

UER - Unidade de Energias Renováveis
e Integração de Sistemas de Energia



OffshorePlan - Planning the installation of
Offshore Renewable Energy Systems in
Portugal



Project Data:

Project designation: OffshorePlan – Planning the Instalation of Offshore Renewable Energy systems in Portugal

Project code: POEUR-01-1001-FC-000007

Objective: Support the transition to a low carbon economy across all sectors

Region: continental Portugal

Beneficiary: Laboratório Nacional de Energia e Geologia I.P.

Date of approval: 27.10.2016

Start date: 01.01.2017

End date: 31.10.2019

Total eligible cost: 355.288,40€

Financial support from EU (Fundo de Coesão): 301.995,14€

Public national/regional support: 53.293,26€

Project Objectives:

This project aims to promote the implementation of systems to exploit offshore renewable energies on the Portuguese Coast. To achieve this, three main objectives were set:

Obj1: To identify the renewable energy resources (var-RES) in the Portuguese Coast (offshore wind and waves - mapping and corresponding validation);

Obj2: Impact of offshore var-RES generation in the national electricity system (2035); Estimation of the temporal evolution of the reception capacity of the national electric grid for the production from offshore renewable sources (2035); Identification of the optimal participation of offshore wind generation in a (100%) renewable (2035) power generation system, and;

Obj3: Technical, economic and social analysis of the use of energy at sea (hierarchy of renewable energy technologies at offshore regions through its LCOE; Socio-economic and value chain analysis).

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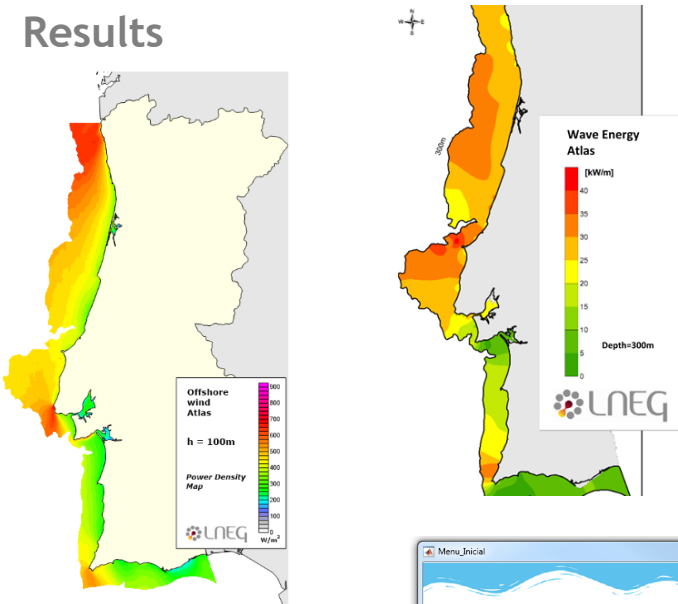
Aknowledgements:

LNEG and project
OffshorePlan team are
deeply grateful to the
Direção de Faróis da
Marinha Portuguesa
(Lighthouse Directorate of
the Portuguese Navy) for
allowing the use of several
lighthouse facilities as the
coastal sites for the
experimental wind
measurement campaigns.

Activities

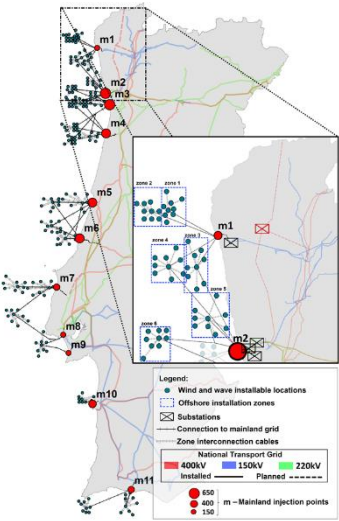
This project integrates 6 activities: **Activity 1:** Project Coordination and Management; **Activity 2:** Mapping of renewable resources available in offshore and nearshore off the Portuguese coast; **Activity 3:** Identification of exclusion zones and other constraints to the development of systems for the use of offshore renewable energies on the Portuguese coast; **Activity 4:** Development of technical-economic mathematical models for the optimization of evolution scenarios of the offshore renewable sector; **Activity 5:** Characterization of the main socioeconomic constraints to the development and implementation of technologies and identification of approach strategies; **Activity 6:** Dissemination of results.

Results

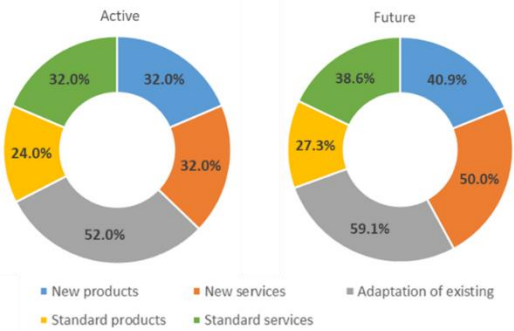


Validated and updated
offshore Wind
Potential Atlas.

Estimated wave energy
atlas based on collected
data and data from
ONDATLAS.



Economic analysis tool –MarinePLAN.



Products/services the companies supply/plan to supply to the marine energy area. Study of the construction of the new value chain in the offshore renewable sector.