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Hydrogenus Energy Ltd. signs HOA to acquire a licence for technology to increase electrolyser efficiency and output of hydrogen

Hydrogenus Energy Limited, (HYE) is well advanced in developing a system to provide zero carbon electricity on demand at a lower cost than any other system for off-grid and grid-fringe areas. The key component of the Hydrogenus system is an internal combustion engine (ICE) that has been modified using proprietary hardware and software to run safely, effectively and efficiently using green hydrogen as its fuel. The H-ICE is integrated with other components, a solar or wind energy source, electrolysers, hydrogen storage, an electricity generator and a control system providing 24/7 carbon free power to fulfill client energy demands.

A Melbourne-based design and development house that provides customised solutions is well advanced in developing add-on technology that weakens the bonds between the oxygen and hydrogen atoms in the water being supplied to an electrolyser. This reduces the amount and hence cost of power the electrolyser needs to split the water molecule into hydrogen and oxygen. This has been independently validated to be less than 20 kilowatt hours per kilogram of dry hydrogen, which is less than half the typical amount of electricity used with currently available electrolysers.

The benefits to Hydrogenus include lower costs for producing hydrogen and lower costs of solar or wind energy sources, as less power is required for the same amount of hydrogen produced.

Commercially, this has the potential to significantly expand our markets and improve profitability.

Hydrogenus is focused on preparing a demonstration system where all components and their control system can be tested in a controlled setting. The hydrogen technology will be part of this testing program.

For more information: www.hydrogenus-energy.com www.nano1.com.au.