IRENA-European Union Workshop

Jointly Towards a Renewables-Based Economy

A Dialogue Between EU and North African States on a Regulatory Framework to Develop Green Hydrogen Supply, Demand and Trade

13 October 2021

10:30 am (CET, Egypt); 08:30 am (Mauritania); 09:30am (Morocco, Algeria, Tunisia)

Background

In December 2015, parties to the United Nations Framework Convention on Climate Change (UNFCCC) agreed to limit the rise in the global average temperature to well below 2 °C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 °C by the end of the present century.

Subsequently in 2021, the 6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) showed that the need to cut greenhouse gas (GHG) emissions rapidly is even more urgent than previously thought. The world economy needs to be based on renewable electricity and electrify as many processes as possible to reduce GHG emissions. Green hydrogen[1] also plays an important role in such a future net-zero scenario as a replacement for fossil fuels and fossil-based hydrogen for sectors that are hard to electrify or otherwise decarbonise.

However, transitioning green hydrogen from its current niche role to a globally used energy carrier with widespread usage across sectors will require an integrated policy approach to overcome challenges and reach a minimum threshold for market penetration. Policy makers need to adopt measures such as national hydrogen strategies and road maps, with priority setting and enabling policy measures, as soon as possible[2]. At the same time, barriers that hinder a global trading system for green hydrogen and its derivatives require dedicated policy action[3]. An international regulatory framework will be needed for certification schemes to prove, among other elements, the origin of renewable energy sources, the carbon content of the hydrogen and its derivatives being traded and the application of comprehensive sustainability standards.

In countries with abundant renewable energy resources, such as those in North Africa with particularly low renewable electricity prices, green hydrogen may emerge as a key enabler of the energy transition. This is because it offers, together with direct electrification, a way to contribute to countries' energy security. Countries can use their own renewable resources to reduce their dependency on imported fossil energy, diversify their energy mix, improve the resilience of their energy systems and reach the fringes of the energy systems.

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[2] IRENA report "Green Hydrogen: a guide to policy making" delves on the specific pillars for renewable hydrogen policy making https://www.irena.org/publications/2020/Nov/Green-hydrogen

[3] IRENA report "Green Hydrogen Supply: a guide to policy making" presents the specific policies needed for uptake of the renewable hydrogen supply chain https://www.irena.org/publications/2021/May/Green-Hydrogen-Supply-A-Guide-To-Policy-Making

Introduction

The European Union (EU) hydrogen strategy aims to develop an integrated hydrogen value chain and establish both a supporting governance system and policy framework to promote hydrogen deployment. It recognises that not all its member states are equally endowed with renewable energy resources. This may necessitate international trade and a market for green hydrogen, particularly between southern EU member states and neighboring states such as North African countries.

The International Partnership for Hydrogen and Economy (IPHE) a global intergovernmental initiative of 21 member government entities and the EU, has established a task force that has developed a methodology for determining the GHG emissions associated with the production of hydrogen and standardising the production and use of hydrogen (IPHE Methodology). Such an initiative is essential to facilitate the creation of a common certification scheme for Guarantees of Origin. This taskforce is co-led by France, the European Commission and the United States. Thus, plus other certification systems (such as CertifHy in Europe) will be covered in the workshop.

IRENA in collaboration with the EU plans to organise two workshops in the MENA region to enhance the dialogue over the challenges and policy measures needed to develop green hydrogen. The first workshop (covered in this note) will cover the North African context and the second will feature the Gulf Cooperation Council (GCC) countries. Both are part of the Strategic Partnership for the Implementation of the Paris Agreement (SPIPA) that facilitates exchange on climate policy options and good practice between the EU and non-EU major economies and supports the EU´s efforts on climate diplomacy. SPIPA is undertaking a series of outreach activities to support the development of a global regulatory framework for green hydrogen and its derivatives.

The workshops fit within the scope of the IRENA Collaborative Framework on Green Hydrogen (CFGH), co-chaired by the European Commission and Morocco. The CFGH serves as a platform to enhance dialogue over the challenges for both policy makers and private industry to develop green hydrogen. Three meetings of the CFGH country members have been held to date, most recently on 17th May 2021, where the dialogue focused on the challenges to developing international green hydrogen trade. Additional events have been held, including the joint Enabling Measures workshop with the World Economic Forum on 10th June 2021 that facilitated collaboration between IRENA members and the private sector. The EU participated in these two events in its capacity as co-chair of the CFGH.

Broad agreement was reached on the expectation that global green hydrogen trade will become prominent in the medium and long-term. However, action needs to begin today to develop the necessary capacity, demonstrate the technology and establish strong relationships that will pave the way for bilateral trading initially followed by a liquid market. Furthermore, four key pillars were identified – technology, standards and certification, financing, and the creation of a market with the following associated policy measures needed to address each:

Coordinate the co-development of hydrogen supply and demand;
Establish a common methodology for certifying the GHG content of gases;
Finance hydrogen infrastructure development; and
Share lessons between countries.

The workshop will serve as a forum for the continuation of this dialogue and to identify policy solutions for the key challenges in the short term.

Objective

Aims of the workshop:
(1) Discuss the most conducive set-up for policy makers to develop green hydrogen across the whole value chain and facilitate trade between the EU and MENA regions (baseline: EU regulations, IPHE methodology);
(2) Inform participants of the state of discussions on standards and certification schemes (e.g. IPHE, CertifHy), discuss next steps needed for international adoption and discuss possible policy frameworks for implementation; and
(3) Deepen the CFGH activities with the private sector to enable country representatives to better understand the short-term needs of industry.

Audience

The event will gather participants from government institutions, private sector representatives, development partners, academia and non-governmental organisations. The workshop will be conducted in a virtual format (zoom platform) with the option of translation between French, Arabic and English.

Programme

08:30 am (Mauritania); 09:30 am (Morocco, Algeria, Tunisia); 10:30 am (CET, Egypt)

Duration	13 October 2021	
10 min	Opening remarks	- Francesco La Camera, Director General, IRENA - Tudor Constantinescu, Principal Advisor, European Commission (DG ENER)
10/15 min	Scene Setting	- Member States (Algeria, Egypt, Mauritania, Morocco and Tunisia) opening remarks
10 min	Keynote Speaker	- Ruud Kempener, Policy Officer, DG ENER, European Commission
45 min	Panel discussion	Moderator: Gurbuz Gonul, Director Country Engagement and Partnerships, IRENA Panellists: - Rabah Sellami, Director General Renewable Energy and Energy Efficiency Commission (CEREFE), Algeria - Ehab Ismail, Vice Chairman for Technical Affairs, New and Renewable Energy Authority (NREA), Egypt

		- Ismail Abdel Vetah, Energy Transition Group, Ministry of Petroleum, Energy and Mines, Mauritania - Mohamed Ouhmed, Director Renewable Energy and Energy Efficiency, Ministry of Energy Transition and Sustainable Development - Lamia Ghazouani, International Cooperation, Director General for Electricity and Energy Transition, Ministry of Industry, Energy and Mines, Tunisia
30 min	Private sector Interventions	
10 mins	Closing Remarks	

This event has been organised with the financial support of the European Union's Partnership Instrument and the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU) in the context of the International Climate Initiative (IKI). The opinions expressed are the sole responsibility of the speakers and do not necessarily reflect the views of the funders.