



Project Information Sheet: Hybrid crane bulk carrier



Picture: Grieg Star

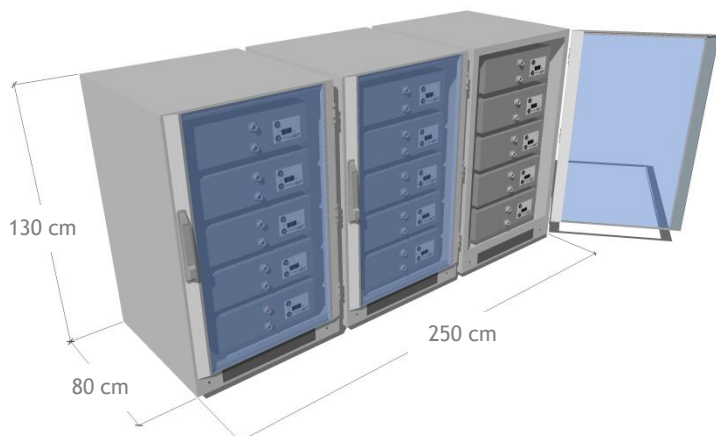
This year, the **worlds' first high power optimized battery pack will be installed on one of Grieg Stars L-class bulk carriers.**

The battery is developed and delivered by Grenland Energy and will be fully integrated with the vessels onboard power management system from Kongsberg Maritime. During crane operation, the battery will be used for peak shaving the diesel generator load profile and thus:

- Reduce fuel consumption
- Save maintenance cost
- Improve responsiveness

In addition, the system is expected to achieve substantial emission reductions every year throughout the lifetime of the battery system:

- CO₂ emissions corresponding to more than 100 cars
- NO_x emissions corresponding to 5000 diesel powered cars
- Particulate matter emissions corresponding to 7000 diesel cars.



The battery is designed for a minimum 10 years lifetime, it has a total capacity of 67 kWh and can supply a peak discharge power of 730 kW.



Herøya Industripark
Hydrovegen 55 - B25
3936 Porsgrunn Norway
Phone: +47 948 81758
post@grenlandenergy.com
www.grenlandenergy.com