

AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement Addendum 3 – Appendix 3.4 Technical Note – Stockton drilling report

The Planning Act 2008 The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(a) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

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CLIENT	WSP/Aquind	
PROJECT TITLE	Aquind Interconnector Project	
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DOCUMENT TITLE

Site Survey Findings – Landfalls on Aquind Interconnector to Mannington Sub-Station Q1 2023

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Site Survey Findings – Landfalls on Aquind Interconnector Q1 2023

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Revision	Notes
B01	1 st issue to client
B02	Initial client comments addressed

1 CURRENT PROJECT BACKGROUND AND REASON FOR REPORT

AQUIND Interconnector will be a new subsea and underground High Voltage Direct Current (HVDC) electric power transmission link between the South Coast of England and Normandy in France. By linking the British and French electric power grids it will make energy markets more efficient, improve security of supply and enable greater flexibility as power grids evolve to adapt to different sources of renewable energy and changes in demand trends such as the development of electric vehicles, the interconnector will be achieved by constructing 4 off 150mm HVDC electric cables.

The decision from the Secretary of State rejecting the DCO Application has been quashed by the High court, therefore the Secretary of State will be redetermining their decision. In order to undertake this, they have requested Aquind provide further information regarding the feasibility of using National Grid Mannington electrical sub-station for connection.

Stockton drilling surveyed and will provide comment on the 10 different landfall locations visited on Wednesday 15th March 2023, please see photos and details below.

2 LANDFALL LOCATIONS AND HIGH-LEVEL PRACTICABILITY COMMENTS

Boscombe Pier



Photos 1-3 Looking west and east and at the cliff face 100m west of Boscombe pier.

Stockton Drilling conclusion for suitability to install 4 off landfalls.

The area is clearly tidal given the amount of sand deposited on the road therefore siting an HDD rig and ancillary equipment (2500m2 area) would not be possible in this location because the area of the HDD compound would be likely to get flooded. The area above the cliff face is built up and has no possible location for set-up at all making this location unfeasible as a landfall site.

Boscombe car park (top of beach cliff)



Photos 4 & 5

Stockton Drilling conclusion for suitability to install 4 off landfalls.

Given the height of the cliff face and the fact that around 10m cover will be required at the cliff bottom (to avoid the risk of fluid break-out into the sea) there is not enough room on the car park to position the HDD rig back far enough to get the required depth, pipe stringing which involves the laying out and welding of the duct pipe for insertion into the HDD hole will also be a problem in terms of space in this location. The above findings make this location unfeasible as a landfall site.

Southbourne (off Southbourne Coast Road)



Photos 6 &7

Stockton Drilling conclusion for suitability to install 4 off landfalls

Given the room potentially available on the car park area shown in the photos, the flatness of the land and the distance back from cliff face, this location in Southbourne is potentially feasible for HDD landfalls subject to further desktop and intrusive investigation and then of course the necessary permissions.

Mudeford



Photos 8 & 9

Stockton Drilling conclusion for suitability to install 4 off landfalls.

This site has a number of issues when considering the landfalls that would be required, those being the depth required for the HDD (to avoid fluid break-out into the sea) and the lack of distance available to the sea wall from any likely HDD set-up at this location, the grassland to the north is a possibility but then the trees as you look south from a potential entry point become a problem in terms of their potential removal, it would also not be possible to string out and weld the duct pipe out for installation into the HDD hole, making this location unfeasible as a landfall site.

Avon Beach



Photos 10 & 11

Stockton Drilling conclusion for suitability to install 4 off landfalls.

The car park shown in photo 11 is a possible location for the HHD drill set-up in terms of distance from the sea which would help to get the required depth under the sea (and avoid fluid break-out), however even though the car-park is a reasonable size the shape of the car park is such that there is not enough space to string out and weld the length of duct pipe onshore behind the rig setup which would be required for installation into the HDD hole. Consequently, the stringing of the pipe effectively has to be done at sea with the pipe floated out, and whilst this is in theory able to be done, it is extremely difficult from an engineering perspective and adds significant risk and cost. It is therefore to be avoided unless there is no other alternative. Moreover, and of further risk, it would be necessary to forward ream the HDD holes in this location because of the set-up required at sea, and which in a geology of sands and clays carries significant risk of the HDD holes collapsing and the installation ultimately proving unsuccessful. Taking these constraints and significant risks into account, it has been determined that this location is not feasible as a landfall site.

Highcliffe



Photos 12 & 13

Stockton Drilling conclusion for suitability to install 4 off landfalls.

Given the height of the sea cliff and the space available on photo 13 there would not be enough space to set-up the HDD rig far enough back horizontally to achieve the vertical requirements of the drive (need to be 10m cover at the cliff face to avoid fluid break-out), there is also not enough space to string out and weld the duct pipe in this location given the depth requirements detailed above. Also, on the depth required to get far enough under the cliff bottom there could potentially be thermal issues with the electric cables for installation, this will also need to be checked with the cable manufacturer. The issues summarised above make this location unfeasible as a landfall site.

Barton on Sea



Photo 14

Stockton Drilling conclusion for suitability to install 4 off landfalls.

Given the height of the sea cliff and the space available there would not be enough available space to set-up the HDD rig far enough back horizontally to achieve the vertical requirements of the drive (need to be 10m cover at the cliff face to avoid fluid break-out), there is also not enough space to string out and weld the duct pipe in this location given the depth requirements detailed above, making this location unfeasible as a landfall site.

Milford on Sea



Photos 15

Stockton Drilling conclusion for suitability to install 4 off landfalls.

A location at or near the car park located south of the junction of Whitby Road and Cliff Road was considered. Given the height of the sea cliff and the space available there would not be enough available space to set-up the HDD rig far enough back horizontally to achieve the vertical requirements of the drive (need to be 10m cover at the cliff face to avoid fluid break-out), there is also not enough space to string out and weld the duct pipe in this location given the depth requirements detailed above, making this location unfeasible as a landfall site.

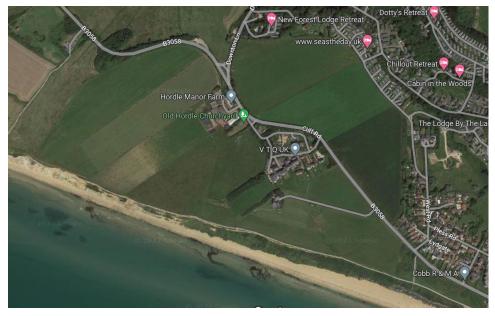
Farmers field (west of Milford on Sea)



Photos 16 & 17

Stockton Drilling conclusion for suitability to install 4 off landfalls.

This location in a farmers field south of B3058 (Milton Rd – Cliff Rd) and south west of the Cliff Rd – Downton Ln junction has enough space available to drill the landfalls and string out and weld the duct pipe for insertion into the HDD hole, however access to the site would have to be through the farm entrance and hard standing will need to be constructed across the site and retained for the life of the project to provide future access. This location is potentially feasible for the HDD landfalls subject to further desktop and intrusive investigation and then of course the necessary permissions. The location of the farm is shown on the image below.



Swanage



Photos 18 & 19

Stockton Drilling conclusion for suitability to install 4 off landfalls.

Access to the land at Swanage was poor, particularly when considering articulated vehicle access will be required, the land up to any potential HDD site set-up is too steep to get the equipment to it, pipe stringing and welding will also not be possible in the very limited space that will be left behind the HDD rig, making this location unfeasible as a potential landfall site.

Studland

Access to the proposed site was not possible from the highway, therefore possible access with the HDD drilling kit in articulated vehicles is extremely unlikely, making this location unfeasible as a landfall location.