

# RHEEM LAB.

## [R&D and Demonstration of Wave Power Plant]

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<http://seasat.iis.u-tokyo.ac.jp/rheem/>

### Sabusawa Tidal Current Power Plant

Location : Sabusawa Channel in Shiogama City, Miyagi Pref.

Installation : November 18, 2014

Maximum Power : 5 kW (Current Speed 1.25 m/sec)

Features : The power from the two vertical axial current turbine axes is brought together using a hydraulic system to generate electricity. Each turbine axis has two-stage turbine blades having different phases. Japan's first grid connected tidal current power generator.



Kuji ●

### Kuji Wave Power Plant

Location : Tamanowaki fishing port in Kuji City, Iwate Pref.

Installation : September 8, 2016

Maximum Power : 43 kW (Wave Height 4 m)

Features : Hydraulic drive pendulum wave power generator (Wave-Rudder Type) based on a hydraulic steering system for large commercial vessels. Japan's first grid connected wave power generator



Shiogama ●

Hiratsuka ●

### Hiratsuka Wave Power Plant

Location : Hiratsuka Fishing Port in Hiratsuka City, Kanagawa Pref.

Installation : **Scheduled for February 2020**

Maximum Power : 45 kW (Wave Height 1.5 m)

Features : The second generation of the Wave-Rudder Type WEC with vertical layout ram-type hydraulic cylinders (VTC). The Wave-Rudder is composed of aluminum and rubber plates. The wave energy reflected by a wall is used in addition to the incident wave energy

