Stonehenge
METALS LTD

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protean wave energy

## BUNBURY PORT APPROVES DEPLOYMENT OF 30 PROTEAN™ DEVICES

Stonehenge Metals Limited (**Stonehenge**, or the **Company**) is pleased to advise that formal approval has been received to deploy 30 Protean™ Wave Energy Converter (**WEC**) buoys within the waters controlled by Bunbury Port off the coast of Western Australia[1]. These 30 Protean™ devices represent the Company's implementation of a demonstration wave farm and signifies the next stage in the Company's early commercialisation strategy.

The Company remains focused on proving the commercial applicability of the technology through local, national and international collaborations with both existing and new supporters of the Protean™ WEC system.

Stonehenge MD, Bruce Lane said *"The approval to deploy 30 Protean™ wave energy converters at Bunbury Port is a significant milestone in the early commercialisation strategy of the Protean™ technology. We believe the waters off Bunbury Port to be optimal for this next phase of development and will move us closer to our goal of early commercialisation of the Protean™ wave energy converter."*

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

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

**Media Queries:**
**Fran Foo - Media & Capital Partners**
T: +61 416 302 719
E: fran.foo@mcpartners.com.au

[1] This approval was sought and received by Moore Commerce, a company owned by Sean Moore who is the inventor of the Protean™ WEC. Moore Commerce is contracted by Stonehenge to deliver the 30 buoy WEC demonstration array and any subsequent installations.

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## MORE ON: BUNBURY AND BUNBURY PORT

The Bunbury Port is part of Western Australia's Southern Port Authority which incorporates the ports of Bunbury, Esperance and Albany, which are surrounded by some of the world's richest areas of wave energy.

Bunbury is the second largest city in Western Australia and is the centre for the South West region as an industrial, tourism and commercial base. It is 182 km (two hours by car or train) south of Perth, the State capital, from where there are connections to international and domestic destinations.

The Port is a pivot point for worldwide distribution of products from the South West of Australia. Rail and road links enable the Port to capitalise on cargo throughput. It is strategically located to be a natural distribution point which embraces mining, manufacturing, agricultural and pastoral areas. The major commodities that the Port caters for are Alumina (the main export the port), Mineral Sands, Woodchips, Caustic Soda and Silica Sand. The population of the greater Bunbury area, which includes the adjacent urban centres of Australind, Leschenault, Eaton, Gelorup, Dalyellup and Stratham, is an estimated 67,090[2].

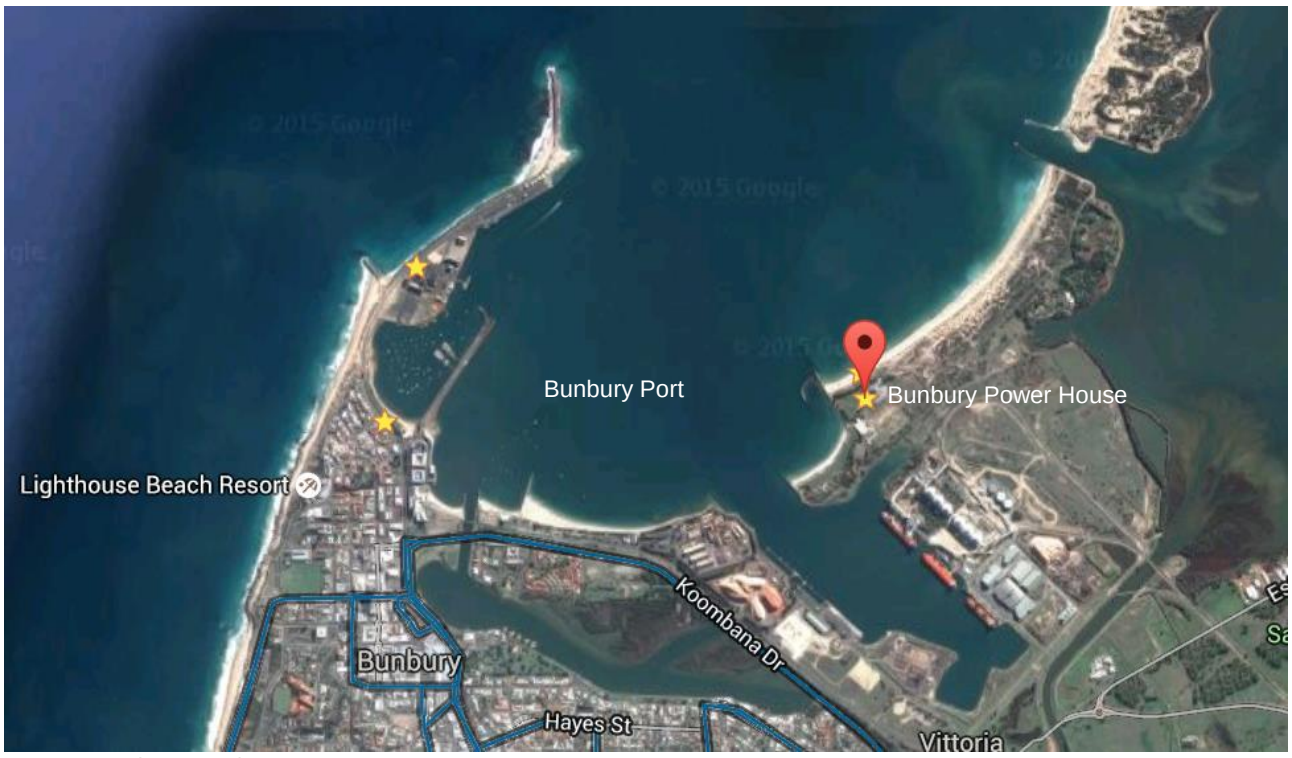


**Figure 1: Bunbury Port location**

Electricity in the Greater Bunbury sub-region is supplied predominantly from coal-fired stations at Muja and Collie. There are currently three main terminal/substations that operate in the Greater Bunbury sub-region being Bunbury Harbour, Picton Terminal and Kemerton Terminal[3].

[2] http://www.swdc.wa.gov.au/our-region/bunbury.aspx
[3] http://www.planning.wa.gov.au/dop_pub_pdf/Bunbury_report.pdf

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## ABOUT THE PROTEAN™ WAVE ENERGY CONVERTER (WEC) TECHNOLOGY

Stonehenge has exercised its option to acquire the Protean™ WEC technology and completion of the acquisition is now subject to Stonehenge successfully re-complying with ASX listing Rules.

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**.

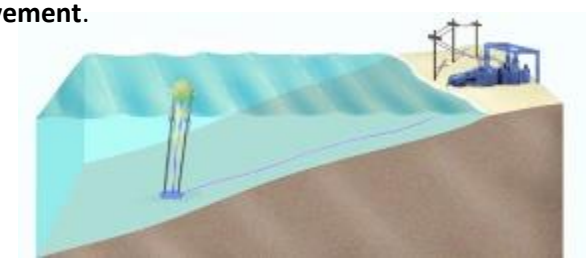
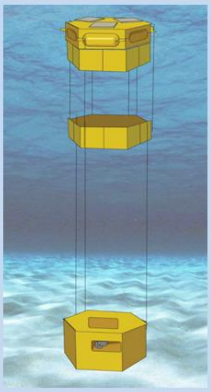


**Figure 2:**
Protean™ WEC technology

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 cost of energy down. The Protean™ WEC has been designed to be cost competitive to manufacture, deploy and maintain. The future plans for the Protean™ WEC include the deployment of a pre-commercial demonstration of a scalable power array (wave farm) prior to moving the technology into early commercialisation. The Stonehenge assessment program aims to:

1. **Refine** the 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 demonstration wave farm 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 (wave farm) for small to medium customers.

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

| PAST<br>Successfully Tested Prototype | PRESENT AND FUTURE<br>Deploy Demonstration Wave Farm |
|---|---|
| |  |
| ➢ 1.5m wide proof-of-concept device successfully tested.<br>➢ Device operation validated in varied depths and sea states.<br>➢ Design principles verified from test results.<br>➢ Simple patented deployment system demonstrated.<br>➢ 1m wide "proof of commercial applicability" unit with key design improvements successfully demonstrated. | ➢ Identify and secure deployment sites and customers.<br>➢ Deploy 30 buoy demonstration Protean™ wave farm.<br>➢ Verify Protean as scalable power/water supply solution.<br>➢ Commence commercial pilot project.<br>➢ Target remote island, port and coastal industry users |

**For further information visit: www.proteanwaveenergy.com or www.stonehengemetals.com.au**