



BILBOQUET

PRODUCING ELECTRICITY BY RECYCLING ENERGY FROM THE OCEAN SWELL

The Bilboquet project involves creating a new, high-output electricity generating system, based on recycling the energy of the ocean's swell, using the movement of a guided buoy to drive a generator.

The main equipment will be supported by an anchored column, whose restricted motion serves as a reference point for the buoy system oscillating with the swell. As the buoy rises and falls in time to the swell, which has a maximised range, it transmits the swell's energy via a high-output rack and mechanical transmission system. The Bilboquet may be anchored at various depths and offers the crucial feature of multidirectional functioning.

The scale of the Bilboquet may be adapted to suit environmental conditions (ocean swell and depth) and to optimise energy output, which will range from 1 500 to 3 500kW, and includes a 120-kW demonstrator that could offer an alternate source of sustainable energy for isolated island locations.

The project will develop this low-power system and, through its realisation and sea trials, will enable the R&D to be validated.

The project partners will, in addition, perfect a method for simulating the output of a farm of Bilboquets, which can be adapted to other groups of renewable energy systems (e.g. offshore wind farms).

The project's subsequent ambition remains the eventual production of units generating an average of 2MW.

Partners

Companies

D2M, La Seyne-sur-Mer [[Project Developer](#)]
Adeneo, Ecully
Bureau Véritas, Paris
CervVal, Brest
CMD, Cambrai
Jeumont Electric, Jeumont
Océanide, La Seyne-sur-Mer

Research centers

ENIB, Brest
Ifremer, Brest
Laboratoire Ampère, Université de Lyon

Funders

- Fonds Unique Interministériel
- Conseil régional de Bretagne
- Conseil départemental du Finistère
- Brest métropole
- Collectivités territoriales PACA

Labelisation

19/11/2010

Overall budget

3 347 K€