bp leads $12.5 million Series A investment in low-cost hydrogen electrolyzer innovator, Advanced Ionics

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- The investment will accelerate growth and deployment of Advanced Ionics’ Symbion™ electrolyzer technology for heavy industry

Advanced Ionics, the developer of a new category of hydrogen electrolyzers useful for expanding green hydrogen production, closed a $12.5 million Series A financing led by bp ventures, with additional investors including Clean Energy Ventures, Mitsubishi Heavy Industries, and GVP Climate.

The new capital will help catalyze Advanced Ionics’ growth and facilitate the initial deployment of its Symbion™ water vapor electrolyzer technology for heavy industry. Water vapor electrolyzers address two of the biggest obstacles to expanding green hydrogen production: cost and electricity requirements.

“bp ventures’ investment in Advanced Ionics is a powerful backing of our technology’s potential to help accelerate green hydrogen’s future and heavy industry’s shift towards decarbonization,” said Chad Mason, CEO of Advanced Ionics. “The results we’ve achieved in our testing along with early customer interest have indicated that we are an ideal technology provider for industrial customers looking to augment, expand or replace their existing hydrogen production facilities with green hydrogen.”

The company’s water vapor electrolyzer helps reduce the cost and electricity requirements for green hydrogen production by symbiotically integrating with standard industrial processes to harness available heat. The system is made of widely available steels and other simple materials rather than expensive metals or materials common in other electrolyzers.

Electricity use accounts for more than 70% of green hydrogen production costs. Advanced Ionics’ electrolyzer stack requires less than 35 kWh per kilogram of produced hydrogen compared to more than 50 kWh per kilogram for typical electrolyzers. This lower electricity requirement could make green hydrogen accessible for less than $1 per kilogram at scale.

“Advanced Ionics’ technology has the potential to drive down cost and disrupt the hydrogen market,” said Gareth Burns, vice president of bp ventures. “bp has a global portfolio of hydrogen projects, and as the world transitions to a net zero future, it’s important to us to be investing in these technologies and advance the track to deploying green hydrogen. We look forward to working with Advanced Ionics on the next stage of its growth.”
Advanced Ionics will use the funds to expand its team and deliver its next-generation electrolyzer systems to early customers. The company is already demonstrating the efficacy of its product through a pilot program with global energy company Repsol Foundation. In addition to bp Ventures’ investment, bp will also be exploring pilot opportunities with Advanced Ionics. Other investors in Advanced Ionics include Aster, and angel investor collectives Clean Energy Venture Group and SWAN Impact Network.

Hydrogen is one of bp’s five transition growth engines, which also include bioenergy, convenience, electric vehicle charging, and renewables & power. bp plans to increase its investments in those businesses through this decade, while at the same time investing in today’s energy system, as it delivers its strategy of becoming an integrated energy company.

About Advanced Ionics

Advanced Ionics is a technology provider for the production of green hydrogen, committed to accelerating global decarbonization. Through its water vapor electrolyzer technology, the company seeks to enable the large-scale production of green hydrogen for heavy industry at a low-cost. Advanced Ionics has been recognized for its technology as a finalist in Bloomberg NEF Pioneers Awards and TechCrunch Disrupt. For more information, visit https://advanced-ionics.com.

About bp ventures

bp ventures was set up more than 10 years ago as bp’s corporate venture capital arm. Since then, bp has invested over $1bn in technology companies and is actively managing 40 investments today. bp ventures makes equity investments in private, high growth businesses accelerating innovation across bp’s transition growth engines: renewables, EV charging, convenience, bioenergy and hydrogen.

For more information, visit bp.com/ventures.

Further information

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