

**MEMORANDUM OF UNDERSTANDING**  
**ON A STRATEGIC PARTNERSHIP ON RENEWABLE HYDROGEN**  
**BETWEEN**  
**THE EUROPEAN UNION AND THE ARAB REPUBLIC OF EGYPT**

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hereinafter referred to collectively as “Sides” and individually as “Side”.

The Sides recognise the need for accelerated actions towards the goals and objectives of the United Nations Framework Convention on Climate Change and the Paris Agreement, including the long-term goals on mitigation, adaptation and finance, to avoid the worst impacts of climate change on our countries, our people and the environment. Therefore, the Sides agree that it is urgent to cooperate to reduce GHG emissions of the energy systems by increasing energy efficiency, accelerating the deployment of renewables and new innovative clean energy technologies with a view to advancing progress in the decarbonisation of energy systems. In particular, the Sides share a common vision of the future energy cooperation between Egypt and the EU based on the following considerations:

- The present Memorandum of Understanding on a Strategic Partnership on Renewable Hydrogen should complement existing energy cooperation between the EU and Egypt, including in the context of the East Mediterranean Gas Forum (EMGF);
- Renewable hydrogen and its derivatives, such as ammonia, methanol, synthetic gases and synthetic fuels, produced with technologies such as electrolysis, may significantly contribute to the objectives of decarbonisation and security of energy supply for both Sides, while representing an opportunity for industrial cooperation, economic growth and job creation;
- The development of the production of renewable hydrogen and its derivatives in Egypt should be compatible with and supportive of the decarbonisation activities, including in the energy sector;
- The development of the production of renewable hydrogen and its derivatives in Egypt should take into account environmental and socio-economic constraints and impacts related to the scarcity of natural resources, in particular water. Therefore, Egypt, in cooperation with the EU, would adopt the sustainable use of desalinated water to produce renewable hydrogen;

- Imports of renewable hydrogen and derivatives from Egypt, as a reliable EU partner, are part of the European strategy of diversification of energy sources and suppliers and contribute to decarbonisation and security of supply of energy;
- EU investments in hydrogen export-oriented projects in Egypt depend on the predictability of European demand, the policies implemented in the EU for the stimulation and creation of demand and the Egyptian and the EU legislative and regulatory frameworks. These investments will support Egypt to achieve its objective of decreasing the carbon footprint of its energy mix;
- The production of renewable hydrogen as well as the construction and operation of hydrogen transport and storage infrastructure are not yet fully commercially viable and therefore, in the initial phase of development of the industry, pilot projects may require public support through concessional finance and de-risking mechanisms;
- Hydrogen cooperation between the Sides under this MoU may be extended regionally, upon consultation between the Sides, and may be reinforced by cooperation with EU member states in a Team Europe approach.

In view of the above, the Sides have decided to conclude the following Memorandum of Understanding:

## **OBJECTIVE AND AREAS OF COOPERATION**

The Sides intend to work jointly to develop the production, consumption and trade of renewable hydrogen and its derivatives. In addition, joint work may include to facilitate and promote investments in: the generation of renewable electricity; the strengthening and extension of electricity grids; the construction and operation of infrastructure for the storage, transport, distribution and export towards the EU of renewable hydrogen and its derivatives.

For this purpose, the Sides agree to establish an ambitious long-term partnership aimed at:

- a) contributing to the envisaged EU future plans to import renewable hydrogen and derivatives,
- b) supporting Egypt's pathway to low emissions and climate resilient development and to find green energy alternatives, to accelerate the Egyptian energy sectors' transition and decarbonisation activities,
- c) developing new economic opportunities through the production, use and export of renewable hydrogen and its derivatives.



The Sides' joint work will focus on the following areas, considered as critical enablers of the production and trade of renewable hydrogen and its derivatives:

### **1. Accelerated deployment of renewable power generation**

The Sides intend to continue and intensify their cooperation in the field of renewable electricity, with a view to improving the policy, regulatory, financial, technical and environmental conditions needed to achieve greater investments and scale in the sector.

### **2. Demand side**

The Sides agree to exchange necessary information and assessments on scenarios and forecasts concerning the demand for renewable hydrogen and hydrogen derivatives, as well as the relevant legislative and regulatory measures, both in the EU and in Egypt, with a view to providing potential investors with a maximum of clarity on the development of the market.

### **3. Supply side**

The Sides will endeavour to promote technology transfer, along with the establishment of the industries related to the production of equipment necessary for the renewable energy and hydrogen production, research and development as well as innovation cooperation and industrial partnerships among Egyptian and European companies, including through facilitating business to business contacts. In order to facilitate investments, the Sides may prepare a pipeline of viable investment projects, which provides an overview of hydrogen projects, helps create integrated Euro-Egyptian hydrogen value chains and bring projects to the attention of investors.

### **4. Infrastructure**

Enabling the efficient production and transport of renewable hydrogen and its derivatives will be essential for establishing a strong partnership and trade. The Sides will analyse the options in terms of energy carriers and conditioning facilities (gaseous or liquid hydrogen and synthetic fuels) and the needs for adequate infrastructure, including infrastructure connecting Egypt to the European Union being new or refurbished pipelines, storage facilities, adaptations of ports or building of terminals and electricity interconnections. The Sides intend to also cooperate on the application of the most relevant safety standards. The Sides also intend to endeavor to cooperate together to facilitate the transition of Egypt's hydrogen sector from grey and blue hydrogen to green hydrogen.

### **5. Environmental sustainability**

The Sides intend to verify that environmental sustainability is properly integrated in the design and implementation of policies promoting the renewable hydrogen industry, in particular as regards the use of water, the costs and benefits of desalination investments dedicated to hydrogen production and the environmental impact of brine effluents including their utilisation and storage technologies.

## 6. Regulatory framework

The Sides envisage promoting cooperation on regulatory issues, which may include standard definitions of hydrogen, methodologies for the calculation of Green House Gas emissions associated with the production and transport of hydrogen, certification systems, rules for competitive and transparent markets and international trade as well as measures to stimulate demand creation. The Sides intend to move towards mutually compatible regulatory frameworks, including on sustainability rules, and to facilitate compliance with necessary European standards, definitions and rules applicable to qualify as "renewable hydrogen".

With a view to ensuring a free flow of renewable hydrogen across borders, both Sides agree to identify and implement appropriate means to ensure that bilateral trade and investment is not distorted.

## 7. Financing

The Sides intend to facilitate access to finance for all aspects of renewable hydrogen projects, by sharing available information on available financing opportunities and promoting the interaction of project developers with financial institutions.

A mapping as detailed as possible is expected to be established of all the relevant financing instruments made available by financial institutions at national, regional and international level in order to help stakeholders to identify public and private funding sources.

## IMPLEMENTATION AND GOVERNANCE

For the implementation of this Strategic Partnership on Hydrogen the Sides envisage engaging in a policy-making cooperation that will be structured around an annual ministerial meeting, a coordination group and a business forum (industry advisory board)

The **Ministerial Meeting** takes place at least once a year alternately in Cairo and Brussels. It reviews topics of common interest, assesses the results of the partnership initiatives implemented since the previous meeting and guides future work.

The **EU-Egypt Hydrogen Coordination Group** is composed of representatives of the Sides. The Sides appoint their respective representatives, who co-chair the Coordination Group. The Coordination Group meets to discuss the issues identified in this Memorandum of Understanding as priority policy areas, prepares the ministerial meetings, sets up or terminates specialised expert groups, sets up the Business Forum and programs the work of the Partnership as decided at ministerial level.

The **Business Forum** brings together representatives of the concerned industrial sectors, regulatory authorities, financial institutions and experts. It provides advice and recommendations on significant industrial, market and innovation trends; on bottlenecks and barriers to investment and on possible solutions to overcome them.



Given the need to have recourse to technical expertise to support the implementation of this Partnership, the European Union's technical assistance, capacity building and strengthening instrument may be used as appropriate and available.

The joint bodies established under the Association Agreement and, in particular, the Association Committee should follow the progress on the implementation of this EU – Egypt Strategic Partnership on Hydrogen.

## **FINAL CONSIDERATIONS**

Nothing in this Memorandum of Understanding will create any legally binding obligations or commitments, or any financial obligations or commitments, between the Sides or in relation to any third party, under domestic or international law. This Memorandum of Understanding does not constitute an obligation to allocate funds. However it does not preclude both sides from initiating possible future discussions concerning any legal agreements.

The implementation of this Memorandum of Understanding and any other activity hereunder shall be in accordance with each Side's domestic laws, regulations, policies and procedures, as well as each Side's international obligations.

Any dispute that may arise between the Sides regarding the application or interpretation of this Memorandum of Understanding shall be settled amicably through mutual consultation or negotiation between the Sides, in good faith and in the spirit of this Memorandum of Understanding, through diplomatic channels, and will not be referred to any national or international tribunal or third party for settlement.

Subject to its applicable domestic law, a Side will not disclose to third parties any information received from any other Side, including any information expressed in writing or orally, without its prior written consent.

Notwithstanding the above, a Side may disclose information generated during the course of the implementation of this Memorandum of Understanding, without obtaining the other Side's prior written consent, to any consultant or legal counsel retained by said Side, in order to facilitate the implementation of this Memorandum of Understanding, provided that said Side requires its consultant or legal counsel to subject itself in writing to the terms of this section.

This will not apply to information which was in the public domain before being disclosed or information which was already known by the receiving participant before its dissemination.

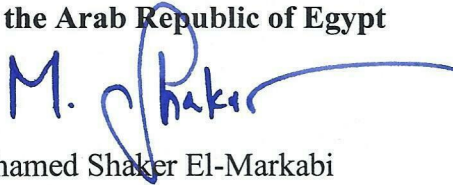
This Memorandum of Understanding will come into effect on the date of its signature by the Sides.

This Memorandum of Understanding may be modified by the written consent of the Sides, and such modifications will come into effect with the same procedures that were followed for coming into effect of this Memorandum of Understanding. Any such modification will be included in an addendum signed by the Sides and will form an integral part of this Memorandum of Understanding.

This Memorandum of Understanding may be terminated by a six (6) months' prior written notice via diplomatic channels by any of the Sides. The termination of this Memorandum of Understanding will not affect any ongoing activity arising out of this Memorandum of Understanding, unless the Sides agree otherwise in writing.

**Signed in Sharm El Sheikh on 16 November 2022, in two original copies in English language equally authentic.**

**For the Arab Republic of Egypt**



Mohamed Shaker El-Markabi

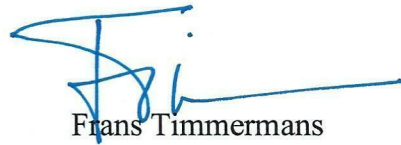
Minister of Electricity  
and Renewable Energy



Tarek El Molla

Minister for Petroleum  
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**For the European Union**



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