EU plans to go 100% renewable in 2050

- 60% renewable penetration and beyond requires smart grid management and energy storage
- All storage technologies will participate in:
 - Daily storage
 - Seasonal Storage
- Need of FIRM POWER that renewables cannot provide

Electrolysers can absorb renewable curtailment for longer periods and increase penetration of intermittent renewables

- Hydrogen production needs a recognition as energy storage
- Electrolyser can take part of the smart manageable demand
- Electrolyser can offer grid services (frequency, stability...)

Muchas gracias por su atención

Turno de preguntas

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