

## **Introduction**

The UK Business Council for Sustainable Energy (UKBCSE) and British Wind Energy Association are pleased to provide this detailed commentary on the Natural England Consultation “Assessing the Environmental Capacity for Onshore Wind Energy Development”, which has been developed with the UK’s other major energy trade associations – the Association of Electricity Producers, the Renewable Energy Association and the Energy Networks Association. UKBCSE and industry have contributed to the development of this draft Guidance, working closely with Natural England and other key stakeholders such as local planning authorities, the Landscape Institute and NGOs.

UKBCSE, BWEA and the UK’s major energy trade associations support the principle of guidance for Natural England regional staff to assist them in assessing onshore wind energy proposals and in responding to Local Development Plans and Regional Spatial Strategy consultations.

We also support the objectives outlined in the Consultation, and look forward to continuing to work with Natural England in the refinement and effective implementation of this Guidance. This response is therefore drafted in this context and we hope that the detailed comments are of assistance to Natural England.

## **Executive Summary**

**Climate Change** – The biggest threat to the landscape is widely recognised to be climate change, and Government’s recently published Renewable Energy Strategy and Low Carbon Transition Plan both emphasise the importance of a range of renewable technologies as essential to addressing climate change, with the expectation that onshore wind will have a major contribution to make. Therefore, it is important that the Natural England Onshore Wind Energy Guidance must be a useful aid to the effective roll-out of onshore wind energy developments.

**Content of the Guidance** - we have very much welcomed the constructive dialogue between Natural England, UKBCSE and BWEA that resulted in the correspondence between the organisations’ Chief Executives (dated 17 July and 28 July). We therefore support the revision of the draft Guidance to focus on the identified five key elements:

- 1) Robust and agreed capacity assessment criteria (or factors)
- 2) Detailed guidance on the interpretation of these criteria through undertaking at least one pilot to work through the applications of the assessment criteria in detail
- 3) Factual GIS working maps
- 4) Use of existing national, local and site-specific character assessments and
- 5) Regional workshops.

**Robust and Agreed Capacity Assessment Criteria** – we support the use of robust and agreed capacity assessment criteria, as an effective way of assessing wind energy developments. We generally support the proposed criteria, however have also included some specific comments within Appendix C.

**Factual Maps** – UKBCSE and BWEA along with the UK’s other major trade associations have continually supported the inclusion of GIS Factual Maps. However as previously confirmed we do not support the inclusion of any “sensitivity” based maps (such as the CPRE Tranquillity Maps) as these are based on subjective views rather than physical facts.

The Guidance as currently drafted does not include a definitive list of maps, and the industry strongly recommends that a list of all maps be added to provide certainty. A full list of maps and datasets should be made available for consultation with the industry and other key stakeholders, prior to the Guidance being finalised, and then included in the final version.

Additionally, all maps will need to be regularly updated to ensure Natural England regional staff and others are using the most up to date information. Any updates should be widely publicised and clearly flagged.

Finally, it is important that factual maps are presented individually, to ensure Natural England staff and others have clarity on the individual physical features each map is portraying. Whilst, through using GIS versions, it might be helpful to overlay different maps to assess an overall area, it is vital that any combining of maps does not result in loss of clarity over individual features, which could inadvertently result in areas being unnecessarily precluded from development.

**Tone and Style** – whilst we recognise Natural England’s efforts to moderate the tone of the draft Guidance from previous versions, we remain concerned that the majority of points accompanying the photos, for example, indicate limited capacity for wind farm development, without qualifying why this might be the case.

Additionally, where wind energy development capacity is identified it tends to be in an urban context or where existing development already exists

Finally, the tone of the Guidance is written in such a way that could lead Natural England staff and others to assess individual applications in a negative way e.g. bullet point 2 on page 38 states *“inconsistencies in turbine layout, height or design between adjacent wind farms can draw the eye and may caused increased landscape and visual impact”*. We suggest that alternative wording such as *“consideration of a proposal should take into account the layout, height and design of adjacent wind farms to address any potential discordant aspects in visual amenity terms”* would achieve the same objective in far more neutral terms.

It is also very prescriptive, making definitive assumptions that wind energy developments “will...” and we would therefore recommend that the language is softened to include “may” instead.

**Terminology** – the Guidance sometimes uses the term “wind farm” which refers only to large-scale wind developments and sometimes uses “wind energy developments”. We therefore suggest reference should only be made to “wind energy developments”.

**Glossary of Definitions** – as discussed during the various Natural England stakeholder workshops, we support the request for a glossary of definitions as an aid to clarity for all.

**Scope** – the industry believes that the current scope, which concentrates on Natural England’s statutory duties is the right scope for the Guidance.

**Illustrations not photos** – again as discussed, and provisionally agreed, at the stakeholder workshops the use of to-scale illustrations would enable graphic representations to be made whilst avoiding specific examples being used and therefore inappropriate comparisons being made.

**Weighted Density** – we strongly oppose the weighted density approach as it is confusing and unnecessary, and potentially distorts the baseline information by incorporating all types of eco or geo factors in a way that automatically assumes an area with more factors will be

less suitable for development than one with less. Whereas in practice suitability will be totally dependent on the individual factors and circumstances

Additionally, use of grid squares to locate eco-and geo-factors is too coarse a mechanism for detailed analysis, and could result in viable areas being ruled out. Application of grid squares potentially extends constraints over a wider area than the immediate feature and potentially exclude otherwise viable areas from sustainable development. It also misleadingly suggests that the entire grid square is constrained in terms of development.

**Resources** – we strongly support an increase in landscape professionals in the Natural England regional offices. By Natural England’s own recognition not all regional offices have landscape professionals. Whilst we absolutely support the principle of providing guidance to Natural England’s staff, the absence of landscape professionals or access to them, could still make it more difficult for other staff to use the guidance to maximum benefit. Scottish Natural Heritage use a model whereby they have a number of Renewable Case Officers who work with, and take technical advice from business on renewable technologies, and apply it across the country to ensure consistency.

Therefore we support the proposal for Regional workshops including regional Natural England staff, landscape professionals from within NE and the landscape institute, local planning officers and developers – and – an increase in landscape professional resources within Natural England.

**Scale** – the industry would welcome clarification as to the scale of wind energy development that the Guidance is aimed at, and we recommend that it is applied to larger scale wind energy developments of 100kW and above, and therefore not generally applied to smaller scale development (except within protected areas such as SSSIs and AONBs etc).

**Wind Energy Development Design** – the issue of the importance of design in enabling the landscape to successfully incorporate wind energy developments is a key omission. A general comment on the importance of wind energy development design, with reference to other relevant guidance such as that by Scottish Natural Heritage, would be a helpful, and we believe, a necessary, addition.

**Conserving and Enhancing the Environment** - working with wind energy developers, Natural England can encourage proportionate enhancement of the natural environment through agreeing management plans to enhance the surrounding environment. Such potential for biodiversity improvement should be considered along with other potential environmental effects.

**The Guidance as a contribution to wind energy development** – it is important that at the beginning of the Natural England Guidance it is clearly stated that it is just one contribution to site analysis and the planning process, and that a suitable wind energy development site has to meet demanding technical, economic and environmental requirements that combine to restrict the number of available locations. Key factors that determine the ultimate location of wind energy developments include, but are not limited to, wind speed, impact on habitats and protected species, aviation, and electronic communication impacts and grid connections.

Additionally, it would be useful for the Guidance to record more explicitly the balance in the decision-making process whereby a decision-maker may find harm in the landscape and visual amenity, but in considering all the other factors, may still decide the development should go ahead. Setting the context of the Guidance in planning terms and stressing within Part A – Context, that consideration of the impact on the landscape / environment needs to be balanced against the need to address climate change through amongst other things, appropriate deployment of onshore wind energy.



**UKBCSE / BWEA and Industry Response to Natural England Consultation Questions on the “Assessing the Environmental Capacity for Onshore Wind Energy Development” Consultation**

**Q1 *Do you agree that there is a need for Natural England guidance on assessing the environmental capacity for onshore wind energy?***

We support the principle of establishing guidance for Natural England regional staff on the development of large-scale onshore wind energy projects (>100kW), as a way of improving consistency of responses to wind energy development proposals and Local Development Plan and Regional Spatial Strategy consultations, enhancing industry / Natural England relationships both at national and regional level and providing a useful contribution to the effective deployment of onshore wind energy to help meet the UK’s energy policy goals.

We very much welcomed the constructive dialogue between Natural England, UKBCSE and BWEA, which resulted in the correspondence between the organisations’ Chief Executives (dated 17 July and 28 July). These identified five key elements for the Guidance which include:

- 1) robust and agreed capacity assessment criteria (or factors)
- 2) detailed guidance on the interpretation of these criteria through undertaking at least one pilot to work through the applications of the assessment criteria in detail
- 3) factual GIS working maps
- 4) use of existing national, local and site-specific character assessments and
- 5) regional workshops.

Additionally, we support the inclusion of more landscape professionals within Natural England, which would help consistent interpretation of the Guidance.

**Q2 *Do you agree that the guidance should be primarily aimed at Natural England staff?***

Yes – we support the guidance being primarily aimed at Natural England staff. However we recognise that it could also be useful for developers and local planning authorities as a helpful guide to Natural England thinking, provided that it is based on the five key elements agreed with Natural England’s Chief Executive (see correspondence dated 17 July and 28 July). Equally, within the Natural England Guidance it should clearly state that it is just one contribution to site analysis and the planning process, and that a suitable wind energy development site has to meet demanding technical, economic and environmental requirements that combine to restrict the number of available locations. Key factors that determine the ultimate location of wind energy developments include, but are not limited to, wind speed, impact on habitats and protected species, aviation, and electronic communication impacts and grid connections.

**Q3 *Do you think Natural England guidance would be helpful to other stakeholders***

Yes – it could also be useful for developers and local planning authorities as a helpful guide to Natural England thinking, provided that it is based on the five key elements agreed with Natural England’s Chief Executive (see correspondence dated 17 July and 28 July) and that it is viewed by all as just one contribution to site analysis and the planning process. Other key factors will determine the ultimate location of wind energy developments. These include wind speed, impact on habitats and protected species, aviation, and electronic communication impacts and grid connections amongst others.

**Q4 Should the guidance only consider Natural England's statutory interests?**

Yes – Natural England's Guidance should focus purely on its statutory duties and responsibilities. Other relevant aspects are suitably covered by other organisations including Government, statutory consultees and non-Governmental bodies, and extension of the Guidance into those areas could be problematic, both in terms of causing confusion and also potential tension with other organisations. However, where overlaps occur every effort should be made to reach agreement to ensure aligned advice is given by one or both parties e.g. Natural England and English Heritage.

Of course within Annex 1 the Guidance it makes reference to Natural England's purpose, which along with the need to conserve and enhance the environment, also requires it to "contribute in other ways to social and economic well-being through management of the natural environment."

The biggest threat to the natural environment and indeed social and economic well-being is recognised to be climate change, and so the need for a balance between conservation of the local environment and addressing climate change to protect the global environment, will always need to be borne in mind.

Government's recently published Renewable Energy Strategy and Low Carbon Transition Plan make clear that onshore wind energy developments must play a major part in delivering the Government's twin energy goals of mitigating climate change and ensuring continued security of the UK's energy supplies.

**Q5 *Is there other material related to wind energy that you think Natural England should produce as part of this guidance?***

No – we believe that if the Guidance is amended to include the five key aforementioned elements it will be able to provide a comprehensive package that will assist Natural England regional staff in performing their statutory duties effectively and consistently.

However, a review after one year would be helpful in assessing the effectiveness of the Guidance and identifying whether or not additional information is needed e.g. additional factual maps.

**Q6 *Do you agree with our definition of 'environmental capacity'? Should the guidance be using different terms, such as 'potential', 'scope', 'sensitivity' or 'opportunity'***

Yes – we agree that the term 'environmental capacity' should be used within this Guidance, as a helpful neutral phrase. Indeed the linkage of 'environmental' and 'capacity' must remain, so as to avoid confusion with turbine or landscape capacity, as the Guidance seeks to address receptor environments rather than just landscapes (which is an overly restrictive term).

We do not therefore support the use of other terms such as 'sensitivity' or 'opportunity', as these can have negative or positive connotations, which might lead to unhelpful preconceptions / inconsistent interpretations.

**Q7 *Do you think the overview of potential impacts of onshore wind energy on the natural environment is an accurate and fair reflection?***

The two paragraphs on pages 12 and 13 present an accurate reflection of the adverse impacts that wind energy development can potentially have. However, we suggest that two

key omissions on the beneficial impacts of wind energy developments need also to be included:

- **Climate Change as a force for Conservation** – the natural environment is fundamentally threatened by climate change. The provision of renewable energy, and specifically the major contribution that Government requires onshore wind energy to play, makes a fundamental contribution to conserving and enhancing the environment in the longer term (as outlined in the RES and Low Carbon Transition Plan). Therefore Natural England and this Guidance have a real opportunity to support Government's overarching energy policy goals, whilst delivering their statutory duties.
- **Wind Energy Development as an opportunity for Enhancement** - Wind energy development also affords major opportunity for biodiversity and geodiversity enhancement through environmental management plans where appropriate.

**Q8** *Are the proposed criteria appropriate for assessing the range of factors that contribute to environmental capacity (i.e. both ecological / geophysical and landscape factors)?*

We broadly agree with the proposed criteria for assessing the range of factors that contribute to environmental capacity. However we do have some specific comments, which are detailed in Appendix C.

As stated above, there are still areas within the Guidance where an unhelpful tone is used. The tone used within the assessment criteria is a) quite prescriptive, with the use of the word "will", which could helpfully be changed to "may", and b) can sometimes give the impression that wind energy developments always have a negative impact.

**Q9** *Are there any criteria missing? If so, please list and explain*

The industry has not identified any additional criteria it could recommend.

**Q10** *Should any of the criteria be merged or amended*

**Skylines and Settings** - As discussed at the fifth workshop there is a need to separate out skylines and settings. Additionally, we would recommend that:

- skyline be amended to "significant skyline"; and
- setting should explicitly address specific immediate context

**Q11** *Do you have any other comments on the proposed criteria?*

See answers to Questions 8, 9 and 10 plus additional detailed commentary in Appendix C

**Q12** *Do you agree with the proposed approach to assessing capacity?*

We broadly consider the approach to be appropriate, subject to the detailed comments in Appendix C.

**Q13** *Do you agree with the approach to considering scale and cumulative impacts?*

It is inappropriate to divide the landscape into sub-categories of upland, intermediate and lowland. When assessing any proposed wind energy development, Natural England officers should, first and foremost have careful regard for and take into consideration the topographic profile of the landscape in respect of the proposal's immediate and wider setting. Therefore all references to upland, intermediate and lowland landscapes, in pages 28-35 should be removed.

The capacity of the environment to accommodate turbines is not simply based on the number of turbines, but also the scale and size of the turbines under consideration. These are two primary factors in determining what is appropriate in any given location. Therefore the number and size, as two parameters, both need to be considered together. However, it is important to note that the numbers of turbines and the height of turbines should not be conflated. Note that a small grouping should not be assumed to consist of small turbines.

### *Turbine Groupings & Turbine Height*

Groupings and height are addressed separately, yet the two are interrelated. The several bullet point paragraphs on each subject present an overly simplistic view and the statements are not substantiated with evidence. It would be more appropriate for guidance to state that with respect to both turbine groupings and height, careful analysis of the surrounding topographic profile is required to determine the appropriate form of wind energy development.

The statements are flawed and contradictory. By way of example, the second paragraph under the heading 'turbine height' (page 37) states that taller turbines in a lowland landscape would "overwhelm" the subtle variations in topography. Yet, under the heading 'lowland landscapes' (page 31), the first paragraph states that lowland landscapes may accommodate larger turbines.

### *Cumulative and spacing*

This section needs considerable amendment to include greater detail and correct certain inaccuracies and flawed assumptions. We respectfully suggest that Natural England consider the material contained in the Scottish Natural Heritage "Scoping Issues for Wind Farm EIA" Document – 4<sup>th</sup> Draft September 2006, and "Cumulative Effect of Wind Farms" April 2005, which provide useful reference.

#### **Q14 Do you agree with the weighted density approach?**

No – the industry believes this approach to be fundamentally flawed.

As previously highlighted during Natural England workshops, the weighted density approach is confusing and unnecessary, and has the potential to misdirect Natural England regional staff. It potentially distorts the baseline information by incorporating all types of eco- or geo-factors in a way that automatically assumes that if there are five factors then an area will be less suitable for development than one with only one factor. This may not be necessarily so, as it will be totally dependent on the individual factors and circumstances which will make an area more or less suitable.

Additionally, Map 3 illustrates grid squares to locate eco-and geo-factors. This approach is too coarse for detailed analysis, and could result in viable areas otherwise being ruled out. Application of grid squares for each constraint or factor may extend over a wider area than the immediate feature and potentially exclude otherwise viable areas from sustainable development. It also misleadingly suggests that the entire grid square is constrained in terms of development.

#### **Q15 Do you agree with the approach to using GIS and other information to inform the application of the landscape criteria?**

Yes – we do support the use of GIS factual based maps as a helpful aid to both Natural England regional staff and others when considering onshore wind energy development proposals.

However, all maps need to be fully referenced in terms of their scale, and need to explicitly state their provenance and date when last updated. Additionally, in order to be useful, regular updating will be necessary, and a summary explanation of any changes made should be included.

Table 2 of the Guidance covers GIS data sets and we strongly believe that any GIS dataset that is referenced within the Guidance should be accompanied with a GIS map. This is not currently the case, for instance:

*Statutory protected sites:*

- SSSI - mapped
- Natura 2000 - mapped
- National Nature Reserves – not mapped

*Non-statutory wildlife sites*

- Ancient woodland – mapped
- Areas of high bird sensitivity – not mapped
- Deep peat – mapped
- Coastal buffer zones – not mapped

**Q16 Are the suggested GIS maps and datasets the right ones?**

As above – inclusion of maps must be limited to factual maps and datasets, and not include any form of sensitivity mapping which relies partly or wholly on subjective assumptions e.g. the CPRE Tranquillity Map included in the Infrastructure Map 10.

Importantly, there is no definitive list of GIS maps and datasets, and this should be made available for consultation prior to the Guidance being finalised, and included in the final version.

Additionally, Map 3 illustrates grid squares to locate eco-and geo-factors. This approach is too coarse for detailed analysis, and could result in viable areas otherwise being ruled out. As previously stated above, application of grid squares for each constraint or factor may extend over a wider area than the immediate feature and potentially exclude otherwise viable areas from sustainable development. It also misleadingly suggests that the entire grid square is constrained in terms of development.

The introduction of the concept of buffer zones is in direct contradiction to the Government's "Planning Policy Statement 22 – Renewable Energy" which clearly states that buffer zones should not be created. Any reference to buffer zones should therefore be removed.

Maps 1 and 3 – Ecological and Geophysical Features – there is obviously a database of these features within Natural England which has formed the basis of this map. This original database can be used to inform and provide guidance. However, the features should not be presented through a weighted density approach as this can be potentially misleading (as above).

Maps 1, 2 and 3 all refer to eco-factors and geo-factors, but this in itself is not informative for the reader to determine whether this is a relevant factor in influencing a turbine proposal. Therefore, such information is of limited value other than logging or registering the fact that such unspecified factors exist. It would be of more use to specifically set out on data maps the specific details of the eco- or geo-factors to facilitate a fully informed judgement.

Therefore we recommend that the ecological and geophysical features are presented separately, on a factual basis in map form.

**Q17 Do you have any comments on the general principles for fit with landscape character in Annex 2?**

As discussed within the fifth workshop, the use of photographs should be replaced by to-scale illustrations. The photographs currently included in the Guidance do not in some cases, demonstrate the point they are supposed to make. Indeed some of the photographs and accompanying bullets contradict one another.

See also detailed comment in Appendix C.

**Q18 Do you agree with our proposal for regional workshops?**

Yes, we believe that these workshops will provide an essential opportunity for Natural England regional staff to explore and clarify their understanding of the Guidance, test out the application of the criteria through practical examples and develop and enhance relationships with local developers and planning authorities.

**Q19 Do you have any suggestions for potential opportunities to work with Natural England to test how our criteria can be best applied at a regional and/or sub-regional scale?**

We would suggest trialling this through one Natural England regional office, relevant receptive local planning authorities and receptive developer(s) engaged at the earliest stages of consultation for one or two specific projects.

Additionally, we would recommend Landscape Institute involvement (if resources allow) and we would be happy to recommend a project, which could be used as a pilot study to test the practical application of the assessment criteria.

## UKBCSE / BWEA and Industry Detailed Commentary on the Natural England Consultation on the “Assessing the Environmental Capacity for Onshore Wind Energy Development” Consultation

### Introduction

Appendix C provides detailed ‘line-by-line’ commentary on the Natural England “Assessing the Environmental Capacity for Onshore wind Energy Development” Consultation. Comments are provided in the context of the general support of UKBCSE, BWEA and the major UK energy industry trade associations for the principle of guidance on onshore wind energy for Natural England regional staff, and comments are cross-referenced to the section and page of the Guidance to which they reply.

### Forward – Page 2

The first sentence references the importance of climate change.

***Whilst we are pleased that Natural England confirms its commitment to playing its part in helping deliver more renewable energy nationally, it would be helpful to reference both the Renewable Energy Strategy and the Low Carbon Transition Plan published recently by Government. This will reinforce not only Natural England’s commitment to renewable energy, but also the context within which this commitment is made – namely Government’s overarching goal of mitigating climate change through the wide scale and appropriate deployment of suitably sited sustainable energy projects, which includes onshore wind energy development.***

Para 2 talks about the need for society to move to an informed consensus on there being landscapes where renewable energy infrastructure is desirable, just as there being landscapes and places that should remain free from development.

Para 3 talks about the need for a much wider strategic assessment of where renewables can best be situated.

***Whilst these sentences present a balanced approach to wind energy deployment, they must be seen in the context of the overarching Government goal to achieve widescale deployment and that options for deployment may be limited in some cases, and dependent on a wide range of additional factors other than landscape e.g. wind speed, interaction with aircraft, birds and protected species and habitats etc.***

Para 4 states ‘we want to do all we can to help identify these areas, so that the right sort of development is located in the right places...’ and ‘have developed criteria-based guidance that can be used to assess the capacity for onshore wind energy development to be successfully accommodated in our landscapes.’

***This is a particularly positive sentence which demonstrates true commitment to the deployment of appropriately sited wind energy development. The industry supports the principle of robust and agreed environmental capacity assessment criteria, although have a few specific comments on the proposed criteria as detailed below.***

Para 5 talks about the use of the Guidance by both Natural England regional staff and ‘other players’.

***This para should make it clear that the Guidance's primary audience is Natural England regional staff, but that it may be useful to others. This sentence could helpfully be combined with para 7.***

Para 6 talks about 'by creating a more transparent approach, we hope to offer greater certainty over the sustainable deployment of new onshore wind energy. We also hope that the guidance will highlight how environmental concerns can be effectively balanced with development needs and the *growing* wind energy sector.'

***This para again demonstrates Natural England's commitment to balancing the conservation and enhancement of the landscape with the need to mitigate / address climate change through sustainable deployment of onshore wind energy. However we would respectfully suggest that the word 'growing' is replaced by 'need to grow the wind energy sector to address climate change.'***

## **PART A: CONTEXT – Page 5**

### **1. Natural England's Statutory Purposes and Responsibilities**

These paras set out Natural England's statutory purpose and responsibilities in terms of the role of statutory consultee and designating body and clarify the scope of when they apply.

***The industry welcomes this clarification as an aid to clarity, however we would welcome confirmation as to whether this means that wind energy developments not requiring an EIA or not impacting on a protected area, species or landscape, could still be subject of Natural England consideration.***

Para 5, 2<sup>nd</sup> sentence, states that "where, in our assessment, a wind farm application is likely to cause unacceptable harm on a protected site, species or landscape, we will formally object."

***Whilst the industry absolutely accepts the need to site sustainable energy projects appropriately, we would ask how Natural England defines "unacceptable harm" and respectfully request that if the term is to be used it is quantified in the proposed glossary of definitions and that greater clarity is given on how Natural England regional staff could be expected to make a judgement that "unacceptable harm" would occur.***

Para 6 talks about planning authorities being unlikely to make a decision in the absence of Natural England's advice.

Para 7 (page 6) therefore stresses the importance of Natural England's needing to be able to respond in a timely, consistent, clear and transparent manner.

***We believe it would be helpful to make it clear that this only applies to those projects which fall within the scope of Natural England's statutory duties and responsibilities as defined in this section. Additionally, as Natural England state, if local authorities are unlikely to make decisions in the absence of their advice, it is vital that Natural England is suitably resourced in order to respond in a timely and effective manner to all relevant sustainable energy project applications.***

### **2. Projected Expansion of Onshore Wind Energy - Pages 6 & 7**

This section spells out the threat of climate change. Para 1 states that "climate change is, in Natural England's view, the most serious long term threat to our natural environment."

***Again, whilst we welcome Natural England’s recognition of the threat of climate change, it would be helpful to reflect in this first sentence, that “climate change is, in both Natural England’s and Government’s view (as reflected in the recently published Renewable Energy Strategy and Low Carbon Transition Plan) the most serious threat to our natural environment.” Given the impact climate change is already having we would also advocate removing the words “long term.” Whilst the Renewable Energy Strategy (RES) is mentioned later on, an upfront reference would reinforce the critical importance of addressing climate change now.***

***The remaining paras helpfully set out the scale of the energy challenge the UK faces, and specifically in the context of this Guidance stress that, within the next ten years, the majority of renewable energy deployment is expected to come from wind energy, with onshore wind expected to expand from 2 to 14 GW.***

### **3. The Need for Natural England Guidance - Pages 7 & 8**

This section sets out the need for Natural England Guidance in the context of expansion of onshore wind energy developments, and therefore an increased demand for Natural England’s statutory advice.

It also talks about the constructive dialogue with stakeholders through the workshops held during 2009, and in particular the change in terminology, including the change from “sensitivity” / “opportunity” to “capacity”.

***The industry support the development of Guidance on Onshore Wind Energy to aid consistency and transparency and enable Natural England regional staff to assess individual wind energy proposals in an efficient manner, whilst enabling developers to better understand Natural England’s duties, responsibilities and thinking and therefore provide information that addresses the issues they will be interested in.***

***However, we still believe that with the significant expansion in all types of sustainable energy developments, it is important that Government recognise that Natural England will need to be sufficiently resourced, particularly in terms of landscape professionals, to be able to respond in a timely and effective manner.***

***We have valued the constructive dialogue which has taken place with Natural England both at the stakeholder workshops and also in bilateral meetings to discuss specific issues, and in particular the willingness to respond to concerns about the terminology such as moving from “sensitivity” to “capacity.”***

## **PART B: Natural England’s Proposed Guidance – Page 9**

### **1. Purpose and Scope**

This section outlines the purpose and scope of the Guidance and para 2 confirms its criteria-based approach to assessing “the key factors....”

***Para 2 should be amended to “The guidance adopts a criteria-based approach to assessing some of the key factors that influence and contribute to the capacity of the natural environment to accommodate wind energy development.”***

Para 6 states that the intention of the Guidance is to “add value to the deployment process”.

***We recommend that this para be amended to “to add value to the onshore wind energy deployment process.”***

Para 1 of page 10 recognises that developers and planning authorities will need to have regard to other factors, listing several of them. However, Natural England state that it is for others to address these issues, but that ‘we would be interesting in contributing to efforts to combine our approach that of organisations whose remit covers such non-environmental factors.’

***This seems to us as a contradiction in terms, but we would support a collaborative approach between Natural England and other statutory consultees to work with industry and other stakeholders to assess the viability of producing combined guidance which holistically captures all the factors which need to be considered. In the short-term it would be very helpful, provided that they have been subject to full consultation with stakeholders, to add in references to guidance from other bodies in future versions of this Guidance, as and when they become available.***

Para 3 of page 10 refers to “the forthcoming National Policy Statement for Renewable Generation.”

***We suggest that this should be amended to “the forthcoming National Policy Statement for Renewable Energy.”***

Para 4 explains that the Guidance is for Natural England staff and “so will not have statutory status.”

***This should be stated at the beginning of the document, we suggest in the forward or even by including reference to it being non-statutory in the title.***

Para 4 also refers to local and regional planning bodies making use of the document when preparing “spatial plans.”

***We respectfully suggest it would be helpful to expand this to state “Local Development Frameworks and Plans and Regional Spatial Strategies.”***

## **2. Approach to Assessing the Environmental Capacity for Onshore Wind Energy**

Para 3 states that “mitigation measures and likely success of those measures should be identified and assessed through the Environmental Impact Assessment process.”

***Whilst this is true for larger scale projects, not all wind energy developments will be subject to an EIA process.***

### *Potential impacts of wind energy development on biodiversity and geodiversity*

***The potential impacts of wind energy development on biodiversity have been limited to only those that are negative, whereas the contribution of wind energy developments to addressing climate change, and the agreement and implementation of positive biodiversity and geodiversity management plans can actually produce positive impacts. This should be recognised within this section.***

Para 4 of page 12 states that “biodiversity impacts can be on both species and habitats.”

***We suggest this is changed to “biodiversity impacts can relate to both species and habitats.”***

Para 4 also refers in the second sentence to the “risk of bird and bat collision with moving blades and any additional overhead wires.”

***The Guidance as drafted is only aimed at wind energy development, and whilst we recognise the potential impact the connecting overhead lines, there has not been any inclusion of connecting assets or discussions with the network providers. The term “additional overhead wires” is not a recognised one, and so we recommend that it is changed to “any additional overhead electricity lines (although this Guidance does not include within its scope overhead electricity lines).”***

The third sentence of Para 4 talks about “Rare species and those protected under EU and national legislation...”

***We suggest the “and” is removed as there are no rare species that are not protected i.e. rare species protected under EU and national legislation.”***

#### *Potential impacts of wind energy development on landscape character*

***The potential impacts of wind energy development on landscape character have been limited to only those that are negative, whereas the contribution of wind energy developments to addressing climate change, and the agreement and implementation of positive management plans can actually produce positive impacts. This should be recognised within this section.***

The second sentence states “their [wind energy developments] scale and form, consisting of a number of tall, vertical structures spaced over an extensive area, can lead to changes in the character of the landscape and introduce complex visual relationships between the turbines and their surroundings.”

***This sentence makes a number of assumptions that a) all wind energy developments have a number of turbines (which is incorrect as developments can comprise of just one wind turbine), b) they cover an extensive area (which is incorrect as a small development may comprise one or more turbines taking up just a small geographic area) and c) these will “introduce complex visual relationships between the turbines and their surroundings”, which is again not necessarily the case, and it is totally dependant on the individual circumstances.***

The first sentence on page 13 states that “Such effects can influence people’s enjoyment of the natural environment.”

***This should be amended to “such effects can influence some peoples’ enjoyment...” as it cannot be said that all people have their enjoyment of the natural environment impacted on by wind turbines.***

#### *Criteria for assessing environmental capacity for wind energy development*

The first para of this section includes within the list of characteristics “perceptual qualities”.

***We suggest this should be changed to “perceived value”.***

Para 4 of this section states that “ecological and geophysical criteria can be used to identify areas that will have low capacity for wind energy development.

***We believe the words “that will have low” should be removed as all the criteria should be an aid to assessing the “environmental capacity” of an area to accommodate wind energy development, and should not therefore make the assumption that the ecological and geophysical criteria will automatically identify areas of low capacity.***

Additionally, para 4 in the second sentence states that “in applying these criteria, areas which do not score highly .....

***As discussed at the workshops there is no scoring mechanism included within the Guidance, nor would we support there being one. We therefore suggest that the wording is changed to “In applying these criteria, they will aid Natural England staff in assessing whether areas have a high or low environmental capacity for wind energy from an ecological and geophysical perspective.”***

Similarly para 5 again states that landscape criteria automatically will identify areas of low capacity “where wind energy development is likely to cause unacceptable harm to landscape character.”

***Again the use of the landscape character criteria to identify “areas of low capacity” automatically leads anyone reading the guidance to assume the purpose of the landscape criteria is to identify only those areas of low capacity for wind energy development, whereas they should be used to assess the capacity for wind energy development, whether it be low or high. We therefore suggest the wording is changed to “in applying these criteria, they will aid Natural England staff in assessing whether areas have the capacity to accommodate wind energy development from a landscape character perspective.”***

Finally para 6 states that “the combined assessment will therefore be able to identify areas of high capacity from both an ecological / geophysical and landscape perspective.”

***Conversely, this leads the reader to a positive conclusion on onshore wind energy, which although welcome from a wind energy point of view, for the purposes of equity, this sentence should be amended to read “the combined assessment will therefore be able to identify areas of high / moderate / low environmental capacity from both an ecological / geophysical and landscape perspective.”***

**Table 1: Criteria for Assessing Environmental Capacity for Onshore Wind Energy Development**

There are two generic points, which apply to the majority of explanations of criterion:

- The use of the word “will” i.e. the assumption that these criteria will always result in decreased (or increased) environmental capacity for wind energy developments is not always true – preferable wording could be “is likely to” or “will probably”
- The use of the word capacity should always be preceded by the word “environmental” as the Guidance is not aimed at, nor do Natural England’s statutory responsibilities include other factors which affect capacity

Additionally, some of the assumptions are of great concern and suggest insufficient understanding of the other constraints which limit where wind energy development might take place, and the balance that is needed when considering proposed developments.

Criterion	Explanation of Criterion
<b>Ecological and Geophysical Criteria</b>	
Statutory Protected Sites	<p>The presence of Sites of Special Scientific Interest, National Nature Reserves, and sites designated under Natura 2000 (i.e. SAC and SPA) will decrease capacity for wind farm development</p> <p><b><i>The industry suggests that the word “will” should be replaced with the wording “is likely to decrease environmental capacity for wind energy development.”</i></b></p>
Non-Statutory Wildlife Sites	<p>Statutory protected sites make up around 7% of England’s land area and there are many important habitats outside these designated areas</p> <p>The presence of such habitats, especially those which are part of extensive ecological networks (for example ancient semi-natural woodlands and coastal and floodplain grazing marsh), will generally decrease capacity for wind farm development</p> <p><b><i>The industry suggests that word “will” should be replaced with the wording “could influence the environmental capacity for wind energy development.”</i></b></p>
Areas of Deep Peat	<p>The unconsolidated and fragile nature of this soil type means that it will generally have low capacity for wind energy development, which can cause significant disruption to the hydrology of these areas and so, in turn, impact on their carbon storage capacity, limiting their capacity to help us tackle climate change.</p> <p><b><i>The industry seeks clarity on how areas of deep peat are defined.</i></b></p>
Areas of High Bird Sensitivity	<p>In some areas there is a greater probability of risk to sensitive bird species from wind energy development. Many, but not all, of these areas will be covered by at least one of the other ecological and geophysical criteria.</p> <p><b><i>The industry thinks that if Natural England wishes to use the terms “sensitive bird species” the word “sensitive” should be defined. Many birds are protected species and so the criteria explanation could be improved by using the</i></b></p>

	<p><i>recognised terms.</i></p> <p><b><i>Additionally, the assumption that many of the areas will be covered by at least one of the other ecological and geophysical criteria, needs to be backed up by evidence and this clarified in the Guidance.</i></b></p>
Coastal Buffer Zones	<p>Many of our designated coastal sites are under pressure from the effects of sea level rise in a changing climate and therefore require some flexibility in their boundaries and management to reflect active coastal processes.</p> <p>Areas adjacent to statutory coastal sites may therefore have low capacity for wind farm development, as they may be needed in the future for conservation. These sites may not be viable for development anyway due to sea level rise.</p> <p><b><i>The terms “coastal buffer zones” and “statutory coastal sites” are not generally recognised terms, and we would welcome clarification of what the terminology means and a definition of the terms if they are to be used. The assumption that areas adjacent to “statutory coastal sites” may therefore have low capacity for wind farm development also appears erroneous as “adjacent to” could mean “inland from” and provided that wind energy developers do not pick sites that are clearly at risk from coastal erosion or sea level rise, coastal sites can prove some of the most suitable in terms of wind speed and other key factors. In any case buffer zones are unnecessary when a designation exists and potentially preclude otherwise suitable areas from development.</i></b></p>
<b>Landscape Criteria</b>	
Scale	<p>A large scale landscape, such as extensive rolling uplands or expansive plains, where the turbines are in [be] proportion with the landscape, is likely to have greater capacity for wind energy development than a small scale landscape where turbines can appear to dominate.</p> <p><b><i>This point requires further thought and clarification, as it would appear to conflict with a number of bullet points in Annex 2, for example, regarding the scale of field patterns, and presence of open heather, moor and bog.</i></b></p>
Landform	<p>Landform that is smooth and convex, or flat and uniform will generally have greater capacity for wind energy development than dramatic or rugged landform. This is because the former types of landform tend to be less prominent and less distinctive in character.</p> <p><b><i>Again this assumption is not always true as smooth and convex, or flat and uniform landscapes can be distinctive in character. We suggest wording that focuses on the “the topographic scale and the simplicity of topographic profile can assist in accommodating wind turbines.”</i></b></p>
Landcover	<p>Simple, regular, uncluttered landscapes with sweeping lines and extensive areas of consistent ground cover are likely to have higher capacity for wind energy development than areas with more complex, irregular or intimate landscape patters (for</p>

	<p>example ancient, irregular field systems.)</p> <p><b><i>Industry would question why this assumption is made – hedges, treecover and woodland can assist in blending turbines into the landscape, as Natural England identifies later in relation to photograph 3.</i></b></p>
Human Influence	<p>A high degree of human influence on the landscape will generally mean that it has greater capacity to accommodate wind energy development. Turbines are likely to be less conspicuous in brownfield or industrial landscapes already affected by built structures such as masts, pylons or chimneys, provided there are no visual conflicts where the structures are seen in close proximity. Commercial forestry also introduces a human influence to upland landscapes and so will generally have higher capacity.</p> <p><b><i>This point requires further thought and clarification, as it would appear to conflict directly with the advice given later in relation to photograph 8.</i></b></p>
Skylines and Settings	<p>Landscapes that do not form a distinctive backdrop or context tend to have greater capacity for wind energy development than those with strong visual features and focal points such as hilltop monuments, church spires or designed landscape features, which may form important skylines, landmarks or settings for settlements.</p> <p><b><i>As previously stated, these two should be separate criteria in their own right. Definitions of both should be provided</i></b></p>
Visibility and Views	<p>Landscapes that are visually contained by topography, trees or woodlands and hence have limited inward and outward views will have greater capacity than areas with extensive inward and outward views. Such features may give screening for the lower parts of turbines and for associated access and infrastructure. Extensive close or middle range views from scenic routes, well-known vistas or tourist viewpoints will decrease a landscape's capacity for wind energy development.</p>
Landscape quality (condition)	<p>Areas where the condition and integrity of landscape patterns, elements and features are relatively good will have less capacity for wind energy development than areas where condition is poor.</p> <p><b><i>The industry asks why this assumption has been made, as it leads the reader to assume all wind energy development should only take place in areas of poor landscape value. Associated benefits of wind energy developments can include the potential to improve landscape condition.</i></b></p>
Scenic Quality	<p>Scenic quality, that is visual appeal due to important views, visual interest and variety, contrasting landscape patters, or dramatic topography, will generally decrease the capacity to accommodate wind energy development. Land of high scenic quality occurs within designated landscapes (World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty and Heritage Coasts) but also elsewhere.</p>

	<p>The approaches to and settings of high scenic quality will have reduced capacity where there is continuity of landscape character, quality, ecological interests extending outside the designated area.</p> <p><b><i>This approach is not acceptable to the industry as it will establish buffer zones in excess of those areas already designated, and is in direct conflict with Planning Policy Statement 22 – Renewable Energy In effect it could establish a generic principle that discourages Natural England staff and others using the Guidance from considering any wind energy development around a designated landscape, which contradicts with the overall objectives of the Guidance to act as an effective contribution to the roll-out of onshore wind energy development.</i></b></p>
Wildness and Tranquillity	<p>The presence of a relatively wild and / or tranquil character (due to remoteness, freedom from disturbance and factors such as openness and perceived naturalness) will reduce the capacity of a landscape to accommodate wind energy development. The introduction of wind turbines may alter perceptions of wildness and tranquillity, introducing movement, sound and light effects and possibly bringing a more industrial character.</p> <p><b><i>The industry challenges the view that placement of wind turbines ‘brings a more industrial character.’ Wind energy developments across the country have been developed without bringing ‘a more industrial character’, and therefore this last phrase should be deleted i.e. the sentence should stop at “.....The introduction of wind turbines may alter perceptions of wildness and tranquillity, introducing movement, sound and light effects.”</i></b></p>
Historic Environment	<p>The presence of sites and areas containing archaeological, historical or build environment features that are highly valued for their historic environment interest will decrease capacity for wind farms, particularly where these features may directly [be] affected by construction works and / or access tracks; or where [or] enjoyment and the ability to interpret these features may be diminished.</p> <p><b><i>There are a couple of typos, with the word “be” missing and an additional “or” included. These have been highlighted in brackets.</i></b></p>
Cultural Associations	<p>Specific cultural (i.e. historical, folklore, literary or artistic) associations relating to the landscape may result in decreased capacity for wind energy development if the character or perceptions of the landscape concerned are likely to be significantly degraded.</p> <p><b><i>The industry suggests that the word “degraded” should be amended to “adversely affected”, as the term “degraded” is unnecessarily loaded..</i></b></p>
Amenity and Recreation	<p>Areas offering access to high quality landscapes, memorable</p>

	places, special experiences and to a range of opportunities for open air recreation will have less capacity for wind energy development due to potential effects on a site's accessibility and / or on the quality of the recreational experience enjoyed by the public.
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### 3. Guidance on Applying the Assessment Criteria

#### Introduction

***During UKBCSE / BWEA discussions with Natural England one of the key elements of the five parts of the proposed package making up the Guidance, is a pilot to test the practical application of the capacity criteria through applying them to an area within England. We welcome and support this approach and suggest that the final Guidance should include specific reference to the proposed pilot or at least a preface at the beginning of the document outlines the five key elements.***

#### Assessing Capacity

***This section talks about “assessing capacity” and this should be amended to “assessing environmental capacity.”***

Para 4 confirms that scoring of the criteria is not appropriate, as “different criteria may carry different weights in different types of landscape”.

***The industry agrees that scoring of the environmental capacity criteria is not appropriate, but that Natural England staff will need to make assessments on all the criteria to arrive at an appropriate and considered view.***

Para 5 flags up the “highly localised variations in levels of capacity” confirming that “generalisation is very difficult”. However in the next sentence it makes reference to the capacity appraisal focusing on “identifying and describing the particular types of area, characteristics and features that are likely to be *adversely affected* by wind energy development and so have *low capacity*...”

***Whilst the industry appreciates the recognition that individual circumstances create very different results, the tone of this para again suggests that wind energy developments only have negative impacts and therefore focusing on low capacity.***

***We suggest the wording should be changed to “identifying and describing the particular types of area, characteristics and features that are likely to be influenced by wind energy development and so affect capacity level...”***

#### Considering scale and cumulative impact

Para 2 of this section (last para on page 18) states that “wind farm scale, defined both in terms of turbine groupings and turbine heights, clearly influences the environmental capacity of an area for wind energy development. Similarly the number and distribution of existing wind farms affects the ability of an area to accommodate further wind farms.”

***The industry respectfully suggest this para needs to be changed to “Officers should have regard to the scale, site layout and design of wind energy development proposals, and the potential influence that other proposed, or approved wind energy developments may have on the ability of the landscape to accommodate the proposal in landscape terms.”***

Para 2 of page 19 states the assessment “should include broad advice on spacing between wind farms.”

***We believe that assessment of spacing between wind energy developments will always be dependent on a number of factors, including the topography of the proposed area. Therefore no broad advice should be given on spacing.***

However, para 3 states “ultimately, however, definitive judgements on cumulative impacts can only be made on a case-by-case basis taking account of the siting, layout and intervisibility of the proposed wind farm with other wind farms in the area. Nonetheless, it may be helpful to flag up at an early stage when and where critical issues of spacing and cumulative impact are likely to arise.”

This para is helpful in emphasising the need for case-by-case assessment depending on individual circumstances, however it would be helpful to include in the suggested glossary of definitions, a definition of “cumulative impact.”

*Approach to identifying ecological and geophysical features*

This section includes nine datasets used to identify key ecological and geophysical features and a justification for their use (set out in Table 2).

**The industry supports the principle of this approach but have a couple of key questions:**

<b>Criterion</b>	<b>GIS Dataset</b>	<b>Justification</b>
Statutory Protected Sites	SSSI	These consist of the national designations which identify the best sites for natural features (i.e. wildlife and geology) in England that have been selected through the Nature Conservation and Geological Conservation Reviews
	National Nature Reserve	
	Natura 2000 sites (SPA, SAC)	
Non-Statutory Wildlife Sites	Ancient semi-natural woodland	A priority UKBAP habitat which also has national reliable data coverage and is recognised as being under-represented in the statutory site series.

<p>Areas of High Bird Sensitivity</p>	<p>Coastal and floodplain grazing marsh habitat inventory</p> <p><b><i>Industry would welcome clarification as to why this specific dataset has been singled out, and if it is to be used a definition should be included in the proposed glossary of definitions.</i></b></p>	<p>To represent sensitive bird populations (waders and wildfowl).</p> <p>These two datasets will be superseded by the joint RSPB / Natural England Bird Sensitivity Map currently being finalised. This dataset is based on distributional data for twelve sensitive bird species, plus statutory SPAs, and sites containing important populations of breeding waders and seabirds, or wintering waders or wildfowl. Ten of the 12 species included are listed on Annex 1 f the EU Birds Directive, with two additional species of conservation concern being included, due to concern about impacts on their rapidly declining or highly localised populations. All species included have known or suspected (based on information on the species' behaviour or ecology) susceptibility to the effects of wind turbines on birds, notably collision mortality and / or disturbance</p>
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	Wildfowl and Wetland Trust reserves	<p>displacement.</p> <p><b><i>Whilst the industry continues to work with RSPB and others to avoid detrimental impacts on birds, we would welcome early sight of the dataset backing up the statement that “all species included have known or “suspected (based on information on the species’ behaviour or ecology) susceptibility to the effects of wind turbines on birds, notably collision mortality and / or disturbance displacement.”</i></b></p> <p><b><i>Additionally, the industry would welcome early sight of the RSPB Natural England Bird Sensitivity Map and request confirmation of the arrangements for consultation on the document before it is formally launched. The use of the word “sensitivity” combined with the indication that the information is to be presented in map form, give rise to grave concerns, in line with those already discussed as part of the Onshore Wind Energy Guidance consultations – namely that sensitivity mapping can give rise to large areas of England being either precluded from onshore wind energy development or potentially too heavily populated (key concern of NGOs and local planning authorities).</i></b></p>
	Inland water bodies	Support significant wildfowl populations
Areas of Deep Peat	Location of Deep Peat – England	<p>National dataset recently compiled [compiled] by Natural England which includes non-designated peatlands for the first time.</p> <p><b><i>There is a typo - “compiled” should be “compiled”.</i></b></p> <p><b><i>Additionally, we would welcome clarification on the status of the new Natural England dataset on non-designated peatlands, and the intentions of Natural England with respect to this new dataset i.e. is it intended to seek designation?</i></b></p>
Coastal Buffer Zones	Buffer zones (3km) around statutory coastal sites	Grid squares adjacent to statutory coastal sites have been identified as ecological features

<p><i>The industry does not support the use of this term and suggest that it is changed to Statutory Coastal Sites</i></p>	<p><i>The industry would welcome clarification on the justification of 3km – on what basis is this figure suggested. Additionally the industry fundamentally opposes the principle of establishment of a buffer zone.</i></p>	<p><i>As previously raised, the use of grid squares is too coarse a tool to accurately identify ecological features and will inevitably unnecessarily extend the area, thereby inappropriately potentially precluding those areas from wind energy development.</i></p>
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The first 3 paras on page 21 continue to explain the 1km grid square approach resulting in the national map demonstrating combined densities on a national basis.

***As before, the industry believes this approach to be fundamentally flawed as it a) unnecessarily and inaccurately expands the areas deemed to represent the relevant features / habitats and b) automatically lead the reader to the assumption that an area with a number of features is automatically less suitable for onshore wind energy development, whereas if those features are things such as roads or grid lines they may actually be more suitable.***

Para 4 talks about the use of GIS maps, and recognises that this approach is more accurate. However it states that “it is less likely to account for the fact that development outwith but adjacent to a feature can cause damage to key ecosystem functions, such as hydrology, which can in turn degrade the feature itself.

**The industry recommends that the term “degrade” be changed to “have an adverse affect on”, as this term is widely recognised.**

*Approach to identifying landscape features using GIS factual maps*

This section indicates that Natural England will prepare further GIS maps to support and inform the application of some of the landscape criteria (para 1 of this section).

Para 2 states that “these GIS maps do not in themselves necessarily indicate greater or less capacity.”

***We welcome the inclusion and further development of factual maps as a helpful aid to Natural England staff and others when considering wind energy development siting. However:***

- ***the industry respectfully requests that a definitive list is produced and consulted on before the final Guidance is launched***
- ***any GIS maps included in the Guidance must be purely factual and should not in any circumstances indicate greater or less environmental capacity for wind energy developments – therefore the wording in para 2 should be amended to state that “these GIS maps do not indicate greater or less environmental capacity for wind energy developments.”***
- ***As previously confirmed, the industry strongly objects to the inclusion of subjective datasets, and the use of ‘sensitivity’ mapping – including the CPRE Tranquillity Map***
- ***The use of a ‘weighted’ approach to the representation of datasets should be avoided, as it distorts baseline data.***

- ***The use of a crude ‘grid square’ approach to the representation of datasets should be avoided, as it distorts baseline data.***

## **PART C – Implementing the Guidance**

### **1. Regional and Sub-Regional Application**

This section recognises many of the key points made in the stakeholder workshops around using existing local and regional data rather than undertaking Natural England capacity mapping or character assessment. It also commits to holding regional workshops across England jointly with stakeholders during late 2009 / early 2010.

***UKBCSE, BWEA and industry strongly support this approach, and want to record their appreciation of Natural England’s willingness to adapt their proposals to focus on environmental capacity criteria, supplemented by four key areas:***

- ***detailed guidance on the interpretation of these criteria through undertaking at least one pilot to work through the applications of the assessment criteria in detail***
- ***factual GIS working maps***
- ***use of existing national, local and site-specific character assessments and***
- ***regional workshops – which the industry is committed to supporting and attending.***

Para 5 also highlights the need for training and “capacity building” within Natural England, particularly in the use and application of the Guidance.

***The industry strongly supports the need for Natural England to be appropriately resourced, particularly in terms of landscape professionals, and in light of the major increase in sustainable energy projects that will be necessary to address climate change and ensure continued security of the UK’s energy supplies. We urge Government to address this issue by providing suitable funding for Natural England and other statutory consultees to be able to respond to sustainable energy applications in a timely and meaningful way.***

### **2. Further Work to Test Application of Criteria**

This section makes a number of commitments to working with industry, local government, the landscape profession and others following the launch, to:

- a) explore how the environment capacity criteria can be applied spatially, “linking with local authority supplementary guidance and industry GIS datasets on wind speed, grid connection etc.
- b) ensure the Guidance makes a clear contribution to “decisions on deployment which are more likely to get the right sort of wind energy development in the right place and at the right scale and therefore aid deployment.”
- c) Identify opportunities for partnership working at sub-regional and potentially regional scale to test how our criteria-based guidance can inform and add value to the deployment process.

The industry supports, and is looking forward to actively contributing in all of these initiatives, however:

- a) We would welcome the inclusion of reference to local authority character assessments and supplementary guidance, and industry datasets on wind speed / grid connection etc in the final Guidance, rather than waiting until after the launch

- b) We would amend the wording in para of this section (2<sup>nd</sup> to last para on page 25) to say “ we will also ensure that our guidance will make a clear contribution to applications to ensure wind energy development in the right place and at an appropriate scale to surroundings, and therefore aid deployment.”
- c) The industry is happy to suggest suitable areas which might provide the opportunity to test the criteria-based guidance, and to work with Natural England, local planning authority and landscape professional colleagues to undertake a pilot and capture its key findings in a balanced and clearly understandable way.

### **Annex 1: Natural England’s Statutory Purpose**

Annex 1 sets out Natural England’s statutory purpose.

*The industry welcomes the inclusion of Annex 1 as helpful to developers, local planning authorities, landscape professionals and others, in understanding the context within which Natural England staff work and the extent to their duties and responsibilities.*

*The last indented italic para sets out the wording from the explanatory notes of the Natural Environment and Rural Communities (NERC) Act 2006, which highlights Natural England’s purpose of conserving and enhancing the landscape, which includes “conserving the natural beauty of the landscape. It could for example cover conserving ..... monuments, buildings and sub-surface archaeological features which contribute to landscape.”*

*In respect of the particular inclusion of monuments, buildings and sub-surface archaeological features which contribute to landscape, we would welcome clarification as to where the extent of Natural England’s duties and responsibilities stop and English Heritage start.*

### **Annex 2: General Principles of Wind Energy Development Fit with Landscape Character**

Annex 2 sets out Natural England’s proposals for dividing the landscape into three sub-groups. It uses photographs accompanied by bulleted points to provide visual examples of the types of landscape and the supposed impact of wind energy developments.

*The industry strongly believes that it is inappropriate to divide the landscape into these sub-groups and that the key guidance for Natural England staff should focus around the fact that any development needs to have careful regard for, and take in to consideration, the topographic profile of the landscape in respect of the proposals immediate and wider setting. Therefore all references to upland, intermediate and lowland landscapes, in pages 28-35 should be removed.*

*Additionally, as discussed at the stakeholder workshops, photographs should be replaced by illustrations, and in terms of presentation it would be helpful if the photos (illustrations) and the bullet points were on the same page e.g. photo 6 is on landmark coastal features and underneath are the bullet points for urban and industrial landscapes – this is confusing. The heading should be moved to the top of the page, followed by the relevant illustration and then bullet points.*

*Finally, a number of the photos do not effectively demonstrate the effect they are seeking to represent, and the accompanying bullet points are sometimes contrary to / contradict with the photos.*

Whilst we disagree with the dividing of the landscape into upland, intermediate and lowland, we have provided our individual comments on the photos and bullet points in this way, in order to aid clarity by following the form of the consultation.

### Upland landscapes

Page 28 provides a number of bullet points on upland landscapes on which the industry has a number of comments as follows:

- Uplands with a simple, rounded and generally horizontal form can often accommodate larger turbine groupings than more dramatic or convoluted

***The industry believes that this is not necessarily always the case and is an overly simplistic view of the landscape. There may be circumstances where a convoluted upland landscape can accommodate turbine groupings and will be dependent upon the specific topographical context. We therefore suggest the bullet is shortened to just say “Uplands with a simple, rounded and generally horizontal form can often accommodate larger turbine groupings.”***

- The more extensive and broadly sweeping they are, the greater the capacity upland areas will probably have for wind energy development.

***We would welcome an understanding of the basis for this statement and how upland areas have greater capacity for wind energy development if they are more extensive and broadly sweeping.***

- An upland area with complex, diverse landforms will generally accommodate smaller turbines groupings more effectively than larger groups

***The industry questions this assumption and asks why? The complexity and diversity of landform will need to be analysed on a site-specific basis to determine the appropriate form of development.***

- In upland areas with distinct edges or scarps the impact of turbines can be reduced if they are located well back from the edge

***Distinct edges and scarps need to be carefully considered in the siting of turbines to address visual amenity. We suggest the word “sometimes” is inserted i.e. “the impact of turbines can sometimes be reduced if they are located well back from the edge”.***

- Siting turbines in the central part of a broad upland area can often reduce their visibility from adjoining lowlands. Convex landforms can help reduce visible turbine heights

***We respectfully suggest that the words “when viewed from below” are added to the end of this bullet.***

- Siting turbines on distinct summits or prominent landforms should generally be avoided. Visual impact can be reduced by selecting sites on less prominent side slopes, benches and gentle undulations.

***We agree with this bullet, provided that suggested half height criterion is not imposed.***

- It is often hard to fit turbines into landscapes with distinctive topographic features, field patterns, buildings, monuments or other features, without significant impact on

landscape character. In such situations turbines are more likely to appear out of scale with their setting.

***The industry disagrees with this assumption. If this criterion was applied, it would result in virtually all applications being refused, and it is therefore too restrictive. We suggesting wording along the lines of “Turbine siting needs to have regard for topographic features, field patterns, buildings etc...)***

- The capacity of wilder areas of upland, characterised by open heather moor and bog, is usually less than areas of grass more or forestry, which can appear to have a more intensely managed character.

***The open moor environment is generally smooth or flat and uniform, which according to the landform (within Landscape Criteria) is an environment, which has a greater capacity for wind energy development. This point is therefore contradictory.***

- Locations that can utilise existing roads or tracks for access are preferable to locations that require lengthy and often highly visible new access tracks.

***We broadly agree with this point. However, tracks do not necessarily have to be highly visible, and of course other factors need to be taken into account in assessing the total suitability of a location for wind energy development.***

#### Intermediate landscapes

- Landscapes that may be close to uplands, but are lower and more intimate in scale (for example ridge landscapes) tend to suit smaller turbine groupings and turbine heights

***The industry challenges this statement and respectfully asks that Natural England provide the evidence to support this claim. Intermediate landscapes require careful site-specific appraisal to determine the appropriate form of turbine proposals.***

- Small turbine groups are likely to fit best in landscapes that are rolling and undulating; larger groups may sometimes be accommodated in flatter or more gently sloping landscapes.

***The industry request that this statement be substantiated, as it too broad a generalisation for inclusion here. There may equally be specific locational circumstances where large turbine groups may be appropriate. Careful site-specific analysis of the topographic profile needs to be taken into account in any proposal, and will be demonstrated in Environmental Statements.***

- As a rule of thumb, turbine heights should not exceed the average hill height (note, height, not elevation) and should preferably be no taller than half the average hill height.

***The industry fundamentally questions this statement and asks for an understanding of its basis. We believe such a statement is not helpful in assisting appropriately sited wind energy development and should be removed and replaced by an alternative (see below).***

The words accompanying the photo state “turbines on small hills should avoid tops and not exceed hill height.

**Industry would question why turbines should not exceed hill height and on what basis this suggestion is made – again analysis of specific circumstances taking into account individual topography is the best way to assess the environmental capacity of a location for wind energy development.**

#### Lowland Landscapes

- Lowland valleys, floodplains and farmland landscapes whose character is simple and expansive, may accommodate larger turbines and turbine groupings than intermediate landscapes.

**The industry recommends that this bullet be re-worded to read as follows: “Lowland valleys, floodplains and farmland landscapes whose character is simple and expansive may offer considerable capacity for wind energy development.”**

- Capacity may be reduced by the presence of smaller scale features such as prominent church spires, because of the contrast in scale.

**We suggest the wording should be amended to “the scale of features needs to be carefully considered in relation to what is proposed.”**

- Valley landscapes that are enclosed by uplands with existing wind farm development should generally be kept free of wind turbines, so that the wider landscape does not become dominated by wind energy development.

**We question why is there a presumption against development in valley landscapes and would ask that, if this point is maintained it should be substantiated.**

- Extensive flat farmlands may offer considerable capacity for wind energy development. Regular rows or lines of turbines may be accommodated within large scale, regular field patterns.

**This bullet point implies that only regular field patterns should be considered as capable of offering considerable capacity for wind energy development, in regular rows. We suggest that this point be edited to read as follows: “Extensive flat farmlands may offer considerable capacity for wind energy development.”**

The words accompanying the photo suggest that “valleys between upland wind farms are likely to have low environmental capacity.”

**The industry questions on what basis this assumption has been made and would welcome clarification.**

#### Coastal landscapes

- Areas with a simple, large scale, flat coastal form have the best capacity for wind energy development

**We would question the use of the word “best”, and suggest that the sentence be changed to “areas with a simple, large scale, flat coastal form can have the capacity for wind energy development.”**

- Areas with complex, varied coastal form, for example areas with cliffs, headlands, islands and intricate rocky shorelines, will often have limited capacity for wind energy development.

**We question this assumption, and would welcome understanding of the basis on which it is made. A suggested alternative might be: “areas with complex, varied**

***coastal form, for example areas with cliffs, headlands, islands and intricate rocky shorelines, need to be carefully considered in terms of landscape impact, if wind energy development is proposed.”***

- Areas that have a wild, remote and tranquil character will often have limited capacity

***This assertion requires explanation. We consider this point to be too broad as to be meaningful.***

- The settings of distinctive, landmark coastal features may have very limited capacity

***Again, the industry would welcome an understanding of why this assumption has been made in such a blanket way.***

- Turbine group size should be appropriate to the scale and character of the coastal landscape. Groups may be relatively large in simple, flat coastal landscapes, but should be smaller in more complex, varied coastal landscapes.

***The use of the term “should” is inappropriately prescriptive. The industry strongly recommends that this point be revised accordingly.***

#### Urban and industrial landscapes

- These landscapes may have considerable capacity for wind energy development as they are already highly modified by built development.

***Whilst the industry supports this statement, when combined with all the other statements across all the different types of landscape, it does give the impression that the wind energy developments should generally only be sited in areas that have already been developed, which is unnecessarily restrictive in terms of the need to deliver the Government’s energy policy goals, and the expected role of onshore wind energy.***

- For example sites close to power stations, factories, retail and business parks and major transport corridors may have capacity for wind turbines in landscape terms.

***As above, we support this statement but care must be taken elsewhere to ensure that other types of landscape are also seen as suitable for onshore wind energy development.***

- Wind turbines should be carefully sited and designed relative to existing structures. Particular attention should be paid to relative heights and proportions.

***Agreed in principle, but an overly cautious approach which focuses on scale and height of wind farms could render many proposals commercially non-viable, as it is widely recognised that optimum height to maximise wind speed etc. is between 120-130m, and continual pressure on heights could dramatically impact on the successful roll-out of onshore wind energy development in the numbers that are necessary. However, developers are always willing to work with Natural England, other statutory consultees and the local planning authorities on the design of proposals.***

- Where landscape character is already influenced by large-scale development, wind turbines can be a positive addition: close visual relationships may help to reinforce functional relationships.

***Whilst we welcome the positive tone of this bullet, the industry is unclear of the meaning of the phrase “close visual relationships may help to reinforce functional relationships” and would appreciate clarification.***

- In some cases turbines may be used to create a new focal point or landmark, drawing the eye upwards and away from existing intrusive features.

***Agreed.***

- Sensitive siting is still important: care should be taken to avoid creating visual clutter by placing turbines too close to other complex structures such as pylons or telecommunications masts.

***As above – careful design, in collaboration with Natural England, other statutory consultees and the local planning authorities, is essential to avoid visual clutter. Such discussions should take place at the earliest possible stage – ideally through pre-application discussions with the developer and other relevant stakeholders.***

- There are opportunities for integrated design: functional relationships between domestic, community and industrial turbines and their landscape settings should be reflected in turbine siting, turbines being closely associated with, and in scale with, the farms, settlements or industrial plant that they serve.

***Industry suggests that the use of the term “industrial turbines” should be corrected to “commercial turbines.” Additionally the phrase “industrial plant they serve” implies that the energy generated is being used by local industrial plant, whereas in practice the energy feeds into the integrated grid, and so we respectfully suggest the wording is amended to “There are opportunities for integrated design: functional relationships between domestic, community and industrial turbines, and their landscape settings should be reflected in turbine siting, turbines being closely associated with, and in scale with, the surrounding farms, settlements or industrial plant, and any grid connection infrastructure.”***

### Turbine Groups

#### Turbine Groupings & Turbine Height

***As stated above, groupings and height are addressed separately, yet the two are interrelated. The several bullet point paragraphs on each subject present an overly simplistic view and the statements are not substantiated with evidence. It would be more appropriate for guidance to state that with respect to both turbine groupings and height, careful analysis of the surrounding topographic profile is required to determine the appropriate form of wind energy development.***

***The statements are flawed and contradictory. By way of example, the second paragraph under the heading ‘turbine height’ (page 37) states that taller turbines in a lowland landscape would “overwhelm” the subtle variations in topography. Yet, under the heading ‘lowland landscapes’ (page 31), the first paragraph states that lowland landscapes may accommodate larger turbines.***

- Landscapes with a simple, strong and mainly horizontal form are likely to have capacity for large turbine groupings.

***It would be helpful to provide an explanation of this statement to clarify the Guidance.***

- In landscapes with relatively complex and varied landforms, large turbine groupings may have undesirable “flattening” effect on character.

***We would welcome an understanding of how this statement was reached, as we do not believe that photo 11 demonstrates this.***

- Smaller turbine groupings are likely to fit best in small scale and more intricate landscapes.

***Agreed.***

- Compact clusters of turbines may sometimes be used to create or highlight a focal point within the landscape, adding or reinforcing a vertical emphasis – such as focusing attention on a hilltop – but this approach needs to be used very selectively, and issues of scale are very important.

***This statement is helpful, but given elsewhere the document makes reference to turbine heights not exceeding hilltops, there is an inherent conflict between the two statements. We support this statement as being helpful and appropriate, and therefore recommend, as previously that the other statement about not exceeding hill height is removed.***

#### *Turbine Heights*

- In general, turbine height should be proportionate to landform height. This will help to retain topographic distinctions and contrasts between upland and lowland landscapes.

***The companies disagree with this statement and would question the assumption made. As explained previously the optimum height for commercial wind energy developments to maximise, amongst other things, energy generated, is between 120-130m. Whilst the companies absolutely accept the need to adapt the design of developments to their surroundings, an over-emphasis on the heights of turbines could have a detrimental effect on the necessary deployment of onshore wind energy developments, and should therefore reflect these balances.***

- Hence elevated upland landscapes can often accommodate taller turbines than lowland landscapes, especially where the lowland landscapes have a rolling, varied topography whose subtle variations could be overwhelmed by tall turbines.
- However, extensive, flat, uniform lowland landscapes may also be able to accommodate tall turbines because of the lack of topographic distinctions and because the larger horizontal extent of such landscapes tends to diminish perceived turbine height.

#### *Cumulative impacts and spacing between wind farms*

***As stated above in relation to question 13, this section needs considerable amendment to include greater detail and to correct certain inaccuracies and flawed assumptions. We respectfully suggest that Natural England consider the material contained in the Scottish Natural Heritage “Scoping Issues for Wind Farm EIA” Document – 4<sup>th</sup> Draft September 2006, and “Cumulative Effect of Wind Farms” April 2005, which provide useful reference.***

Satisfactory spacing depends both on landscape character and on the degree of intervisibility.

**Agreed.**

- Where several wind farms are visible together or sequentially they may cumulatively affect landscape character and visual amenity at a strategic level.

***We respectfully suggest that the word “strategic” is replaced with “wider”.***

- Retention of areas of undeveloped landscape is important. For example, where a small lowland wind farm connects larger upland sites visually, wind farm influence on landscape character may become much more significant and dominant.
- Inconsistencies in turbine layout, height or design between adjacent wind farms can draw the eye and may cause increased landscape and visual impact.

***Whilst the industry accepts that this can be true in some cases, the differences in layout, height and design are often as a result of the advances in technologies, with new wind energy developments being designed to take advantage of these. This can of course lead to varying layouts, heights and designs and whilst developers will always be sympathetic to minimising landscape and visual impact, they cannot be expected to build new developments using older less efficient technology / designs.***

- Appropriate spacing depends at least partly on landscape patterns and rhythms. Hence on an undulating upland ridge, wind farm spacing may reflect the pattern and frequency of undulations, whereas on a simple rounded upland ridge a cluster of wind farms may give a better landform fit.
- As a rule of thumb, separation distances ranging from 6km (for smaller sites in landscapes with some enclosure) to 12km (for larger sites in open exposed landscapes) are desirable to prevent the landscape becoming dominated by wind farms and to reduce intervisibility.

***Whilst the industry accepts that separation between wind energy developments has a part to play in ensuring appropriate deployment, we would welcome clarification on the basis for the proposed 6km and 12km thresholds, and clarity on how Natural England would define “smaller” and “larger” wind energy developments. Our initial reaction is that prescribing generic distances of separation may be too prescriptive unless it is clearly understood on what basis they are suggested and to what they apply.***

- If small and medium sized wind farms are located less than 3-5km apart (to the outermost turbines) they may be seen as clusters and in areas of appropriate character may be accommodated as such within the landscape.

***Again, we would welcome an understanding of the assumption around wind farms being less than 3-5km apart being seen as clusters. We suggest that there are many variables that might affect this assumption, including the number and location of turbines in each group (NB could be only one), the topography and type of landscape.***

### **Annex 3: Examples of GIS Maps**

***As previously stated, we request that a definitive list of maps is produced and consulted on before the final Guidance is launched.***

***Additionally, we would welcome confirmation as to whether similar maps are available for all of England.***

***Finally, in order to be useful, all maps will need to be kept up to date and we would welcome confirmation as to who Natural England plan to do this***

Map 1 – Ecological and Geophysical Features (weighted density approach)

***As before, industry does not support the weighted density approach or the use of grid squares as they do not present an accurate picture. The grid square are too coarse a mechanism to accurately identify features, and the combination of a number of features in one area can mislead those using the Guidance to automatically assume that presence of more features means an area is less suitable for deployment of wind energy development, than if only one feature were present, which is not necessarily always the case. We therefore suggest that these maps should be presented separately to demonstrate each feature, but we also recommend that the maps are held electronically on the Natural England website with the facility to overlay one map on top of another to produce a composite picture if desired.***

Map 2 – Ecological and Geophysical Features Plus Landscape Designations

***A map showing National Parks and AONBs is a helpful aid to Natural England staff, local authorities, landscape professionals and developers.***

Map 3 – Ecological and Geophysical Features (weighted density approach) – Holderness (40) NCA

***As above – see comments for Map 1 – although this particular example especially demonstrates our concerns. The map appears to include grid squares over a number of the road access points. Without a detailed key explaining what features are present, Natural England staff could interpret the squares as a sign of a location's unsuitability, whereas in practice the presence of access roads is normally a positive feature than increase the suitability of a location.***

Map 4 – Ecological Features (boundary approach)

***We support the inclusion of a factual map, which shows the boundaries of all protected areas such as SSSIs, SPAs, SACs etc., and any other areas of scientific or environmental importance such as RAMSAR sites and ancient woodland.***

Map 5 – Geophysical Features (boundary approach)

***We support maps that show areas of deep peat as helpful to all in the consideration of sites and applications for wind energy development.***

Map 6 – Rural Land Registry (field parcel size)

***This map is a helpful additional to Natural England staff, local authorities, landscape professionals and developers.***

Map 7 – Contours

***The contour map is a very helpful additional to Natural England staff, local authorities, landscape professionals and developers.***

Map 8 – Slope

***The slope map is a helpful additional to Natural England staff, local authorities, landscape professionals and developers.***

Map 9 - Landcover

***The landcover map is a particularly helpful additional to Natural England staff, local authorities, landscape professionals and developers.***

Map 10 – Infrastructure

***The infrastructure map is a particularly helpful additional to Natural England staff, local authorities, landscape professionals and developers, however it should also include smaller voltage overhead lines, as smaller wind energy developments will connect into the grid at lower voltage e.g. 66kV or 132kV (or even smaller for very small developments). Additionally it would be helpful to have the location of telecommunications masts and quarries plotted.***

Map 11 - Historic Features

***The historic features map is a very helpful additional to Natural England staff, local authorities, landscape professionals and developers.***

Map 12 – Access Features

***The access features map is a very helpful additional to Natural England staff, local authorities, landscape professionals and developers***