HyLAW - Hydrogen Law and removal of legal barriers to the deployment of fuel cells and hydrogen applications

HyLAW
Hydrogen law

Dennitsa Nozharova

German Hydrogen and Fuel Cell Association

11/10/2017

f-cell and BATTERY+STORAGE, Stuttgart

DWV
Deutscher Wasserstoff- und Brennstoffzellen-Verband

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

Despite technologies progress, legal & administrative processes hamper the uptake of FCH technologies in Europe

Today: Increasing deployment and appetite for fuel cells and hydrogen (FCH) technologies across Europe: more products, better performance, reduced cost.

BUT :

- Existing regulatory legal framework e.g. planning, safety, installation, operation – often only reflects conventional technology and is therefore insufficient

→Non adapted regulations - additional costs and time, resource intensive… for ex. permitting requirements to install a hydrogen refuelling station in most European countries

→This represents a barrier to scale up fuel cell and hydrogen deployment

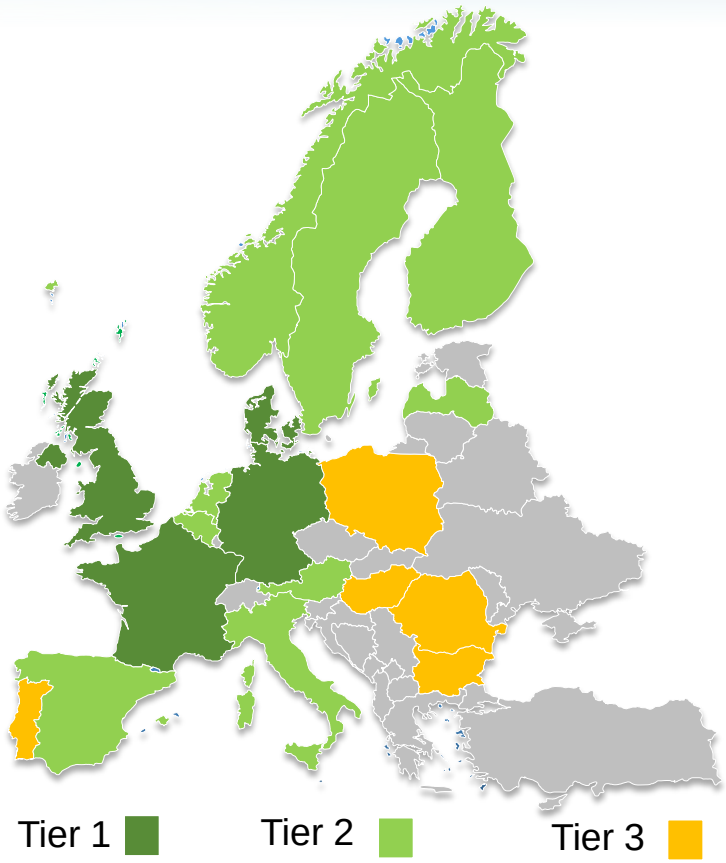
The project HyLAW aims at tackling these barriers and unlocking market opportunities

- HyLAW stands for Hydrogen Law and removal of legal barriers to the deployment of fuel cells and hydrogen applications
- The project started in January 2017 and will end in December 2018
- The main objectives of HyLAW are twofold:

Policy	Market
Advocate for better regulation to support the uptake of fuel cell and hydrogen technologies and remove legal barriers	Boost the market uptake of fuel cell and hydrogen technologies providing market developers with a clear view of the applicable regulations

A solid coalition of partners is in place to achieve these objectives with a wide geographical coverage

- Consortium of 23 partners from 18 countries across Europe
- Coordinator: Hydrogen Europe
- Countries gathered by clusters:
  - Tier 1 : FCH front running countries
  - Tier 2 : FCH fast following countries
  - Tier 3 : FCH emerging countries



HyLAW partners and associatied parties

Industry Support Group

nel · ITM POWER Energy Storage | Clean Fuel · convion · sunfire · Symbio · Air Liquide · eps · HYDROGENICS · PM PROTON MOTOR · FuelCell Energy Solutions Ultra-Clean, Efficient, Reliable Power · ALSTOM · THE LINDE GROUP · mcphy.com · HIGHVLOCITY · telligence · SOLID POWER

Relevant demonstration projects

CHIC · NewBusFuel · ZERO EMISSION · Hydrogen Infrastructure for Transport · H2moves.eu SCANDINAVIA · HyLIFT · H2TRUST · PACE · ene.field · DonQuichote

National stakeholders including industry players, research institutes etc.

HyLAW key steps and outputs

Methodology:

Identification of:

- Categories of applications
- Applications
- Legal and administrative processes

Relevant for fuel cell and hydrogen technologies

Including definitions

National work in 18 countries

Identification of national legislation and regulations relevant to FCH applications and legal barriers to their commercialisation

EU benchmark

Identification of EU legislation and regulations relevant to FCH applications and legal barriers to their commercialisation

National policy papers

National dissemination workshops

EU policy paper

EU-wide dissemination workshop

Influence of EU and national legal and administrative processes

Online database

collecting all legal and administrative processes across 18 countries, publically available

Where are we today? A solid methodology in place

- A methodology has been developed with the following categories of applications have been identified:

Categories of applications
1. Production of hydrogen
2a. Stationary Storage (Gas / Liquid / Metal Hydride)
2b. Long-term storage (Underground)
3. Transport and distribution of hydrogen
4. Hydrogen as a fuel and refueling infrastructure for mobility purposes
5. Vehicles
6. Electricity grid issues for electrolysers
7. Gas grid issues
8. Stationary power; fuel cells (other issues than gas grid and electricity)
9. Introduction of green hydrogen in Industry

The methodology is in place

- Identification of applicable legislation at European and at national level is done in Germany, France, Denmark and UK
- Identification (collection) is under way in other countries
- Each regulatory process is described through the automated legal information sheet (LIS)
- Each legal information sheet (LIS) has the following structure :
  - Definition
  - Descriptive part/fact sheet (Q&A)
  - International, EU and national legislation review
  - Assessment part and Comparable technologies

The standardised LIS will build the basis of the database

- The template of the first part of a legal and administrative process information sheet is provided below as an example (empty)

Country	**Select a country!**
Date of last edit	3-8-2017 16:28

Hydrogen Application	
Category	Production of hydrogen
Application	Centralised Electrolysis, Steam-Methane reforming, and H2 liquification
└ Definition:	Centralised production of hydrogen is the production of hydrogen at one location, in quantities to cover the needs of hydrogen over a relatively large geographic area for a relatively large number of points of use, implying hydrogen transportation.

Description: LAP		
LAP	LAP 1: Land use plan (zone prohibition)	
└ Definition	Land-use planning is the general term used for a branch of urban planning encompassing various disciplines which seek to order and regulate land use in an efficient and ethical way, thus preventing land-use conflicts. Governments use land-use planning to manage the development of land within their jurisdictions.	
	GUIDANCE COLUMN	**ANSWER COLUMN** *(answer in fields below)*
Type of LAP	[Select the applicable aspect(s) related to the legal administrative process] Can probably be done centrally (could be the same in all countries) depending on if there is a European LAP **Definitions**: *Substantial Requirement:* Substantial legal-administrative requirement based on a particular characteristic of the FCH application: type approval, quality requirements etc. *Process (for the deployment of fuel cell hydrogen):* One of the necessary functional procedures necessary to deploy a FCH technology such as permitting license, permission for grid connection. A process is described by a sequence of process steps (which may either be of administrative or non-administrative nature) e.g. with the permitting process. The process usually can be quantified in time and costs Process steps: a step is one of sequential succession of actions that need to be executed, in order to satisfy the legal administrative and other requirements of the process.	☐ Substantial requirement ☐ Process ☐ Other: └ Click here to enter free text
LAP description (questions)	Question 1 a - What are the main regulations/requirements regarding land use plans for building a hydrogen production facility (e.g. permitting regime, agreement)? b - Are there specific requirements or zone prohibitions for building a hydrogen production facility in the land use plans?	a – Click here to enter free text b – Click here to enter free text

Definitions

Type of legal and administrative process

Description Q&A

Next steps

- Identification of applicable legislation at national level in each of the 18 countries (by December 2017)
- Analysis of information, country benchmarks (by June 2018)
- Set up of recommendations, dissemination workshops and launch of the web portal/database (by December 2018)

Thank you for your attention!

HyLAW
Hydrogen law

Dennitsa Nozharova
hylaw@dwv-info.de
+ 152 213 32771

DWV
Deutscher Wasserstoff- und Brennstoffzellen-Verband

FCH
FUEL CELLS AND HYDROGEN JOINT UNDERTAKING

Grant Agreement No 737977