



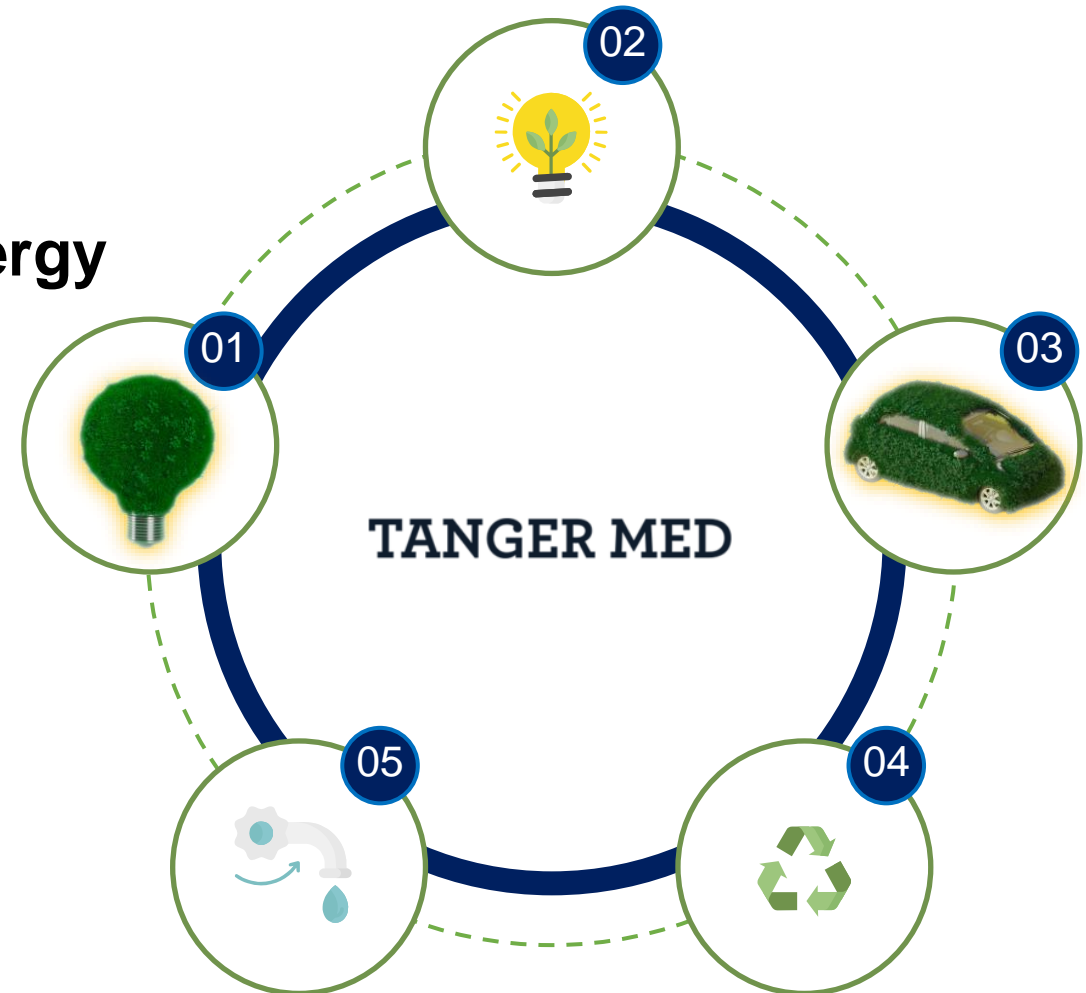
Energy Transition Plan in Port of
TANGER MED

MEDports Association Technical Seminar
Green Transition for Maritime Transport

April 2022


Tanger Med GHG Reduction Commitments

- 1 Energy Transition**
Increase renewables share in our energy mix
- 2 Ships supplied with Green Energy**
Increase usage of green technologies
- 3 Green Mobility**
Develop infrastructure for pull tracks and ships energy supply
- 4 Recycling**
Revalue waste and hydrocarbons
- 5 Reuse**
Irrigate green spaces with treated wastewater



1 Energy Transition Ambition



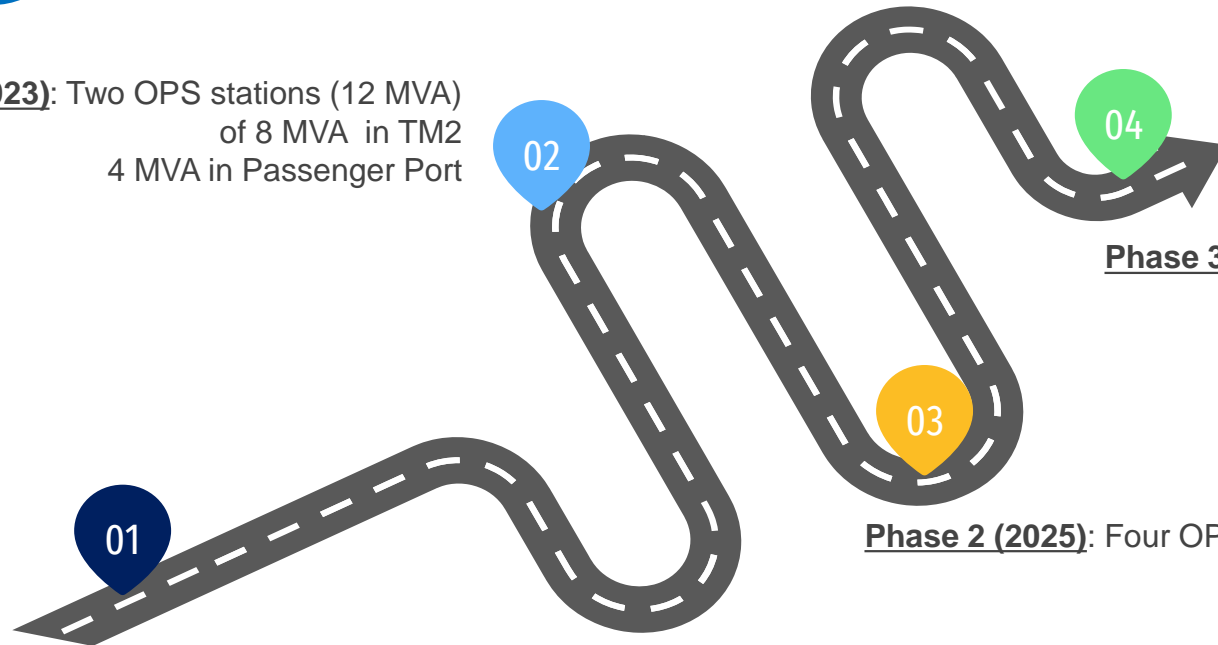
- Wind Park Potential 30 MW
-  14 m/s
- E = +108 GWh

- Project in construction
- In operation by the end of 2022
- P = 1,4 MW rooftop park
- E = +2,24 GWh

- floating solar park
- P = 45 MWp
- E = +72 GWh
- 1600 MWh/MWp

2 Ships supplied with Green Energy

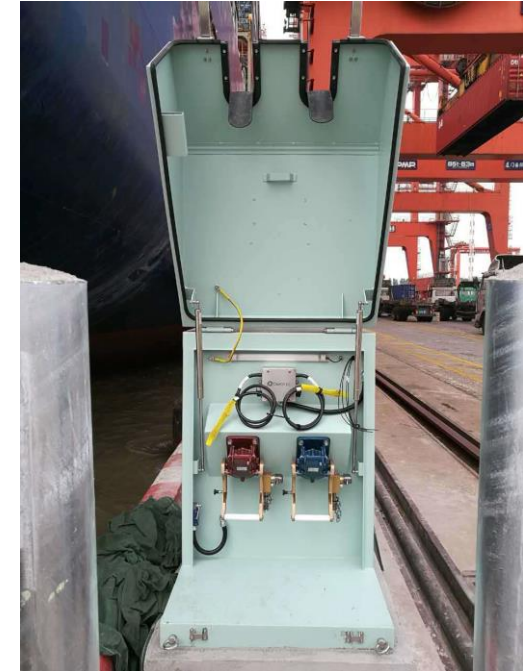
Phase 1 (2023): Two OPS stations (12 MVA) of 8 MVA in TM2 4 MVA in Passenger Port



Phase 3 (2026): capacity increase TM1-TM2 (52 MVA)

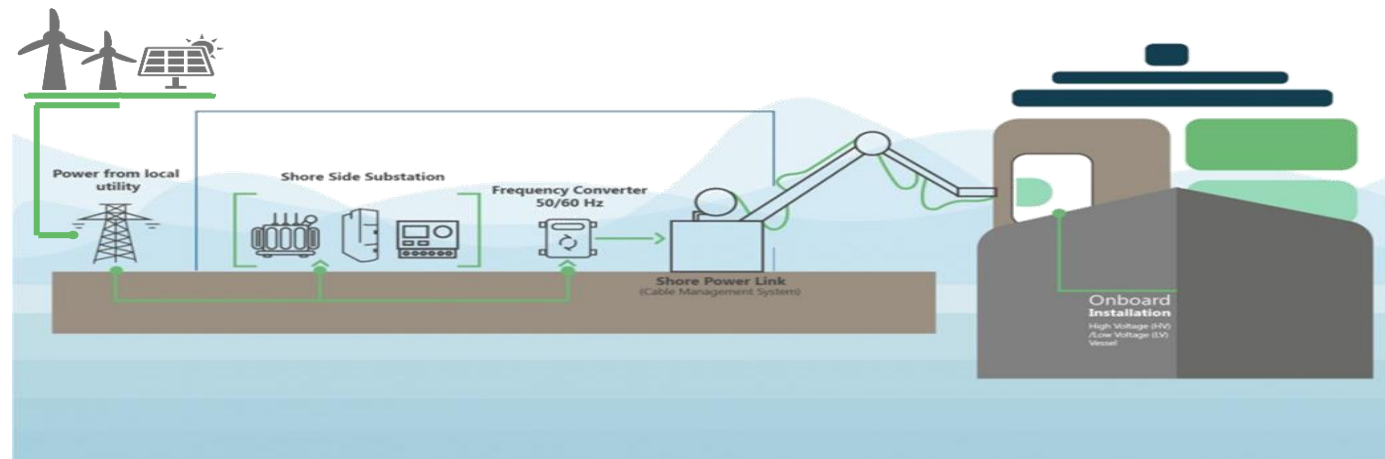
Phase 2 (2025): Four OPS stations TM1 et TM2 32MVA

Call for tender launched (Phase1) March 2022



Improve Tanger Med offer's for ships

Voluntarily comply with European requirements regarding the Green Deal roadmap.



3

Green Mobility

Green H2 as a key growth for Morocco

Green Mobility is part of Moroccan Green Hydrogen Roadmap

Green Mobility as part of Tanger Med action plan

Pilot project is under development (Electric vehicles & H2 pull truck)

Mobility with green H2 under study for a pipe of +100 pull tracks



The Moroccan Ministry of Energy Transition and Sustainable Development established a green Hydrogen roadmap in January 2021.

4 Recycling

Waste

Tanger Med Utilities planned to recycle 100% of the port complex by 2023



Hydrocarbons-Sludge

Tanger Med has built a partnership with Sertego to recycle 25000 tons of hydrocarbons waste per year





5

Reuse

+200,000

m³ treated wastewater reused in 2021 to irrigate +40 Ha of Tanger Med's green spaces