

RadMax Technologies Announces Phase 1 Development Funding for New Hybrid Cycle Engine for Vehicles and Power Generation

Spokane, Washington, September 20, 2022 -- REGI U.S., Inc. ("REGI" or "RGUS" or "the Company") (OTC:RGUS). The Board of Directors, Regi U.S., Inc. and its wholly owned subsidiary RadMax Technologies, Inc. (RadMax) are pleased to announce the initial round of funding for the development of a new engine concept for hybrid vehicles, power generation and defense applications.

A Texas equity group is providing Phase 1 funding for development of the RadMax Hybrid Cycle Engine (HCE) that includes third party review of thermal and dynamic modeling, preliminary design, and business case review of the RadMax design.

The RadMax HCE is a closed-loop Brayton Cycle engine consisting of a RadMax low speed positive displacement expander and compressor, high efficiency and low-emissions burner, commercially available heat exchangers, and utilizes a superheated working fluid optimized for increased heat transfer and reduced components size. Utilization of a low-pressure burner to heat the working fluid rather than combustion in the working fluid increases fuel efficiency, reduces NOx emissions and allows for the use of any existing or new liquid, gaseous or renewable fuel including hydrogen.

Preliminary modeling predicts that the HCE can potentially have about the same efficiency and performance with no emissions burning hydrogen as a hydrogen fuel cell, and potentially have about the same life-cycle CO₂ footprint burning current fossil fuels as a battery electric vehicle (BEV) charging from the grid at the current US average. At an estimated one-third to one-half the size and weight of conventional internal combustion engines, the HCE can be an economical power alternative by offering significant greenhouse gas emission reductions using existing fuels and infrastructure.

According to RadMax Chief Technology Officer, Paul Porter, "the RadMax HCE's positive displacement, lower speed and pressure design addresses the traditional turbine engine shortcomings of large airflow and excessive heat transfer losses, low fuel use efficiency, poor startup time and throttle response, and high temperature, noise level and vibration issues".

Analysis shows that there is a large potential market for this type of engine for extended operating hour operation hybrid electric vehicles (HEV) in long-haul trucking, construction, mining, and agriculture applications, and stationary backup power.

RadMax is seeking additional joint development partners for Phases 2 and 3 of the development programs which includes building and testing prototype and demonstration engines leading to commercialization of the engine.

About REGI U.S., Inc.

RadMax Technologies, Inc., the wholly owned subsidiary of REGI U.S., Inc., is a research and development company focused on creating new, disruptive technologies that are more efficient, compact, and cost-effective than those currently available, and is developing and commercializing high efficiency engines, compressors, expanders and pumps for civilian, commercial and government applications based on our patented RadMax™ axial vane-type rotary technology.

FORWARD LOOKING STATEMENTS:

Statements in this press release regarding the business of RadMax Technologies, Inc. and REGI U.S, Inc. (together the "Companies") which are not historical facts are "forward-looking statements" that involve risks and uncertainties, certain of which are beyond the Companies' control. There can be no assurance that such statements will prove accurate, and actual results and developments are likely to differ, in some case materially, from those expressed or implied by the forward-looking statements contained in this press release. Readers of this press release are cautioned not to place undue reliance on any such forward-looking statements.

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