

Waterstof Industrie Cluster: Minutes meeting 02/06/2021 (digital meeting)

Present in the call:

Nick Valckx	Agfa	Marc Vanderschueren	OCAS
Christophe Galimont	Air Liquide	Gertjan Wauters	Perpetum
Tijl van Crieelingen	Air Liquide	Devon Hyver	Plug Power
Edward Van de Steen	Air Products	Koen Van den Brande	Polders Investeringsfonds
Frank Schnitzler	Air Products	Esther Biermans	POM Antwerpen
Roger De Vos	Atlas Copco	Myriam Rebahi	POM Antwerpen
Hans Magits	Atlas Copco	Rob Cornelissen	POM Limburg
Wouter Koster	Ballast Nedam	Guido De Roo	POM West-Vlaanderen
Adrien Theunissen	Besix	Maxime Peeters	Port of Antwerp
Daniel Van De Gucht	Besix	Gilles Decan	Port of Antwerp
Edward Van de Steen	Capgemini Engineering	Maarten Van Haute	Q8
Jonas Cautaerts	Colruyt	Georges Leysen	Sea Tank Terminal
Sébastien Piret	Colruyt	Luk Wuyts	Sea Tank Terminal
Ludo Sweron	Colruyt	Mark Philips	SGS
Koen De Clerq	Colruyt	Martijn de Neef	SGS
Johan De Clippeleir	Covess	Erik Teerink	SGS
Tony Vanswijgenhoven	Covess	Wim Van Den Mosselaer	Siemens Energy
Alexander Jordaens	Deme	Frank Taelman	Siemens Energy
Sofie Marivoet	De Vlaamse Waterweg	Johan De Blicck	Siemens
Lynn Eyckmans	De Vlaamse Waterweg	Jean-Marc Chamberland	Solvay
Thomas Cools	Eneco	Johan Dekervel,	Total
Koen VLAEMINCK	Engie	Karl Elen	Total
Wouter van der Laak	Everfuel	Vincent Mattelaer	Toyota Motor Europe
Jan Van Den Bulcke	Fluxys	Henry Wattel	Toyota Belgium
Herman Van Damme	G&V	Jean-Paul MOSSOUX	Tractebel
Kitty Geens	G&V	Dimitri VAN DEN BORRE	Tractebel
Ferdi van den Brûle	Hima	Ruud Bouwman	VDL
Raymond Daems	Hitachi-ABB	Jeremy Vandermeeren	Verwater
Stefan van der Spek	Hyzon Motors EU	Peter Simkens	VKI
Pieter Jacqmaer	Infrabel	Jan Vliegen	WN
Katrien Ver Elst	IOK	Davine Janssen	WN
Wouter Bleuckx	Inovyn	Isabel François	WN
Amain Hanneuse	Inovyn	Adwin Martens	WN
Olivier Ulrici	John Cockerill	Samira Farahani	WN
Roland Hequet	John Cockerill	Yannick Van den Broeck	WN
Rick Claus	Linde		
Pieter den Hooglander	Linde		
Lesya Nadzon	Linde		
Kristof Vanhoorne	Luminus		
Paul Schroé	MBZ		

Agenda:

10 – 10.40 AM : Presentation new members: Bureau Veritas, Ziero, Inovyn, SEA Tank Terminal, John Cockerill, Air Products

Hydrogen in logistic& transport applications

10.40 – 11.00 AM : Powering the future@ Plug Power (Devon Hyver)

Hydrogen in heavy duty

11.00 – 11.20 AM : Hydrogen developments in the Netherlands (Jörg Gigler)

General info

11.20 –11.40 AM: News from the cluster

11.40 –11.50 AM: News from cluster members

11.50–12.00 AM : Q&A

Presentation new members:

Bureau Veritas: Serge Teulings

Inovyn: Wouter Bleuckx

Ziero: Thomas Houben

Sea-Tank Terminal: Luk Wuyts

Air products: Frank Schnitzler

John Cockerill: Roland Hequet

Discussion/Q&A @ presentation Devon Hyver, Plug Power

Devon gives an overview of all the products that have been/are developed at Plug Power.

Plug Power has a very broad range of products. Their activities have been focused on PEM fuel cells for more than 20 years, but they are expanding their activities over the whole value chain including H2 storage solutions (incl liquefaction), distribution and PEM electrolyzers.

Plug Power fuel cell applications are mostly in mobility (vans, buses, trucks, trains) and material handling applications (fork lifts, yard trucks), but also gensets up to 2MW are available.

Being a US company, Plug Power is also deploying six sites in Europe as well, with a.o. a service centre in Belgium near Antwerp.

Some questions that have been discussed:

Q: How about the fuel cell cost price evolutions in the past period?

A:

- The scaling up to 1,5GW capacity (facility available in 2021) will lead to a cost reduction of 50%, which will make the PEM fuel cells competitive with alkaline fuel cells.
- The main issue in the TCO of most applications is the cost of the hydrogen, rather than the investment cost of the equipment.

Discussion/Q&A @ presentation Jörg Gigler: Hydrogen developments in the NL

Jörg gives an overview of

- The National Hydrogen programme
- the National Growth Fund
- the National project overview

The National Hydrogen programme (to roll-out the coming 30 years) is currently developed by the “Cross sectoral working group on Hydrogen”, which represents the Dutch stakeholder community. The working plan for the NWP has to be delivered July 2021.

The documents developed by this working group are public and can be found on the website: www.nationaalwaterstofprogramma.nl.

The National growth fund will provide 338M€ subsidy for hydrogen projects. In a second application round this year another 500M€ will be requested for projects related to electrolyser scaling-up.

The national project overview contains +130 projects, distributed over the full value chain. Large consortia are involved with 300-400 parties involved. However, most projects still exist on paper, the next step should be taken now.

Some questions that have been discussed:

- What is the subsidy budget besides the investment budget since lending money is already cheap today?
A: Subsidies available: 30M€/year besides the growth fund. Also OPEX support for projects is made available.
- Regarding the NWP: Once the stakeholder groups have identified the needs and wishes, how will the programme be organised to realise these "right conditions"?
A: The organisation is still under discussion, no information can be given on this yet.
- Is there enough renewable energy production capacity available in the Netherlands or how do you justify using renewable energy to produce Hydrogen instead of direct electrification?
A: in 2030, 11,5GW of offshore energy will be available with a possible extension of 3GW. Solar energy is planned to be increased from 10GW to 40GW in 2030. The limiting factor for all this RE capacity is ability to feed the electricity into the grid. Hydrogen will provide the solution for that.
- How key is the implementation of REDII for the success of the program?
A: REDII is one of many instruments that we need to make hydrogen a success. One of the great opportunities regarding REDII is the use of green hydrogen in oil refineries as the effect on the price of the fuel is small. In this way you can create volume.

WIC/WaterstofNet news

- (New)member: 11 members joined the cluster since March 2021
- Status working groups shipping, policy, mobility and H2 for all.
- News from the governments FL-B-NL
- Feedback cabinet contactsFlanders
- Overview FL/BE/NL/EU funding available on the member portal!

- WaterstofNet will participate in Hyvolution 2021 in Paris on October 27-28. WIC members can join via a shared booth at reduced tariff (1500€): We are calling for candidates!

- Networking & meetings:
 - ✓ Meet & Greet, July1
 - ✓ Cluster meetings, next on September 8
 - ✓ WIC Webinar, next edition on September 30
 - ✓ Working visit Groningen (TBC) October 6 –7 –8
 - ✓ Conference in November (TBD)
 - ✓ Online event “Emerging offshore technologies: June 8-15-24”
 - Production of green electrons & molecules at sea” with Sirris & Agoria

News from the cluster members:

- Nick Valckx from Agfa presents the high performance Zirfon UTP membrane for the use in Alkaline electrolyzers, that with its low resistivity can lead to higher performance.
- Roland Hequet from John Cockerill comments on the announcement of the Hyve consortium (with IMEC, VITO, Colruyt, Deme, Bekaert), which will join forces on large scale hydrogen production technology development.
- Jonas Cautaerts from Colruyt comments on the collaboration agreement with VoltH2 for the construction of a 25MW H2 factory in Terneuzen.

No other remarks & questions...

Isabel François

June 2, 2021