



2013 ENERGY & INFRASTRUCTURE OUTLOOK

Cables & Pipelines

Introduction

Cables and Pipelines is a mature and established part of our business, contributing approximately a third of the Energy & Infrastructure portfolio's revenue. Our attention focuses on how The Crown Estate can support industry and maintain the UK's position as a key landing point for submarine telecoms.

We grant rights to lay and operate electricity and telecommunications cables, as well as oil and gas pipelines within the 12 nautical mile (nm) limit of UK seabed. We also grant rights for submarine cables to offshore renewable

energy sites on UK continental shelf. Much of the existing infrastructure has been in operation for many years.

The growth of new industries, particularly offshore wind energy, is causing our

portfolio to become larger and more complex. We are taking an active role to ensure the requirements of existing operations is understood and factored into development plans, helping to deliver new projects efficiently.

Offshore wind power will increase demand for submarine cables to export electricity to shore and possibly between countries. We are working closely with a number of stakeholders on the development of a strategic offshore transmission network.

COVER IMAGES COURTESY OF RED PENGUIN
& OFFSHORE MARINE MANAGEMENT

Bringing high speed internet to remote parts of the UK

We are working with industry and government to help deliver broadband services to remote locations around the UK, including the Highlands and Islands of Scotland, adopting a supporting role.

The UK Government's multi-million pound Broadband Delivery UK scheme aims to bring superfast broadband to isolated regions. Superfast broadband is expected to provide fantastic opportunities and business ventures to isolated communities such as the Isle of Scilly. However, there are a number of challenges for the companies that will maintain the new subsea cables delivering broadband, especially as they are in remote locations with small populations.

We have agreed commercial terms to install and operate submarine cables to the Isles of Scilly and Scotland's Highlands and Islands. We are pleased to be able to play our part in the delivery of these critical projects and look forward to working with Highlands & Islands Enterprise, Scottish Government, BT, Cornwall Development Council and others to realise the opportunities.

“What is the sustainability of submarine telecoms cables?”

Subsea cable infrastructure is critical to our daily lives, enabling us to quickly email, surf the web and complete transactions online.

However, the economic and social importance of submarine cables is often forgotten. We are in the early stages of a new project that seeks to quantify the contribution of these cables to wider society and the economy.

We are working with the industry to identify relevant criteria and hope to establish performance indicators and matrices to measure the sustainability of subsea telecoms cable. Initial findings will be available in summer 2013.

Future submarine telecoms projects

Much of the existing subsea cable network is approaching the end of its design life.



New projects might be needed within the next ten years. However, it's uncertain how existing cables can meet future demand or the timeframe for new projects coming forward. Technology continues to develop and the current transatlantic network is operating at a fraction of the available capacity.

Our role is to ensure that the conditions are appropriate for new projects to develop in an efficient way. For example, we have been working closely with the Department for Environment, Food and Rural Affairs (DEFRA), SCUK and the Seabed User & Developer Group (SUDG) on the designation of Marine Conservation Zones (MCZs), which has the potential to affect existing and new cables.

Our licencing arrangements

In December 2012 we announced plans to review licencing arrangements for submarine telecoms cables.

There was a need for this review following recent conflict in the sector. It will ensure arrangements remain fit for purpose and consistent with the statutory Marine Licensing process, as well as other parts of The Crown Estate's Energy & Infrastructure (E&I) business. The focus of review has been the technical information needed to understand the appropriateness of developer plans and consider how projects might impact other seabed users. Further details available on our website.

Oil and gas pipelines

Offshore pipelines transport oil and gas from subsea reserves. The UK has been producing oil and gas offshore since 1967.

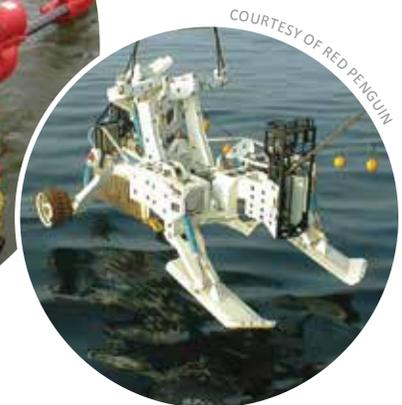
There are three major areas on the UK Continental Shelf: Northern North Sea, Central North Sea and the Southern Gas Basin. The UK North Sea is a mature hydrocarbon province and many pipelines are moving towards decommissioning, particularly in the Southern Gas Basin.

Pipelines make a critical contribution to the performance of the E&I portfolio and we continue to make ourselves available to work with and support the sector as needed.

The year ahead

The sector will continue to make a significant contribution to the performance of the E&I portfolio.

In 2013/14 we will continue to work with industry, Governments and other stakeholders to maintain the UK's position as a key landing point for international telecoms. We will seek to quantify the contribution subsea cables make to UK economy and society, promoting their importance to our everyday lives. Investment in high speed fibre broadband will bring new opportunities to Isles of Scilly and Highlands and Islands of Scotland and we look forward to playing our part in these projects.



Submarine telecommunications



Subsea fibre optic cables may be small, but they form a crucial part of our national infrastructure, transporting up to 95 per cent of internet and telephone traffic. The UK is a key landing for international traffic, which is particularly important for financial markets in London, Northern Europe and North America.

There are a number of challenges facing the submarine cable industry, not least the emergence of new renewable energy projects that have been proposed within the vicinity of existing cables. During the last year, we have been considering how we can best play a supporting role, working proactively with the sector to maintain the UK's position as a key landing point.

In 2012 we facilitated talks between the submarine cable sector and

offshore wind sector to understand the challenges of locating turbines in the proximity of submarine cables. The sectors responded positively and worked together to produce guidance. The "Proximity of offshore renewable energy installations & submarine cable infrastructure in UK waters guideline" report has been jointly produced by Subsea Cables UK (SCUK), RenewableUK, the Renewable Energy Association (REA) and The Crown Estate. It can be downloaded from our website.

These guidelines have already started to be transposed internationally, specifically in North America. It encourages early and constructive dialogue between developers and existing parties on potential activity within 1nm of existing interests. Case specific assessment is needed to understand the unique challenges of individual sites.

Similar work has been done to understand the challenges of routing multiple export cables in proximity to one another. In March 2012 we commissioned a desktop study which identified, reviewed and assessed the factors affecting the routing and spacing of transmission cables. The findings, conclusions and recommendations from the study form the basis of our report and is available to download from our website.

The Crown Estate and representatives from the offshore renewable energy sector participated in a steering group with the purpose of guiding and supervising the study. The study aims to balance the quest to minimise the cost of renewable energy whilst ensuring deliverability with acceptable risks, against the interests of existing seabed users and other future commercial activities.

We have also established a "phonebook" of cross-industry contacts to help developers and cable operators identify projects in their surrounding areas and resolve any potential issues.

The Crown Estate actively manages a highly diverse range of strategic assets, valued at more than £8 billion, for the benefit of the UK. Our objectives, laid down by Parliament under the Crown Estate Act 1961, include enhancing the value of the Estate and the revenue it produces, with responsibility to maintain and enhance the value of the assets over the long term. The portfolio includes office, retail and industrial premises; housing; farmland; forestry and minerals; parkland; and around half the foreshore and almost all the seabed around the UK. All surplus revenue (profit) is paid to the Treasury annually for the benefit of the nation. Over the past ten years The Crown Estate has paid nearly £2 billion to the Treasury.

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