Unclassified



Atlantic & Cromarty Fields Decommissioning Programmes Stakeholder Engagement Report





CONTENTS

1.0	INTRO	DUCTION	.4
	1.1	Purpose	.4
	1.2	Regulatory Context	.4
	1.3	Background to the Decommissioning Proposals	.5
	1.4	Exploration of Re-use Opportunities	.7
	1.5	Summary of Decommissioning Proposals	.7
2.0	STAKE	EHOLDER ENGAGEMENT	.9
	2.1	BG's Approach	.9
	2.2	The Engagement Programme	.9
	2.3	Learning from Others	.9
3.0	KEY E	NGAGEMENT ACTIVITIES	11
	3.1	Introduction	11
	3.2	DECC (now BEIS)	13
	3.3	Regulatory Agencies and Statutory Consultees	13
	3.4	Early Stage Briefings	15
	3.5	Stakeholder Workshop	18
	3.6	Comment on Emerging Recommendations	20
4.0	RESPO	ONDING TO THE CONSULTATION	23
	4.1	Commenting on the Draft Decommissioning Programmes	23
5.0	REFE	RENCES	24
LIST OF APPENDICES			
APPE		1 ABBREVIATIONS	25
APPE	APPENDIX 2 PIPELINE STATUS - NEARSHORE		
		3 LIST OF STAKEHOLDERS	
		4 INTRODUCTORY EMAIL TO STAKEHOLDERS 26 June 2016	
		5 STAKEHOLDER WORKSHOP	31
	OF TA		
Table	e 1 – Ex	ploration of Re-use Options	.7
Table	e 2 – Ke	ey Engagement Milestones, Activities and Outcomes	11
Table	e 3 – Pr	eliminary Stakeholder Comments	16
Table	e 4 – Qu	ueries Arising from the Stakeholder Workshop, November 2015	19
Table		esponses to Emerging Recommendations Report Issued to takeholders	21
LIST	OF FIG	BURES	
Figur	e 1 - At	lantic & Cromarty Field Location	.5
Figur	e 2 – A	tlantic & Cromarty Field Layout	.6



1.0 INTRODUCTION

1.1 Purpose

This report describes the engagement which BG Group (BG) has undertaken with stakeholders during the pre-planning for the decommissioning of the subsea facilities and pipelines associated with the Atlantic and Cromarty (A&C) Fields in the outer Moray Firth which ceased production of gas and gas condensate in 2009. It is made available as part of the statutory and public consultation which has been triggered by submission of Draft Decommissioning Programmes to the Department of Business, Energy and Industrial Strategy (BEIS) which assumed the responsibilities for decommissioning from the Department of Energy and Climate Change in July 2016.

The Stakeholder Engagement Report is one of three documents submitted for consultation in support of the Draft Decommissioning Programmes [1] for the A&C Field, alongside the Comparative Assessment Report [2] and the Environmental Impact Assessment Report [3]. Each of these documents is available online at the BEIS website¹, on request from BG (see section 4), and, during the consultation, available at its offices². Other documents cited within each of the documents can also be made available to consultees for inspection by prior arrangement with BG (see Section 4).

The consultation runs from 20 September to 20 October 2016 and details of how to respond are advised in Section 4 of this document. Responses from statutory, regulatory and public consultees will be incorporated into the 'final' Decommissioning Programmes which are submitted for approval, and reported in an updated version of this present document.

1.2 Regulatory Context

The decommissioning of offshore oil and gas installations and pipelines on the United Kingdom Continental Shelf (UKCS) is controlled through the Petroleum Act 1998, as amended by the Energy Act 2008.

The UK's international obligations on decommissioning are governed principally by the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR Convention) [4] which requires the removal of facilities (e.g. platforms and subsea infrastructure) except in very special circumstances. The DECC Guidance Notes [5] align with OSPAR Decision 98/3. The intention for removal of the A&C facilities complies with these requirements.

Pipelines do not fall within the remit of OSPAR Decision 98/3 but BEIS requires that operators apply the OSPAR framework of comparative assessment when assessing all feasible options for those pipelines which are candidates for decommissioning *in situ*.

Because of the widely different circumstances of each case, the Guidance Notes do not predict with any certainty what decommissioning strategy may be approved in respect of any class of pipeline. Each pipeline must therefore be considered on its merits and in the light of comparative assessment of the feasible options taking into account the safety, environmental, technical, societal and cost impacts of the options.

¹ See 'Table of draft decommissioning programmes under consideration' at <u>www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines</u>.
² BG Group, 27 Albyn Place, Aberdeen AB10 1YL

1.3 Background to the Decommissioning Proposals

The Atlantic and Cromarty Fields are located in the outer Moray Firth in UK Continental Shelf (UKCS) Blocks 14/26a, 20/1 (north) and 13/30 respectively (see Figure 1). They lie approximately 79 km northeast of the St Fergus gas terminal on the north east Aberdeenshire coast and approximately 135 km from the median line with Norway. Figure 1 shows the location of the fields and their associated subsea infrastructure which tie the fields back to shore.

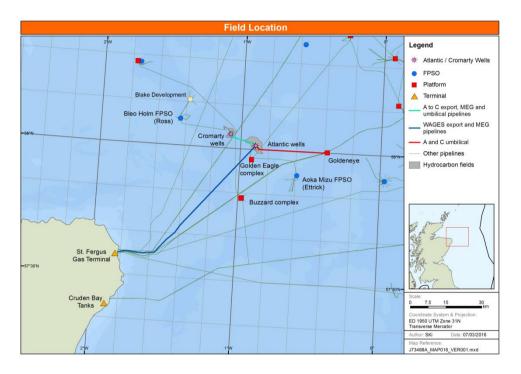


Figure 1 - Atlantic & Cromarty Field Location

Gas and gas condensate production from within the fields began in 2005 and ended in 2009, with permission to cease production formally granted by DECC in 2011. The pipelines were cleaned and put into the Interim Pipeline Regime (IPR) pending investigation of options to extend the useful life of the fields. The Atlantic manifold (see Figure 2), the largest item of subsea equipment within the A&C infrastructure, which connects the A&C wells to the export pipeline and to the control umbilicals (operated from the neighbouring Goldeneye platform) was also left in place for this period together with other subsea equipment. The three wells were mechanically plugged in 2014, pending full 'plug and abandonment during decommissioning execution.

Stakeholder Engagement Report



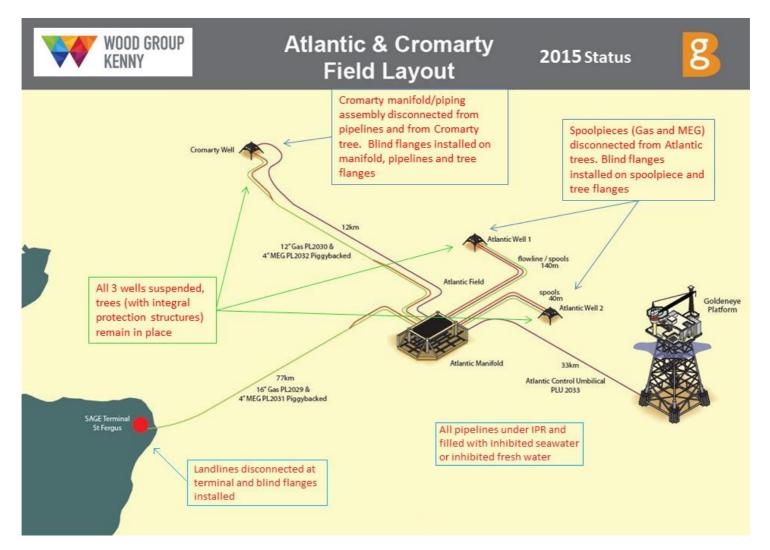


Figure 2 – Atlantic & Cromarty Field Layout



1.4 Exploration of Re-use Opportunities

A number of options for re-using the A&C facilities have been explored since production ended, including:

- Use of the reservoirs for gas storage;
- Use of the reservoirs for storing carbon dioxide;
- Sale of the facilities and infrastructure to other oil and gas companies.

A summary of the discussions held appears in Table 1 below.

Table 1 – Exploration of Re-use Options

Date	Potential Re-use Opportunity
2010-2011	Discussions on potential third party acquisition of the entire Atlantic & Cromarty system (including fields and associated infrastructure).
2010-2011	Discussions to explore carbon capture and storage and potential tie-in the Phoenix Field.
2012	Discussions on potential third party acquisition in the Atlantic and Cromarty fields and/or all or part of the associated infrastructure for the purposes of carbon capture and storage.
2012-2013	Discussions held as part of DECC's Carbon Capture & Storage Commercialisation Programme Competition.
2013	Initial discussions following expression of interest in A&C as a credible infill/tie-back opportunity.

None of these discussions have proved fruitful, although there remains interest by third parties in the possibility of continued preservation of the Atlantic export pipeline for transporting carbon dioxide for offshore storage. Nevertheless, discussions with DECC and the Oil & Gas Authority in March 2016 confirmed the regulatory requirement that decommissioning programmes should still be brought forward since there is no specific commercial opportunity that would justify additional delay.

1.5 Summary of Decommissioning Proposals

The decommissioning proposals are set out in full in the Draft Decommissioning Programmes [1]. To summarise, BG's proposals are as follows:

- Subsea infrastructure will be removed to shore during the decommissioning works, and the three production wells will be plugged and abandoned.
- Pipelines and umbilicals will be decommissioned in place (including the export pipeline) following disconnection from subsea installations, noting that these are predominantly buried with the exception of several sections of the export pipeline within the first ten kilometres from shore. In these latter areas (see pipeline burial summary in Appendix 2), remedial rock cover will be applied for safety reasons at areas where scallop fishermen may dredge, and further mitigating actions will be implemented to ensure future risk to other users of the sea is as low as reasonably practicable.



 Debris sweeps and overtrawl trials will be undertaken to confirm the safety of the decommissioned areas before the exclusion zones for the fields are removed. Postdecommissioning environmental and pipeline surveys will also be carried out following completion of the decommissioning works, with the timing to be discussed and agreed with BEIS.

2.0 STAKEHOLDER ENGAGEMENT

2.1 BG's Approach

Stakeholder engagement is mandated by BG's internal procedures, and a requirement of the DECC Guidance Notes [5] and offshore industry body Oil & Gas UK in its Guidelines on Stakeholder Engagement [6].

A key tenet of successful engagement is the provision of timely information which enables stakeholders to input into the shape of plans, allowing any concerns or issues to be addressed and, where relevant, properly explored. Such an approach not only satisfies stakeholders that their interests and concerns have been properly taken account of in the preparation of decommissioning proposals, it ensures that the foundations on which proposals are developed are comprehensive and robust.

There are also broader benefits to be derived from engagement and BG recognises that stakeholder knowledge and expertise can make a valuable contribution to ensuring well-founded and balanced proposals, especially where formal comparative assessment of decommissioning options is required. Stakeholders are therefore regarded as 'fellow travellers' on the A&C decommissioning journey.

2.2 The Engagement Programme

An external stakeholder engagement programme was initiated by BG on the basis of commitment to early and ongoing dialogue with those with an interest in or potentially impacted by the A&C decommissioning proposals, and with those whose specialist knowledge might help inform the pre-planning process to ensure appropriate inputs for decision-taking, including in support of the comparative assessment of options for the pipelines. Activity was led by a stakeholder relations manager within the decommissioning team.

Stakeholders were identified amongst the following categories:

- Regulators and their advisory agencies (regulatory consultees)
- Statutory consultees
- A&C partners
- Commercial agreement partners (operators with pipelines crossing the A&C facilities)
- Other stakeholders with coastal, community, energy, environmental, fishing, industry, and marine interests.

Stakeholder organisations with which contact was established and maintained are listed in Appendix 3.

2.3 Learning from Others

BG recognised the importance of working with others operating in the decommissioning sector and beyond whose experience could provide useful insights for programme design and, later, for potential involvement in execution. A programme to facilitate supply chain



contact with the decommissioning team was, therefore, set up in parallel to the stakeholder programme to build awareness of the particular characteristics of the A&C project amongst external companies and to benefit from the learnings and experiences of these.

During the course of 2015 and early 2016, some 25 companies made presentations to the BG decommissioning team and engaged in discussions about potential approaches, project scope and capabilities.

Furthermore, in recognition of the insights gained by other operators, discussions were also held with decommissioning project managers at a series of informal bilateral meetings and one multilateral meeting to help inform BG's first decommissioning project.

Finally, in order to keep abreast of emerging thinking and broader opportunities for learning, team members also took part in industry and sector workgroups and committees via Oil & Gas UK and Decom North Sea, as well as attending a number of relevant conferences, seminars and industry events throughout 2015 and 2016.

3.0 KEY ENGAGEMENT ACTIVITIES

3.1 Introduction

The key engagement activities of the external stakeholder programme are summarised in Table 2 and principal elements described in more detail in the sections which follow.

Table 2 – Key Engagement Milestones, Activities and Outcomes

Date	Stakeholder Engagement	Outcomes
April 2015	Site visit to St Fergus coast, and introductory meeting with onshore terminal operator (Apache)	Familiarisation with coast where (buried) export pipeline reaches land and local context-setting.
May 2015	Meeting with DECC EMT, Marine Scotland and Joint Nature Conservation Committee (JNCC) (with JNCC also representing Scottish Natural Heritage (SNH)) to discuss the scope of work for the Pre- Decommissioning Environmental Baseline Survey.	The scope of work for the survey was modified to include additional sampling points in accordance with the requirements of the regulatory agencies expressed at and after the meeting.
May 2015	Introductory meeting with the Scottish Environmental Protection Agency (SEPA) for familiarisation purposes.	Clarification provided by SEPA on the offshore permitting required in association with eventual programmes.
June 2015	First meeting held with the Scottish Fishermen's Federation (SFF, a statutory consultee) to initiate project and seek early stage input to characterise the nearshore area in terms of fishing activity.	Agreed that a 'one-size-fits-all' approach to pipeline decommissioning for A&C was not appropriate and that a section-by-section treatment, particularly in the nearshore area, was required given the varying pipeline characteristics and potential interactions with other users of the sea. Ongoing dialogue enabled incorporation of SFF advice regarding inputs to CA process and survey activities.
June 2015	Introductory email briefing sent to all stakeholders.	Various responses - see Table 3.
August 2015	Meeting held with DECC EMT to understand the precise definitions of pipeline regulation jurisdictions and also to understand approaches to different pipeline decommissioning options in the past.	DECC clarification and guidance used to inform development of CA and programme.
August 2015	Meeting with the SFF on detailed characteristics of the nearshore and offshore seabed. Discussions were also held regarding the nearshore section of the export pipeline and piggybacked MEG line in terms of whether or not any options for comparative assessment (e.g. removal of partial rock cover) could be clearly ruled out in order to assist with options screening and relevant assumptions to ensure the correct studies could be commissioned without waste.	Seabed environment details incorporated into planning for the Pre-Decommissioning Environmental Baseline Survey. Regarding ruling out options, SFF did not consider any options could be ruled out without further information.
September 2015	Multilateral meeting with project and commercial partners to discuss interactions at crossings with respect to pipeline and umbilical decommissioning.	Any close working to others' pipelines will be subject to proximity agreements as per normal working practice.



Table 2 – Key Engagement Milestones, Activities and Outcomes / continued		
Date	Stakeholder Engagement	Outcomes
October 2015	BG tour of Fraserburgh Harbour (with SFF).	Better understanding of the challenges faced by other users of the sea
October 2015	Further meeting with the SFF held to share the results of the remotely operated vehicle video survey of the export pipeline.	Observations by the SFF used to inform inputs to the comparative assessment process.
November 2015	Stakeholder Workshop held, with pre-read and post- workshop report and other materials provided to all stakeholders for additional comment. Also follow-up meeting with JNCC. See Table 4 for full details of responses.	Further study on trenching undertaken following Stakeholder Workshop.
December 2015	Statutory consultee Global Marine Systems advise that decommissioning operations should be notified to cable owners and other sea users in the nearby vicinity of any works via notices to mariners and the Kingfisher Fortnightly Bulletin. The UK Hydrographic Office and any cable owners should also be kept informed at execution stage if any interactions likely.	Noted for execution phase.
January 2016	Comparison made of nearshore pipeline video footage from 2011 survey alongside 2015 results and shared with SFF to indicate trends of pipeline cover by natural processes.	Recognition of trend towards build-up of cover. Technical note produced to document this [7].
February 2016	SFF presentation on seabed clearance and restoration made to BG decommissioning team.	Improved understanding of considerations that will need to be made when planning mitigation, debris clearance and post- decommissioning surveys.
February 2016	Two SFF representatives joined the comparative assessment scoring workshop for the nearshore section of the export pipeline to provide broader perspective. SFF advised that while their preferred solution was for total removal, in the context of the CA which scored a leave in situ solution most highly, rock cover should be used to mitigate safety risks on areas of pipeline exposed or potentially exposed to scallop dredgers.	SFF's inclusion enabled full consideration of comments within the wider context and more informed scoring.BG to liaise with relevant government departments and the SFF on rock cover specifications and overtrawl trials post-decommissioning works.
March 2016	Pre-Decommissioning Environmental Baseline Survey Report provided to DECC EMT, Marine Scotland, JNCC, and SNH with offer of presentation and/or discussion if required. Responses from three parties acknowledged that they were content with the results (DECC EMT has yet to comment). Questions of clarification were also posed by Marine Scotland on several aspects of the research.	Noted. Questions of clarification answered.
March 2016	All stakeholders were issued with the Emerging Recommendations from the CA process in March 2016 for comment. Substantive responses received.	Various responses – see Table 5.



3.2 DECC (now BEIS)

Quarterly update meetings have been held with DECC's Offshore Decommissioning Unit (ODU) throughout the pre-planning phase of the project since March 2015. Representatives from the Environmental Management Team (EMT) have often been present at these and, on one occasion, the Oil and Gas Authority (OGA).

While primarily conceived as a means of updating the ODU on the progress of planning activity, the meetings have also proved useful to the A&C decommissioning team in enabling greater understanding of regulatory expectations and how project elements need to be presented in order to capture all relevant elements and ensure full understanding by regulatory agencies, statutory consultees and the broader stakeholder base.

In addition to the quarterly meetings, reference has been made to the ODU and EMT on an *ad hoc* basis where questions have arisen or clarifications needed, explored through email, telephone and, on occasion, at meetings where wider discussion and guidance has been needed.

3.3 **Regulatory Agencies and Statutory Consultees**

3.3.1 **Pre-decommissioning Environmental Baseline Survey**

In May 2015, a meeting was held with the Joint Nature Conservation Committee (JNCC, who also represented Scottish Natural Heritage (SNH) at the meeting), Marine Scotland, and DECC EMT in order to introduce the project and to seek input into the draft scope of work for the pre-decommissioning environmental baseline survey. As a result of the discussion, a map showing sampling locations relative to infrastructure to be decommissioned was circulated to these regulatory agencies. Survey requirements were also modified to include additional sample points and to check the status of two spans in-trench on the main export pipeline which had been previously identified in 2009 and 2011 and to confirm that natural backfilling was continuing. Revised scopes were circulated for the survey which concluded in September 2015.

Highlights of the findings were reported at the stakeholder workshop held in November 2015, whose participants included JNCC and Marine Scotland (amongst others), and a further meeting was held with JNCC in December 2015 for the purposes of updating the regular liaison officer who had not been able to attend.

The results of the final survey reports were shared with DECC EMT, JNCC, Marine Scotland and SNH and comment sought. The written responses acknowledged that:

- JNCC considered the reports provided a robust environmental baseline and habitat assessment;
- SNH found that overall the reports were comprehensive and well-presented, with useful maps for visualising depths, habitat types and pipeline exposures along the inshore component of the pipeline route;



 Marine Scotland regarded the reports to be well presented with a logical and consistent format, and that the survey techniques, analytical methods and data processing employed in the report were of a suitable standard capable of providing an evidence base for BG's in situ pipeline decommissioning recommendations, and addressing information requirements as set out in the DECC Guidance Notes [5].

Questions of clarification were also raised by these regulatory agencies within the related correspondence which were answered by BG, and Marine Scotland also offered access to map resources.

SNH advised that if the Southern Trench Marine Protected Area search location proceeds to consultation prior to, or during decommissioning activities, then these would require further consideration to confirm that they would not affect the seabed features of the site, and provided advice in this context.

Finally, the survey reconfirmed the position of unexploded ordnance from the Second World War showing that it remained in position and had not been disturbed. That no change was detected was reported to the UK Hydrographic Office at the recommendation of the Scottish Fishermen's Federation and subsequently appeared in a Notice to Mariners.

3.3.2 Scottish Environmental Protection Agency (SEPA)

A meeting was held in May 2015 with the Scottish Environment Protection Agency (SEPA) to make introductions and to understand the environmental arrangements necessary for compliance with areas under SEPA's remit in relation to BG's decommissioning plans.

Discussion centred on licensing requirements and SEPA advised that while there was no history of naturally occurring radioactive material (NORM) ever having been detected within the A&C fields it would nevertheless be useful for a permit application to be made on a precautionary basis. This would allow authorisation of any vessel within 500m to accumulate and dispose of NORM-contaminated waste from subsea structures in the unlikely event that any is discovered.

SEPA were also represented at the stakeholder workshop held in November 2015.

3.3.3 Scottish Fishermen's Federation

Contact with the Scottish Fishermen's Federation (statutory consultee) was initiated in January 2015, with formal meetings held throughout the pre-planning phase. It was agreed at an early stage following advice on fishing activity within the nearshore area that a sectionby-section approach to considering options for the pipeline decommissioning was required because of the different on-bottom characteristics, and because of potential interactions with other users of the sea. This was incorporated into the approach taken for the comparative assessment process. The options for the nearshore section of the export pipeline and piggybacked MEG line were also discussed with the SFF.

The video footage available from the 2015 pipeline survey was shared with the SFF to better understand the seabed profile in the nearshore area and potential interactions with fishermen, particularly scallop dredgers. The SFF highlighted that uncertainty over fish types (and thus fishing locations) in the future make long-term risks harder to predict in the context of decommissioning planning and any solution needs to be framed within the possibility that



changes to fishing activity and the seabed characteristics may require a revised approach to monitoring and mitigation in the future.

Comparison footage from the 2011 pipeline survey was also shared with the SFF to indicate trends of pipeline cover by natural process which showed a build-up of cover over the pipeline over time. This build-up of cover has been documented in a technical note [7].

In October 2015, the SFF arranged for members of the BG team to visit Fraserburgh Harbour to meet with local fishermen to hear about the challenges faced at sea and to better understand the techniques and technologies used for safe operations.

The SFF were represented at the stakeholder workshop in November 2015 and, in February 2016, at the comparative assessment scoring workshop for the nearshore section of the export pipeline in order to provide a broader perspective. The SFF advised that while their preferred solution was for total removal, in the context of the assessment which scored a leave in place solution most highly, rock cover should be used on areas of pipeline exposed or potentially exposed to mitigate safety risks to scallop dredgers.

The SFF were also invited to provide fishing track data for the socioeconomic and fishing risk study [8] prepared for the decommissioning pre-planning and were given the opportunity to review the study before it was finalised for gaps or errors.

Finally, representatives of the SFF were invited to present to the full BG decommissioning team in February 2016 on seabed clearance and restoration in order to improve understanding of the considerations needed when planning mitigation measures, debris clearance and post-decommissioning surveys. Together with relevant government departments, the SFF will be involved in the design of the overtrawl trials and the specification of any additional rock cover placed.

3.4 Early Stage Briefings

Following initial meetings with the SFF and DECC, together with the latter's advisory agencies, a briefing was shared with all stakeholders to explain about the pre-engagement process being undertaken in preparation for decommissioning proposals to be brought forward for consultation. A copy of this briefing appears in Appendix 4.

Responses to this communication led to discussions with a range of stakeholders by email, telephone, and face-to-face meetings, largely focused on answering questions, introducing the project and explaining the development process more fully, capturing concerns, and enabling relevant requests for information for project decisions to be incorporated into the planning process. Table 3 summarises the comments made and how these were addressed, including where meetings were held.

Table 3 – Preliminary Stakeholder Comments

Comment in Response to Initial Stakeholder Briefing, June 2015	Response
Aberdeen and Grampian Chamber of Commerce requested a meeting to discuss potential opportunities for its members.	Meeting held.
Aberdeen Harbour Board requested a meeting to discuss potential opportunities for onshore handling.	Meeting held and harbour visit undertaken.
Aberdeen Inshore Fisheries Group (part of the Scottish Creel Fishermen's Federation) did not foresee any issues with rock cover on inshore sections as these can enhance the type of habitat which attracts prawns, crabs and lobsters, although different treatment would be needed to protect against snagging by trawl vessels in relevant areas.	Comments noted for comparative assessment. Contact made with the North East Creel and Line Fishermen's Association.
Association of Scottish Shellfish Growers highlighted member interests as being confined to the nearshore area of the inner Moray Firth (principally the Dornoch and Cromarty Firths) for mussel cultivation. Disturbance to these Firths would be of interest to them.	Noted, although given the distance from the principal areas of the inner Moray Firth mentioned, no disturbance was envisaged.
Buchan Inshore Fishermen's Association (and members of the (former) East Coast Inshore Fisheries Group) advised that they would share information with their c40 members. Expressed favourability towards working with survey companies subject to compensation for any loss of fishing time where removal of static fishing gear was required, and expectation of any disturbance to the sea bed being reinstated.	Noted.
Decom North Sea requested permission to use project information on its website to facilitate access to project details for its members.	Agreed.
East Coast Inshore Fisheries Group highlighted potential data sources as an area of concern in relation to the Marine Scotland Grid Economics Report which was perceived as lacking. Offered additional data source suggestions for socio-economic study. Offered to share information on the A&C project with its members.	BG shared the additional data sources with its marine consultants for incorporation into the socio-economic and fishing risk study.
Energy Industries Council requested a meeting to introduce its new Regional Manager.	Meeting held.
Global Marine Systems advised that the Peterhead-Alexandrovsk cable (in service 1915-1930) was the only existing cable in the vicinity of A&C which could potentially be impacted.	Noted.
Health & Safety Executive advised that its subsea departments (pipelines, wells, diving) would potentially be interested in the project and project information would be shared with them.	None required.
Lerwick Port Authority consider that the burden on the taxpayer for decommissioning meant that opportunities for UK companies, particularly in connection with onshore disposal, is desirable.	Noted.



Table 3 – Preliminary Stakeholder Comments / continued:	Response
Stakeholder Comment in Response to First Briefing, June 2015	
Northern Lighthouse Board advised that with only subsea infrastructure, they would have a limited input but would nevertheless be pleased to attend any meeting or presentation to keep abreast of BG's intentions with respect to the methodology and timescales.	Noted.
North Sea Regional Advisory Council advised that they do not usually become involved in consultations regarding decommissioning, leaving this instead to local partners (in this case the Scottish Fishermen's Federation) who are better placed to respond. Asked to be kept informed as project progresses.	Noted.
OGA interested in learning more about supply chain opportunities.	Discussed in DECC update meeting attended by OGA.
Peterhead Port Authority replied to express interest in learning about the project and potential opportunities.	Port partners Norsea met with BG team to discuss project needs and capabilities.
Professor W Ritchie, formerly of the Aberdeen Institute for Coastal Science and Management who previously provided advisory service to the St Fergus Environment Committee gave input regarding onshore environmental management.	Meetings held to better understand the dunes morphology at St Fergus, although this is to be addressed in a separate onshore decommissioning programme.
Scottish Association for Marine Science wrote to outline expectations in terms of approach to environmental activity, and requested meeting to discuss further.	Points answered regarding scope of environmental impact assessment. Meeting held to discuss further and explore new technological approaches that may be relevant to consider.
The Crown Estate advised of their expectations and powers to modify decommissioning activity once the Decommissioning Programme has been considered by BEIS, although they will be invited by BEIS to comment formally on the draft programme during statutory and public consultations. Asked to be kept informed about the detail of any activity within territorial waters (12nm) where pipelines may be decommissioned <i>in situ</i> .	Noted.
The Industry Technology Facilitator asked to meet to share details of potentially relevant projects they were undertaking that might be informative for the decommissioning planning.	Preliminary meeting held before second, larger meeting with BG team; information shared with wider colleague base, notably the Wells specialists.
The North East Creel and Line Fishermen's Association advised that their concerns centered on impacts on static fishing gear during decommissioning operations including advance surveys. Requested precise details of the export pipeline location.	Reassurance provided that compensatory arrangements were being made via the SFF for relevant disruption of fishing activity for the environmental baseline survey. Chart showing pipeline route provided.
UK Fisheries Legacy Trust Fund Ltd highlighted the Memorandum of Understanding (MoU) between the Scottish Fishermen's Federation, National Federation of Fishermen's Organisation and Oil & Gas UK regarding payment for exposed pipelines which may be decommissioned in situ.	No exposed sections of pipeline were (at that stage) expected to be left in situ, but reminder of the arrangement for payments was noted. Correspondence followed regarding other aspects of the MoU and its applicability for clarity on the detail.

Table 3 – Preliminary Stakeholder Comments / continuedStakeholder Comment in Response to First Briefing, June2015	Response
University of Aberdeen Business School (Professor Alex Kemp) highlighted carbon capture feasibility for the Captain Field adjacent to the A&C Fields and the view that the A&C export pipeline was at one stage considered as a possible way to transport CO2 for offshore storage.	Advised that although this had been examined, BG had not succeeded in attracting a specific business opportunity to make this proposition reality. BG had also ruled out the possibility of taking this forward itself before embarking on the decommissioning pre-planning. Documentation provided at the meeting was shared with BG colleagues.
Whale & Dolphin Conservation (WDC) advised that they did not have the capacity to engage but would share the information provide with the Scottish Environment LINK's marine task force.	Thanked and noted. (Note also that Scottish Environment LINK and the marine task group members are also a stakeholder for the purposes of A&C decommissioning.)

3.5 Stakeholder Workshop

In November 2015, before the the comparative assessment of options, a stakeholder workshop was held in order to update stakeholders on the feasible options to be taken forward, and to explore the implications of different approaches.

The workshop was led by independent facilitators and attracted 25 external stakeholders in addition to representatives from BG and its specialist environmental and marine consultants. A copy of the attendance list, together with details of those who were invited but did not attend, appears at Appendix 5.

A pre-read document explaining the project was prepared in order to give stakeholders the opportunity to prepare for the workshop, and a post workshop report and evaluation (both prepared by the independent facilitators) was issued following the event, together with slides from the proceedings. Evaluation of the workshop was undertaken by the facilitators using feedback forms issued to stakeholders who attended, and scored highly on all points. All stakeholders received copies of this material, including those who did not attend, in order to maximise opportunities for further feedback.

While stakeholder questions were largely answered at the event, or remained to be considered within the comparative assessment, the principal action from the stakeholder workshop was to conduct a further review of the practicalities of trenching and burying methods to determine its potential effectiveness as a solution for decommissioning a section of the export pipeline in the nearshore area. The technical note [9] which was subsequently prepared by external consultants identified that this would not be a feasible solution (see s4.1.2 in the Comparative Assessment Report [2] for details).

Copies of all workshop materials and related documentation mentioned here are available from BG on request (see Section 5 for consultation contact details). Comments made in follow-up correspondence upon circulation of these to all stakeholders are captured in Table 4, together with how these were addressed.





Table 4 – Queries Arising from the Stakeholder Workshop, November 2015

Stakeholder Comment	Response
Energy Industries Council were keen to understand how BG intends to engage with the supply chain, the initiatives in place to look at innovative solutions and to discuss EIC role in facilitating this.	Meeting held to discuss.
Global Marine Systems advised desirability of provision of information about decommissioning operations to cable owners and other sea users in the nearby vicinity of any works via notices to mariners and the Kingfisher Fortnightly Bulletin. The UK Hydrographic Office and any cable owners should also be kept informed at execution stage if any interactions are likely. BG should also be aware of the need for consultation with owners of any new cables that may be laid across any pipeline ahead of decommissioning in case of potential damage.	Acknowledged and noted.
Greenpeace Research Laboratories advised that preference for oil and gas infrastructure on the seabed, including pipelines and umbilicals, remains that these should be removed wherever this can be done safely and without causing substantial collateral damage to surrounding seabed/water column.	Acknowledged, advising that this would be considered as part of the comparative assessment of options with emerging recommendations communicated.
JNCC (met after the Stakeholder Workshop) considered the inshore section of the field would be subject to the majority of discussion because of the variety of burial/protective features along the line (under SNH remit). Solutions which affect the substrate and disturb habitats least are to be preferred, and leave 'as is' decommissioning may be most appropriate from an ecological perspective, depending on the state of the infrastructure and ecological habitats nearby. Minimum disturbance preference means that JNCC would be unfavourably disposed to removal of pipelines from rock cover. In some habitats, trenching and burying has a more temporary impact than rock cover since the latter can more fundamentally change the seabed. JNCC clarified expectations with respect to post decommissioning survey requirements. The environmental survey scopes depend on the extent of the work that is done and the expectations with respect to recovery. JNCC recognised that safety is an important factor in the pipeline surveys – ensuring there are no pipeline free-spans that may pose a snagging risk to fishing vessels.	Acknowledged and noted.
Pale Blue Dot asked for their position advocating reuse of the export pipeline to be formally recorded in spite of the government's cancellation of the £1bn funding for the Peterhead and White Rose carbon capture and storage (CCS) projects. Acknowledged that CCS is not currently commercial without financial support which makes scheduling difficult. Requested meeting to discuss possible opportunities.	While reuse might be feasible, section 5.18 of the DECC Guidance Notes [5] requires a specific opportunity for carbon dioxide or hydrocarbon gas storage to be identified before any deferral of decommissioning can be considered. Additional guidance sought from the ODU confirmed this. Stakeholder position on retention of pipeline reported in this document.



Table 4 – Queries Arising from the Stakeholder Workshop / continued Stakeholder Comment	Response
Peterhead Port Authority thanked BG for the materials which are useful and informative in connection with potential decommissioning activity as a means to inform investment decisions and planning. Asked to be kept informed through future updates.	Acknowledged and noted.
Professor W Ritchie, formerly of the St Fergus Coastal Committee, suggested an update meeting to discuss progress of the decommissioning planning.	A meeting was held in January 2016 for a high level discussion of progress.
Scottish Natural Heritage confirmed its agreement with advice from JNCC (see this table, above) which is broadly applicable for the inshore component of the works, with further advice to be given once full survey report and comparative assessment of options are available. Reference to a recently consented wind farm made which could require liaison.	Acknowledged and noted, advising SNH that the export pipeline is to the north of the windfarm site mentioned and not therefore in conflict.
University of Aberdeen Lighthouse Field Station asked about opportunities to adopt nearshore pipeline infrastructure to house marine mammal monitoring equipment.	This idea was explored in a telephone meeting with the University and deemed to be feasible, subject to a project being put forward within an appropriate timeframe. The timing was considered by the University to be unlikely to coincide, but the idea would be explored with other export pipeline decommissioning projects. BG later put one of its pipeline contracting companies in touch with the University to explore the possibility of a demonstration project through that route.

3.6 **Comment on Emerging Recommendations**

Once comments were gathered from stakeholders and outstanding matters addressed, the final scoring for the comparative assessment of options was undertaken and a report on emerging recommendations [10] issued to stakeholders for comment before final proposals were set out in the Draft Decommissioning Programmes. The comments and BG's response to them are set out below in Table 5.



Stakeholder Comment	Response
Decom North Sea expressed appreciation of the comprehensive stakeholder involvement in the development of proposals and requested permission to share the information with others in presentations on collaborative decommissioning.	Confirmation given to Decom North Sea that since the materials were in the public domain, they could be used freely.
Global Marine Systems advised that review of future cables should be made prior to any decommissioning works	BG (or its consultants) will review the A&C Fields for potential cable operations/installations prior to the start of works to ensure there is no conflict.
Health & Safety Executive confirmed they had no comments to make on the document.	HSE position acknowledged.
North East Creel & Line Fishers advised that there have been no problems for their boats (operating between 2 and 7 miles from shore) arising from the A&C pipeline since its installation in 2005 and that they see no reason for a change in the status quo.	Noted.
NOF Energy invited BG to talk to their supply chain members at a later stage to ensure they are kept informed of BG decommissioning projects including A&C and others.	NOF Energy request to be taken up later in 2016.
Oil & Gas Authority requested a more detailed briefing.	OGA briefing given at DECC ODU meeting which they attended later in March 2016.
Royal Yachting Association confirmed that given the location of these decommissioning projects, they had no further comment to make.	RYA position acknowledged.
Scottish Environment LINK said that it was unlikely that its marine group would make a joint comment, although all members of the Marine Task Force had been informed.	ScotLINK position acknowledged, noting that the CA Report had also been sent direct by BG to Marine Task Force Members.
Scottish Fishermen's Federation clarifications on wording regarding its position were requested to make clear its first preference on decommissioning is for total removal and that its advice on wording for the application of rock cover in the nearshore area is based on a scenario where full removal is not the selected option, made in an attempt to avoid increasing risks to fishermen from 'cut and recovered' short exposed sections creating multiple snag hazards should rock protection be displaced, leaving exposed cut pipe ends.	Clarifications incorporated into final report.
Scottish Wildlife Trust noted the rigour of the CA process and formally set out its position on decommissioning regarding (i) environmental impacts and preference for complete removal of pipeline where uncertainties exist; and (ii) its view that where decommissioning in situ is selected that financial contributions to research should be made.	SWT's position acknowledged by BG; (i) safety reasons for CA outcome in nearshore section highlighted and intention to conduct surveys post-decommissioning explained; and (ii) parent company financial contributions to independent scientific research through the INSITE North Sea programme advised. Meeting offered with new policy manager – to be held Q2 2016.



Table 5 – Responses to Emerging Recommendations Report Issued to Stakeholders / continued Stakeholder Comment	Response
Summit Power letter objecting to any decommissioning of the export pipeline.	Explanation of DECC requirements reiterated.
UK Fishing Legacy Trust Company asked for clarification on expectations of the size of pipelines that may be decommissioned in situ in connection with potential payments that may be required on a 'per km' basis covering the full length of pipeline for those over 25 inches diameter.	Following an exchange of emails to clarify, FLTC confirmed that since the Atlantic export pipeline is within the 25 inch diameter limit such a payment would not be expected.
WWF advised that they had no comments at this stage.	WWF position acknowledged and noted.

4.0 **RESPONDING TO THE CONSULTATION**

4.1 **Commenting on the Draft Decommissioning Programmes**

The Draft Decommissioning Programmes, Comparative Assessment Report and Environmental Impact Assessment Report, together with this document, are available as follows:

- 1. At the BEIS webpage at <u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines</u> (see 'Table of draft decommissioning programmes under consideration' for entry under 'BG Group').
- 2. By email from Carol Barbone at <u>carol.barbone@bg-group.com</u>, 01224 202169, or M 0777 552 3091.
- 3. For inspection during the statutory and public consultation period (20 September to 20 October 2016) at 26-28 Albyn Place, Aberdeen AB10 1YL.

Those wishing to comment on the Draft Decommissioning Programme should do so by letter or email to:

Carol Barbone Decommissioning Stakeholder Relations BG Group 26-28 Albyn Place Aberdeen AB10 1YL

Carol.Barbone@bg-group.com

Comments are requested by the close of business on 20 October 2016.

BG or its consultants may wish to contact respondents regarding any issues raised, or to request additional information where relevant. Feedback will be captured in the final Decommissioning Programmes which will be submitted to BEIS after consideration of the responses to the statutory and public consultation. As such, respondents who do not wish their name, organisation or all or part of any response to be made public should state this clearly in their submission.

Documents referred to within the Atlantic & Cromarty Draft Decommissioning Programmes, Comparative Assessment Report, Environmental Impact Assessment Report and Stakeholder Engagement Report can also be made available for inspection by prior arrangement. Please contact Carol Barbone as above.



5.0 **REFERENCES**

Documents are available for inspection (see section 4 for contact details) where not available online.

[1]	BG Group (2016) Atlantic & Cromarty Draft Decommissioning Programmes AC-ACD-W-RE-3001 Available at <u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore- installations-and-pipelines</u> (see entry for Atlantic & Cromarty within Table of Decommissioning Programmes under Consideration)
[2]	BG Group (2016) Atlantic & Cromarty Decommissioning Project – Comparative Assessment Report AC-ACD-W-RE-3018 Issue C1 Available at: <u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-</u> <u>installations-and-pipelines</u> (see entry for Atlantic & Cromarty within Table of Decommissioning Programmes under Consideration)
[3]	BG Group (2016) Atlantic & Cromarty Environmental Impact Assessment Report AC-ACD-HS-RE-3017 Available at: https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore- installations-and-pipelines (see entry for Atlantic & Cromarty within Table of Decommissioning Programmes under Consideration)
[4]	OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations (1998) OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic: Ministerial Meeting of the OSPAR Commission Sintra: 22 - 23 July 1998 Available at: <u>http://www.ospar.org/convention/agreements?q=ospar+decision+98%2F3&t=&a=&s</u> =
[5]	DECC Guidance Notes (March 2011) Decommissioning of Offshore Oil and Gas Installations and Pipelines under the Petroleum Act 1998, Version 6 Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69754/Guidanc</u> <u>e_Notes_v6_07.01.2013.pdf</u>
[6]	Oil & Gas UK (2013) Guidelines on Stakeholder Engagement During Decommissioning Activities (2013) Available at: <u>http://oilandgasuk.co.uk/13282-2.cfm</u>
[7]	Wood Group Kenny (2016) Atlantic & Cromarty Decommissioning Technical Note: Depth of Burial Study for Pipelines and Umbilicals, AC-ACD-SS-TN-3000
[8]	Brown and May Marine (2016) Atlantic & Cromarty Fields: Assessment of Socioeconomic and Health and Safety Impacts on Commercial Fisheries, AC-ACD-HS-RE-3008
[9]	Wood Group Kenny (2016) Atlantic Pipelines (Nearshore) Trenching and Rock Protection Technical Note, AC-ACD-T-SU-3004
[10]	BG Group (2016) Atlantic & Cromarty Decommissioning Project – Comparative Assessment Report Emerging Recommendations for Stakeholder Comment Issue, AC-ACD-W-RE-3018 Issue B2 – amended following stakeholder comments to the version referenced in [2] above

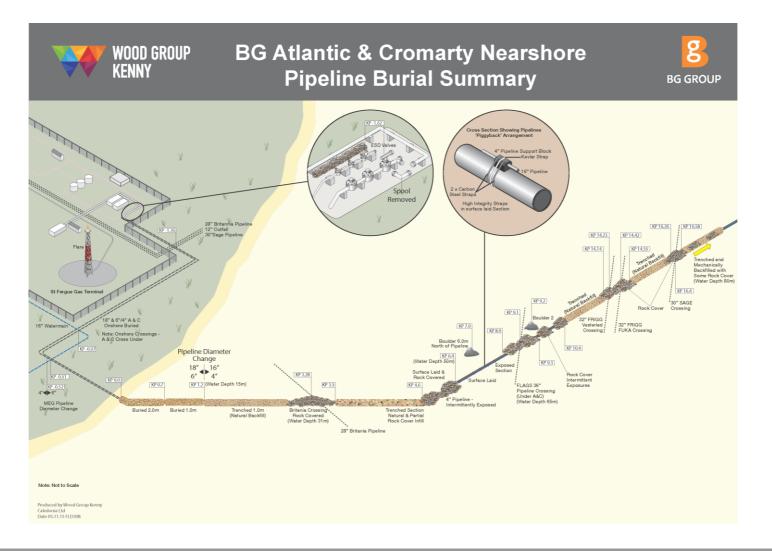


APPENDIX 1 ABBREVIATIONS

A&C	Atlantic and Cromarty (Fields)	
ALARP	As Low As Reasonably Practicable	
BEIS	Department for Business, Energy and Industrial Strategy (Department of Energy and Climate Change prior to 14 July 2016)	
CA	Comparative Assessment	
CO2	Carbon Dioxide	
DECC	Department of Energy and Climate Change (Department for Business, Energy and Industrial Strategy since 14 July 2016)	
EIA	Environmental Impact Assessment	
EMT	Environmental Management Team	
FLTC	(UK) Fisheries Legacy Trust Fund	
INSITE	Influence of Man-made Structures in the Ecosystem	
IPR	Interim Pipeline Regime	
JNCC	Joint Nature Conservation Committee	
KP	Kilometre Point	
MEG	Monoethylene Glycol, used for the purposes of hydrate control in gas pipelines	
MoU	Memorandum of Understanding	
NORM	Naturally Occurring Radioactive Material	
OCU	Offshore Decommissioning Unit	
OGA	Oil & Gas Authority	
SEPA	Scottish Environment Protection Agency	
SNH	Scottish Natural Heritage	
UKCS	United Kingdom Continental Shelf	



APPENDIX 2 PIPELINE STATUS - NEARSHORE



APPENDIX 3 LIST OF STAKEHOLDERS

Stakeholder Grouping	Stakeholder Organisation
Statutory Consultees	Global Marine Systems Ltd
	Scottish Fishermen's Federation (SFF)
	National Federation of Fishermen's Organisations (NFFO)
	Northern Ireland Fishermen's Federation (NIFF)
Regulatory and Advisory Agencies	BEIS/DECC Offshore Decommissioning Unit (ODU)
	BEIS/DECC Offshore Inspectorate (EMT)
	Health & Safety Executive (Hazardous Installations Directorate)
	Historic Scotland
	Joint Nature Conservation Committee (JNCC)
	Marine Scotland
	Maritime and Coastguard Agency
	Oil & Gas Authority (OGA)
	Scottish Environment Protection Agency (SEPA)
	Scottish Natural Heritage (SNH)
A&C Partners	Hess Limited
Commercial Agreement Partners	Apache
	BP
	Britannia
	Nexen
	Shell
Other Stakeholders	Aberdeen and Grampian Chamber of Commerce
	Aberdeen Harbour Board
	Aberdeen University Lighthouse Field Station
	Anglo Northern Irish Fish Producers Association ANIFPO
	Association of Scottish Shellfish Growers
	British Geological Survey
	British Marine Federation
	Buchan East Community Council (Buchan Area)
	Centre for Environmental and Marine Sciences, University of Hull
	Cetacean Research & Rescue Unit
	Decom North Sea
	East Coast Inshore Fisheries Group
	East of England Energy Group
	EIC (Energy Industries Council)
	Energy North (now folded)
	Energy Skills Scotland



Friends of the Earth Scotland
Greenpeace Research Laboratories
Highlands and Islands Enterprise
International Marine Contractors Association (IMCA)
International Maritime Organisation
KIMO (Local Authorities International Environmental Organisation)
Lerwick Port Authority
Marine Conservation Society
NOF Energy
North Sea Commission
North Sea Regional Advisory Council
Northern Lighthouse Board
Offshore Contractors Association (OCA)
Oil & Gas Producers (OGP)
Oil & Gas UK
OPITO
Pale Blue Dot (from November 2015)
Peterhead Port Authority
Royal Yachting Association
RSPB Scotland
Scottish Assocation for Marine Science
Scottish Coastal Forum
Scottish Enterprise
Scottish Environment LINK
Scottish Oceans Institute (University of St Andrews)
Scottish Ornithologists' Club (SOC)
Scottish White Fish Producers Association
Scottish Wildlife Trust
Society for Underwater Technology
The Crown Estate
The Industry Technology Facilitator
The Marine Alliance for Science and Technology for Scotland (MASTS)
The Scallop Association
The Scottish White Fish Producers Association Ltd
Ugie Salmon Fishings
UK Fisheries Legacy Trust Fund Ltd
University of Aberdeen Business School
Whale and Dolphin Conservation Society
WWF Scotland

APPENDIX 4 INTRODUCTORY EMAIL TO STAKEHOLDERS 26 June 2016

Dear ...

I am currently working with the BG team which is conducting the pre-planning for the decommissioning of the Atlantic and Cromarty gas and gas condensate fields (UKCS blocks 14/26a and 13/30) in the outer Moray Firth and wanted to make you aware of this in case you would like to have an input to our preparations for the comparative assessment of decommissioning options.

While it is a relatively straightforward decommissioning project, I am keen to ensure that stakeholder views are properly incorporated into our planning process as early as possible. I do not have detailed documentation to give you at this stage but I am keen to share what I can in general terms and to take on board any particular concerns which, from your point of view, need to be considered in our assessment of the viability and impacts of different decommissioning options. This will ensure that we haven't overlooked any specialist studies or reports that will feed into this assessment.

If you would find it helpful to meet to talk through the project, or to flag up any particular issues based on the summary below, please do let me know.

By way of background, production from the fields began in 2006 and operations were ended in 2009/10. However, while many studies were conducted at that time and formal approval for cessation of production was granted by DECC in 2011, we are only now making the preparations for submitting a draft decommissioning programme as the intermediate time was used to look for alternative uses of the facilities.

In anticipation of this, we are now revisiting that preparatory work and updating it with new studies, pipeline inspections and environmental surveys. Notably, this will incorporate the 77 km export pipeline, currently held in the Interim Pipeline Regime. A diagram is attached showing the field layout and export pipeline which connects the fields to dedicated facilities at the St Fergus SAGE terminal on the north east tip of the Aberdeenshire coast.

The subsea facilities to be decommissioned comprise:

- The Atlantic manifold
- Two Atlantic wells and one Cromarty well (tied back to the manifold) (to be fully plugged and abandoned)
- The 77 km export and 'piggybacked' monoethylene glycol ('MEG') pipelines (largely but not exclusively trenched and buried see below)
- The 12 km production and piggybacked MEG pipelines (trenched and buried) which link the wells at Cromarty and Atlantic
- The 12 km umbilical line (trenched) from Atlantic to Cromarty
- The 31 km umbilical (trenched) from Atlantic to the neighbouring Goldeneye platform

Note: there are no offshore platforms or drill cuttings piles to decommission.

The eventual fate of all pipelines and <u>umbilicals</u> will be determined by a comparative assessment of suitable decommissioning options with mitigations where appropriate. We will be following the process set out in the <u>DECC Guidance Notes</u> on Decommissioning (notably Chapter 10 on Pipelines). A one-size-fits-all approach to the entire 77 km pipeline is not expected to be appropriate because there are sections of the main export line within the first 16 km from the shore which vary considerably in composition. These include pipeline sections which are:

- Surface laid without rock cover
- Surface laid with rock cover at crossings with other pipelines
- Surface laid with a protective rock berm to one side
- Trenched with natural back fill



The challenges of this 16 km section of pipeline also include more complex interactions with different types of fishing activity, as well as a more varied seabed environment, and we are currently working with the Scottish Fishermen's Federation and others to examine these more fully. The forthcoming pipeline surveys due to be undertaken this summer may also reveal some spans along the main export line between the 16 km mark and the Atlantic and Cromarty fields themselves which will add to this complexity, as will crossing points with other operators' pipelines.

As I mentioned at the start of this email, I would be pleased to receive any comments that you may have regarding the project at this early stage and to set up a meeting over the summer if you think this would be helpful.

I will, of course, continue to keep you informed at relevant points of the project to provide further opportunities for discussion, most notably following the initial comparative assessment of decommissioning options this autumn in order to explore emerging recommendations with you before these are confirmed in the decommissioning programme.

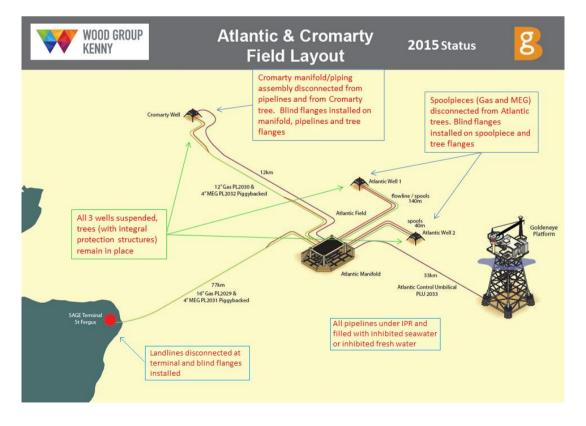
I look forward to hearing from you in due course.

Kind regards

Carol

Carol Barbone Decommissioning Stakeholder Relations Europe E&P BG-Group | 26 Albyn Place | Aberdeen | AB10 1YL | United Kingdom Tel +1224 202169 | Mob +44 (0)777 552 3091 Email <u>Carol.Barbone@bg-group.com</u> www.bg-group.com

Attachment:



APPENDIX 5 STAKEHOLDER WORKSHOP

PARTICIPANTS (attended 26 November 2015)

Aberdeen and Grampian Chamber of Commerce Seona Shand Aberdeen Harbour Board Matt North Apache North Sea Duncan Fail **BG** Group **BG** Group **BG** Group **BG** Group **BG** Group **BG** Group Phil Shand Brown & May Marine Jake Laws **Decom North Sea** East of England Energy Group (Decommissioning SIG) East of England Energy Group (Decommissioning SIG) Paul Yeats **Energy Industries Council** Hartley Anderson (for BG Group) Health & Safety Executive Hess Limited JNCC Rachel Ball KIMO UK Lerwick Port Authority Marine Alliance for Science & Technology Scotland Marine Scotland Science Oil and Gas UK Karis Viera Pale Blue Dot **Resources for Change Resources for Change** Mike Kina **Resources for Change** Erica Sutton Scottish Association for Marine Science Scottish Enterprise Karen Craig Scottish Fishermen's Federation Scottish Fishermen's Federation Pete West Scottish Fishermen's Federation John Watt SEPA University of Aberdeen Fiona Read WDC Whale & Dolphin Conservation

Carol Barbone Andy Clucas Bob Davidson Scott McCrorie Brian Mollov Matteo Bedini Julian Manning Sarah Hutcheon John Hartley Fred Williams Chris Armes **Graham Humphries** Calum Grains Kate Gormley Peter Hayes Sam Gomersall Emma Cranidge Lindsay Vare Steven Alexander **Brian Blagden** Professor Alex Kemp



Wood Group Kenny Xodus Group

ALSO INVITED BUT DID NOT ATTEND

Aberdeenshire Council Aberdeenshire Inshore Fisheries Group Anglo Northern Irish Fish Producers Association Association of Scottish Shellfish Growers British Geological Survey **British Marine Federation Buchan East Community Council Buchan Inshore Fisheries Group** Centre for Environmental and Marine Sciences, Hull Cetacean Research and Rescue Unit Crown Estate **DECC Environmental Management Team DECC Offshore Decommissioning Unit** East Coast Inshore Fisheries Group **Energy Skills Scotland** Friends of the Earth Scotland **Global Marine Systems** Highlands and Islands Enterprise Historic Scotland Marine Conservation Society Maritime & Coastguard Agency National Federation of Fishermen's Organisations NOF Energy

Alan Ransom Peter Tipler

North East Creel and Line Fishermen's Association Northern Ireland Fishermen's Federation Northern Lighthouse Board North Sea Commission OGA (PILOT) Oil and Gas Producers Association OPITO Peterhead Port Authority Professor William Ritchie Royal Yachting Association **RSPB** Scotland Scallop Association Scottish Coastal Forum Scottish Creel Fishermen's Federation Scottish Environment LINK Scottish Natural Heritage Scottish Ornithologists' Club Scottish White Fish Producers Association Scottish Wildlife Trust Society for Underwater Technology The Industry Technology Facilitator Ugie Salmon Fishings **UK Fisheries Legacy Trust Fund** University of Aberdeen Lighthouse Field Station