



European flagship Action for cold ironING in ports



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APDL
PORT AUTHORITY
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EALING Studies - Activity 6. CBAs and Financial Blending Schemes – CBA for Leixoes Port

Leixoes Port – Local Stakeholder Workshop

12 December 2023

1 Activity Description

2 Required Inputs

3 Main Results

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Activity Description

Objectives

- 1. Perform Cost-Benefit Analyses for each OPS project of the maritime ports involved in the EALING Action** based on the final technical designs of the proposed infrastructure (Act.3), including:
 - Quantification of the determined OPS infrastructure based on market data;
 - Investment costs estimations;
 - Expected socio-economic benefits, including the results of the environmental studies on benefits of OPS on reduction pollution and noise as well as on the effects of the operational, climatic and regional conditions which are specific to the ports;
 - Estimations of costs with and without the implementation of OPS solutions for all categories of vessels calling at ports of the consortium, in order to assess competitiveness of the electrification of the ports of the consortium.
- 2. Design suitable investment schemes for selected OPS projects of the maritime ports involved in the EALING Action** resulting in targeted financial analysis for attracting investors based on the development of financial roadmaps for the proposed investments.

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Required Inputs

Required Inputs per port:

Technical Specifications of the Proposed Infrastructure (Act.3)

Investment Cost Estimations

Operational Cost Estimations (Maintenance, Staff costs etc.)

Electricity Cost Estimations

Electricity Demand Estimations

Required Inputs for Environmental Benefits (National Electricity Grid Mixture etc.)

Estimated Annual Port Calls

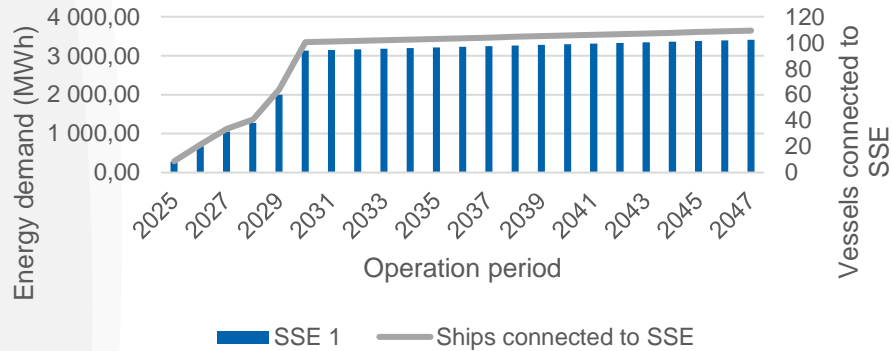
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3

Main results

CBA for the Core Port of Leixoes

Estimated Energy Demand in Leixoes Port & Proposed Financing Sources of Project



Main Results of Cost Benefit Analysis – Leixoes Port

Financial Analysis	Socio-Economic Analysis
Net Present Value (NPV) = -799.792 €	Economic Rate of Return (ERR) = 23%
Internal Rate of Return (IRR) = 0%	Economic Net Present Value (ENPV) = 8.609.281 €
Funding Rate = 65%	Corrected Net Present Value of Costs (C) = 4.534.236 €
After EU Grant Net Present Value of Investment = 148 €	Corrected Net Present Value of Benefits (B) = 13.143.517 €
After EU Grant Internal Rate of Return (IRR) = 4%	Benefit – Cost Ratio (B/C) = 2.90

Thanks!



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