

Press Release

Arnhem, 17 April 2019

Dutch HyET Hydrogen B.V. sets another hydrogen compression world record.

New record is another indication that Electrochemical Hydrogen Compression is reaching technical maturity.

HyET Hydrogen, based in Arnhem (The Netherlands) and Berkeley (USA), has achieved a new milestone in its technical development.

On April 16th it successfully concluded a test whereby it compressed hydrogen to 1028bar pressure using a stack based on its HCS100 platform.

“This achievement improves on the old record that was set in 2011 by HyET with a single cell and a tiny membrane”, says Rombout Swanborn, CEO and cofounder of HyET Hydrogen. “We have now proven our technology with a multicell system using 100cm² membranes. We could have gone even higher were it not for limitations of the sensors in the system.

This result proves the capability of our technology to provide a cost effective, efficient, low noise and no-vibration alternative to mechanical compressors for hydrogen refuelling stations and other hydrogen compression applications.”

Highly compressed hydrogen can store a large amount of electrical energy, much more than conventional batteries. By comparison: a fuel cell electric car drives approximately 100km on 1kg of compressed hydrogen, whilst a battery electric car drives a mere 1km on the energy stored in 1kg of batteries. The ability to cost-effectively and reliably compress hydrogen will play an important part in accelerating the adoption of hydrogen powered Fuel Cell Electric Vehicles (FCEVs) and other vehicles, such as fuel cell powered trucks and busses.

HyET Hydrogen’s electrochemical hydrogen compression (EHC) technology offers a range of benefits to users. EHC is energy efficient, compact, involves no moving parts and thus is noise less and vibration less. Furthermore, its membrane technology ensures only hydrogen is compressed, as a result the use of this type of compressor guarantees the hydrogen is as pure as is required for fuel cell electric vehicles (FCEV).

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About High yield Energy Technologies (HyET) Group

HyET Group develops technologies that enables commercially viable large scale implementation of renewable and decentralized energy generation and distribution. HyET Group currently consists of two companies: HyET Hydrogen and HyET Solar.

HyET Hydrogen develops technology to enable large scale implementation of hydrogen mobility and hydrogen storage. The novel technology HyET has developed enables purification and compression of hydrogen in a single stage up to FCEV standards.

HyET Solar develops thin film solar modules that have the lowest LCOE in the market. Due to its low weight and flexibility the modules can be applied to almost any surface of buildings and structures.

For more information, please visit <http://www.hyethydrogen.com>