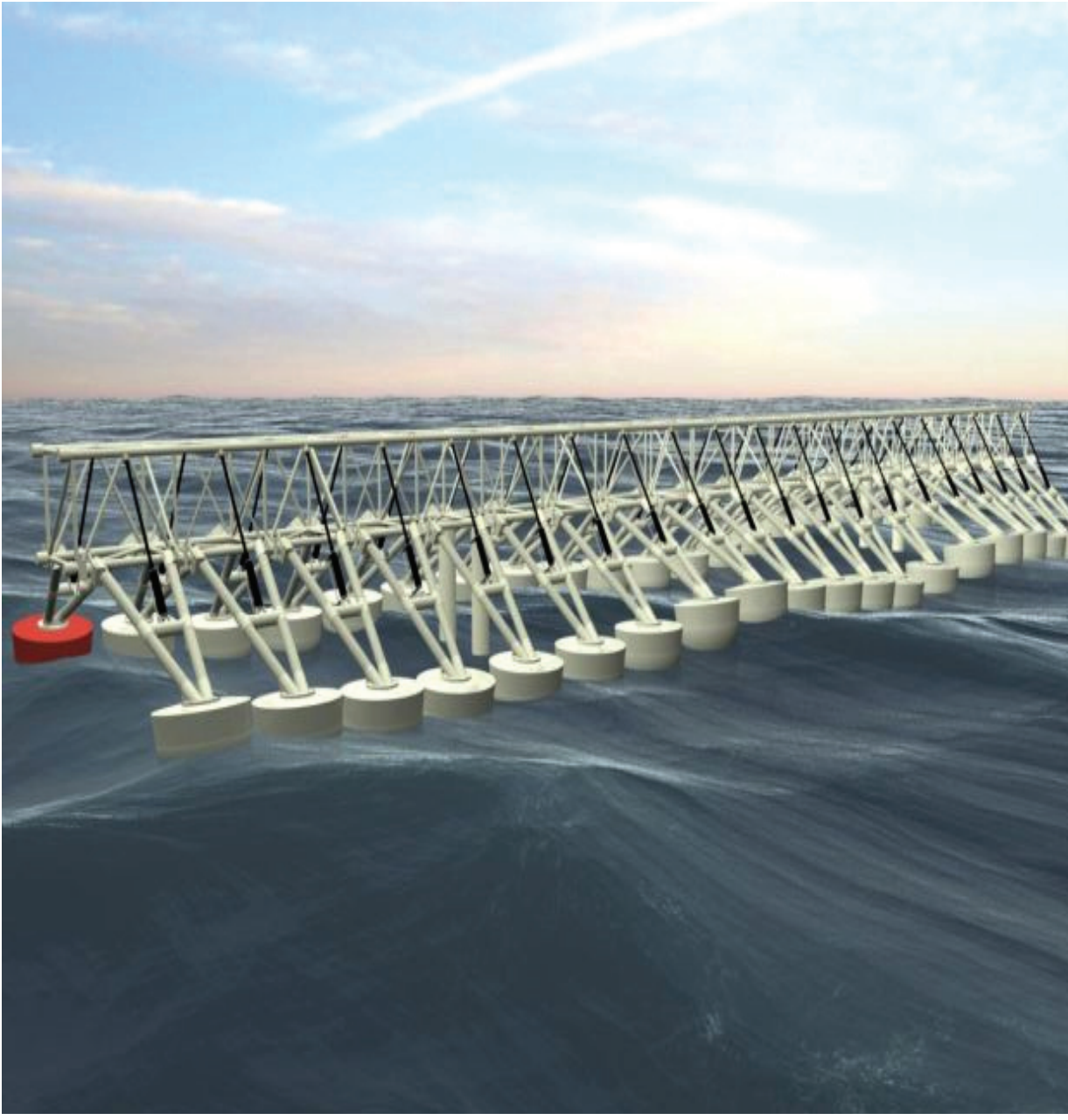


Wave Energy Converters (WECs)

Wave Star Energy – Wave Star[©]



The Wave Star machine is an attenuator device that cuts in at right angles to the direction of the wave and the waves run through the length of the machine. On either side of the oblong machine there are 20 hemisphere-shaped floats which are partially submerged in the water. When a wave rolls in, the first float is lifted upwards, and then the second and so on, until the wave subsides. The floats are each positioned at the base of their own hydraulic cylinder. When a float is raised, a piston in the cylinder presses oil into the machine's common transmission system. The pressure drives a hydraulic motor, which is connected to the generator, which produces the electricity. The device sits on piles like an offshore structure and the floats are raised above the waves for survivability.

Waveberg*



The Waveberg is an articulated set of connected floats that flex as waves pass under them. This bending motion is then used to pump seawater under pressure to ashore. On land, the pressurized sea water is run through a turbine which generates electricity.

Wavebob Ltd. – Wavebob*



The Wavebob WEC can be moored and maintained in large multi-megawatt arrays offshore. Wavebob is a free floating, self-reacting, axi-symmetric point absorber. This is tuned to the incident wave action using a system to change the device's natural resonance frequency without changing the float's draught.

* Responded to PG&E's Wave Energy Converter System Request for Information (RFI) for consideration for the Humboldt WaveConnect Pilot Project

PG&E has not selected any of these devices for the proposed WaveConnect projects

