

The consortium for the project Undigen+, led by the company Wedge Global, S.L. has developed a wave energy converter with an innovative electric generation system. This system is in its final testing phase of functionality, and in turn is potentially suitable for different types of Wave Energy Converters-WEC's (Vertical and pendulum motion point absorbers, and oscillating water column, among others).

Notwithstanding the potential of this innovative power generation solution strictly for energy use, the applicability of this technology in an autonomous aspect is also configured; this is, as a platform for the installation of measuring equipment in the marine environment, addressing a potential industrial-commercial development the earliest possible.







The approach to wave energy generation should be noted, focusing and giving priority to the PTO which is considered the key element of the global conversion system (WEC), as this key element can modify the properties of the captor, adjusting it, in turn, as a system of direct conversion eliminating intermediate steps; therefore providing greater reliability and associated lifespan, together with a significant costs reduction for operation and maintenance of the WEC's.

Consequently, the essential aim of the project focuses on performing the aforementioned performance, in order to use the renewable energy generated to power the equipment installed in the captor. They might be all sort of devices: coastal surveillance equipment, communications and research equipment, marine environment sensors, etc.; together with effective characterization of the marine environment from a global perspective.

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