

## **Round 3 zone appraisal and planning**

**A strategic approach to zone design, project  
identification and consent**

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## Glossary of terms and abbreviations

This Zone Appraisal and Planning (ZAP) guidance refers to terms used in The Crown Estate Round 3 documentation and several other terms that are considered beneficial to the implementation of a strategic approach to zone development and consent, namely:

**Application:** A Project identified for consenting in the planning element of ZAP that is to be submitted to the Infrastructure Planning Commission (IPC) or Marine Scotland (MS). This may include onshore, grid connection, offshore cable route and within-Zone activities.

**Appropriate Assessment (AA):** An element of Habitats Regulations Assessment (see below).

**Cumulative Impacts:** Effects that arise from multiple wind farm development activities within a region or Zone on sensitive receptors.

**Cumulative Impact Assessment (CIA):** Designed to address cumulative impacts at a suitable scale e.g. Zone or Project specific. Actual study area will depend on nature of receptor and the extent of its interaction with the environment. If done at a Zone scale, it will support EIA and HRA obligations to undertake cumulative impacts assessment.

**Environmental Impact Assessment (EIA):** A process which identifies the environmental effects (both negative and positive) of development proposals in accordance with the requirements of the EU Environmental Impact Assessment Directive (as transposed into UK law through various sets of EIA regulations).

**Habitats Regulations Assessment (HRA) :** An assessment made by a competent authority under the Conservation (Natural Habitats etc) Regulations 1994 (SI 1994 No 2716) (the Habitats Regulations) and the Offshore Marine Conservation (Natural Habitats etc) Regulations 2007 (SI 2007 No. 1842) (the Offshore Habitats Regulations) of any significant effects on internationally important nature sites likely to arise from the proposals. These internationally important nature sites include Special Areas of Conservation (SAC) which have important habitat features, Special Protection Areas (SPAs) which relate to bird populations and Ramsar sites which are internationally important wetlands. These are often referred to as Natura 2000 sites.

**Infrastructure Planning Commission (IPC):** Is an independent body that decides applications for nationally significant infrastructure projects. These are large projects that support the economy and are vital public services, including railways, large wind farms, power stations, reservoirs, harbours, airports and sewage treatment works.

**In-combination Impacts:** Effects that arise from different industry sectors within the same region or Zone on sensitive receptors.

**Planning:** This is the public facing element of ZAP. It considers regulatory consentability of commercial aspirations through single and/or multiple application options, the legislative framework and delivery strategy.

**Project:** Is an offshore wind farm as defined under the Zone Development Agreement. It might comprise a 'package' of wind farm sites and/or a single site and may include onshore and grid connection components relevant to the Zone Development Envelope, but this is subject to a developers consenting strategy.

**Renewable Energy Zone (REZ):** The area of UK waters designated pursuant to Section 84 of the Energy Act 2004.

**Strategic Environmental Assessment (SEA):** in the context of this report, this refers to the offshore energy SEA which has been carried out by the Department of Energy and Climate Change.

**Site:** Wind farm site and/or sites identified for EIA.

**Zone:** The area of the sea bed (which may be within the territorial limits of the UK and/or within the Renewable Energy Zone (REZ)) demarcated by the The Crown Estate for wind farm development in Round 3. A distinction between the terms "Zone" and "Zone Development Envelope" is made to avoid confusion over "Zone" being adopted for wider use beyond that defined by The Crown Estate for Round 3. Further, please see definition of "Zone Development Envelope".

**Zone Appraisal:** This element considers the capacity of the Zone by looking at consenting (with a focus on environment constraints, Zone stakeholder consultation), construction, operation and connection and determines the associated optimised Zone layout for wind farms through a process of data collation and interrogation. Decisions made during this element are for internal processing and are confidential between the developer and The Crown Estate (owing to the commercially confidential nature of the information).

**Zone Appraisal and Planning (ZAP):** A framework intended to rationalise and balance the commercial aim of maximising development capacity aspirations with the practicalities of deliverability.

**Zone Characterisation (ZoC):** A broad description of the physical, biological, socio-economic and cultural heritage characteristics of the Zone at a resolution sufficient to support Zone layout and subsequent Project identification. This will not necessarily take the form of a tangible output, but reflects the increase in understanding of the zone over time.

**Zone Development Agreement (ZDA):** A contractual arrangement for Round 3 wind farm development between developer and The Crown Estate.

**Zone Development Envelope:** The area comprising all development associated with the Zone including: the Round 3 Zone (as defined by The Crown Estate), onshore grid connection corridors and infrastructure and offshore cable corridors. The involvement of OFTOs in the development of Round 3 sites means that the zone developer may not design and develop the transmission aspects of the projects themselves, but these will need to be considered in some form as part of the development of the zone as a whole.

## Purpose of this document

The purpose of this document is to assist Zone developers, statutory and non-statutory stakeholders and regulators achieve a better understanding of Zone Appraisal and Planning (ZAP). ZAP is a non-statutory strategic planning process which forms an important component of the strategic approach to the Round 3 offshore wind programme, and which is being advocated by The Crown Estate. An important objective of the Zone-based approach to offshore wind development in the UK is to allow Zone developers more control over the way a Zone is developed, and to give them the opportunity to address as many of the environmental and planning constraints as possible at a Zone level as part of the process of site development within the zones. ZAP is essentially an extension of the normal environmental and consenting site selection processes to the level of the Zone; as such there is no requirement for developers to produce documents or plans which are available to stakeholders. ZAP can be applied to single and/or multiple site development programmes as an intrinsic part of the site review and EIA process. In this context, Zones where a single windfarm site will be developed need not undertake ZAP as a separate process, although the principles of ZAP will be present in the approach to consenting the site.

ZAP in the context of offshore wind is a new process, and this document has been developed on the basis of a review of best practice. ZAP is not itself a regulatory requirement, nor does it remove the obligation for developers to obtain consent for their Projects through application to the Infrastructure Planning Commission (IPC) or Marine Scotland (MS), or replace the requirement for Environmental Impact Assessment (EIA) or Habitats Regulations Assessment (HRA). However, a well executed ZAP process should assist Zone developers in all these tasks. Through understanding environmental opportunities and constraints, early engagement with stakeholders and the opportunity to respond to environmental issues and stakeholder concerns within the Zone and Project Planning processes, it is anticipated that ZAP will facilitate the project consenting process.

The ZAP approach has a number of elements, which include:

- Understanding and managing development opportunities and constraints for the Zone;
- Iterative Zone Planning;
- Identifying and specifying Projects within the Zone Development Envelope (ZDE);
- Informing a consent strategy and a zone development programme; and
- Developing relationships with stakeholders and an appropriate engagement strategy.

It is anticipated that ZAP will assist developers to demonstrate to stakeholders and investors that a well considered approach to Zone design has been adopted to support identification of individual projects. Further, those activities most likely to have significant effects on the environment (and hence subject to assessment and stakeholder consultation before and during any formal pre-application stage) can be addressed appropriately in advance of consent applications being made. This is particularly pertinent in cases where there is a

possibility of significant cumulative and in-combination effects<sup>1</sup> arising from the development of multiple Projects within a Zone (or Zone Development Envelope).

### **Zone Developers**

It is recognised that many of the activities associated with the ZAP process will be familiar to developers through their experience in the Planning, consenting and commissioning of offshore wind farm projects. This document aims to draw these activities together within a more strategic (i.e. Zone-wide) setting, and to explore the advantages of adopting this approach. This document does not present a prescriptive methodology for undertaking ZAP, as it is recognised that individual developers will have different challenges within their Zones, and different approaches to solving these challenges. For developers, the main purpose of this document is to highlight the potential benefits of ZAP in the development of their Zones and, although ZAP can also assist with Project specific Planning, to encourage them to adopt a high level strategic (rather than Project-by-Project) approach to Planning and stakeholder engagement at Zone level.

Developers and their specialists are encouraged to refer to this document when preparing Applications for project consent to the IPC or MS, as it sets out the practical steps to Zone development and consent activities. ZAP is a tool to assist developers in complying with regulatory obligations and to facilitate information-sharing by adopting a more consistent approach to appraisal and reporting.

### **Stakeholders and Regulators**

One of the main objectives of the ZAP approach is to encourage early and ongoing stakeholder engagement, and (where appropriate) to allow stakeholders the opportunity to have a level of involvement in the decisions made during Zone development. ZAP will allow developers to explore and manage stakeholder concerns and possible environmental, social and economic effects (including cumulative and in-combination effects) at a Zone level as well as at a Project level. For this process to be fully effective, it is important for stakeholders to understand the context of the process in which they are engaged, and to appreciate the requirement for Zone-level consultation as well as Project-specific consultation. As part of the consenting process, it is also important for regulators to understand the Zone-level processes from which projects are identified and submitted for consent, and to appreciate the evidence base which supports and justifies the Project decisions made.

This document aims to provide stakeholders and regulators with an understanding of the type of process which developers are likely to be following in the development of their Zones (although it should be noted that the way in which developers choose to implement elements of ZAP may differ widely between Zones, and it will be important for developers to articulate elements of their methodology as part of the consultation and consenting process). It is hoped that by gaining an understanding of the ZAP process, stakeholders will be assisted to engage more effectively with Zone developers in Zone development

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<sup>1</sup> Definition of cumulative and in-combination impacts are provided in the glossary.

processes, and that they will understand how ZAP can support the consenting process to enable more consistent and transparent consenting outcomes for Projects.



## 1. Background to ZAP

The Crown Estate seeks to foster, encourage and support development in the UK offshore wind energy industry, and to further the UK Government's target of increased use of electricity produced from renewable energy resources in the UK.

The Crown Estate is the owner of virtually the entire seabed out to the 12 nautical mile territorial limit and owner of the rights to renewable energy generation within the UK Renewable Energy Zone<sup>2</sup> (REZ). Subject to the provisions of the Crown Estate Act 1961, The Crown Estate is responsible for identifying and leasing potential development areas to developers, in accordance with the requirements of statute law, Government policy and plans and associated Strategic Environmental Assessment (SEA) work. The Crown Estate takes its stewardship of the seabed and the rights it owns seriously, and seeks to ensure that commercial development within the marine estate is conducted in accordance with the principles of sustainable development.

In previous leasing rounds for offshore wind, including Rounds 1 and 2, developers bid for self-selected wind farm sites located within regions that, to a greater or lesser extent, were defined by The Crown Estate. By the end of 2009, these leasing rounds had yielded operational offshore wind farms with an installed capacity of approximately 1GW.

The lessons learned from Rounds 1 and 2 indicated that, if UK targets for offshore renewables are to be met by 2020, a different, more strategic approach to development had to be adopted in Round 3.

The Crown Estate elected therefore to identify Zones which its own strategic planning indicated supported considerable potential for wind farm development. Potential development partners were invited to submit proposals for the development of these Zones.

### 1.1 Commercial context

In 2008, The Crown Estate officially launched Round 3 by identifying nine Zones within and outside UK Territorial Waters for offshore wind development. A tender round followed, with bids submitted in March 2009. In December 2009, The Crown Estate signed Zone Development Agreements (ZDA) with developers. ZDAs are commercial agreements governing the relationship between developers and The Crown Estate, including the terms on which they will identify and develop Projects within each Round 3 Zone. These agreements will be reviewed periodically by The Crown Estate and developers, and in the case of programmes, annually.

Each of the ZDAs defines a nominal Zone target wind generation capacity for delivery by 2020. To realise these targets, immediate and ongoing Appraisal of capacity potential is

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<sup>2</sup> The Renewable Energy Zone (Designation of Area) Order 2004 designates the area of the REZ, an area of the sea, beyond the United Kingdom's territorial sea, which may be exploited for energy production. The REZ is co-extensive with the area within which the United Kingdom already exercises jurisdiction with respect to marine environmental matters, in accordance with Part XII of the United Nations Convention on the Law of the Sea. A map of the REZ is available at [www.ukho.gov.uk](http://www.ukho.gov.uk).

required by the developer. This needs to be undertaken through a process that balances consent, connection, operation and construction with developers' Zone wind generation targets.

A strategic approach can be used as a principal methodology for reviewing Zone level plans, programmes and milestones to achieve timely delivery of target Zone capacity.

## **1.2 Regulatory context**

A strategic approach will assist developers in optimising the capacity of a Zone and identifying and appraising potential wind farm sites therein. ZAP is not a formal requirement but is intended to facilitate the Planning of proposed projects and consenting strategies by providing a consistent approach. As such, it is recommended that the ZAP process be used as an industry standard in developing Round 3 proposals.

Any ZAP exercise undertaken by developers will assist them in complying with regulatory requirements but will not replace or remove their legal obligations to obtain consent for projects under the appropriate legislation, including the requirement for EIA. It should be noted that ZAP is intentionally designed to have no requirement for developers to produce documents or plans which are available to stakeholders.

A detailed review of the consenting strategies available for England and Wales, and those for Scotland, are discussed in Appendix A.

Under the Habitats Regulations and the Offshore Habitats Regulations, The Crown Estate as competent authority for the Round 3 Plan has undertaken a full HRA at a planning level, which included an Appropriate Assessment (AA) for those sites where likely significant effects could not be excluded at screening stage. The outcomes of the plan level HRA will need to be taken into consideration by developers as part of the process of Zone and project development, and over and above this requirement, the evolving nature of Zone development may result in the potential for projects to have effects on other European/Ramsar sites not originally identified during the plan level HRA. The process of ZAP does not remove the obligation for developers to take account of the planning level HRA in their Planning, and for competent authorities to assess the possible effects of Projects under the Habitats Regulations and Offshore Habitats Regulations. However, ZAP has the potential to inform and frame this process in the context of the Zone (or ZDE) as a whole. ZAP should help Zone developers to identify the European and Ramsar sites which could be affected by development in the Zone, and the interest features which are potentially sensitive to Zone development activities. This gives developers an awareness of the potential risks, and the ability to avoid or mitigate effects in the early stages of Zone and Project planning.

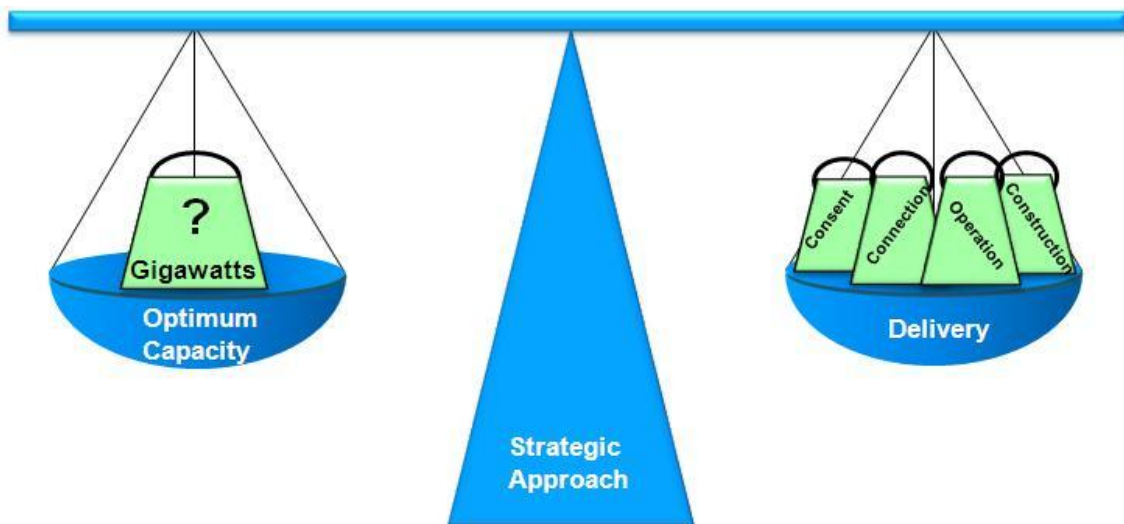
## **2. Need for a strategic approach**

In previous leasing rounds for offshore wind, an emerging issue has been the significant programme delays and increased costs faced by developers as a result of consenting

difficulties. The sequential consenting of multiple wind farms in an area by different and competing developers makes the consenting process progressively more complex for developers over time as the possibility of cumulative effects increases.

In Round 3, The Crown Estate has sought to reduce the risk of consenting delays by adopting a Zone approach to offshore wind development. In giving a single developer/development consortium control over the development of multiple Projects within a Zone, the developers have been given the ability to control and manage consenting at a strategic level.

This control extends beyond the ability of a developer simply to decide when and how individual Projects will be brought forward to consent. It allows the developer the opportunity to understand the nature of the Zone and to manage the consenting risks at a Zone-wide level, particularly in terms of cumulative and in-combination effects and obligations under the Round 3 planning level HRA. This strategic approach to Zone development, if managed correctly, should allow developers the opportunity to obtain timely consents for projects and meet their obligations for Zone development whilst ensuring the sustainable delivery of capacity within the Zone (or ZDE) as a whole. It should enable a balance to be struck between the commercial capacity of the Zone, the technical requirements of offshore wind development, and the environmental assessment and consenting process for projects (Figure 1).



**Figure 1: Balancing wind generation capacity with delivery**

The term ZAP has been introduced to describe this flexible and strategic approach. As described above, the ZAP approach is intended to apply to the process of Zone characterisation, Zone Planning, selection of sites, and Applications for consent within the framework of a strategic Zone-level overview. This process should be iterative, with

information about the Zone building up over time and helping to inform the ongoing process of Zone development to enable developers to:

- Apply a consistent and systematic approach to environmental and consenting processes for projects within a Zone (although ZAP methodologies may differ between Zones, the basic principles of ZAP will be broadly similar); and
- Conclude works as efficiently as practicable and with minimum impact to the environment or stakeholders by 2020.

### 3. Benefits of a strategic approach

Adopting a strategic approach in the development of Zones has a number of clear advantages:

- **Data collection and Zone knowledge** - improves the efficiency and robustness of data capture, storage, management and use within Zone and project development, and forms the base for understanding and managing the environmental constraints on the Zone through the Planning and consenting process for projects and on through to operation and decommissioning.
- **Zone Planning and optimisation** – through Zone-wide knowledge and understanding, a strategic approach allows the development of the optimum capacity within the Zone in balance with technical, consenting and commercial drivers;
- **Accountability** - provides opportunity for ongoing and periodic Appraisal and review of Zone capacity and associated layout, and an auditable record justifying the decision making processes for the development of the Zone;
- **Stakeholder engagement** - provides a mechanism for consistent, reliable and focused stakeholder engagement through a Zone level consultation strategy prior to Project-specific consultation activities. This places the interests of stakeholders and regulators into context when considering the numerous factors influencing Zone layout and development;
- **Management of environmental sensitivities and stakeholder concerns** - assists developers to understand the environmental sensitivities of the Zone, and to manage these effectively at Zone and project level in conjunction with input and advice from stakeholders (this process is an important part of Applications to the IPC/MS);
- **Management of consenting risk** - provides the basis for informing an effective and flexible consenting strategy for the Zone (or ZDE), considering the regulatory regime and environmental sensitivities;
- **Advantages for later projects** - as information about the Zone builds up over time, the developer has the opportunity to develop a more focused, efficient and

effective EIA strategy for later projects, building on the information which has been gathered for the zone and for previous projects;

- **IPC/MS application process** - demonstrates to stakeholders and regulators that a logical and auditable process has been applied the identification of Projects within the Zone (or ZDE), and places individual Projects into a Zone context for the consenting process; and
- **Assessment of cumulative and in-combination impacts** – provides opportunities to assess Zone scale impacts to inform early high-level decisions about optimum capacity of the Zone and later decisions in support of Project specific EIAs and HRAs.

#### 4. Components of a strategic approach

The initial stages of the strategic approach being advocated by The Crown Estate are likely to have been an intrinsic part of developers' pre-bid preparation and thinking regarding optimised Zone layout and development programmes. ZAP should be viewed as a continuation of this work.

The ZAP approach is an integration of the fundamental elements of a strategic Round 3 Zone development programme, maintaining a strategic overview of the Zone development which underpins the activities related to the development of individual Projects. The key activities within ZAP are:

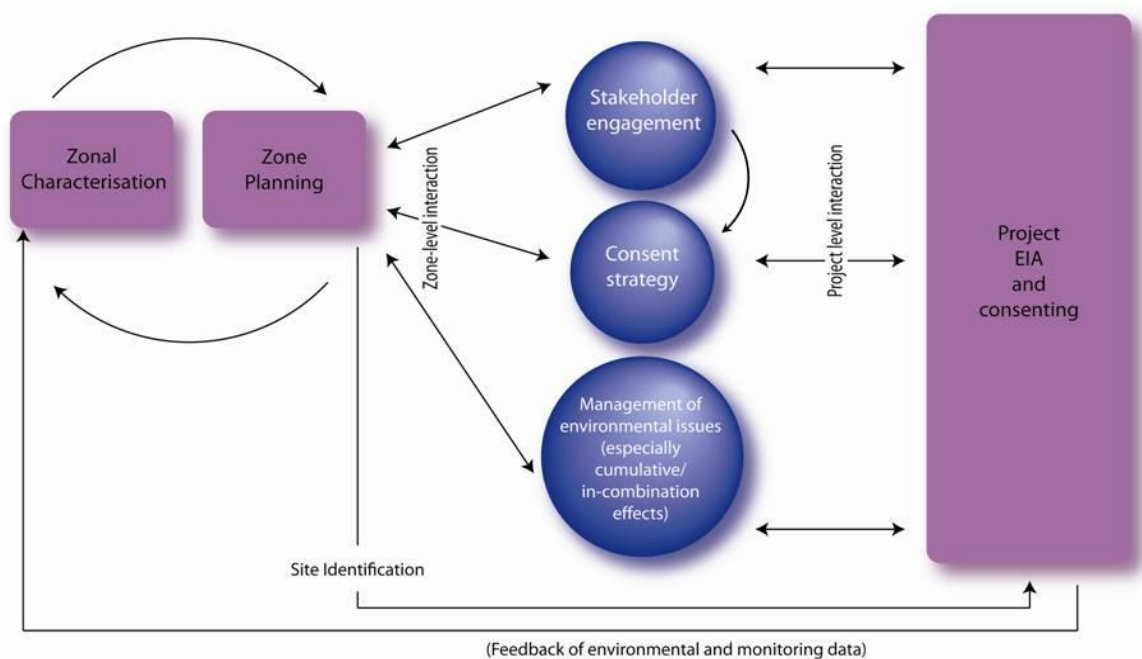
- Understanding and managing development opportunities and constraints for the Zone;
- Iterative and ongoing Zone Planning;
- Identifying and specifying Projects within the ZDE;
- Formulating a consent strategy;
- Developing a stakeholder engagement strategy; and
- Defining a development programme.

Whilst there is no formal requirement to undertake the ZAP process, and much of the Zone level learning will be incorporated directly into Project-level documentation, the common elements of work anticipated in Round 3 development strategies include:

- A GIS and data management strategy/policy;
- An initiative to broadly characterise and obtain baseline information for the environmental aspects of the Zone (physical, biological, socioeconomic);
- A method/protocol to adequately consider Zone cumulative and in-combination impacts;
- A process that identifies, integrates and balances the factors that influence wind farm development in a Zone to assist in Zone Planning;

- A risk-based model to identify and define Projects to take forward into EIA for IPC consent;
- Establishment of stakeholder relationships and development of an effective stakeholder engagement strategy for the Zone and subsequent Projects; and
- A Zone consenting strategy based on a thorough understanding of the Zone development opportunities and constraints.

The way in which these basic elements relate to each other and combine to form a strategic approach model is illustrated conceptually in Figure 2. These elements are not necessarily conducted sequentially. This provides opportunities for feedback between the various elements to ensure knowledge transfer is maintained and updates through the different stages of development. A consistent approach to monitoring and recording will further assist with information sharing as the development programme progresses.



**Figure 2: A Strategic Approach to Round 3 Development and Consent**

Each of the elements illustrated in Figure 2 is now addressed below.

## 4.1 Zone Characterisation

Zone Characterisation (ZoC) is essentially a high level description of the physical, biological and socioeconomic environment within and around a Round 3 Zone and the wider ZDE (where considered appropriate for the development programme). The resolution of ZoC could be lower than for an EIA baseline, but should be sufficient to provide developers with sufficient understanding to guide the way in which the zone is developed, as well as an identification of the main constraints on development and an understanding of the best way of managing these constraints.

ZoC comprises a number of elements which will vary in importance from Zone to Zone. It is anticipated that ZoC will be an ongoing process, with information from later stages of Zone development (and development of early Projects within the Zone) feeding back in to improve understanding of the Zone and to enhance the quality of onward Zone development decisions. ZoC is the process which informs and underpins Zone Planning and development. The main elements of ZoC are:

- Develop an understanding of the nature of the Zone in terms of its physical and biological environment and human activities. A full Zone ‘baseline’ is not necessarily the objective of ZoC, although elements of this Zone characterisation could support ‘baseline’ studies required for EIA;
- Translating this information into a clear understanding of the opportunities and constraints for Project development within the Zone, and therefore the most suitable areas for potential development; and
- In consultation with stakeholders, developing an understanding the consenting issues for the Zone (particularly in relation to HRA and the areas in which cumulative/in-combination effects may become significant).

### 4.1.1 Developing an understanding of the nature of the Zone

Developing a thorough ‘Zone level baseline’<sup>3</sup> is the first stage in making development decisions for a Zone and provides a means to guide the EIA scoping process for individual projects. The resolution of this baseline is not necessarily the same as that required for EIA, as its function is different; rather than being used to inform an impact assessment as part of the consenting process, the Zone level baseline is used to shape the way in which the Zone is developed, and is a platform for early identification of the likely constraints to Zone development. However, it is recognised that there may be cases where high resolution survey data for some receptors/topic areas could be collected during the Zone surveys to a level of detail appropriate for EIA.

An initial overview of the Zone is clearly required for Zone Planning; however, it is anticipated that the Zone level baseline would be developed over time, with information

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<sup>3</sup> ‘Zone level baseline’ is used here to reflect a broad or high-level baseline appropriate for the zone scale needs that may not necessarily have the level of detail typically associated with EIA baseline.

and data from later stages of Zone development feeding into the baseline, and helping to inform subsequent stages of Zone Planning. This ensures that Zone development decisions are always based on the best information available.

The Zone baseline is likely to be constructed initially using currently available data, information and datasets arising from stakeholder consultation, with input from Zone level survey work where this is necessary. Input from stakeholders at this stage will be important to ensure that data collection (and survey design where required) is appropriate to adequately characterise the Zone.

Rounds 1 and 2 have demonstrated that significant amounts of data are collected, stored and accessed continually to support the feasibility assessment, planning, consenting, designing, building and operating of offshore wind farms. In the longer term, these data will also be useful in Planning for the decommissioning of wind farm Projects, by capturing an understanding of the nature of the Zone environment before Projects are developed. ZoC should therefore include the development and management a GIS repository for data collected from field surveys and desk-based reviews for analysis and interpretation. Round 3 will see a marked increase in data capture and storage requirements, and developers are therefore encouraged to consider not only their own requirements but also any set out by the authorities (e.g. Maritime and Coastguard Agency survey protocols). Further information on data management, including the interface of Round 3 with The Crown Estate's Marine Resource System (MaRS), is provided in Appendix B.

#### **4.1.2 Understanding opportunities and constraints for development**

Using ZoC to identify key environmental and engineering constraints that influence development will be an important element to Planning the development of the Zone. The constraints logically comprise two groups:

- “Hard constraints” - areas within the Zone in which offshore wind farm development may be less favourable (e.g. oil and gas platforms, pipeline routes); and
- “Soft constraints” – areas within the Zone that have a degree of flexibility in their spatial footprint (e.g. helicopter or shipping route with appropriate markings).

In some cases, the spatial footprint of these constraints may be negotiated to accommodate development needs, but this would require further investigation and be assessed on a constraint-by-constraint basis with the relevant authorities and stakeholders.

Factors for which the Zone will have an overall carrying capacity – for example, although a wide area could potentially support turbines, when a certain number of turbines are reached there may be a detrimental environmental effect to a particular parameter (e.g. birds or marine mammals).



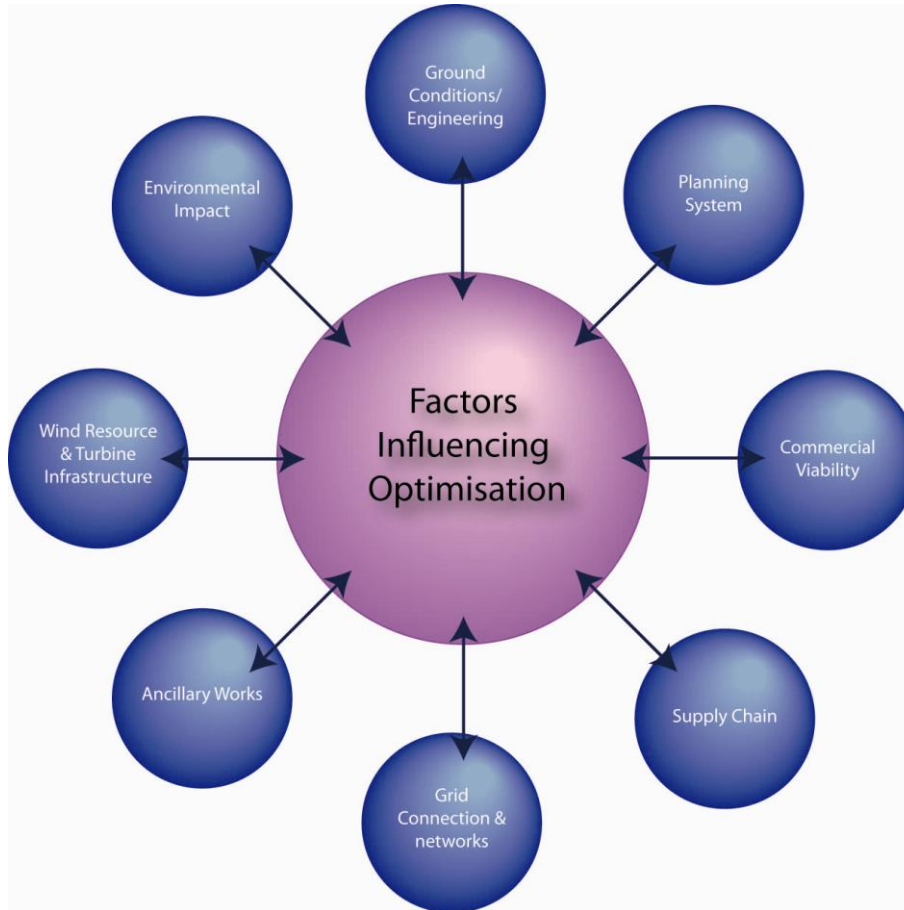
It is likely that Zone developers have already undertaken constraints mapping exercises (based on available data) to identify the potential capacity of Zones and the main environmental and stakeholder sensitivities within Zones. ZoC will build on this foundation by integrating additional data from Zone-scale survey work and incorporating information provided as part of Zone-level stakeholder engagement. This on-going process has value in Planning the Zone, identifying the most suitable sites for development, and in scoping environmental and stakeholder issues for these sites at a high level before the EIA process commences.

## 4.2 Understanding key consenting issues

An important outcome of ZoC should be a clear consenting strategy for the Zone and individual Projects, based on an understanding of the main consenting issues for the Zone derived from the ZoC process. In particular, an effective ZoC should allow the development of a detailed understanding of the potential cumulative and in-combination effects relevant to the Zone, allowing appropriate mitigation to be designed into the Zone development plans.

A broad understanding of Zone-wide cumulative effects issues should ideally be developed in conjunction with stakeholders before Projects are brought forward for consent; this would allow measures to reduce cumulative effects to be built into Project plans at an early stage. However, it is acknowledged that the level of detail regarding the potential for cumulative and in-combination effects will improve throughout the ZoC process as more information and data become available, and this improved understanding will feed into the Zone Planning and Project planning processes. This strategic level understanding of cumulative effects issues is essential if the sequential consenting issues experienced with wind farms elsewhere are to be avoided in Round 3. In some Zones, the level of development required within the 2020 timescale will mean that earlier Projects are brought forward for consent before the ZoC process is complete. Whilst this means that these projects will not benefit from the detailed understanding of zone-wide consenting issues, information from them can feed into the Zone strategy as a whole and benefit later Projects.

Through ZoC and consultation with relevant stakeholders, a developer should also develop a clear understanding of the outcomes of the Round 3 Plan level Habitats Regulations Assessment (HRA) for the Zone, and undertake a Zone scale review of possible effects on European and Ramsar sites in the light of emerging Project plans. This Zone-scale overview is an important step in understanding and reducing consenting risk for the Zone in terms of any required HRA at Project level, as it allows identification of the sites which may potentially be effected, allows a clear understanding of the Zone level cumulative and in-combination effects in relation to European and Ramsar sites, and allows the possibility for appropriate mitigation measures to be incorporated into Zone and Project planning processes.



**Figure 3: Basic factors influencing optimisation**

### 4.3 Zone Planning

Zone Planning in terms of the layout of wind farm Projects and their associated development (such as cable routes, onshore and/or offshore substations) within the ZDE is likely to be an iterative process. ZoC feeds into this exercise to identify candidate areas within a Zone with the potential for development; this view would be refined over time as more information becomes available for the Zone, and as learning from earlier Projects within the Zone is captured.

Optimising the way in which a Zone is developed is an important part of Zone Planning, and is an important factor in ensuring that the target zone capacity specified in the Zone Development Agreements is achieved. Developers will need to take a wide variety of physical, engineering and economic considerations into account in planning a Zone, as well as issues connected with environmental effects and consenting. Some of these are presented in Figure 3, although the way in which these factors interact in determining the layout of the Zone will depend on the location, size and environmental conditions within and around a Zone (i.e. physical, biological and socio-economic characteristics). The ZAP process is not designed to over-ride other considerations in the development of the zone, but it gives

developers an opportunity to identify and address as many of the environmental and planning constraints as possible at a strategic level during the process of Zone development, and to allow developers to adequately assess the relative significance and interrelationship of these factors.

#### 4.4 Site Selection

The iterative Zone Planning process, influenced by ongoing ZoC activities, will lead to the identification of specific wind farm Projects for submission to The Crown Estate for approval of Agreements for Lease, and subsequently submission of consenting Applications to the IPC or Marine Scotland.

Selection of project sites (including the locations of the wind turbines, cabling, onshore grid connection and additional infrastructure such as offshore substations) will be influenced by a number of physical, environmental, and socioeconomic considerations. However, the inclusion of cables routes in this aspect of planning needs to remain flexible given the current uncertainty in Offshore Transmission Owner (OFTO) involvement.

Approaches to site selection and the identification of projects are likely to be founded upon risk-based methodologies which will vary between Zones. Project identification requires a decision-making process that evaluates and understands the risks involved, by working from a transparent and robust evidence base which supports site selection and consideration of alternatives. ZoC can assist this process by providing an evidence base and giving a structure and a Zone wide context to facilitate site selection decisions and provide justification for them.

The ZoC process should also be instrumental in assisting to scope the key environmental issues for Project sites in advance of the EIA process for those sites, allowing Project plans to be developed in the most appropriate way, and giving an early opportunity for mitigation and avoidance measures to be built into the Project planning process. A successful approach to site selection should allow the developer to design and install the optimal set of Projects within the Zone, and to maximise generation while minimising environmental impacts and stakeholder concerns.

Given the timescale of Round 3, which has the aim of completing Zone development by 2020, developers will need to identify the first Projects efficiently and quickly. ZoC should help with this process of early site selection, although in some zones it may be necessary for the development of early Projects to run concurrently with the wider ZAP process for the Zone. Developers may refer to the Rochdale Envelope<sup>4</sup> approach when developing their

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<sup>4</sup> The Rochdale Envelope applies to planning applications rather than applications under the EA 1989 and they relate to the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988. However, the principals in the cases of R v Rochdale MBC Ex p. Milne (No. 1) and R v Rochdale MBC Ex p. Milne (No. 2) provide a degree of guidance as to what is expected from an ES.

consenting strategies for Projects, particularly where data coverage and resolution for the Zone may initially be low but will increase over time. Later stages of site selection will benefit from the increased level of Zone information available as the ZoC process continues, and may be more tightly defined.

#### 4.5 Consent strategy

Whilst each Project within a Zone will need to pass through the formal consenting system, there is a clear advantage for a developer to undertake work to inform a strategic Zone-wide consenting strategy to avoid the issues with sequential consenting of Projects which were experienced in previous leasing rounds for offshore wind.

A Zone consenting strategy is concerned with considering the degree to which commercial aspirations associated with the proposed Zone development can be met within the existing legislative framework. At a strategic level this includes taking into account the findings of the offshore energy SEA as well as the findings of the Round 3 Plan level Habitats Regulations Assessment (HRA). For both HRA and eventual Project EIAs, cumulative and in-combination effects will need to be taken into account, and this issue can also form a key part of the Zone consenting strategy.

Part of managing the consenting strategy for a Zone and for individual projects involves understanding the way in which Projects will be packaged for consent applications. Developers have a number of options available, including consenting groups or blocks of projects together, consenting Projects individually, or breaking a Project into separate elements for consenting. The stage at which Offshore Transmission Owners (OFTOs) are involved in the application process is also an important consideration within the strategy. Further information regarding the way in which Projects within Zones can be consented within the context of the IPC/MS is provided in Appendix A.

In addition to assisting in the identification of how and when Projects or groups of Projects should be brought forward for consent within the Zone, there are a number of clear advantages to using the ZAP process to developing a consenting strategy for a Zone. These include:

- Ensuring a thorough understanding of Zone-wide issues before individual consent Applications – this includes environmental and ‘other user’ issues as well as issues relating to HRA/Appropriate Assessment;
- The opportunity to proactively consider Zone-level avoidance or mitigation measures for known issues;
- The opportunity to develop a coherent strategy for the management of potential cumulative/in-combination effects in conjunction with key stakeholders;
- Sensitisation of stakeholders and relationship-building at a Zone level, and the ability to consult and identify their concerns before individual consent Applications are made; and
- Provision of a clear audit trail justifying the selection of individual projects.

At Project level, where consent Applications are made, there are also clear advantages where Projects have been identified by a strategic ZAP process. These include:

- A high-level understanding of the main opportunities and constraints on the development of a Project at the outset (i.e. avoidance of 'show-stopping' issues during the Planning and consenting process);
- The opportunity to make a Project more 'consentable' and/or the avoidance of consenting delays by proactively considering Project-level avoidance or mitigation measures for issues which were identified at Zone-level;
- The ability to demonstrate an effective strategy for the management of potential cumulative effects arising from development within the Zone;
- Sensitisation and buy-in of stakeholders to Project plans based on effective stakeholder engagement at Zone level (as well as at Project-level) and a thorough understanding of their concerns;
- The ability to demonstrate detailed and long-term stakeholder engagement, and to fully justify the selection of the site and the design of the Project in the context of the Zone; and
- The ability to place the Project within the wider Zone context and to provide a robust justification for the selection of the site and the consideration of alternatives.

#### **4.6 Zone cumulative and In-combination assessment**

Scoping of potential cumulative and in-combination issues early in the Zone development process is essential for both for the requirements of EIA and for HRA/AA, and is an important component in developing an effective consent strategy for the Zone. It is anticipated that this scoping can be undertaken through integration of developer experience, input from specialists and detailed engagement with key stakeholders. This process can be a component of the ZoC, and should include the use of existing available data and, where necessary, data collection campaigns as well as stakeholder engagement. Like ZoC, the assessment and management of cumulative and in-combination effects should ideally be a 'live' and ongoing process, incorporating information from EIA surveys and monitoring surveys of earlier Projects within the Zone, and including a high level of stakeholder involvement.

Assessment and management of cumulative and in-combination effects at a Zone level can usefully feed into both Zone Planning and Project Planning exercises, giving an opportunity to manage the issues through Zone and Project design. The ability to demonstrate detailed stakeholder engagement in the formulation of cumulative and in-combination effect management strategies on a Zone-wide level is likely to be an advantage in consent applications for individual Projects.

For the avoidance of doubt, this approach will inform and assist with the EIA exercise but is not intended to replace it. EIA requirements must be complied with separately as a matter of law.

#### 4.7 Zone stakeholder strategy

As discussed in the previous sections, stakeholder engagement is a core part of the ZAP process, feeding into each level of Zone and Project development. The development of effective and transparent working relationships with stakeholders is central to the developer's ability to achieve optimal Zone development.

Whilst engagement with key stakeholders will be important as part of ZAP, this need not necessarily extend to the wider stakeholder community for zone level consultation, and could form a continuation of the consultation process for individual projects within the Zone. It will not necessarily be the case that documentation of the ZAP process will be available for consultation, and Zone-level discussions with key stakeholders are more likely to take the form of meetings or small workshops. It may be inappropriate to place an unnecessary burden upon both stakeholders and developers at an early stage of the development process (which may result in consultation fatigue) particularly given the stakeholder engagement commitments already required as part of the the statutory EIA and consenting process.

Table 1 illustrates the ways in which an effective ZAP process can integrate with stakeholder engagement at each stage in Zone and project development.

The precise nature and timing of stakeholder engagement will vary depending on the Zone-specific issues and the Zone development strategy adopted by each developer. Stakeholder engagement requirements are well documented in MMO and IPC regulator websites (see for example, MMO website: [www.mfa.gov.uk/mmo/index.htm](http://www.mfa.gov.uk/mmo/index.htm) and IPC website: [www.infrastructure.independent.gov.uk.htm](http://www.infrastructure.independent.gov.uk.htm)).

**Table 1: Summary of ZAP elements and opportunities for engagement at Zone and Project specific level, blue shaded area being those items required by law.**

Description of elements	Engagement opportunities
<b>Zone Characterisation</b> - an iterative process informing Zone Planning processes.	
<ul style="list-style-type: none"> <li>• Zone characterisation (desk studies, surveys and data collection) with data management (GIS repository, metadata, analysis and interpretation).</li> <li>• Assessment of development constraints and opportunities.</li> <li>• Appraisal of Zone cumulative and in-combination effects to support Zone Planning decisions.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation to:               <ul style="list-style-type: none"> <li>➢ Identify existing data</li> <li>➢ Design surveys</li> <li>➢ Zone development approach</li> </ul> </li> <li>• Consultation to:               <ul style="list-style-type: none"> <li>➢ Identify Zone environmental issues</li> <li>➢ Identify stakeholder concerns</li> <li>➢ Identify the possibility of mitigation or avoidance measures</li> </ul> </li> <li>• Consultation to:               <ul style="list-style-type: none"> <li>➢ Gauge the scope of possible effects</li> <li>➢ Understand the implications for Zone and Project development</li> <li>➢ Explore management strategies</li> </ul> </li> </ul>
<b>Zone Planning</b> – an iterative process of Zone design, informing (and informed by) stakeholder engagement, consenting strategy and management of environmental effects, and resulting in the selection of sites for project development.	
<ul style="list-style-type: none"> <li>• Optimise Zone layouts (iterative review process).</li> <li>• Site identification and definition of project(s) for EIA (to be taken forward to pre-application)</li> <li>• Consents strategy (for Zone and projects).</li> <li>• Development of a stakeholder engagement strategy including template ‘statement of community consultation’. This is not an output for stakeholder consultation – rather an opportunity to formulate an approach.</li> <li>• Management of environmental issues (especially cumulative and in-combination effects).</li> </ul>	<ul style="list-style-type: none"> <li>• Internal discussions informed by stakeholder engagement; opportunity for stakeholders to be involved in shaping Zone decisions</li> <li>• Opportunity to involve and engage stakeholders during site selection, to take their concerns into consideration during project Planning, and to demonstrate this as part of any application to the IPC.</li> <li>• Identification of Zone-level issues</li> <li>• Identification of stakeholder groups; opportunity to engage at Zone level before projects are brought forward for consent, to build relationships, and to discuss the best methods for communication and engagement.</li> <li>• Opportunity to discuss mutually acceptable solutions with stakeholders and build these into Zone and project plans.</li> </ul>

Description of elements	Engagement opportunities
<p><b>Project EIA and Consenting</b> – This is the pre-application stage and involves consultation at Project-level as part of the EIA process (and as part of the IPC application process for Projects in England and Wales).</p>	
<ul style="list-style-type: none"> <li>• EIA screening and scoping.</li> <li>• Cumulative and in-combination assessment.</li> <li>• EIA and ES preparation.</li> <li>• Other IPC pre-application consultation if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation to agree: <ul style="list-style-type: none"> <li>➤ Scope</li> <li>➤ Survey methods</li> <li>➤ Assessment methods</li> </ul> </li> <li>• Formal consultation process.</li> <li>• Formal consultation process.</li> <li>• Formal consultation process.</li> </ul>

There are a number of ways in which stakeholder engagement can work as a two-way partnership to assist development of a Zone, and these are summarised below.

#### 4.8 Information exchange

Stakeholders are a key part to accessing data and/or local experience of the Zone. This knowledge base will be invaluable to the processes of ZoC and Zone Planning. Some stakeholders (such as the Statutory Nature Conservation Agencies) can provide expert advice and guidance in relation to issues such as Habitats Regulations Assessment and the wider assessment of cumulative/in-combination effects.

Early and ongoing engagement between stakeholders and developers is beneficial to early identification of environmental and consenting issues for the Zone, and in the identification of ways in which Zone development can benefit the stakeholder community. A well controlled two-way flow of information as Zone development progresses is likely to help foster good developer-stakeholder relationships which will be instrumental in delivering timely consents for projects within the Zone whilst balancing environmental and developer constraints.

#### 4.9 Stakeholder participation

It is important to remember that the strategic ZAP approach is iterative, and can provide ongoing opportunities for stakeholders to input to the various stages of development, in addition to their statutory input as part of EIA (and possibly HRA). Stakeholders informed of the progress of Zone development may provide insight to stakeholder perceptions of economic, environmental and social impacts and so improve the developers' ability to understand, mitigate and eliminate conflicts and risks. In this way, stakeholders have a level of input to the Planning of the Zone.



A summary of key stakeholders, communication objectives and the types of information which could be shared during Zone and Project level engagement are provided in Table 2. The identification of opportunities to engage allows concerns of stakeholders whose activities or interests are adversely affected by the developers' plans within the Zone to be taken into account at a pre-consent stage. This can facilitate the identification of mutually acceptable solutions to avoid unnecessary conflicts.

#### 4.10 EIA and consent determination

Detailed engagement of stakeholders at Zone level during ZAP ensures that by the time Projects are submitted for consent the stakeholder community is well defined, and their aims and objectives are clearly defined and understood. This will be instrumental in the development of robust stakeholder engagement plans and strategies for Projects and on-going ZAP stages.

The involvement of stakeholders and the incorporation of their concerns at Zone level are likely to reduce consenting delays by ensuring early awareness of the Projects and by giving the developer the ability to address issues proactively through Project design.

The demonstration of early, structured and ongoing stakeholder engagement is requirement for IPC/MS Applications, and the engagement of stakeholders at Zone level (and the documentation of this engagement) will be a useful part of the application process.

##### **Table 2: Summary of information requirements by stakeholders and developers**

There are a number of objectives which are common across engagement between developers and all stakeholders. These are:

- Developing a common understanding of the strategy for site identification;
- Identifying and agreeing the most relevant and up-to-date guidance;
- Understanding stakeholder engagement preferences;
- Identifying any opportunities for collaboration;
- Identifying available data to inform Project infrastructure location;
- Identification of survey and construction techniques to be used; and
- Stakeholder requirements (information, data format, additional features).

In addition to these, there are some considerations which are more specific to interactions between developers and specific stakeholder groups, and these are outlined in the table below.

Issues	Key Stakeholders	Overall Concerns of Key Stakeholders	Specific requirements
<b>Shipping &amp; Navigation</b>	<ul style="list-style-type: none"> <li>▪ Maritime and Coastguard Agency</li> <li>▪ Trinity House/ Northern Lighthouse Board</li> <li>▪ Chamber of Shipping</li> <li>▪ Ministry of Defence (MoD)</li> <li>▪ Royal Yachting Association and Cruising Association</li> <li>▪ Local port authorities</li> <li>▪ Local coastguard stations and Royal National Lifeboat Institution</li> </ul>	<ul style="list-style-type: none"> <li>▪ Navigational safety</li> <li>▪ Compliance with MGN371, including Shipping Template (distances to recognised shipping routes)</li> <li>▪ Commercial implications for shipping and local ports</li> <li>▪ Impact on MoD exercise areas and submarine routes</li> <li>▪ Integrity of cables</li> <li>▪ Safety of recreational users</li> <li>▪ Disruption to recreational uses</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify potential constraints on site location and spacing, including, for example, existing navigation routes and hazard areas</li> <li>▪ Understand requirements for maintaining navigational safety and likely search and rescue requirements</li> <li>▪ Identify any potential changes to existing maritime routes/practices that could arise from the proposed development of the Zone</li> <li>▪ Discuss cable routing options, particularly in relation to port operations</li> <li>▪ Identify any relevant existing data on vessel usage and agree survey/data collection protocols</li> <li>▪ Explain likely programme of activities</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Fisheries</b>	<ul style="list-style-type: none"> <li>▪ Marine and Fisheries Agency</li> <li>▪ Marine Management Organisation</li> <li>▪ National Federation of Fishermen's Organisations/Scottish Fisheries Federation</li> <li>▪ Association of Sea Fisheries Committees</li> <li>▪ Local fishing associations</li> <li>▪ Inshore Fisheries and Conservation Authorities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fisheries management</li> <li>▪ Represent fishing organisations and therefore ensure a sustainable fishing industry</li> <li>▪ Represent sea fisheries committees which manage fisheries within 6nm</li> <li>▪ Maintain level of commercial fishing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establish appropriate data collection protocols</li> <li>▪ Establish amount and location of activity within Zone</li> <li>▪ Understand techniques used</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Aviation</b>	<ul style="list-style-type: none"> <li>▪ National Air Traffic Service</li> <li>▪ Civil Aviation Authority</li> <li>▪ MoD, including specific RAF stations</li> <li>▪ Local airports</li> </ul>	<ul style="list-style-type: none"> <li>▪ Aviation safety</li> <li>▪ Aviation regulator, including aviation safety and route planning</li> <li>▪ Maintain defence network, key routes and exercise areas</li> <li>▪ Ensure safe approach and transit for air traffic</li> </ul>	<ul style="list-style-type: none"> <li>▪ Understand potential interference with radar systems</li> <li>▪ Address potential conflicts and mitigation requirements</li> <li>▪ Identification of 'no-go' areas</li> <li>▪ Potential disruption to existing routes</li> </ul>
<b>Military</b>	<ul style="list-style-type: none"> <li>▪ MoD</li> <li>▪ Defence Estates</li> </ul>	<ul style="list-style-type: none"> <li>▪ Maintain defence network</li> <li>▪ Manage military estate</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential interference with systems, exercise areas or routes</li> <li>▪ Address potential conflicts and mitigation</li> <li>▪ Identification of 'no-go' areas</li> </ul>

Issues	Key Stakeholders	Overall Concerns of Key Stakeholders	Specific requirements
<b>Safety &amp; Security</b>	<ul style="list-style-type: none"> <li>▪ The Health and Safety Executive</li> <li>▪ The relevant police authorities</li> <li>▪ The relevant fire and rescue authorities</li> <li>▪ The relevant local resilience forum</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bring energy structures in territorial seas within the scope of The Health and Safety at Work and ensure a consistent approach to onshore and offshore wind farms</li> <li>▪ Ensure that all parts of offshore installations are within the scope of appropriate health and safety legislation.</li> <li>▪ Addressing territorial issues of safety and security</li> <li>▪ Addressing territorial issues of safety and security</li> <li>▪ Prepare for, respond to and recover from emergencies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey and construction techniques to be used</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Archaeology</b>	<ul style="list-style-type: none"> <li>▪ English Heritage</li> <li>▪ Walsh Assembly Historical Environment Service</li> <li>▪ Scottish Natural Heritage</li> <li>▪ Local council</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect and promote the historic environment, and increase understanding of past</li> <li>▪ Protect local heritage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey and construction techniques to be used</li> <li>▪ Identify relevant local policies</li> <li>▪ Establish and agree survey/data collection protocols</li> <li>▪ Understand techniques used</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Landscape &amp; Seascape</b>	<ul style="list-style-type: none"> <li>▪ Local council</li> <li>▪ Natural England</li> <li>▪ Scottish Natural Heritage</li> <li>▪ Countryside Council for Wales</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect community interests</li> </ul>	<ul style="list-style-type: none"> <li>▪ Understand the scale of proposed projects</li> <li>▪ Understand development programme</li> <li>▪ Advice on suitable viewpoint locations (cumulative/Zone related view points)</li> <li>▪ Agreement on data collection and analysis techniques</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Designations</b>	<ul style="list-style-type: none"> <li>▪ Joint Nature Conservation Committee</li> <li>▪ Natural England</li> <li>▪ Countryside Council for Wales</li> <li>▪ Marine Scotland</li> <li>▪ The Equality and Human Rights Commission</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests outside 12nm</li> <li>▪ Adviser to government</li> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests offshore within 12nm and onshore</li> <li>▪ Adviser to government</li> <li>▪ Providing advice and guidance to stakeholders and government, and development of effective legislation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consideration of sensitive habitats and species</li> <li>▪ Explain likely programme of activities</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>

Issues	Key Stakeholders	Overall Concerns of Key Stakeholders	Specific requirements
<b>Ornithology</b>	<ul style="list-style-type: none"> <li>▪ Joint Nature Conservation Committee</li> <li>▪ Natural England</li> <li>▪ Countryside Council for Wales</li> <li>▪ Marine Scotland</li> <li>▪ Scottish Natural Heritage</li> <li>▪ The Royal Society for the Protection of Birds</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests outside 12nm</li> <li>▪ Adviser to government</li> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests offshore within 12nm and onshore</li> <li>▪ Adviser to government</li> <li>▪ Protection of birds</li> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests outside 12nm</li> <li>▪ Adviser to government</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consideration of bird populations</li> <li>▪ Consideration of sensitive habitats and species</li> <li>▪ Explain likely programme of activities</li> <li>▪ Establish and agree survey/data collection protocols</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Marine mammals</b>	<ul style="list-style-type: none"> <li>▪ Joint Nature Conservation Committee</li> <li>▪ Natural England</li> <li>▪ Countryside Council for Wales</li> <li>▪ Marine Scotland</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests offshore within 12nm and onshore</li> <li>▪ Adviser to government</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consideration of mammal populations</li> <li>▪ Consideration of sensitive habitats and species</li> <li>▪ Explain likely programme of activities</li> <li>▪ Establish and agree survey/data collection protocols</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Ecology</b>	<ul style="list-style-type: none"> <li>▪ Joint Nature Conservation Committee</li> <li>▪ Natural England</li> <li>▪ Countryside Council for Wales</li> <li>▪ Marine Scotland</li> <li>▪ Centre for Environment, Fisheries &amp; Aquaculture Science</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests outside 12nm</li> <li>▪ Adviser to government</li> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests offshore within 12nm and onshore</li> <li>▪ Adviser to government</li> <li>▪ Maintain sustainable and healthy marine environment. Scientific adviser to government departments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consideration of ecological features</li> <li>▪ Consideration of sensitive habitats and species</li> <li>▪ Explain likely programme of activities</li> <li>▪ Establish and agree survey/data collection protocols</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>

Issues	Key Stakeholders	Overall Concerns of Key Stakeholders	Specific requirements
<b>Seabed characteristics</b>	<ul style="list-style-type: none"> <li>▪ Joint Nature Conservation Committee</li> <li>▪ Natural England</li> <li>▪ Countryside Council for Wales</li> <li>▪ Marine Scotland</li> <li>▪ Centre for Environment, Fisheries &amp; Aquaculture Science</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect sensitive habitats and species, conserve geological features and uphold UK and European legislation</li> <li>▪ Interests outside 12nm</li> <li>▪ Adviser to government</li> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests offshore within 12nm and onshore</li> <li>▪ Adviser to government</li> <li>▪ Maintain sustainable and healthy marine environment. Scientific adviser to government departments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consideration of benthic communities</li> <li>▪ Consideration of sensitive habitats and species</li> <li>▪ Explain likely programme of activities</li> <li>▪ Establish and agree survey/data collection protocols</li> <li>▪ Identification of sensitive or mobile seabed areas</li> <li>▪ Survey and construction techniques to be used</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Physical processes</b>	<ul style="list-style-type: none"> <li>▪ Joint Nature Conservation Committee</li> <li>▪ Natural England</li> <li>▪ Countryside Council for Wales</li> <li>▪ Marine Scotland</li> <li>▪ Centre for Environment, Fisheries &amp; Aquaculture Science</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect sensitive habitats and species, conserve geological features and uphold UK and European legislation</li> <li>▪ Interests outside 12nm</li> <li>▪ Adviser to government</li> <li>▪ Protect sensitive habitats and species, and uphold UK and European legislation</li> <li>▪ Interests offshore within 12nm and onshore</li> <li>▪ Adviser to government</li> <li>▪ Maintain sustainable and healthy marine environment. Scientific adviser to government departments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consideration of local coastal and subtidal sediment processes</li> <li>▪ Identify available data</li> <li>▪ Explain likely programme of activities</li> <li>▪ Establish and agree survey/data collection protocols</li> <li>▪ Identification of sensitive or mobile seabed areas</li> <li>▪ Survey and construction techniques to be used</li> <li>▪ Process of understanding physical regime (waves, currents, sediment transport)</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Oil &amp; gas</b>	<ul style="list-style-type: none"> <li>▪ UK Offshore Operators Association</li> <li>▪ DECC Energy Development Unit</li> <li>▪ Oil and Gas UK</li> <li>▪ Oil and Gas Licence Holders</li> </ul>	<ul style="list-style-type: none"> <li>▪ Administration of Oil and Gas Licenses and Consenting Authority for all activities</li> <li>▪ Oil and gas trade association</li> <li>▪ Owners and Operators of Licenses</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explain and exchange likely programme of activities</li> <li>▪ Identify conflicts of interest</li> <li>▪ Identify potential area affected by development</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>
<b>Aggregates</b>	<ul style="list-style-type: none"> <li>▪ British Marine Aggregate Producers Association</li> </ul>	<ul style="list-style-type: none"> <li>▪ Marine aggregates trade association</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explain likely programme of activities</li> <li>▪ Identify conflicts of interest</li> <li>▪ Discuss mutually acceptable solutions to issues where necessary</li> </ul>

Issues	Key Stakeholders	Overall Concerns of Key Stakeholders	Specific requirements
<b>Cables</b>	<ul style="list-style-type: none"> <li>▪ UK Cable Protection Committee</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect cable installations</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explain likely programme of activities</li> <li>▪ Identify conflicts of interest</li> <li>▪ Advice on suitable techniques for cable crossings</li> </ul>
<b>Socio-economics</b>	<ul style="list-style-type: none"> <li>▪ Local council</li> <li>▪ The Commission for Sustainable Development</li> <li>▪ The relevant Regional Development Agencies</li> <li>▪ The relevant parish council</li> <li>▪ The Commission for Architecture and the Built Environment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Promote local business opportunities and encourage local industry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify opportunities for industry</li> <li>▪ Understand development programme</li> <li>▪ Explain likely programme of activities</li> <li>▪ Identify conflicts of interest</li> <li>▪ Opportunities for collaboration with local industry/ports</li> <li>▪ Address potential conflicts and mitigation</li> <li>▪ Identification of 'no-go' areas</li> </ul>
<b>Trans-boundary issues</b>	<ul style="list-style-type: none"> <li>▪ Dependent on location</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consult with The Crown Estate for advice on who to contact</li> </ul>	<ul style="list-style-type: none"> <li>▪ Purpose of consultation as above for transnational stakeholder groups.</li> </ul>

## 5. Concluding remarks

In previous leasing rounds for offshore wind, developers were faced with significant programme delays and increased costs as a result of consenting difficulties. To reduce the risk of this within the Round 3 programme, The Crown Estate is encouraging the use of the ZAP process to assist developers in understand and harnessing the development opportunities offered by their r Zone and to manage the consenting risks at a Zone-wide level, particularly in terms of cumulative and in-combination effects and obligations under the Round 3 planning level HRA.

ZAP is not a statutory requirement - it simply encapsulates many of the Zone development activities in which developers will already be engaged; it is based on Zone development strategies proposed by developers across all nine Zones, and recognises that developers are already engaged in a strategic approach to Zone development and consenting.

ZAP provides an opportunity for developers to rationalise and control Zone design, Project identification and consent by addressing as many of the environmental and Planning constraints as possible with statutory and non-statutory stakeholders at a strategic level.

If managed correctly, ZAP should allow developers the opportunity to obtain timely consents for Projects and meet their obligations for Zone development whilst ensuring the sustainable delivery of capacity within the Zone as a whole. It should enable a balance to be struck between the commercial capacity of the Zone, the technical requirements of offshore wind development, and the environmental assessment and consenting process for Projects.

ZAP is sufficiently flexible to accommodate variations between individual Zones and their associated activities within the ZDE whilst at the same time ensuring a broadly consistent and systematic approach to Round 3 development and consent. It is not a linear process as information about the Zone will build up over time to inform an ongoing and iterative process of Zone Development, Appraisal and Planning.

## Appendix A

### Project consenting strategy options

This Appendix summarise the main options available for consenting proposed Project can be consented within the existing legislative framework.

#### Consenting options for Round 3 Projects in England and Wales

There are a number of options available for consenting within England and Wales (Figure A1). The diagram below is further explained in the Note references which follow.

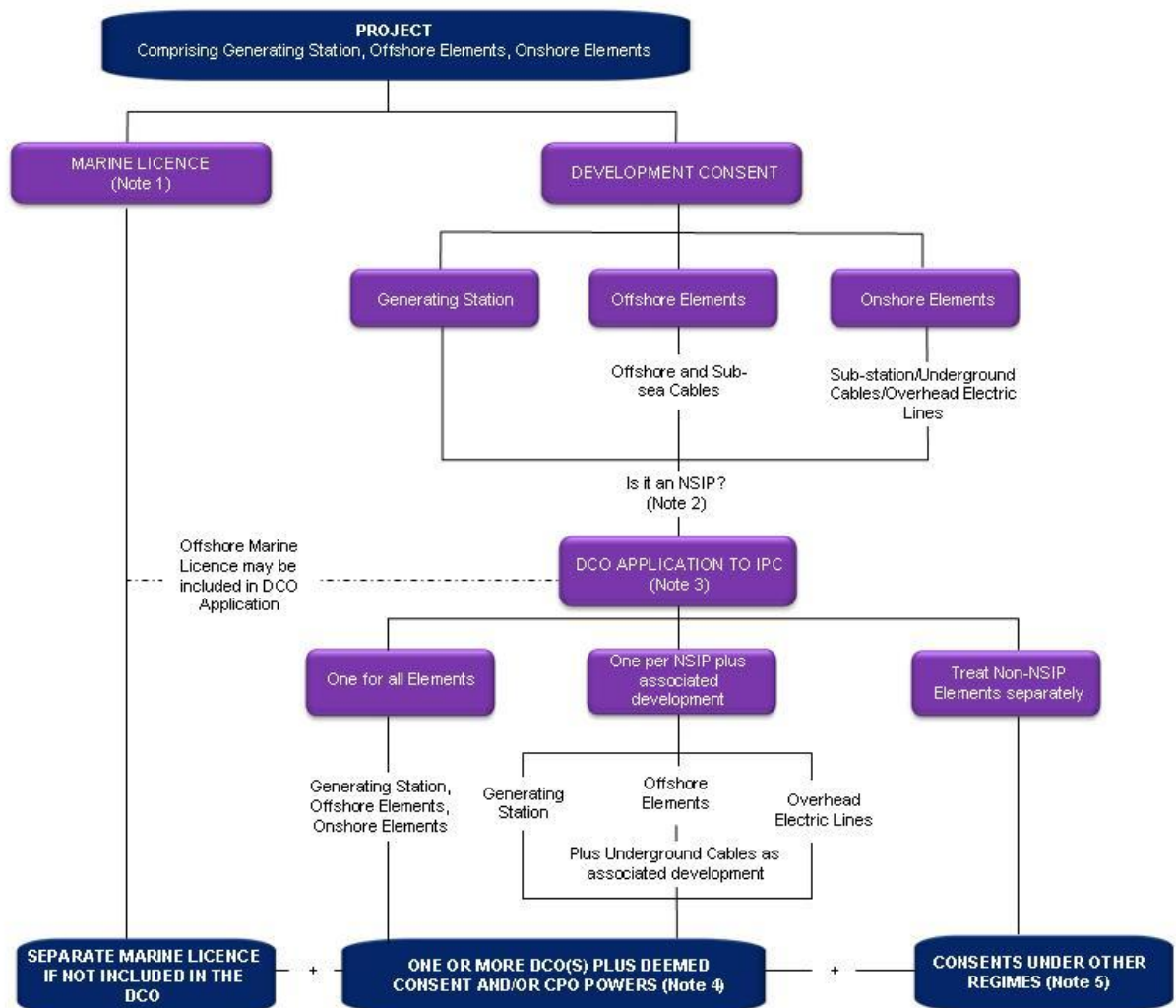


Figure A1: Consenting strategy options in England and Wales



**Note 1:**

The current regime regulating activities in the marine environment requires, where necessary, a licence under the Food and Environment Protection Act 1985 (FEPA) and/or a consent under the Coast Protection Act 1989 (CPA). This is set to change once the Marine and Coastal Access Act 2009 is in full force and effect, when a Marine Licence administered by the MMO) will consolidate the existing regime and replace the consents required under FEPA and CPA with a single licence covering the same matters. A Marine Licence may be sought as part of an application for a Development Consent Order (DCO) to the IPC for "Nationally Significant Infrastructure Project "(NSIPs).

**Note 2:**

Section 14 of the Planning Act 2008 sets out the types of development which will constitute a NSIP, and which include offshore generating stations with a generating capacity of 100+ MW and above-ground electric lines with a nominal voltage of 132+ kV.

**Note 3:**

Applications for a DCO are made to the IPC in accordance with the Infrastructure Planning (Applications and Procedure) Regulations 2009. DCO applications should include a draft of the DCO for which consent is sought. The draft DCO should include the provisions set out in the Infrastructure Planning (Model Provisions) Order 2009 and all other elements, such as additional consents under other regimes, required to carry out the Project. These might include, for example, FEPA licences, CPA consents (or a Marine Licence) and compulsory purchase powers. Where granted under DCO, the requirement to obtain these consents is discharged.

**Note 4:**

A DCO may be applied for and granted in relation to one NSIP or multiple NSIPs, along with development that corresponds to the NSIP known as "associated development" under Section 115 of the Planning Act 2008.

Guidance published by the DCLG on 8 September 2009 describes "associated development" as development that "is actually an integral part of the NSIP" although it may be physically separate from it. The IPC can only consider associated development in conjunction with a NSIP application and will have no power to consider a separate application unless it is for a NSIP in its own right.

The IPC has expressed a preference for a single application to cover as much of a given proposal as possible but the regime allows some flexibility where commercial considerations dictate separate applications would be desirable. Consideration should be given to offshore and onshore assets to be transferred to the Offshore Transmission Operator (OFTO) and also onshore infrastructure, which would normally be consented and constructed by the Onshore Transmission Owner. Transfer of DCOs in whole or in part is contemplated in Section 5 Infrastructure Planning (Model Provisions) (England and Wales) Order 2009. Where a single application is proposed, thought must be given to the way in which elements of the DCO

may be transferred for implementation by the OFTO or possibly the Onshore Transmission Operator and the conditions applying to that element of the Order.

Taking the example of an offshore wind farm with 100+MW capacity to be connected to the onshore grid by cables that run both underground and above ground, the following possible applications could be made:

- For the NSIPs - either one DCO application to cover both the offshore generating station and above ground electric line, each of which may constitute a NSIP in its own right under Section 14 of the Planning Act 2008, or one DCO application for each of the offshore generating station and above ground line.
- For the underground cabling – this is not a NSIP and so can only be considered by the IPC if it qualifies as Associated Development. If so, the IPC can permit it in conjunction with either the single DCO application (where one application is used for both NSIPs) or with the DCO application for the NSIP to which it is considered most closely to relate (where two separate applications are used for each NSIP).

**Note 5:**

There will be ample opportunity to confirm the appropriateness of the chosen consenting strategy and other issues, such as phased implementation, with the IPC and interested parties during pre-application discussions and the extensive consultation process required. Where a DCO is granted, consent for the NSIP under the alternative consenting regimes provided by the Town and Country Planning Act 1990, Electricity Act 1989 or Transport and Works Act 1992 (in relation to Welsh generating stations) is not required. Where proposals do not constitute NSIPs, these alternative consenting regimes will continue to apply in the usual way.

### Consenting options for Round 3 Projects in Scotland

There are a number of options available for consenting in Scotland (Figure A2). The diagram below is further explained in the Note references which follow.

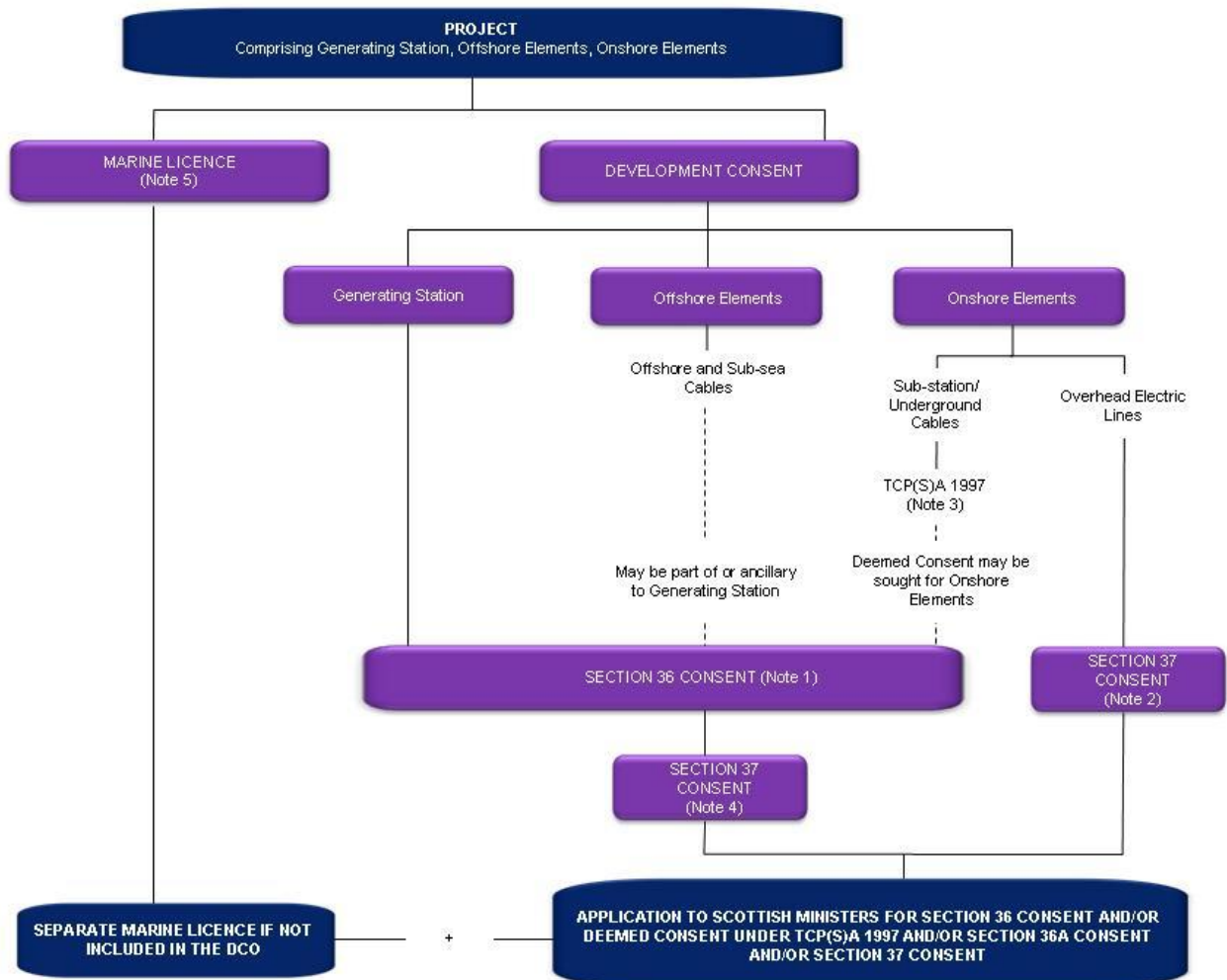
**Note 1:**

Under Section 36 of the Electricity Act 1989 and the Electricity Act 1989 (Requirement of Consent for Offshore Generating Stations) (Scotland) Order 2002, consent (Section 36 Consent) is required from the Scottish Ministers to construct and operate an offshore generating station with a capacity of 1+ MW which is located in Scottish Territorial Waters (STW) or the UK REZ insofar as within the consenting jurisdiction of the Scottish Ministers.

In the context of a typical offshore wind farm Project comprising an offshore generating station, offshore elements (such as offshore substations and sub-sea cables) and onshore elements (such as underground cables, overhead electric lines and substations), Section 36 Consent technically only applies to the generating station.

Offshore elements may constitute "ancillary development" for which consent can also be sought under the Section 36 application.

Similarly, a request may be made under the Section 36 application for deemed planning consent under Section 57 of the Town and Country Planning (Scotland) Act 1997 TCP(S)A for onshore elements, with the exception of overhead lines, or such onshore elements may be consented separately under the TCP(S)A.



**Figure A2: Sample flowchart for consenting strategy options in Scotland**

Deemed planning consents under Section 36 Electricity Act 1989 are planning permissions for the purposes of the TCP(S)A although the process by which they are obtained differs. All planning permissions attach to the land and so any person is capable of implementing them, subject to their having the requisite private rights to do so on that land and to any conditions attaching to the planning permission, Section 36 Consent and Marine Licence (Further, see Note 5, below).

**Note 2:**

Overhead lines are consented under Section 37 of the Electricity Act 1989 (Section 37 Consent).

**Note 3:**

Consideration should be given to offshore and onshore assets to be transferred to the Offshore Transmission Owner (OFTO). Once granted, a Section 36 consent can be transferred in its entirety to another person, subject to consent from the regulator. However, it cannot be subdivided such that parts of the project to which it relates are separated and transferred to different parties. As such, any substations and export cables portions of a Section 36 Consented development cannot be transferred to an OFTO whilst the Developer retains the parts of the consent relating to the offshore assets.

Conditions attaching to the Section 36 Consent should be intended for implementation by the wind farm developer rather than the OFTO. Conditions attaching to a deemed Planning consent for onshore elements will be implemented by whoever implements the Planning consent. In practice this may be the OFTO or possibly the Onshore Transmission Owner.

**Note 4:**

In addition to and at the same time as applying for Section 36 Consent, a developer may apply for consent under Section 36A of the Electricity Act 1989 (Section 36A Consent) for a declaration suspending or extinguishing rights of navigation in the area in which the Project is situated, to enable its construction and operation. This may be used in preference to Section 34 of the CPA under which consent may be sought to interfere with (but not extinguish) navigation rights. A declaration under Section 36A may be applied for only in conjunction with a Section 36 Application.

**Note 5:**

In addition to obtaining consent to build and operate the Project, separate marine consents are required for activities affecting the marine environment. Under the existing regime, consent is required under the FEPA and, where Section 36A consent is not included with a Section 36 Consent, consent to interfere with navigation rights may be sought under the CPA.

Once the Marine Scotland Act 2010 is in force, a Marine Licence administered by Marine Scotland will consolidate the existing regime and replace the consents required under FEPA and CPA with a single licence covering the same matters.

## Appendix B

### Data management for ZAP

This appendix contains general information on data management standards for ZAP in Section 1. Section 2 contains MaRS guidance note 001 which sets out the data standards required for The Crown Estate's MaRS tool. Round 3 developers will have the opportunity to interact with MaRS as part of the Zone development process.

#### Section 1

There are a number of available options and sources of advice concerning data management, which are described here. Data and information are central to establishing the state of the environment within the Zones, are critical to understanding the requirements for surveys and their analysis to help in marine and coastal Zone Planning and site optimisation, and important in identifying potential impacts of resource allocation and management.

Drivers for better marine data management are evident from the huge investments in survey and data processing for the Round 1 and Round 2 site appraisals and the SEA process. Marine data management is a key objective of Charting Progress (Defra 2005). The procedures for marine data management are also receiving coordinated national direction through the development of the MEDIN data archive network, which seeks to manage and make accessible marine information and provide guidance for management. MEDIN's portal is likely to form a valuable information resource for future marine investigations.

The Round 3 implementation stages emphasise the need for effective data and information collection and management policies over the life-cycle of the offshore renewables Project, which starts at Zone Appraisal. The data collected through the life of the Project forms the baseline for resource optimisation, for environmental assessment, design, construction, operations and maintenance and monitoring. Data and information covers all aspects of the Project from physical, environmental, engineering and operational information, to supply chains, grid connection and ultimately through to decommissioning.

Managing data to facilitate its use within spatial planning systems should be considered when developing contractor specifications and Zone data plans. For example, early consideration of survey output formats being interoperable and in common formats will greatly benefit latter stages of analysis and ease of data usage by multiple disciplines.

Many aspects of marine data collection, processing, analysis and presentation are already standardised through established survey protocols and industry standards. Adoption of these standards should be encouraged as they provide decision support. It is important to ensure that all data are effectively documented with full metadata records as this will save considerable time in future use of these data or information.

Spatial data (GIS data) is a special class of data within ZAP, and is likely to be one of the main information resources utilised within Zone layout and Project definition and a key component in communicating with others (e.g. stakeholders). Transfer of spatial data may be through online data downloads, external hard drives and/or through web feature services and web mapping services (WFS, WMS). It is valuable within the data planning process to consider with whom (both internally within the Project team and externally) data needs to be shared; whether this is to view the data or analyse it. Such considerations will be likely to influence how the data are made available. An online interface (website and webGIS) to access and view data may be an appropriate mechanism for sharing and viewing spatial and non-spatial data between partners, to make cost-efficient and effective sharing of information resources.

Metadata (data about the data) is an essential element in managing and providing information about data, including access rights. It is recommended that metadata is developed to be compliant with the MEDIN marine metadata standard. This is based on UK Gemini standard, is INSPIRE compliant and is being widely adopted within the marine data community, thereby 'future-proofing' the descriptions of the data. The Crown Estate has developed the Marine Resource System (MaRS) metadata specification which incorporates all of the key standards including MEDIN, and a guidance note is attached in Section 2 for further reference. Use of an online metadata entry interface may be helpful in ensuring that standard metadata is generated. A number of these tools are in development and will be freely available to support MEDIN metadata entry (see MEDIN website). Tools are also typically available within GIS software to help collect relevant and consistent metadata.

Wherever possible it is best practice for standard data product specifications to be set for contractors via a 'data clause' within contracts. Audit against these specifications provides a basis for data quality assessments and contract supply approvals. Such a clause should state the standards, formats and scope of the data and associated metadata. Specification for the data management requirements should be shared with any contractors undertaking collation or data generation, such that the metadata is able to be generated at source, making this process an effective, distributed activity. It is better that the description of the datasets generated are entered by the surveyors at the point of data collection, rather than after the event by data processing staff.

It is also important to think about data requirements with a long timeframe in mind, as Zone and Project development (and decommissioning activities) will span many years. Environmental data will form the baseline against which monitoring is undertaken, therefore, ensuring that all data relevant to the subsequent re-use and change analysis is an important part of data submission i.e. that it is interoperable. 'Data and information' will include the raw survey data, survey logs, processed data and supporting information, interpretation and reporting.

It is likely that some data generated by the Zone and Project development will not be accessible, due to commercial or environmental sensitivities, data protection or third party rights issues that may prevent or delay wider distribution. It is appropriate when recording metadata to ensure that any access or release constraints and any third party rights are

clearly documented. Where appropriate, the relevant licences may need to be negotiated to permit transfer of information between parties. Commercially sensitive data will need to present appropriate record access restriction information which is done through the metadata.

## Section 2

Importing Data and Metadata into MaRS – MaRS Guidance Note 001