

CHAPTER 4: CONSULTATION AND SCOPE

INTRODUCTION

- 4.1 This chapter provides details on the consultation carried out for the amendments proposed as part of this Variation of Consent application. It also considers the scope of the additional assessment that follows this chapter, including those assessments scoped out of this ES and the approach to those assessments included within the ES.

CONSULTATION

- 4.2 Consultation is a key aspect of the EIA process as it helps to inform the nature and scope of potential impacts and therefore the various technical studies that are required in order to allow these potential impacts to be assessed.
- 4.3 The consultation process for this Variation of Consent application differs from the approach taken with the original application. There is no requirement to consult with statutory consultees prior to making an application, however the Department of Energy and Climate Change (DECC) guidance strongly recommends carrying out pre-application discussions with the DECC and statutory consultative bodies identified in the Electricity Works (EIA) (England and Wales) Regulations 2000.
- 4.4 Following discussions with the DECC, detailed below, professional judgment has been used in identifying appropriate statutory consultative bodies who are likely to have an interest in the proposed amendments.

Department of Energy and Climate Change

- 4.5 A meeting was held between representatives of Ecotricity and the DECC on 26 September 2014 in relation to the Variation of Consent process and proposed application under section 36C of the Electricity Act 1989.
- 4.6 The following relevant points were discussed:
- Ecotricity confirmed their intention to submit a Variation of Consent to the existing S36 consent under section 36C of the Electricity Act 1989. The variations sought and the reasons for them are:
 - To relocate the onsite substation following confirmation from Western Power Distribution that a 132kV substation is required onsite;
 - To maximise the renewable energy generation from the site by increasing the maximum rotor diameter of the candidate turbines;
 - To reduce overall land take, particularly over ditches; and,
 - To utilise the existing agricultural tracks thereby reducing overall permanent land take.
 - Following discussion of the likely changes, the DECC confirmed that the changes were likely to be considered within the remit of section 36C of the Electricity Act 1989.

- Ecotricity explained some initial consultation had taken place. The DECC explained that consultees that may have an interest in the proposed changes should be consulted with prior to a Variation of Consent application being submitted. The DECC confirmed that statutory consultees, including the Local Planning Authority would be consulted with formally once the application was submitted and accepted.
- The DECC clarified that the application should supplement the existing Environmental Statement and confirm that the original ES is still up to date save for the changes. Only potential effects resulting from the proposed amendments required assessment, however any additional effects should also consider how they may cause an accumulation of effects which could change the overall significance of the effects in combination.
- Ecotricity explained that the Variation of Consent application would seek to provide some flexibility over the site layout with a zoned approach to allow for minor alterations due to particular ground conditions or final design requirements agreed with statutory organizations such as Black Sluice Internal Drainage Board or Western Power Distribution. The DECC confirmed that any micro-siting should be included in the Site Edge Red and that Ecotricity could seek to do that as long as the worst case is assessed where appropriate.

Stakeholder Consultation

- 4.7 Following the discussion and consultation with the DECC, a number of relevant statutory consultees were approached to provide comment on the amendments proposed. **Table 4.1** shows the stakeholders consulted, a brief summary of their response and a brief description of how the amended site layout and design has taken account of their response where relevant.

Table 4.1: Pre-application stakeholder responses

Consultee	Consultation Date	Consultation Response	Comments	Consideration
North Kesteven District Council	25/11/14 and 12/12/14	12/12/14 and 12/1/15	Alan Oliver (Planning) confirmed the approach to the LVIA was acceptable; requested a 5km study area with photomontages 1-6 being recreated to demonstrate visual impact of the larger rotor diameter; requested the cumulative impact map is updated; requested that the noise assessment considered all three candidate turbines and layouts; requested the ornithological assessment was revised with new collision risk analysis being carried out. Advised that the Variation application would likely go to a committee before a response is provided to the DECC.	LVIA methodology, approach and study area advice incorporated into the LVIA assessment. Cumulative map updated (see Figure 5.4). Noise assessment considers all three candidate turbines and layouts. Ornithology assessment considers all three candidate turbines and layouts in the collision risk analysis.
Boston Borough Council	28/11/14	28/11/14	Trevor Thompson (Planning) stated that as the application site was within NKDC land, BBC had no further comments to make.	None.

Consultee	Consultation Date	Consultation Response	Comments	Consideration
Heritage Trust of Lincolnshire	12/12/14	8/1/15	Jenny Young replied with no objections following receipt of a draft copy of the Cultural Heritage assessment	None.
Natural England	15/12/2014	6/1/2015	<p>Owing to the relative distances NE is satisfied that there is no impact on designated sites or protected landscapes. The revised LVIA should be in accordance with GLVIA3. Given the turbine heights have not increased, the relative low impact upon the Lincolnshire Wolds AONB should remain.</p> <p>NE welcomes a revised ornithological assessment. NE is satisfied that there is not a likely significant effect on golden plover and marsh harrier but note an increased collision risk. NE advise that turbines could be moved or the Ecological Mitigation Plan updated to include mitigation specific to increased golden plover impacts (already proposed for Marsh Harrier)</p>	<p>Revised LVIA is set out in accordance with GLVIA3 (see Chapter 5: LVIA).</p> <p>Since consultation with NE, the collision risk analysis has been revised, as the previous analysis considered a much wider area of more than 200m from any proposed turbine. (See Chapter 8: Ornithology).</p>
RSPB	18/12/14	7/1/15	<p>Confirmation requested on the distribution of Marsh Harrier flight heights.</p> <p>Support NE's call for further information on golden plover.</p> <p>Request that the collision risk is assessed against the more precautionary avoidance rate of 99%.</p>	<p>Marsh Harrier flight height discussion provided in revised assessment.</p> <p>99% avoidance rate used in collision risk analysis.</p> <p>Since consultation with NE, the collision risk analysis has been revised, as the previous analysis considered a much wider area more than 200m from any proposed turbine. (See Chapter 8: Ornithology).</p>
Environment Agency	9/12/14	19/12/14	<p>Flood risk levels should be over the lifetime of the development and requires predicted climate change levels.</p> <p>Sensitive electrical equipment should be above 3.04m accordingly.</p> <p>The rotor sweep of turbines 16 and 21 should be at least 9 metres from the landward toe of Holland Dike.</p>	<p>Predicted climate change levels used in the revised Flood Risk Assessment (Appendix 10.1).</p> <p>Both turbines are at least 9 metres from the landward toe of Holland Dike. T16 is 9m and T21 is 15m away.</p>

Consultee	Consultation Date	Consultation Response	Comments	Consideration
Black Sluice Internal Drainage Board (BSIDB)	23/9/14 and 13/1/15	23/9/14 and 14/1/15	<p>BSIDB confirmed that proposals for culverts, access track materials and soil infiltration rates should be submitted as part of an application to the IDB prior to construction.</p> <p>Unlikely to consider the proposed amendments as significant.</p> <p>Surface water runoff should be discharge by infiltration wherever feasible.</p> <p>Reiterated that Bye-Law consent would be required for any development within 9m of a BSIDB-managed drain.</p>	<p>Surface water flooding assessed within the revised FRA (Appendix 10.1).</p> <p>A separate application for bye-law consent and a culvert and drainage design for the site will be submitted to the BSIDB prior to construction.</p>
Joint Radio Company	23/10/14	17/12/14	All 22 turbine locations with a maximum turbine tip height of 125m and maximum rotor radius of 52m cleared with respect to radio infrastructure operated by Western Power Distribution and National Grid Gas Networks.	None.
Western Power Distribution	5/1/15	5/1/15	<p>Generally the finished substation should be at least 500mm above the 1 in 1,000 year flood event.</p> <p>'Flooding and Substations Design' manual provided for guidance.</p> <p>A formal design submission for the substation should be made to WPD following the Variation of Consent application.</p>	Measures set out in WPD design manual incorporated into substation design, including the raising of all essential electrical infrastructure 500mm above the 1 in 1,000 flood event with climate change (see Appendix 10.1).
Ministry of Defence	23/12/14 and 29/1/15	29/1/15	Discussion over the proposal to reword Condition 5.	None.
English Heritage	12/12/14	N/A	None.	None.
Lincolnshire Historic Environment	12/12/14	N/A	None.	None.

ASSESSMENT METHODOLOGY

Identification of Issues

- 4.8 Following consultation with relevant statutory consultees and the DECC, and with reference to the scope of the original ES assessments that formed part of the application for the original consent, a number of assessments were identified as relevant to this Variation of Consent ES.
- 4.9 The following assessments were considered relevant to this Variation of Consent ES, with justification provided for each:
- **Cumulative Landscape and Visual Impact (CLVIA)** – the proposed change to the maximum rotor diameter from 90m to up to 103m was judged to be likely to have a potential change in the effect on landscape and, in particular, visual receptors close to the site. It was considered that this change would likely be limited to having an effect within close proximity to the development. Similarly, the relocation and increased footprint of the onsite substation was considered to have the potential to have a landscape and visual impact in close proximity to the site. As a result of a supplementary assessment, a review of policy, guidance and cumulative baseline was also considered appropriate. The scope of works for the CLVIA was agreed with North Kesteven District Council in consultation with Natural England and the DECC. See **Chapter 5: Cumulative Landscape and Visual Impact**.
 - **Cultural Heritage** – the proposed change to the maximum rotor diameter was considered to have the potential, albeit limited, to change the effect on the setting on the closest cultural assets. The amendments proposed to sections of the onsite access track, substation cabling route and substation was considered to have the potential to affect buried archaeological assets on the site. National policy has changed since the original assessment and this is considered within the assessment. A draft assessment was sent to English Heritage, Lincolnshire County Council and the Heritage Trust of Lincolnshire for comment. See **Chapter 6: Cultural Heritage**.
 - **Ecology** – although the permanent land take is reduced with the Variation of Consent site layout, the rearrangement of some of the site infrastructure, such as the substation, substation underground cabling route, temporary construction compound, realignment of sections of the onsite access track and the addition of temporary auxiliary crane pads, could have an impact on terrestrial ecology and habitats. The increase in rotor diameter could also additionally effect bat collisions on the site. Natural England guidance is considered within the assessment. See **Chapter 7: Ecology**.
 - **Ornithology** – the potential for the increased rotor diameter to increase the collision risk for bird species is considered within the ornithology chapter. The potential impact on birds during the construction phase with consideration to the amended site infrastructure is also considered. A draft assessment was sent to both Natural England and RSPB, however it should be noted that this considered a much wider area than that encompassed by the turbines in the collision risk analysis. Comments from both organisations were received and considered as part of the assessment. See **Chapter 8: Ornithology**.
 - **Noise** – the proposed changes to the candidate turbines under consideration would mean slightly different noise immissions are predicted from each candidate turbine. Whilst the original consent includes a definitive condition (Condition 24) on operational noise setting out the noise limits at each identified receptor, and which is applicable to any candidate turbine, following consultation with North Kesteven District Council it was agreed that a specific noise

assessment would be produced for each of the three candidate turbines and layouts. The potential effect of realigning the onsite access track has also been considered in relation to noise generated during the construction phase. See **Chapter 9: Noise**.

- **Hydrology and Flood Risk** – the increased footprint and relocation of the substation has the potential to increase flood risk at the site. A revised Flood Risk Assessment has been produced to assess this risk and to consider the other relevant hydrological considerations that may be affected by the amendments proposed. Extensive consultation has taken place with the Environment Agency, Black Sluice IDB and Western Power Distribution on the proposed amendments to site infrastructure and, in particular, the substation. See **Chapter 10: Miscellaneous** and **Appendix 10.1 Revised Flood Risk Assessment**.
- **Transport and Access** – the potential increase in the blade length is considered likely to have some effect on the delivery of the largest components (the blades) to site. This is considered with Swept Path Analysis plans as part of the assessment. See **Chapter 10: Miscellaneous**.
- **Aviation** – whilst the proposed changes are not considered to have any additional effect on aviation interests in the area due to no change in overall maximum tip height, the number of turbines or their locations, Ecotricity is seeking a rewording of Condition 5 as part of the Variation of Consent application. See **Chapter 10: Miscellaneous**.
- **Shadow Flicker** – due to the larger rotor diameters proposed, there is potential for shadow flicker to extend slightly further than with the assessment carried out in the original ES. The shadow flicker analysis has been rerun and is assessed accordingly. See **Chapter 10: Miscellaneous**.

- 4.10 Following discussions with relevant statutory consultees detailed above, their comments as well as professional judgment has been used to 'scope in' environmental issues that have the potential to be affected by the proposed amendments. In the absence of a formal scoping process for the variation of section 36 consents, a similar process has also been used to 'scope out' those environmental issues that are considered as having no potential to be affected by the proposed amendments.

Assessments Scoped Out

- 4.11 Given the nature of the proposed amendments presented as part of the Variation of Consent ES, a number of environmental topics that were included in the original ES have been scoped out of the Variation of Consent ES. These environmental topics were all those considered in the 'Miscellaneous' chapter of the original ES. Justifications for scoping out these assessments from this ES are considered below.

Public safety

- 4.12 There are no additional effects likely to occur to public safety as a result of this Variation of Consent application.
- 4.13 Whilst new guidance exists through the NPPF and National Policy Statements, these do not have any additional implications for public safety.
- 4.14 Although the dimensions of the rotor diameter have proposed to be varied, the overall height, locations and maximum number of turbines remains the same.
- 4.15 The original ES concluded that there would be insignificant change to public safety.

- 4.16 Overall it is considered that there will be no additional impact on public safety as a result of this Variation of Consent application. It is therefore scoped out of this ES and is not discussed further.

Air quality

- 4.17 There are no additional effects likely to occur to air quality as a result of this Variation of Consent application.
- 4.18 Whilst new guidance exists through the NPPF and National Policy Statements, these do not have any additional implications for air quality.
- 4.19 There is no significant change to the movements of vehicles during construction, and therefore there is no significant change likely to air quality as a result of increased vehicle movements to and from site. As discussed in Chapter 2, the proposed wind turbines are expected to generate approximately 13-24% more electricity than the original scheme, and thereby preventing the emission of 13-24% less CO₂ each year as well as emissions of NO_x and SO₂.
- 4.20 The original ES concluded that there would be insignificant change during construction and no change in air quality during operation.
- 4.21 Overall it is considered that there will be no additional impact on air quality as a result of this Variation of Consent application. It is therefore scoped out of this ES and is not discussed further.

Communications

- 4.22 There are no additional effects likely to occur to communications as a result of this Variation of Consent application.
- 4.23 Whilst new national guidance refers to the potential for wind turbines to interfere with communication links, the guidance used to assess the impact still remains as Bacon's (2002) 'Fixed-link wind-turbine exclusion zone method'.
- 4.24 Given the turbine locations and overall tip height have not changed, and that there are no communication fixed links in the vicinity of the proposed development, no further consultation has been carried out with individual communication operators.
- 4.25 In the original application, the Joint Radio Company (JRC) did identify a single link path that crossed the developable area from east to west. A detailed link assessment was completed with a mitigation solution identified by JRC to be completed prior to construction starting on site. Further consultation with JRC has confirmed that this single link path is no longer in operation and that a mitigation solution is therefore no longer required. A summary of JRC's response is provided in **Table 4.1**.
- 4.26 The original ES concluded that there would be insignificant effect subject to redirecting the single affected link path as agreed with JRC.
- 4.27 Overall it is considered that there will be no additional impact on communications as a result of this Variation of Consent application. It is therefore scoped out of this ES and is not discussed further.

TV and radio reception

- 4.28 There are no additional effects likely to occur to TV and radio reception as a result of this Variation of Consent application.
- 4.29 Whilst new guidance exists through the NPPF and National Policy Statements, these do not have any additional implications for TV and radio reception.
- 4.30 The turbine locations and overall tip height have not changed, and the nearest third party property remains nearly 1km away from the nearest wind turbine. OFCOM guidance¹ suggests that any wind turbine is placed at least 500m away from the viewer in order to reduce the likelihood and severity of any interference from reflection. Furthermore, since the switch over to digital transmission in 2011, the potential for interference is further reduced. OFCOM guidance suggests that digital TV reception is usually much more resistant to the effects of reflection.
- 4.31 The original ES concluded that subject to a mitigation programme to investigate and alleviate any potential occurrence of interference, there would be insignificant effect during operation. Condition 20 of the original consent remains in place.
- 4.32 Overall it is considered that there will be no additional impact on TV and radio reception as a result of this Variation of Consent application. It is therefore scoped out of this ES and is not discussed further.

Agriculture

- 4.33 There are no additional effects likely to occur to agriculture as a result of this Variation of Consent application.
- 4.34 Whilst new guidance exists through the NPPF and National Policy Statements, these do not have any additional implications for agriculture in relation to the consented development.
- 4.35 As described in **Chapter 3** the amended location of sections of the onsite access tracks will reduce the area of permanent arable land take by 1.89ha. The area of land required for permanent crane pads will remain the same as the original layout. The substation area will increase by 0.35ha, however part of the new substation location will be located on existing hardstanding. An additional 0.14ha of woodland planting and new hedgerow is also proposed to provide screening for the onsite substation. Overall, the permanent land take will be reduced by 1.54ha.
- 4.36 Whilst there will be a small reduction in the overall permanent land take this is not considered significant. The original ES concluded that there would be a moderate overall impact on agriculture which was not deemed to be significant.
- 4.37 Overall it is considered that there will be no additional impact on agriculture as a result of this Variation of Consent application. It is therefore scoped out of this ES and is not discussed further.

¹ Ofcom, (2009) Tall structures and their impact on broadcast and other wireless services.
http://www.ofcom.org.uk/radiocomms/ifi/licensing/classes/fixed/Windfarms/tall_structures/tall_structures.pdf

Tourism

- 4.38 There are no additional effects likely to occur to tourism as a result of this Variation of Consent application.
- 4.39 Whilst new guidance exists through the NPPF and National Policy Statements, these do not have any additional implications for agriculture in relation to the consented development.
- 4.40 Although the dimensions of the rotor diameter have proposed to be varied, the overall height, locations and number of turbines remains the same. There are no tourist or recreational receptors that will have additional visibility to the turbines as a result.
- 4.41 The original ES concluded that for those tourist and recreational receptors close to the site the significance was considered negligible.
- 4.42 Overall it is considered that there will be no additional impact on tourism as a result of this Variation of Consent application. It is therefore scoped out of this ES and is not discussed further.

Environmental Impact Assessment

- 4.43 Environmental Impact Assessment (EIA) is a process that is intended to ensure that planning permission for developments, which may have significant effects on the environment, should be considered only after prior assessment of the likely significant environmental effects of those projects has been carried out.
- 4.44 The legislative context for the EIA process comes from the European Council and is transposed by Member States. In England and Wales and with regards to the nature of the Heckington Fen Wind Farm scheme this takes the form of The Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000, as amended.

Methodology and guidance

- 4.45 Where the specific assessment methodology and/or guidance relating to the specific environmental topic being assessed has changed or is amended from the original ES assessment, this is noted in each assessment chapter.

Baseline conditions

- 4.46 Where the existing environmental character of the site may have changed since the time the original ES baseline was considered, this is noted in each specific assessment chapter. For instance, **Chapter 5: Cumulative Landscape and Visual Impact** considers any new operational or proposed wind turbines/farms within the assessment.
- 4.47 Should the sensitivity of any identified receptors have changed as a result of a change in the baseline conditions or new guidance this is identified within the baseline section of each specific assessment.

Assessment of effects

- 4.48 As with sensitivity, should the magnitude of impact have changed as a result of the proposed amendments this is identified within the assessment of effects section of each specific assessment.

- 4.49 The assessment of significance that follows the identification of the sensitivity of the receptor and the predicted magnitude of change on that receptor follows the same process as set out in Chapter 2: Environmental Impact Assessment of the original ES.
- 4.50 For reference, Table 2.1 of the original ES demonstrating the matrix for establishing significance is reproduced below in **Table 4.2**. Each of the technical assessments contained within this Variation of Consent ES uses this matrix as a basis for technical assessments; unless adapted for the specific requirements of an assessment, in which case this is stated appropriately.

Table 4.2: Matrix for Establishing Significance

		Sensitivity of Receptor			
		Low	Medium	High - Very High	
Magnitude of Impact	No change	Insignificant	Insignificant	Insignificant	
	Minimal change	Negligible - Minor	Minor	Minor - Moderate	
	Very Low - Low	Minor	Minor - Moderate	Moderate	
	Medium	Minor - Moderate	Moderate	Moderate - Major	
	High - Very High	Moderate	Moderate - Major	Major	Extreme

Extreme: These effects, if adverse, represent key factors in the decision making process. They are generally, but not exclusively associated with sites and features of national importance and resources/features which are unique and which, if lost, cannot be replaced or relocated.

Major: These effects are likely to be important considerations at a regional or district scale, but, if adverse, are potential concerns to the project, depending upon the relative importance attached to the issue during the decision making process.

Moderate: These effects, if adverse, while important at a local scale, are not likely to be key decision making issues. Nevertheless, the cumulative effect of such issues may lead to an increase in the overall effects on a particular area or a particular resource.

Minor: These effects may be raised as local issues but are unlikely to be of importance in the decision making process. Nevertheless, they are of relevance in the detailed design of the project.

Negligible: Effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Insignificant: No effect identified.

- 4.51 Each technical assessment within this Environmental Statement sets out the techniques used to predict impacts and assess effects. In many cases the assessment techniques will be supplemented by professional judgment in assessing the significance of effect, where this is the case, this is highlighted accordingly.