ONSHORE POWER SUPPLY OPS PROJECT
FOR THE PORT OF BILBAO
• Strategic Investment.
• “Fit for 55” Port.
• Connected to the rest of European electric Ports of the Atlantic Corridor.
• Submitted to the CEF Transports 2021-2027 call. (A1,A2,A6,AZ3,Getxo1,2 y Getxo 3)
• OPS in wharves A5 financed by MRR.

BilbOPS is part of the OPS Master Plan for Spanish Ports coordinated by Puertos de Estado (the State Ports authority)

Resilient, green and innovative OPS services.
Alternative Fuels Services:
- LNG (On service 1S-2022)
- OPS Infrastructure (2025)
- H₂ & E-fuels Plant

Green Energy Co-Generation Hub:
- Photovoltaic Solar Power (2025)
- Wind Power (Since 2006)
- Wave Power

OPS (Onshore Power Supply):
- Phase 1 (CEF Transport)
  A1, A2, A6, A23, GETXO 1-2, GETXO 3
- Phase 2 (RRF)
  A5
- Phase 3 (Future Quay)
  A3, A4
- Phase 4 (OPS Floating Power Platforms)
  Mobile Cold-Ironing

Services

Bilbao Port

Investment (Phase 1 y 2)

Wharves: 7

In Service by 2025

Power: 30 MW

Historical Investment (Phase 1 y 2): 51.8 M€
The Port of Bilbao is to add 30 MW of installed power capacity for OPS, scheduled to come in line in 2025. To that end:

- The Iberdrola electrical substation in Santurtzi will be upgraded to 60 MW
- The port facilities will be connected to the Iberdrola electricity grid.
- Frequencies of 50 & 60 Hz
- 3 distribution centres will be installed.
- 11 OPS connection points (MV & LV)
- 20 take-offs for flexible service.
- 1 underwater cable (1.34 km)

By 2027:

- A 20 MW wind farm has been in place since 2006 (Energías Renovables del Abra).
- A PV plant is to be installed on four outer sea-walls with a rated power capacity of * Mz.
- A prototype wave energy plant using of the infrastructure at the port itself is to be installed, which could lead to an industrial scale plant providing up to 12 MW.
Reduction in Emissions
**Strategic Project: Financing structure**

- **CEF Transport 2021-2027**: Submitted wharves A1, A2, A6, AZ3, Getxo 1, 2, and Getxo 3.
- **Investment**: 47,513,253 €
- **Port Authority Investment**: 33,259,277 APB: 70%
- **Requested grant**: 14,253,976 Requested to the EC: 30%

**Mecanismo Recuperación y Resiliencia**: Approved wharf A5

- **Investment**: 4,340,000 €
- **Approved Grant**: 4,340,000 €

**Public-Private economic impact of OPS: 91 M €**

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<thead>
<tr>
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<th>Public Investment</th>
<th>Private Investment</th>
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<tr>
<td><strong>OPS Investment</strong></td>
<td>43,9 M € OPS infrastructure</td>
<td>13,9 M€ vessel adaptation due to the OPS projects</td>
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<tr>
<td><strong>Green Energy HUB</strong></td>
<td>7,9 M € photovoltaic plant</td>
<td>23 M€ wave power plant</td>
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**Economic Performance**

**Socio-Economic**: High (environment and public health)

**Financial**: negative, mitigated if grant is achieved.

**OPS Startegic Project (91 M €)**: For the sector (ship owners, renewables etc.) and local innovation.

**Public/Private alternative fuel investment (188 M €)**: Complementary to OPS (APB), LNG and H2 BH2C (Petronor/Repsol)

**Fit for 55 regulation needs and tax exemptions.**
**Innovation Ecosystem: Living Lab**

- superconducting wires
- Wave Power Technology
- Second life batteries
- Corredor Vasco del Hidrógeno (BH2C)

**Consensus and Cooperation: Network Effect**

- 34 support letters
- Collaborating with European Ports, Puertos del Estado (OPS Masterplan) and Ship Owners: BilbOPS Forum
- Institutional support.
For people
Lower levels of emissions (nitrogen, sulphur dioxide), noise and vibrations. Direct improvements in living conditions for 125,000 residents in the neighbouring towns of Getxo, Santurtzi and Zierbena, 116,000 passengers and 10,000 workers at the port.

Planet
- A 38.8% drop CO2 emissions from the port
- A total decrease of 9,062 t of CO2.

Profit
- OPS services for over 900 stopovers per year on the container, ferry and cruise liner wharves.
Public/private investment:
  - Over €91 million (OPS & renewables)
  - Over €188 million (alternative fuels, H2, LNG & OPS)