

ENVIRONMENTAL EFFECTS METADATA SURVEY FORM

Name of person updating the form

Luis Mallen

Date submitted

June 20, 2012

Project name: San Remo

Planned

In Operation

Completed

Project description:

Project Developer: Atlantis Resources Corporation

Technology Developer: Atlantis Resources Corporation

Technology type: Current Turbine

Resource (wave, tidal): Tidal

Project scale (test site, prototype, array, commercial): 3 separate prototypes

Installed capacity (MW): 100 kW, 150 kW, and 400 kW

Project Website: <http://www.atlantisresourcescorporation.com/projects/san-remo.html>

Launch Date: 2006

Additional Description: The three turbines include: a 100 kW Aquanator™ device, a 150 kW AN-150™ (Nereus™ I) device, and a 400 kW AN-400™ (Nereus™ II) device. The AN devices are shallow water turbines that have been extensively tested and grid connected at San Remo, Australia. The turbines use Aquafoils™ to capture momentum from the flow of water to drive a chain perpendicular to the flow. The turbines are robust and can withstand water flow containing significant debris. The design is fully scalable and has been developed over a 6 year period with multiple tow-testing and continual optimizations.

Location:

Ocean/Water body: Newhaven Wharf

Closest city: San Remo, Victoria, Australia

Country: Australia

Depth:

Coordinates: -38.52007°, 145.36084°

Process status: The Atlantis Resources Corporation began scaled testing in 2002 with ocean based tow-testing programs. In September 2006, a 100 kW Aquanator™ device was installed at San Remo and connected to the national grid. In May 2008, the Aquanator™ turbine was removed from the site and decommissioned. That same month, the 150 kW Nereus™ I, now known as the AN-150™ tidal current turbine was installed and grid connected. By July 2008, efficiency enhancements resulted in the Nereus™ II or AN-400™ tidal current turbine that was tow tested in an open ocean environment at San Remo.

The primary shareholder for Atlantis was Morgan Stanley, a US investment bank. In 2008, Atlantis acquired Morgan Stanley's UK-based marine power project origination and project management business, Current Resources Ltd., renamed Atlantis Resources (UK) Ltd. This acquisition gave Atlantis financial rigor and discipline while allowing the only vertically integrated marine power solution in the market.

Licensing information (brief description):

Please provide a brief description listing the organizations involved, licenses needed and duration of consent process. One paragraph should suffice.

Key Environmental issues: In over two years of independent testing, Atlantis has recorded zero environmental impact. It has been concluded that the Nereus™ turbine installed at the Newhaven site poses no threat to migrating mammals from an acoustics perspective nor any of the local population of seals and penguins due to the low rpm of the turbine when in operation.

Environmental webpage: *link to project official environmental webpage (if available)*

Baseline studies and project effects studies: San Remo				
General description				
Receptor	Study description including question and/or objective (several can be listed per receptor)	Design and methods (brief description)	Results (brief description)	Status (planned, underway, completed, with dates)
Physical environment				
Benthos				
Fish and fisheries				
Large vertebrates				
Birds				
Marine uses / users				

Other* (can be named)				
Reports or Papers	(Key papers on the areas addressed should be listed here; when possible the files themselves can be made available in downloadable PDF format, alternatively links to the files or project website can be provided when available e.g. SeaGen.)			
Research Projects	(past or on-going environmental research projects at the site)			

Monitoring and adaptive management: San Remo				
General description				
Receptor	Monitoring program description including question and/or objective (several can be listed per receptor)	Design and methods (brief description)	Results (brief description)	Status (planned, underway, completed, with dates)
Physical environment				
Benthos				
Fish and fisheries				
Large vertebrates				
Birds				
Marine uses/users				
Other* (can be named)				
Reports or Papers	(Key papers on the areas addressed should be listed here; when possible the files themselves can be made available in downloadable PDF format, alternatively links to the files or project website can be provided when available e.g. SeaGen.)			
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