

PROJECT SITE METADATA SURVEY FORM

Name of person updating the form

Xuwei

Date submitted

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Project Name: **Wanxiang-I Project**

Planned

In-Operation

Completed

Canceled

Project Description:

Project Developer: Harbin Engineering University (HEU)

Technology Developer: Harbin Engineering University (HEU)

Technology type: Vertical-axis tidal turbine

Resource (wave, tidal): Marine currents

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

Installed capacity (MW): 70 kW

Project Website: N/A

Launch Date: 2002

End Date: 2004

Additional Description: Wanxiang-I was the first floating moored tidal current turbine in China. The device consists of two vertical axis rotors, driven systems, control mechanism and floating platform. Each 2.2 m diameter rotor consists of four vertical blades with variable pitch. Thin spokes in tension connect the blades to the hub for the purpose of transferring torque. A shaft connects the hub to the gearbox coupled to the generator forming the driven systems. The rotors, driven systems and control mechanisms are supported by a floating platform, which is kept floating by a pair of hulls. The floating platform then moored to the seabed through a mooring system, which includes four gravity anchors and light chains.

Location: Guishan Channel, China. Near Daishan in the Zhejiang province.

Coordinates: 0.223442°, 122.202591°

Process Status: N/A

Licensing Information: N/A

Key Environmental Issues: N/A

Environmental Webpage: N/A

References:

- China Funds Development Of New Tidal Current Energy Devices
- Wang S., Yuan P., Li D., Jiao Y., 2011. An overview of ocean renewable energy in China. Renewable and Sustainable Energy Reviews, 15, 91-111.