

# **Rafael Arranz Padilla**

## **Cuerva Energia**

Innovation Fund project:  
GreenMotril

## GreenMotril for the decarbonization of the Port of Motril



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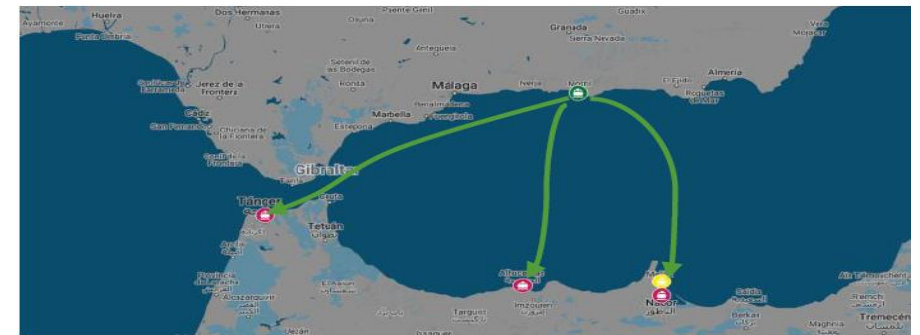
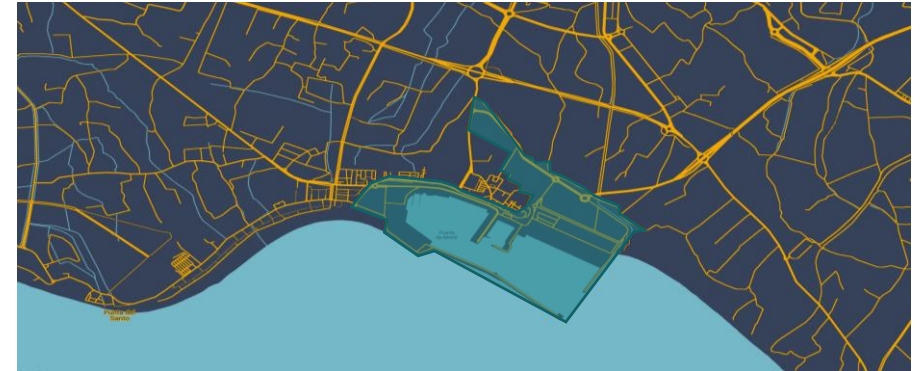
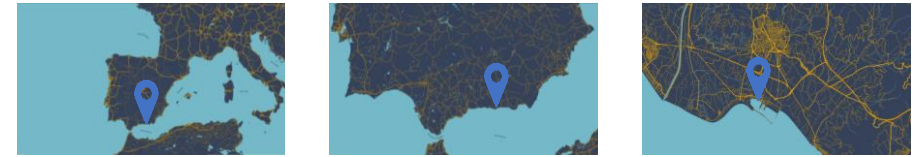
## About Port of Motril

Port of Motril is managed by the Port Authority of Motril and belongs to Puertos del Estado. It is the closest Andalusian port to Madrid.

It has two passenger and cargo terminals that serve the regular Ro-Pax lines with North Africa, being a logistic node between Europe and the ports of Tangier Med, Nador, Al Hoceima and Melilla.

It currently has an electricity consumption of:

- Logistics: 19 customers, **807 MWh/year.**
- Industry and manufacturing: 8 customers, **1516 MWh/year.**
- Port services: 27 customers, **131 MWh/year.**



## Innovation Fund Small-Scale 2021



**Budget: 7,2 M€ with a 60% European funding**

### Planning:

2022-2024 - Engineering & Design phase

2025-2026 - Construction phase

2027-2030 - Operation phase

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## Objective: Decarbonise port environments through Renewable Electricity Communities

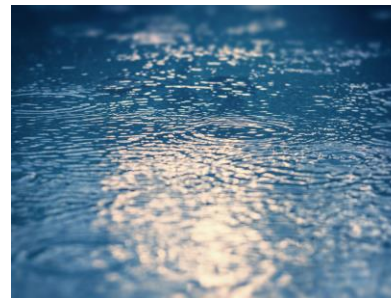
Improving air quality



Energy Optimisation



Vibration reduction



Noise reduction





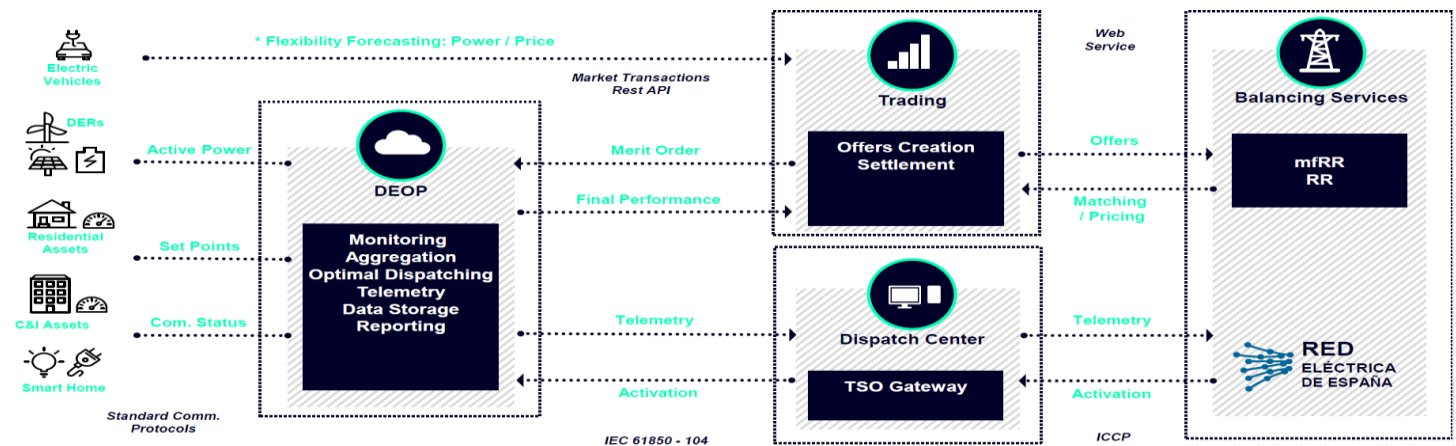
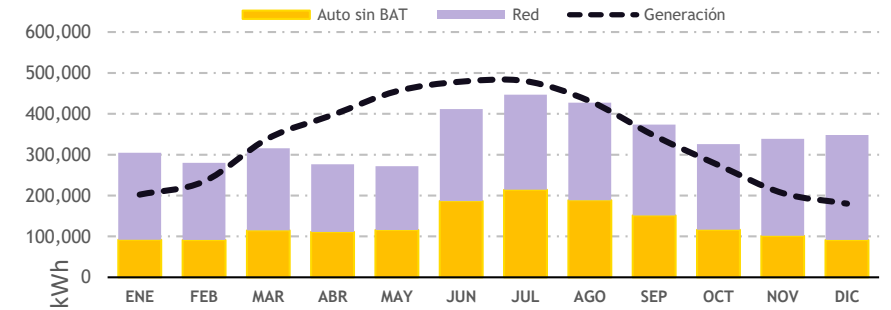
## Challenges: First European Sea Port with island mode

Minimize contract power demand from the Grid

Sustainable Renewable Microgrid

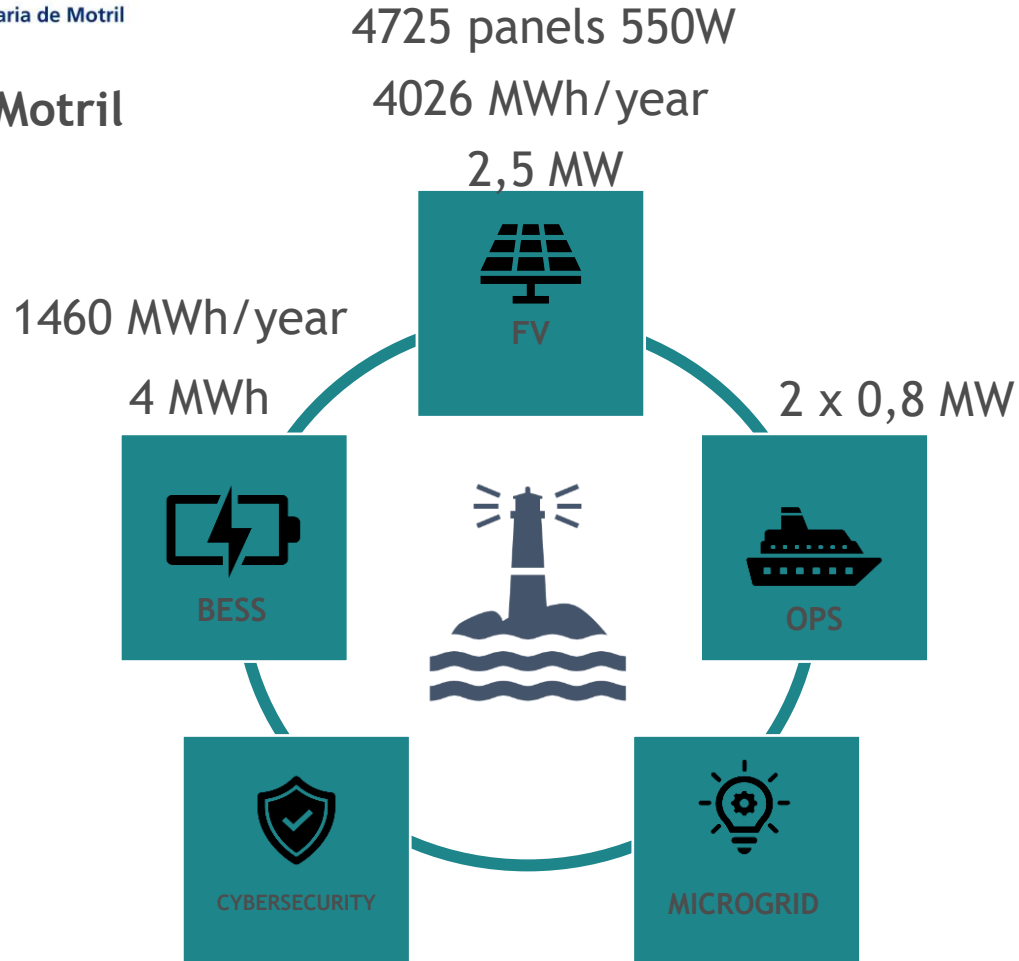
Energy Balance and flexible consumer

Smart Microgrid operation and management.





**Microgrid GreenMotril**





**Puerto de Motril**  
**GRANADA**

Autoridad Portuaria de Motril

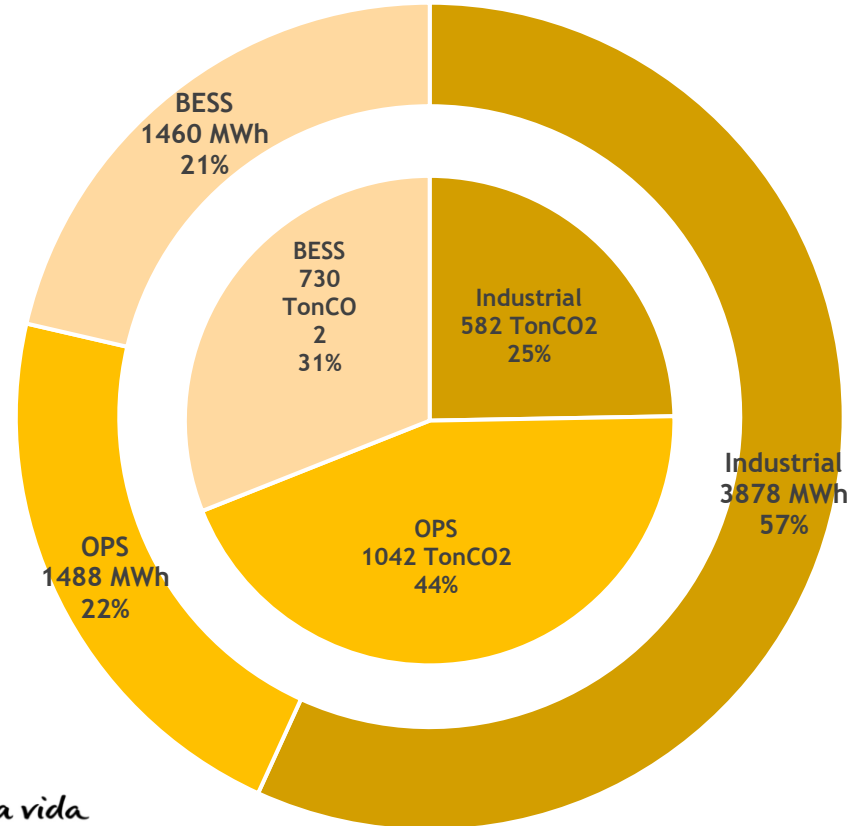
## Impact

### Energy Community



### Reduction GHG emission

29,2 kTon CO2



### OPS connections

