# Management/Directorate Changes, Development Update

Released : 25.04.2024

RNS Number : 9139L
Hydrogen Future Industries PLC
25 April 2024

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**Hydrogen Future Industries plc**
("HFI", the "Company" or the "Group")

**Management, Directorate and Advisory Board Changes**
**&**
**Development Update**

Hydrogen Future Industries plc (AQSE: HFI), a developer of a proprietary wind-based green hydrogen production system featuring an advanced aerodynamic wind turbine and a high-performance electrolyser, announces the following updates.

**Turbine systems engineer Timothy Blake to lead Group as CEO**

Timothy Blake has been appointed to the role of Chief Executive Officer of HFI (non-Board position) with immediate effect.

Since March 2022, Mr Blake has been the Chief Executive Officer of HFI Energy Systems Limited ("HESL"), a wholly owned subsidiary of HFI, and has been leading the Company's wind turbine and hydrogen electrolyser development activities. He has considerable experience in the development of efficient turbine systems, an area in which he has specialised for over 13 years and written multiple patents. Prior to working on the development of turbine systems, Mr Blake spent numerous years and built a niche and highly regarded network in the motorsport and transportation industries, working alongside companies including Lexus, Toyota, General Motors, and Airbus. He is the largest shareholder in the Company, holding 24.83% of the current issued share capital of the Company.

**Board changes**

Fungai Ndoro has stepped down as a Non-Executive Director with immediate effect to pursue other business opportunities, and Daniel Maling has transitioned from Executive Director to the role of Chief Commercial Officer with immediate effect. The directors are currently searching for a suitable additional Non-Executive Director candidate.

**Professor Tom Scott joins Advisory Board**

Professor Tom Scott has been appointed to the Company's Hydrogen Advisory Board ("Advisory Board"), alongside Dr Nicholas Blake and Timothy Blake.

Professor Scott is a professor at the University of Bristol ("UoB") and leads the HyDUS project, a collaboration involving EDF UK (lead partner), UoB, Urenco and the UK Atomic Energy Authority ("UKAEA"). HyDUS is developing a unique hydrogen storage system designed to help balance fluctuations in the supply of energy from renewable energy sources, such as wind and solar, as well as provide nuclear powerplant sites with a load following capability.

Professor Scott's appointment further strengthens HFI's ties with UoB as the two parties continue to explore new projects on which to collaborate by sharing people, resources, and joint grant funding opportunities.

**Technology development update**

Following on from the Company's technology development update announced on 18 January 2024, HFI's 1-metre prototype wind turbine has demonstrated exceptional durability and performance in the face of some of the harshest environmental conditions in Montana. With temperatures falling to approximately -50° Celsius, and wind gusts reaching 70 mph, the turbine is now undergoing a comprehensive overhaul. The strip down and mechanical analysis of the turbine aims to enhance the turbine through the installation of cutting-edge carbon fibre rotor blades and a new yaw control system designed and engineered by the HFI development team.

Accompanying these improvements is a sophisticated array of telemetry equipment, for the energy performance trials and an objective third-party assessment.

The HFI development of the Anion Exchange Membrane Water Electrolyser ("AEMWE") has been relocated to new laboratory facilities in Ojai, California. This strategic move enables HFI to expedite the development of its inaugural commercial scale electrolyser and develop new intellectual property and assembly of electrodes, whilst also advancing efficiency leaps and cost-reduction strategies. Notably, HFI's electrodes are evolving to operate effectively without the need for expensive platinum group metals, marking a significant stride towards sustainable cost efficiencies which is one of the project's primary objectives as announced 31 January 2024.

**Mining sector feasibility study**

The Company has continued with the preparation of the feasibility study relating to the use of HFI's technology to produce green hydrogen from contaminated water created during mining processes. The Company aims to demonstrate that the technology can produce green hydrogen for use on site at $2 per kg, which equates to an electrical energy supply of approximately $0.12 per kilowatt-hour.

The full complement of HFI technologies is required for the successful generation of clean and affordable energy from green hydrogen in remote mining locations.

Discussions are underway with key engineering groups to scope services and equipment to demonstrate the viability of HFI's system on mine sites.

**Neil Ritson, Non-Executive Chairman, commented:**

*"We are delighted that Timothy Blake has agreed to lead the business as CEO having already been spearheading our system development activities since 2022. Timothy is principally responsible for the development of what we believe will represent a game-changing performance improvement in the wind turbine sector globally, having completely rethought the traditional turbine model. When you pair the performance of our turbine with that of our novel electrolyser in development, the potential for cheap hydrogen production at scale is incredibly exciting.*

*"I would like to thank outgoing Non-Executive Director Fungai Ndoro for her contributions in listing the business on the Aquis Stock Exchange and executing numerous transactions during her tenure."*

**Tim Blake, Chief Executive Officer, commented:**

*"I am excited to formally lead HFI as CEO just as our state-of-the-art wind turbine is poised to become a pivotal component of the mining sector feasibility study in the US. The study signifies our commitment to pushing the boundaries of what is possible in renewable energy generation in even the most unforgiving environments.*

*"The Company is strategically channelling its resources. Our vision is clear: to forge and secure commercial collaborations and partnerships that will catapult the industrial application of our technologies initially within the mining and energy sectors."*

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**Inside Information**

This announcement contains inside information for the purposes of the UK Market Abuse Regulation and the Directors of the Company accept responsibility for the contents of this announcement.

**About Hydrogen Future Industries**

Hydrogen Future Industries was established to invest in projects and companies focused on the Hydrogen Economy. We are developing a proprietary wind-based hydrogen production system, incorporating hydrogen compression and storage. Hydrogen Future Industries is at the forefront of green hydrogen production with its integrated system that marries an advanced ducted wind turbine with a state-of-the-art Anion Exchange Membrane Water Electrolyser (AEMWE). This innovative pairing is designed to optimise renewable energy for the efficient production of hydrogen.

Click here for more information about Hydrogen Future Industries.

**About HFI wind turbine technology**

The HFI wind turbine is at TRL (Technology Readiness Level) 6-7, showcasing an advanced design with superior aerodynamics and rotor blade technology that generates three times the energy of a traditional open rotor design. The aim is to generate energy at a cost below $30/MWh and a unit CAPEX of $700,000/MW. This innovation represents a smaller, quieter, and more efficient alternative to existing wind energy generation technology. The turbine's unique features include a smart hydraulic drive that improves efficiency and reduces the cost of energy production, the ability to generate energy over a broader range of wind speeds, and versatile energy output in hydraulic, DC, or AC forms without the need for additional AC to DC rectifiers for hydrogen production. Significantly, the turbine can be raised and lowered for optimal wind capture, reducing maintenance and installation costs, as servicing can be performed at ground level.

**About HFI Anion Exchange Membrane Water Electrolyser (AEMWE) technology**

At TRL 4-5, the HFI Anion Exchange Membrane Water Electrolyser (AEMWE) presents a step forward in power

efficiency, longevity, and cost-reduction for green hydrogen production. Testing has confirmed a cell efficiency of 97%, notably higher than the 80-85% of rival technologies. Constructed without platinum group metal catalysts, the AEMWE utilises more affordable and accessible materials, resulting in a projected cost that is 50% lower per kW than the PEM electrolyser. It is designed to deliver high efficiency even with variable energy supply typical of renewable sources, and it features a unique system where individual cells can be replaced without halting hydrogen production. The AEMWE's catalysts are chemically attached to the electrodes, preventing wash-off and ensuring durability. The ongoing patent applications aim to protect the unique intellectual property developed around this technology.

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