

**H2FUTURE**

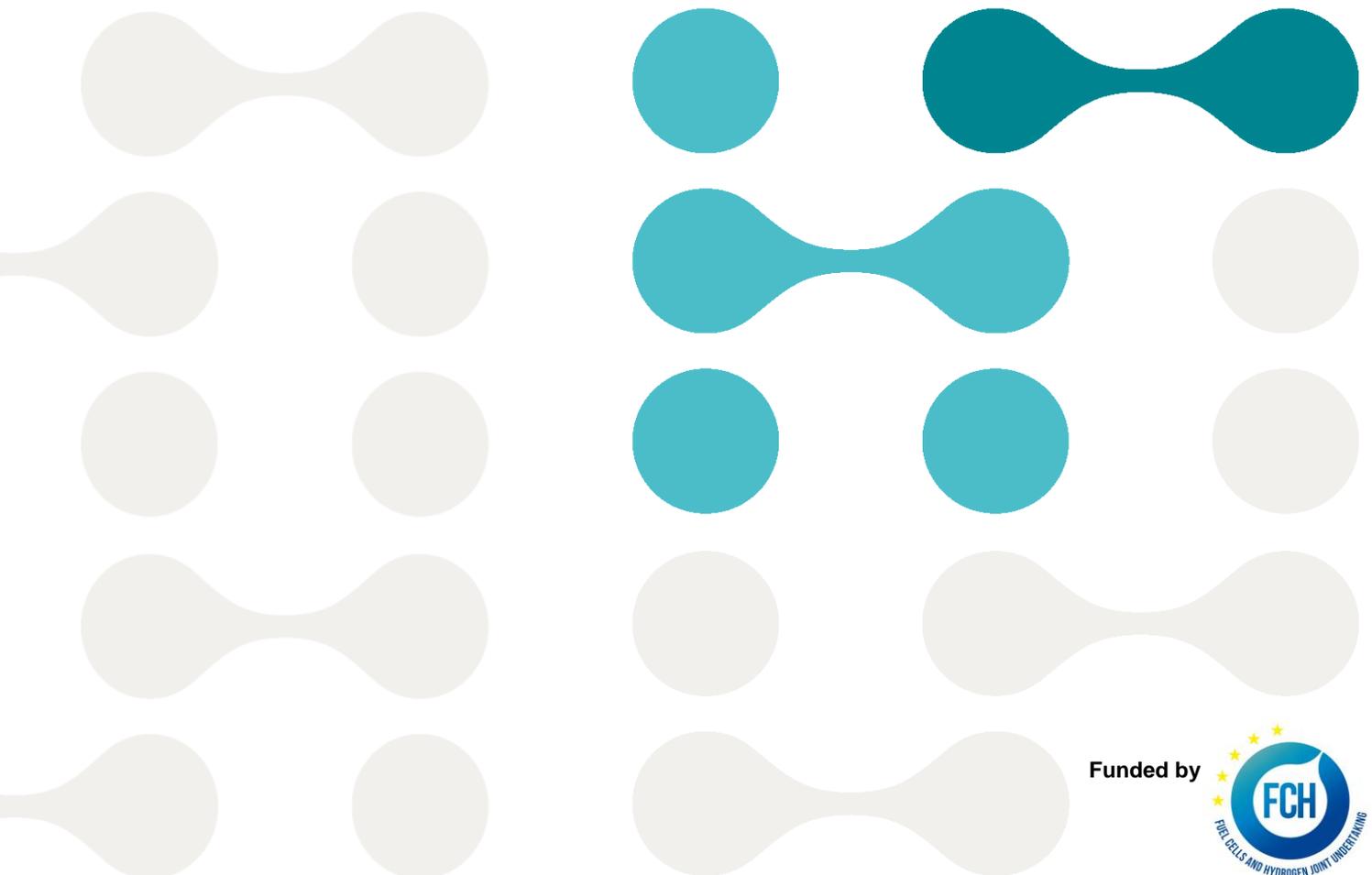
Green Hydrogen

## **Work Package 10.7**

Workshops with ACER / CEER

Workshop on Regulatory Challenges to Provide for Sectoral  
Integration through Hydrogen

V0.4



## Document Information

<b>Deliverable Title</b>	Workshop with Regulatory Body at National and European Level
<b>Number of the Deliverable</b>	D10.7
<b>WP/Task related</b>	WP10.7
<b>Distribution/Confidentiality</b>	RE Restricted to a group specified by the meeting participants for the first WS, broader publicity for 2 <sup>nd</sup> WS
<b>Status and Version</b>	finalVersion 0.4
<b>Number of Pages</b>	2 pages
<b>Person Responsible for Document</b>	Eva Maria Plunger – VERBUND Solutions GmbH Martin Brunner – VERBUND AG
<b>Author(s)</b>	Martin Brunner – VERBUND AG



This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 735503. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and Hydrogen Europe and N.ERGHY.

## Revision History

Version	Date	Author / Reviewer	Notes
0.1	31/12/2017	Eva Maria Plunger	First draft
0.2	31/12/2021	Martin Brunner	second Version
0.3	06.01.2022	Martin Brunner	third Version
04	28.01.2022	Martin Brunner	Final version

## Table of Contents

Document Information.....	2
Revision History.....	3
Table of Contents.....	4
1 Introduction.....	5
1.1 The H2FUTURE Project.....	5
1.2 Scope of WP10.7 - Dissemination activities to reach regulatory bodies at national and European levels.....	5
1.3 Cooperation with R&D and innovation projects.....	5
2 ACER / CEER Workshop 1 - Workshop on Regulatory Challenges to Provide for Sectoral Integration through Hydrogen.....	6
2.1 Programme.....	7
3 CEER/ACER Workshop 2 - Green Hydrogen for Industry – Regulatory Workshop 2021.....	8
3.1 Programme.....	9
4 Conclusions.....	10

# 1 Introduction

## 1.1 The H2FUTURE Project

As part of the H2FUTURE project a 6 MW polymer electrolyte membrane (PEM) electrolysis system will be installed at a steelworks in Linz, Austria. After the pilot plant has been commissioned, the electrolyser is operated for a 26-month demonstration period, which is split into five pilot tests and quasi-commercial operation. The aim of the demonstration is to show that the PEM electrolyser is able to produce green hydrogen from renewable electricity while using timely power price opportunities and to provide grid services (i.e. ancillary services) in order to attract additional revenue.

Subsequently, replicability of the experimental results on a larger scale in EU28 for the steel industry and other hydrogen-intensive industries is studied during the project. Finally, policy and regulatory recommendations are made in order to facilitate deployment in the steel and fertilizer industry, with low CO<sub>2</sub> hydrogen streams also being provided by electrolysing units using renewable electricity.

## 1.2 Scope of WP10.7 - Dissemination activities to reach regulatory bodies at national and European levels

The market potential of the project outputs may most probably require novel regulations which favour the increased use of hydrogen as a reducing agent in the steel industry, and therefore facilitate replication of the solutions demonstrated in Austria within other Member States of EU28. The aim of the first workshop with TSO 2020 was to inform about the barrier removal which is anticipated by the consortium to favour the approach promoted by the demonstration. In the second workshop (due to COVID virtually held) the aim was to inform the designated participants about learnings and recommendations derived by the project within the balancing market, certification of green gases and possible repurposing of gas grids.

## 1.3 Cooperation with R&D and innovation projects

Besides the H2FUTURE project challenges and learnings, that will be addressed in dedicated workshops with regulatory bodies, the H2FUTURE consortium has striven to cooperate with other EC funded projects to leverage synergies regarding stakeholder communication.

For the first workshop, H2FUTURE cooperated with TSO2020 - Electric “Transmission and Storage Options” along TEN-E and TEN T corridors for 2020, a Connecting Europe Facility (CEF) funded project, under the first CEF Synergy Call in 2016.

The second workshop was held under the patronage of CEER with special focus on Green Hydrogen for Industry.

## 2 ACER / CEER Workshop 1 - Workshop on Regulatory Challenges to Provide for Sectoral Integration through Hydrogen

### Timeline & Cooperation

The workshop was held in December 2017 as part of the H2FUTURE work package 10 (Dissemination & Communication) & in Cooperation with the EC CEF funded innovation project TSO2020.

### Venue

The workshop was held in Brussels at the CEER offices on 14<sup>th</sup> December 2017

### Setting

It was a three hours workshop with focus on discussion of challenges.

### Participants

Experts from national regulatory authorities (NRAs) / CEER Gas Working Group / ACER, project partners (H2FUTURE: VERBUND, APG), project officer H2FUTURE at FCH JU, TSO2020 project, Hydrogen Europe.



Picture: participants of the 1<sup>st</sup> regulatory WS

## 2.1 Programme

- 09:00-09:10: Welcome by H2FUTURE project coordinator VERBUND
- 09:10-09:25: NRA / CEER /ACER incl. brief introduction of organisation
- 09:25-09:45: H2FUTURE Project at a glance
- 09:45 -09:50: TSO2020 at a glance
- 09:50-10:00: Q&A session on projects
- 10:00-11:45: Moderated discussion on challenges / learnings from the Hydrogen projects:

Sectorial integration as a leverage for electrification of the energy system: How can decentralised technologies help to overcome the bottleneck between RES production, grid limitations and integration? Are decentralised storage systems and power to X technologies a solution for energy systems of the future?

Decarbonisation: Integration of RES into the electricity and gas sector: What is the view of NRAs /ACER / CEER regarding policy recommendations / work programmes / time frame?

Looking into the future: Could a roll-out of decentralised technologies (like storage, electrolyzers) influence network planning and investments into new grid projects? Which role plays “location” (i.e.location of local storage, location of hydrogen production) in this case?

Which role plays “location” (i.e. location of local storage, location of hydrogen production) in this case?

Would a closer cooperation between gas and electricity PCIs help to speed up deployment of innovative projects? What is the role of ACER / CEER here?

Certification of Green Hydrogen: What are the main drivers for sustainable business models? How can Certification leverage Green Hydrogen production and business models? What is the role of Regulators here? Which regulatory framework is needed to support Green Hydrogen business cases?

Which bodies are key to ensure that future developments in performance and cost reduction are taken into account in network planning: is there a need for a regular dialogue platform?

- 11:45-12:00: Closing remarks by ACER, TSO2020 and H2FUTURE

The workshop moderated by Walburga Hemetsberger, Head of VERBUND AG Brussel’s Office (for this period of time) and NRA/CEER

## 3 CEER/ACER Workshop 2 - Green Hydrogen for Industry – Regulatory Workshop 2021

### Timeline and Cooperation

Originally, the second workshop was planned for spring 2020 – it was the first event that had to be cancelled due to COVID. VERBUND and all participating partners tried to find a possibility to hold the originally planned workshop (in presence) but as planning got more and more uncertain and all participating partners became more and more uncertain how to hold a safe event the final, mutual decision was to cancel the event.

But time and (IT specific) learnings got on and so the project was able to hold the fully virtual second workshop in February 2021. Due to technical improvements and possibilities this workshop could be watched by much more interested participants.

### Venue

The program was hosted by CEER as a “Gotowebinar” online.

### Setting

The virtual workshop was set for a 2,5h time slot as experience showed the longer virtual workshops tend to fatigue and loses interested listeners. The workshop started at 0900h and lasted till 1130h on February 11<sup>st</sup> 2021.

### Participants

The workshop was announced by CEER on the internet and advertised through the various possibilities of the project partners. More than 170 participants were registered. Participants came from all over Europe.

The workshop was co-moderated by Vladimir Mijatovic – head of VERBUND’s office in Brussels and Markus Krug, deputy head of Gas Department of E-Control Austria.



Picture: Screenshot shows start of the workshop

### 3.1 Programme

#### “Green Hydrogen for Industry – Regulatory Workshop” by VERBUND in cooperation with ACER and CEER

##### Welcome and Introduction

##### Electrolysers in balancing markets

- Presentation of H2FUTURE findings on using an electrolyser in the Austrian balancing market by Andreas Eichhorn, VERBUND
- Intervention and European context by Mathieu Fransen, ACER
- Q&A

##### Certification of green gases

- Presentation on an approach towards certifying gases in Europe by Katrien Verwimp, Association of Issuing Bodies (AIB)
- Case-study presentation of H2FUTURE experience in certifying renewable hydrogen by Robert Paulnsteiner, VERBUND
- Q&A

##### Beyond on-site production of hydrogen: repurposing of gas grids

- Introduction and European context by Riccardo Galletta and Juan Lopez Vaquero, ACER
- Repurposing from the operational perspective by Erich Lugbauer, Gas Connect Austria (GCA)

- Q&A

Every participant received a certificate after attending the workshop.



# CERTIFICATE

PROUDLY PRESENTED TO

*Martin Brunner*

VERBUND H2Future Green Hydrogen for Industry -  
Regulatory Workshop

Feb 11, 2021

Date of Completion

*Andra Banea*

Organizer



A recording of the workshop can be found at the following internet address.

[https://www.ceer.eu/web/portal/green\\_hydrogen\\_for\\_industry - regulatory\\_workshop](https://www.ceer.eu/web/portal/green_hydrogen_for_industry_-_regulatory_workshop) (18.01.2021)

## 4 Conclusions

In addition to the two large workshops, there was a large amount of smaller events and meetings with regulatory authorities. Above all, the VERBUND public affairs department with its own office in Brussels was in regular exchange throughout the project. The two large events received extraordinarily positive feedback both from the participants and from the project office in Brussels. The knowledge gained and the experience gained from the project could be passed on in many different ways. VERBUND and the project partners have made every effort to spread the learnings to all stakeholders.