

**Knarr Development**  
**Comments On Environmental Statement**

**To: Wendy Kennedy**

**Signature:** *Wendy J. Kennedy*

**From: Carol Newbigging**

**Date:** *24 August 2011*

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<b>ES Title:</b>	<b>Knarr Development</b>
<b>Operator:</b>	<b>BG Norge</b>
<b>Consultants:</b>	<b>BMT Cordah</b>
<b>ES Report Nos:</b>	<b>D/4112/2011</b>
<b>ES Date:</b>	<b>May 2011</b>
<b>Block Nos (UK):</b>	<b>211/29 &amp; 211/30</b>
<b>Development Type:</b>	<b>The installation of 12" pipeline connecting the Knarr Development wells (Central and West) in the Norwegian sector of the northern North Sea to the existing 36" FLAGS gas export pipeline in UKCS Block 211/29.</b>

**Synopsis:**

**BG Norge are proposing to develop the Knarr field, located in Block 34/3 of the Norwegian sector of the Northern North Sea. The project will include the installation of approximately 30 km of 12" diameter pipeline in the UK sector, tied-back via spool pieces to a Pipeline End Manifold (PLEM) unit and new Tee piece to the FLAGS pipeline system.**

**DECC are responsible for granting consent in the UKCS so only those works to be carried out in the UKCS have been assessed.**

**The pipeline will be laid using a Dynamically Positioned (DP) S-lay or Reel-lay vessel. The entire UK section will be trenched using a trenching plough and buried to a depth of approximately 1.5m using a backfill plough, both towed behind an anchor handling vessel. Installation of the proposed gas export pipeline is currently scheduled for April 2013 and it is expected to take approximately 3 weeks.**

**At the FLAGS pipeline tie-in point, the PLEM and a new Tee piece will be secured to the seabed using suction cans.**

**The results of the pipeline route survey were not available at the time of writing the ES, so the results will be included in the PON15C application prior to the operations commencing.**

**Around the tie-in point at FLAGS, BG Norge plan to use rock dumping and concrete mattresses to protect the spool pieces, pipeline crossings and the gas export pipeline from the point where it emerges from the trench up to the FLAGS tie-in point. BG Norge anticipates that a total of 28 mattresses and 1,231 tonnes of rock dump will be required.**

As a result of an environmental risk assessment there were the following potentially significant impacts identified and addressed within the ES:

- Local disturbance to the seabed
- Underwater noise
- Atmospheric emissions
- Marine Discharges
- Physical presence
- Accidental hydrocarbon or chemical release

Mitigation measures are in place to ensure that impacts are kept to a minimum.

**Recommendation:** Based on the information in the Environmental Statement, it is recommended that project consent be given.

**Consultees:**

<b><u>JNCC:</u></b>	No objections Site specific survey data will be reviewed in the PON15C
<b><u>Marine Scotland:</u></b>	No objections Site specific survey data will be reviewed in the PON15C
<b><u>Northern Lighthouse Board:</u></b>	No objections Standard conditions to be applied to the Consent to Locate
<b><u>MCA:</u></b>	No objections Standard conditions to be applied to the Consent to Locate