



## FOCUS ON HYDROGEN: ACHIEVING AFRICA'S CLEAN HYDROGEN POTENTIAL WITH EUROPEAN INITIATIVES

A number of countries in Africa have been identified as future sources of supply of clean hydrogen due to an abundance of land suitable for the production of wind and solar power, harbours that can be developed to serve export markets and, in the case of North Africa, a proven capability to supply energy to European markets using undersea pipelines.

In this briefing, we explore the initiatives being introduced at speed by European institutions to facilitate investment in production facilities for clean hydrogen and related products.

### EU HYDROGEN LAW & POLICY

Since the beginning of 2022, European support for hydrogen projects in Africa has intensified not only in response to decarbonisation targets, but also as a result of threats to energy security brought into focus by the ongoing military conflict in Ukraine. Two initiatives, the Mediterranean Green Hydrogen Partnership and the H2Global Mechanism, seek to build upon Africa's hydrogen potential through "hydrogen diplomacy" and funding, increasing investment in Africa's electrolysis capacity and the underlying renewable energy projects necessary to facilitate green hydrogen production.

### Mediterranean Green Hydrogen Partnership (MGHP)

The MGHP is expected to be officially launched at COP28, creating a governing body for hydrogen trade between the EU and the North African nations of Algeria, Egypt, Morocco, Tunisia and Libya. It is an initiative backed by Hydrogen Europe and its CEO, Jorgo Chatzimarkakis, who has published a [policy paper](#) on the structure and operation of this regional partnership. It is envisaged that this governing body will be comprised of representatives from each member state and will establish a set of rules and regulations to govern the hydrogen market, adopting the supranational model of the European Coal and Steel Community, both for its decision-making and for the implementation and oversight of its policies. This regulatory framework will seek to bridge the gap between the high level of regulatory certainty that lenders and investors need to make long-term financial commitments and the comparatively lower

#### Key issues

- Africa could produce 30 to 60 million tonnes per annum of clean hydrogen by 2050, but a number of risks, including the development of a bankable offtake market, may stifle the estimated US\$ 450 – 900 billion investment needed to achieve this projection (Source: Masdar).
- European initiatives are designed to facilitate the development of the offtake markets by creating frameworks for entry into long-term purchase contracts.
- While these initiatives are a welcome development, the extent to which these demand side interventions will translate into final investment decisions for projects in Africa in the face of supply side interventions being put in place in other regions remains to be seen.

level of legal certainty offered at national levels. Further details are expected to be announced prior to COP 28.

## **EU subsidy schemes – the case of H2Global**

The European Commission has approved a subsidy scheme of EUR 900 million, being implemented by Germany to support the production and importation of hydrogen and hydrogen-based fuels from countries located outside the EU. This is to be structured using a "contracts for difference" approach, pursuant to which producers will bid for long-term purchase agreements for hydrogen or hydrogen-based fuels with H2Global's government-backed off-taker as the purchaser. In a separate auction process, consumers of these products will bid for short-term supply contracts on the demand side, with the price difference between the purchase contracts and the supply contracts being covered by the German state, through the H2Global intermediary. While this scheme is not specific to Africa, it is expected that green hydrogen projects being developed in African countries will be well positioned to benefit, given their geographical proximity to the EU market.

The first H2Global invitation to tender was announced in December 2022, making available EUR 360 million for the importation of green ammonia for a period of 10 years, with the first deliveries of green ammonia expected in early 2025. The successful tenderer will be announced in July of this year. It is expected that Germany will allocate an additional EUR 3.5 billion as part of its 2023 budget for new auction rounds until 2036.

## **EU funding tools**

As Africa is Europe's closest neighbour, the partnership between Africa and the EU is a key priority for the European Commission. The policy framework for the EU's development cooperation with Africa was laid out in the European Consensus on Development, which sets the political vision underlying the financial proposals of the 2021-2027 Multi-Annual Financial Framework (MFF). The Commission and the EU High Representative have established the Global Gateway, a new European strategy to boost smart, clean and secure links in digital, energy and transport sectors, and to strengthen health, education and research systems across the world. In this context, the Global Gateway Africa – Europe Investment Package aims to mobilise EUR 150 billion in investments in Africa, focussing in particular on accelerating the green transition in Africa.

### **Global Gateway**

The Global Gateway will be delivered through a "Team Europe" approach, bringing together the EU and EU Member States with their financial and development institutions, including the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). The Global Gateway also seeks to mobilise the private sector in order to leverage investments for a transformational impact. The Global Gateway draws on the new financial tools in the EU multi-annual financial framework 2021-2027, in particular the Neighbourhood, Development and International Cooperation Instrument (NDICI), Global Europe, the Instrument for Pre-Accession Assistance (IPA) III, the digital and international part of the [Connecting Europe Facility](#), but also Interreg, InvestEU and Horizon Europe, the EU research and innovation programme. In addition, the EU is exploring the possibility of establishing a European Export Credit Facility to complement the existing

export credit arrangements at the Member State level and increase the EU's overall firepower in this area. This Facility would help ensure a more level playing field for EU businesses in third country markets, and thus facilitate the participation of EU businesses in infrastructure projects. On 1 March 2023, the European Commission [published a list of flagship projects](#) per continent, including the construction of a hydrogen power plant in Morocco and the implementation of partnership on raw materials value chains and renewable hydrogen in Namibia.

## Extraterritorial effect of EU law

All the EU-supported initiatives and funding tools discussed above are available subject to compliance by producers with certain EU legal principles, a situation that effectively gives rise to the extraterritorial application of EU law. In particular, the hydrogen or hydrogen-based fuels that are sold in the EU will be required to meet certain greenhouse gas (GHG) emissions and sustainability requirements in order to be regarded as "renewable" within the meaning of the applicable EU legislation and therefore be eligible to participate in EU green certification and subsidy schemes such as H2Global. For example, renewable fuels of non-biological origin (RFNBOs) will only be counted towards the EU's renewable energy targets if they have more than 70% GHG emissions savings compared to fossil fuels,<sup>1</sup> and if the RFNBOs meet the criteria set out in the [relevant delegated act](#), such as additionality, and temporal and geographical correlation.

In addition, on 12 January 2023, the EU Regulation on foreign subsidies distorting the internal market (FSR) entered into force enabling the European Commission to assess the existence of distortive foreign subsidies in transactions and public tender bids. If certain criteria are met, the Commission is empowered to intervene in takeovers of EU companies or participation in EU public procurement tenders when these transactions are supported by subsidies from third countries. With the entry into force of the FSR, foreign companies and EU companies operating outside the EU wishing to expand in the EU by acquisition or to participate in EU public procurement will be subject to the FSR if they or members of their group receive foreign subsidies. For more information on the applicability and implications of the FSR, please refer to our recent client briefings, '[Upping the ante on high-value public procurements – the incoming foreign subsidies reporting rules](#)' and '[EU Foreign Subsidies Regulation](#)'.

It is worth noting that apart from the technical requirements, the EU will also set certain sustainability requirements for imported hydrogen and hydrogen-based fuels applicable to EU domestic products related to, for example, land use, biodiversity and the principles underpinning social and environmental impact assessments.

It should be noted that the Hydrogen Purchase Agreements under the H2Global program include all the renewability and sustainability criteria discussed above.

Non-EU hydrogen producers planning on exporting hydrogen or hydrogen-based fuels to the EU will be required to take into consideration the applicable EU legal and regulatory framework so that their products comply with the EU certification and subsidy scheme, as well as count towards the renewable energy targets of the Member States. While these measures address climate

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<sup>1</sup> The exact methodology to calculate the emissions savings of RFNBOs is set out in the [second Delegated Act](#).

concerns, they are also in the nature of industrial policy in the face of, for example, the subsidies for hydrogen production in the US under the US Inflation Reduction Act.

## **COUNTRIES IN FOCUS**

Over the past couple of years, the EU and leading European hydrogen players and financial institutions have actively pursued hydrogen partnerships with certain African countries, with Egypt, Kenya and Namibia at the top of the list of strategic European partners.

### **Egypt**

In November 2022, in conjunction with COP27, the European Commission and Egypt signed a Joint Statement on the EU-Egypt Renewable Hydrogen Partnership as well as a bilateral Memorandum of Understanding (MoU) for a strategic partnership on renewable hydrogen, to enable both parties to accelerate the decarbonisation of their energy systems through the development, deployment, use and undistorted trade of renewable hydrogen and its derivatives. The EU and Egypt committed to taking the measures necessary to accelerate the deployment of renewable power generation as a critical enabler of the production of renewable hydrogen and an essential element of the transition towards decarbonised energy systems, reinforcing the ongoing bilateral cooperation on green transition in line with the EU-Egypt Association Agreement, the EU Global Gateway, the EU Agenda for the Mediterranean and its Economic and Investment Plan, and the EU-Egypt Partnership Priorities.

Furthermore, the EBRD, which has supported the Egyptian government in developing the low carbon hydrogen strategy that was launched at COP27, has pledged to provide a US\$ 80 million loan to Egypt Green to develop Egypt's first green hydrogen facility.

### **Kenya**

In Kenya, EIB has emerged as a major proponent of green hydrogen. Following its significant financial support for energy in Africa to date, comprising more than EUR 5.3 billion for energy investment across Africa, including EUR 418 million for geothermal, wind and solar investment as well as grid investment in Kenya, and in recognition of Kenya's outstanding renewable energy sources and the need for development of storage components, EIB is seeking to promote support for green hydrogen investment in Kenya through the signature of a Joint Declaration on Renewable Clean Hydrogen.

The Joint Declaration follows multiple decades of EIB cooperation with Kenya, and the hydrogen community hopes that the Joint Declaration can contribute to the implementation of projects to develop green hydrogen as part of the Kenya Energy Roadmap 2040. The Joint Declaration is intended to help improve understanding of how best to identify, structure, unlock and implement green hydrogen investment. The energy and finance experts at the EIB Regional Hub in Nairobi and in Europe are expected to work with their Kenyan counterparts to identify and develop new renewable energy projects and unlock construction of hydrogen production infrastructure. EIB expects initially to mobilise EUR 1.8 million of EU grants and to consider possible loan financing for bigger green hydrogen related investments.

Germany has also announced support for Kenya's hydrogen ambitions, with a recent pledge of approximately EUR 112 million to support Kenya in implementing the switch to a 100% renewables reliant energy sector by 2030. The "Climate and Development Partnership" will concentrate on the expansion of renewable energy, the electricity grid and hydrogen production, as well as job creation.

The UK Government has also shown interest in Kenya's hydrogen potential, designing a scheme to act as guarantor for hydrogen projects. The UK will commit US\$ 16.5 million to a new guarantee company that will cover investment risk, which will unlock an estimated US\$ 95 million in investment over the next 3 years through collaboration with CPF Financial Services and other private investors. The scheme is planned within the context of the US\$ 4.1 billion climate funding flow to Kenya from the UK, following discussions at COP27. Against the background of the announced collaboration with the UK Government, Kenya's President stated that the country aspires to produce 30GW of green hydrogen.

## **Namibia**

Namibia is also the focus of a number of European initiatives. In 2021 Germany's Federal Research Minister, Anja Karliczek, and Director General Obeth M. Kandjoze of Namibia's National Planning Commission, concluded a hydrogen partnership between Germany and Namibia and signed a Joint Communiqué of Intent. Thus, Germany was the first country to officially form a hydrogen partnership with Namibia, under which the Federal Research Ministry provided up to EUR 40 million in funding from the economic stimulus package for cooperation to finance a feasibility study for the implementation of joint pilot projects and to strengthen capacity building.

At COP27, an MoU for strategic collaboration between the EU and Namibia on the EU-Namibia Partnership on Sustainable Raw Materials and Renewable Hydrogen was signed. One of the aims of this collaboration is to ensure a secure and sustainable supply of renewable hydrogen to Europe. In January 2023, EU Commission representatives visited Southern Africa to enhance ties between the EU and Namibia, by fostering cooperation under the Global Gateway, and discussing how to take forward the MoU from COP27. During the visit, the EU confirmed its readiness to assist Namibia in expanding its green hydrogen production capacity. Ensuing discussions explored the opportunities and challenges arising out of the new EU-Namibia partnership, as well as the key steps in a roadmap towards securing green hydrogen to support the green and digital transformation of both partners.

COP27 was very important for Namibia's hydrogen sector for two further reasons – the EIB President signed a Joint Declaration with Namibia's President, in relation to a potential loan of up to EUR 500 million financing renewable hydrogen and renewable energy investments, while the Namibian government launched SDG Namibia One, a new fund premised on the principles of an innovative blended finance platform to facilitate and accelerate the development of a green hydrogen sector and economy in Namibia. Invest International, controlled by the Dutch State, will act as an anchor investor providing a grant of EUR 40 million to contribute to the first closing of SDG Namibia One.

From the above, it is evident that the EU is eyeing Africa's green hydrogen potential, establishing climate and energy partnerships and funding the development of projects. It is a win-win situation, whereby African countries can benefit from EU funding and technical assistance, while the EU will be able to cover the expected renewable hydrogen demand by 2030. Egypt, Kenya and Namibia are amongst the key strategic partners of the EU that have been granted financial, technical and political support to start developing hydrogen projects.

At the same time, these projects must be developed in line with key EU sustainability and environmental law principles, such as the do-no-significant-harm principle, while hydrogen / RFNBOs imported into the EU will be required to comply with the EU renewability and GHG emissions savings criteria in order to count towards the EU RES targets and participate in EU hydrogen certification schemes.

This publication does not necessarily deal with every important topic or cover every aspect of the topics with which it deals. It is not designed to provide legal or other advice.

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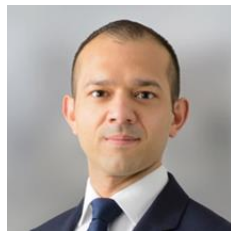
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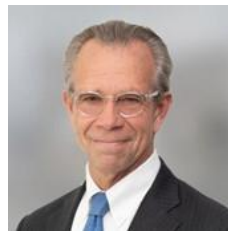
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