

**Centrica North Sea Gas Limited
Kew Field Development
Environmental Statement Summary**

Title:	Kew Field Development
Operator:	Centrica North Sea Gas Limited
Consultants:	Genesis Oil and Gas Consultants Ltd
Report No:	D/4121/2011
Submission Date:	January 2012
Quad/Block No:	49/4a, 5a, 5b and 4c.
Project Type:	Production subsea tie-back
Reviewer:	Dr Sarah Dacre
Date:	6 th June 2012

Project Description

Centrica proposes to develop the Kew Field as a sub-sea tie back to the Chiswick Normally Unmanned Installation (NUI). The existing Kew appraisal well will be re-entered, side-tracked and completed as a single, near horizontal hydraulically fractured well. The Kew Field will be tied-back to the Chiswick NUI via a new 3km, 6" pipeline. Kew fluids will be routed through Chiswick, where solids (proppant) from the fracturing operations will be separated. The separated solids will be shipped to shore for disposal. Kew fluids will then be co-mingled with the Chiswick Field fluids and exported to the Centrica operated Markham J6A platform in the Dutch sector for further processing. A number of modifications to the Chiswick NUI will be required to accommodate the development, including additional electrical and hydraulic power systems for the subsea controls and additional Methanol and corrosion inhibitor injection.

Kew production is estimated to commence in 2013 and peak during 2013 and 2014 at an average 1 MMSm³/day. Annual peak condensate production is also predicted for 2013 and 2014 at a rate of 90m³/day.

Drilling and completion of the Kew well is anticipated between Q2 2012 and Q1 2013. Subsea installation is likely to commence in the same period for first gas in Q1 2013.

Key Environmental Sensitivities

The EIA identified the following environmental sensitivities:

- Fish Stocks: The area is within spawning grounds for mackerel (May-August), cod (January to April), plaice(December to March), sprat (May to August), *Nephrops* (all year round) and herring (August to October). Nursery grounds for whiting, sprat and *Nephrops* are also located within the project area.
- Seabirds: Seabird vulnerability is very high in November and December and high in January-May, July and October.
- Annex I Habitats: There was no evidence of Annex I Habitats in the vicinity of the proposed operations.
- Annex II Species: No Annex II species have been observed in the vicinity of the project area.
- Other Users of the Sea:

- Block 49/4 has high shipping density;
- The proposed development is within the Hornsea Round 3 windfarm lease area. The Civil Aviation Authority (CAA) advise a 9nm obstacle free zone around oil and gas installations. The Kew development is already within the Chiswick NUI obstacle free zone.

Key Potential Environmental Impacts

The EIA identified the following potential impacts and related mitigation:

- **Physical interference:** With regard to fishing and shipping activity, appropriate mitigation measures will be put in place. e.g. 500m exclusion zone. Other measures include Kingfisher Bulletins, Notices to Mariners and liaison with fishermen. Impacts on fisheries and navigation are not considered to be significant.

Centrica North Sea Gas Limited are in continued communication with SMart Wind with respect the Hornsea windfarm lease they hold. Continuous engagement concerning their activities will be conducted. Due to the fact that the Kew development is within the Chiswick NUI obstacle free zone, it is unlikely that any issues will arise.

- **Marine discharges:** All chemicals used for the drilling, pipeline commissioning and processing operations are selected by Centrica on the basis of technical compatibility and environmental performance and the marine environment is sufficiently dynamic to facilitate rapid dispersion. A more detailed risk assessment of the proposed chemical use and discharge relating to the operations will be undertaken in the subsequent applications for chemical permits.
- **Seabed disturbance and coastal processes:** The following operations will directly impact the seabed:
 - trenching and backfilling of the pipeline;
 - laying of pipeline protection materials (e.g. rock dumping, mattressing and grout bags);
 - locating of drilling rig spud cans, anchors and potential use of rig stabilisation material;
 - Discharge of Water Based Mud (WBM) contaminated cuttings; and
 - Discharged of returned proppant to the seabed during well clean-up.

The species composition of the benthic communities within the area have shown to be relatively resilient to the effects of sediment mobilisation and would recover rapidly from seabed disturbance. No Annex I habitats have been identified in the vicinity of the proposed development.

- **Noise disturbance:** Based on the relatively low noise from the drilling and pipeline activities and the low densities of marine mammals expected to be present, impacts are not considered to be significant.
- **Accidental events:** A number of control measures will be in place to minimise the risk of accidental events. Centrica will develop Oil Spill Emergency Plans (OPEP) and Emergency Procedure Plans. OSIS modelling of the worse-case condensate and diesel spills have been undertaken and included in the EIA.
- **Cumulative impacts:** The proposed operations are located in the vicinity of the Hornsea

Round 3 windfarm site. Centrica and SMart Wind will undergo continuous engagement concerning their activities.

- **Transboundary Impacts:** No transboundary impacts are likely as a result of this project.

Consultation

Comments were received from the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Joint Nature Conservation Committee (JNCC), Marine Coastguard Agency (MCA), Trinity House and the Ministry of Defence (MOD).

There were no objections to the proposed development. However, JNCC requested clarification on the estimated time that the pipeline would take to naturally backfill and made comment concerning better use and presentation of survey data to inform the ES. Future consideration of MCZ's were also highlighted. Centrica have been requested to provide this information in subsequent environmental approvals.

Public Notice: Public notice of the ES did not elicit any representations.

Additional Information

Centrica North Sea Limited have been requested to provide additional information in subsequent environmental approvals relating to the development.

Conclusion

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

Recommendation

It is recommended that the ES should be approved.

Approved

.....*Sarah Pritchard*.....

Sarah Pritchard- Head of Environmental Operations

Date: 6th June 2012