ENERGY ISLANDS. ARTIFICIAL ISLAND, NORTH SEA

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1. Introduction

This memo is an update to the scoping report on the preliminary geotechnical investigations for the artificial asland site in the North Sea (report ID 1305). The scope of assignment described in section 2.4 of the report has been updated, and the change is highlighted in Table 1-1 below.

Table 1-1. Original vesus updated scope to the preliminary geotechnical investigations on the artificial island site, North Sea

Original planned scope	Updated scope
• 160 continuous, seabed CPT to target depth 40 m below seabed or refusal • 20 geotechnical boreholes with soil sampling to target depth 40m below seabed • Seismic CPT at 7 selected CPT positions • P-S logging in 1 selected boreholes • Down the hole CPT in 25 selected boreholes, below refusal of continuous CPT • Optional blind drilling of 8 selected separate boreholes for CPT, below refusal of seabed CPT • An online Marine Weather Forecast System • Laboratory testing • Reporting	• 109 continuous, seabed CPT to target depth 40 m below seabed or refusal • **6 geotechnical boreholes** with soil sampling to target depth **120m** below seabed • **3 geotechnical boreholes** with soil sampling to target depth **70m** below seabed • Optional blind drilling of 8 selected separate boreholes for CPT, below refusal of seabed CPT • An online Marine Weather Forecast System • Laboratory testing • Reporting

2. Reason for change of scope

2.1 Seabed CPT

The preliminary results of the early phase of the seabed CPT program showed very similar outcomes, why Energinet decided to reduce the scope with 51 locations. The similar looking results of the initial CPTs are presumeably due a simple 'layercake' setting of the soil units underneath the artificial island location. This is supported by the results of the geophysical site investigations.

2.2 Geotechnical borehole

The original planned 20 geotechnical boreholes down to 40m below seabed has been exchanged with 6 boreholes to 120m below seabed, and 3 boreholes to 70m below seabed. The reason for the change is the increased focus on the risk for structural loading of the soil layeres in the area for the artificial island site. The increase in target depth of the geotechnical boreholes, including sampling, will provide valuable information to evaluate the settlement of the future artificial island.

2.3 Seismic CPT, P-S logging and down the hole CPT

The scope has been reduced by removing tests with Seismic CPT, P-S logging and down the hole CPT.