

Annex 4.1

Project Specification

(ERM)

1 INTRODUCTION AND PURPOSE OF THE ANNEX

1.1 INTRODUCTION

The Broad Aims of the Project

1.1.1 As described in *Chapters 1 and 4* of the Environmental Statement (ES), the principal aim of the Project is to provide facilities for the construction and assembly of marine energy components. Investment in this sector is currently focussing on offshore wind so the development will initially facilitate the development of offshore wind farms in the North Sea and elsewhere, in line with Government aspirations and both UK and EU policy. Whilst this is anticipated to be a long-term project spanning several decades, continuing research may give rise to other technologies, such as wave and tidal energy generation, and the development could also serve those markets in the future.

1.1.2 The facility will initially provide a base for the pre-assembly and construction of wind farm components, as well as for installation vessels. Once construction of the offshore wind farms is complete, the harbour could provide a facility from which to operate, monitor and maintain offshore wind farms including re-powering.

1.1.3 This annex relates only to the Able Marine Energy Park (AMEP) component of the Project, and not the Compensation Site.

The Requirements of the Assessment Regulations

1.1.4 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (“the 2009 EIA Regulations”) require an ES to provide a description of the location, design and size of the scheme to enable the likely significant environmental effects to be assessed and to enable the IPC, statutory consultees and the public to make a properly informed response. Schedule 4 of the 2009 EIA Regulations requires, amongst other things, the following issues to be addressed:

- description of the physical characteristics and land use requirements
- main characteristics of the production processes
- expected residues/emissions
- description of the likely significant effects.

Why Flexibility in the Project is Required

1.1.5 In common with many other major developments of similar scale, a degree of flexibility in the configuration of certain elements of the Project will be required. In this case, this applies principally to building dimensions. This will ensure that eventual occupiers of the facility can develop the site in a way that best serves the interests of the renewable energy industry. It will also enable the completed harbour to respond to market demands in the longer term, after the wind farm developments in the North Sea and beyond are complete, providing continuing benefit to the UK economy.

1.1.6 This sort of flexibility is essential if the Project is to proceed and be successful, as it allows it to respond to commercial opportunities and emerging economic circumstances. Indeed, Justice (now Lord Justice) Jeremy Sullivan, in his second judgement on the Kingsway Business Park application in Rochdale (ex parte Milne, 31 July 2000, referred to here as “the 2nd Rochdale judgement”), remarked that, “*a substantial industrial estate development project is bound to be demand-led to a greater or lesser degree*” (paragraph 85). He goes on to state that,

“If a particular kind of project, such as an industrial estate development project (or perhaps an urban development project) is, by its very nature, not fixed at the outset, but is expected to evolve over a number of years depending on market demand, there is no reason why ‘a description of the project’ for the purposes of the directive should not recognise that reality. What is important is that the environmental assessment process should then take full account at the outset of the implications for the environment of this need for an element of flexibility. The assessment process may well be easier in the case of projects which are ‘fixed’ in every detail from the outset, but the difficulty of assessing projects which do require a degree of flexibility is not a reason for frustrating their implementation.” (paragraph 90)

1.1.7 Moreover, he suggests (in paragraph 89) that the Directive, “*is not meant to be unduly prescriptive as to what would amount to an appropriate description of a particular project*” and, indeed, is intended to be, “*sufficiently flexible to accommodate the particular characteristics of the different types of project listed in annexes I and II [Schedules 1 and 2 to the 2009 EIA Regulations]. It may be possible to provide more or less information on site, design and size, depending on the nature of the project to be assessed*”.

1.1.8 He goes on to state (in paragraph 92) that, “*even if it was practical.....to prepare detailed drawings showing siting, design, external appearance, means of access and landscaping for every building.....the resulting environmental*

statement would be an immensely detailed work of fiction, since it would not be assessing the effect on the environment of any project that was ever likely to be carried out”.

1.1.9 He expands on this argument in paragraph 94 in the following way:

“The directive seeks to ensure that as much knowledge as can reasonably be obtained, given the nature of the project, about its likely significant effect on the environment is available to the decision taker. It is not intended to prevent the development of some projects because, by their very nature, ‘full knowledge’ (in the sense of an abstract threshold level of detail) is not available at the outset.”

1.1.10 With reference to details such as plot size, building height etc, he goes on to assert (in paragraph 131) that, *“armed with all of this information [it is possible to] carry out a comprehensive assessment of its likely significant effects on the environment”.*

The IPC’s Expectations

1.1.11 The need for a proper understanding of those elements of the Project that will remain flexible has been highlighted with the publication in February 2011 of the IPC’s Advice Note 9 (“Rochdale Envelope”). In summary, the key points made in that document, which are of most relevance to the Project, are as follows:

- The amount of flexibility inherent in a scheme needs to be described during consultation, when undertaking the EIA and in preparing the application documents.
- This flexibility is “not to be abused” ie it is not a substitute for an inadequate description of the project. This point is also made clearly by Sullivan J (as he was then) in paragraph 95 of the 2nd Rochdale judgement, to ensure that *“the authority responsible for issuing the development consent.....is satisfied, given the nature of the project in question, that it has ‘full knowledge’ of its likely significant effects on the environment”.*
- The range of possible effects implicit in the flexibility should ideally be assessed, although the IPC recognises that, *“in some cases, this may well prove difficult”* (page 3).
- All realistic and likely worst case potential adverse impacts must be properly assessed, but the detailed design of the project should not vary beyond these limits, rendering the ES inadequate.

- Any variations that exist in a scheme should not be presented in an over-complex manner that is difficult for the reader to understand.
- Any parameters presented in the project description should not be so wide-ranging as to present effectively different schemes.

1.1.12 In overview, the IPC accepts that it is possible to draft a Development Consent Order (DCO) in such a way as to allow some flexibility in a project, but it should be described in such a way that a robust EIA can be undertaken.

How Able has Responded to the Requirements

1.1.13 It is clear from the above that, at the same time as allowing for a certain amount of flexibility, there is a need to ensure that the scheme permitted is consistent with the Environmental Impact Assessment (EIA) undertaken and reported in the ES.

1.1.14 In recognition of both the IPC's advice and the thrust of Sullivan J's 2nd Rochdale judgement, the Project has been sufficiently well defined in the ES (at *Chapter 4*) to enable a robust assessment of the potential significant impacts. The ES considers an almost fully defined development. Where full details are not known at this stage of the Project's development, then parameters have been set, and a worst case assessment carried out in accordance with expectations. These parameters are described in this annex, and relate principally to building heights and dimensions. Across the whole Project, the level of detail defined is more than sufficient to identify the "*likely significant effects of the development on the environment*", as required by the 2009 EIA Regulations.

1.1.15 The EIA undertaken is based on the maximum development that could reasonably be built. In accordance with the 2009 EIA Regulations, the Project has been defined in sufficient detail to assess its impacts, while leaving enough flexibility to enable the development to be successfully delivered under emerging market conditions. As noted by both the IPC and Sullivan J, this is an accepted way of approaching an EIA for a scheme of this type. Thus the ES properly identifies the worst environmental impact that could arise.

1.1.16 To do this, as shown in *Figure 4.1* of the ES, parts of AMEP have been divided into separate "land parcels". Within these parcels, parameters have been fixed as to appropriate levels of development with respect to height, massing and density, as well as in relation to landscaping and

car parking. These parameters have provided an “envelope” for assessing the impacts of the development, and are detailed in *Figure 4.2* of the ES.

1.1.17 These parameters ensure that all Able’s stated objectives for the Project (as set out principally in *Chapters 1* and *4* of the ES) can be delivered. The EIA has taken account of the reasonable variations in the form of the Project that would be permissible under the parameters, and presents the likely significant effects of these where appropriate.

1.1.18 It is recognised that if the actual development turns out to be different in any substantial way, or its impacts are materially worse than predicted, then a further application would need to be submitted prior to construction or implementation of any divergent elements.

1.2 *PURPOSE OF THIS ANNEX*

1.2.1 This annex provides explanatory information about the form of the Project, by setting out additional detail beyond the description given in *Chapter 4* of the ES.

1.2.2 Importantly, it conveys the linkage between the environmental information provided under the EIA process and the description of the Project in those areas where flexibility is provided to enable AMEP to evolve in the way that could reasonably be expected of a scheme of this nature.

1.2.3 In particular, this annex brings the information on the flexibility inherent in some parts of the Project together in one place, for ease of reading.

1.2.4 The EIA has assessed the Project within these defined parameters and principles, and identified the likely significant effects of the Project on the environment. This is set out in the main body of the ES.

1.2.5 It should be noted that the Order, if granted, will be subject to certain “requirements” (the equivalent of “conditions”) to ensure that any application for approvals required under the Order falling outside the defined parameters is screened to ensure that any adverse environmental impacts are no greater than those assessed in the EIA process and reported in the ES relating to the present application.

1.2.6 As noted in the ES at *Chapter 2*, certain features of the Project, such as design and siting of structures, will be left for subsequent approval by

the local planning authority. Wherever parameters and principles are referred to in the Order sought, the design and other matters subsequently submitted for approval will be required to fall within such parameters and principles, unless any additional significant adverse impacts are unlikely to arise.

1.2.7 A further aim of the Project Specification is to describe those physical aspects of the Project that will ensure the creation of a high quality scheme.

1.2.8 This Project Specification will, therefore, provide:

- a statement of the parameters and constraints to which the site must adhere; and
- a flexible framework, which is capable of responding to the needs of the Project and key stakeholders, but always within the boundaries contemplated by the ES and the whole EIA process for the Project.

1.2.9 The Project will not deviate from the parameters and principles contained in this Project Specification in any matter that is likely to have significant environmental effects without subjecting such departures to a further planning process, for example through an application for planning permission. Any such application would itself be subject to the need for EIA screening and a new ES may be required under the appropriate EIA legislation in the event that any change or extension to the Project were likely to have significant adverse environmental effects beyond those currently identified.

1.3 ***STRUCTURE OF THE PROJECT SPECIFICATION***

1.3.1 Following this introductory section, the rest of the annex is structured as follows:

- *Section 2* describes the key environmental principles that have been applied to the Project; and
- *Section 3* provides a description of those elements of the Project for which parameters have been set, and sets out how the assessment has been undertaken.

2.1 INTRODUCTION

2.1.1 The AMEP site has been divided into four “core” development areas (as shown in *Figure 4.1* of the ES), in which different activities will take place, as follows:

- heavy component manufacturing park
- supply chain park
- overspill storage
- quay area.

2.1.2 It is principally in the area of the heavy component manufacturing park and the supply chain park that flexibility within the design of the Project will be required. Sufficient information is contained within *Chapter 4* of the ES (including the Indicative Site Plan, given at *Figure 4.2*) to enable the likely significant environmental impacts of the Project to be assessed, so that there will not be any impacts beyond those described in the ES.

2.1.3 The Nationally Significant Infrastructure Project for which authorisation is sought (as set out in the draft DCO) is “*a quay of solid construction*”. Associated development is also described in the draft DCO. For the purposes of this annex, the most relevant is “*the provision of onshore facilities for the manufacture, assembly and storage of wind turbines and related items*”, located in the district of North Lincolnshire.

2.2 INDICATIVE SITE PLAN

2.2.1 The Indicative Site Plan has been developed in a way that sets out the parameters within which any future applications for approvals under the Order are required to be generally consistent. As noted above, departures from these parameters would only be approved if they are not likely to have significant adverse environmental impacts beyond those currently identified (otherwise it is expected that such modifications will require a further planning process, which would itself be subject to an EIA screening process, and may be subject to a requirement for an ES).

2.2.2 The Indicative Site Plan provides parameters principally for the following:

- floorspace thresholds for buildings within the heavy component manufacturing park and the supply chain park; and
- building heights to eaves within these two areas.

2.2.3 All details of these works will be required to be submitted and approved by the local planning authority before that part of the development commences, as referred to in Schedule 12 of the draft Order. These will be required to be in accordance with the parameters set out on the Indicative Site Plan and described in the main body of the ES and in this annex. The submission of details requiring approval will need to demonstrate how the proposals conform to the parameters and principles.

2.2.4 In addition, the following components of the Project will be subject to a certain amount of flexibility, and are referred to in this annex for completion:

- heights of completed turbines standing on the quayside prior to being shipped; and
- numbers of turbines standing on the quayside.

2.2.5 The above approach enables the site to be designed and co-ordinated in a coherent manner and to create a framework for the development of individual plots and buildings.

2.2.6 The layout of the AMEP site (principally in the heavy component manufacturing park and supply chain park) will be guided and directed by the parameters and principles set out. Clearly, activities within the two manufacturing areas will be determined by the occupiers. However, as noted in *Chapter 1* of the ES, the Indicative Site Plan represents one potential outcome that is consistent with the broad parameters and principles that will guide and direct the detailed layout of the Project. These parameters and principles have, where appropriate, formed the basis of the ES. The ES has taken account of reasonable variations in the layout that conform.

2.2.7 A requirement will be included in the Order sought requiring details of the layout, scale and external appearance of the Project to be submitted to and approved by the relevant planning authority. The authorised development must be carried out in accordance with the approved details. Where any variations or departures from these limits are proposed, these will only be permitted if they are unlikely to have

significant adverse environmental impacts compared to those assessed for the Project in the ES or, where the local planning authority is satisfied, that differing impacts are still within acceptable limits.

2.2.8 It is recognised that the detailed layout of the Project does not need to directly replicate the layout in the Indicative Site Plan, but must generally conform to the parameters and principles set out.

2.3 *SITE-WIDE PRINCIPLES*

Introduction

2.3.1 High environmental and sustainable development standards are being applied at AMEP. For example, a green corridor will run through the site, and shrub and tree planting will be provided around car parking areas; surfaces of storage areas will be treated in order to suppress dust generation.

2.3.2 As far as possible, the Project aspires to best practice measured against standards being achieved across the industry. In addition to normal industrial disciplines, particular precautions will be applied in respect of the manufacturing work to ensure high health, safety and environmental standards.

Good Construction Practice

2.3.3 As described in Schedule 12 of the draft Order, all construction activity will be governed by a Code of Construction Practice (CoCP), a draft of which is given in *Annex 4.2* of the ES. Able will adopt this code, once approved by the relevant planning authority, and it will be mandatory for all principal contractors (and their sub-contractors) appointed by Able and for any other developers who deliver the Project. This will be imposed by contract or other legal agreement with those parties, as well as being enforceable by the relevant planning authority under a requirement in the Order sought.

2.3.4 As a result of the preparation of the CoCP, individual contractors and occupiers will be required to prepare and implement Construction Environmental Management Plans (CEMPs). These are described in the draft CoCP.

2.3.5 A Construction Traffic Management Plan will also be issued to the relevant planning authority for approval, under a requirement in the

Order. This will be enforced by Able on all contractors etc, in the same way as the CoCP.

Carbon Balance

- 2.3.6 The Project is in itself expected to contribute to the decarbonisation of world energy production. It forms a core component of the move towards low carbon energy in line with UK and EU policy and commitments.
- 2.3.7 Furthermore, the scale and configuration of AMEP will contribute to lower carbon usage in comparison to alternative methods of providing the same production capacity. This is achieved through focusing construction port facilities at the same location as the manufacturing sites. This reduces the need for transshipment of finished components to other ports and provides an environmental benefit by cutting CO₂ emissions from shipping that would otherwise arise from “double handling” by sea transport.
- 2.3.8 The way in which these carbon benefits will be achieved is set out in *Annex 6.2* of the ES.

3.1 INTRODUCTION

3.1.1 This section provides an overview and explanation of the parameters and constraints that will apply to those parts of the Project for which flexibility is required. It also sets out how variations have been taken into account in the assessment with respect to each of the environmental topics covered.

3.1.2 In taking account of these elements in the ES, the maximum, or worst case, potential adverse impacts of the Project have been assessed. In line with the general expectations of the IPC, Able has been careful to limit the potential range of options within the Project.

3.2 FLEXIBLE ELEMENTS OF THE PROJECT

Siting and Dimensions of Buildings

3.2.1 As described in *Chapter 4* of the ES, the particular mix of facilities that will locate to the site is not known with certainty at this stage. Accordingly, the application will seek to obtain a flexible consent that can respond to market demand. The main buildings on the AMEP site will, therefore, be subject to a maximum size. This is relevant to both the plan dimensions and the height to the building eaves.

3.2.2 With respect to the heavy component manufacturing park, these details are set out in *Table 4.1* of the ES, which shows the tallest building to be a maximum of 45 m (the foundation factory and associated paintshop) and the total aggregate area of the buildings to be a maximum of 150 000 m².

3.2.3 For the supply chain park, buildings will be lower, generally in the range of 6m to 15m high to eaves. The total floor area for this part of the site is expected to be 25 000 m².

3.2.4 *Figure 4.2* of the ES (the Indicative Site Plan) shows how these buildings are proposed to be distributed across the AMEP site. For each building location, the plan shows the limits of deviation for its siting. These limits demonstrate the level of variation that is to be permitted for the location of the building.

Details of Turbines

A range of installation vessels will use the quay to take on board marine energy components. In terms of their physical scale, offshore wind turbines are likely to be the largest components stored on the quay either partially complete or fully assembled. Whilst there will be five quays that may be used at any one time by OWT vessels, only some of the vessels using the facility are expected to be suitable for transporting fully assembled turbines. Accordingly, it is assumed that the maximum number of fully assembled turbines located on the quay at any time is twelve; that these are present in two groups of six and that the maximum height of these completed turbines is 165 m. The other quays will be occupied by partially assembled turbines comprising separate stacks of towers, blades and nacelles. Again it is assumed that no more than two other quays are fully prepared for loading at any one time.

3.3 ENVIRONMENTAL ISSUES ADDRESSED

3.3.1 For those elements of the Project where some level of flexibility is required in the design, it is not necessarily the case that all environmental issues will require a “worst case” approach in their assessment.

3.3.2 The table below indicates where flexibility has been provided for in the Project (and, therefore, where maximum/worst case scenarios need to be applied) and the environmental topics covered in the ES, to which this approach has been deemed to be most applicable.

Table 3.1 *General application of worst case assessment in the ES*

	Ch 7 Geology	Ch 8 Hydrodynamic	Ch 9 Water Quality	Ch 10 Aquatic Ecology	Ch 11 Ecology	Ch 12 Commercial Fisheries	Ch 13 Drainage	Ch 14 Navigation	Ch 15 Traffic	Ch 16 Noise	Ch 17 Air Quality	Ch 18 Archaeology	Ch 19 Light	Ch 20 L&V	Ch 21 Socio-economics	Ch 22 Aviation	Ch 23 Waste	Ch 24 Health
Floorspace and limits of deviation of buildings in the HCMP and SCP. Taken as					Y		Y			Y	Y		Y	Y				

	Ch 7 Geology	Ch 8 Hydrodynamic	Ch 9 Water Quality	Ch 10 Aquatic Ecology	Ch 11 Ecology	Ch 12 Commercial Fisheries	Ch 13 Drainage	Ch 14 Navigation	Ch 15 Traffic	Ch 16 Noise	Ch 17 Air Quality	Ch 18 Archaeology	Ch 19 Light	Ch 20 L&V	Ch 21 Socio-economics	Ch 22 Aviation	Ch 23 Waste	Ch 24 Health
maximum footprint, as shown on the Indicative Site Plan. Building heights in the HCMP and SCP. Taken as maximum shown on the Indicative Site Plan. Turbine heights on the quayside, [currently taken to be maximum of 165 m for L&V assessment]. Number of turbines stored vertically on the quayside, [currently taken to be a maximum of 12 distributed in two groups of 6].					Y					Y	Y		Y	Y				
				Y									Y	Y		Y		
					Y								Y	Y		Y		

3.3.3

Given the nature of the parameters, a number of environmental topics covered by the ES have involved reasonable worst-case assessments in order to undertake a robust assessment of the impacts of the Project, in line with IPC expectations.

- 3.3.4 The ecological assessment, for example, has taken potential Project variations into accounts, particularly in respect of building and component footprints and heights. Noise and air quality are also sensitive to changes in building location and activity. Lighting impacts are affected by height and size of structures.
- 3.3.5 In the case of the landscape and visual assessment in the ES, this has been based on the reasonable worst case physical form that could arise under the floorspace and massing parameters in order to understand the maximum impacts with respect to potential size and scale of the Project. The landscape and visual impact assessment has been assisted by visualisation/photomontages showing potential building massing permissible under the parameters.
- 3.3.6 There are a number of environmental topics that have not needed to refer to the parameters, and for which a worst case assessment for those elements of the Project is not generally required. In some cases, this is because alterations in the physical form of the main components of the site within the parameters proposed do not have a bearing on a particular topic.
- 3.3.7 In other cases (such as commercial fisheries), the topic is simply not affected by the components of the Project under consideration.

- 4.1.1 The AMEP site is divided into a number of “land parcels”, with parameters set to appropriate levels of development with respect to height and area. These parameters then provide an “envelope” for assessing the impacts of the scheme, taking into account the reasonable variations in the form of development that would be allowed, whilst still ensuring that the objectives of the scheme can be delivered.
- 4.1.2 This approach has its origins in the judgement of Justice Sullivan (R v Rochdale MBC ex parte Milne) in respect of the second Kingsway Business Park application. This recognised the need for applications to include sufficient information to link the development to specified parameters, which must be sufficiently well defined to be able to assess the likely significant environmental effects. The judgement indicates that it is possible to obtain permission for such projects, provided the application and permission link the project either to a specific layout or to parameters which will determine the specific layout and which can then be properly assessed in accordance with EIA requirements. The Indicative Site Plan in this ES sets out those parameters.
- 4.1.3 The AMEP Project has provided a description of the location, design and size of the scheme to allow its likely significant environmental effects to be assessed and to enable the IPC, statutory consultees and the public to make a properly informed response.
- 4.1.4 This annex describes the parameters plans and also refers to the Code of Construction Practice, which will ensure good practice in constructing the Project. It demonstrates the link between the environmental information provided in the ES and the description of the project in those areas where flexibility is provided.
- 4.1.5 The parameters are intended to ensure that the planning, design and environmental objectives of the scheme can be delivered, without constraining the Project unnecessarily. The ES takes account of the reasonable variations in the scheme that would be permissible under the parameters and principles and presents the likely significant effects of these where appropriate.