ASX Announcement

1st May 2024

Federal Government announces successful TDRI Applicants

GreenHy2 Limited (ticker "H2G") wishes to draw shareholder attention and provide additional information regarding the announcement today by the Australian Government, Department of Infrastructure, Transport, Regional Development, Communication and the Arts regarding the Telecommunications Disaster Resilience Innovation (TDRI) Grant Program, Power Resilience Round. Please refer to the following websites:

https://www.infrastructure.gov.au/media-communications-arts/phone/telecommunications-disaster-resilience-innovation-program

GreenHy2 submitted an Application to the TDRI Grant Program in late 2023 for a 100% renewable energy, diesel-free Stand-Alone Power System (off grid) solution for Telecommunications, using a solar array, an Advanced long-life Solid State Metal Hydride battery, and including Hybrid Power Generation with dual fuel cells and an alternative hydrogen generator.

Matching finance for the submission was committed by INFRACO (a subsidiary of Telstra for Critical Site Infrastructure) as the end-user and asset owner. The original matching finance commitment was to the Value of $1.5M. Additional support for the submission was provided by PARKSIDE ENERGY Ltd. for the Hydrogen-fuelled generator supply and modifications, related control system and computational modelling tool and commissioning,

The Announcement confirms that GreenHy2, as the lead contractor for the solar array, electrolysers, hydrogen dryer, water purification, metal hydride storage system using GKN Hydrogen Technology, fuel cells, overall control system, installation and commissioning, has been recommended by the Minister to proceed with negotiations for the Grant of $1.5M. The Department has invited GreenHy2 Ltd to engage with the TDRI Project Team to negotiate, and subject to agreement, execute the grant agreement, including specific conditions attached to the grant (if any). InfraCo and Parkside Energy will, individually, confirm their agreement or not for the Deed execution to proceed during the detailed negotiations. Should all parties agree to the execution of the Deed the resulting Revenue to Greenhy2 is expected to be approximately $3M.

Background

The Project is to demonstrate the performance and value of a Hybrid Stand-Alone Power Supply for Critical Communications infrastructure sites (mobile or fibre) that is extremely reliable, safe and does not require delivery of any fuel, in particular diesel, to maintain performance. The Project will use solar panels connected to a Solid State Hydrogen Battery and includes a fuel cell and a Hydrogen generator to provide back-up power. The Project will optimise the current TRL8 solid state Hydrogen storage to operate the hydrogen fuelled generator (currently at TRL5). The major advantages of the system are the very high storage capacity of the Advanced Solid State Hydrogen battery which will provide a minimum of ten days operation with no solar input and the high level of safety provided by storing Hydrogen as a solid which is far safer than Lithium, Diesel or compressed Hydrogen from a fire perspective. This system will always have ten days storage due to the design of the solar, include 100% equipment redundancy in-line with the specifications for Telstra Critical sites and operate efficiently at 48-50VDC which negates the requirement for solar inverters and allows the use of reliable DC-DC connection to the load and batteries.

Diesel Removal for Net Zero

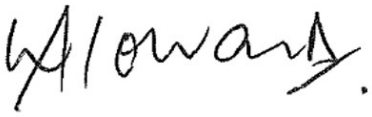
Telstra are already considering the removal of diesel supported SAPS as the requirement for diesel deliveries can add significant risk and complexity to remote or critical sites and is not aligned to a net zero solution. This Proposed project provides a 100% renewable solution that is not compromised by heat over time (as are standard Li batteries including drastically shortened life and reduced capacity). The Advanced Hydrogen battery does not lose capacity with time or temperature, has a tested life of over 30 years and is guaranteed for 20 years, is extremely safe as the hydrogen is stored under molecular form as a solid, has been approved for fire risk by Essential Energy and National Parks and Wildlife, is 100% recyclable and its only by-product is pure water. The Hydrogen generator and fuel cell can provide ideal response to load and can also provide spinning capacity for unusual times of varying load which may occur during disasters such as bushfires. Even if smoke blocks the solar panels, the very high capacity of the Hydrogen battery can easily provide at least 10 days storage in a very small footprint (one 20ft container). The Hydrogen storage is significantly cheaper per KWhr, and safer than Lithium and operates at only 40 bar compared to the alternative of compressed hydrogen gas that is stored at a very high pressure of around 350-700 bar.

Future

The project would optimise the current configuration and include optionality to ultimately finalise the highest performing robust solution for eventual roll-out to all critical infrastructure sites for both fibre optic repeater stations and mobile towers; preparing for a renewable and non-diesel future.

Next Steps

H2G will begin negotiations with the Department of Infrastructure, Transport, Regional Development, Communication and the Arts regarding the Telecommunications Disaster Resilience Innovation (TDRI) Grant Program Department and update shareholders on significant events and/or on execution, or not, of the Deed.



William Howard

Executive Director, Chief Financial Officer & Company Secretary
GreenHy2 Limited

This announcement had been authorised for release by the Board.

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ABOUT GreenHy2 Pty Ltd Formerly Tempoaust Limited
GreenHy2 Limited (ASX: H2G) is one of Australia's leading innovators in the delivery of engineering solutions for renewable energy. The company was established in 2011 and has specific expertise in Solid State Hydrogen Storage for use in fuel cells and as hydrogen gas. GreenHy2 is a clean energy company dedicated to reducing our collective carbon footprint.