



Terminals and
transshipment
facilities

Electrification

Battery Storage and Smart Management of Green Energy in terminal operations



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European Union

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Developed by :



Project by :



Operational fields

Technologies

Solutions



BATTERY STORAGE AND SMART MANAGEMENT OF GREEN ENERGY IN TERMINAL OPERATIONS

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PIONEERS
Portable Innovation Open Network for
Efficiency and Emissions Reduction Solutions



Solution description

The Battery Storage and Smart Energy Management solution integrates a **Battery Energy Storage System (BESS)** with a smart Energy Management System (EMS) to **optimize and monitor the use of renewable energy (wind and solar) in port terminal operations.**

It tracks energy production, analyses real-time usage data, and intelligently manages energy storage to ensure the most efficient and economical utilization of green energy. Additionally, the system enables peak shaving to stabilize the local electricity grid, aligning operational energy consumption with sustainability and regulatory requirements.



Benefits

- Enhanced efficiency in green energy use and storage
- Significant cost reduction through optimized energy dispatch
- Improved grid stability by managing energy demand peaks
- Lower environmental footprint through increased use of renewable energy
- Compliance with energy regulations and sustainability objectives

Main beneficiaries:

- Port Terminals
- Grid operators



Technology readiness level : **7**
Implementation stage : *Pilot*

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Would you like to know more?
Take contact :



Lothar Buytaert
Tomasz Dowgielewicz



Antwerp Euroterminal, Belgium
Avenue Jacques Brel 38/0 – 1200 Brussels



L.Buytaert@aet.be
tomasz.dowgielewicz@etp-alice.eu



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+48 601 415 321

<https://pioneers-ports.eu/>

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