



ENVIRONMENTAL CLEAN TECHNOLOGIES TO COMMENCE PANASONIC HYDROGEN FUEL CELL TRIAL AT BACCHUS MARSH – RE-RELEASE

Monday 21 November 2022: Environmental Clean Technologies Limited (ASX: ECT) ("ECT" or "the Company") provides a rerelease to the announcement titled "ENVIRONMENTAL CLEAN TECHNOLOGIES TO COMMENCE PANASONIC HYDROGEN FUEL CELL TRIAL AT BACCHUS MARSH" to correct the following:

- Page 2: Noting the counterparty to the term sheet being Optimal Group Australia Pty Ltd; and
- Page 3: Outlining the material terms of the term sheet.

Other than the above, there are no changes to the announcement previously released.

The amended announcement is attached.

END

This announcement is authorised for release to the ASX by the Board.



ENVIRONMENTAL CLEAN TECHNOLOGIES TO COMMENCE PANASONIC HYDROGEN FUEL CELL TRIAL AT BACCHUS MARSH

Key points:

- Panasonic, a market leader in the development of fuel cells has selected ECT's Bacchus Marsh site for a trial of their hydrogen fuel cell for clean hydrogen use in support of the global rollout of their new generation Hydrogen Fuel Cells.
- The Fuel cell is capable of turning hydrogen into onsite electricity and power
- ECT will provide Clean Hydrogen produced from COLDry to Panasonic as part of a 3-year trial
- Optimal Group Australia is in partnership with Panasonic to install, commission, maintain and provide training to ECT on fuel cell operation
- This is an important milestone for ECT, as it reinforces the company's push to develop clean Hydrogen from its Bacchus Marsh facility
- The trial will commence in December 2022

Trial Schedule



Tuesday 15 November 2022: Environmental Clean Technologies Limited (ASX:ECT) ("ECT" or "Company") is pleased to announce the signing of a Term Sheet with Optimal Group Australia Pty Ltd (**Optimal**) for the field trial of the Panasonic Hydrogen Fuel Cell technology as part of its COLDry Demonstration and Net Zero Hydrogen Project at JBD Industrial Park, in Bacchus Marsh, northwest of Melbourne. This term sheet is intended to provide the framework for the future contractual arrangements to be established prior to commencement of the trial.

Developing a Clean Hydrogen Demonstration at Bacchus Marsh

As previously announced, the Company is progressing with its COLDry Commercial Demonstration Project ("**Bacchus Marsh Project**") aimed at demonstrating a set of unique solutions, including:

- Clean hydrogen for energy and industrial chemicals from lignite and biomass
- Agricultural char for soil health and food security
- Battery Active Carbon to support the diversification of critical minerals



As part of the Bacchus Marsh Project, ECT will produce hydrogen that can be utilised in several applications, including hydrogen vehicles, fertiliser and formic acid production.

Hydrogen can also be used for stationary electricity production, to power on-site activities or for export to the grid. To achieve this, a hydrogen fuel cell is needed to convert the hydrogen to electricity.

Panasonic has developed the modular plug-and-play 5kW hydrogen fuel cell, which will enter mass production in late 2022.

Panasonic Australia is partnering with Optimal to advance the stand-alone fuel cell in Australia, and ECT has been selected to participate in field trials of the technology.

A successful trial will see ECT install larger numbers of fuel cells to manage the load and despatch of on-site hydrogen production, producing clean electricity for site use and supply to the grid.

ECT Managing Director Glenn Fozard commented:

“Hydrogen Fuel Cells add flexibility to the despatching of produced hydrogen on-site, reducing our need to seek solutions for storage whilst still allowing continuous production.

This is an opportunity for ECT to become a player in the next generation of hydrogen fuel cell technology and demonstrate the transition to a carbon-free world using hydrogen.”

The attached presentation, approved by Optimal and Panasonic, provides an overview of the technology and trial.

The material terms under the term sheet will include:

- The total cost for this trial is capped at \$250,000 for the 3 years. This includes all design, commissioning, equipment, maintenance and repair during the trial period. At the end of the trial period ECT will own the fuel cell. The fuel cell will be grid connected which technically allows ECT to sell any electricity to the grid. However, due to the fuel cells size, the electricity produced will likely be consumed on-site to off-set the power needs of the operations. The waste heat extracted from the fuel cell will be used to dry materials within the COLDry process,
- The trial term shall conclude 3 years from completion of commissioning of the fuel cell,
- There are no termination clauses in term sheet,
- Panasonic retain all IP relating to the fuel cell that may emerge from this trial.

This announcement is authorised for release to the ASX by the Board.

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About ECT

ECT has been developing net-zero emission and hydrogen technologies for over 15 years.

Our solutions aim to transition today's use of resources to tomorrow's zero-emission future, delivering immediate financial and environmental benefits.

We are focused on advancing a portfolio of technologies that have significant market potential globally.

ECT's business plan is currently focusing on two major projects:

- 1) Zero-Net Emission COLDry Commercial Demonstration at Bacchus Marsh, Victoria, Australia
- 2) Zero-Net Emission Hydrogen Refinery Project at the Latrobe Valley, Victoria, Australia

About our Technology Suite

COLDry is the gateway enabler of higher-value applications for waste biomass and lignite.

HydroMOR is a simple, low-cost, low-emission, hydrogen-driven technology that enables 'low value' feedstocks to produce primary iron. HydroMOR is the transition solution to a "green steel" future.

COHgen aims to decouple hydrogen production from CCS, accelerating the race towards <\$2/kg production costs with little to no emissions.

CDP-WTE converts low-value resources into higher-value diesel and other valuable by-products.

About Panasonic

Established in Japan in 1918, Panasonic is today a global conglomerate with diverse business interests encompassing battery technology, HVAC, renewables, automotive equipment, consumer electronics and business technology solutions. As part of the Panasonic GREEN IMPACT commitment, the company is investing heavily in the development of Green Hydrogen-related technologies to contribute to global decarbonisation.

About Optimal

Established in 2012 and privately owned, Optimal Group is an EPC business focusing on energy efficiency and renewable energy solutions. It is the Capstone Turbine Distributor for Australia, NZ and the South Pacific. Optimal entered the green hydrogen market in 2018 and has completed or has current projects in both fuel cells, electrolyzers and H₂fuelled Microturbines.

Forward-Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of ECT, are or may be forward-looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Therefore, actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.