



WAVE RIDER WAVE ENERGY PILOT PLANT

Name of person filing the form

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Project name: Wave Rider Wave Energy Pilot Plant near Lockswell Beach

Project description:

Project Developer: Wave Rider Energy

Technology type: offshore wave energy converter

Resource: wave

Project scale (test site, prototype, array, commercial): Prototype

Installed capacity (MW): 0.25

Additional Description: The Wave Rider™ is an offshore wave energy converter technology that converts the kinetic energy of the ocean into mechanical energy.

Project Website: www.waveriderenergy.com.au/

Location: The Wave Rider energy converter it will be deployed off the west coast of South Australia and it will float about 800 meters off Elliston on Eyre Peninsula and at 28m depth.

Coordinates: 135° 0.517'E, 33° 44.505'S

Process status: The Wave Rider Energy project is a pre-commercial plant with no grid-connection.

Current status of the project implementation and future developments:

The Wave Rider is currently moored in the Port Adelaide River and is undergoing a period of commissioning before being towed to the Eyre Peninsula.

Expected operation date: 12-18 months with trials likely to start in January 2013

Licensing information (brief description):

Licenses required are development approval by the development assessment commission in South Australia as well as a seabed lease from the South Australian government. The local council is also involved in the process. Additionally, approval is required by the Federal Environmental Department



Key Environmental issues:

Environmental impacts such as coastal processes, water quality and visual impacts are assessed during the selection of the development location. The interaction of the pilot plant on birds, seals, Australian Sea-lion, Southern and Pygmy Right Whales will be monitored during the pilot study. To better document the interactions of the Wave Rider with the surrounding environment, this is done through well developed and comprehensive adaptive management and monitoring programs.

Environmental webpage:

Baseline and project effects studies:				
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	To study the effect of mooring fixtures to the marine sea grasses			Planned
Benthos	To identify the risk associated with physical damage to marine flora			Planned
Fish and fisheries	To study the interaction of the Wave Rider and the commercial fishery operations.			Planned
Large vertebrates	To study the relationship between the noise and the sensitivity hearing ranges of the animals			Planned
Birds	To confirm quantitatively that there are no adverse effects to the bird populations resulting from the Wave Rider			Planned
Reports and papers	—			



Monitoring and adaptive management				
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)
Benthos	To reduce vigour and death to seagrasses and seaweeds	Established shipping routes which will be utilised		
Large vertebrates	To confirm quantitatively that there are no adverse effects to the whale and sea lion populations resulting from the Wave Rider	Noise loggers are used during operations		
Birds	To reduce the seabird collisions	Devices that alert the birds to the presence of obstructions are incorporated on the Wave Rider		
Marine uses/users	To avoid injury and death from collisions	Fitted with navigation lights and flashing lights to indicate the presence of the structure		
Other (can be named)	To reduce any incidences of pest introduced species movement			planned
Reports and papers	- Key papers on the areas addressed will be available on website in June			