

Modular floating wave energy converter

Sector: Marine energy

Short description of the needs:

Challenge: Coastal areas need resilient, low-impact renewable energy solutions that combine power generation, infrastructure integration, and environmental protection, while also ensuring scalability and cost efficiency.

Objective: Develop a modular floating wave energy converter based on a multi-chamber Oscillating Water Column (OWC) architecture with a unidirectional turbine. Design scalable, near-shore systems derived from recycled containers, enabling integration into breakwaters and coastal infrastructures. Advance full-scale prototyping, environmentally sustainable anchoring solutions, and system optimization, with future integration of other public and private-use energy applications.

Cooperation Opportunities: Collaborate on prototyping, marine engineering, electronics integration, and sustainable anchoring technologies to accelerate the production of replicable wave energy systems and support hybrid coastal energy hubs.

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