

E.ON UK plc
Whitehill Gas Storage Project Offshore Works
Environmental Statement Summary

Title:	Whitehill Gas Storage Project Offshore Works
Operator:	E.ON UK plc
Consultants:	Dalton Warner Davis LLP and Environmental Resources Management (ERM)
Report No:	D/4105/2011
Submission Date:	January 2011
Quad/Block No:	46
Project Type:	Offshore components of the Whitehill gas storage project: intake/outfall structure (monopile), brine diffuser and pipelines
Reviewer:	Sarah Dacre
Date:	9 th November 2011

Project Description

The onshore components of the proposed development were described in the onshore ES. The offshore phase of the development will comprise a seawater abstraction system including intake/outfall structure located on an offshore monopile platform fitted with navigation aids and other electrical and control equipment. In addition, a pipeline will be buried from the offshore location to the Mean Low Water Mark (MLWM) and then onto its onshore location. The seawater and brine pipelines will extend approximately 1km from the MLWM offshore to the monopile system. Each pipeline will be 18" diameter and will be laid and buried in a trench 7m wide and approximately 1.5m in depth. Power and communication cables will be piggybacked onto the main pipelines. The trench will be partially backfilled and then allowed to naturally fill on completion of the works.

The offshore monopile structure will be located approximately 1km from the shore and will comprise a steel structure, 2m in diameter and an access platform approximately 4m² and a further upper platform supporting the surge tank. The height of the structure will be 15 m above Mean High Water (MHW). Approximately 700 tonnes of scour protection may be required around the structure.

The maximum injection of flow is 1,320m³/hr, which will constitute the maximum seawater volume abstracted to be pumped ashore. All seawater abstracted will be returned after use and will be discharged as brine, containing insolubles from the seawater and leachate from the caverns.

Key Environmental Sensitivities

The EIA identified the following environmental sensitivities:

- **Fish Stocks:** The area is within spawning grounds for herring (all year round), lemon sole (April to September), sole (March to May) and sandeels (November to February). Nursery grounds for cod, whiting, plaice, lemon sole and sprat are also located within the project area.
- **Seabirds:** Seabird vulnerability is very high through the winter months.
- **Annex I Habitats:** *Sabellaria spinulosa* was present within the survey area, however none were identified within the footprint of the project area.

- Annex II Species: Harbour porpoise and grey seal are frequently observed in the vicinity of the project area.
- Other Users of the Sea: The project area lies in an area with moderate to high near-shore fishing effort and shipping traffic is low with no merchant vessels passing within 6nm of the project location.

Key Potential Environmental Impacts

The EIA identified the following potential impacts and related mitigation:

- **Physical interference:** Appropriate mitigation measures will be put in place. e.g. 500m exclusion zone around the monopile and a construction exclusion zone out to 5.5km from the shore to allow safe movement of vessels during the construction phase. Other measures include Kingfisher Bulletins, Notices to Mariners and liaison with fisherman. Impacts on fisheries and navigation are not considered to be significant.
- **Noise:** Piling operations during the construction of the monopile will have a typical source level of 262dB re 1mPa@1m and is considered to be the most significant noise source associated with the project. The duration of piling will be less than 24 hours. It is expected to create a temporary zone of avoidance for marine mammals and fish, but will not have a significant impact.
- **Marine discharges:** The maximum injection of flow is 1,320m³/hr, which will constitute the maximum seawater volume abstracted to be pumped ashore. All seawater abstracted will be returned after use and will be discharged as brine, containing insolubles from the seawater and leachate from the caverns. Modelling shows that the brine plume will have localised impacts on salinity, temperature and turbidity, but they are not considered to be significant.
- **Seabed disturbance and coastal processes:** The construction phase of the pipelines and cables connecting the monopile structure to the onshore infrastructure will cause temporary impacts to the seabed. Burial of the pipelines and cables will be at least 1.5m below the seabed and therefore in addition to natural sediment movement and the small footprint of the pipeline, any impacts are considered not to be significant. The monopile structure and associated scour protection will also have a localised impact on the seabed and hydrodynamics, but there will be no significant impacts on far-field coastal processes or sediment transport.
- **Accidental events:** A number of control measures will be in place to minimise the risk of accidental events. E.ON have a Marine Works Management Plan in place.
- **Cumulative impacts:** There has been confirmation that another gas storage project has been authorised, however it is unlikely that the projects will have a significant effect in-combination with each other.
- **Transboundary Impacts:** No transboundary impacts are likely as a result of this project.

Consultation

Comments were received from the Marine Management Organisation (MMO), Centre for Environment, Fisheries and Aquaculture Science (CEFAS), Natural England (NE), Crown Estate (CE), Environment Agency (EA), Marine Coastguard Agency (MCA), Ministry of Defence (MOD) and East Riding Council.

There were no objections to the proposed project. NE confirmed that the Environmental Statement covered the salient issues, notably the risk to the supply of sediment to the Humber Estuary and the in combination effects of the brine discharge with that from the SSE / Statoil development.

NE also noted the recorded presence of *Sabellaria spinulosa* in the area and confirmed the find was well below the densities for reef formation.

Public Notice: No comments were received as a result of the public consultation.

Additional Information

E.ON provided the requested information on the 24th August 2011. All the issues raised were satisfactorily addressed.

Conclusion

On the basis of the information presented within the ES and advice received from consultees, DECC OED is content that there are no environmental or navigational objections to approval of the proposals and has advised DECC, LED that there are no objections to the granting of the relevant consents.

Recommendation

On the basis of the information presented within the ES and advice from consultees it is recommended that the ES should be approved.

Approved

...*Sarah Pritchard*.....10/11/2011.....

Sarah Pritchard- Head of Environmental Operations

Date