



Case study

Alternative Power Supplies for Moored Lifeboats

“...TO SAVE LIVES AT SEA.”

The RNLI maintains an extensive fleet of lifeboats around the coasts of Great Britain and Ireland. A number of different launch strategies are used, varying from the famous slipways to boats floated off from trailers or lowered by davits. All these boats are kept on shore, but a number of the larger boats are kept afloat, moored to buoys in anchorages.

STATE OF READINESS

Boats kept afloat rapidly become cold. Their diesel engines can then take longer to start, and their electronic systems become susceptible to condensation. In the worst cases, this could lead to a slower response time for the boat, so the RNLI needed to investigate alternative ways of keeping the boats warm.

POWER ALTERNATIVES

On behalf of the RNLI, Frazer-Nash looked at a number of alternative power sources:

- ▶ Providing power directly to the buoy using an undersea cable
- ▶ Developing a buoy-mounted diesel generator system
- ▶ Solar power
- ▶ Wind and tidal power.

CRITICAL ASSESSMENT

Each of these alternatives was critically assessed, taking into account:

- ▶ COTS equipment availability
- ▶ Environmental factors
- ▶ Maintenance, reliability and replenishment
- ▶ Cost of development
- ▶ Legislative and regulatory issues
- ▶ Power generation performance.

A comprehensive report, including costs for implementation, was drawn up for the RNLI.

WAY FORWARD

The RNLI is now addressing the lack of suitable marine connector technology, identified as the main risk to further development.

Client

Royal National Lifeboat Institution (RNLI)

Business need

Investigation into alternative power supplies to keep moored boats warm in order to minimise response time

Why Frazer-Nash?

Frazer-Nash plays a significant role in providing engineering services for the naval sector.



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