

Proposal: Application for a Development Consent Order (DCO) to enable the applicant to construct and operate the Walney Extension Offshore Wind Farm – a proposed wind farm in the Irish Sea comprising between 93 and 207 turbines with a total generating capacity of up to 750 megawatts, together with a number of associated developments.

Location: Offshore (Irish Sea), approx. 19km west of the Walney coastline

Lead Officer – John Groves, Head of Nuclear Energy and Planning

To provide Members with an overview of the DCO proposal and to gain approval to sign off on the Local Impact Report (LIR) and delegate authority to officers to sign off on the Statement of Common Ground .

1.0 Recommendation: To approve the joint Copeland Borough Council, Cumbria County Council, South Lakeland District Council, Lake District National Park Authority, Lancashire County Council and Lancaster City Council Local Impact Report, as set out in Annex 1, and to delegate authority to sign off on the Statement of Common Ground (SoCG) to officers.

2.0 BACKGROUND

- 2.1 On 28th June 2013, Dong Energy submitted an application for a Development Consent Order (DCO) to the Planning Inspectorate to build and operate an extension to the Walney Offshore Wind Farm, comprising between 93 and 207 turbines with a total generating capacity of up to 750 megawatts (MW), together with a number of associated developments. The proposed wind farm is located in the Irish Sea between Cumbria and the Isle of Man, about 19km west of the Isle of Walney, Barrow in Furness. The electricity generated will be exported via undersea cables to the mainland near Heysham in Lancashire.
- 2.2 The project consists of wind turbines, foundations, offshore substations, onshore substation, offshore cables (connecting the turbines and offshore substations), offshore export cables and onshore export cables.
- 2.3 As the proposed wind farm is a off-shore electricity generating station having a capacity of more than 100MW, it is a Nationally Significant Infrastructure Project (NSIP) within the terms of Sections 14 & 15 of the Planning Act 2008. The application for the DCO will therefore be determined by the Secretary of State, following consideration by the Planning Inspectorate (PINS).
- 2.4 Cumbria County Council is a statutory consultee on this development alongside South Lakeland District Council, Lancashire County Council and Lancaster City Council. Other local authorities within and adjoining the Lancaster and Lancashire

areas are also statutory consultees, but do not consider themselves impacted by the development and have not been actively participating in the process.

- 2.5 Copeland Borough Council is defined by PINS as a non-prescribed Authority, whilst the off shore development is within the zone of visual influence, it is in crown estate, and therefore technically we are not a neighbouring authority to the proposed development. It was successfully argued however, that notwithstanding the statutory position, it was appropriate for Copeland to be party to deliberation over the impact of the proposed development in pre-application discussions on the DCO and Environmental Statement (ES).
- 2.6 The four local authorities mentioned in the Para. 2.4, together with Copeland Borough Council and Lake District National Park Authority have been working together under the terms of a Planning Performance Agreement (PPA) to engage with DONG Energy in the pre-application process. The PPA authorities have previously commented on the emerging proposals and the developer's consultation arrangements.
- 2.7 The PPA between the six local authorities and DONG Energy, was signed in February 2013. This has assisted the local authorities in the preparation of all the documentation and assessments which are required as part of the NSIP process. The PPA has enabled Copeland Borough Council and the other authorities to commit the necessary level of resources to their participation in the project.
- 2.8 The Local Impact Report has been prepared jointly between the six PPA authorities, with Cumbria County Council leading on the offshore impacts and Lancashire County Council dealing with the onshore impacts.
- 2.9 Within fourteen days of the DCO submission, the local authorities were required to respond to PINS, to give their views on the adequacy of the pre-application consultation process set out in the applicant's Statement of Community Consultation (SoCC). A joint response was submitted on behalf of the PPA authorities, which concluded that adequate consultation had been undertaken in accordance with the relevant requirements of the Planning Act 2008. In reaching this position it should be noted that the Council had highlighted concerns over the adequacy of consultation with communities on the West Cumbrian coast, north of the area which would be occupied by the proposed wind farm. This had resulted in additional consultation with those communities.
- 2.10 Following this, on 22nd July 2013 PINS confirmed that they had accepted the application, which then moved into the Pre-Examination stage. The acceptance of the application also triggered a series of immediate deadlines for statutory consultees, to respond to the application prior to the Examination stage, which could then take a further 6 months.
- 2.11 As part of the Examination stage Copeland and the other PPA authorities are invited by the Secretary of State to give their views on the proposal, and to prepare and submit a Local Impact Report setting out what they consider to be the effects of the

development upon the local area. The Local Impact Report will be required following a formal Pre-Examination meeting to be held by PINS probably in November 2013, with the submission of the Local Impact Report likely to be a few weeks later.

- 1.1.1 A second document known as the Statement of Common Ground (SoCG), a draft of which is included in Annex 2 is produced to identify areas of agreement, and where there remain topics or specific issues of disagreement, between the parties. Points that are not agreed are clearly stated and will be the subject of on-going discussion wherever possible to resolve, or refine, the extent of disagreement between the parties. This process seeks to enable focus discussion on the key areas of contention.
- 2.12 Throughout the preliminary stages, Copeland Borough Council has been working jointly with other local authorities to submit officer responses to consultations by DONG Energy and the Planning Inspectorate on the applicant's Statement of Community Consultation (SoCC), Preliminary Environmental Information (PEI) a number of technical reports, the draft Environmental Statement (ES), draft Development Consent Order (DCO) and the Adequacy of Consultation. The preparation of the attached joint Local Impact Report (LIR), is a further example of collaboration between the authorities, in which we share the same technical conclusions.
- 2.13 The Planning Panel is asked to consider and approve the draft Local Impact Report as set out in Annex 1 and to sanction the delegation of the final approval of the Statement of Common Ground (SoCG), draft attached as Annex 2 to a senior officer. The other local authorities will endorse the joint Local Impact Report and Statement of Common Ground separately.
- 2.14 The DCO application examination process is run on a very tight deadline. The inspectorate will issue a request for the SoCG and we will be expected to provide it within 20 days, therefore it does not leave adequate time to take the SoCG through a planning panel. In order to overcome this problem a draft version of the SoCG is attached to this report. The SoCG is a paradox document to the LIR and is an opportunity to identify areas of agreement which do not need to be investigated further by the inspectorate and it also serves to further highlight the areas of disagreement refer to sections 13 & 14 of the SoCG.

3.0 THE PROPOSAL

Site location and surrounding area

- 3.1 The proposed Walney Wind Farm Extension would be located immediately north west of the existing Walney 1 & 2 Wind Farms in the Irish Sea, approximately 19km west of Walney Island and 36 km east of the Isle of Man. It would lie approximately

26km from the Millom coastline and 40km from St Bees Head. The site is nearly 150 square kilometres in area.

- 3.2 Undersea cables will bring the electricity ashore at Middleton near Heysham, about 8 km (5 miles) south west of Lancaster in Lancashire. Onshore cables will then connect to a new substation to be built alongside the A683, immediately south west of Heysham.

The proposed development

- 3.3 The exact size, layout and methodology for delivery of the proposed wind farm is not yet determined and the developer needs to retain some flexibility to take into account technological advancements, infrastructure availability and costs up to the time of construction. For this reason the proposal is described in the form of a design envelope, which states the maximum adverse case scenario within which the project would be built. This is an established principle, also known as the 'Rochdale envelope' (after legal cases involving Rochdale Council) which is commonly used for proposals of this type, where there is a rapid development of the technology, changing market conditions and a long lead-in time to construction.
- 3.4 The project would involve the construction of between 93 and 207 wind turbines and occupy an area of up to 149 square kilometres (57 square miles) in the Irish Sea. The turbines would have a generating capacity of between 3.6MW and 8.0MW. The physical dimensions of the turbines would be as follows:
- Hub height between 82 and 122 metres
 - Rotor blade diameter ranging from 120 to 200 metres
 - Maximum blade tip height ranging from 142 to 222 metres
 - Clearance above sea level of at least 22 metres
- 3.5 Indicative layouts have been presented by the developer, but none of these represent the actual layout that will be built. They are intended to illustrate possible scenarios within the design envelope of the project. The separation distance between each turbine will be a minimum of 737 metres.
- 3.6 The foundations for the turbines will depend on a number of factors, including the type and size of turbine, maintenance requirements, water depth, tidal conditions, weather conditions, wind and wave loading, seabed stability, geology, decommissioning, transportation, costs and other technical constraints.
- 3.7 The following foundation types will be considered:
- Single steel monopole – an 9m diameter steel tube driven into the seabed to a depth of up to 45m. Requires minimal seabed preparation and drilling in an estimated 20% of cases;

- Gravity base – a conical structure held in place by its own mass, which would be up to 40m diameter at seabed level and with a slab depth of up to 10m. Requires seabed levelling and sediment removal, but no piling or drilling;
- Jacket – a four legged steel lattice structure, fixed to the seabed by piles at each corner or by using suction caissons. The legs are up to 40m apart on the sea bed. Requires minimal seabed preparation; piles up to 70m deep are driven into the seabed to secure the foundation.

3.8 Each turbine is installed from a jack-up vessel, which is equipped with cranes and other equipment to lift and fix the various components into place. Firstly the turbine tower is lifted into position and mounted securely on the foundation. Then the hub is lifted to the top of the tower and securely attached. Finally the three blades are installed, either one by one or as a pre-assembled unit.

3.9 A network of inter-array cables will connect the wind turbines to an offshore substation within the wind farm area, at a voltage of 33kV or 66kV. The inter-array cables will be installed on the seabed by the most suitable method, including ploughing, trenching, jetting, cutting and rock-cover. The cables will be buried up to 3 metres below the seabed, with this increasing to up to 10 metres deep where mobile sand waves are present.

3.10 Up to three offshore substations may be required, but the most likely scenario is that two will be needed. Each substation will be mounted on a foundation of the types described above, but with larger dimensions than for turbines. The substation is expected to comprise a deck ('topside') which would include switchgear, transformers, helideck, mast, crane and lighting. The maximum height of the substation would be 110 metres above low tide and the footprint would be 70m x 70m (max).

3.11 Between two and five undersea export cables would be required to transmit the electricity from the offshore substation to the shore. These cables would carry alternating current (AC) electricity between 132kV and 220kV. They would be buried up to 3 metres deep on the seabed, affecting a strip up to 10 metres wide (per cable). Where the desired burial depth cannot be achieved due to seabed conditions or at the crossing of other cables or pipelines the cables would be protected by rock dumping.

3.12 Where the cables come ashore, it may be necessary to use horizontal directional drilling to tunnel beneath large structures such as sea walls. Elsewhere, the method for installing the offshore export cable would be as described for the inter-array cables in 3.9 above.

3.13 The onshore cables would be installed in a single trench up to 3m wide, which would require a working corridor of up to 40m wide. The onshore cable route from the shoreline to the proposed new onshore substation is approximately 4.5km in length. During construction, temporary access roads would be needed to enable materials

to be transported along the cable corridor. Following construction, the ground would be reinstated and returned to its former use, eg. cultivated farmland.

3.14 A new onshore substation is proposed to be built near to National Grid's new substation in Heysham. The substation will connect electricity production from the wind farm to the National Grid and is likely to include transformers, switchgear, filters, reactive compensation devices and other technical equipment; together with operational requirements such as access roads, car parking, turning area and a facilities building. Vehicular access to the new substation will be formed from an existing roundabout on the A683 to the south west of Heysham.

3.15 The location of the onshore base for the construction phase is not yet known and does not form part of this DCO application. A number of Irish Sea ports are being considered. A range of different vessels will be involved in the construction phase, including:

- Foundation installation or jack-up vessels
- Cable laying vessels
- Crew and transfer vessels
- Service vessels
- Anchor vessels
- Tugs

3.16 Construction materials for the offshore work would be transported generally by sea, and it is anticipated that some 500 construction jobs would be created at its peak.

3.17 Similarly, the operational and maintenance base has not yet been chosen. It may be that these activities are undertaken from an existing base, such as Barrow, or that new facilities are proposed, which may be the subject of a separate future planning application. The applicant has supplied indicative information concerning the operational base, which would comprise:

- Buildings: offices 1,000 sq. m, warehouse 1,000 sq. m
- Parking: 100 spaces
- Harbour: pontoon, berthing and vessel fuelling
- Staff: up to 100 technicians and 20 office staff
- Traffic: 200 cars and 10 trucks per day
- Total site area: 6,000 sq m
- Service Vessels: 8 return journeys per day

- Helicopter service: approx. 17 return journeys per day

- 3.18 The wind farm would be operational continuously through out the year, generating electricity whenever the wind speeds are suitable, which is expected to be the 85% of the time.
- 3.19 Subject to approval, construction is expected to commence in April 2016 and would take two years to complete. The wind farm would become operational in 2020 and would have a minimum operational life of 25 years.
- 3.20 At the end of the operational life the project would be decommissioned in accordance with an approved Decommissioning Plan. As a minimum this would entail the removal of the turbines and foundations to a depth of at least 1 metre below the sea bed.

4.0 KEY ISSUES RAISED IN THE LOCAL IMPACT REPORT

Policy considerations

- 4.1 In terms of policy considerations, national policy indicates that there should be a presumption in favour of granting consent to applications for energy related Nationally Significant Infrastructure Projects. National Policy Statement (NPS) for energy (EN1) states that this presumption applies unless more specific and relevant policies set out in the NPSs clearly indicate that consent should be refused.
- 4.2 NPS for Renewable Energy Infrastructure (EN3) reaffirms advice in EN1 on the basis that the need for infrastructure covered by the NPS has been demonstrated, and that there are ambitious renewable energy targets in place and a significant increase in large-scale renewable energy infrastructure is necessary to meet the Government's 15% renewable energy target.
- 4.3 NPS EN1 states that there is no requirement to consider alternatives or to establish that the proposed project represents the best option. There is only a requirement for alternatives that have been considered by the applicant to be reported. Consideration of alternatives focused mainly on the location of the onshore substation and the route of the export cable connecting to it. The way these alternatives have been considered is set out in the ES (Chapter 5: Site Selection).
- 4.4 Relevant paragraphs from the National Planning Policy Framework (NPPF) are referred to in paragraphs 45 – 49 of the LIR. In summary, the NPPF makes it clear that planning should facilitate sustainable development and help to tackle climate change, including measures to reduce greenhouse gas emissions, by supporting the development of renewable energy. Local authorities should work with each other and with developers to take account of the need for strategic infrastructure, including NSIPs in their areas.

- 4.5 In July of this year DCLG have released 'Planning practice guidance for renewable and low carbon energy'. Although this guidance is for onshore development, the particular planning considerations that should be taken into consideration when assessing wind turbines are also applicable to off shore wind turbines. Amongst other considerations the guidance states that the assessment needs to assess cumulative landscape and cumulative visual impacts and the use of conditions to ensure the decommissioning of redundant turbines.
- 4.6 Relevant local policies, contained in the local plans for Copeland, Barrow and the Lake District National Park, and the Cumbria Sub Regional Spatial Strategy are summarised in paragraphs 50 – 55 of the LIR. These policies support economic development in Barrow, Workington and Whitehaven, and generally seek to encourage renewable energy development and associated economic benefits, whilst minimising adverse environmental impacts, particularly upon landscapes.

Evaluation of the applicant's Environmental Impact Assessment

- 4.7 The Environmental Statement submitted in support of the application includes detailed topic based assessments of the environmental impacts of the projects. These cover onshore and offshore impacts upon the natural and built environment.
- 4.8 The PPA authorities have reviewed the parts of the ES that are relevant to their jurisdiction and geographical areas. The Local Impact Report (LIR) attached to this report has been prepared in two parts, dealing separately with impacts arising from the onshore works (mainly affecting Lancaster district) and offshore works (mainly affecting coastal communities in Cumbria).
- 4.9 The LIR produced by the PPA authorities has not considered matters which relate solely to the marine environment, eg. benthic ecology. Such matters fall within the jurisdiction of other bodies, notably the Marine Management Organisation and relevant statutory consultees including Natural England, English Heritage, Cefas and the Environment Agency.
- 4.10 It was found that the applicant has in general used appropriate techniques to evaluate the impacts of the proposal.

Local Impacts

- 4.11 Copeland Borough Council has received a written letter of objection to the proposed development from Seascale Parish Council on the grounds of the significant negative visual impact the development will have on the local area and economy. They also raised concerns regarding the displacement of seabed particles causing an increase

in radioactivity on beaches. The issues identified in the objection are raised as outstanding issues in the LIR.

4.12 Consideration of the impacts of the proposed Walney Extension application is set out in the attached LIR. The offshore part of LIR sets out the impacts which are relevant to Cumbria, which relate to the following topics:

- *Seascape and landscape & visual*; - The PPA Authorities argue that the sensitivity assessment for 2 of the viewpoints are under rated as the impact of the offshore wind farm development on residential receptors was not taken into consideration as outlined below:
- On earlier examination of the technical evidence used as the evidence base to inform the 'sensitivity scale' of the different views Copeland argued that in the developer's assessment of the sensitivity on visual receptors the residential community was not taken into consideration, for viewpoints 3 Seascale beachfront, viewpoint 4 Seafront at Ravenglass and viewpoint 2 Thornhill.
- The 'Sensitivity' of visual receptors to offshore wind development rating for view point 4, Seafront at Ravenglass, is already recorded as 'High' which is the highest possible rating therefore the inclusion of residential receptors will make no change to the overall rating.
- Copeland Borough Council has stated in the LIR, that the sensitivity assessment for the viewpoint 3 from Seascale beachfront should be upgraded from 'minor' to 'moderate' as the sensitivity of visual receptors from this view point should be regarded as 'high', given the popularity of the area with visitors, who are likely to rate landscape/seascape quality as being of high importance. This would therefore increase the significance of effect to borderline 'moderate'. (refer to paragraphs 74 -78 of the LIR)
- The Council also argues that the sensitivity of visual receptors at viewpoint 2 should be regarded as 'medium' given the potential impact upon residents on the edge of Thornhill. This would increase the significance of effect to 'Minor'.
- Furthermore, there is some inconsistency for the worst case scenario for different viewpoints, but this does not change the conclusion that the overall visual impacts are limited and the applicant's assessment is reasonable. The only effect that is viewed as significant in terms of the Environmental Impact Assessment terms is the change to the view from Black Combe, which is the highest of the viewpoints in Cumbria and located in the Lake District National Park. The visual impacts are detailed in paragraphs 64 – 85 of the LIR.

- Copeland Borough Council officers have continuously reviewed the information provided by the developer through the Preliminary Environmental Investigation (PEI), technical reports, the draft DCO and Environmental Statement. It has been an iterative process and through each stage the Council has pushed the developer to investigate issues further and provide more detailed representative photomontages. We have been critical of the evidence base and analytical process used to consider the impact of the wind farm extension on sensitive viewpoints along the coast line with Copeland boundaries. As a result the developer has provided further analysis which, although not entirely conclusive and still subjective to some degree, makes it difficult to conclude that the visual impacts, aside from the irregularities as highlighted above, are mainly minor or negligible.
- **Socio economics;** - The economic impacts are explained in paragraphs 92 – 107 of the LIR. There are potential positive job creation opportunities – both directly and through the supply chain – that would result from the proposal. The applicant predicts that 230 direct jobs would be created in the North West during construction and 185 throughout the operational period. There is still uncertainty about where these jobs will be, since the construction port and operational base have yet to be chosen. The PPA Authorities are keen to work with the developer to maximise job creation, training and supply chain opportunities. The impacts on fishing are not assessed as significant (see LIR paragraph 101).
- **Traffic and transport;** - The movement of construction materials and the subsequent operation of the Windfarm may have impacts upon the highway network, but as the construction port and operational base have yet to be chosen it is not possible to assess these impacts. The PPA Authorities consider that these matters should be addressed through the development consent process. This topic is covered by paragraphs 86 – 91 of the LIR.
- **Noise and vibration;** - The noise and vibration associated with offshore construction is likely to be insignificant, but for reassurance of the public the PPA Authorities consider that contact details should be provided throughout the construction period to enable the public to express any concerns. The topic is covered by paragraphs 116 - 120 of the LIR
- **Seabed sediments;** – The applicant has assessed the issue of radioactivity in seabed sediments and concluded that the risk of radioactive particles reaching the shore as a result of construction or operational activity is negligible. The PPA Authorities accept that, whilst this is likely to be the case, they wish to obtain clarification of the applicant’s methodology and assumptions. See paragraphs 108 – 115 of the LIR. There is also a need to consider whether radioactive waste may arise when decommissioning the turbines, as the disposal of such waste could have implications for Cumbria.
- **Decommissioning;** - The PPA Authorities wish to see a timescale established for approval of the decommissioning plan and a clear mechanism set out for

securing a bond to guarantee the process of decommissioning. This topic is covered by paragraphs 121 – 127 of the LIR.

5.0 CONCLUSION

- 5.1 In summary it is not considered that the adverse impacts are significant. However, the PPA authorities will continued to work with the applicant to seek to address the outstanding concerns above, including making representations as appropriate during the Examination process.
- 5.2 The findings and recommendations contained in the joint PPA authorities Local Impact Report are approved.

Contact Officer: Denice Gallen, Nuclear and Energy Officer

Background Papers: Development Consent Order files and Environmental Statement Files.

**WALNEY
EXTENSION
OFFSHORE
WINDFARM**



Walney Extension Offshore Wind Farm

Statement of Common Ground

Between:

1. **DONG Energy Walney Extension (UK) Limited**
2. **Lancashire County Council, Lancaster City Council, Copeland Borough Council, South Lakeland District Council, Lake District National Park Authority and Cumbria County Council (“the PPA Authorities”)**

Walney Extension Offshore Windfarm
SoCG between DONG Energy Walney Extension (UK) Ltd and the PPA Authorities
PINS Reference: EN010027

Walney Extension Offshore Wind Farm

Statement of Common Ground – September 2013



DONG Energy Walney Extension (UK) Ltd.
33 Grosvenor Place, Belgravia, London, SW1X 7HY

Version: 1

Date: **September** 2013

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This report is also downloadable from the Walney Extension offshore wind farm website at <http://www.dongenergy.com/walneyextension> or an electronic copy can be requested by writing to: walneyextension@dongenergy.co.uk

If you require this document in large print or braille then please contact us using the contact details above.

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Prepared by:

Checked:

Accepted:

Approved:

Doc no.

Signed	
Printed Name	
Position	
On behalf of	PPA Authorities [Lancashire County Council, Lancaster City Council, Copeland Borough Council, South Lakeland District Council, Lake District National Park Authority and Cumbria County Council]
Date	

Signed	
Printed Name	
Position	
On behalf of	DONG Energy Walney Extension (UK) Limited
Date	

1 Introduction

1.1 This Statement of Common Ground (SoCG) has been prepared in respect of the application for a development consent order (DCO) for the Walney Extension Offshore Wind Farm, submitted to the Planning Inspectorate (PINS) by DONG Energy Walney Extension (UK) Limited (the Applicant) on 28 June 2013 under the Planning Act 2008 (the Application).

1.2 This SoCG with Lancashire County Council, Lancaster City Council, Copeland Borough Council, South Lakeland District Council, Lake District National Park Authority and Cumbria County Council ("the PPA Authorities") has been produced to identify areas of agreement, and where there remain topics or specific issues of disagreement, between the parties. SoCGs are an established means in the planning process of allowing all parties to focus on specific issues that need to be addressed during examination and are envisaged by Rule 8(e) of the Infrastructure Planning (Examination Procedure) Rules 2010. Additionally, the SoCGs may be requested by PINS as a means of informing their examination of a DCO application.

2 Structure

2.1 The structure of this SoCG is based upon the topics raised within PINS Rule 8 letter dated [insert] and the information contained within the relevant representation made by the PPA Authorities in response to the publication of the Application. The structure of this SoCG is as follows:

- Introduction
- Structure
- The Application Site
- The Development
- Relevant policy – national, regional and local
- Response to Examining Authority's Rule 8 Questions [TBC]
- Application elements under remit of the PPA Authorities
- Consultation
- Principle of Development
- Site Selection and Alternatives
- EIA Methodology
- Construction Ports and Operations and Maintenance
- Topic specific matters agreed, not agreed and actions to resolve in relation to:

Comment [SP1]: To be updated as appropriate once Rule 8 letter received and relevant reps finalised

- Seascape, Landscape and Visual Impact
- Offshore Sediment and Water Quality
- Terrestrial Ecology and Nature Conservation
- Landscape and Visual
- Archaeology and Cultural Heritage
- Traffic and Transport
- Socio-Economics
- Cumulative Effects
- Monitoring and Mitigation
- Requirements and Obligations
- Community Benefit Fund
- Glossary

Comment [SP2]: Initial list based on those areas which were discussed at our last meeting. To be adapted once seen Rule 8 letter. Are there any other environmental topic areas which the PPA authorities would like to see covered?

Comment [SP3]: To be added and agreed

2.2 Unless otherwise stated, the points set out in this SoCG are agreed between the parties to it. Points that are not agreed are clearly stated and will be the subject of on-going discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.

2.3 For clarity, there is no disagreement between the Applicant and the PPA Authorities with regard to the following topics and accordingly these are not covered further in this SoCG:

- Metocean, Coastal Processes, Geology and Geomorphology;
- Offshore Noise and Vibration
- Offshore Benthic Ecology
- Offshore Fish and Shellfish Resource
- Offshore Marine Mammals
- Offshore Ornithology
- Offshore Sites Designated for Nature Conservation
- Shipping and Navigation
- Commercial Fisheries
- Marine Archaeology

- Aviation, Defence and Telecommunications
- Other Infrastructure and Licensing Activities
- Onshore Geology, Hydrogeology and Ground Conditions
- Onshore Hydrology and Flood Risk
- Land Use and Agriculture
- Air Quality
- Noise and Vibration
- Transboundary Effects

3 The Application Site

3.1 There are two principal elements to the Application Site ("the Site"), offshore and onshore, as follows:

- The offshore element of the application site, which is referred to in the Environment Statement (ES) as the Agreement for Lease Site ("the AfL Site") is located in the Irish Sea, at its nearest point approximately 19 km west-southwest of Walney Island in Cumbria, 26 km southwest of the Milom coast in Cumbria, 35km northwest of the Fleetwood and Blackpool coast and 31 km southeast from the Isle of Man.
- The onshore element of the application site begins at landfall with Middleton Sands in Morecambe Bay. The proposed onshore cable route then heads northeast from the landfall site across agricultural fields towards the eastern side of the village of Middleton, before heading in a northerly direction towards the onshore substation, which is located to the south of Heysham, immediately northeast of the roundabout between Imperial Way and the A683, close to the existing Heysham 400 kV substation.

3.2 The total area of the AfL site (including the area containing the Wind Turbine Generators "WTGs", inter-array cables and offshore substations) is 149km², which is approximately twice that of the existing (Walney 1 & 2?) wind farms and extends further into deeper water. The majority of the offshore element of the Project (126km²) lies beyond English territorial waters (i.e. beyond 12NM of the coast) but within the UK continental shelf. The remaining 23km² is located in English territorial waters.

3.3 This sector of the Irish Sea currently supports five operational or under construction Round 1 and 2 wind farms and eight gas platforms. There are also regular commercial shipping routes connecting the northwest coast of England to the Isle of Man, Northern Ireland and the Republic of Ireland.

3.4 The onshore element of the application site lies within Lancaster City Council and principally comprises the onshore export cable corridor, which is 3,700m in length and up to 40m wide,

and the onshore substation site (including the substation footprint, landscaping and access road), which covers an area of approximately 122,665 m².

4 The Development

4.1 The Application relates to the construction and operation of an offshore wind farm located in the Afl site as described above (the Project). The proposed Project will connect, via underground cables, to a new onshore substation, which will be built by the Applicant close to the existing Heysham 400 kV substation.

4.2 The proposed DCO will, amongst other things, authorise:

- offshore – wind turbines and foundations (up to 207 wind turbines with a maximum tip height of 222m to provide an installed capacity of up to 750MW); up to three offshore substations and foundations; undersea cables between the wind turbines and offshore substations; up to five buried offshore undersea export cable systems to transmit electricity from the offshore substations to the shore;
- onshore – a landfall site at Middleton Sands near Heysham, with onshore transition joint bays to connect the offshore and onshore cable systems; up to five onshore underground export cable systems with jointing bays to transmit electricity to a new onshore substation, close to the existing Heysham 400 kV substation, to connect the offshore wind farm to the National Grid;
- the permanent and/or temporary compulsory acquisition of land and/or rights for the Project; overriding of easements and other rights over or affecting land for the Project; the application and/or disapplication of legislation relevant to the Project including inter alia legislation relating to compulsory purchase; and
- such ancillary, incidental and consequential provisions, permits or consents as are necessary and/or convenient.

4.3 The Project Description is set out in Chapter 4 of the ES.

4.4 The exact size, layout and methodology for delivery of the proposed wind farm is yet to be determined and the Applicant needs to retain some flexibility to take into account technological advancements, infrastructure availability and costs up to the time of construction. For this reason, the proposal is described in the form of a design envelope, which states the maximum adverse case scenario within which the project would be built. This is an established principle, also known as the 'Rochdale envelope' which is commonly used for proposals of this type, where there is a rapid development of the technology, changing market conditions and a long lead-time to construction. Further details on how this approach is applied to the EIA methodology are provided in section 11 of this SoCG below.

4.5 The Application was submitted to PINS on 28 June 2013 and accepted for examination on 22 July 2013 under PINS reference EN010027. Notice of the Application was publicised between 1 August and 20 September 2013.

5 Relevant Policy

5.1 The relevant policy, legislative and consenting framework is set out in full in Chapter 2 of the ES.

National Renewable Energy Policy

5.2 Government energy policy at a national level strongly encourages increases in renewable energy generation to deliver its obligations under the Renewables Directive (EC Directive 2009/28/EC). Within this context, DCO applications fall to be considered in accordance with the relevant National Policy Statements (NPS) which the decision maker must have regard to when deciding an application for a Nationally Significant Infrastructure Project (NSIP). The NPSs relevant to this Project are:

- Overarching NPS for Energy (EN-1) (DECC, 2011)
- NPS for Renewable Energy (EN-3) (DECC, 2011)
- NPS for Electricity Networks Infrastructure (EN-5) (DECC, 2011)

5.3 NPS EN-1 when combined with the relevant technology-specific energy NPS, provides the primary basis for decisions by the Secretary of State on this Application.

5.4 EN-1 notes that as part of the UK's need to diversify and decarbonise electricity generation, the Government is committed to increasing dramatically the amount of renewable energy generation capacity (paragraph 3.3.10 NPS EN-1). An increase in renewable energy is essential to enable the UK to meet its commitments under the EU Renewable Energy Directive (paragraph 3.3.11, NPS EN-1).

5.5 NPS EN-1 explains that there is an urgent need for new electricity NSIPs and Part 3 of EN-1 sets out the principal considerations which have informed this conclusion. The NPS should be consulted as a whole but the principles can be summarised as follows:

- in the UK at least 22 GW of existing electricity generating capacity will need to be replaced in the coming years, particularly by 2020. This amounts to about a quarter of the UK's current electricity generating capacity of 85 GW (paragraph 3.3.7);
- in addition, the overall demand for electricity is likely to increase as significant sectors of energy demand switch from being powered by fossil fuels to using electricity, so that total electricity consumption could double by 2050 (paragraph 3.3.14);
- forecasts suggest that a minimum need of 59 GW of new electricity capacity needs to be provided by 2025 to avoid the severe social and economic disruption that would be caused by insufficient electricity supply (paragraph 3.3.19 and 3.3.23); and
- around 33 GW of this new capacity would need to be come from renewable sources, with the largest single contribution towards 2020 targets coming from offshore wind (paragraph 3.3.22 and 3.4.3).

5.6 Consequently, EN-1 is in no doubt about the urgent for new electricity generation capacity, stating that there is an urgent need for new NSIPs to be brought forward as soon as possible, given the crucial role of electricity as the UK decarbonises its energy sector (paragraph 3.3.15 NPS EN-1).

National Planning Policy Framework

5.7 The National Planning Policy Framework (NPPF) was published in March 2012 and replaced the majority of previously issued Planning Policy Statements and Guidance Notes ("PPSs" and "PPGs" respectively). The NPPF sets out a general presumption in favour of sustainable development and the need to support economic growth through the planning system. Although it does not contain specific policies for them, the NPPF states that NSIPs are determined by the decision-making framework set out in NPSs, which are part of the overall framework of planning policy (paragraph 3).

5.8 The NPPF supports the Project, as it sets out the Government's recent thoughts on planning by recognising the critical importance of renewable energy infrastructure. This can be seen as one of the core principles set for the planning system at paragraph 17 as the need to 'support the transition to a low carbon future'. Additionally, the NPPF confirms that planning plays a key role in helping shape places to "secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development" (Para 93).

Marine Policy

5.9 The Marine and Coastal Access Act 2009 and section 104 of the Planning Act (2008) requires that the Secretary of State must have regard to the MPS or relevant Marine Plan when reaching decisions on NSIPs and must decide the application in accordance with the MPS or relevant Marine Plan unless relevant considerations indicate otherwise, including that the adverse impact would outweigh its benefits.

5.10 In the absence of a Marine Plan, the decision-making process will need to take account of the alignment of a proposed activity with current EU and UK marine policy, specifically the MPS. The Project is in conformity with the MPS given its status as a renewable energy project.

Regional and Local Policy

5.11 Paragraph 4.1.5 of NPS EN-1 confirms that other matters which the Secretary of State may consider both important and relevant to his decision-making include Development Plan documents or other documents in the Local Development Framework. The same paragraph explains, however, that in the event of a conflict, the NPS prevails for the purposes of Secretary of State decision making given the national significance of the infrastructure.

5.12 This does not suggest that regional, county-wide or local considerations are not important. Rather, it highlights that strategic and local policy in itself is unlikely to be determinative when it comes to the consideration of an NSIP.

5.13 In this context, Chapter 2 of the ES and the Planning Statement set out compliance of the Project with regional and local planning policies.

5.14 In terms of regional policy, the RSS for the north-west was formally abolished by a Revocation Order which came into force on 20th May 2013. It is therefore no longer relevant to decision making.

5.15 All of the proposed onshore development lies within the administrative area of Lancaster City Council. The relevant policies are those set out in Chapter 2 of the ES.

5.16 The relevant Local Plan is the Lancaster City Local Plan (2004, saved September 2008) and the Lancaster City Core Strategy (2008). These set a positive context for the Project, in particular Policy ER7 of the Core Strategy which identifies South Heysham as a key focus for the renewable energy industry, partly in association with the major offshore wind energy schemes in Morecambe Bay and the Irish Sea.

5.17 The draft Lancaster City Land Allocations DPD Preferred Options (October 2012) is also relevant, which identifies the area within which the onshore elements of the Project are located as the Heysham Energy Coast, where the Council anticipates further energy investment and energy related development. Furthermore, the explanatory text in the draft DPD states that the identification of the Energy Coast recognises the exceptional opportunity that the area provides to develop the district's energy economy and secure wider investment in the district.

Minerals policies

5.18 Lancashire County Council has very recently adopted their Site Allocations and Development Management Policies Local Plan (September 2013). This document was not addressed in the application and is therefore considered below, for completeness.

5.19 The onshore substation site lies on the very edge of a mineral safeguarding area (MSA) as identified in the Proposals Map to the Local Plan.

5.20 Policy M2 of the Local Plan states that planning permission will not be supported for any form of development that is incompatible by reason of scale, proximity and permanence with working the minerals, unless the applicant can demonstrate to the satisfaction of the local planning authority that:

- The mineral is no longer of any value or has been fully extracted;
- The full extent of the mineral can be extracted satisfactorily prior to incompatible development taking place;
- The incompatible development is of a temporary nature and can be completed and the site returned to its original condition prior to the minerals being worked;

- There is an overarching need for the incompatible development that outweighs the need to avoid the sterilisation of the mineral resource;
- That prior extraction of minerals is not feasible due to the depth of the deposit;
- Extraction would lead to land stability problems.

5.21 Taking into account the large areas covered by the MSA, the extent of the deposit and the nature of the development, there is no conflict with Policy M2. Given the overarching need for renewable energy, particularly offshore wind, as identified in NPS EN-1 and EN-3, it is considered that the proposals comply with this part of the policy and therefore there is no disagreement between parties in terms of impacts on minerals resource.

5.22 In summary, the Application is considered to accord with regional and local planning policy.

6 Response to Examining Authority's Rule 8 Questions

6.1 [Set out those questions raised by the ExA in the Rule 8 letter that are addressed in this SoCG]

7 Application elements under remit of the PPA Authorities

7.1 Lancaster City Council is the determining authority for planning applications within their district, with the exception of minerals and waste and other 'County' applications, which fall to be determined by Lancashire County Council. Lancaster City Council would be the determining authority for any requirements specified for discharge in the draft DCO, which relate to works proposed to be carried out within its jurisdiction. Lancashire County Council is the relevant highways authority.

7.2 As the application is being submitted under the DCO consenting regime, the local authorities included within this PPA, which fall within those defined under section 42(b) of the Planning Act 2008 are:

- Lancaster City Council (the relevant 'B' Authority)
- Lancashire County Council (the relevant 'D' Authority)
- Cumbria County Council (the relevant 'C' Authority)
- South Lakeland District Council (the relevant 'C' Authority)

7.3 In addition, the following local authorities have been consulted and are included within the PPA authorities who are party to this SoCG on the basis that they have communities who are affected visually by the project, by virtue of their location within the 40km Zone of Theoretical Visibility (ZTV) study area set out in the Environmental Statement, although they do not have within their area land directly affected by the Project, or adjoin such an area:

- Copeland District Council

- Lake District National Park Authority

7.4 In terms of understanding the local impact of the Project, Cumbria County Council has led in the understanding of offshore impacts and Lancashire County Council has led in respect of onshore impacts.

7.5 The PPA Authorities have not considered the impacts on the marine environment, except where they are relevant to the coast or shoreline, as the responsibility for the sea lies with the Marine Management Organisation (MMO) and other relevant bodies. Likewise, the PPA Authorities consider that it is the role of Natural England to provide detailed advice in terms of the implications for nationally and internationally designated sites in the intertidal area.

8 Consultation

8.1 The Applicant has consulted widely about the Project from an early stage in the Project design process. The Applicant has undertaken informal and formal consultation, pursuant to Section 42 of the 2008 Act, with prescribed stakeholders as listed in listed in column 1 of the Table set out in Schedule 1 of the APFP Regulations, and with non-statutory stakeholders with an interest in the Project.

8.2 The design of the Project has evolved through consultation and a number of improvements have been made to the Project as a result of engagement including:

- Removal of the northern onshore cable corridor option which was being considered at an earlier stage in the Project, as the route passed through a dense, urban area;
- Relocation of the proposed landfall to follow the line of the existing sea defence, to minimise impact on the saltmarsh;
- Use of HDD techniques only to cross the saltmarsh and sea defences, to reduce environmental impact on the saltmarsh to the extent that they are not significant in EIA terms;
- Relocation of cable corridor to reduce impact on existing caravan parks;
- Redesign of access arrangements at the beach and along Carr Lane; and
- Development of an Outline Public Access Strategy to ensure that public access to the beach, fishing lake and Middleton Playing Fields, and access to property along the cable route, remain open throughout the Project (except during specified limited periods of working, e.g. cable installation, when exclusive access is required for safety reasons, and alternative access will be arranged where necessary).

8.3 The consultation carried out by the Applicant, and the way in which it has informed the Project proposals, is set out in full in the Consultation Report (Document 5.0) submitted with the Application.

8.4 A Planning Performance Agreement (PPA) was agreed with the PPA Authorities in 2012, to enable effective engagement from an early stage in the Project.

8.5 Briefing meetings were also offered to Members of the PPA Authorities and held with Members of Lancashire County Council on the 6th November 2012 and Members of Copeland Local Committee on 21st March 2013. In addition to this, a briefing meeting was undertaken with Barrow Borough Council on 13th August 2012.

8.6 As part of the informal and formal consultation a series of meetings were held with the relevant local planning authorities for the Project including, but not limited to: consultation on the draft Statement of Community Consultation (SoCC), consultation on the Seascape and Landscape Visual Impact Assessment (SLVIA) methodology including viewpoints, onshore substation location options and onshore cable route options and Preliminary Environmental Information (PEI), as the formal consultation document pursuant to Section 42 of the 2008 Act. Full details of the consultation undertaken are presented in the Consultation Report (Document Number 5.0)

8.7 As part of the consultation with the PPA Authorities, meetings were held throughout the preparation of the Application, to discuss outstanding issues and discuss and receive comments on the draft DCO and requirements, as follows:

- Initial project overview meeting – 17 May 2012
- First meeting after signing of PPA – 4 July 2012
- Communications and consultation meeting with PPA authorities – 30 July 2012
- Consultation with PPAs on PEI and discussion of feedback – 13 September 2012
- Consultation on technical reports and discussion of feedback – 11 January 2013
- Meeting to discuss S106 heads of terms and requirements – 24 May 2013
- Meeting to discuss consultation report, outstanding ES comments and requirements – 25 June 2013

8.8 Consultation is ongoing with the PPA Authorities to identify, and hopefully resolve, any areas of disagreement in advance of the examination. A meeting was held on 15th August 2013 to discuss outstanding issues and approach to this SoCG with a further scheduled for 12th September 2013.

Comment [SP4]: To be updated with subsequent meetings as the process moves forward

8.9 As confirmed in the PPA Authorities' response to the Planning Inspectorate, adequate consultation has been undertaken in accordance with the relevant requirements of the Planning Act 2008.

9 Principle of Development

9.1 The principle of the Project, and the urgent need for new renewable energy projects, and specifically offshore wind, is established in national policy through NPS EN-1 and EN-3. In 09 September 2013

addition, the local policy framework is consistent with this policy and encourages the promotion of South Heysham as a key focus for renewable energy generation including wind technology.

9.2 The Planning Act (2008) requires that the application for development consent should be decided in accordance with the NPS, except where certain legal tests would be infringed (which is not the case for the Application) and unless the adverse impacts of the Project would outweigh its benefits. The benefits of the Project include helping to satisfy the urgent national need for offshore wind power with up to 750MW of installed capacity.

9.3 In this context, the principle of the development is established through national policy (and supported by local policy).

9.4 Notwithstanding the issues identified in the topic specific areas below, the negative impacts of the Project are not considered significant overall and can generally be mitigated against by the requirements in the draft DCO and/or a S106 agreement.

10 Site Selection and Alternatives

10.1 The Applicant's approach to site selection and alternatives is set out in Chapter 5 of the ES and Chapter 3 of the Planning Statement.

Background to Site Selection

10.2 Chapter 3 of the Planning Statement provides a background to the Strategic Environmental Assessment (SEA) process undertaken by the Government in relation to its offshore wind programme and by the Crown Estate in terms of the Agreements for Lease for Rounds 1, 2 and 2.5.

10.3 Through the Offshore Energy Strategic Environmental Assessment 2009 (SEA) process (referred to as OESEA), the Government has assessed the environmental implications and spatial interactions of a plan/programme for some 25 gigawatts (GW) of new offshore wind capacity, on top of existing plans for 8GW of offshore wind.

10.4 The Government concluded through this process that there are no overriding environmental considerations to prevent the plan/programme for offshore wind, if mitigation measures are implemented to prevent, reduce and offset significant adverse effects (OESEA Environmental Report, January 2009).

10.5 The Crown Estate (TCE) announced in May 2010 an extension process at a number of existing offshore wind farms, totalling some 1.5GW (known as Round 2.5). The Afl for the Project was awarded under Round 2.5.

10.6 The recommendations of OESEA state that extensions to Round 1 and 2 leases require careful site specific evaluation, since significant new information on sensitivities and uses of these areas is now available. It goes on to say that as a general rule it is recommended that any site extensions are to the seaward rather than the landward side. The Project site is

generally to the seaward side of Round 2, albeit that it is slightly closer to the Cumbria coast by virtue of the coastal geography in this area.

10.7 The Government also carried out a sustainability appraisal of EN-3. Although the NPS is not site-specific it reached conclusions on the sustainability of offshore wind in general. As set out in Table 3.1 of the Planning Statement, the majority of impacts are neutral, with some minor disbenefits and some uncertain impacts, which need to be judged on a site by site basis. Importantly, offshore wind has major positive climate change benefits in the medium and long term.

10.8 At the end of July 2009 The Crown Estate (TCE) opened a formal bidding process for extension projects to Round 1 and 2 sites, these extensions are known as Round 2.5. This offer was open to Round 1 and 2 projects which were either consented or had submitted consent applications for determination.

10.9 Following this the Applicant undertook an extensive screening exercise to investigate potential extensions for the extension of the seven Round 1 and 2 offshore wind farms which it operated or was developing at the time, including the Walney offshore wind farm site.

10.10 A screening study was carried out on the potential for an extension of the Walney site, based on desk based analysis of data sets in a geographical information system (GIS) and assessed the project according to parameters including:

- Availability of an economically acceptable wind resource;
- Ability to limit environmental impact (human, biological and physical environment) to acceptable levels;
- Compatibility with other offshore infrastructure and activities;
- Constructability and maintainability, including ability to achieve a satisfactory foundation design;
- Favourable water depth and geological conditions;
- The ability to achieve an operationally acceptable grid connection; and
- Compatibility with the Applicant's wider strategy.

10.11 Furthermore, TCE's requirements significantly influenced the site selection process for Round 2.5 developments. TCE set out a number of their own criteria which were used to define acceptable extension areas:

- Be of an appropriate scale to the original site;
- Take into consideration environmental parameters and other constraints;
- Share a substantial part of one or more boundaries with the original site;

- Demonstrate synergies with the original site, e.g. of construction, operation, improvement of economics and/or grid connectivity;
- No extension would be permitted to encroach within a radius less than 5 km of any nearby Round 1 or 2 site, except with the express agreement of the tenant of the nearby site; and
- The proposed extension must not adversely affect delivery or operation of the original site or any neighbouring site.

10.12 The conclusion of the above screening and criteria set for the extensions was that the existing Walney I and II offshore wind farms were a suitable site to be extended in principle.

10.13 Whilst all impacts and effects of the DCO proposals fall to be considered on their merits against relevant policy tests, the principal of offshore wind has been considered by the Government through the SEA process and found to be acceptable, subject to appropriate mitigation measures to prevent, reduce and offset significant adverse effects.

10.14 TCE have also gone through their own process prior to granting the AfL which determined that the application site was acceptable in principle for the development of a wind farm.

Detailed Site Selection and Alternatives

10.15 Chapter 5 of the ES explains in detail the decisions taken by the Applicant with regard to selection of sites for the offshore and onshore cable corridors, landfall and onshore substation.

10.16 An iterative and robust process to site selection was undertaken, informed by the consultation process and environmental, technical and economic considerations. The locations of the offshore and onshore elements of the Project have been carefully selected through this process which has incorporated comprehensive consultation with statutory advisors, stakeholders and the general public.

10.17 The proposed cable route, landfall and substation site are appropriate locations for the development proposed and there are no preferable alternative sites.

11 EIA Methodology

11.1 The ES presents the findings of the environmental impact assessment (EIA) for the Project. The ES describes the likely significant environmental effects predicted to occur as a result of the development, operation and decommission of the Project, whether alone or in combination with other development in the same area.

11.2 The approach taken in the EIA presented within the ES follows the Rochdale Envelope principle. The general principle of the Rochdale Envelope is that for each

environmental topic, EIA should be based on range of project design parameters, the key being that those parameters selected represent the worst environmental impacts that would occur.

- 11.3 In order for the EIA to assess the worst environmental outcome based on the project parameters, assessment of each environmental topic has been based on an interpretation of the maximum adverse scenario for each impact under investigation. The maximum adverse scenario, which will differ for each topic, has been identified for each specialist area and are described in the relevant technical chapter of the ES.
- 11.4 The scenarios assessed in the ES are agreed to be the maximum adverse scenarios.
- 11.5 The environmental effects of the development have been assessed for each relevant topic by comparing baseline conditions with the conditions that would prevail if the project is constructed and operated. Information about the Project is then used to identify potential impacts, which are then assessed for the level of significance of their effect on the receiving environmental receptors, which vary by topic.
- 11.6 The outcome of the assessment presented in the technical chapters in the ES is the determination of the significance of effects with reference to predetermined criteria. A number of criteria have been used to determine the significance of the environmental effects identified, with the most important being sensitivity of the receptor and magnitude of the impact. The definition of sensitivity and magnitude varies depending upon the parameter under question, and therefore these are defined in detail within each relevant technical chapter of the ES.
- 11.7 The sensitivity of a receptor is a function of its capacity to accommodate the proposed form of change and would reflect its capacity to recover if it is affected. The sensitivity of a receptor varies depending on a range of factors including rarity, scale, value, robustness to change etc. The magnitude of an impact refers to the size or amount of the impact and varies from “no change” to “major”.
- 11.8 Following the identification of receptor sensitivity and magnitude of the impact, the ES then calculates the significance of the effects following an assessment matrix set out in Table 3.3 of the ES and replicated below.

Table 33: Assessment matrix

		Magnitude of Impact				
		No change	Negligible	Minor	Moderate	Major
Environmental Sensitivity	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

11.9 Unless stated otherwise in relation to the specific topic areas identified below, the methodology used to assess the significance of the environmental effects, and the significance of effects reported, in the ES is agreed.

12 Construction Ports and Operations and Maintenance

12.1 The Applicant's approach to construction ports and operations and maintenance is set out in section 3.9 of the ES. Consent is not being sought for construction ports under the DCO application or any Operations and Maintenance (O&M) facilities and the ES does not consider the impacts of any, as yet unidentified, construction port or O&M facilities. The principal reason for this is that these cannot be finalised until the Project is consented and procurement of its components have been assessed. The ES does however fully assess the construction activities associated with the Project, for example, the interaction between construction vessels and marine traffic. This approach is in keeping with other DCO applications and consented projects.

12.2 The PPA Authorities agree that the ES has not assessed the impacts of any, as yet unidentified, construction port or O&M facilities, but disagrees with the approach taken to construction ports, i.e. they consider that the ES should have identified and assessed activities associated with the construction port as part of the Project, principally because the impacts of port activities at those ports, in particular traffic movements, may not have been assessed if the port was developed before the current EIA regime was in place. This issue is dealt with in further detail in Section 17 and 18 below.

12.3 The PPA Authorities agree with the approach taken to O&M facilities and consider that these impacts can be assessed in any future application for the necessary facilities.

12.4 The following sections of this SoCG relate to a number of topic specific matters where there are outstanding issues or some disagreement between the Applicant and the PPA Authorities, to aid the examination. For the avoidance of doubt, if the topic is not listed in the tables below, they are agreed between the parties.

ANNEX 1

Walney Extension Wind Farm Local Impact Report

BACKGROUND

1. On the 28th June 2013, DONG Energy submitted an application for a Development Consent Order (DCO) to the Planning Inspectorate (PINS) to build and operate an extension to the Walney Offshore Wind farm, comprising a maximum number of 207 turbines with a total generating capacity of up to 750 megawatts (MW). The proposed wind farm is located in the Irish Sea between Cumbria and the Isle of Man, about 19km west of the Isle of Walney, Barrow in Furness. The electricity generated will be exported via undersea cables to the mainland near Heysham in Lancashire. The project consists of wind turbines, foundations, offshore substations, onshore substation, offshore cables (connecting the turbines and offshore substations), offshore export cables and onshore export cables.
2. As the proposed wind farm is an off-shore electricity generating station having a capacity of more than 100MW, it is a Nationally Significant Infrastructure Project (NSIP) within the terms of Sections 14 & 15 of the Planning Act 2008. The application for the DCO will therefore be determined by the Secretary of State, following consideration by PIN.
3. Lancashire County Council and Lancaster City Council as hosts for the onshore development, together with Cumbria County Council and South Lakeland District Council as adjoining authorities are statutory consultees on this development. Other local authorities within and adjoining the Lancaster and Lancashire areas are also statutory consultees, but do not consider themselves impacted by the development and have not been actively participating in the process.
4. The four local authorities mentioned in paragraph 3 above, together with Copeland Borough Council and Lake District National Park Authority (who are within the zone of visual influence of the development) have been working together under the terms of a Planning Performance Agreement (PPA) to engage with DONG Energy in the pre-application process. The PPA authorities have previously commented on the emerging proposals and the developer's consultation arrangements.
5. The PPA between the six local authorities and DONG Energy was signed in February 2013. This has assisted the local authorities in the preparation of all the documentation and assessments which are required as part of the NSIP process. The PPA has enabled Cumbria County Council and the other authorities to commit the necessary level of resources to their participation in the project.
6. The Local Impact Report has been prepared jointly between the six PPA authorities, with Cumbria County Council leading on the offshore impacts and Lancashire County Council leading in respect of the onshore impacts, which impact upon land within the Lancaster City Council area.
7. Within fourteen days of the DCO submission, the local authorities were required to respond to PINS, to give their views on the adequacy of the pre-application consultation process set out in the applicant's Statement of Community Consultation (SoCC). A joint response was submitted on behalf of the PPA authorities, which concluded that adequate consultation had been undertaken in accordance with the relevant requirements of the Planning Act 2008.

8. Following this, on 22 July 2013 PINS confirmed that they had accepted the application, which now takes the application into what is known as the Pre-Examination stage, which is expected to last 2-3 months. The acceptance of the application also triggers a series of immediate deadlines for statutory consultees, such as the PPA authorities, to respond to the application prior to the Examination stage, which is expected to last up to 6 months thereafter.
9. A key input as part of the Examination stage process is that the PPA authorities will be formally invited by the Secretary of State to give their views on the proposal, and to prepare and submit a Local Impact Report setting out what they consider to be the effects of the development upon the local area. This Local Impact Report will be required to be submitted a few weeks after the formal Pre-Examination meeting to be held by PINS, probably in November 2013.
10. The views of local members on the proposed development will be attached as Appendix 1 to this Local Impact Report when it is submitted to PINS.

PART ONE: OFFSHORE IMPACTS

11. This part of the Local Impact Report (LIR) deals with impacts associated with the offshore elements of the project, in particular the impacts arising from:
 - The wind turbines, offshore substations and undersea cables
 - Construction of offshore elements
 - Operation and maintenance of the wind farm
 - Decommissioning
12. Most of these aspects will have an impact upon Cumbria, and the specific O&M impacts will only be capable of assessment when the port location has been confirmed. The onshore aspects relating to cable landfall, the onshore substation and connections into the National Grid, will impact upon Lancashire and are dealt with in Part Two of the LIR.

Location and Site Characteristics

13. The proposed Walney Wind farm Extension would be located immediately west-north-west of the existing Walney 1 & 2 Wind farms in the Irish Sea, approximately 19km west of Walney Island and 36km east of the Isle of Man. It would lie approximately 26km from the Millom coastline and 40km from St Bees Head. The site is nearly 150 square kilometres in area.
14. The seascape in this part of the Irish Sea is characterised by the presence of existing energy infrastructure. In addition to Walney 1 & 2, there are three other wind farms in the area – West of Duddon Sands (under construction), Barrow and Ormonde. The latter two wind farms are those seen most readily from land, being approximately 7km from the Walney shoreline at the nearest point. There are also eight gas platforms in the area.
15. A number of commercial shipping routes operate in the locality, providing links between NW England, the Isle of Man and Ireland.

16. The sea depth in the area of the proposed Walney Extension varies from 21m to 55m (at low tide).

Description of the Proposed Development

17. The exact size, layout and methodology for delivery of the proposed wind farm is yet to be determined and the developer needs to retain some flexibility to take into account technological advancements, infrastructure availability and costs up to the time of construction. For this reason the proposal is described in the form of a design envelope, which states the maximum adverse case scenario within which the project would be built. This is an established principle, also known as the 'Rochdale envelope' (after legal cases involving Rochdale Council) which is commonly used for proposals of this type, where there is a rapid development of the technology, changing market conditions and a long lead-in time to construction.
18. The project would involve the construction of between 93 and 207 wind turbines and occupy an area of up to 149 square kilometres (57 square miles) in the Irish Sea. The turbines would have a generating capacity of between 3.6MW and 8.0MW. The physical dimensions of the turbines would be within the following range:
 - Hub height between 82 and 122 metres
 - Rotor blade diameter ranging from 120 to 200 metres
 - Maximum blade tip height ranging from 142 to 222 metres
 - Clearance above sea level of at least 22 metres
19. Indicative layouts have been presented by the developer, but none of these necessarily represent the actual layout that will be built. They are intended to illustrate possible scenarios within the design envelope of the project. The separation distance between each turbine will be a minimum of 737 metres.
20. The foundations for the turbines will depend on a number of factors, including the type and size of turbine, maintenance requirements, water depth, tidal conditions, weather conditions, wind and wave loading, seabed stability, geology, decommissioning, transportation, costs and other technical constraints.
21. The following foundation types will be considered:
 - Single steel monopole – a 9m diameter steel tube driven into the seabed to a depth of up to 45m. Requires minimal seabed preparation and drilling in an estimated 20% of cases;
 - Gravity base – a conical structure held in place by its own mass, which would be up to 40m diameter at seabed level and with a maximum shaft diameter of 12m. Requires seabed levelling and sediment removal, but no piling or drilling;
 - Jacket – a three or four legged steel lattice structure, fixed to the seabed by piles at each corner or by using suction caissons. The legs are up to 40m apart on the sea bed. Requires minimal seabed preparation; piles up to 70m deep are driven into the seabed to secure the foundation.
22. To prevent scour (undermining) of the foundation, it may be necessary to lay rock armour around the foundations on the sea bed. This rock protection layer may be up

to 2m deep for a distance of up to 46m around each foundation (depending on the type)

23. Each turbine is installed from a jack-up vessel, which is equipped with cranes and other equipment to lift and fix the various components into place. Firstly the turbine tower is lifted into position and mounted securely on the foundation. Then the hub is lifted to the top of the tower and securely attached. Finally the three blades are installed, either one by one or as a pre-assembled unit.
24. A network of inter-array cables (up to 27km in length) will connect the wind turbines to an offshore substation within the wind farm area, at a voltage of 33kV or 66kV. The inter-array cables will be installed on the seabed using the most suitable method, which could include ploughing, trenching, jetting, cutting and rock-cover. The cables will be buried up to 3 metres below the seabed, with this increasing to up to 10 metres deep where mobile sand waves are present.
25. Up to three offshore substations (132kV to 220kV) will be required. Each substation will be mounted on a jacket foundation; most likely of steel, but possibly concrete. The foundation will be larger than for turbines, with up to 70m between each leg at seabed level. The substation will incorporate a deck ('topside'), which houses switchgear, transformers, helicopter deck, mast, crane and lighting. The maximum height of the substation would be 110 metres above low tide.
26. Up to five undersea export cables would be required to transmit the electricity from the offshore substation to the shore – a distance of 96km. These cables would carry alternating current (AC) electricity between 132kV and 220kV. They would be buried up to 3 metres deep on the seabed, affecting a strip up to 10 metres wide (per cable). Where the desired burial depth cannot be achieved due to seabed conditions or at the crossing of other cables or pipelines the cables would be protected by rock dumping.
27. The location of the onshore base for the construction phase is not yet known and does not form part of this DCO application. A number of Irish Sea ports are being considered. A range of different vessels will be involved in the construction phase, including:
 - Foundation installation or jack-up vessels
 - Cable laying vessels
 - Crew and transfer vessels
 - Service vessels
 - Anchor vessels
 - Tugs
28. Construction materials for the offshore work would be transported generally by sea, and it is anticipated that almost 500 construction jobs would be created at its peak.
29. Similarly, the operational and maintenance base has not yet been chosen. It may be that these activities are undertaken from an existing base, such as Barrow, or that new facilities are proposed, which may be the subject of a separate future planning application. The applicant has supplied indicative information concerning the operational base, which would comprise:
 - Buildings: offices 1,000 sq m, warehouse 1,000 sq m

- Parking: 100 spaces
 - Harbour: pontoon, berthing and vessel fuelling
 - Staff: up to 100 technicians and 20 office staff
 - Traffic: 200 cars and 10 trucks per day
 - Total site area: 6,000 sq m
 - Service Vessels: 8 return journeys per day
 - Helicopter service: approx 17 return journeys per day
30. The wind farm would be operational continuously through out the year, generating electricity whenever the wind speeds are suitable, which is expected to be about 85% of the time.
31. Subject to approval, construction of the offshore elements is expected to commence in April 2016 and would take two years to complete. The wind farm would become operational in March 2018 and would have a minimum operational life of approximately 25 years.
32. Decommissioning will take place at the end of the operational life of the wind farm. A Decommissioning Plan will be approved as a requirement of the DCO. The plan will be reviewed as the decommissioning period approaches, but is expected to involve removal of the turbines, offshore substations and all structures above the sea bed. It is also to include removal of foundations to at least 1 metre below the seabed.

Planning History

33. As the development is offshore and therefore beyond the administrative boundaries of the PPA authorities, there is no conventional planning history associated with the offshore elements of the project.
34. There are other offshore wind farms in this part of the Irish Sea which have been consented under regimes that pre-date the NSIP process. These are as follows:
- Barrow, 30 turbines (90MW), operational 2006
 - Ormonde, 30 turbines (150MW), operational 2011
 - Walney 1 & 2, 102 turbines (367MW), operational 2012
 - West of Duddon Sands, 108 turbines (389MW), under construction

Planning Policy

National Policy Statements

35. National Policy Statements (NPSs) for Energy Infrastructure are relevant, especially the following (all published in July 2011):
- EN-1: Overarching National Policy Statement for Energy
 - EN-3: Renewable Energy Infrastructure
 - EN-5: Energy Networks Infrastructure

36. These NPSs expand upon the statutory provisions of the Planning Act 2008 and set out national policy for major energy infrastructure. They are the primary basis for considering and examining nationally significant infrastructure proposals relating to renewable energy. They set out the need for new nationally significant energy infrastructure projects (including those powered by wind turbines), and explain how assessment principles and criteria will be applied to schemes.
37. EN-1 states that there should be a presumption in favour of granting consent for such projects unless more specific and relevant policies set out in the NPSs clearly indicate that consent should be refused.
38. EN-1 states that there is an urgent need to deliver large-scale renewable energy infrastructure, which is vital to meet the Government's aim of reducing greenhouse gas emissions by 80% by 2050 (from 1990 levels). The UK has committed to achieving 15% of its total energy needs from renewable resources by 2020 and offshore wind energy is the main way of achieving this.
39. In evaluating proposals, PINS will need to consider the environmental, social and economic benefits and adverse impacts of the project, as identified in the NPSs, the application or elsewhere, including the Local Impact Report.
40. EN-3 reaffirms advice in EN-1 on the basis that the need for infrastructure covered by the NPS has been demonstrated, and that there are ambitious renewable energy targets in place.
41. EN-3 explains that a Development Consent Order for an offshore wind farm will normally include a deemed Marine Licence. The licence is concerned with the protection of the environment, human health and legitimate uses of the sea. The Marine Management Organisation (MMO) is the body normally responsible for such matters and is an important consultee in respect of offshore wind proposals.
42. EN-1 states that PINS should work on the assumption that the relevant pollution control regime and other environmentally regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator, and should act to complement but not seek to duplicate them.
43. EN-3 makes it clear that economic viability is a matter for the applicant and not something to be assessed as part of the application process.
44. EN-3 states that it is unlikely that wind farm operators will know precisely which turbines will be procured until some time after consent has been granted. The 'Rochdale Envelope' approach of setting out the maximum adverse impact scenario is advocated to deal with this uncertainty.

National Planning Policy Framework

45. The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England. The document recognises three dimensions to sustainable development as being economic, social and environmental. It makes it clear that these roles should not be considered in isolation.
46. Whilst the NPPF does not contain specific policies for NSIPs, there are relevant matters within the framework, including those relating to energy and climate change.

47. Paragraph 17 of the NPPF states that one of the core principles of planning should be to, "Support the transition to a low carbon future in a changing climate,.....and encourage the use of renewable resources (for example, by the development of renewable energy)"
48. Paragraph 93 states that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development.
49. Paragraph 162 states that "local planning authorities should work with other authorities and providers to..... take account of the need for strategic infrastructure including nationally significant infrastructure within their areas".

Local Policy context

50. The Cumbria Sub Regional Spatial Strategy seeks to encourage major development in key service centres, which include Barrow and Workington/Whitehaven. The redevelopment of Barrow Port is an important spatial initiative.
51. Barrow Local Plan, Policy D7 protects the coastal zone from development unless it brings economic, social or other benefits to the area and could not be accommodated elsewhere. Development would not be permitted which, amongst other things, increases coastal erosion, prejudices local fisheries, has an unacceptable adverse impact on landscape character, or has an adverse effect on coastal recreation activities.
52. The Barrow Local Plan has a positive policy stance towards renewable energy development. Policies D45, D46 and D47 set out the Council's policy for onshore wind energy development. The plan states in respect of the offshore wind development in the Irish Sea, 'that a potentially very significant wind resource could be enhanced without visual or other environmental impacts that would be of the same significance as at many onshore locations'.
53. The Copeland Local Development Framework sets out in Policy ER2 its support for renewable energy generation at locations which maximise resources and minimise impacts. Policy ER3: The Support Infrastructure for the Energy Coast seeks (amongst other things) to minimise impacts on landscape and the natural environment, maximise economic benefits (training, skills development and supply chain), and agree measures to compensate for negative impacts.
54. The Copeland LDF Policy ENV5 seeks to protect and enhance landscapes by protecting all landscapes from inappropriate change, mitigating impacts and supporting proposals which enhance landscape value.
55. The Lake District National Park, Local Development Framework sets out in Policy CS16, the authority's policy for renewable energy generation. The policy is supportive of renewable energy provided the development does not adversely affect the landscape character of the Park. Wind energy developments will be assessed in accordance with the Cumbria Wind Energy Supplementary Planning Document, which includes a presumption against large scale wind energy development in the Park.

Local Impacts

56. This section sets out the impacts resulting from the offshore elements of the proposed wind farm, insofar as they impact upon the administrative areas of Cumbria and Lancashire, the coastal districts of Copeland, Barrow, South Lakeland, Lancaster and the Lake District National Park Authority. It does not consider the impacts on the marine environment, except where they are relevant to the coast or shoreline, as responsibility for the sea lies with the Marine Management Organisation (MMO) and other relevant bodies such as the Joint Nature Conservation Committee (JNCC), Natural England, Centre for Environment Fisheries and Aquaculture Science (Cefas), English Heritage and the Environment Agency. The MMO considers not only the environmental impacts, but also relevant economic impacts on fishing, shipping and recreation, in consultation with the appropriate specialist bodies.
57. Whilst the PPA authorities' jurisdiction does not extend to development in the marine environment, there is understandable interest and concern about the impacts. The PPA authorities are keen to see that the relevant regulatory and competent bodies have considered offshore impacts, particularly those relating to ornithology and metocean processes. It is clear from the applicant's Consultation Report and appendices, which list all the pre-application representations, that the above mentioned organisations have been engaged at each stage of the project and commented in detail on these matters.
58. The section also deals with onshore impacts resulting from construction of the offshore elements of the wind farm and its subsequent operation and maintenance, which may affect Cumbrian or Lancashire ports.
59. For clarification, intertidal ornithology is dealt with in the onshore impacts section, since the principal impacts arise in respect of the export cable which comes ashore at Middleton, near Heysham (Lancaster district), within the designated European habitats of Morecambe Bay.
60. Throughout the pre-application stage, the PPA authorities have commented on a range of documents produced by the applicant. These include the Preliminary Environmental Information (PEI), a number of technical reports, the draft Development Consent Order (DCO) and the draft Environmental Statement (ES).
61. The main matters raised in PPA responses are: seascape (PEI, technical reports, draft ES), ornithology (PEI), transport (PEI), noise (PEI, technical reports, draft ES), socio-economic (PEI and draft ES), impact mitigation (PEI), community benefit contributions (PEI), and seabed sediments (draft DCO and draft ES).
62. Some of these issues have been adequately addressed by DONG Energy. Set out below are the matters arising from the offshore elements of the project that most likely have impacts onshore and to be of concern to residents and local authorities.

Approach to the Assessments

63. The PPA local authorities have assessed the impacts of the proposal, based on the chapter headings contained within the applicant's ES. Where applicable, each chapter heading has been assigned to relevant specific officers for comment. The PPA authorities have been able to draw on in-house specialist advice covering:
 - Seascape and landscape visual impact

- Highways

Chapter 19 - Seascape, Landscape and Visual Impact

64. This section is concerned with the visual impacts of the offshore elements of the project. The impact of the onshore elements is dealt with in the onshore part of the LIR.
65. The Walney Extension project will increase the number and extent of wind turbines within the Irish Sea. The visual impact of the wind farm when viewed from the Cumbrian coastline could give rise to concern. The turbines would be seen most readily from the Walney coast, where they would be 19km offshore at the nearest point. There is considered to be negligible impact on the Lancashire coast because of the distance from the shoreline and the position of the wind farm 'behind' a number of existing offshore wind farms.
66. The applicant's Seascape, Landscape and Visual Impact Assessment (SLVIA), contained in Chapter 9 of the ES, has been reviewed in detail by Cumbria County Council's Landscape and Countryside Officer, whose comments underpin this section.
67. In Chapter 19, a total of ten onshore viewpoints on the west coast of Cumbria have been identified from which to consider the effects of the development (details below). The distance to the nearest turbine ranges from 40km at St Bees to 21km at Biggar Bank, Walney Island. Three of the viewpoints have been used in order to consider the cumulative effects of the scheme in conjunction with existing and consented wind energy developments. Wireframes and photomontages have been prepared for all viewpoints.
68. The SLVIA has been predicated upon a worst case scenario basis, following the Rochdale Envelope approach. The ES notes that this has been taken to be the 207 x 142m turbine (to blade tip) scenario, due to the following factors:
 - The 207 turbine scenario would give rise to the greatest increase in density of wind turbines in views.
 - The density and number of turbines is more critical than turbine height from elevated viewpoints.
 - The 207 turbine scenario would create a greater contrast in vertical scale with existing turbines - creating an additional 'bank' of rotating elements.
 - The taller turbines did not yield a meaningful increase in the area of visibility from land based viewpoints.
 - The greater number of turbines would yield a greater number of light sources (at night).
69. Following requests made by consultees during earlier stages of consultation on the scheme, additional photomontages were developed for the 93 x 222m turbine (to blade tip) scenario. At the time of writing this response, photomontages had been prepared in regard to six of the ten Cumbrian viewpoints. These were considered in the PPA authorities' assessment of the scheme. The PPA authorities have previously expressed concern about the methodology used for production of the photomontages, which it is considered may under represent the vertical scale of the turbines (see also para. 76 below).

70. Clearly, a key factor in the assessment of landscape and visual impact is distance. The Cumbria Wind Energy SPD includes a review of good practice guidance in regard to the effect of distance upon visibility/perception. This notes that at distances of between 15 to 30kms, turbines are generally seen as minor elements of a wide landscape composition, perceptible only in clear conditions - going on to state that at distances much greater than 30km, the limit of visibility to the human eye is being approached. (It is noted that this good practice guidance is predicated upon the assessment of turbines up to a height of 120m - the proposed turbines may be up to 222m in height, as noted above). DTI guidance on the Assessment of the Impact of Offshore Wind farms refers to the effects of the earth's curvature upon long distance views, and recommends a 35km seaward limit of visual significance for regional seascape units for Round 2 offshore wind farm SVIAs. The larger turbines will mean that the seaward limit will increase.
71. Prevailing weather conditions can have a significant effect upon visual impact at the distances under consideration. This is considered in the ES, which includes an assessment of average visibility, taken from meteorological recording stations. At St Bees Head visibility is less than 40km for 98.6% of the time, and at Walney Island visibility is less than 20km for 55.9% of the time.
72. A key factor to take into account in the assessment of the scheme is cumulative impact. Several existing offshore wind farm developments are clearly visible from viewpoints in the county. The ES considers the impact of the scheme in conjunction with existing and consented wind farm schemes, both onshore and offshore. It is relevant to note in this respect that officers raised concerns in regard to the significant cumulative impact of the Walney 1 and 2 schemes when these were considered by Cumbria County Council's Development Control and Regulation Committee in 2006.
73. A review of the SLVIA Technical Report (Annex B.13.A), which includes the landscape and visual assessment used to inform Chapter 19, was undertaken by WYG on behalf of the PPA authorities in early 2013. It is relevant to note that WYG concluded that the approach and methodology generally followed good practice, and whilst some variances in magnitude of change were identified at some viewpoints, these did not significantly alter the overall assessment.

Assessment

74. This assessment focuses upon the operational phase of the development, as this is regarded as the most significant phase in landscape and visual terms. The following table summarises the assessment of Cumbrian viewpoints included in the ES:

Viewpoint Ref	Viewpoint Location	Distance to nearest turbine	Sensitivity of visual receptor	Magnitude of impact	Significance of effect
1	St Bees Head	40km	High	Low-Negligible	Minor
2	Thornhill	39km	Low	Low-Negligible	Negligible
3	Seascale Beachfront	34km	High-Medium	Low-Negligible	Minor
4	Seafront at Ravenglass	32km	High	Low	Moderate

5	Black Combe, Bootle Fell	28km	High	Medium-Low	Major/ Moderate to Moderate
6	Coastal Path, Silecroft	24km	High	Low	Moderate
7	Public Footpath, NW of Millom	28km	High	Low-Negligible	Minor
8	Askam in Furness	29km	High	Negligible	Negligible
9	Biggar Bank Road, Walney Island	21km	High	Low	Negligible
10	South End Haws, Walney Island	23km	High	Low	Negligible

75. In the PPA authorities' view, the sensitivity of visual receptors should be regarded as 'high' at viewpoint 3, given the popularity of the area with visitors, who are likely to rate landscape/seascape quality as being of high importance. This would therefore increase the significance of effect to borderline 'moderate'.
76. In the PPA authorities' view the sensitivity of visual receptors at viewpoint 2 should be regarded as 'medium' given the potential impact upon residents on the edge of Thornhill. This would increase the significance of effect to 'Minor'.
77. With the exception of these points, the authorities are in general agreement with the predicted effects. Seascape character is a key consideration, and whilst the sensitivity of receptors is correctly identified as being generally high, the predicted magnitude of impact for each viewpoint reflects the distance of the turbines, and the relatively small proportion of time over which the meteorological data would suggest they will be visible from land. The methodology used to establish magnitude of impact is acceptable. Table 19.15 of the ES notes that the criteria used to assess relative impact are as follows:
- 'High' - the degree of change must be such that the project is dominant, commanding and unmistakeable and being the foremost feature, easily seen.
 - 'Medium' - the degree of change must be such that the project is conspicuous, well defined, clearly visible and catches the eye.
 - 'Low' - the degree of change must be such that the project is apparent, obvious and evident.
 - 'Negligible' - the project is not obvious, lacks definition and its presence is both subtle and blurred.
78. Having considered the two sets of photomontages, the PPA authorities agree with the logic applied by the applicant to worst case scenario selection (19.7.9) in regard to those viewpoints where the bulk of the scheme will be seen as a backdrop to the existing offshore schemes (viewpoints 8, 9 & 10), and from elevated viewpoints around Black Combe (5), where the density and spread of turbines will be most apparent.
79. However, in the PPA authorities' view, the larger turbine scenario would have a greater impact upon those sea-level viewpoints where a relatively large proportion of the angle

of view is taken up by the scheme on its own (viewpoints 1, 2, 3, 4 and 6). Given the distance however, it is not felt that this would significantly alter the assessment of magnitude. Given this, and that the most significant impact - upon viewpoint 5 - will be exacerbated by a greater number of turbines, the PPA Authorities are satisfied that the worst case scenario applied by the applicant gives a reasonable assessment of impact upon Cumbria as a whole.

80. It is key to note therefore, that only the impact upon viewpoint 5 is regarded as 'significant' (major/moderate and above) in EIA terms.
81. In regard to effects upon landscape and seascape character, the ES assesses anticipated impacts upon both local landscape character types (LCTs), and regional seascape units. This concludes that the significance of effect will be 'negligible' for the majority of Cumbrian LCTs identified, with the exception of a 'minor' rating for the Intertidal Flats, Coastal Marsh and Dunes and Beaches sub-types. The significance of effect upon the Duddon Estuary, Walney Island and Morecambe Bay regional seascape units are assessed as 'moderate' to 'moderate/minor' (reducing to 'negligible' in the north), 'moderate/minor', and 'negligible' respectively. The PPA authorities concur with this assessment.
82. In regard to cumulative impact, it is key to establish the net effect of the scheme under consideration. The existing and consented offshore schemes are located in closer proximity to the shoreline, and will be more prominent in many views where the Walney Extension Wind farm is simultaneously visible. The most significant cumulative effects arising from the scheme are likely to occur from viewpoints where the turbines will encroach into undeveloped areas of seascape, thereby extending the influence of turbines in seaward views.
83. The significance of cumulative effect upon regional seascape character units is assessed as being moderate to moderate/minor, with the impact upon LCTs and viewpoints 'minor'. This would reflect the pre-existing cumulative effects already apparent. The authorities would generally agree with this, but consider that the effect upon landscape sub-type 1a, Bay and Estuary: Intertidal Flats should be regarded as 'low' rather than 'low-negligible'. This is due to the fact that this sub type extends along the west coast of the Cumbria for much of the zone of theoretical visibility of the scheme, with views being therefore theoretically possible across much of this area. This would increase the significance of effect to 'moderate' in regard to this sub-type.
84. As pointed out in para. 61 above and para 180 below, the PPA authorities have raised some concerns regarding the methodology for visual impact assessment and the production of photomontages. At the time of writing a meeting was still to be held with the applicant's landscape consultant to discuss these issues. The PPA authorities therefore may wish to comment further on seascape, landscape and visual impact subject to the outcome of this meeting.
85. In conclusion therefore, the assessment gives a generally accurate reflection of the likely landscape, seascape and visual effects, albeit the points made above should be noted.

Chapter 28 Traffic and Transport

86. The potential impacts of the offshore construction and O & M base activities upon the transport network are not examined in the ES. Chapter 28 limits its scope to the assessment of impacts arising from the onshore development. These aspects are covered in the onshore part of this LIR.

87. The port to be used as a base for construction, operation and maintenance (O&M) of the wind farm has yet to be decided. The existing wind farms in the area are operated and maintained from dedicated facilities built at Barrow Port, which DONG Energy have confirmed is one of a number of ports under consideration.
88. Transportation impacts associated with either activity could be significant and include travel to work journeys, construction traffic, and the movement of construction materials by road, rail or sea, together with associated congestion, noise and pollution.
89. The turbine foundations and cable laying will require significant quantities of construction materials, some of which may need to be transported from onshore sources to the construction site offshore, via local roads and harbours. Such movements may result in significant deterioration or damage to the highway and could have significant impacts upon communities along the route.
90. While the proposed development has the potential to have a significant impact on the Cumbrian or Lancashire highway and transportation network should Barrow-in-Furness, Workington or Heysham, be selected as a construction port or Operation & Maintenance base, currently there are too many variables and insufficient detail to provide an assessment of the resulting impact in order to identify any necessary mitigating measures. It is also unclear within the supporting documentation of the exact consent process to be followed for these elements. As such there remains uncertainty whether subsequent consent processes will necessitate formal consultation with the relevant highway authority and whether the aforementioned detrimental impacts will be appropriately assessed and appropriate mitigating measures identified and secured.
91. In discussions about this matter, the applicant has indicated that onshore activities relating to the offshore construction work will take place within the terms of existing consents, e.g. port operations or require planning consent. The PPA authorities do not accept that this is necessarily the case and at the Examination stage will seek to ensure that the issue is fully considered and appropriate mitigation provided.

Chapter 31 Socio Economic

92. There are potential benefits and adverse impacts associated with the proposed wind farm.
93. The applicant's assessment in the ES (Chapter 31: Socio Economics) identifies a number of relevant issues to consider, in line with NPS guidance. These include job creation and training, impact on tourism (including the visual impact of the development), influx of workers, existing socio economic conditions, and the cumulative effects as a result of interaction with other projects.
94. The applicant's assessment suggests that nearly 500 jobs will be created throughout the main (four year) construction period. Of these, an estimated 230 will be in the North West (NW). Nearly 100 more jobs are expected to be created in the NW indirectly through the supply chain or as a result of increased spend.
95. During the operational phase (2020 - 2044), the applicant anticipates that around 380 direct jobs will be created. 185 of these jobs will be created in the NW, with two thirds at the operations and maintenance base. This number would comprise 100 technicians and 20 office staff. A further 75 jobs would be created through the supply chain and increased spending in the area.

96. It is worth noting that the existing Walney 1 & 2 schemes have created 76 new jobs which will exist for the operational lifetime of the wind farm. The evidence suggests that the majority of these jobs are filled by local people and it is the applicant's stated intention to recruit suitably skilled local people and involve local services where possible. A study by DONG Energy has shown that the local economy benefitted to the tune of around £950,000 per month during construction of these earlier schemes.
97. The additional employment created by the proposed wind farm has been estimated to add £63.5M to the value of the local economy during the construction period and £14M per annum during operation.
98. As there is not yet a firm indication of the construction port or the location of the operations and maintenance (O&M) base, it is difficult to ascertain the socio-economic impact (both beneficial and adverse) upon Cumbria and Lancashire. The potential construction ports include Liverpool, Belfast, Heysham and Barrow. These are also the potential locations for the O&M base, along with Workington, Douglas and Garston. An early decision on this would allow for detailed discussion around the necessary support that local partners can provide in supporting local recruitment, suitable training options, alerting the potential local supply chain and evaluating any impact on local services, housing and businesses which may need to be mitigated.
99. The PPA authorities would especially welcome early discussions around developing a local supply chain framework to ensure that local businesses are provided with ample opportunity to secure work and provide services during each phase of the development. For example, the authorities would want to explore opportunities for small and medium enterprises (SMEs) to benefit from innovative approaches to training schemes such as shared and community apprentices, or to be supported and mentored to achieve the necessary quality standards that DONG Energy would need to see in any contractors it employs.
100. There is potential for the additional employment created by the development to lead to pressure on the local housing market. The applicant has assessed this impact as not significant, as there is suitable accommodation available in the potential construction ports (including Heysham and Barrow) to accommodate the anticipated number of temporary workers. The housing needs of locally engaged staff are likely to be already met.
101. The effect of the project upon the local fishing industry is assessed by the applicant as not significant. The project lies within an area of limited fishing activity, which takes its catch to Whitehaven and accounts for 30% of the port value. The wind farm would occupy only a small part of this fishing zone (ICES 36E6) and is expected to have limited impact on profitability or employment. Smaller vessels will be able to continue to fish in and around the wind farm once it is operational. The indication at other offshore wind farms is that the area around the turbines can develop into a useful spawning ground for fish.
102. The applicant has researched the effects upon coastal tourism resulting from the visual impact of the wind farm. This included a review of previous survey research carried out with visitors and tourism businesses which suggests that there is little evidence to suggest that the minor visual impact will have any significant negative impact on tourism. (Visual impact as a whole is addressed in "**Seascape, Landscape and Visual Impact**" section above).
103. The evidence presented in the ES suggests that majority of visitors do not expect their behaviour to be influenced by the presence of a wind farm. Tourism activities where

the primary focus of the visitors is on enjoying the landscape especially its wildness and tranquillity (eg. walking) are more likely to be adversely affected by wind farm developments

104. The SLVIA (see *“Seascape, Landscape and Visual Impact”* section above) highlights that across the range of identified viewpoints the visual impacts are assessed to be mainly minor to negligible. The only visual impact that is assessed as significant in EIA terms is the view from Black Combe at Bootle Fell. The change in visual impact given the existing visual context is stated to be minimal.
105. Britain’s Energy Coast vision is for West Cumbria to maximise the economic benefit for local communities from investment in energy related proposals and to seek opportunities to diversify the local economy. The same economic vision also applies in Lancashire.
106. DONG Energy has agreed in principle to the establishment of a Community Benefit Fund (CBF) if a DCO is granted. The PPA authorities welcome this, but recognise that the CBF falls outside the planning process. This will be paid to communities in recognition that the project may have national benefits but the impacts are local and long term.
107. In overall terms, the authorities consider that the applicant's ES has adequately assessed and described the socio economic impacts. However, the authorities wish to maximise the economic benefits for the area by seeking agreement with the applicant to promote local employment, training and supply chain opportunities. This will continue to be pursued with the applicant.

Chapter 8 Sea bed sediments

108. The PPA authorities have drawn the applicant's attention to the possible presence of:
 - radioactive particles contained within sediments on the sea bed
 - radioactive debris on the sea bed
109. The authorities are concerned that, if radioactive material is disturbed during construction of the wind turbines, it could result in the release and movement of radioactive particles, which could in turn lead to contamination of the coastline. (See also paragraph 116 below relating to radioactive waste arising from decommissioning)
110. It is known that radioactive particles are present within sea bed sediments in the Irish Sea as a result of historic discharges from Sellafield. The Environment Agency regulates the monitoring of sea bed sediments and certain beaches on the Cumbria coastline.
111. The applicant has addressed this issue in ES Chapter 8 Sediment and Water Quality. Reference is made to an HPA study (2011) of radioactivity on Cumbrian beaches which indicates a very low existing risk to people using the beach. The applicant has also indicated that any disturbed sediment particles from the offshore construction works would re-settle on the sea bed long before they could be carried to the shore.
112. The applicant refers to a previous study into the health risk surrounding the disturbance of radionuclides in sea bed sediments undertaken for the Walney 1 & 2 wind farms. This concluded that there would be no impacts on human health and the applicant considers that the results are equally applicable to the Walney Extension project, because of its close proximity.

113. The applicant will carry out sampling for radioactivity should dredging for gravity base foundations be required to enable a further risk assessment to be carried out.
114. The ES concludes that no impact to human health will result from the disturbance of radionuclides during the construction period.
115. The PPA authorities wish to seek clarification of the methodology and assumptions underpinning the applicant's approach before accepting their conclusion that there is no impact to human health. The HPA study for example does not consider the issue of further sediments being deposited on beaches and it is necessary to check the validity and relevance of the other studies referred to. The authorities would also wish to consult the EA before coming to a final view.

Chapter 9 Offshore Noise and Vibration

116. Chapter 9 assesses noise impacts, which are at their highest level during the piling of foundations in the construction phase.
117. A maximum noise level of 31.5 decibels is predicted at the nearest onshore point (19km from the nearest turbine). This is significantly below the guideline levels of the World Health Organisation and the relevant British Standards.
118. The ES concludes that it is extremely unlikely that the levels of noise experienced by humans onshore will be a cause for concern.
119. In respect of noise resulting from onshore construction (in Lancaster district), the applicant is proposing to publish contact details for concerned members to speak to a site representative.
120. The PPA authorities accept the applicant's assessments that the noise arising from offshore construction is unlikely to cause disturbance onshore. However, it is suggested that contact details also be made available to residents on the Cumbrian coast during construction to enable any concerns to be expressed. This would be consistent with the arrangements for onshore noise (see para 194).

Chapter 4 Project Description (Decommissioning)

121. The applicant proposes to decommission the wind farm at the end of its operational life. This is explained in the ES (Section 4.18 of Chapter 4: Project Description).
122. The decommissioning of the offshore elements would include removal of the turbines, sub stations and foundations (to a depth of around 1 metre below sea bed level). This will effectively restore the sea bed to its condition prior to development.
123. The applicant proposes to leave in place the deeper parts of the foundations and the undersea cables, as the impacts of removing these could be damaging to the marine environment. Similarly, any rock armour may be left in place if it is considered desirable to preserve marine habitats which may have become established.
124. The PPA authorities are aware that decommissioning of oil and gas rigs off the UK coast has sometimes produced radioactive waste. This issue appears to arise as a result of naturally occurring radioactivity within the hydrocarbons being extracted. However, the PPA authorities consider that the potential for radioactive waste arising from decommissioning of the turbines should be assessed, since disposal of this

material could have impacts upon Cumbria where the appropriate disposal facilities are located.

125. Under the terms of the DCO, a Decommissioning Plan will be required to be submitted to the Secretary of State following consultation with the MMO and the Centre for Environment, Fisheries and Aquaculture Science (Cefas), prior to commencement of construction. The plan will be continually reviewed so that it remains relevant at the time decommissioning takes place.
126. It is understood that DONG Energy will be required to provide a bond, which will guarantee the availability of funding to undertake decommissioning. However, the process for securing the bond is not apparent in the application.
127. The PPA authorities are in agreement with the applicant's approach to decommissioning, but consider that there should be a clear timescale specified for approval of the Decommissioning Plan and the mechanism for securing the bond needs to be clear.

PART TWO: ONSHORE IMPACTS

128. This part of the Local Impact Report (LIR) deals with impacts associated with the onshore elements of the project, in particular the impacts arising from:
 - The Horizontal Directional Drilling (HDD) required to bring the export cables ashore
 - Underground cabling between the shore and the new substation
 - Construction of the new substation
 - Connections to the National Grid
129. It is these aspects that will have an impact upon Lancaster district in Lancashire.

Location and site characteristics

130. The onshore element of the Walney Extension wind farm will be located south of Heysham, within the district of Lancaster in Lancashire. The landscape close to and around the site is predominantly low-lying pasture, open in character with hedged or ditched field boundaries, farmsteads and generally low tree cover.
131. The settlement pattern focuses on the small village of Middleton, with the larger settlement of Heysham to the north. Development in the surrounding area includes the port and nuclear power stations at Heysham (including existing substations and transmission pylons), several caravan parks serving the local tourist industry, and a number of industrial developments. Overall, the area identified for the substation lies on the edge of the built up area of Heysham, whilst the proposed cable route and cable landing crosses open farmland to the east and south of Middleton.

Description of the proposed development

Onshore cable route

132. Up to 5 export cables will make landfall at Middleton Sands, near Heysham. Where the cables come ashore and cross the intertidal salt marsh they will be installed using a tunnelling technique known as Horizontal Directional Drilling (HDD) and pass at depth beneath the salt marsh. The cables will then be buried in standard cable

trenches along a route running from Middleton Sands terminating at the proposed substation site located to the north of the Lancaster West Business Park approximately 3.5 km to the north and east.

133. An indicative working width for the cable route of up to a maximum 40m during construction activities will be required. The corridor has been aligned to take into account field boundaries and other features and passes to the east of Middleton village and a business park. The cable route will consist of a number of cable jointing bays separated at points typically around 600-1000m distance along the cable. Each jointing bay will be approximately 10m long, 2m wide and buried at 1.5m with a reinforced concrete floor. The distance between the jointing bays will be defined by the cable voltage and the length of the cables wound onto drums.
134. A temporary working compound will be required at Middleton Sands in order to accommodate the drilling equipment and operations associated with the HDD.

Onshore substation

135. The proposed substation will be located to the north of the A683, opposite the entrance to the Lancaster West Business Park. The site area covers 2.9 ha and will include electrical equipment needed for the connection of the wind farm and for compliance with the code for connecting to the National Grid. This equipment is likely to include transformers (to step up the voltage to 400kV); switchgear (indoors); conductors; reactive compensation; filters; control, telecoms and relay rooms; HGV access and turning; car parking and internal roads; drainage and oil containment; noise mitigation; any necessary fire fighting plant; and perimeter and internal compound fencing.
136. The proposed development floor level is between 5.1m and 6.0m Above Ordnance Datum (AOD). The maximum height of the substation buildings and major components (excluding lighting protection) will be 21m AOD. The lightning protection which represents the tallest component of the substation has proposed maximum height of 29m AOD.
137. A 400kV cable connection between the Project substation and a new NGET substation to enable the Project to connect into the national grid will be provided. This cable corridor section will be approximately 315 m long (depending on the final location of the Project substation). Temporary working compounds have also been identified on land adjacent to the substation site covering an area of approximately 13 ha.

Planning history

138. Heysham is a popular location for accommodating energy infrastructure: initially this was because the first nuclear power station required access to a ready supply of water for cooling the reactors. This has grown so that today there are two nuclear power stations, two electricity substations and the cable connections from two further offshore wind-farms are already located in close proximity to the current proposal. In addition, National Grid has consent from Lancaster City Council to install a new electricity substation on land immediately west of the DONG Energy proposal (application no. 13/00393/FUL: decision dated 23 July 2013).
139. As far as the current proposal is concerned, there is no planning history of applications on any of the land affected by the cable route or the substation.

Planning policy

National

140. The NPPF came into effect on 27 March 2012. The document recognises three dimensions to sustainable development as being economic, social and environmental. It makes it clear that these roles should not be considered in isolation. The NPPF makes it clear that local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure to support sustainable development. Importantly the government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary between urban and rural areas.
141. Of particular relevance to the consideration of the Walney Extension offshore wind farm proposal are the sections in the NPPF relating to:
- Building a strong, competitive economy (paragraphs 18 – 22);
 - Meeting the challenge of climate change, flooding and coastal change (paragraphs 93 – 108).
142. In addition to the NPPF, the development plan is required to be consistent with relevant national policy contained in the Department of Energy and Climate Change's National Policy Statements for Energy Infrastructure especially the following (all published in July 2011):
- EN-1: Overarching National Policy Statement for Energy
 - EN-3: Renewable Energy Infrastructure
 - EN-5: Energy Networks Infrastructure
143. These policy statements expand upon the Planning Act 2008 and are the primary basis for examining NSIPs proposals. The policy statements set out the need for new nationally significant energy infrastructure projects (including those powered by wind turbines), and explains how assessment principles and criteria will be applied to schemes.

Local

144. The Lancaster District Core Strategy (2008) includes Policy ER7 relating to Renewable Energy. The policy identifies South Heysham as a key focus for the industry, partly in association with the major offshore wind energy schemes in Morecambe Bay and the Irish Sea.
145. The Lancaster District Local Plan (strike-through edition 2008) includes policy E24 which requires new or replacement electricity lines to take the least visually harmful route.
146. The City Council is currently preparing new development plan documents (DPDs) which will eventually replace the Core Strategy and District Local Plan. These include the Development Management DPD and the Land Allocations DPD, which will identify land to meet future development needs and land to be protected from development. The Development Management DPD will include policy direction on enhancing renewable energy opportunities, whilst the Land Allocations DPD identifies the

Heysham Energy Coast on the Local Plan Policies Map as an area where the Council anticipates further energy investment, including the construction of new substations and other grid-related infrastructure.

147. At the Preferred Options stage of developing the DPDs, representations were made on amenity, landscape, and environmental capacity and contamination matters connected with the Energy Coast. One representation called for greater consideration of cumulative impacts and another for more specific designations of land within the Energy Coast. This last point is important because whilst there were no representations on the proposed area identified for a substation on land to the west of the proposed DONG Energy substation, the DONG Energy substation site was not shown on the Policies Map of the DPD. It was shown as part of a wider area of open countryside, and so representors did not have the opportunity to comment on this proposal as part of the DPD consultation.
148. The Development Management and Land Allocations DPDs warrant material consideration in this process according to the guidance set out in NPPF, paragraph 216. They provide more detail on the strategic principles already adopted within the Core Strategy, and through the course of 2013 as the documents are revised in advance of publication and submission, the weight attached to both documents will increase. Specifically, the Development Management DPD will reach Publication Stage in the autumn of 2013, whilst the Land Allocations DPD will require an addendum consultation in autumn 2013.
149. The Joint Lancashire Minerals and Waste Local Plan (Site Allocations & Development Management Policies, to be adopted on 26 September 2013), identifies a Minerals Safeguarding Area (MSA) on open land to the south of Heysham which includes the site for the proposed substation. Policy M2 of the plan safeguards the site as a location for sand and gravel deposits. Policy M2 states that planning permission should not be granted unless it meets one of a series of exceptions.
150. The Site Allocations and Development Management DPD also identifies sites at Lancaster West Business Park and Heysham Industrial Estate as being suitable for waste management, recycling transfer and materials recovery. The site at Lancaster West Business Park adjoins the proposed DONG Energy substation and its cable route south of the substation towards Middleton village. These site allocations will not be compromised by the onshore elements of the project.

Approach to the assessments

151. The PPA local authorities have assessed the impacts of the proposal, based on the chapter headings contained within the applicant's ES. Each chapter heading has been assigned to relevant specific officers for comment. The PPA authorities have been able to draw on in-house specialist advice covering:
 - Planning
 - Ecology
 - Archaeology
 - Landscape
 - Highways
 - Economic development
 - Environmental health

- Flood risk

152. Where relevant the PPA authorities have made reference to the DONG Energy typology of significance adopted within the ES (see Section 3.4 of the Preliminary Environmental Information Report, August 2012).

Planning Assessment

Chapter 14 – Intertidal Ornithology

153. Natural England is the statutory nature conservation body for the purposes of the Conservation of Habitats and Species Regulations 2010 (as amended). The Habitats Regulations place a duty on competent authorities (i.e. the decision maker in this case) to consult the appropriate nature conservation body in the assessment of the implications of proposals for European sites.

154. The Wildlife and Countryside Act 1981 (as amended) also places duties on Natural England in respect of Sites of Special Scientific Interest (SSSIs), and there is a procedure to be followed prior to the authorisation of operations likely to damage SSSIs. Therefore, it is the PPA authorities' view that it is the role for Natural England to provide detailed advice in terms of the implications for the nationally and internationally designated sites.

Chapter 23 – Hydrology and Flood Risk

155. The temporary works associated with the cable routes and potentially the access routes to the substation site will have an impact on water courses. The applicant should be aware that Ordinary Water Consents will be required from Lancashire County Council.

156. Annex B.14 (Flood Risk Assessment) of the ES makes reference to the use of Sustainable Drainage Systems (SuDS) at the substation site. The applicant should consider, in line with good practice and paragraph 118 of the NPPF, to incorporate biodiversity enhancement opportunities wherever possible. The PPA authorities view is that the use of ponds should be considered as part of the surface water management strategy.

Chapter 24 – Terrestrial Ecology and Nature Conservation

157. Much of the area potentially affected by these proposals is of relatively low biodiversity value and it is accepted that, for example, temporary impacts on agriculturally improved habitats are unlikely to result in significant adverse impacts on biodiversity, and that the reinstatement of agriculturally improved land (species-poor grassland) and habitats such as hedgerows is achievable.

158. However, the development does also affect protected sites and protected and priority species, and there is therefore a need for the ES to demonstrate adequate avoidance, mitigation and compensation. Whilst some of the issues from the draft ES have now been addressed, it is the PPA authorities' view that there remain omissions, errors and inconsistencies in Chapter 24. These are detailed below.

Designated Sites

159. In respect of statutory designated sites, and associated biodiversity interests, Natural England is the relevant nature conservation body and it will ultimately be for Natural England to advise the competent authority in respect of impacts on such sites.
- Lune Estuary SSSI/ Morecambe Bay SSSI and SAC (and associated species including Belted Beauty moth).
160. The draft Environmental Statement had indicated that the proposals would have a potentially catastrophic impact on the population (and salt marsh habitat) of Belted Beauty moth within Morecambe Bay SSSI and SAC, for which no mitigation or post-construction monitoring was proposed.
161. Following the concerns raised by numerous consultees, Chapter 24 now indicates that trenchless (HDD) crossing of the salt marsh can be carried out without any above ground impacts on the salt marsh. Whilst this would appear to avoid impacts on the designated site and associated species, the ES goes on to introduce some uncertainty about whether or not impacts would indeed be avoided, e.g. Paragraphs 24.9.2.3 and 24.9.2.4) indicate that there will be no storage of material or vehicle movements on the salt marsh "unless otherwise approved in writing by the relevant planning authority". It is not clear under what circumstances the developer might need access to the salt marsh, but this does appear to introduce the possibility that, even with HDD, impacts might not be entirely avoided
162. Paragraph 24.9.2.7 introduces the possibility of HDD failure or a break out of inert drilling muds (which would result in impacts on the designated site and habitat of Belted Beauty moth). However, since there are apparently alternative routes that would avoid actual and potential impacts on the designated site, it would seem appropriate for the determining (and competent) authority to be satisfied that the proposed method of working is feasible in this case (i.e. significant impacts are reasonably unlikely).
- Heysham Moss SSSI, Local Nature Reserve (LNR) and Biological Heritage Site (BHS).
163. Paragraphs 24.9.2.11 – 24.9.2.15 appear confused, with the distinction between the SSSI and BHS (Local Site) not clearly identified. Impacts on the BHS (immediately adjacent to the proposed substation site) do not appear to be addressed in the ES and the biodiversity value of the BHS appears to be poorly understood, e.g. paragraph 24.9.3.7 states that birds are not cited as qualifying features of the SSSI/ BHS. This is incorrect: one of the qualifying criteria for the BHS designation relates to birds.

European protected species

- Great crested newts
164. Great crested newts are known to be present within 250m of the proposed development. Chapter 24 suggests that a licence will not be required, but states that updated surveys will be carried out and reasonable precautions will need to be employed.
165. Whilst non-licensed avoidance measures may be appropriate in this case, the draft ES had clearly stated that works would need to be carried out under European protected species licence. Indeed, Annex B.15.B (Protected Species Survey Report) does still state that a licence will be required. The revised (formally submitted) chapter 24 does not appear to explain why it now disagrees with the conclusions and recommendations of the draft ES and protected species report.

166. The competent authority will need to have regard to the requirements of the Conservation of Habitats and Species Regulations 2010 (as amended) in the making of this planning decision, and will need to come to a view in respect of the likelihood of a breach of legislation and the need for a licence. Natural England is the statutory nature conservation body and should be asked for their opinion. It would also be helpful if the applicant could provide further clarification in terms of why a European protected species licence is no longer thought necessary for this species.

- Bats

167. Proposals have the potential to impact upon bats through habitat removal (severance of foraging and commuting routes) and lighting.

168. The ES indicates that bat activity surveys have been carried out during summer 2013 but are not yet available. In the absence of the results of these surveys, it is not possible for the PPA authorities to comment on the significance of potential impacts on bats and their habitat.

Protected species

- Nesting birds

169. The proposals will result in the loss of habitats potentially used by nesting (and foraging) birds. The ES suggests (paragraph 24.9.2.62) that although the duration of habitat loss and displacement would be 25 months, there is other habitat elsewhere that birds could use. Whilst many species of bird are adaptable, and could move, this does depend on there being suitable and unoccupied habitat into which displaced birds could relocate.

170. Paragraph 24.9.2.68 indicates that bird boxes will be erected on suitable trees surrounding the cable corridor and substation to provide alternative nesting habitat during construction and compensatory habitat upon completion. It is not clear what species would be targeted, or that there are suitable trees in suitable locations where bird boxes could be deployed to effectively mitigate impacts.

171. Paragraph 24.9.2.70 states that screening planting around the substation will provide habitat during construction and compensatory habitat upon completion. However, most of the proposed planting around the substation is located within the temporary working areas/ cable corridor and it therefore seems highly unlikely that the screen planting would be planted before completion of construction. Even if the landscaping was to be created at an early stage, it seems highly unlikely that planting would be sufficiently mature to provide habitat during construction or that vegetation within a construction site/ temporary working area would be of any significant value to nesting birds. Moreover, if suitable bird nesting habitat is created within the working area, and birds did nest during construction, then this may result in constraints (time delays) to development, i.e. the applicant's legal duty to avoid a breach of the Wildlife and Countryside Act 1981 (as amended).

172. It would therefore seem more appropriate for consideration to additionally be given to providing offsetting in the longer-term through the enhancement of habitat (including hedgerows and ditches) for nesting birds.

173. Paragraph 24.9.2.70 states that after mitigation (mainly compliance with the Wildlife and Countryside Act 1981 (as amended): avoidance of impacts on nesting birds, their

nests and eggs) there will be no significant residual impact on nesting birds. However, it is the PPA authorities' view that the ES does not demonstrate this. For example, the substation and associated screening planting are located in an area of coastal and floodplain grazing marsh, adjacent to a BHS (Local Site). According to the site description, the BHS is of ornithological value for breeding and wintering birds, some of which are ground-nesting/ ground-feeding and may therefore be displaced away from the substation and associated screen planting. The proposals may thus result in at least an indirect effect on the BHS, an impact which does not appear to be considered, and for which no mitigation appears to be proposed. Whilst the residual impact might not be 'significant', planning policy requires net gains in biodiversity. It seems unlikely that these proposals will not deliver gains.

- Wintering birds (qualifying features Morecambe Bay SPA)

174. Appendix 17.4 provides a summary of consultee responses to the draft ES. In response to concerns regarding potential impacts on pink-footed goose, appendix 17.4 indicates that further information has now been added to Chapter 24. This appears to be reference to paragraph 24.9.2.63, which concludes that works will not result in significant displacement of pink-footed goose because there's suitable habitat elsewhere. This does not constitute an adequate assessment of likely significant effect and does not appear to be based on a sound understanding of pink-footed goose ecology and habitat use.

- Reptiles

175. Paragraphs 24.9.2.71 onwards deal with mitigation for potential impacts on reptile species, including clearance of vegetation during summer. Whilst this would be appropriate, it may not be compatible with the mitigation proposed to avoid impacts on nesting birds (e.g. paragraph 24.9.2.61: vegetation clearance will be undertaken outside of the period March to August inclusive).

Habitats and Species of Principal Importance in England (section 41 NERC Act 2006)

176. The proposals will result in the temporary loss of several hundred metres of *hedgerow*. Whilst hedgerow will be re-planted following construction, it would seem appropriate for enhanced hedgerows to be created (*i.e.* increased species diversity, enhanced management for the benefit of biodiversity).

177. The proposals will result in temporary and permanent impacts on *coastal and floodplain grazing marsh*: the MAGIC website (hosted by Defra) suggests that much of the grassland in the cable corridor and substation footprint qualifies as this priority habitat. Other than simply reinstating post-construction, no mitigation or compensation/ enhancement is proposed.

178. Paragraph 24.9.3.11 claims that the permanent loss of 3.1ha of this habitat (substation) is not significant because this is only a small proportion of the total area of the habitat locally. Whilst this may be true, the government has indicated that it is committed to halting or even reversing biodiversity declines; UK BAP priority habitats were identified as those being most threatened and requiring conservation action. It is therefore disappointing that no mitigation or compensation is proposed to offset this loss of priority habitat.

179. With regard to the Belted Beauty moth. The applicant now proposes HDD to avoid impacts on the designated site (and habitat of this species). Provided HDD can be successfully employed, and there is no subsequent requirement to damage habitats above-ground, then it seems that significant impacts on this species and its habitat may be avoidable.
180. Other Species of Principal importance that would be affected/ potentially affected by these proposals are also legally protected, and are considered separately (above).

Biodiversity enhancement

181. Table 24.1 summarises how the ES addresses the provisions of NPS EN-1 and EN-5. With specific reference to paragraph 5.3.4 of EN-1 (taking advantage of opportunities to conserve and enhance biodiversity), this appears weak. For example, the ES indicates that mitigation will be agreed with Natural England but may include provision of hibernacula, habitat creation and enhancement. This appears to be a specific reference to amphibian mitigation. However, the formally submitted Chapter 24 (contrary to the draft chapter) now indicates that mitigation for impacts on newts can be delivered through non-licensed avoidance measures, and Chapter 24 does not appear to propose any enhancement for amphibians.
182. The ES indicates that the project has been designed to avoid impacts to habitats such as hedgerows. Since the project will impact upon somewhere between 700 – 900m of hedgerow, it is difficult to see how this demonstrates avoidance of impacts on hedgerows. Impacts on other habitats, such as the priority habitat coastal and floodplain grazing marsh, have not been avoided.
183. The ES indicates that the project has been adapted to conserve nature conservation designated sites. This appears to be a reference to avoiding impacts on an internationally designated site through the use of HDD. Compliance with protected site legislation hardly constitutes taking advantage of opportunities to conserve and enhance biodiversity interests.
184. Paragraph 24.9.1.9 indicates that a Landscape Management Plan will be prepared and agreed. This should be required to demonstrate enhancement, and not merely reinstatement (as currently proposed in the ES). For example, paragraph 24.9.1.11 states that hedgerows will be reinstated using larger specimens to reduce the time for breaches to be filled, plants to be protected by tree guards for a minimum of two years. The use of larger specimens will result in a taller feature but will not necessarily fill the gaps more quickly, particularly if planted in tree guards which prevent side growth. The need for tree guards should be made on a case by case basis, and it may be more appropriate to consider fencing out the lengths of new hedgerow to enable a denser structure to form at the base. If tree guards are used, then it seems likely that a tall sparse hedge will be created which will need laying to achieve a dense structure (to achieve stock proofing and benefit to wildlife). Consideration could also be given to gapping up other hedgerows (i.e. those not directly affected by proposals) and to diversifying the range of locally appropriate native species present. If possible, hedgerow trees should be planted.
185. Paragraph 24.9.1.10 states that landowners will be advised that if injurious weeds become problematical, they should be treated to avoid becoming dominant. In the opinion of the PPA authorities, if injurious weeds are likely to become problematical as a result of the actions of the developer, then the onus should be on the developer to treat (or finance treatment of) any resultant injurious weed infestation.

186. Paragraphs 24.9.2.24 – 24.9.2.27 deal with impacts on ditches (40m stretches for a period of two years maximum; culverts and bridges of shorter length, but retained for longer). The ES proposes that mitigation will be agreed with the Environment Agency, but states that areas of disturbed ground would be allowed to recolonise naturally. It should be noted that whilst natural recolonisation can be the most appropriate option in some cases, it is often selected because it is an easy option. In this case, it seems likely that in at least some locations natural recolonisation will result in establishment of vegetation of low biodiversity value. Where the affected ditches fall within coastal and floodplain grazing marsh priority habitat, and given that the acknowledgement that ditches will function as wildlife corridors in the landscape, it would seem appropriate for the proposals to result in enhancement of ditches for the benefit of biodiversity.

Chapter 25 – Land Use and Agriculture

187. The land, from a planning point of view, is unallocated and currently identified as open countryside. However, as set out in paragraph 138 of this document, it should be noted that the site falls within the Heysham Energy Coast where Lancaster City Council anticipates further energy investment. Attention is also drawn to the fact that the land is identified as a Mineral Safeguarding Area, as described in paragraph 149. Given that the applicant has agreed, within the draft Statement of Common Ground, to include a decommissioning plan for the onshore substation as a requirement of the DCO, it is the PPA authorities' view that the long term safeguarding of the deposit will not be compromised. Consideration of prior extraction is not, therefore, required.

188. The PPA authorities wish to ensure that the substation proposed by DONG Energy takes full account of the proposals and consents for the adjacent National Grid substation (13/00393/FUL: decision dated 23 July 2013). This applies in particular to the two schemes adopting, where practicable, a common approach to mitigation measures, on matters such as landscaping treatment and flood risk.

Chapter 26 – Landscape and Visual Impact Assessment

189. The PPA authorities have previously raised concerns regarding the applicant's methodology relating to the landscape and visual impact of the onshore impacts. These are set out in the 'Response of the PPA Authorities to the Draft Environmental Statement (June 2013)'. These concerns are summarised in paragraphs 3.17 and 15.1 of that document and express the view that the PPA authorities were, as a result, unable to fully assess landscape and visual impacts. These concerns have not been addressed within the final ES. At a meeting of the PPA authorities and DONG Energy (15 August 2013), DONG Energy agreed to meet with the PPA authorities' landscape specialists to discuss the outstanding issues.

190. The PPA authorities reserve the right to comment further on landscape and visual impact subject to the above subsequent meeting and agreement being reached on the methodology.

Chapter 27 – Archaeology and Cultural Heritage

191. Paragraph 27.9.2.9 of the Final ES states that the impact of the proposals upon Site 30 is assessed as 'moderate at most' even though the precise siting has yet to be established (derived from the Rochdale Envelope principle) and there is potential for its complete destruction of archaeology either by piling works for the substation (paragraph 27.9.2.3) or by de-watering (paragraph 27.9.2.4). Whilst the environmental information carried within the peat is irreplaceable, the presence of well-preserved peats within the Heysham Moss SSSI mean that there is a larger resource available

and reduces the importance of this site somewhat, although the potential for information on the Mesolithic-Neolithic transition should not be dismissed. A moderate impact on the palaeoenvironmental remains is thus a reasonable estimate. The site's potential for other types of remains (particularly artefacts of organic materials) must not be ignored, however and it is the PPA authorities view that an overall impact of major significance would be a fairer overall assessment.

192. Mitigation is discussed in several paragraphs, and a suggested scheme of works is set out in section 27.9.2.16 and in Table 27.7. Neither of these mentions the 'strip, map and record' or other assessment at the substation site, despite earlier comments noting the necessity of these and what is stated in Table 27.2 (top of page 10). As is noted in the chapter and above, the area of the substation has a reasonable potential for the preservation of prehistoric remains. These may be within the peat basin (Site 30) where rare organic materials may also survive, or outside the basin yet still on the fringes of Heysham and Brown Mosses where cut features and more robust materials could still survive.
193. Given this potential and the amount of disturbance that may result from the construction of the substation and the use of the adjacent temporary working area, a simple watching brief in this area does not appear adequate and a phased programme of work including both a coring survey and 'strip map and record' elements is required. The PPA authorities are satisfied that an amendment to requirement 29 (archaeology onshore) in the DCO would allow for this. There would be, however, no requirement to undertake any such mitigation work in the portion of the development site already occupied by the former railway sidings, on the assumption that any remains in this area would already have been destroyed.
194. With the exception of the immediate coastal strip, potential for as-yet unknown sites along the onshore cable route seems lower than within the substation site. In the coastal strip there is some potential for remains associated with the known WWII defences south of Heysham Harbour, and these may be disturbed by the cable route and works associated with HDD under the coastal salt marsh. Given the lower significance (relatively) of such remains, and the limited disturbance and lower potential along the main cable route, a simple watching brief is considered adequate mitigation for this section of the works.

Chapter 28 – Traffic and Transport

195. When cable system installation is to cross any roads then the work should preferably be undertaken using the Horizontal Directional drilling methodology that has been identified. The applicant indicates that this is subject to further investigation of the site and conditions, but given the busy nature of the A638 and to avoid significant impacts, the Highways Authority preferred option is the use of HDD at this road crossing. The Highways Authority would wish to have discussions with the developer / contractor to ensure that this method would not affect the road surface or create any weakness under the road structure.
196. The proposal for access to the cable working corridor via a temporary access road is acceptable. The main requirement is that all vehicles must be able to enter and leave the site in forward gear. There should be sufficient room (length and width) at the entrance to the access road to ensure that all vehicles are able to pull off the adopted highway and not have to wait on the highway creating an obstruction. There will also need to be a sufficient length of hard surfacing at the entrance to prevent loose material being transported onto the highway. The best place for this access would be

south of the A638 where the proposed access for the Banks Renewables wind turbine development is to be located. The Section 278 works associated with that project should form the basis of any agreement for this proposed work going forward. Any access road would be subject to same agreements as currently proposed with Banks Renewables for the erection of three wind turbines (11/00689/FUL: decision dated 28 November 2012).

197. With regard to the Carr Lane access the Highways Authority have concerns that the construction vehicles will cause disruption for other road users. This may require the creation of passing places along the road. This is likely to be particularly so with delivery of cable drums to site.
198. All abnormal loads traffic will have to use routes agreed by the Highways Authority, the Police and Developer and will be subject to a trial run prior to actual delivery. Timetable for any such deliveries should take into account external factors (such as timing of ferry arrivals / departures from Heysham). Clarification is required on the type and size of abnormal loads to be transported via M6 and come through Lancaster. Currently the document says these will be able to use the new Heysham-M6 link road, however, alternative arrangements should be considered at an early stage.
199. Site access to the main substation site will be from the existing roundabout to the north of the A638. As with proposals for works to south of the A638 there should be sufficient room to ensure that vehicles are not creating an obstruction on the existing highway.

Chapter 30 – Noise and Vibration

200. The PPA authorities are pleased to note that the potential for tonal noise from operation of the transformer station in close proximity to residential properties appears to have been addressed.
201. Provided that technical solutions are put in place to ensure that noise disturbance is not experienced by local residents and adequate monitoring arrangements are made, the PPA authorities do not wish to raise any concerns regarding noise.
202. In respect of noise resulting from onshore construction, the applicant is proposing to publish contact details for concerned members of the public to speak to a site representative. This could also be used by the public to raise any other concerns regarding construction.

Chapter 31 – Socio-economics

203. As there is not yet a firm indication of the construction port or the location of the operations and maintenance (O&M) base, it is difficult to ascertain the socio-economic impact (both beneficial and adverse) upon Cumbria and Lancashire. The potential construction ports include Liverpool, Belfast, Heysham and Barrow. These are also the potential locations for the O&M base, along with Workington, Douglas and Garston. An early decision on this would allow for detailed discussion around the necessary support that local partners can provide in supporting local recruitment, suitable training options, alerting the potential local supply chain and evaluating any impact on local services, housing and businesses which may need to be mitigated.
204. Reference is made to Table 31.19 'Summary of significance, mitigation and monitoring'. With regard to the onshore element of the project the 'Construction phase'

section is of relevance. Slight beneficial impacts associated with the supply chain and construction have been identified in the ES. There are also slight negative impacts associated with local services and disruption to local tourism and recreational businesses and activities. Given the scale of the overall investment associated with the project the overall local socio-economic benefits are disappointing. Furthermore there is no indication, despite earlier concerns raised by the PPA authorities, that mitigation measures will be put into place to maximise the use of local businesses and employment.

205. The PPA authorities would especially welcome early discussions around developing a local supply chain framework to ensure that local businesses are provided with ample opportunity to secure work and provide services during each phase of the development. For example, the authorities would want to explore opportunities for small and medium enterprises (SMEs) to benefit from innovative approaches to training schemes such as shared and community apprentices, or to be supported and mentored to achieve the necessary quality standards that DONG Energy would need to see in any contractors it employs.
206. DONG Energy has agreed in principle to the establishment of a Community Benefit Fund (CBF) if a DCO is granted. The PPA authorities welcome this, but recognise that the CBF falls outside the planning process. This will be paid to communities in recognition that the project may have national benefits but the impacts are local and long term.

Comments on Representations

207. The views of local members on the proposed development will be attached as Appendix 1 to this Local Impact Report when it is submitted to PINS.

Conclusions

208. In respect of the known impacts of the offshore elements of the project there are positive, neutral and negative impacts. The PPA authorities consider that the negative impacts of the offshore elements of the project are not significant overall, and in most cases they can be mitigated against by requirements in the DCO. These relate to the following matters:
- Consideration of transport impacts arising onshore relating to offshore construction activity and from the subsequent operation of the wind farm;
 - Economic impacts, most importantly the need to maximise job creation, training and supply chain benefits;
 - Ensuring that radioactive particles in sea bed sediments are not mobilised onto shore;
 - Ensuring that a means of contact is provided to enable any concerns to be expressed by the public during construction;
 - Ensuring that decommissioning takes place.
209. The offshore seascape, landscape and visual impacts are only significant in EIA terms when considering the visual impact from high ground near the Cumbrian coast (e.g. the viewpoint at Black Combe, near Bootle). Due to the nature of this impact, it is not possible to undertake any mitigation other than selecting scenarios involving the lowest numbers of turbines.

210. In respect of the known impacts of the onshore elements of the project there are positive, neutral and negative impacts. The PPA authorities consider that the negative impacts of the onshore elements of the project are not significant overall, and they can be mitigated against by requirements in the DCO and/or a s106 agreement. These relate to the following matters:

- Further consideration of avoidance, mitigation and compensation relating to the impacts on protected sites, and protected and priority species;
- Consideration of the viability of the prior extraction of minerals from the area of search corresponding with the location of the substation;
- Further assessment of the landscape and visual impacts of the substation proposals.
- The requirement for a "strip, map and record" process of mitigation during the construction of the substation;
- Safety on the local highways network, highways maintenance and the routing of abnormal loads from the M6;
- The need to maximise the use of, and support for, local businesses and employment.

211. Discussions are still required between the PPA authorities and the applicant on the landscape and visual impact of the proposals. The authorities also expect to be involved in decisions on the construction port and O&M base, and reserve the right to comment further on these topics.