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### **MAKO TIDAL TURBINES IN THE BUKA PASSAGE, BOUGAINVILLE, PNG**

Australian-based companies MAKO Tidal Turbines Pty Ltd and Kleinhardt Pty Ltd have signed a Co-operation Agreement with the Autonomous Bougainville Government (ABG) which will see a business case and funding plan developed for a renewable-based electricity grid for the Buka town, underpinned by tidal energy from the Buka Passage.

Under the Agreement, Sydney Australia based MAKO will survey the Buka Passage for its tidal energy potential and will establish a demonstration site in conjunction with local businesses.

Kleinhardt, an economic development adviser based in Cairns, Australia will commence preparation of a business case for the upgraded grid, given the key role that reliable and cost-effective electrical power will have in all the economic development projects they are helping to facilitate.

#### **Enormous energy potential**

Managing director of MAKO, Douglas Hunt, said "The Buka Passage contains enormous energy potential. In fact, our preliminary estimate is that at any one time up to 35 million tonnes of water is flowing rapidly through the passage between Buka and Bougainville Islands. With the MAKO tidal turbine system, we are confident we can assess and tap into this energy to provide cost-effective and reliable renewable electricity to benefit the surrounding community."

Mr Hunt continued: "We are pleased that the Autonomous Bougainville Government has granted us a two year exclusive mandate to bring together a group of leading renewable energy and storage technology providers to plan the region's first city-scale renewable-based electricity grid, with tidal energy from the Buka Passage as a key component."

Initially, MAKO will undertake detailed resource mapping of the Buka Passage using its proprietary systems and will separately install a tidal turbine demonstration site to provide electricity to a local shoreline business.

In addition, MAKO and Kleinhardt will identify suitable partners to formulate a business case for a renewable-based electricity grid to meet the needs of the 50,000 people living in and near Buka Town. Also, sources of funding will be investigated to ensure the electricity grid can be upgraded to meet the needs of a growing population in the region.

#### **Benefit for local living standards**

Minister for Economic Development in the ABG, Fidelis Semoso, said "The ABG is happy to give support to Mako Tidal Turbines to undertake studies of the Buka passage, to assess its potential for tidal energy generation, particularly as MAKO has agreed to share all of its data with the ABG.

"If the studies find we can unlock this energy potential, then it will change Buka town and the living standards of the people. Therefore, we really support the project" said Minister Semoso.

Mr Douglas Hunt from MAKO concluded: "We have always seen tidal energy as a means to enhance energy security and empower communities. The Buka Passage will become a regional showcase of how tidal energy can provide reliable electricity supply for local businesses, which are the engine of economic growth and prosperity."

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### **About MAKO Tidal Turbines Pty Ltd**

*MAKO Tidal Turbines is a subsidiary of Elemental Energy Technologies Ltd, an Australian unlisted public company which has been developing tidal turbine technology for over nine years. MTT is based in Sydney, NSW Australia and has operations and projects underway in Australia, Japan, Singapore and Europe. MTT's MAKO tidal energy system involves all aspects of tidal energy production from site assessment, cost-effective turbines and remote monitoring of turbines to maximise output and minimise costs to our customers.*

### **About Kleinhardt Pty Ltd**

*Kleinhardt Pty Ltd is a Cairns, Queensland based business consultancy providing economic and business development advice to the ABG. Kleinhardt offers hands on advice and direction to small, medium and large companies across a broad spectrum of industries and government instrumentalities, particularly tourism. Kleinhardt Business Consultants has extensive business experience throughout Australia, Papua New Guinea, South East Asia, the Pacific Rim, China, UK, Russia and USA.*

### **About the Autonomous Bougainville Government**

*The Autonomous Bougainville Government (ABG) was developed from the peace negotiations (Bougainville Peace Agreement) that concluded the Bougainville Crisis era during the 1990s and early 2000s. The purpose of ABG is to function as the official governing entity within the Autonomous Region of Bougainville and to represent and advocate for the interests of Bougainvilleans in the national context of Papua New Guinea and in international affairs. A referendum on the question of independence for Bougainville is due to be held before 2020.*

### **About the Buka Passage**

*The Buka Passage is a narrow body of water between Buka Island and Bougainville Island in the Autonomous Region of Bougainville, in eastern Papua New Guinea. At almost four kilometres long, averaging 400 metres wide and 20-30 metres deep, the natural flow of the tides and currents has created a highly energised site which is ideal for tidal energy. Adding to the attraction of the Buka Passage for tidal energy development is its location in the middle of the thriving Buka town region, a trading hub and seat of Government for the Autonomous Region which has rapidly growing demand for electricity.*

**Images (contact Michael Parkinson for high-resolution copies of any image and embed codes for video)**



**Photo:** Jim Bitomsky Director of Kleinhardt signing the agreement accompanied by (from right) Minister for Economic Development, Fidelis Somoso from the ABG and MAKO Tidal Turbines' CEO Douglas Hunt.

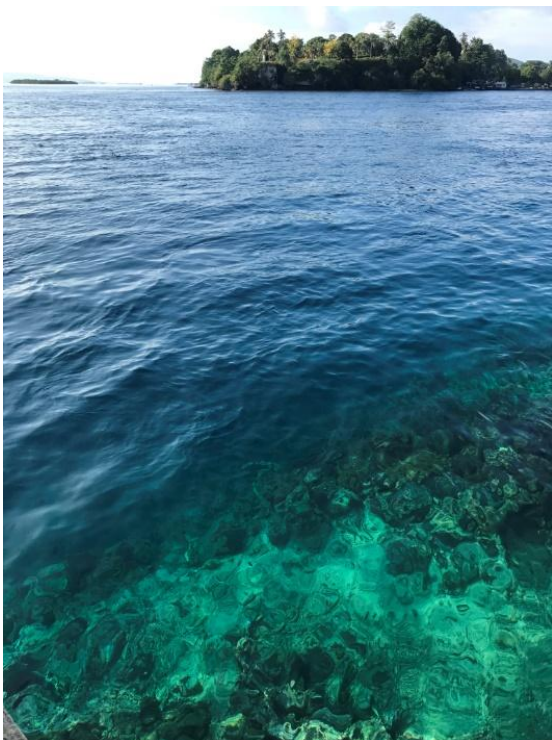


**Photo:** MAKO Tidal Turbines' CEO Douglas Hunt being interviewed by local radio following the agreement signing, accompanied by Jim Bitomsky director of Kleinhardt and Minister Fidelis Somoso from the ABG.





**Photo:** Minister for Economic Development, Fidelis Somoso (left) and MAKO Tidal Turbines' CEO Douglas Hunt being interviewed by local radio following the CoOperation Agreement signing.



**Photo:** The crystal clear waters of Buka Passage, looking towards Sohano Island, Bougainville, PNG



**Photo:** *Buka Passage, looking towards the north past the Buka Port facilities, Bougainville, PNG*



**Photo:** *MAKO Tidal Turbines is pioneering an initial range of small-scale tidal turbines designed to minimise shipping, installation and maintenance costs, particularly in remote locations.*

## NEWS RELEASE



**Photo:** *MAKO tidal turbine undergoing testing on Sydney Harbour, Australia.*

**Video:** <https://vimeo.com/245631479>

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