

## JOINT PRESS RELEASE

### **ACME Group and Hydrogenious LOHC Technologies to jointly explore hydrogen value chains from Oman to Europe**

**India/Germany, 08 April 2024.** ACME Group, one of the world's leading sustainable and renewable energy companies, and German pioneer in Liquid Organic Hydrogen Carriers (LOHC), Hydrogenious LOHC Technologies, have signed a Memorandum of Understanding (MoU) to collaborate on a feasibility study to explore the joint development of large-scale hydrogen supply chains from ACME's projects in Oman to supply hubs in Europe using the innovative LOHC technology. Both parties intend to extend the partnership to evaluate the hydrogen value chain from USA to Europe.

Oman benefits from abundant renewable energy resources such as solar and onshore wind while US Inflation Reduction Act offers production incentives leading to competitive hydrogen production cost. The green hydrogen produced by ACME in these projects can be stored in LOHC and transported by tanker to Europe to supply and decarbonize industrial off-takers, energy and mobility.

Hydrogenious' LOHC technology is perfectly suited for large-scale hydrogen imports via maritime supply chains, enabling viable and cost-effective import vectors to Europe. By safely binding hydrogen to the thermal oil benzyltoluene (LOHC-BT) in a chemical process, the volatile green molecules can be efficiently stored and transported at ambient pressure and temperature using the existing liquid fuel infrastructure.

### **Statements**

“Green Hydrogen is emerging as a real opportunity that can transform the global energy systems and meet the decarbonisation goals of industry and governments. While some will continue to challenge the economic and technical feasibility, we have taken conclusive decisions on our Oman project and partnering with Hydrogenious to develop efficient logistics using LOHC is the next step in delivering cost effective value proposition for our customers.” Said **Ashwani Dudeja, Group President and Director for ACME Group.**

“As companies, ACME and Hydrogenious are at the forefront of the energy transition and share the common goal of driving global decarbonization. Our collaboration will contribute to making clean hydrogen from the MENA region and the US available to European off-takers in the mid to long term,” explains **Toralf Pohl, Chief Commercial Officer at Hydrogenious LOHC Technologies** and continues: “Due to its inherent safety, LOHC-BT is particularly suited for handling hydrogen in ports and urban

environments, as it is hardly flammable, very stable and has a competitive volumetric storage density, enabling large-scale, long-distance hydrogen value chains without hydrogen losses.”

**>> END OF PRESS RELEASE <<**

### **Notes to the editors**

#### **About the LOHC technology by Hydrogenious LOHC Technologies**

Hydrogenious' LOHC technology enables the safe and cost-effective storage and transportation of hydrogen using existing liquid fuel infrastructure.

Molecular hydrogen is chemically bound to a Liquid Organic Hydrogen Carrier (LOHC) in a so called StoragePLANT in a catalytic, exothermic process called hydrogenation. The LOHC loaded with hydrogen is then safely transported to its destination by tanker, barge, train or truck, using established infrastructure to enable long-distance transportation of hydrogen even to remote areas.

At the offtake end, the hydrogen is released from the LOHC in an endothermic, catalytic process called dehydrogenation at a ReleasePLANT. The LOHC itself is not consumed during this process but can be reused many hundreds of times to store and transport hydrogen and is also recyclable.

Hydrogenious' technology is based on benzyltoluene (LOHC-BT), which has particularly positive characteristics as a hydrogen carrier for safe handling in ports and urban environments, as LOHC-BT is a non-explosive, hardly flammable thermal oil with a hazard potential comparable to diesel. It can be stored and transported at ambient pressure and temperature and exhibits no hydrogen losses (e.g. boil-off), even over long distances or periods of time. The hydrogen volumetric storage density is competitive to other solutions with 54kg hydrogen per m<sup>3</sup> LOHC.

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#### **STORAGE\_PLANT\_01\_Hydrogenious\_LOHC**

Rendering of a LOHC StoragePLANT by Hydrogenious LOHC Technologies Copyright: Hydrogenious LOHC Technologies

#### **Ashwani\_Dudeja\_President\_Director\_ACME\_Group**

Ashwani Dudeja, Group President and Director for ACME Group

#### **Toralf\_Pohl\_CCO\_Hydrogenious\_LOHC**

Toralf Pohl, Chief Commercial Officer at Hydrogenious LOHC Technologies

### **About Hydrogenious LOHC**

Hydrogenious LOHC adds the missing link to high-performing hydrogen value chains globally. Based on its proprietary and proven Liquid Organic Hydrogen Carrier (LOHC) technology with benzyltoluene as carrier medium, Hydrogenious LOHC allows for superior, flexible hydrogen supply to consumers in industry and mobility across the globe, utilizing conventional liquid-fuel infrastructure. Founded in 2013, the portfolio of the market-leading pioneer and its joint venture companies today includes stationary and mobile (on-board) LOHC-based applications: Hydrogenious LOHC Technologies, headquartered in Erlangen/Germany, offers – within an EPC partnership with Bilfinger – (de-)hydrogenation turnkey plants, Operation & Maintenance and LOHC logistics services – ensuring safe, easy and efficient hydrogen storage, transport and distribution. Hydrogenious LOHC Emirates, based in the United Arab Emirates and a joint venture with Emirates Specialized Contracting & Oilfield Services (ESCO), acts as the regional spearhead in the Middle East since the end of 2021. Hydrogenious LOHC Maritime, established in 2021 jointly with Østensjø Group and located in Norway, develops an emission-free onboard propulsion system with a promising LOHC/fuel cell solution for the global shipping industry. With its >230 staff members and investors AP Ventures, Royal Vopak, Winkelmann Group, Mitsubishi Corporation, Covestro, JERA Americas, Temasek, Hyundai Motor Company, Chevron Technology Ventures and Pavilion Capital, Hydrogenious LOHC is a major enabler and accelerator for the energy transition.

[www.hydrogenious.net](http://www.hydrogenious.net) | [www.hydrogenious-emirates.ae](http://www.hydrogenious-emirates.ae) | [www.hydrogenious-maritime.net](http://www.hydrogenious-maritime.net)

### **About ACME Group**

ACME Group is one of the large renewable Independent Power Producer in India with a portfolio of more than 8.5 GWp of renewable energy capacity under operation and various stages of implementation. In 2021, ACME built what is perhaps the world's first Green Ammonia plant in Bikaner, Rajasthan and in 2022 obtained the world's first certification for green ammonia from Oman project by TUV Rhineland. By signing the long-term agreement for green ammonia with Yara in February 2024, ACME is set to deliver one of the world's first large scale green ammonia project in Oman. Drawing upon its experience and strengths, ACME is developing several green hydrogen and ammonia projects including in Oman, India and USA and aims to build a portfolio of c. 10 million ton per annum of green ammonia or equivalent hydrogen / derivatives. ACME has a global footprint with offices and representatives in Japan, Middle East, Europe and USA for the marketing and supply of green hydrogen and its derivatives to the international markets. For more information, please visit <http://www.acme.in>

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