

AGENDA and WORKSHOP SUMMARY
WORKSHOP EUROPEAN COMMISSION – HYDROGEN EUROPE
ETS INNOVATION FUND
30.09.2019 – BRUSSELS

AGENDA

11:00 - 12:25: Introductory presentations

- Introduction and overview of all industry projects (Hydrogen Europe)
- A Clean Planet for all, A European strategic long term vision for a prosperous, modern, competitive and climate neutral economy (DG Climate Action)
- Innovation Fund, Ner 300 History Presentation (EIB)
- Q&A

12:25 - 13:10: Presentation of Hydrogen Sector's projects – part 1

- H2V NORMANDY, H2V 59 (H2V Industry)
- H-Vision (TNO)
- Green Steel (Paul Wurth S.A.)
- H2Magnum (Equinor)
- GetH2 (Nowega GmbH, REW Generation SE)
- Q&A

13:10 - 14:10: Lunch

14:10 - 14:55: Presentation of Hydrogen Sector's projects – part 2

- NorskFuelsAlpha (Sunfire)
- Hybrid Steelmaking (Voestalpine)
- LOHC Industry Transformation (Hydrogenious)
- HySynGas (Vattenfall, ARGE Netz)
- Q&A

14:55 – 16:30: Discussion

- Presentation of survey results and exchange on key issues for the 1st EU ETS Innovation Fund Call (Hydrogen Europe)

SUMMARY

After welcoming all the workshop participants and European Commission (EC) and the European Investment Bank (EIB) representatives, Hydrogen Europe presented an overview of the pipeline of 'hydrogen' projects being developed by industry across Europe. At this stage Hydrogen Europe has gathered information about a total of 38 projects with a total budget of EUR 3.2–4.4 Billion, with at least 20 mature enough to be able to compete for funding in the 2020 IF call. There is a broad range of projects – starting from mass scale hydrogen production using renewable energy, through hydrogen distribution projects, power-to-X and decarbonization of industry and or mobility sectors using renewable or low-carbon hydrogen.

Mr Christian Holzleitner, Head of Unit, DG Climate Action (DG CLIMA) presented essential elements of the Innovation Fund (IF) which are currently being developed. The fund is supposed to accelerate market entry of low-carbon technologies and is aimed at renewable energy generation, energy intensive industries, CCS and CCU and Energy Storage – all of which can be coupled with use of hydrogen.

Mr. Roland Schulze, European Investment Bank (EIB), presented the EIB's historic role in the NER300 programme. As EIB is actively supporting DG CLIMA in the preparation of the ETS Innovation Fund, Mr. Schulze shared some of EIB's experiences regarding the evaluation process of NER 300 project proposals.

Companies developing demonstration projects that involve hydrogen as an energy vector presented 10 projects looking for funding from the ETS Innovation Fund.

The meeting concluded with a presentation of a survey conducted among the hydrogen sector industry members about their expectations regarding the ETS Innovation Fund and a discussion about key issues and challenges for the sector, such as selection criteria definition, including the methodology to calculate and verify avoided GHG emissions, definition of degree of innovation, approach to evaluate maturity of projects, the concept of additional costs, PDA and knowledge-sharing issues.

All the slides presented are provided in the attachment.

KEY MESSAGES and ISSUES RAISED

- The first call is scheduled for the second part of 2020. The size of the call will be dependant on ETS CO2 emission allowances price. In total, the Innovation Fund is endowed with at least 450 million European Emission Allowances (EUA) over 10 years. At current prices the total size of ETS Innovation Fund can be estimated at EUR 10 billion.
- The total possible funding will be fixed at 60% of additional costs related to the innovative technology. Additional costs may be seen as extra costs borne by the project proponent as a result of the application of the innovative technology related to the reduction or avoidance of greenhouse gas emissions, compared to a reference technology. Additional costs will be calculated during the funding application process based on currently available benchmark technologies and will not have to be updated over the course of the projects duration.
- Up to 40% of total support may be provided before financial closure of the project with the remaining 60% dependant on reaching agreed milestones and being able to prove declared CO2 emission reductions.
- For hydrogen production SMR without CCS is seen as a benchmark.
- Certificates of origin for electricity consumed for hydrogen production will alone not be sufficient to prove CO2 emission reductions when using grid electricity. Direct connection to a renewable source or PPA with a RES will be needed.
- Given a possible complex nature of some hydrogen sector projects, especially those concerning coupling of different sectors, a methodology for estimating GHG emission reduction potential should be developed and should be based on life-cycle assessment.
- There needs to be flexibility in assessing projects based on the maturity criteria as very complex projects may require different development path
- No specific technologies have been pre-defined as preferred or ineligible – all technologies will have to compete with each other based on the 5 selection criteria. Although the call may be separated into sub-calls divided by end-use application that is supposed to be targeted for decarbonisation with separate funds allocated to each.

NEXT STEPS

DG CLIMA carries on conducting ETS IF workshops with Member States.

At the same time DG CLIMA will also hire an external consultant who will be tasked to support DG CLIMA in the preparation of the first call for proposals. Results of the work done by the consultant will be shared with the IF expert group.

Hydrogen Europe will provide DG CLIMA with detailed answers to the questionnaire, together with a list of contacts in companies potentially interested in funding their projects with ETS Innovation Fund and that are willing to be interviewed by the consultant over the course of 4th quarter of 2019.

ATTENDEES

First name / second name	Company
Dubois / Charline	Air Liquide
Björn Spiegel	ARGE Netz GmbH & Co. KG
Nana Fujishiro	Asahi Kasei Europe GmbH
Ing. Marcel Podolak	Bioway Ltd
Gjalt Annega	Deltalinqs
MARIA JAEN	ENAGÁS, S.A.
Han Greijn	Energy Technologies Europe
Rose de Lannoy	ENGIE
Olav Aamlid Syversen	Equinor ASA
Natalia Plaskiewicz	Eurelectric
Pedro Guedes de Campos	FCH2 JU
Dennitsa Nozharova	German hydrogen and fuel cells association
Paolo Guglia	Fincantieri
Philippe Boulanger	H2V INDUSTRY
Thomas Winkel	HINICIO
Berthold Melcher	Hydrogenious LOHC Technologies
Dr. Peter Haider	Linde AG
Bastian Gerstner-Riewer	Mitsubishi Hitachi Power Systems Europe
Zoe Buyle-Bodin	Normandy Region/European Hydrogen Valleys S3 Partnership
Christian Schröder	Nowega GmbH
Björn / Rösner & Horst / Kappes	Paul Wurth S.A.
Robert Steinberger-Wilckens	PLANET GbR
Mathilde CADIC	Région Auvergne-Rhône-Alpes
Lauriane Larquey	Royal Dutch Shell
Lisa Willnauer (will present the project GET H2 together with Christian Schröder)	RWE Generation SE
Tschinke / Philipp	Salzgitter AG
Francis Masson	Shell
Steffen / Møller-Holst	SINTEF
Sigmund Størset	SINTEF
Mara Bubberman	SNN (Northern Netherlands Alliance)
Quinty Cancian	SNN/Strong Northern Netherlands

Julia Kaufhold	Sunfire
Carl Berninghausen	Sunfire
Zandonà Nicola	Symbio
Robert de Kler	TNO
Ambroise Feydeau	Total
Baktash Nasiri	Uniper
Joana Stirnberg	Vattenfall AB
Oliver Weinmann	Vattenfall Europe Innovation GmbH
Eva Maria Plunger	VERBUND AG
Markus Steinhäusler	Voestalpine AG
Oscar Manna	DG Climate
Christian Holzleitner	DG Climate
Manuel Sainz	DG ENER
Christian Weinberger	DG GROW
Roland Schulze	EIB
Alexandru Floristean	Hydrogen Europe
Nicolas Brahy	Hydrogen Europe
Grzegorz Pawelec	Hydrogen Europe