Shell engages stakeholders to inform decommissioning decision

Background
The Brent field is situated 186km offshore, north-east of Lerwick, Shetland, Scotland, in a water depth of 140m, and has four large platforms; Alpha, Bravo, Charlie and Delta. The Brent field was discovered in 1971. Oil production began in 1976, and then in the 1990s Brent became predominantly a gas field but still with oil production. As Brent continues to produce, it naturally depletes and, over many years of production, has moved from providing some 10% of the UK’s gas consumption to less than 2% today. In total terms the Brent field accounts for some 10% of all the oil and gas production from the North Sea to date.

The flow of oil and gas from Brent has now reached a point at which it is no longer viable to run the Brent Delta platform. The rest of the field (platforms Brent Alpha, Bravo and Charlie) continues to produce oil and gas although these platforms too will shortly reach their cessation of production. Following Brent Delta reaching cessation of production in December 2011, there follows a period of several years to engineer down the platform, make it clean of hydrocarbons and to prepare the topsides for removals.

Shell started their stakeholder dialogue sessions on Brent field decommissioning in 2007 in partnership with The Environment Council. Shell believes that dialogue sessions are an ideal opportunity for stakeholders to raise any issues, concerns and ideas they wish Shell to consider as they proceed through the decommissioning planning process.

The challenge
Brent Delta has 16 cylindrical oil storage cells as integral parts of the concrete gravity base structure of the platform, each capable of holding over 60,000 barrels of oil. The oil will be removed, but the cells are expected to be left in place. The challenge then is how best to manage the remaining sediment in the base of the cells. Several technical options have been proposed, each with benefits and drawbacks.

In September 2011, in order to focus on this challenge Shell convened a Cell Management Stakeholder Task Group (CMSTG) to explore the options in more depth. The CMSTG was drawn from the wider stakeholder group to represent the key issues that had been raised in the earlier dialogue sessions.
How Catalyze helped

The CMSTG was engaged in the development of Multi-Criteria Decision Analysis (MCDA) models using a Decision Conferencing approach. This involved a series of structured exercises in which the proposed cell sediment content management options were assessed against a wide range of decision criteria. The resulting model then shows how the options compare overall and from various perspectives. The overall process and workshops were managed and facilitated by Catalyze in conjunction with The Environment Council. The MCDA models were created by the CMSTG stakeholders along with the support of technical experts from Shell providing input and information when needed by the CMSTG. The workshops were also observed by representatives of the project’s scientific Independent Review Group (IRG).

In February 2012 the first model was created to check the viability of the options and to set aside any that performed inadequately against the criteria. Following the first CMSTG stakeholder workshop, the initial list of seven cell sediment management options was reduced to five. Then Shell and the CMSTG embarked on a more detailed assessment of the remaining options, revising and further defining the criteria and modelling various aspects of the options. Three additional workshops were held in April, May and June 2012. Brief summaries of these meetings are presented in the Stakeholder Dialogue section of the Shell Brent decommissioning website www.shell.co.uk/brentdecomm.

Enabling Effective Decisions

This work has resulted in a CMSTG model that will inform the decision of the co-venturers Shell and ExxonMobil on cell sediment content management; this will then feed into the overall decommissioning plan. The process has given the stakeholders greater clarity and understanding of the options and trade-offs, and helped Shell, ExxonMobil and the CMSTG understand different views and perspectives.

Shell plan to submit the draft Decommissioning Programme, including the Environmental Impact Assessment, for approval to the regulator DECC (Department of Energy and Climate Change) during 2013. A period of statutory public disclosure and consultation will then follow.

"I feel I have a much broader appreciation of the perspectives and concerns of other stakeholders. I also understand the complex nature of the decision being faced.”
Workshop Participant

"This should raise the baseline for future proposals and their assessments.”
Workshop Participant

The Environment Council’s mission is to develop and promote good ways of engaging people in discussions and decisions to make sustainable development happen.

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Catalyze was founded in 2001 in conjunction with the London School of Economics and Political Science, applying techniques built on robust and validated decision theory. We support global clients from offices in the UK, USA and New Zealand.