Department for Business, Energy & Industrial Strategy

DECOMMISSIONING OF OFFSHORE RENEWABLE ENERGY INSTALLATIONS UNDER THE ENERGY ACT 2004

Guidance notes for industry (England and Wales) – consultation draft

7 February 2018

Contents

1. Introduction

1.1 Sections 105 to 114 of the Energy Act 2004 (as amended by the Energy Act 2008 and the Scotland Act 2016[1]) contains statutory decommissioning scheme for offshore wind and marine energy installations[2] and their related electric lines. Under the terms of the Act, the Secretary of State may require a person who is responsible for one of these installations or lines to submit (and eventually carry out) a decommissioning programme for them.

1.2 The Government has developed this guidance to assist developers / owners in understanding their obligations under the decommissioning scheme. The guidance covers a number of matters, including:

(a) **Scope of the decommissioning scheme** – the geographical scope of the scheme and the categories of installation/lines included within the scheme

(b) **Process** – the processes for submitting, getting approval for, reviewing and modifying a decommissioning programme submitted under the scheme

(c) **Content of decommissioning programmes** – what matters are to be covered in a decommissioning programme submitted under the scheme

(d) **Decommissioning standards** – the general requirement to remove installations and lines and any exceptions from this general requirement; how they are to be removed; how waste is to be dealt with; notification and marking of any remains; and monitoring, maintenance and management of the site after decommissioning

(e) **Financial security** – the need for financial security and the forms of financial security which are acceptable

(f) **Residual liability** – the residual liability which remains with the owners following decommissioning

(g) **Industry cooperation and collaboration** – the value of industry cooperation and collaboration at the decommissioning stage

[1] A consolidated version of the Energy Act 2004 including all subsequent amendments is available at http://www.legislation.gov.uk/ukpga/2004/20/contents

[2] See paragraph 4.2 for full description of "installation"

1.3 The guidance should be followed by developers / owners who develop and own offshore generating stations and their related electric lines as defined in the Energy Act 2004. The guidance may also be of interest to other stakeholders, including environmental organisations, navigational interests, the fishing industry and other users of the marine environment**.**

1.4 Copies of this guidance may be made without seeking permission. An electronic version can be found at *[link to be added when final post-consultation version is produced]*.

1.5 This guidance was originally published in December 2006, and was reviewed and updated in 2010. The guidance is intended to be flexible and will be reviewed again over time, with future updates being provided as necessary. Any comments on the content of the guidance, including suggestions for improving it, should be sent to:

Offshore Renewables Decommissioning Team
Department for Business, Energy and Industrial Strategy
1 Victoria Street
London SW1A 0ET
Email: OREIDecommissioning@beis.gov.uk

1.6 This revision takes into account the provisions of the Scotland Act 2016 relating to the decommissioning of Offshore Renewable Energy Installations which came into force on 1 April 2017. The Scotland Act transferred responsibility for considering decommissioning cases in Scottish Waters to the Scottish Ministers. Marine Scotland, on behalf of Scottish Ministers will be issuing its own guidance to developers/owners seeking to deploy renewable energy devices in Scottish waters.

1.7 The Scotland Act 2016 also transferred responsibility for the Crown Estate's offshore assets in Scotland to a new body, Crown Estate Scotland, which has taken on the functions of the Crown Estate in relation to offshore renewable energy installations in Scottish waters. The transfer of functions came into effect on 1 April 2017.[3]

1.8 This guidance note refers to the Secretary of State's powers under the Energy Act 2004 and references to 'The Secretary of State', 'the Government' or the 'Crown Estate' should be read in that context.

[3] http://www.legislation.gov.uk/uksi/2017/300/made/data.html

2. How to use this guidance

2.1 This guidance has been prepared to explain the decommissioning obligations under the statutory decommissioning scheme in the Energy Act 2004.

2.2 The guidance can be used to:

a) decide whether or not a particular installation is included within the scope of the scheme. **Chapter 4** (Scope of the decommissioning scheme) sets out which installations are included. For those installations which are not included in the scheme, this guidance is not directly relevant. However, developers/owners and owners of these installations can still expect to have decommissioning obligations, for example in the terms of any lease with the Crown Estate;

b) understand the processes which must be followed for submission, approval and review of decommissioning programmes (as set out in **Chapter 5**);

c) understand what must be included in a decommissioning programme submitted under the scheme. **Chapter 6** summarises content requirements and Annex C sets out a model framework for decommissioning programmes. The measures proposed in the decommissioning programme should be in line with the standards set out in **Chapter 7.** Costs of decommissioning should be set out as in **Chapter 8** and the financial security proposed in the programme should be in line with the principles set out in **Chapter 9**.

3. Policy and legislative framework

Rationale for decommissioning scheme

3.1 The decommissioning provisions in the Energy Act 2004 reflect the Government's view – taking into account our international obligations – that a person who constructs, extends, operates or uses an installation or related electric line should be responsible for ensuring that it is decommissioned at the end of its useful life, and should be responsible for meeting the costs of decommissioning (the "polluter pays" principle).

3.2 By imposing a legal obligation on the responsible persons to prepare and carry out a decommissioning programme, and to ensure financial security is in place, the Government's view is that the decommissioning scheme in the Energy Act 2004 reduces the risk of companies defaulting on their decommissioning liabilities and ensures the taxpayer is protected against having to organise and fund decommissioning.

Policy approach

3.3 Our approach is to seek decommissioning solutions which are consistent with relevant international obligations, as well as UK legislation, and which have a proper regard for safety, the environment, other legitimate uses of the sea and economic considerations including protection of the taxpayer from liabilities relating to decommissioning. BEIS will act in line with the principles of sustainable development.

3.4 We aim to ensure that interested parties are given clear information on the operation of the decommissioning scheme. We intend that processes for approving decommissioning programmes should be open and transparent, and that decisions should be taken in an efficient manner, placing as little administrative burden as possible on the parties involved.

International obligations

3.5 Our international obligations to decommission disused installations have their origins in the United Nations Convention on the Law of the Sea

(UNCLOS), 1982. This requires abandoned or disused installations or structures to be removed, to ensure safety of navigation, taking into account generally accepted international standards[4]. International Maritime Organization (IMO) standards were adopted in 1989.

3.6 Relevant work has also been undertaken under the OSPAR Convention, which guides international cooperation on the protection of the marine environment of the North-East Atlantic. OSPAR Guidance on Environmental Consideration for Offshore Wind Farm development (2008 -3) incorporates ideas on the decommissioning of wind farms in the marine environment.

3.7 This guidance treats the international conventions under UNCLOS and OSPAR as applying both in territorial and internal waters. (By 'internal waters' we refer to waters around estuaries and islands, which may be classified as 'internal').[5]

Decommissioning provisions in the Energy Act 2004

3.8 The key decommissioning provisions in the Energy Act 2004 (Sections 105 to 114) are explained in Annex A. Broadly speaking, the Secretary of State may require a person who is responsible for an offshore renewable energy installation to prepare a costed decommissioning programme and ensure that it is (eventually) carried out. The Secretary of State can approve, modify or reject a programme, including any financial security provisions which the responsible person proposes to provide. The Secretary of State is required to review the programme from time to time.

Role of the Crown Estate

3.9 The Government and the Crown Estate will work together to avoid duplicating decommissioning requirements imposed on developers/owners. The Government has agreed with the Crown Estate that developers/owners covered by the statutory decommissioning scheme will only need to prepare one decommissioning programme, which will be submitted to BEIS. (An additional programme will not be required by the Crown Estate, and the Crown Estate will not impose additional provisions relating to the actual decommissioning in its leases with developers/owners.) Developers/owners of projects covered by this scheme will only need to provide any financial security required by Government, and will not need to provide financial

[4] Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone, IMO, 19 October 1989 http://www.imo.org/blast/mainframemenu.asp?topic_id=1514&doc_id=7608

[5] A map of internal / territorial waters is at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/447200/UK_TS_2015_A4.pdf

security for decommissioning itself to the Crown Estate. The Crown Estate may have additional financial requirements to cover residual liability issues, such as third party claims and consequential loss (see Chapter 10). The Government will consult with the Crown Estate on decommissioning programmes submitted by developers/owners, and on any proposed modifications to approved plans, and take account of the advice of the Crown Estate.

Compliance with other relevant legislation

3.10 Decommissioning activities will need to comply with all relevant UK legislation at the time they are undertaken.

3.11 Developers and owners should note that they are responsible for verifying their decommissioning plans against current legislation.

4. Scope of the decommissioning scheme

Geographical scope

4.1 The Act applies to territorial waters in or adjacent to England, Scotland and Wales (between the mean low water mark and the seaward limits of the territorial sea, thereby including internal coastal waters and territorial waters) and to waters in the Renewable Energy Zone (including that part adjacent to Northern Ireland territorial waters). The Act does not apply to the territorial or internal coastal waters of Northern Ireland. As indicated above, the Scotland Act 2016 gave the Secretary of State's powers under the Act to Scottish Ministers. Therefore this guidance does not apply to installations in Scottish waters constructed (above the initial laying of cabling in advance of construction) on or after 1 April 2017.

Categories of installation included in the scope

4.2 The decommissioning scheme, as set out in the Act, applies to offshore renewable energy installations. The precise definition is set out in Section 104 of the Act. In essence, installations and their related electric lines are included within the definition (and hence within the scope of this scheme) and are those which are:

a) used (or will be used or have been used) for purposes connected with the production of energy from water or winds;

b) permanently rest on, or are permanently attached to, the bed of the waters; and

c) are not connected with dry land by a permanent structure providing access at all times for all purposes (though developers of tidal lagoons should note the guidance in Annex D).

4.3 The guidance applies to all new offshore renewable energy installations in England and Wales which fall within the definition above (whatever their generating capacity and whether they are commercial or demonstration devices). This includes:

a) wind farms consented, under section 36 of the Electricity Act 1989, or the Transport and Works Act 1992 *after June 2006*; and

b) all wave and tidal energy installations which fall within the definition above and which were consented or became operational *after June 2006.*

4.4 The scheme does not apply to installations which were consented, under section 36 of the Electricity Act 1989 or the Transport and Works Act 1992, prior to June 2006 (the point at which we launched a public consultation on the operation of the scheme). In addition, we do not intend to apply the scheme to installations which were put into operation prior to June 2006 but which did not require an Electricity Act or Transport and Works Act consent.

4.5 Annex D sets out that the decommissioning provisions of the Act should be applied to tidal lagoon projects that are attached to land.

Inter-tidal zone

4.6 The scheme, as set out in the Energy Act 2004, does not cover the inter-tidal zone (the area of the shore between the high and low tide water marks). However, decommissioning of any infrastructure in this zone should be carried out in accordance with any removal conditions attached to a Marine Licence issued under the Marine and Coastal Access Act 2009.

Test Centres

4.7 BEIS expects offshore renewable energy test centres in England and Wales to take responsibility for the decommissioning of their tenants, in line with international decommissioning obligations and environmental standards and all relevant legislation.

4.8 Test centres should submit decommissioning programmes for their own central infrastructure. This should set out how they will ensure that the overall site is returned to its natural state at the end of the centre (including removal of tenant infrastructure) and how they will enforce the decommissioning programmes of their tenants. BEIS does not expect the test centre decommissioning programmes to be updated each time a project is installed / decommissioned. BEIS will only require appropriate financial securities from test centre operators to cover centrally owned infrastructure rather than that of their tenants.

4.9 Test centres must put in place robust arrangements to ensure their tenants have provided them with appropriate financial security to enable

decommissioning of the assets at the end of the operating period in line with the relevant marine licence.

4.10 Developers wishing to deploy their assets at a test centre should engage the test centre on this matter at the earliest possible opportunity. It is expected that tenants will have to make their own decommissioning arrangements and financial securities with the testing centre, and BEIS does not expect to receive or approve such decommissioning programmes. BEIS would expect test centres to require security to be in place before the start of any deployment.

4.11 Where financial security has not been taken, BEIS will expect test centres to step in and pay for the removal of any assets on its site at the end of the operation period.

5. Submission, approval and review of decommissioning programmes:

Overall approach

5.1 Our intention is that the process leading to the approval of a decommissioning programme should be flexible, transparent and subject to consultation. It should also take account of the need for modification and review, given the potential for considerable time to have elapsed between approval of a decommissioning programme and it ultimately being carried out.

5.2 The intention is, as far as possible, for BEIS to provide a "one stop shop" in relation to decommissioning. However, there may be occasions when developers/owners will need to enter into a separate dialogue with individual Government Departments or their Agencies or with other bodies (for example, the Crown Estate and appropriate nature conservation agencies) if specific matters relating to their areas of responsibility arise. The Secretary of State reserves the right to request independent technical advice on the draft decommissioning programme.

5.3 The **decommissioning programme process** in a typical case is:

Stage 1	Stage 2	Stage 3	Stage 4
Preliminary discussion with BEIS by developer	Issue of s105 notice by Secretary of State requiring a Decommissioning Programme	Detailed discussions; submission and consideration of a draft programme (including proposed financial security measures)	Consultation with interested parties
Stage 5	Stage 6	Stage 7	Stage 8
Formal submission of a programme and approval under the Energy Act	Reviews and modifications of a decommissioning programme (and any financial security); review or conduct of decommissioning Appropriate Assessment (where necessary)	Undertake approved decommissioning programme	Monitoring of site and report on decommissioning outcomes

5.4 A flowchart is included at Annex B, setting out how the process of obtaining an approved decommissioning programme operates in practice.

Stage 1: preliminary discussions

5.5 Developers/owners should include an indication of their decommissioning proposals in the consultations they conduct as part of the process of securing statutory consents so that the feasibility of removing the infrastructure can be considered as part of the consent application process. Developers/owners are encouraged to contact BEIS for informal discussions on decommissioning at this point. However, this process does not remove the need for decommissioning programmes submitted in response to section 105 notices to provide full consideration of environmental and other factors for the Secretary of State to analyse.

5.6 Please note that BEIS expects that final drafts of decommissioning programmes should be submitted for approval no later than 6 months in advance of construction, and that first drafts should be submitted no later than 12 months in advance. Developers/owners are strongly encouraged to enter into early discussions with BEIS on decommissioning proposals well in advance of these dates to ensure that they understand their decommissioning obligations and can take account of them from an early stage. Details of when Energy Act powers may be taken to speed processes are set out in Annex A, paras 1.35 - 1.39.

5.7 Please note that where consents are granted they are likely to include a condition that construction cannot begin until a decommissioning programme has been submitted in accordance with a notice served under section 105(2) of the Energy Act 2004. However, in some cases, consents may also include a condition which requires that a decommissioning programme should be approved before construction of the development in question can take place.

5.8 Owners of Ofgem OFTO licences should begin discussions with BEIS as soon as they have been appointed the preferred bidder by Ofgem.

5.9 For decommissioning contacts in BEIS please refer to paragraph 1.5.

Stage 2: issue of a decommissioning notice by the Secretary of State

5.10 While it is possible for the Secretary of State to issue a section 105 notice under the Act when a consent has been applied for and is likely to be issued, in practice, it is unlikely that the Secretary of State will issue a notice requiring the developer / owner to submit a decommissioning programme until at least one of the relevant statutory consents have been issued. Nevertheless, we would encourage the developer / owner to start discussing requirements with BEIS at least 12 months before construction commences.

5.11 The requirement to submit a decommissioning programme may be imposed on more than one person by the Secretary of State where an associated corporate body has control of the 'main' developer/ owner of the site[6].

Stage 3: detailed discussions leading to submission of draft decommissioning programme

5.12 The developer / owner should prepare a draft decommissioning programme, including proposed financial security provisions, using the model framework in Annex C as a guide. The measures proposed in the decommissioning programme should be in line with the standards set out in Chapter 7, the estimated decommissioning costs should be set out in line with Chapter 8 and financial security proposed in the programme should be in line with the principles set out in Chapter 9. The programme should be informed by an Environmental Impact Assessment ("EIA") (using the analysis already undertaken for the wider EIA done prior to consent of the installation) as set

[6] Annex A paras 1.8 - 1.9 set out how associated corporate bodies can also be held liable for decommissioning under the terms of the Energy Act 2004.

out in Chapter 6 and Annex C.

5.13 Where the requirement to submit a decommissioning programme has been imposed on more than one person by the Secretary of State a joint programme should be submitted.

Stage 4: consultation with interested parties

5.14 As a general principle, the process of preparing a decommissioning programme should be open and transparent. The developer / owner is expected to ensure that members of the public are able to participate in the process by making draft decommissioning programmes publicly available and undertaking consultations with statutory consultees and other interested parties where appropriate. Details of the relevant statutory consultees will be specified to companies in receipt of a decommissioning notice. The extent of these consultations will be determined by the particular circumstances of the project in question.

5.15 In all cases, the developer / owner should consult with key representatives of parties who may be affected by the decommissioning proposals, such as the fishing industry and other users of the sea. We would expect other consultees to include: the Joint Nature Conservation Committee (where appropriate); Natural England; Natural Resources Wales the Environment Agency; English Heritage, Cadw; the Maritime and Coastguard Agency; the appropriate General Lighthouse Authority; and the relevant harbour authority (if any). Consultees should normally be given 30 days in which to comment.

5.16 The developer / owner should take account of the comments received from BEIS, as well as comments received during the developer's own consultations, in updating the draft decommissioning programme. A table should be included in the Decommissioning Programme setting out the comments that have been received from each consultee (including 'nil returns'). There should also be an explanation (where relevant) of how the comments have been reflected in any updated drafting. The developer / owner should ensure that each consultee named in the section 105 notice issued for the project in question provides at least an acknowledgment of receipt of the consultation document. The developer / owner

should send a further draft of the programme to BEIS.

5.17 Once the developer / owner has provided a post-consultation updated draft decommissioning programme, BEIS will consult with relevant Government Departments, the Devolved Administrations (where appropriate), the relevant marine licensing authority, The Crown Estate, and the UK Hydrographic Office. BEIS will then send the developer / owner written comments on the final draft decommissioning programme. The draft programme should then be updated in line with any feedback received. (This may be the final version submitted for approval as in stage 5).

Stage 5: formal submission and approval of decommissioning programme

5.18 Once the final draft of the decommissioning programme has been completed, the developer / owner should formally submit it to the decommissioning team's mailbox at:

OREIdecommissioning@beis.gov.uk

5.19 The Secretary of State may:

a) approve the submitted programme as it stands;

b) approve the programme with modifications and/or subject to conditions (after giving the developer / owner an opportunity to make representations);

c) reject the programme and require a new one; or

d) prepare a decommissioning programme himself and recover the expenditure incurred from the developer.

5.20 Where more than one person has submitted a programme, different conditions (for example, in relation to financial security) may be imposed upon different persons.

5.21 Once the programme has been approved, the responsible person should make it publicly available (for example, on the Internet). Commercially confidential sections on costs and securities may be redacted. Any comments that are submitted by interested parties should be considered when the

programme is reviewed.

Stage 6: in-operation reviews, modifications, and changes in ownership

5.22 Our intention is to provide developers/owners with as clear and stable a regulatory environment as possible to minimise uncertainty. At the same time, the process needs to provide for appropriate reviews and modifications, given the potential, in certain circumstances, for significant time to elapse between approval of programmes and the actual decommissioning itself. The Energy Act 2004 provisions (discussed in more detail in Annex A) require the Secretary of State to review approved decommissioning programmes.

5.23 It is in developers' / owners' interests to review their decommissioning programmes at regular intervals, to consider whether the likely costs and methods or environmental impact of decommissioning have changed since the original approved decommissioning programme. Developers/owners should where relevant modify their programmes, to take into account:

- information gathered during the course of construction and operation;
- changes in market conditions, international standards, the regulatory regime;
- knowledge of environmental impacts, including any sediment shift since construction, or new species entering the area;
- new technology or costs;
- any relevant changes in nearby infrastructure / navigational routes;
- Whether cost estimates are in line with the current guidance in section 8.

5.24 Developers/owners may also be formally required by the Secretary of State to modify their financial provision for decommissioning if reviews suggest that the security proposed or available is insufficient to meet their decommissioning liabilities or the risk of default.

5.25 For **long-term projects** (e.g. with asset lives ≥15 years) the following review points should be assumed as standard:

- Post-construction report to be sent to BEIS within 1 year of completion of construction. This should involve sending BEIS any reports / studies / summaries of issues raised during construction which may impact on the eventual decommissioning methods / costs.

- High level review of decommissioning plan every 3 years thereafter until 12-18 months before security is due. At this time there should be a comprehensive review to identify any changes in assumptions on costs and risks these might affect the size or timings of financial securities.

- From payment of the first security onward the developer should review its decommissioning plan annually to make sure the financial security provision is on track to meet the expected cost of decommissioning. Any changes to a decommissioning programme affecting costs, securities or environmental or safety matters must be submitted for approval. In all circumstances written confirmation should be sent to the Department each year advising that a review has been undertaken, even if no changes are deemed necessary.

- Review points for tidal lagoons (which follow a much longer project timescale) will be considered on a case by case basis.

5.26 Review periods for **shorter term projects** will be considered on a case by case basis. However, for all projects exceeding 12 months, we would envisage a report / summary of issues discovered during construction which might impact on decommissioning (this should be provided within 6 months of construction), and a review prior to the actual decommissioning of the installation, to finalise the decommissioning measures envisaged.

Changes in ownership

5.27 From time to time owners may decide to sell all or part of their asset and seek a transfer of decommissioning liabilities to the new owner. Developers/owners should note that, under the Energy Act 2004, there is no automatic change in liability on transfer of ownership. The Secretary of State would need to approve any change and would, for example, take account of any potential increase in the risk of default on decommissioning

liabilities that might arise from such a change.

5.28 The Secretary of State has powers under the Energy Act to require the new developer/owner to decommission the installation in accordance with an approved plan already in place and/or to comply with any new conditions deemed appropriate by the Secretary of State. It is important to note that the original developer / owner will remain liable for decommissioning until:

- The Secretary of State has approved a variation to the decommissioning programme (or has approved a new decommissioning programme if the old operator did not have an approved version) which places the obligation to provide securities on the new operator(s) of the project in question, and;
- The new operator has put in place the required securities.

5.29 Please note, changes in ownership will be treated on a case by case basis and the Secretary of State may decide not to absolve a party of their obligations to decommission even in the circumstances described above.

Stage 7: undertake approved decommissioning programme

5.30 At the end of the installation's life (the end date of the final marine licence), the developer / owner is expected to remove the relevant infrastructure in accordance with the approved decommissioning programme.

5.31 Once decommissioning is complete, the person(s) who submitted the programme will be required to satisfy BEIS that the approved programme has been implemented. In order to do this, a short report should be submitted by the developer(s), detailing how the programme was carried out. As a guideline, this report should generally be submitted within four months of completion of the decommissioning work.

5.32 The report should include:

- confirmation that decommissioning has been carried out in accordance with the approved decommissioning programme or an explanation of any major variances from the programme;
- information on the outcome of decommissioning, including confirmation of sea-bed clearance;

- confirmation that appropriate bodies, including the United Kingdom Hydrographic Office, the Kingfisher Information Service at Seafish (Grimsby) and the International Maritime Organization, have been notified of removal and of any remains (see paragraph 7.21 for an explanation of what is required);
- confirmation that appropriate aids to navigation have been installed, where required, for any remains of installations which protrude above the sea-bed and are considered to be a danger to navigation;
- information on the actual costs of decommissioning and an explanation of any major variances from forecast costs.

5.33 Once the report has been submitted to BEIS, the developer/owner should make it publicly available (for example, on the Internet).

Stage 8: monitoring of site

5.34 The final stage requires the developer / owner to implement arrangements for monitoring, maintenance and management of the decommissioned site and any remains of installations or cables that may exist. The outcome of monitoring work should be reported to Government, together with proposals for any maintenance or remedial work that may be shown to be required. Monitoring reports should also be verified by a third party (for example, an independent contractor carrying out the survey or an independent observer), and published by appropriate means (for example, on the Internet). If necessary, the monitoring programme will be adapted with time. BEIS will agree with the developer / owner when the monitoring programme may cease, taking account of any risks to navigation or other users of the sea which may be posed by remaining materials.

Deferral of decommissioning or repowering

5.35 In line with relevant international obligations, the Government will be seeking to ensure that decommissioning of installations, or redundant parts of them, will be carried out as soon as reasonably practicable, and no later than the end of the marine licence. The Government does however recognise that in certain circumstances where operation has ended there are likely to be good reasons for the deferral of decommissioning activity to a later date (still within the marine licence period).

5.36 The timing of decommissioning may be influenced by a range of factors including but not limited to: environmental impacts; market and commercial factors; vessel availability; phasing; synergy and co-ordination with other offshore work; and weather windows. In general, though, the Government will not expect decommissioning to be delayed unless a robust case demonstrates definite re-use opportunities or justifiable reasons for deferring. It may for example be appropriate to defer the decommissioning of electricity transmission infrastructure to align it with decommissioning timetable of the related generation asset.

5.37 We require owners to follow the principle that any deferral from an agreed programme should not materially increase risk to the Government or the taxpayer. Additional timescales should be short enough to avoid significantly adding to the risk of corrosion / deterioration of infrastructure that could make removal more onerous. Any deferral would need to be approved by the Secretary of State. Amongst the factors to be taken into account in considering the case for deferral will be the condition of the installation, the presence of any hazards, the environmental impact and the impact on other users of the sea.

5.38 In the future it is possible that certain projects may be repowered (subject to the necessary regulatory consents). We will consider any amendment of decommissioning plans as a result of a proposed repowering on a case by case basis. Early engagement with the Department on such matters is advised.

Failure to follow the requirements of the Energy Act

5.39 Where a developer/owner fails to submit a decommissioning programme within the required timescale, does not follow their approved financial security programme, or fails to decommission, the Secretary of State has powers to take remedial action and (where relevant) recover any expenditure incurred (see Annex A). Ultimately, failure to follow the requirements of an approved decommissioning programme could lead to the incurring of a criminal offence.

6. Content of decommissioning programmes

Model framework for decommissioning programmes

6.1 The precise contents of a decommissioning programme may vary according to the circumstances. However, we suggest that the programme should follow the model framework set out at Annex C:

6.2 The content of the programme should be in line with the detailed guidance on decommissioning standards and financial security set out in the following two chapters of this guidance.

6.3 We expect that the detail provided under each heading in a decommissioning programme will reflect the level of uncertainty for that particular issue. For example, prior to construction, it should be possible to provide a detailed description of items to be decommissioned, but the precise time schedule for decommissioning may be subject to some uncertainty. That said, the programme should be sufficiently detailed, from the outset, to demonstrate that decommissioning has been fully considered and factored into design decisions, and that a viable decommissioning strategy has been developed.

7. Decommissioning standards:

Overall approach

7.1 The decommissioning programme should be in line with the decommissioning standards set out in this chapter. The chapter covers: the general requirement to remove installations; any requested exceptions from the general presumption in favour of removing the whole of an installation; sea-bed clearance; how installations are to be removed; how waste is to be dealt with; notification and marking of any remains; and monitoring, maintenance and management of the site after decommissioning.

7.2 The guidance on decommissioning standards is intended to comply with relevant international obligations, result in safe navigation, meet the needs of other users of the sea and protect the environment, as well as minimising lasting impacts on the seabed in order to protect the taxpayer from any residual liability.

7.3 Decisions on decommissioning programmes will be made on a case-by-case, site-by-site, basis having regard to the general principles and standards set out in this chapter. The principles and standards set out in this chapter apply both to installations in internal waters, territorial waters and those in the Renewable Energy Zone[7].

Appropriate Assessment

7.4 The programme should set out environmental impacts and mitigation measures, using existing survey data and environmental assessment reports. The level of detail expected will depend on the remaining operational life of the project. For offshore wind farms and any longer-term marine energy device, more detailed assessments, including new Environmental Impact Assessments and Habitats Regulations Assessments are likely to be required for the final review of the programme prior to decommissioning. In light of the relevant studies and technological capabilities at that time, the Best Practicable Environmental Options for removal will be finalised.

[7] See map here https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/346014/UK_Exclusive_Economic_Zone.pdf

General requirement to remove installations

7.5 Considering relevant commitments under international conventions and standards, it is generally accepted that the 'ideal' decommissioning programme involves removing the whole of all disused installations and structures. We recognise that extending the life of the installation, or reusing the infrastructure in a beneficial way may often be preferred, and we would wish to encourage this. Nonetheless, there is likely to come a time when the installation becomes 'disused', when extending its life or finding a beneficial reuse is no longer possible, and, at that point, a decommissioning programme should be carried out.

7.6 Our guidance, therefore, starts from a general presumption in favour of the whole of all disused installations being removed and subsequently taken back to land for reuse, recycling, incineration with energy recovery or disposal at a licensed site. Exceptions from this general requirement will only be considered where there are very good reasons. This approach recognises that removal of installations allows the marine environment to be used again for other purposes, including safe navigation. It recognises that, if parts of an installation are not removed (for example, if foundations are cut such that they protrude above the sea-bed), they may pose a risk to navigation in the area.

Exceptions from the general presumption in favour of removing the whole of an installation

7.7 Drawing on the IMO standards[8], we set out five situations in which leaving in place or partially removing an installation or structure may be considered. Decisions will be made on a case-by-case basis, against the criteria set out in paragraph 7.9. The five situations are where:

a) the installation or structure will serve a new use, whether for renewable energy generation or for another purpose, such as enhancement of a living resource[9] (provided it would not be detrimental to other aims, such as conservation). In these situations, we would normally expect the decommissioning programme to set out the eventual decommissioning measures envisaged should the

[8] http://www.imo.org/blast/mainframe.asp?topic_id=1026

[9] It would not be acceptable for a decommissioning programme to propose leaving an installation in place on the grounds that it may, in the future, provide new surfaces for colonisation and the formation of an artificial reef.

installation or structure finally become ‘disused’ and a point reached when extending its life or finding a beneficial reuse is no longer possible;

b) entire removal would involve extreme cost. It is considered that design decisions should, as far as possible, result in installations which are affordable to remove, but it is recognised that some elements, such as deep foundations, may nonetheless be costly to remove;

c) entire removal would involve an unacceptable risk to personnel;

d) entire removal would involve an unacceptable risk to the marine environment;

e) the installation or structure weighs more than 4000 tonnes in air[10] (excluding any deck and superstructure) or is standing in more than 100 m of water and could be left wholly or partially in place without causing unjustifiable interference with other uses of the sea.

7.8 In certain locations, though, the IMO standards specify that an installation or structure should be entirely removed (without any exception). These locations are ‘approaches to or in straits used for international navigation or routes used for international navigation through archipelagic waters, in customary deep-draught sea lanes, or in, or immediately adjacent to, routeing systems which have been adopted by the Organization’.

7.9 Again drawing on the IMO standards, any decision to allow some or all of an installation or structure to remain on or in the sea-bed will be based on a case-by-case evaluation of a range of matters, including, where appropriate

- potential effect on the safety of surface or subsurface navigation;
- potential impact on other uses of the sea;
- potential effect on the marine environment, including living resources;
- costs of removal;

[10] This weight specification is taken directly from the IMO standards and is interpreted as applying to an individual device, and not to, say, an entire wind farm.

- risks of injury to personnel associated with removal.

7.10 A proposal to allow some of an installation or structure to remain on or in the sea-bed should also take account of the likely effect on these remaining elements of removing other parts of the installation. For example, removal of other parts of the installation may alter local hydrographic conditions in such a way as to affect the continued burial of, say, cables or foundations left behind.

7.11 By way of illustration, we set out here some **examples** of objects for which it may be possible to consider solutions other than complete removal. However, inclusion of these examples does not necessarily mean that these objects will be allowed to remain on or in the sea-bed in all cases, nor should the list be seen as an exhaustive list. Decisions will always be made on a case-by-case basis.

a) **Structures which will be reused for renewable energy generation**: where infrastructure, such as cabling, will be reused for new renewable energy devices. This may be the case, for example, at a test site for wave and tidal energy devices. In these situations, a decommissioning programme should nonetheless set out the eventual decommissioning measures envisaged when the infrastructure finally becomes ‘disused’.

b) **Structures which serve a purpose beyond renewable energy generation**: where a structure has a design life and purpose beyond that of renewable energy generation, it may be valuable to leave the structure in place even after it has finished generating energy. In these situations, we would normally expect the decommissioning programme to set out the eventual decommissioning measures envisaged should the installation or structure finally become ‘disused’.

c) **Foundations and structures below sea-bed level**: where an installation’s foundations extend some distance below the level of the sea-bed, removing the whole of the foundations may not be the best decommissioning option, given the potential impact of removal on the marine environment, as well as the financial costs and technical challenges involved. In these cases, the best solution might be for foundations to be cut below the natural sea-bed level at such a depth to ensure that any remains are unlikely to become uncovered. The appropriate depth would depend upon the prevailing sea-bed conditions and currents. The Decommissioning Plan should also make clear whether some sections of cable are at greater risk

of exposure than others. Contingency plans should be included in the decommissioning programme, to describe the action proposed if the foundations do become exposed.

d) **Cables buried at a safe depth below the sea-bed**: where cables remain buried at a safe depth below the sea-bed, there may be a case for leaving them there, given the potential impact of removal on the marine environment, as well as the financial costs of removal. Concerns might arise if the cables were to become exposed by natural sediment dynamics, as exposed cables might pose a risk to other maritime users, with the possibility that fishing gear or an anchor might foul a cable. The option of cables being left in place may be considered if they are buried at a safe depth below the sea-bed, such that they do not pose a risk to other maritime users. The appropriate depth will depend upon the prevailing sea-bed conditions and currents. Where it is proposed to leave cables in place, cable burial depth should be monitored over and beyond the life of the installation, to assess the risk of cables becoming exposed after decommissioning. Contingency plans should be included in the decommissioning programme, to describe the action proposed if the cables do become exposed.

e) **Scour protection materials**: where scour protection materials have been used, there may be a case for leaving them there, to preserve any marine habitat established over the life of the installation, where they do not have a detrimental impact on the environment, conservation aims, the safety of navigation and other uses of the sea.

Sea-bed clearance

7.12 It will be important for the developer / owner to confirm that, where full removal of installed infrastructure has been stipulated, the site has been cleared, in accordance with the approved decommissioning programme, and to provide evidence that this has been achieved (see paras 7.29-7.32).

7.13 The area covered for debris clearance will be decided on a case-by-case basis, taking account of the guidance for oil and gas installations which specifies a 500m radius around any installation as the minimum area to be covered for debris clearance (it is recognised, though, that the nature and size of offshore renewable energy installations differs from that of oil and gas installations).

7.14 We would expect to see an element of independent, third party

involvement in providing evidence that the site has been cleared. Decommissioning programmes should set out the developer's proposals for achieving this. There are various forms of evidence which may be presented, subject to the outcome of the relevant Appropriate Assessment. Examples might include over-trawling of the site or the presence of an independent observer during site clearance operations.

Method of removal

7.15 The guidance here is not prescriptive about the method which should be used to remove an installation, which will be influenced by, for example, the nature of the installation and the site. Removal techniques are also likely to evolve as experience (including experience of removing oil and gas installations) is gained and technology advances.

7.16 Thus, our guidance specifies general principles to be followed. The method of removal should have regard to:

a) Best Practicable Environmental Option (BPEO); that is the option which provides the most benefit or least damage to the environment as a whole, at an acceptable cost, in both the long and short term. (In essence, the choice made should involve balancing the reduction in environmental risk with the practicability and cost of reducing the risk.) [11]

b) safety of surface and subsurface navigation

c) other uses of the sea

d) health and safety considerations

7.17 Choice of the BPEO should be informed by an EIA (choice of the BPEO is also informed by consideration of costs.) The purpose of the EIA is to ensure that the environmental effects of the proposed decommissioning measures are fully considered before decommissioning takes place, and that appropriate measures are developed to avoid, reduce and, if possible, remedy any significant adverse effects indicated.

[11] The concept of BPEO is similar to that of BATNEEC - Best Available Technique not Entailing Excessive Cost - in that both criteria involve balancing the reduction in environmental risk with the practicability and cost of reducing the risk

7.18 The EIA included in the original decommissioning programme (prepared prior to construction or operation) is expected to use the analysis already undertaken for the wider EIA done prior to consent of the installation. The decommissioning EIA should then be reviewed (and, if necessary, more detailed assessment undertaken) towards the end of the life of the installation, when a final review of the decommissioning programme is undertaken to finalise the decommissioning measures proposed. It is expected that the effort expended in preparing and reviewing the EIA should be proportionate to the scale of the decommissioning operation and the potential risks to the environment that it may pose.

7.19 Appropriate navigational marking should be used during the removal process to address any risks to mariners which may be posed by the decommissioning operation. Advice on appropriate marking may be sought from the appropriate General Lighthouse Authority.

Contact details are:

The Director of Navigational Requirements
Trinity House
Tower Hill
London
EC3N 4DH
020 7481 6900
Email: navigation.directorate@thls.org

Management of waste

7.20 The generally preferred solution is for all installations to be reused, recycled, incinerated with energy recovery or disposed of on land (in that descending order of priority). Waste management must be carried out in accordance with all relevant legislation at the time.

7.21 We would not expect disposal of waste at sea (as opposed to the arguments for leaving elements of an installation in situ as considered in paragraphs 7.7 – 7.11 above) to be acceptable. However, we are able to consider proposals for:

a) leaving elements of an installation in situ where this would serve a continuing purpose acceptable to the Secretary of State (as discussed in paragraphs 7.7 – 7.11);

b) reuse of material at sea (for example, the reuse of inert material in construction projects).

Notification and marking of any remains

7.22 Those with a duty to secure the carrying out of the decommissioning programme should carry out the following actions:

a) at least six weeks advance notification of the change in status of a decommissioned installation should be provided to the United Kingdom Hydrographic Office, so that mariners may be advised and appropriate amendments made to charts;

Contact details are:

The United Kingdom Hydrographic Office Source Data
Receipt & Assessment (SDRA) Admiralty Way
Taunton TA1 2DN
Tel: 01823 484444
Email: customerservices@ukho.gov.uk
https://www.gov.uk/government/organisations/uk-hydrographic-office

b) in those cases where it is agreed that any part of an installation should remain in place, the position, surveyed depth and dimensions of the remains should be forwarded immediately to the Hydrographic Office (contact details above), for inclusion on Admiralty charts;

c) notification of the change in status of a decommissioned installation, and details of any parts of an installation (including cables) which will remain in place following decommissioning, should be provided to the Kingfisher Information Service at the Seafish, Grimsby which enables relevant information to be provided to the fishing industry. Contact kingfisher@seafish.co.uk / tel +44 (0)1472 252 307.

d) in some circumstances there may be requirements for aids to navigation. The need for, and nature of, the aids to navigation to be employed should be discussed with BEIS, with the appropriate General Lighthouse Authority and with interested parties such as the fishing industry and other mariners. The developer/owner is responsible for ensuring the maintenance of any such aids to navigation;

e) in those cases where it is agreed that any part of an installation should remain in place, this should be notified to the IMO by the developer / owner with the notification copied to BEIS.

Contact details are:
International Maritime Organization
4 Albert Embankment
London SE1 7SR
Tel: 020 7735 7611

Post decommissioning survey / report

7.23 Typically a survey will be conducted following decommissioning to enable identification and subsequent recovery of any debris located on the sea-bed which may have arisen from the owner's/developer's activities and which may pose a risk to navigation, other users of the sea or the marine environment.

7.24 Whilst the area covered for debris clearance will be decided on a case-by-case basis, account should be taken of the guidance for oil and gas installations which specifies a 500m radius around any installation. Identification of debris may be conducted by side scan sonar, with an ROV deployed to investigate and recover any potential hazards identified.

7.25 A post decommissioning report should be submitted within 4 months of completion of decommissioning works, in the format proposed in the approved decommissioning programme. The report should include:

- Independent third-party verification that decommissioning took place in accordance with the approved decommissioning programme (e.g. statement from a third-party contractor or an independent observer).
- Evidence (e.g. photographic evidence of infrastructure out of the water, or survey footage of the seabed) that all infrastructure that was due to be removed according to the decommissioning programme, has been removed.
- If infrastructure is left in situ, evidence that it has been cut off/buried/otherwise treated in accordance with the decommissioning programme.
- References to compliance with relevant environmental impact assessments / appropriate assessments.
- References to any to future monitoring and maintenance set out in the decommissioning programme.
- A cost breakdown to enable BEIS to understand the actual cost of decommissioning compared to the predicted cost.

7.26 The Secretary of State will review the post-decommissioning report and decide whether to accept it as evidence that the decommissioning has been carried out in accordance with the decommissioning programme.

Post-decommissioning monitoring, maintenance and management of the site

7.27 Where an installation is not removed entirely, some post-decommissioning monitoring will generally be expected. The objective of the monitoring is to identify any new or increased risks to navigation or other users of the sea which may be posed by remaining materials (for example, where cables or foundations may have become exposed due to natural sediment dynamics). Appropriate action should then be taken to mitigate the risks.

7.28 If necessary, the monitoring regime may be adapted over time (as agreed with BEIS). Relevant data from construction, operation and decommissioning of the site should be considered in determining whether and how to adapt the monitoring regime.

7.29 In general, we would expect the frequency of monitoring to tail off with time (though this may not always be the case if the initial monitoring reveals more significant risks than originally envisaged). The Government will agree with the developer / owner when the monitoring programme may cease, taking account of any risks to navigation or other users of the sea which may be posed by remaining materials.

7.30 An example of a monitoring regime, for elements of wind farms left in situ beneath the sea-bed, might be a post-decommissioning survey at the time of completion of decommissioning work, with further surveys at, for example, three years and eight years after final decommissioning activity. (Requirements would always be considered on a case-by-case basis, however, taking account of the specific risks posed in each case.) Whether there was a need for further monitoring would be considered in the light of the results of these surveys. Monitoring arrangements for wave and tidal demonstrator projects are normally expected to be limited, or not required at all if full removal is involved and any post-decommissioning survey shows this has been achieved.

7.31 Monitoring reports should be submitted to BEIS, together with proposals for any maintenance or remedial work that may be required. The reports should also be published by appropriate means (for example, on the Internet).

7.32 If a developer/owner has proposed to remove an object entirely, but the decision has been taken by Government that it should be left in situ (for example, for environmental reasons), then the developer/owner would not be expected to be responsible for post-decommissioning monitoring, maintenance and management of this object.

8. Cost estimates

8.1 Monitoring reports should be submitted to Government, together with proposals for any maintenance or remedial work that may be required. The reports should also be published by appropriate means (for example, on the Internet).

8.2 Decommissioning programmes should set out a comprehensive breakdown of cost by category. Whilst BEIS does not set a standard format for this, BEIS would expect the breakdown as a minimum to include the following:

- assumptions of vessel day rates and costings for the various stages of decommissioning activities
- recycling / disposal costs
- contingency
- VAT
- Inflation

8.3 The programme should explain who provided the costings, and how the accuracy of the figures has been assessed (for example via third party verification or an internal assurance process).

8.4 Developers/owners of offshore renewable energy infrastructure should ensure that they take account of the most up to date evidence in framing their estimates for the costs of decommissioning their devices.

8.5 The following sections provide advice on how to calculate / set out costs:

Value Added Tax

8.6 BEIS (formerly DECC) has since 2006 requested financial securities from the owners of offshore renewable energy installations (windfarms, wave and tidal generation devices) so that in the event they fail to decommission their project, the Secretary of State has funds to remove the infrastructure, as required by international conventions covering the laws of the sea. Unlike the developers/owners, the Department has no exemption from VAT should it fall to us to decommission. Therefore, to allow for the possibility of the Secretary of State having to decommission infrastructure in internal waters and/or the territorial sea, VAT will have to be factored into financial securities.

8.7 Please note that the VAT regime only applies within territorial waters (i.e. up to 12 nautical miles from the shore baseline). Projects primarily located outside of territorial waters will therefore need to set out how they have calculated VAT for a limited proportion of their decommissioning costs (for example removal of cables within territorial waters, and any on-land recycling or disposal costs).

8.8 Any changes to VAT rates or their application to decommissioning activities should be picked up in any reviews of decommissioning programmes that are needed throughout the life of the project in question.

Inflation

8.9 Developers/owners should ensure that the estimated cost of decommissioning offshore renewable energy infrastructure includes an appropriate rate for inflation over the lifetime of the project in question. The rate at which inflation should be assessed is the Office of Budget Responsibility's ("OBR") forecast for inflation as measured by the Consumer Price Index (CPI). This should be done in several stages:

8.10 When submitting the pre-construction decommissioning programme, you should forecast inflation up to the end of your subsidy period, using the CPI inflation rate.

8.11 If the current OBR forecast does not go up to the end of the subsidy period then an average inflation figure should be assumed for the years not yet covered by OBR forecasts.

8.12 After the end of your subsidy period, you should continue to review on an annual basis whether estimated decommissioning costs have changed (see also para 5.25, final bullet, regarding timings of reviews of authorised decommissioning programmes). This may require amendments to your securities so that the total decommissioning fund matches the revised costs.

Scrappage

8.13 Developers/owners should not offset scrappage value from their total cost assumptions. Government does not consider that it is possible to rely on estimates of financial recovery that might be made from scrappage because the value can fluctuate substantially and therefore is not reliable. Whilst BEIS understands that developers may wish to rely on an assumption of scrappage reducing net commissioning costs for their internal rate of return calculations etc., this is a matter for the amount that companies with a

guarantee reserve rather than a factor to be calculated into decommissioning securities.

OFTOs

8.14 At present, OFTOs are treated in the same way as other offshore renewable energy infrastructure, and owners should follow this guidance accordingly. However, BEIS is considering with Ofgem and other stakeholders whether there are aspects of the OFTO regime that warrant treating the decommissioning of these projects in a different way from that set out in the revised guidance. In the event that changes are agreed, future updates to this guidance will include a separate section on OFTOs.

Independent Audit

8.15 Independent audit of estimated decommissioning costs (and of the financial security proposed or available to meet them) may be required, either directly of developers/owners or by BEIS appointing independent third party experts. The need for, timing and frequency of such audits will be determined on a case by case basis.

9. Financial Securities:

Overall approach

9.1 The decommissioning provisions in the Energy Act 2004 reflect the Government's view – taking into account our international obligations – that the application of the Act is broad and can apply to a person who constructs, extends, operates or uses an installation or related electric line, and that these persons should be responsible for ensuring that it is decommissioned at the end of its useful life, and should be responsible for meeting the costs of decommissioning (the "polluter pays" principle).

9.2 Despite the broad application of the Act, in practice, BEIS will usually pursue the developer/owner of the project (and its associated corporate bodies) as they are the persons responsible for the installation and are best placed to manage and mitigate the costs and risks associated with decommissioning. The developer / owner should be considering decommissioning issues from the outset of the project, from the concept and design stage through to the contractual arrangements and warranties associated with construction and operation.

9.3 We want to make sure that developers / owners are planning for their decommissioning liabilities at the beginning of their projects and will make adequate provision to ensure that sufficient funds will be available to meet their liabilities in line with the international obligations to decommission appropriately.

9.4 The Government also seeks to reduce, to an acceptable level, the risk of liabilities falling to the public purse in the event of default by developers / owners by requiring appropriate security to be in place. The Department's prime objective with regards to the provision of financial security is to ensure Government and the taxpayer are insulated as far as possible against the costs of having to step in if all other relevant parties fail to decommission.

Risk to the State

9.5 Where a developer / owner fails to organise decommissioning, it may fall to the Secretary of State as last resort to decommission and (where necessary) to meet any outstanding costs of decommissioning. This does not automatically mean that the Secretary of State will be the first port of call should the owner fail to decommission. A parent company, landlord or administrator (or others) may potentially be in line to decommission before

the risk passes to Government.

9.6 To mitigate against the risk to the State materialising developer/owners are required to:

- Include details in their decommissioning programme of how they intend to finance their proposed approach to decommissioning; and
- Put in place acceptable financial security arrangements to protect the taxpayer against the possibility of having to pay for decommissioning in the event the developer / owner defaults on their obligations.

9.7 It is possible for the finance and security arrangements to be one and the same thing. The Government will however only consider the developer/owner's financing arrangements to be an acceptable form of security if the money being reserved is ring fenced for decommissioning and from others that have a financial interest in the project.

9.8 This guidance is not intended to be prescriptive as to how a developer / owner reserves for or pays for the cost of decommissioning unless reserving is proposed as a form of security. There are many different ways for a company to ensure the necessary money is made available at the appropriate time. The preferred approach of the developer / owner should be clearly set out in the decommissioning plan for review by Government. This will provide reassurance to the taxpayer that the industry is financially well prepared to decommission an offshore renewable energy asset at the end of its operational life.

9.9 For any security to be acceptable, appropriate arrangements must be in place to assure the Government that such funds will be available to HMG in the event of insolvency. This may be through a funding deed which ring fences funds, a trust arrangement or other mechanisms depending on the type of security. If there is not confirmation at the outset that funds will remain protected in the event of insolvency we will not accept the arrangement. If security is in the form of cash (upfront or accrual) once the cash has been put aside for securities, developers/owners need to reflect the payment in their annual returns, so that any potential investors are able to clearly see that money is being put aside for decommissioning and that this capital cannot be accessed for any other purpose in the event of the company becoming insolvent.

Guiding principles

9.10 Under the Energy Act 2004 decommissioning provisions, it is for the responsible person to submit details of the security they propose to provide with their decommissioning programme. To guide industry we have established some principles to provide a policy framework against which financial security decisions can be taken:

a) the premise is that developers/owners will meet the costs of decommissioning and be responsible for the liabilities they have created (the “polluter pays” principle);

b) the Government has a duty to ensure that the taxpayer is not exposed to an unacceptable risk of default in meeting costs associated with decommissioning;

c) the Secretary of State will expect to see that effective and transparent arrangements are in place to ensure the performance of decommissioning obligations;

d) the Secretary of State will wish to consider the viability of recovering expenditure incurred in carrying out a decommissioning programme (if necessary under section 110 (5) of the Energy Act 2004 and the likely extent of the costs involved.) – see Annex A on Energy Act powers.

Examples of acceptable security

9.11 There may be a number of acceptable forms of security. Proposals will be considered on a case by case basis. The type of security likely to be acceptable will depend on a number of factors, including but not limited to the maturity of the technology, the financial strength of those responsible for decommissioning and other commercial factors. The timing of security arrangements will be dependent on similar factors including revenue certainty over time and the applicable subsidy period.

Upfront Cash

9.12 Cash set aside up front to cover expected decommissioning liabilities would reduce the risk to Government to a negligible level and would therefore be acceptable. This is likely to be the most appropriate form of security for pre-commercial deployment where the risks to the taxpayer are the greatest. This would need to be held in an account where deductions could not be made without the prior agreement of the Secretary of State, or officials on

his behalf, if the owner fails to remove the asset in line with its approved programme. For example, this could include a third party escrow account, a trust account or direct payments to BEIS. (Please note that BEIS cannot pay interest on funds held).

9.13 Where the owner of a project has provided upfront cash as security with the Secretary of State, the withdrawal of funds to pay for the costs of decommissioning will be on the production of evidence that the funds are being utilised for decommissioning costs, and on the basis of satisfactory evidence that the remaining cash balance covers the residual cost of (e.g. provision of invoices / signed contracts for decommissioning). BEIS may hold back a limited proportion of funds pending a successful post-decommissioning report (in case further works are required – see section 7.27).

Cash Reserving

9.14 In line with the section on the timing of securities, cash reserving is an acceptable form of security provided the cash is held in an account where deductions could not be made without the prior agreement of the Secretary of State, or officials on his behalf. As set out above, this would include a third party escrow account, a trust account or direct payments to BEIS.

Letter of Credit / Bank Guarantee / Performance Bond

9.15 From the perspective of Government, wishing to insulate the taxpayer from the risk of having to step in and pay for decommissioning costs a standby letter of credit, a bank guarantee and a performance bond are all broadly similar instruments, and it is the substance rather than the precise form which is relevant. Some forms of security are unlikely to be acceptable to us – see sections 9.20 – 9.25.

9.16 The key features expected of any proposed security include:

(a) The security is issued by either (i) the UK branch of a bank established in an OECD country, or (ii) a UK authorised insurer (i.e. regulated by the PRA) or European Economic Area (EEA) authorised insurer operating in the UK

(b) The issuer has a long term rating of at least either A- or better by S&P Global Ratings (Standard & Poor’s) or A3 or better by Moody's Investors Service or an equivalent rating by another recognised ratings agency. The security can be drawn in full if the issuer fails to

maintain the required credit rating.

(c) The security is irrevocable and payable on demand

(d) The security is for a fixed term either for the full duration of the decommissioning obligations or for a shorter term (typically 1-3 years) with a 'pay or renew' provision

(e) Notwithstanding the above expected features, the security must in any case be issued by an entity acceptable to Government as appropriate in the circumstances.

9.17 As further guidance we would also generally expect that (i) payment of any demand to be made within no more than 5 business days (ii) form of demand notice to be provided (iii) partial and multiple demands to be allowed (iv) expiry date and renewal provisions are clear (v) security amount is denominated in GBP (vi) security proposed is subject to the latest relevant rules[12]; (vii) security to be governed by and construed in accordance with the law of England and Wales; (viii) parties submit to the exclusive jurisdiction of the courts of England and Wales in respect of any dispute without recourse to arbitration.

Term and renewal

9.18 In order to ensure continuous renewal of the security with no lapse, each security shall be required to be extended or replaced at least one month in advance of its expiration date.

9.19 Decommissioning obligations need to be discharged before the expiry date set out in the marine licence. Therefore there is a synergy between the licence, the decommissioning programme and the security provision. It is the owner's responsibility to ensure that these instruments are aligned.

9.20 As set out in section 7 the owner should submit a post-decommissioning report within 4 months of completion of decommissioning works. The Secretary of State will then review the report and decide whether to accept it as evidence that the decommissioning has been carried out in accordance with the decommissioning programme. Security must remain in place until

[12] The Uniform Customs and Practice for Documentary Credits (UCP) is a set of rules on the issuance and use of letters of credit. A Bank Guarantee is considered a "Demand Guarantee" and as such is governed by the International Chamber of Commerce (ICC) Uniform Rules for Demand Guarantees (URDG).

the Secretary of State confirms that the decommissioning programme is accepted as being complete.

Examples of unacceptable security

9.21 The following types of financial security are not normally accepted although we reserve the right to consider them in exceptional circumstances - perhaps as a very short term form of security, or as a secondary form of security to provide BEIS with additional reassurance that the taxpayer is being suitably protected.

Parent Company Guarantees (PCGs)

9.22 Security for decommissioning is covering long-term liabilities and accepting PCGs would mean assessing and monitoring the financial standing of the parent company on a regular basis, and the Department does not consider this burden an appropriate use of its resources

9.23 A PCG is not a primary contractual obligation and is dependent on an underlying duty. There is therefore a risk that that the guarantor might dispute the basis on which the obligation in the underlying contract has arisen or has not been complied with, which could result in litigation.

9.24 Even though EU legislation allows for recognition of UK judgments in foreign courts there is a concern that decommissioning security cannot be enforced as it relates to public law matters and only private law judgments can be enforced. There is therefore a concern over the difficulty in recovering decommissioning costs from overseas parent companies.

9.25 If PCGs from non-UK companies are not acceptable then PCGs from UK based companies cannot be accepted either as there is a concern of discrimination on the basis of nationality which is prohibited under EU treaties.

Insurance

9.26 In general we would not expect insurance to be acceptable security for decommissioning liabilities. It might be possible for an insurer to underwrite

cost uncertainty in respect of a known event i.e. a decommissioning obligation defined in an approved programme, but we are cautious about the potential complexity of such proposals and the associated terms and conditions. To date we have never been presented with a firm proposal. While we would not want to rule it out entirely and we would be prepared to consider any proposal on a case by case basis, our guidance is that we are unlikely to judge that an insurance proposal will provide sufficient certainty to the taxpayer in the event an owner defaults on their decommissioning obligations.

Timing of securities

9.27 Not only are we concerned about the type of financial security being put in place to protect the taxpayer in the event of a default but we are also concerned that sufficient funds are being put aside by the developer/owner for eventual decommissioning. A key part of this is the timing of when securities are put aside or reserved.

9.28 Securities upfront of construction will generally be expected for pre-commercial projects. We believe that these projects pose a higher risk to the taxpayer than more mature deployments. The nature of pre-commercial projects can mean that there are increased technological, financial and commercial risks associated with the deployment of the asset.

9.29 For large scale commercial deployments that receive a predictable revenue stream such as a from a CFD or OFTO licence a secure, segregated decommissioning fund that accrues early in, or during the middle of, the life of an installation is likely to be acceptable. . The decommissioning fund must be fully accrued by the end of the subsidy period. The earlier payments are made and completed, the better the Government is insulated from risk, since reserving would occur when there is a guaranteed revenue stream. A decommissioning fund that starts to accrue late into the life of an installation **will not** be acceptable.

9.30 BEIS will consider the appropriate timings of securities on a case by case basis, taking into account the guiding principles set out in paragraph 9.10 above, and the risk profile of the individual project. Whilst the following should not be taken as a definitive list, considerations will include:

- Whether there is there a reliable long term (e.g. 15 or 20 years) income stream in place for the project, such as a contract for difference or OFTO fixed term revenue agreement.
- The financial strength of the company. (BEIS may require the

submission of financial information to help inform our considerations).

- Whether there is evidence to suggest that the technology has a proven track record of operating reliably.
- Whether the project has the necessary lease, consent and/or licence in place covering the full time period up to the proposed decommissioning date.

9.31 Each project will be considered according to its individual circumstances, but if the above questions cannot be answered with a 'yes', it is unlikely that mid-life accrual will be acceptable to BEIS. 'No' answers are more likely to result in a requirement for payment upfront of installation, or no later than 3 months from the approval of the decommissioning programme.

9.32 The table below summarises when a mid-life accrual of securities, if considered acceptable, should commence based on the revenue support a particular offshore renewable project might receive:

Subsidy support mechanism	
Renewable Obligation:	For projects with a '**renewables obligation certificate'**, 'mid-life' accruals should start no later than year 10 and be completed by year 20.
Contract for Difference:	For projects with a 15 year '**contract for difference'**, 'mid-life accruals should start no later than year 10 and be completed by year 15.
OFTO Revenue:	For OFTOs projects with a 20 year licence 'mid-life' accruals should start no later than year 10 of the licence and be completed by year 20.

9.33 Full security covering the entire cost of decommissioning the offshore renewable energy asset must be maintained from the end of subsidy support period to after the Secretary of State has reviewed the post decommissioning report and confirmed that the programme is accepted as being complete. Full security will need to be maintained if final decommissioning is deferred for whatever reason (for the avoidance of doubt this includes scenarios where there is an extension of the asset life or repowering).

9.34 Please note that at the time of writing, policy on the timing of securities for tidal lagoons has not yet been confirmed.

Draw-down on securities for decommissioning

9.35 Where the owner of a project has provided cash as security with the Secretary of State, the withdrawal of funds to pay for the costs of decommissioning will be on the production of evidence that the funds are being utilised for decommissioning costs, and on the basis of satisfactory evidence that the remaining cash balance covers the residual cost of decommissioning remaining infrastructure (e.g. provision of invoices / signed contracts for decommissioning). BEIS may hold back a limited proportion of funds pending a successful post-decommissioning report (in case further works are required – see section 7.24-7.27).

10. Residual liability

10.1 The persons who own an installation at the time of its decommissioning will normally remain the owners of any residues. The Government does not intend to take any action to remove any residual liability for these residues from the owners. Any residual liability is thus expected to remain with the owners in perpetuity. In addition, those with a duty to secure the carrying out of the decommissioning programme will remain responsible for complying with any conditions attached to the Secretary of State's approval of the decommissioning programme. This is consistent with the regime for decommissioning offshore oil and gas installations.

10.2 We would expect an exception to be made, however, in a situation where a developer / owner has proposed to remove an object entirely, but the decision has been taken by Government that it should be left in situ (for example, for environmental reasons). In that situation, we would not expect the developer/owner to remain liable for the object.

10.3 In practice, an installation which has been safely and effectively decommissioned, in accordance with its decommissioning programme, should not give rise to problems in the future. Provided that there are no problems, we do not expect there to be a need for the owner to take any action once the agreed post-decommissioning monitoring, maintenance and management regime has been completed.

10.4 If, however, problems with a decommissioned installation do become apparent, we would expect to require the owner to take appropriate action. For example, this might be the case if buried foundations become uncovered, so as to pose a risk to navigation.

10.5 Any claims for compensation by third parties arising from damage caused by any remains will be a matter for the owners and the affected parties and will be governed by the general law.

10.6 The Crown Estate may take additional securities direct from owners to cover post-decommissioning residual risk (for example where infrastructure is being left in–situ). BEIS will not duplicate any securities taken by the Crown Estate, and so any discussions relating to post-decommissioning securities should be conducted directly with the Crown Estate.

Annex A - Summary of decommissioning provisions in the Energy Act 2004

Note

1.1 This summary is intended to provide a helpful description of the key decommissioning provisions in the Energy Act 2004 (as amended)[13]. However, it should not be relied upon to be a comprehensive description of the legislation.

Introduction

1.2 The Energy Act 2004 (Part 2, Chapter 3) as amended sets out a comprehensive statutory scheme for the decommissioning of offshore renewable energy installations. The scheme applies to territorial waters in or adjacent to England, Scotland and Wales (between the mean low water mark and the seaward limits of the territorial sea) and to waters in the Renewable Economic Zone (including that part adjacent to Northern Ireland territorial waters) and gives 'the appropriate minister" certain functions regarding decommissioning. The Secretary of State has powers under the scheme re installations in UK waters that are not in Scottish territorial waters or in the Scottish part of the Renewable Energy Zone.

Requirement to prepare decommissioning programmes (section 105)

1.3 Under the terms of the Act, the Secretary of State may require a person (including a body corporate associated with that person – see below) who is proposing to construct, extend, operate or use an offshore renewable energy installation (or is already doing so) to submit a decommissioning programme for the installation. The Secretary of State must also consider how he will exercise his decommissioning powers in determining whether to give a consent for an offshore generating activity under section 36 of the Electricity Act 1989.

1.4 The requirement to submit a decommissioning programme may be imposed on more than one person, in which case a joint programme must be submitted. The requirement may be imposed at any point, from the point (prior to construction) at which it is judged likely that one of the statutory consents required will be given, through to the point at which an installation has begun to be decommissioned.

[13] http://www.legislation.gov.uk/ukpga/2004/20/contents

1.5 The Secretary of State may require specified consultations to be carried out before the decommissioning programme is submitted.

1.6 The decommissioning programme submitted must include:

a) measures to be taken for decommissioning the relevant object (renewable energy installation or related electric line);

b) an estimate of the expenditure likely to be incurred in carrying out those measures;

c) provision for determining the times at which, or the periods within which, those measures will have to be taken;

d) provision about restoring the place to the condition that it was in prior to the construction of the object (where it is proposed that the object will be wholly or partly removed from that place);

e) provision about whatever continuing monitoring and maintenance of the object will be necessary (where it is proposed that the object will be left in position or will not be wholly removed).

1.7 The Secretary of State may also require other information to be submitted with the decommissioning programme. This may include details of the (financial) security (if any) that the person proposes to provide.

Information Supplemental to the Requirement to Submit a Decommissioning Programme (section 105A)

1.8 This section details the circumstances in which the Secretary of State can issue a notice to an associate, requiring an associate to submit a decommissioning programme. This can only be done (subject to the exceptions specified in section 105A(2)*)* where the Secretary of State has already served a notice on a person listed in section 105(2)(a) and if, having done so, the Secretary of State is not satisfied that adequate arrangements, including financial arrangements, have been made by the recipient of that notice to carry out the decommissioning programme satisfactorily. The exceptions in section 105A(2) are that there has been a failure by the person with primary responsibility for the installation to comply with a notice served under section 105(2), or, the Secretary of State has rejected a programme submitted by such a person pursuant to such a notice.

1.9. The provisions in sections 105A(3) to (8) set out the test for determining whether one body corporate is associated with another. In essence, one body corporate is associated with another if one of them controls the other or if a third body corporate controls both of them. The tests for determining control in various different situations are contained in *subsections (4) to (8)*. The principal cases dealt with are where the body controlled is a company (*subsection (4)*) and where the body controlled is a limited liability partnership (*subsection (5)*). There is however a catch all definition of what 'control' means in subsection 7.

Approval of decommissioning programmes (section 106); failure to submit or rejection of decommissioning programmes (section 107)

1.10 The Secretary of State may: approve the programme as it stands; approve the programme with modifications and/or subject to conditions (after giving the person who submitted it an opportunity to make representations); reject the programme and require a new one; or prepare a decommissioning programme himself and recover the expenditure incurred from the person concerned.

1.11 The Secretary of State may approve a programme subject to a condition that the person who submitted the programme provides security in relation to the carrying out of the programme, at such time and in accordance with such requirements as the Secretary of State may specify.

1.12 Where more than one person has submitted a programme, different conditions (for example, in relation to financial security) may be imposed upon different persons.

1.13 The Secretary of State must act without unreasonable delay in reaching his decision as to whether to approve or reject a programme.

1.14 If there's a failure to comply with a section 105 notice, the Secretary of State may prepare their own programme and impose it on the person concerned. That programme is then treated as if it had been submitted and approved in the usual way and can require the provision of financial security. The Secretary of State may also recover any expenditure incurred in preparing the programme from the person concerned.

1.15 The Secretary of State can under section 106 reject an entire decommissioning programme. Where this happens he may request production of a new programme by the developer, or may under section 107 may prepare and approve his own programme to be imposed on the responsible person as in para 1.14.

Reviews and revisions of decommissioning programmes (section 108)

1.16 The Secretary of State must, from time to time, conduct such reviews of a decommissioning programme as he considers appropriate. Either the Secretary of State or the person who submitted the programme may propose modifications to it, including modifications to any conditions attached to the programme (for example, relating to financial security). The decision is made by the Secretary of State, after considering any representations made to him by the people concerned.

1.17 Either the Secretary of State or the person who submitted the programme may propose to relieve a person of his duty to carry out the decommissioning programme or to impose that duty upon a new person (either in addition to or in substitution for another person, including in relation to a body corporate associated with a relevant person). (This might happen when there is a change in ownership of the installation.) The decision is made by the Secretary of State, after considering any representations made to him by the people concerned. When the duty is imposed upon a new person, that person may be required to provide security.

Carrying out of decommissioning programmes (section 109); default in carrying out decommissioning programmes (section 110)

1.18 The person who submitted the decommissioning programme (or any new person upon whom the duty has been imposed) must ensure that the programme is carried out. Where there is an approved decommissioning programme in place it is an offence for a person to take any decommissioning measures unless in accordance with the approved programme or with the agreement of the Secretary of State.

1.19 The Secretary of State may require remedial action if the programme is not carried out in any particular respect. If this is not done, the Secretary of State may himself secure the remedial action and recover the expenditure incurred from the person concerned.

Security for decommissioning obligations (Sections 110A and 110B)

1.20 Section 110A applies to any security which has been provided in relation to the carrying out of an approved decommissioning programme or for compliance with the conditions of its approval. This is designed to ensure that, in the event of insolvency of a person responsible for decommissioning an OREI, the funds set

aside for meeting those liabilities remain available for decommissioning and are not available to the general body of creditors. This protection applies where funds have been set aside in a secure way (such as a trust or other arrangement) for meeting obligations under a decommissioning programme.

1.21 To enable this, section 110A(3) states that the security is to be used in accordance with the trust or other arrangements under which the security has been set up. section 110A(4) disapplies any provision of the Insolvency Act 1986, the Insolvency (Northern Ireland) Order 1989 or any other enactment or rule of law where its operation would prevent or restrict the security being used for the purpose for which it was set up (meeting decommissioning liabilities).

1.22 New section 110B is intended to ensure that creditors and potential future creditors of a person responsible for a decommissioning programme are aware of any decommissioning funds protected by section 110A. The Secretary of State may direct that information regarding relevant security arrangements is published by the person responsible for the decommissioning programme (for example, in the financial pages of that person's website). This will ensure that informed decisions can be made by creditors and potential future creditors. Section 110B(3) enables the Secretary of State, or a creditor of the person responsible for a decommissioning programme, to apply for a court order to ensure compliance with a direction and under section 110B(4), the court may order the security provider to take steps to comply with the direction. Sections 110B(5) and (6) provide definitions of the terms "the protected assets", "security provider", and "the court" for the purposes of this section.

1.23 *Subsection (2)* widens the interpretation of security to include insurance, for the purposes of funds which will be protected from creditors in the event of insolvency. This brought the definition of security in offshore renewables in line with the regimes for nuclear and oil and gas decommissioning.

Regulations about decommissioning (section 111)

1.24 The Secretary of State may make regulations relating to decommissioning of offshore renewable energy installations. Regulations may include, for example, prescribed standards for decommissioning and provision about the security that a person may be required to provide.

Duty to inform Secretary of State (section 112)

1.25 When a person becomes responsible for an installation (or related electric line) he must notify the Secretary of State. This would happen when, for example, a person makes a proposal to construct, extend, operate or use an installation, or

begins to construct, extend, operate, use or decommission an installation. (This would apply whether it was a proposal for a new installation or whether the person was acquiring an existing installation.) In the case of a new installation, notification is not required until after at least one of the statutory consents has been given or applied for.

Provision of information to the Secretary of State (section 112A)

1.26 The Secretary of State can require persons who are, or may in future be, subject to decommissioning obligations to provide certain information or documents to assist the Secretary of State in exercising his functions under Chapter 3 of Part 2 of the Energy Act 2004 (decommissioning of OREIs). These functions include making a judgement on the suitability and financial viability of the proposals contained in a decommissioning programme, for example financial projections, banking models and electricity generation forecasts.

1.27 Under section 112A(2), the Secretary of State can require information from the person on whom notice has been served under section 105(2)(a) (those with principal responsibility for the installation, such as the developer, an associate of such a person, or a person who has been made subject to a decommissioning liability under the review procedure in section 108(3)(b) of the Energy Act 2004.)

1.28 *Subsection (3)* of the new section 112A enables the Secretary of State to require information about:

- the place where the OREI is or will be situated;
- the OREI itself or an associated electric line;
- in certain circumstances, details of an associated body corporate (as defined in subsection 7);
- the financial affairs of the person receiving the notice for information and, in certain circumstances, the financial affairs of an associate;
- the proposed security in relation to carrying out the decommissioning programme;
- the person receiving the notice's compliance with conditions to which the decommissioning programme has been approved;
- in certain circumstances, the name and address of any person whom the recipient of the notice believes to be an associated body corporate.

1.29 *Subsection (4)* of new section 112A allows the Secretary of State to require information in connection with a function under section 107(1) or (4) of the Energy Act 2004. Those provisions allow the Secretary of State to prepare his own decommissioning programme where one has not been submitted or has been rejected, and to require the relevant person to provide security in relation to the carrying out of the programme (see above). In this case the type of such information is not limited to the categories detailed in section 112A(3), but should be information which the Secretary of State considers is necessary or expedient for the purpose of exercising those functions.

1.30 Under *subsections (5)* and *(6)* of new section 112A, the notice requiring the information must specify the documents or information (or the description of documents or information) to which it relates. The recipient of the notice is required to provide the information within the period specified in the notice.

1.31 *Subsection (8)* of new section 112A makes it an offence for a person to fail to comply with the notice without a reasonable excuse. Section 113 of the Energy Act 2004 sets out the sanctions that would apply if an offence was committed under *subsection (8).* These are:

- on summary conviction, a fine not exceeding the statutory maximum; or
- on conviction on indictment, imprisonment for a term not exceeding two years or an unlimited fine, or both.

1.32 *Subsection (9)* of new section 112A makes it an offence to disclose information obtained by virtue of a notice issued under new section 112A of the Energy Act 2004, unless the disclosure is:

- made with the consent of the person who provided the information; or
- for the purpose of a function under this Chapter of the Energy Act, the Electricity Act 1989 or Part 4 of the Petroleum Act 1998; or
- required by or under another piece of legislation.

Offences relating to decommissioning programmes (section 113)

1.33 A person guilty of an offence is liable: on statutory conviction, to a fine not exceeding the statutory maximum; on conviction on indictment, to imprisonment for a term not exceeding two years or to a fine, or to both. In any proceedings against a person for default in carrying out a decommissioning programme, it would be a defence to show that he exercised due diligence to avoid the contravention in

question.

Power to impose charges to fund energy functions (section 188)

1.34 The Secretary of State may make regulations requiring charges to be paid to him to fund the carrying out of his Energy Act functions (including functions relating to decommissioning of offshore renewable energy installations).

When will BEIS use the Energy Act enforcement powers?

1.35 BEIS expects that the final draft of a decommissioning programme should be submitted no later than 6 months before construction, and that deadlines given by BEIS will be met. Where it is likely this deadline will be missed, BEIS may consider using Energy Act powers to compel provision of information.

1.36 BEIS will consider taking action in the following circumstances:

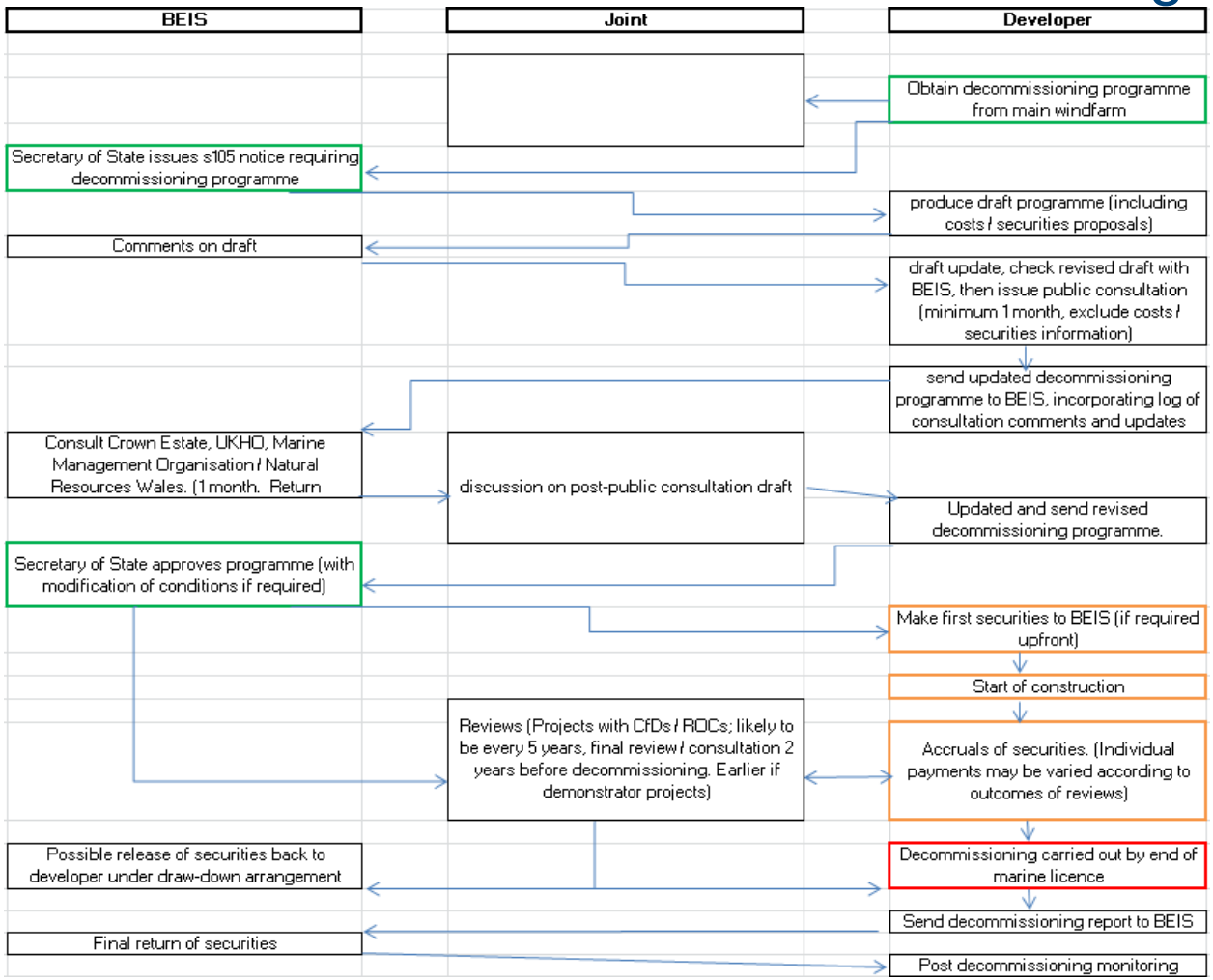
- No draft decommissioning programme has been submitted 10 months before construction. (BEIS may commence the process of commissioning a third party to draft a decommissioning programme to be imposed on the developer).
- The decommissioning programme has not been updated with consultation feedback within 7 months of consultation. (Section 112A powers may be used to require missing information on a statutory basis).
- A final version has not been submitted 5 months before construction. (Section 112 powers may be used to require specific missing information on a statutory basis, or BEIS may consider making modifications to the programme for approval by the Secretary of State.)

1.37 Such enforcement actions are more likely to be taken if the project is likely to qualify for upfront securities (see section 9).

1.38 Developers/owners are strongly encouraged to speak to BEIS informally on decommissioning requirements in good time, so that the above timetable can more easily be met.

1.39 BEIS expects to implement a strict approach to the timely payment of expected securities. Where expected payments are missed, a ‘section 110 notice’ would be sent within several weeks re-affirming the requirement to make the payment. Failure to comply with a section 110 notice can incur an offence, carrying a risk of a fine or up to 2 years imprisonment.

Annex B – Flowchart of decommissioning casework



Annex C - Model Framework for a decommissioning programme

Presentation

The programme should be presented in a form that allows ready updating and change. Each draft should be dated, and pages should be numbered.

Content

The content of the programme is likely to be based on the following model framework (which is intended as a guideline, rather than a rigid requirement).

1. Introduction

(Included in initial programme, updated as necessary when programme is reviewed)

A brief introduction should be included, indicating that the decommissioning programme is being submitted for approval in accordance with the requirements of the Energy Act 2004. The introduction should state the companies that are a party to the programme and describe their ownership status.

2. Executive Summary

(Included in initial programme, updated as necessary when programme is reviewed)

A summary should be provided, highlighting the essential features of the proposed decommissioning programme.

3. Background Information

(Included in initial programme, updated as necessary when programme is reviewed)
Relevant background information should be provided, supported by diagrams, including:

- the layout of the facilities to be decommissioned;

- the relative location, type and status of any other adjacent facilities (e.g. telephone cables, pipelines and platforms) which would have to be taken into consideration;

- information on prevailing weather, sea states, currents, sea-bed conditions, water depths, etc, relevant to consideration of the proposed decommissioning programme;

- any fishing, shipping and other activity in the area;

- the names and locations of any Special Areas of Conservation (under the Habitats Directive) and/or Special Protection Areas (under the Birds Directive) that may be affected by the decommissioning programme;

- any other background information relevant to consideration of the draft decommissioning programme.

4. Description of Items to be Decommissioned

(Included in initial programme, updated as necessary when programme is reviewed)

A full description should be provided, supported by diagrams, of all items associated with the generating station to be decommissioned, including:

a) Renewable Energy Installations

- renewable energy devices, including any foundations, support structures, towers, anchor blocks, turbines and ancillary equipment;

- offshore substations, including foundations, support structures, topside structures and ancillary equipment;

- meteorological monitoring masts;

- materials which may have been placed on the sea-bed, for example for scour protection, including rock, grout bags, sandbags, mattresses.

b) Related lines

- electric lines/cables, including inter-turbine cables, inter-substation cables and export cables.

5. Description of Proposed Decommissioning Measures

(Included in initial programme, with more detail added as appropriate when final review of programme takes place towards end of installation's life)

This section should describe the proposed measures to be taken for decommissioning the installation. The level of detail provided may be improved upon over time. However, the programme should be sufficiently detailed, from the outset, to demonstrate that decommissioning has been fully considered and factored into design decisions and that a viable decommissioning strategy has been developed. This section should cover:

• **Any planned phasing/integration**

Consideration may be given to the potential for beneficial phasing/integration of decommissioning activity between operators, e.g. within a particular geographic area or specialist type of work, in order to realise any economies of scale that may be possible.

- **Proposed method of removal.**

  This should have regard to:

  - Best Practicable Environmental Option (BPEO),
  - safety of surface and subsurface navigation; – other uses of the sea;
  - health and safety considerations.

- **Proposed waste management solutions.**

This section should specify:

- which elements of the installation will be taken back to land for reuse, recycling, incineration with energy recovery or disposal;

- which (if any) materials from the installation are likely to be reused at sea.

- **Details of any items which may be left in situ following decommissioning**.

Where non-removal or partial removal is proposed, the programme must this is considered to be the best option, through evaluation of the following matters (drawn from the IMO standards as set out in chapter 7):

Predicted degradation, movement and stability of any remains.

This section should be completed in line with the principles set out in Chapter 7 (Decommissioning Methods) of this guidance

6. Environmental Impact Assessment

(Included in initial programme, with more detailed assessment undertaken, if necessary, when final review of programme takes place towards end of installation's life)

See chapter 7 for further details

7. Consultations with Interested Parties

(Included in initial programme, updated as necessary when programme is reviewed)

The decommissioning programme should describe the consultation process employed. It should provide a summary table of the consultations undertaken with interested parties and explain the extent to which their views have been taken into account in the programme. Relevant correspondence should be annexed to the programme.

8. Costs

(Included in initial programme, updated as necessary when programme is reviewed)

The programme should include an overall cost estimate in line with Chapter 8, in £ sterling, of the proposed decommissioning measures. It should explain the basis on which the estimate is made, including a breakdown into major component parts. All elements of the decommissioning programme should be covered in the cost estimate, including:

- removal of the installation;
- management of the waste;
- conduct of any surveys to be undertaken before or after decommissioning;
- post-decommissioning monitoring, maintenance and management of the site, where an installation is not entirely removed.

It is recognised that there may be concerns about including commercially sensitive cost data in a decommissioning programme, and placing such data in the public domain, before contracts are finalised. If this is the case, it should be possible to agree an approach that satisfies these concerns.

9. Financial security

(Included in initial programme, updated as necessary when programme is reviewed)

The programme should set out the financial security which the companies that are party to the programme propose to provide. Financial securities should follow the guidelines on inclusion of VAT, inflation and accrual timescales etc. set out in Chapter 9.

10. Schedule

(Outline information included in initial programme, updated as necessary when programme is reviewed)

Details of the proposed decommissioning time scale should be given, including a schedule showing the dates at which the various stages of the decommissioning are expected to start and finish. Final details of timing are only required towards the end of the life of the installation, when a review of the decommissioning programme is undertaken to finalise the decommissioning measures proposed, though must conclude by the end of the marine licence. The original decommissioning programme (prepared prior to construction) should set out, as far as possible, when decommissioning is expected to take place and explain how the decommissioning schedule will eventually be determined.

11. Project Management and Verification

(Only included when final review of programme takes place towards end of installation's life)

The programme should provide information on how the Operator will manage the implementation of the decommissioning programme and provide verification to Government concerning progress and compliance. This should include a commitment to submit a report, detailing how the programme was carried out. As a guideline, this report should generally be submitted within four months of completion of the decommissioning work. This section of the decommissioning programme is only required towards the end of the life of the installation, when a review of the decommissioning programme is

undertaken to finalise the decommissioning measures proposed. It need not be included in the original decommissioning programme (prepared prior to construction)

12. Sea-bed clearance

(Included in initial programme, updated as necessary when programme is reviewed)

This section should set out proposals for confirming that, following decommissioning, the site has been cleared. Typically, this will involve carrying out appropriate surveys, upon completion of decommissioning.

See paragraphs 7.26 – 7.29

13. Restoration of the Site

(Included in initial programme, updated as necessary when programme is reviewed)

The programme should describe how it is proposed to restore the site, as far as possible and desirable, to the condition that it was in prior to construction of the installation.

14. Post-decommissioning Monitoring, Maintenance and Management of the Site

(Outline proposals included in initial programme, updated as necessary in the light of relevant data from construction, operation, decommissioning and post-decommissioning monitoring of the site)

Where any remains are to be left in place, the programme should include a description of the proposed post-decommissioning monitoring, maintenance and management of the site. There should be a commitment to report the outcome of this work to Government.

15. Supporting Studies

(Included in initial programme, updated as necessary when programme is reviewed)

Where supporting studies have been undertaken they should be listed within the programme.

Annex D – Tidal Lagoons

1 Tidal lagoons are structures that use an embankment to impound an area of water, incorporating turbines through which water passes during different states of tide to generate electricity. There are a number of different design approaches to constructing tidal lagoons. This guidance relates to those in coastal waters that use an embankment attached to land to enclose a tidal area of sea. The closest comparison would be the construction of a harbour.

2 The provisions for decommissioning of offshore installations in sections 105 to 114 of the Energy Act 2004, as originally drafted, did not apply to tidal lagoons which are located below mean low water levels but attached to land. The annex to the Offshore Renewables Decommissioning Guidance which was published in 2015[14] provided clarity on the applicability of this guidance to such lagoons.

3 It continues to be the Government's view that the deployment of tidal lagoon structures raises decommissioning (or long-term maintenance) issues that are similar in nature to those posed by other offshore renewable energy installations and the decommissioning provisions of the Energy Act 2004 should be applied to nationally significant tidal lagoon structures which are attached to land.

4 Therefore, tidal lagoon installations attached to land, over 100MW[15] and within territorial waters adjacent to England and Wales should be subject to the decommissioning regime of the Energy Act 2004. The draft Development Consent Orders relating to such installations should be drafted to apply the decommissioning regime of the Energy Act 2004 to the whole of the offshore elements of any tidal lagoon installation defined as any part thereof which falls below the mean low water mark.

[14] *Addendum to decommissioning of offshore renewable energy installations under the Energy Act 2004: Guidance notes for industry – tidal lagoons*, DECC, 2015 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/607864/decommissioning-offshore-renewable-tidal-lagoons.pdf

[15] Installations over 100MW are nationally significant infrastructure projects and are consented under the Planning Act 2008.

5 1.4 Under the Planning Act 2008, offshore generating stations are defined as Nationally Significant Infrastructure Projects (NSIPs) if they have a generating capacity of more than 100MW and when they are situated in waters in or adjacent to England or Wales (in both territorial waters and the Renewable Energy Zone). As NSIPs, such projects require development consent from the Secretary of State in the form of a Development Consent Order. In making such an Order, the Secretary of State has the power under section 120 of the Planning Act 2008 to impose requirements in connection with the development for which consent is granted, including requirements which apply or modify statutory provisions.

Decommissioning and / or on-going maintenance programme

6 The scope of any decommissioning programme will depend on the specific circumstances of each installation, having regard to the principles and standards set out in this guidance document. By way of example the scope could include: decommissioning in the event of developer / operator insolvency or complete removal. As the removal of tidal lagoons may impact on the local environment the scope should also consider on-going maintenance of some or all of the structure at the end of the installation's operational life.

7 The guidance on decommissioning as set out in this guidance will apply to tidal lagoons attached to land. However, in relation to the forms of acceptable financial securities set out in Chapter 9, developers of tidal lagoons may wish to consider additional forms of financial security for decommissioning, such as the creation of a legacy company or a Trust.

8 The Government is keen to encourage industry cooperation and collaboration. As with other offshore renewable energy installations it is important that developers of tidal lagoons take account of liabilities for decommissioning and / or the on-going maintenance of installations at the outset. The Secretary of State would expect any decommissioning programme submitted by virtue of the inclusion of tidal lagoon installations into the Energy Act 2004 regime to cover the whole of the installation.

Legal

9 The Government notes that the power to apply statutory provisions in a Development Consent Order does not extend to provisions creating criminal offences (see section 120(8) of the Planning Act 2008).

10 A Development Consent Order which applies the Energy Act 2004 to tidal lagoon projects should therefore not purport to apply the criminal offence provisions of that Act. Instead, to make clear the consequences of breaching decommissioning provisions in the Development Consent Order, requirements which would otherwise be enforced by criminal sanctions under Chapter 3 of Part 2 of the Energy Act 2004 should expressly be made terms of the Development Consent Order (the breach of which would itself be a criminal offence, section 161 of the Planning Act 2008). It should therefore be made clear on the face of the Development Consent Order that a person must: decommission the project in accordance with the approved decommissioning programme or agreement of the Secretary of State (see section 109(2) of the Energy Act 2004); comply with any remedial notice given (section 110 of that Act); and comply with any duty to inform, or provide information or documents to, the Secretary of State (sections 112 and 112A of that Act).

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