Annex H6 Approach for assessing impacts on cables (interconnectors and telecom cables)

Contents

H6.1 This annex outlines the method taken to assess the impacts of recommended Marine Conservation Zones (rMCZs) on the interconnector (power) and telecommunication (telecom) cables sector. This includes transmission power cables. The method is presented under the following sections: (1) baseline description; (2) management scenario; (3) assessment of the impact; and (4) limitations. One management scenario has been developed for this sector.

1 Baseline description

H6.2 The baseline describes only those aspects of the cable sector that could be impacted on by the designation of Marine Conservation Zones (MCZs). The Impact Assessment (IA) assumes that only the cost of future licence applications could be impacted on by MCZ designation. Currently consented cable installations are assumed not to be impacted on by MCZs and so are not described in the baseline. Therefore, the baseline only describes the anticipated number of future cable installations over the 20-year period of the IA. This has been estimated and agreed with the UK Cable Protection Committee (UKCPC).

H6.3 It is not possible to provide a site-specific baseline description of future cable licence applications, as it is not yet known where they will be located and if any will be located within rMCZs. The baseline description is therefore provided for the four regional MCZ project areas only (see the Evidence Base).

2 Management scenario

H6.4 It is assumed that the impact of power and telecom cables on MCZ features will be managed under the existing marine licensing framework. Assumptions about the additional costs that may arise to the power and telecom cables sector due to MCZs (over and above the costs that would arise if there were no rMCZs) are set out below.

H6.5 The assumptions are realistic and are based on advice from the Joint Nature Conservation Committee (JNCC) and Natural England (JNCC and Natural England, 2011a). It is important to note that the assumptions set out here relate only to telecom and power (interconnector) cables. UKCPC has confirmed that it is content with the assumptions set out here and has provided cost estimates (pers. comm. 2011).

H6.6 The assumptions have been applied to all rMCZs in the same way. They are not site-specific and do not pre-judge the outcome of licensing decisions for applications for specific proposals. Similarly, following MCZ designation, the management of each MCZ will be decided upon on a site-by-site basis, and may differ from the management scenario used in the IA.

H6.7 The assumptions relate to a) the assessment of environmental impact undertaken by operators in support of their licence applications, and b) the mitigation of impacts of cables upon features protected by MCZs.

2.1 Assumptions about the assessment of environmental impact

H6.8 JNCC and Natural England have provided the following advice on the additional costs of assessing environmental impacts in future licence applications that could arise as a result of MCZ designation (JNCC and Natural England, 2011b).

H6.9 For future cable installations that could impact on MCZ habitats and species of conservation importance, it is assumed that no additional assessment of impacts will be required

compared with the assessment required in the absence of MCZs. This is because impacts on these species and habitats need to be assessed already and independently of MCZ designation, as these features are on the Oslo and Paris Convention (OSPAR) List (of Threatened and/or Declining Species and Habitats) or the UK List of Priority Species and Habitats (the UK Biodiversity Action Plan (BAP)).

H6.10 However, the impacts of future cable developments on MCZ broad-scale habitats will need to be assessed. This is because although impacts on habitats are currently assessed in the absence of MCZs, impacts are not specifically assessed for the broad-scale habitats protected by MCZs (JNCC and Natural England, 2011b). In the absence of MCZs, the assessment of environmental impact would assess the impact of the proposed plan or project on habitats. In the presence of an MCZ, the operator would need to take some additional time to identify whether those habitats are broad-scale habitats that are protected by an MCZ. The additional requirements of the environmental assessment are likely to comprise (Natural England and JNCC, 2011a):

- additional time to obtain information on the MCZ, its boundary, the features it protects and their conservation objectives; and
- additional time to consider the impacts of its proposal on the MCZ broad-scale habitat features.

H6.11 The anticipated increase in costs has been estimated relative to (and therefore net of) the existing assessment of environmental impacts of proposals on habitats that would be provided in the absence of MCZs.

H6.12 It is anticipated that additional costs of assessing impacts on MCZ broad-scale habitats will be incurred in the assessment of environmental impact for cable installation licence applications within 12 nautical miles (nm) only.[1] This is because there is not a statutory requirement to assess environmental impacts for cable installations outside 12nm (JNCC, pers. comm. 2011; Defra, pers. comm. 2011). Under the United Nations Convention on the Law of the Sea, power and telecom cables laid on the continental shelf can be installed and maintained as required. Under Section 81 of the Marine and Coastal Access Act 2009 'Exemptions', telecom and power cables laid on the continental shelf outside territorial sea (outside 12nm) are exempt from licensing.[2] UKCPC has stated that the assessment of environmental impact is undertaken voluntarily by cable operators outside 12nm as part of good practice (UKCPC, pers. comm., 2011). As this cost is incurred voluntarily, it is described in the narrative for the IA but not included in the costs presented in the IA Summary (as the IA Summary should include only required costs).

H6.13 In the event that the impact of a future cable installation on the ecological coherence of the Marine Protected Area (MPA) network (which MCZs will be a component of) needs to be assessed, then the IA assumes that this assessment would be undertaken by the statutory nature conservation adviser and not by the cable operator (JNCC and Natural England, 2011b).

H6.14 It is anticipated that cable operators will not need to collect additional survey data for their assessment of environmental impacts or baseline surveys, for cable installations that could impact on features of MCZs. This is relative to the information that they provide in the absence of MCZs.

[1] A marine licence is required for installing power cables that are not for renewable developments within 12nm and for telecom cables within 12nm.
[2] A marine licence is required for installing power cables and for telecom cables within 12nm.

H6.15 The IA assumes that operators will not undertake additional assessments of impacts on features protected by MCZs when they undertake repairs to cables, or when cables need to be replaced (UKCPC, pers. comm., 2011). This is because repairs and replacements of cables installed after April 2010 within 12nm are subject to the conditions specified in the marine licence for the cable installation. Cables beyond 12nm and telecom cables within 12nm that were installed prior to April 2010 were not licensed, and their repair and replacement is therefore not subject to licence conditions. However, an assessment of environmental impact may be required for the replacement or repair of future power cables within 12nm, depending on the nature of the original licence (JNCC and Natural England, pers. comm., 2011; Defra, pers. comm., 2011). UKCPC (pers. comm., 2011) is content with these assumptions.

2.2 Assumptions about mitigation of impact on rMCZ features

For cables beyond 12nm in rMCZs that are not rMCZ Reference Areas

H6.16 For cables beyond 12nm in rMCZs that are not rMCZ Reference Areas, it is assumed that no additional mitigation of impacts on features protected by MCZs is required. This is because mitigation of impacts of installation or maintenance of cables is not a statutory requirement beyond 12nm. Under the United Nations Convention on the Law of the Sea, power and telecom cables laid on the continental shelf can be installed and maintained as required. Under Section 81 of the Marine and Coastal Access Act 2009 'Exemptions', telecom and power cables laid on the continental shelf outside territorial sea (outside 12nm) are exempt from licensing.[3] Where a cable runs through territorial waters and beyond the territorial waters limit (12nm), a marine licence is required for the section running through territorial seas only (JNCC and Natural England, pers. comm., 2011).

For cables within 12nm in rMCZs that are not rMCZ Reference Areas

H6.17 Power and telecom cables laid below mean high water to, or beyond, the limit of territorial waters (12nm) require a marine licence (JNCC and Natural England, pers. comm., 2011). Within 12nm, it is assumed that no additional mitigation of impacts on features protected by MCZs (that are not rMCZ Reference Areas) will be required for future cable installations, compared with the mitigation required in the absence of an MCZ. It is also assumed that additional mitigation of impact will not be required for the repair and replacement of existing and future cables (JNCC and Natural England, pers. comm., 2011). This is because:

- the mitigation of impacts from cables that is required for habitats and species of conservation interest protected by MCZs (that are not rMCZ Reference Areas) is the same as that required in the absence of the MCZ. Impacts on habitats and species that are on the OSPAR List (of Threatened and/or Declining Species and Habitats) and the UK List of Priority Species and Habitats (UK BAP) are mitigated against already by the cables industry, and
- for broad-scale habitats protected by MCZs, the footprint of cables is unlikely to impact significantly on the overall condition of the broad-scale habitat. However, this depends on the findings of the development-specific assessment of impact upon the broad-scale habitat and does not pre-judge a licensing decision.

H6.18 This is based on advice received from JNCC and Natural England (2011b). UKCPC (pers. comm., 2011) is content with this assumption.

[3] A marine licence is required for installing power cables and for telecom cables within 12nm.

For cables in rMCZs that are rMCZ Reference Areas

H6.19 Within 12nm, it is assumed that the installation of future power and telecom cables will be prohibited from rMCZ Reference Areas. This is because cable installation is a depositional activity that will not be permitted in a rMCZ Reference Area (JNCC and Natural England, 2010). Operators may incur costs as a result of the MCZ if they have to forgo their preferred option to route a cable through an MCZ that is a rMCZ Reference Area within 12nm. However, by considering rMCZ Reference Areas when identifying entire cable routes, operators will be able to reduce the costs incurred. Because there are no known proposals for cable installations that pass through rMCZ Reference Areas, it is assumed for the purposes of the IA that no additional costs will be incurred. This is a realistic assumption, but does not pre-judge what would happen in practice.

H6.20 An exemption exists for emergency repairs to operational cables located in rMCZ Reference Areas. However, no operational cables are known to be present in any of the rMCZ Reference Areas. Consequently, rMCZ Reference Areas do not impact on repairs to existing cables.

H6.21 Beyond 12nm, the United Nations Convention on the Law of the Sea allows installation of telecom and power cables almost anywhere unhindered (see paragraph H6.12). UKCPC has suggested that it is assumed, for the purposes of the IA, that operators would voluntarily avoid installing cables within rMCZ Reference Areas beyond 12nm where practicable, as part of good practice. Such avoidance may result in an extra cost to the operator if it is not their preferred cable route. However, as this additional cost would be incurred voluntarily by the operator, the cost of this is considered in the narrative but is not included in the costs presented in the IA Summary (as the IA Summary should include only required costs).

2.3 Future cable installations

H6.22 Aside from cables that have already been consented to, it is not yet known what licence applications will come forward for cables over the IA 20-year period of analysis, nor when these would be proposed, nor where the proposed cable routes would be located. Because of this lack of knowledge, at the suggestion of the regional MCZ project economists, UKCPC is content for the IA to assume:

- that 16 licence applications for cables (either power or telecom) will be submitted over the 20-year period of the IA (4 in each regional MCZ project area within 12nm, 1 one in each regional MCZ project area at the end of each 5-year period); and
- that the additional costs of assessing impacts on features protected by an MCZ will be incurred in each of the licence applications.

H6.23 This is the mid-point (best) estimate used in the IA scenario.

H6.24 To reflect uncertainty about the number of future licence applications, two further scenarios were used to estimate a low cost and a high cost, as follows. This also provides a sensitivity analysis.

- In the lower limit, it was assumed that 8 licence applications for cables (either power or telecom) will be submitted over the 20-year period of the IA (2 licence applications every 5 years in the IA period).

- The upper limit assumes that 24 licence applications for cables (either power or telecom) will be submitted over the 20-year period of the IA (an average of 6 licence applications every 5 years in the IA period).

3 Assessment of the impact

3.1 Increased costs of assessing environmental impacts

H6.25 UKCPC has estimated that the additional cost to an operator of assessing the impacts of a future cable installation on broad-scale habitats protected by a MCZ is £10,000 for each future cable installation. It is assumed that one licence application is submitted for each future cable proposal and that this additional cost is incurred once to each future (and yet to be consented to) licence application for a cable installation over the 20-year period of the IA. Natural England (pers. comm., 2012) advises that this cost is likely to be an overestimate.

H6.26 The costs included in the IA Summary include only the costs incurred for licence applications for cable installations that are partly, or wholly, within 12nm (as the costs are incurred to meet a statutory requirement). For the part of the cable installation beyond 12nm, the cost would be incurred voluntarily by operators. UKCPC has advised that the additional cost for proposals outside 12nm is likely to be smaller than for those taking place within 12nm. As this cost would be incurred voluntarily, it is described in the narrative for the IA but not included in the costs presented in the IA Summary.

H6.27 Information was collected from UKCPC and individual cable operators during the period June 2011 to September 2011 regarding the economic, environmental and social impacts of MCZs on the cables sector (UKCPC, pers. comm. 2011). Where relevant, this has been included in sections of the IA.

4 Limitations

H6.28 Towards the end of the IA analysis, it came to light that future cable proposals that are located within and outside 12nm may incur additional mitigation costs that are not quantified in the IA (JNCC and Natural England, pers. comm., 2011). This is because, while it is assumed that cables outside 12nm are not required to mitigate impact on MCZ features (due to the United Nations Convention on the Law of the Sea), if a regulator consented to a cable within 12nm that then also impacted on MCZ features outside 12nm, the regulator may be in breach of its duties under the Marine and Coastal Access Act 2009. This legality is not yet clear and is currently being determined. Due to this uncertainty, and the late appearance of this issue in the analysis, it has not been possible to quantify this possible impact in the IA.

H6.29 In some instances, where cable protection will impact on achieving the conservation objectives for MCZ features, mitigation of impacts may be required for future cable installations within 12nm. The requirement for mitigation will be determined for each site and the manner in which it is provided will be site specific and is likely to be influenced by cost. For example, if mitigation of the impact on a sensitive MCZ features is required, the operator may use removable frond mattressing, or may route the cable around the feature, whichever is cheapest if the cable cannot be buried, instead of using rock dumping for cable protection. The costs of this will be attributable to the MCZ only where mitigation is provided for MCZ features that are broad-scale habitats and possibly certain habitat FOCI. Frond mattressing is likely to be required only for sedimentary broad-scale habitats whereas micro-routing may be required around reef features.

This is because mitigation of impacts on MCZ features of conservation interest (habitats and species) would need to be provided in the absence of MCZs, because they are on the OSPAR and BAP Lists. Because of the uncertainty concerning these costs they have not been estimated for the IA. JNCC and Natural England advise that there is a very low probability of this cost arising (JNCC and Natural England, pers. comm., 2012).

H6.30 There are a number of limitations that derive from the assumptions made for the purposes of the IA.

- In the absence of information about future proposals for cable installation over the next 20 years, the assumptions may wrongly represent the actual number of future proposals for cable installation that will need to consider impacts on features protected by MCZs.
- In the absence of information about the nature of the proposals made over the next 20 years, the IA may wrongly represent the mitigation of impacts that will be required to protect the MCZ features.
- The additional cost of assessing environmental impacts for each cable installation proposal over the next 20 years may differ, depending on the nature of the cable proposal and the MCZ in question. The estimated additional cost of £10,000 per proposal may wrongly represent the additional costs. For example, it may underestimate the costs for a cable proposal that needs to consider impacts on more than one MCZ.

References

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