JTF.08.989: Provision of High and Low Voltage On-shore Power Shore Supply in the South Harbour Region of the Grand Harbour

5 December 2025

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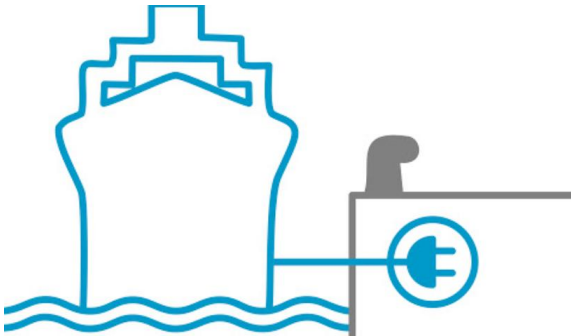
Onshore Power Supply (OPS)

Allows ships at port to turn off onboard fossil fuelled engines and draw power from shore side electrical grid

By plugging into shore power, ships reduce emissions, noise and vibration in port areas

OPS systems are based on technical standards for safety and compatibility

Ongoing technical innovation



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Why is OPS Important in the EU?

Environment:

Fossil fuel powered ships are a significant source of emissions

OPS practically eliminates ship emissions in port

Carbon footprint significantly reduced through use of electricity

Health:

Reduced NOx, SOx, particulate matter and noise in port

Cleaner air important for ports such as Valletta surrounded by cities

Regulatory:

Alternative Fuels Infrastructure Directive (AFID) 2014/94/EU

FuelEU and AFIR: 2030 target for Cruise, Container and RoRo ships

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PORT OF VALLETTA OPS PROJECTS

- **OPS North Harbour Region and Boiler Wharf**
- Target ships: Cruise Liners in operation
- Implementation: 2020-2024
- Operational
- Co-financed through Connecting Europe Facility (CEF)

- **OPS South Harbour Region**
- Target ships: RoRo and General Ships (Operational)
- Cruise, Container and General Ships (in Dock)
- Envisaged Completion: 2026
- In-progess
- Co-financed through Just Transition Facility (JTF), CEF and national funding

UNDER CONSTRUCTION

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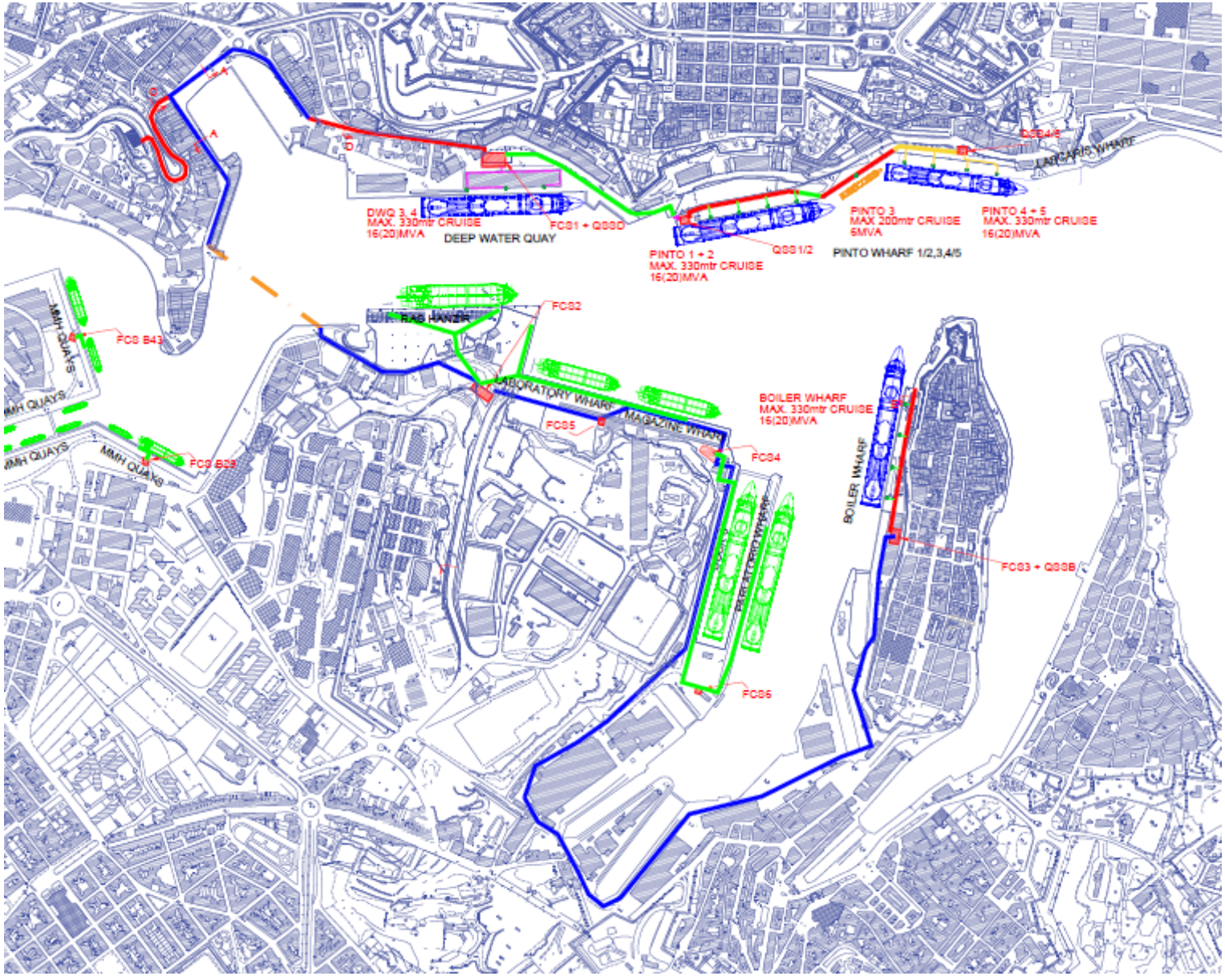
PORT OF VALLETTA OPS SYSTEM



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HOW OPS WORKS

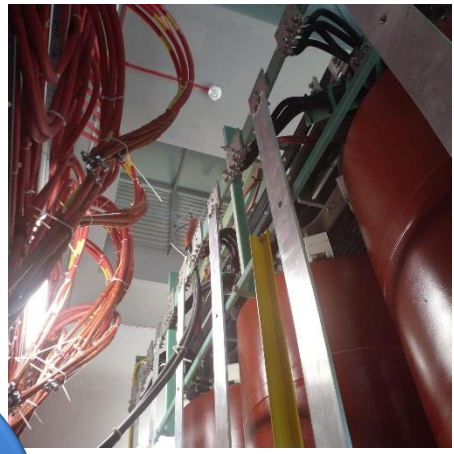
Grid Operator Clearance

Incoming Power Transformation & Frequency Conversion

Switching Selectable Output Voltage & Power to Quay & Connection point

Cable Management Equipment to Connect Cable(s) to Ship

Shore to Ship Communication Link Validation Checks and Power Transfer Sequence



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BUDGET – SOUTH HARBOUR PROJECT

€43.66m total budget funded as follows:

€23.39m through JTF Grant plus

€5.25m through National Funds

Civil works and equipment at Palumbo & MMH

€15.0m through CEF Grant

Equipment at Ras Hanzir, Magazine and Laboratory Wharves

Clear demarcation both financially and in terms of physical works

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PROJECT OBJECTIVES & DELIVERABLES

Target ships:

Ro-Ro

Container

General Cargo

Cruise

Quays: 8

Ras Hanzir

Laboratory & Magazine wharves

MMH Quay 2, Quay 5 and Dock No. 7

Palumbo Parlatorio Wharf & Dock No. 6

Buildings: 4 Frequency Control Stations & 2 Switch Rooms

Ras Hanzir Lab & Magazine Wharves : FCS2 and FCS5

Palumbo: FCS4 and FCS6

MMH: FCS B29 and FCS B43

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PROJECT OBJECTIVES & DELIVERABLES

Power Delivery to Ships 36 MVA

Connections Points

7 at Palumbo (through JTF)

17 at MMH (through JTF)

3 at Ras Hanzir (through CEF)

3 at Laboratory Wharf (through CEF)

3 at Magazine Wharf (through CEF)

Cable management Mobile & fixed cable connections

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PROJECT WORKS BEING CARRIED OUT

- Design
- Equipment selection and ordering
- New frequency converter buildings' construction
- Existing building restoration and re-purposing
- Earthing of buildings
- Rock Stabilisation
- Underground cable infrastructure duck banks

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FREQUENCY CONVERTER BUILDINGS

FSC6

FSC2

FSC4

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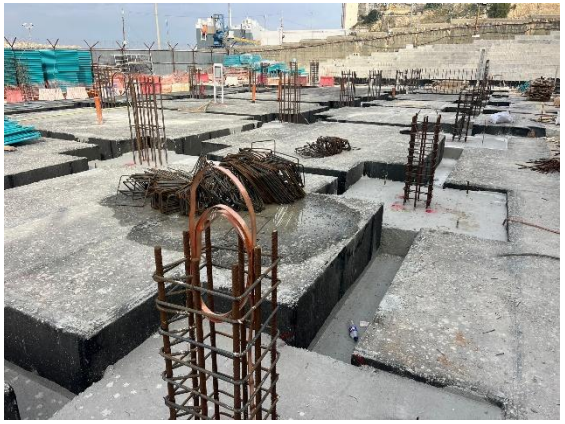
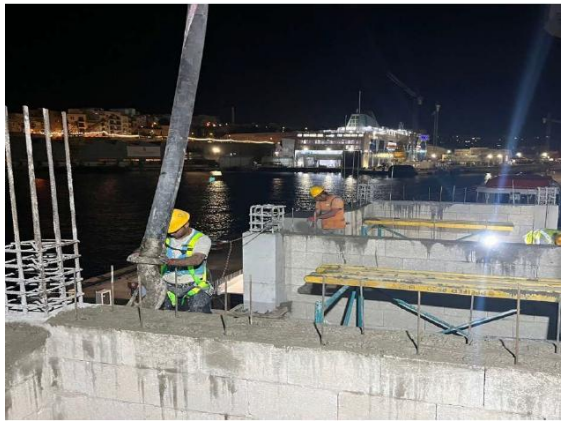
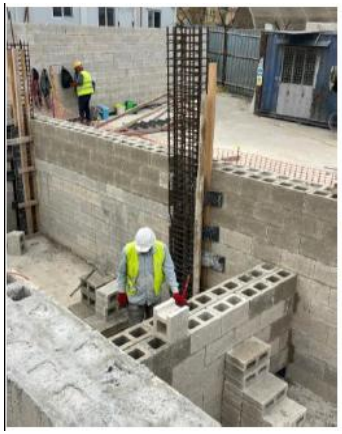
NEW BUILDING WORKS







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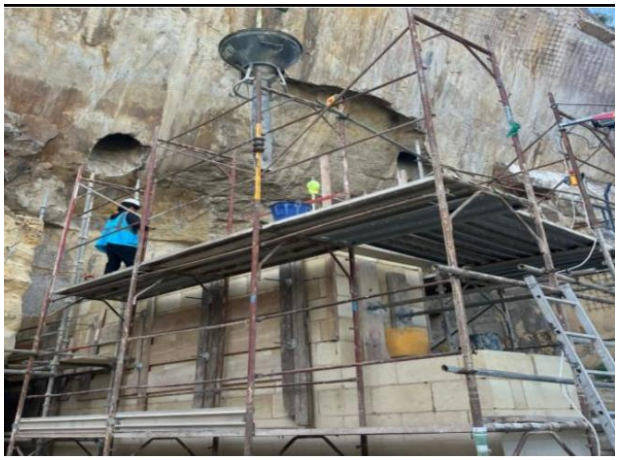
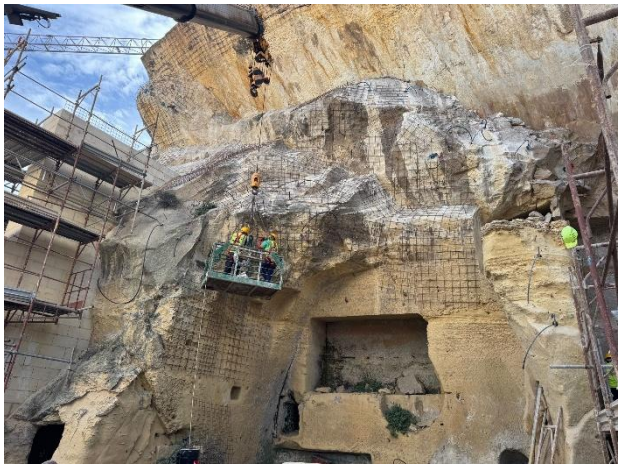
ROCK STABILISATION & RESTORATION WORKS





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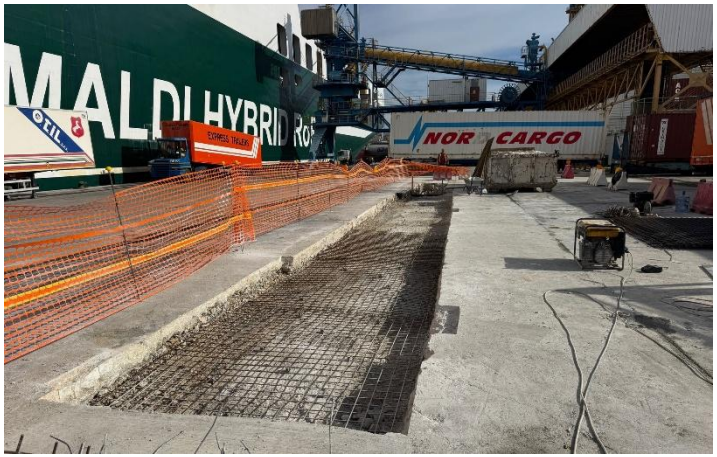
UNDERGROUND INFRASTRUCTURE WORKS



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QUESTIONS AND COMMENTS

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Thank You