

TURBOWAVE

Air Turbines
for the Wave Energy Industry

PUBLIC PROCUREMENT OF INNOVATION

ENERGIAREN
EUSKAL ERAKUNDEA
ENTE VASCO
DE LA ENERGÍA

EUSKO JAURLARITZA GOBIERNO VASCO
EKONOMIAREN GARAPEN,
JASANGARRITASUN
ETA INGURUMEN SAILA DEPARTAMENTO DE DESARROLLO
ECONÓMICO, SOSTENIBILIDAD
Y MEDIO AMBIENTE



Commissioned in 2011, the Mutriku Wave Power Plant was the first commercial installation in Europe to use wave energy to generate electricity. It is housed within the breakwater protecting the harbour, which stands on the Bay of Biscay. Accumulated output to date exceeds 2.4 GWh. The plant uses Oscillating Water Column technology to convert the energy.

The Project

The purpose of the TurboWave Public Procurement of Innovation is to acquire technologically innovative solutions for air turbines that can be used in the Mutriku wave power plant.

This challenge covers the design, development and demonstration of a cost-efficient, reliable and safe air turbine system to produce electricity. The proposed technologies will be evaluated in terms of efficiency, controllability, reliability, maintainability and affordability.

Project Phases

TurboWave plans to install and operate prototype air turbines at the Mutriku wave power plant over a period of 12 months. For this purpose, the project will comprise the following phases:

- **Phase 1:** Concept development.
- **Phase 2:** Design refinement and laboratory testing.
- **Phase 3:** Detailed design, manufacture and testing at the Mutriku wave plant.
- **Phase 4:** Procurement of a minimum of 2 and a maximum of 8 turbines.

Quote

	PHASE	Maximum amount per tenderer (not including VAT)	Target number of proposals to be awarded	Total Phase (not including VAT)
Phase 1	Concept development Duration: 6 months	€100,000	6	€600,000
Phase 2	Design refinement and laboratory testing Duration: 12 months	€300,000	4	€1,200,000
Phase 3	Detailed design, manufacturing and testing at MWPP Duration: 18 months	€700,000	2	€1,400,000
Phase 4	Turbine procurement	-	1	To be determined
	TOTAL	€1,100,000	-	€3,200,000

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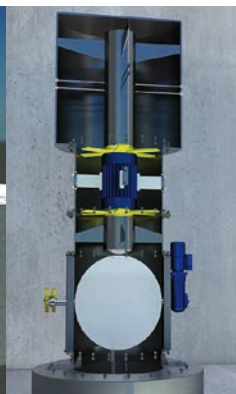
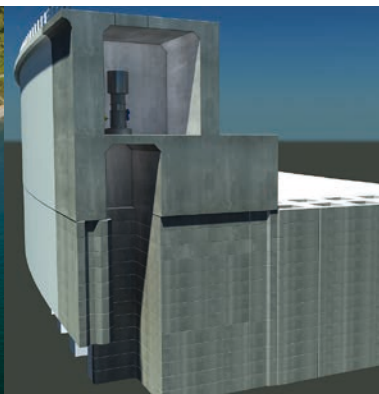
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Estimated timetable

PHASE	DATE
Start of Preliminary Market Consultation	December 2021
Bidding	April 2022 - October 2022
Execution of the contract	November 2022 - March 2026



Preliminary Market Consultation

Prior to putting the project out to tender, Ente Vasco de la Energía convenes a Preliminary Market Consultation to inform potential operators interested in taking part in the project and obtain useful data for designing the tender. The objectives are:

- To identify candidates potentially interested in conducting the project.
- To check the existing state of the art.
- To determine the most suitable mechanisms of Public Procurement of Innovation for solving the technical challenges posed.
- To check the suitability of the scopes, deadlines and budgets proposed.

Procedure for participating in the consultation process

The Preliminary Market Consultation is open and is targeted at any agent who wishes to collaborate in the definition and scope of the project to be tendered.

Submission of proposals

Via the online questionnaire <https://bit.ly/TurboWave>

Deadline

The deadline for submitting proposals via the questionnaires will be 17 February 2022.
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