Stonehenge METALS LTD

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Market Announcements Platform
ASX Limited,
Exchange Centre,
20 Bridge Street,
Sydney NSW 2000

PROTEAN™ BUILD UPDATE

- Major structural component build and assembly concluded
- Structural confirmatory testing commencing
- Core energy conversion system components bench testing underway

Stonehenge Metals Limited (**Stonehenge**, or the **Company**) is pleased to advise that the major structural component build and assembly of the Protean™ Wave Energy Converter (**WEC**) has concluded (see Figure 1 overleaf). Bench testing and calibration of core energy conversion system components is progressing according to schedule with dry land testing of the full assembly planned for the coming weeks.

Stonehenge MD, Bruce Lane said *"The assembly of the major structural component of the proof of commercial applicability device is a key milestone in our program to accelerate commercialisation of the Protean™ technology. The Company aims to create an economically viable wave energy conversion system which could help satisfy the global demand for cost effective renewable energy".*

The Company remains focused on proving the commercial applicability of the technology whilst concurrently building local, national and international collaborations from both existing and new supporters of the Protean™ system.

For further information see www.stonehengemetals.com.au, **www.proteanwaveenergy.com.au** or contact:

Bruce Lane – Managing Director
T: + 61 8 9481 2276
E: blane@stonehengemetals.com.au



Figure 1: Major component assembly of the Protean™ with Sean Moore the Protean™ inventor.

When packed the Protean™ WEC is a compact and manageable size optimised for minimising costs associated with deployment, retrieval and transportation and handling.

The three sections of the Protean™ WEC as seen in Figure 1:

1. Mooring (bottom section) anchors the Protean™ WEC to the sea floor.
2. Counterweight (middle section) used to drive the energy conversion mechanism.
3. Surface buoy (top section) which contains the core energy conversion components located above the waterline to minimize corrosion and operational cost.

ABOUT THE PROTEAN WAVE ENERGY CONVERTER (WEC) TECHNOLOGY

Stonehenge has entered into an option agreement to purchase the Protean WEC technology. The Protean WEC system is based upon a point-absorber wave energy converter buoy device, which floats at the water surface and extracts energy from the waves by the extension and retraction of a tether to its anchoring weight on the seabed. The device is unique in that it optimises the conversion of energy from waves at the surface through **all six degrees of wave movement**.

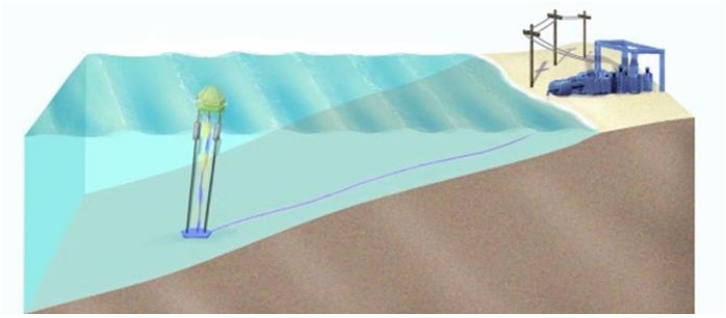

Figure 2:
Protean WEC technology

The Protean WEC has been developed to use compact architecture to produce power from a small, low cost, scalable design targeted at keeping the projected levelised cost of energy (**LCOE**)[1] down. The Protean WEC has been designed to be cost competitive to manufacture, deploy, maintain and retrieve. The future plans for the Protean WEC include the deployment of a pre-commercial demonstration of a dynamic, configurable and scalable power array prior to moving the technology into early commercialisation. During the Option period the Stonehenge assessment program aims to:

1. **Refine** the tried and proven scale device to produce a suitable pre-commercial model;
2. **Create** a scalable power array so as to provide the power requirements of a prospective customer;
3. **Test** the scalable power array for its potential to deliver cost effective power;
4. **Verify** the results, including commissioning of an independent expert to qualify the testing results; and
5. **Commence** commercialisation of the scalable array for small to medium customers.

Protean Wave Energy Converter (WEC) Design, Construction and Deployment

PAST Successfully Tested Prototype	PRESENT AND FUTURE Deploy Demonstration Wave Farm
	
➢ 1.5m wide proof-of-concept device successfully tested. ➢ Device operation validated in varied depths and sea states. ➢ Design principles independently verified from test results. ➢ Simple patented deployment system demonstrated.	➢ Identify and secure deployment sites and customers. ➢ Deploy "proof of commercial applicability" device. ➢ Demonstrate key design improvements. ➢ Deploy an array (farm) of Protean WEC devices. ➢ Confirm Protean as scalable power/water solution.

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[1] Levelised cost of energy is one of the industry's main metrics for the cost of electricity produced. It accounts for all of a system's expected lifetime costs (incl. construction, finance, fuel, maintenance, tax, insurance & incentives), which are then divided by the system's lifetime expected power output (kWh) & discounted for inflation & time cost of money.