



CEM Hydrogen Initiative Advisory Group online meeting

16 July 2020



Welcome and Introduction



Timur Gül
Head of the Energy
Technology Policy Division



Agenda (14:00-16:30)

- 14:00 Welcome and Introduction by the coordinator
- 14:05 An update from the CEM Secretariat: Vision and CEM11
- 14:15 Update from the Coordinator on recent hydrogen activities
- 14:20 CEM11 Side event
- 14:25 Update from participant countries
- 15:30 Hydrogen Initiative Work plan – recent and upcoming activities
- 16:25 Next Advisory Group meeting
- 16:30 End of H2I Advisory group meeting

An update from the CEM Secretariat: Vision and CEM11



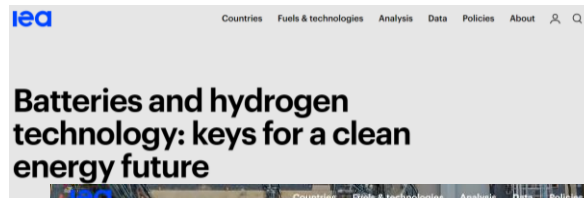
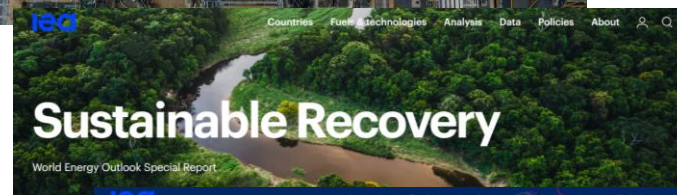
Dan Dorner
Head of the Clean Energy
Ministerial (CEM) Secretariat



Update from the IEA on recent hydrogen activities

Activities January – July 2020

- Commentary on batteries and electrolyzers in Covid recovery packages (May)
- Tracking Clean Energy Progress 2020 (June)
- World Energy Outlook Special Report on Sustainable Recovery (June 2020)
- Energy Technology Perspectives Special Report on Energy Innovation (July 2020)



IEA activities on hydrogen and plan for the next year

Activities July – September 2020

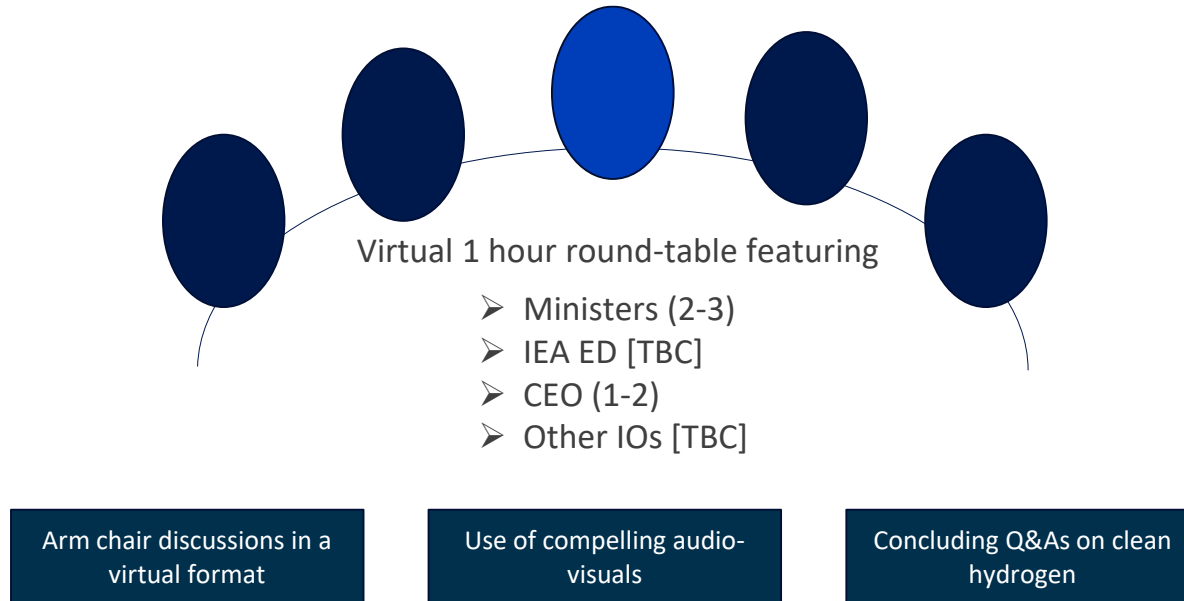
- Workshop between the IEA, EIB and HC financial needs of H2 in Europe (July)
- Workshops between IEA-HC-Wood Mackenzie on technology analysis (from September)
- G20 report – Hydrogen in the Carbon Circular Economy (September)
- Hydrogen Energy Ministerial (October 2020)
- Energy Technology Perspectives 2020 (Fall)

Side event at CEM11 [Proposal]

A high-level virtual side event at CEM11 focusing on the role of clean hydrogen in Covid-19 recovery

Discussion on the establishment of the role of hydrogen in long term energy strategy.

Strategic opportunity to set the Hydrogen agenda over the next few months



Update from the participating members



Update from the participating members



Canada's Domestic Update

A Hydrogen Strategy for Canada

- Significant focus on strategic partnerships, and export potential
- Regional blueprints under development
- Implementation Committee
- « Build Back Better »

Growing private sector interest

- Natural gas industry
- Electricity providers, Nuclear,
- Mass-transit agencies
- Ports

Building partnerships internationally

- Portugal – technology collaboration, large-scale production for export
- UK – natural gas pipelines, global standardization
- Germany – power-to-gas
- Japan – production, mass transit
- European Union – High Level Energy Dialogue
- Mexico

Work plan update and discussion

1	Establishing H2I in the international landscape	IEA
2	Developing a web presence	IEA
3	Global aspirational goals for hydrogen	<i>European Commission</i>
4	Twin City Program	IEA
5	Hydrogen to fuel	IEA
6	Strategic projects	<i>Multiple Inputs</i>
7	Biannual Hydrogen Report	IEA
8	Regional workshops	<i>The Netherlands</i>
9	Webinars	<i>Canada</i>
10	New Ideas (Sustainable Financing for Hydrogen)	IEA

1 Establishing H2I in the international landscape

International H2 Initiatives Coordination Call

Regular coordination calls to update among international initiatives – now a collaborative process



New work stream with **IPHE**, **H₂ TCP** and **Hydrogen Council**

Common calendar of events
Collaboratively managed

Month	Day	Event	Location	Lead
January	20	HC CEO Event	Versaille, France	Hydrogen Council
January	21	Hydrogen session @ World Economic Forum	Davos, Switzerland	World Economic Forum
February	2-5	CEM11/MI-5 Preparatory meeting	Riyadh, Saudi Arabia	CEM/MI
February	4-5	Hydrogen TCP Executive Committee	Paris, France	Hydrogen TCP
February	13	H2I Webinar/Workshop	Vancouver, Canada	CEM H2I and CEM NICE
February	26-28	FC Expo	Tokyo, Japan	
March	10	World Fuel Cells Conference	Amsterdam, the Netherlands	
March	18-19	HC Coordination Committee (incl. Session on Safety & Security)	Berlin, Germany	Hydrogen Council
March	23	WEF Hydrogen Workshop	Geneva, Switzerland	WEF
March	24-25	World Hydrogen Congress	Paris, France	
March	25	World Energy Council/UN Economic Commission for Europe	Geneva, Switzerland	(third party)
March	30-31	Australian Hydrogen Conference	Melbourne, Australia	(third party)
April (tbc)		Launch of global H2 awareness campaign	n/a	Hydrogen Council
April		WEF Community Meeting	Geneva, Switzerland	World Economic Forum
April	9	Energy Transitions Commission - Hydrogen expert workshop	Geneva, Switzerland	(third party)
June (tbc)		Hydrogen Council activity around 2020 Olympics	Japan	Hydrogen Council
June	14-17	World Electric Vehicle Symposium (EVS33)	Portland, US	
June	16-18	IPHE SC Virtual Meetings	Video Conferencing	IPHE
July	1	Accelerating Clean Hydrogen Initiative	Digital workshop	World Economic Forum
July	2-3	H2I Workshop - Scaling-up H2 in the North Sea region	The Hague, Netherlands	CEM H2I and IPHE
July	16	H2I Advisory Board		
July		Working level Board meeting - tbc	France	Hydrogen Council
September	tbc	ONS 2020	Stavanger, Norway	(third party)
September	1 or 2	CEO Board meeting in the margins of ONS 2020	Stavanger, Norway	Hydrogen Council
September	9-10	f-cell + HFC 2020	Vancouver, Canada	(third party)
September/October	tbc	H2View World Hydrogen Summit	Munich, Germany	(third party)
September (end)	tbc	Clean Energy Ministerial 11/Mission Innovation 5	Saudi Arabia	CEM H2I
September/October		Hydrogen Energy Ministerial Meeting 2020	Tokyo, Japan	(third party)
October	20-21	Wind Meets Gas in Groningen	Groningen, the Netherlands	(third party)
October		Hydrogen TCP Executive Committee	tbc	Hydrogen TCP
October/November	tbc	HC Coordination Committee	California, USA - tbc	Hydrogen Council
November		CEM H2I Advisory Group	tbc	CEM H2I

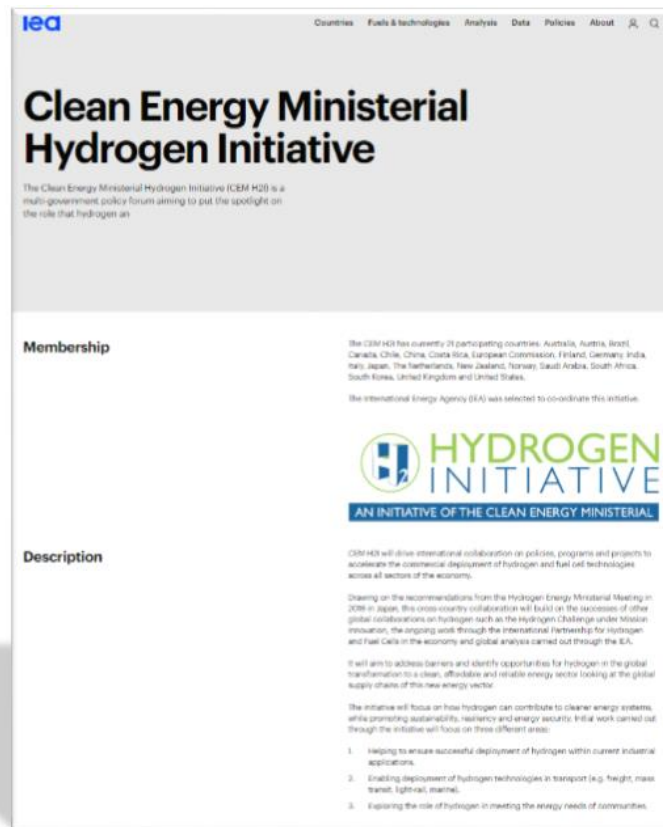
2 Developing a web presence

Just launched:

<https://www.iea.org/programmes/clean-energy-ministerial-hydrogen-initiative>

To evolve and improve in the coming months

Seeking feedback from members



2 Developing a web presence

Feedback and support from members

Sections	Current content	Content to add
Presentation	Name and mission	
Members	List of participants and coordinator	
Description	Background and high level objectives of the initiative	
Work plan	List of activities and leads	Subpages for each activity: leads, participants, description, objectives , updated
Events	List of past events: Webinar Hydrogen- Nuclear	Forthcoming events
Publications	The future of hydrogen IEA commentary on batteries and electrolyzers	Biannual report, Other Analysis from IEA (articles, commentaries)
Relevant links	CEM IEA Tracking Clean Energy Progress - Hydrogen	

3 Global Aspirational goals for Hydrogen



Dr Tudor Constantinescu
Principal Adviser to the
Director General for Energy
European Commission



4 Twin city programme (no lead)

Participants that expressed interest to lead the activity had not been confirmed as leads

Objective:

- Identify and showcase cities/communities that are well positioned to become global leaders on clean hydrogen

IEA identified a series of potential cities:

- Leeds, United Kingdom (H21 Programme)
- Pohang/North Gyeongsang province, South Korea (FC cluster)
- Tokyo-Fukushima, Japan (Olympic Games plan)
- Zhangjiakou (Beijing-Tianjin-Hebei cluster), China (Winter Olympic Games plan)
- Germany: 9 potential hydrogen regions defined in a national programme

Are these countries interested in participate/lead the activity?

Are there any other cities that participants would like to propose to participate/lead?

5 Hydrogen to fuel (no lead)

Participants that expressed interest to lead the activity had not been confirmed as leads

Objective:

- Identify and launch a project focusing on a selected energy intensive industry that is interested to develop a pathway for using clean Hydrogen in the energy transition, and that would support scaling up clean hydrogen production and use across many H2I members

Which countries are interested in participate and lead this activity?

6 Strategic partnerships/projects (multiple inputs)

Participants that expressed interest to lead the activity had not been confirmed as leads

IEA can lead this activity. Suggestion:

- Participating countries will report to the coordinator every 6 months on project progress
- Each partnership will organise at least 1 workshop/event every year
- Publish in the webpage the updates, the events and documents related

Programmes included:

1. Hydrogen Bus Deployment (Canada-Brazil)
2. Hydrogen in Marine (Canada-Norway)
3. Global Ports Consortium (EC)
4. Hydrogen Certification (EC/IPHE)
5. Global technical standards (Austria, pending approval)
6. Hydrogen refuelling stations (South Korea)
7. Large-scale hydrogen supply chain (The Netherlands-Portugal)

Strategic partnerships/projects (Canada)

This section is all about building those strategic public/ private partnerships which are essential for success of the initiative, and the global growth in hydrogen deployment.

Activities in 2020-21

- Joint collaboration on global deployment with significant private sector partnership for example:
 - Canada/ Brazil bus deployment:
 - Canadian technology providers work with Brazil on large-scale bus deployment. Barriers/ opportunities encountered are shared with entire H2I
 - Activity has been slowed, due to restructuring and COVID
 - Canada/ Norway collaboration on marine opportunities.
 - Activity slowed due to COVID.
 - Feasibility study completed
 - Growing domestic interest in marine possibilities

7 Biannual report

Progress underway for the first Hydrogen report of H2I to CEM in 2021.

Key elements:

1. Status and prospects on hydrogen production and use by country/region
2. Summary of H2I activities and overview of activities in other hydrogen initiatives

Collaborations established with IPHE and H2 TCP to inform the report

8 Regional workshops

First Regional Workshop: Scaling up clean hydrogen around the North Sea

3rd July 2020



Noé Van Hulst
Hydrogen Envoy of the
Netherlands



9 H2I Workshop/ Webinar in 2020

Activities in 2020-21

- Panel discussion/ webinar on Nuclear/Hydrogen
- More than 75 people attended in person, broadcast live on Facebook to another 80 viewers
- Panel presented fundamentals of nuclear and hydrogen
- Discussions focussed on business opportunity, as well as technical and regulatory challenges
- Messaging was echoed through US led webinar one month later
- Resulted in follow-up presentation to Canadian nuclear industry leaders

New Ideas: Sustainable Finance for clean Hydrogen

- Sustainable finance has been highlighted as a priority by several countries
- IEA is exploring collaboration with the Hydrogen Council
- Is there any member interested on leading/contributing to this activity?
- Next steps: define goals and programme of work

Next H2I Advisory Group meeting

H2I Advisory Group meetings are planned to take place twice per year: Around November/December

Options for the next H2I Advisory Group meeting

- If Covid-19 situation persist: Online.
- Otherwise: suggestions from the members are welcome.

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