



PATRIOT
HYDROGEN



SWEETMAN
Renewables

Media Release
22/06/21

Patriot Hydrogen signs on another customer for its Patriot “P2H” units for hydrogen and power production

Sydney, NSW: Patriot Hydrogen (proposed to be owned 20% by Prominence Energy (PRM:ASX) subject to PRM Shareholder Approval and Due Diligence by PRM) has signed a second binding agreement for the supply of its Patriot P2H Hydrogen Units.

Sweetman Renewables Limited will purchase 1 P2H Unit initially with plans to increase that to 15 over the next two years.

The P2H Units are designed to supply green renewable hydrogen to domestic markets. Sweetman plans to use the green hydrogen-rich syngas to drive a purpose designed generator to power the Sweetman Sawmill operations.

The P2H Unit will have an initial green hydrogen production target of 1 tonne per day, with an anticipated scale up in production within the next 3 years.

The output of a single P2H Unit driving a local generator will produce approximately 750kWh of dispatchable power, enough to nearly fully power the whole Sweetman plant, significantly lowering operational costs and alleviating the need for the company to solely rely on power from the grid.

This is an advantage in remote locations or wherever companies can utilise locally derived biomass waste to produce their own power and lower their reliance on the grid for power.

At an average cost price of \$2.9M per unit excluding technology licence fees, the P2H units are economically viable for businesses to benefit from the hydrogen production and energy revolution.

What is unique about the Patriot Hydrogen P2H unit, is it will utilise waste and biomass to produce hydrogen or syngas as a fuel to power an engine driven generator set to deliver base load electricity in regional locations. In addition, the whole plant can be relocated to different operational sites, making it very suitable for mining and agricultural operations.



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Patriot Hydrogen P2H Units uniquely offer a “decentralised approach” to hydrogen production, providing smaller, agile hydrogen to power P2H production units, rather than needing to build multi-billion-dollar, major fixed asset, hydrogen production facilities.

This new technology uses pyrolysis to convert waste materials into gas (hydrogen-rich syngas or pyrolysis gas) and carbon biochar.

The gas can be used a variety of ways including fuel for a thermal oxidiser to produce steam, for heat or for combined heat and electricity, or to fuel internal combustion technology to produce electricity. The hydrogen-rich gas can be further processed to recover just the hydrogen for domestic and export sales.

Biochar is a valuable secondary product from this process, as it can be sold and used for various industrial or agricultural applications.



Patriot Hydrogen “P2H” Unit

Massive demand for renewable hydrogen

Major economies around the world are rapidly shifting to renewable energy sources as they strive to meet their zero emissions targets.

The growing demand for hydrogen in particular is evident with global oil majors like BP and Woodside announcing their hydrogen aspirations.



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The Australian Renewable Energy Agency estimates global demand for hydrogen exported from Australia could be over 3 million tonnes each year by 2040, which could be worth up to \$10 billion annually to the economy by that time.

This makes it a major focus for Australia, with the CSIRO releasing a National Hydrogen Roadmap and the Australian government putting in place its National Hydrogen Strategy.

– ENDS –

Company enquiries

John Halkett

Chairman

P: +61 (0) 417 421 187

W: sweetmanrenewables.com.au

Media enquiries

Angela East

Media and Capital Partners

E: angela.east@mcpartners.com.au

P: +61 (0) 428 432 025

ABOUT PATRIOT HYDROGEN

Patriot Hydrogen is soon to be 80% owned by Liberty Energy Capital Pty Ltd (www.libertyenergycapital.com.au) – an Australian investment company focused on renewable fuel and energy projects, and 20% by Prominence Energy NL (PRM:ASX) (subject to PRM Shareholder Approval and Due Diligence by PRM). Liberty Energy Capital has invested in many hydrogen, biomass and renewable energy companies and seeks to build a portfolio of renewable operations throughout the world. www.patriothydrogen.com.au

ABOUT SWEETMAN RENEWABLES

Sweetman Renewables Ltd and associated companies Sweetman Biomass Pty Ltd and Sweetman Hydrogen Pty Ltd are an exciting collaborative effort that respectfully builds on the legacy of the Sweetman family timber industry dynasty in the Hunter Valley of NSW. Sweetman will be an early waste biomass and green energy company with core climate change and environmental sustainability credentials. sweetmanrenewables.com.au