The Horizon Geosciences ship 'Horizon Geobay'.

New Bedford Massachusetts Wind Farm

First large-scale offshore wind energy project in the USA

ROBERTSON GEO IS contracted by Horizon Geosciences for this important project managed by Vineyard Wind LLC.

The objective is to build the first large-scale offshore wind energy project in the USA. The project is divided into two sections, with Vineyard Wind 1 functioning at a capacity of 800MW, enough to generate sufficient energy for one million homes. Vineyard Wind 2, further south is proposed to generate 400MW with the potential to develop a further 800MW at this location.

The Robertson Geo PS Logger probe has been used for characterisation of the marine subsurface along with a 2,000m Marine Winch, Micrologger2 (the surface interface system for data acquisition) and winch controller system. The equipment was deployed from the Horizon Geosciences drill ship, the 'Horizon Geobay'; a total of six boreholes were completed in May/June 2018, with a further 10 completed in July/August 2019, with depths ranging from 50m to 70m.

Passive Acoustic Monitoring (PAM) in combination with 24/7 visual monitoring for marine mammals is ongoing throughout the project to minimise the disturbance of ongoing drilling and surveying activities on the surrounding marine species. This is especially important off the coast of New Bedford as it is nicknamed 'The Whaling City' as it was one of the most important whaling ports in the world during the 19th century.

THE ROBERTSON GEO 2,000m Marine Winch was securely welded into a steel frame at the beginning of the project. This frame was then strapped to railing on the drill deck when not in use.

Before PS Logging of each borehole, the frame and winch unit is systematically lifted and secured onto the rooster box, and the cable head released down to the drill deck to connect to the probe.

After logging is completed, the frame and winch unit is then lowered back down to the drill deck, where it is secured until the next PS Logging opportunity.