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North Norfolk District Council

Background Paper 8

Approach to Renewable

Energy

Evidence base and rationale behind policy formation with particular regard to onshore wind energy to inform the new North Norfolk Local Plan 2016-2036.

Publication stage Regulation 19, January 2022

Background Paper 8	Renewable Energy
National Legislation and Guidance	National Planning Policy Framework (NPPF) (July 2021) National Planning Policy Guidance (PPG)
Related Evidence	East Inshore and East Offshore Marine Plans (2014) North Norfolk Landscape Character Assessment Supplementary Planning Document (SPD) (November 2018) North Norfolk Landscape Sensitivity Assessment Supplementary Planning Document (SPD) (November 2018) North Norfolk Landscape Character Assessment Supplementary Planning Document (SPD) (January 2021) North Norfolk Landscape Sensitivity Assessment Supplementary Planning Document (SPD) (January 2021)

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1. Purpose & Introduction

1.1 The purpose of this paper is to outline the potential policy approaches that were available to the Council in identifying suitable areas for wind energy development and provide the rationale for the approach as set out through policy CC2.

1.2 Local Planning Authorities are required to have a positive strategy to promote energy from 'renewable and low carbon sources that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts)' NPPF, para 155. The Secretary of State has clearly set out that new Local Plans will need to address this issue¹. In the case of wind energy, local planning authorities should only grant planning permission for wind energy proposals if they fall within an area identified as suitable for wind energy development. National Planning Practice Guidance, PPG, has been amended to reflect the Secretary of State's comments and goes on to state:

Suitable areas for wind energy development will need to have been allocated clearly in a Local or Neighbourhood Plan. Maps showing the wind resource as favourable to wind turbines or similar will not be sufficient. (Paragraph 032 Reference ID: 5-032-150618); and,

In the case of wind turbines, a planning application should not be approved unless the proposed development site is an area identified as suitable for wind energy development in a Local or Neighbourhood Plan. (Paragraph 005 Reference ID: 5-005-20150618).

1.3 In an effort to mitigate climate change, the UK is committed to reducing its greenhouse gas emissions by 80% by 2050 and sourcing at least 15% of its energy from renewable sources by 2020. In 2013/14 this target was almost met, and wind energy contributed 9% of the UK's power needs, and at points throughout the year surpassed nuclear energy in its contribution to day-to-day energy needs. In June 2019, the government went further and committed to a legally binding target requiring the country to be net zero carbon by 2050.²

1.4 It is clear that renewable energy will need to play an increasingly important role in enabling the UK to meet its climate change targets and local planning authorities must play their part in promoting renewable energy and facilitating appropriate new development through the planning system. As set out in Chapter 2, the NPPF promotes the provision of a positive strategy within Local Plans to maximise the use of renewable and low carbon energy, including the consideration of identifying suitable areas for development and support community-led initiatives for renewable and low carbon energy.

1.5 North Norfolk District Council declared a Climate Emergency in April 2019 and with the implementation of a Green Agenda and adoption of an Environmental Charter in May 2021, renewable energy alternatives and low carbon development are at the forefront of future plans for North Norfolk. However, whilst the Council is keen to support renewable energy developments, such developments can have adverse impacts on the natural and built environment, as well as residential amenity. Therefore, whilst needing to embrace renewable energy development the Council must at the same time ensure that new renewable energy development is of an appropriate scale and location so as not to give rise to unacceptable impacts on local communities and the special character of local areas. It is also necessary to ensure that an appropriate mix of renewable energy schemes suitable for the District are achieved. In line with the national policy and guidance it is proposed that the Council should establish an approach to defining areas for wind energy development that can be taken forward in the emerging Local Plan.

¹ <https://publications.parliament.uk/pa/cm201516/cmhansrd/cm150618/wmstext/150618m0001.htm>

² <https://www.legislation.gov.uk/ukpga/2008/27/contents> (as amended in 2019)

2. Policy Context

National Policy & Guidance

- 2.1 On the 18th June 2015 the Secretary of State for Communities and Local Government (Greg Clark) through a Written Ministerial Statement set out new national provisions relating to wind energy development. The Statement set out that local planning authorities should only grant planning permission for proposals for wind energy development if the development site is in an area identified as suitable for wind energy development. It goes on to note that these areas need to be allocated clearly in a Local or Neighbourhood Plan and following consultation can be demonstrated that it has backing of the local community.
- 2.2 In June 2019, the government went further and committed to a legally binding target requiring the country to be net zero carbon by 2050.
- 2.3 The revised National Planning Policy Framework (NPPF) was published in July 2021, which is supplemented by the National Planning Practice Guidance (PPG), an online resource providing guidance on the NPPF's implementation. Section 14 of the NPPF covers climate change, flooding and coastal change. The most relevant climate change paragraphs of the NPPF and sections of the PPG are reproduced below for information and context.
- 2.4 Paragraph 154 of the NPPF states that new development should be planned for in ways that:
 - a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and
 - b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.
- 2.5 Paragraph 155: To help increase the use and supply of renewable and low carbon energy and heat, plans should:
 - a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
 - b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and,
 - c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.
- 2.6 NPPF Paragraph 156: Local planning authorities should support community-led initiatives for renewable and low carbon energy, including developments outside areas identified in local plans or other strategic policies that are being taken forward through neighbourhood planning.
- 2.7 NPPF Paragraph 158: When determining planning applications for renewable and low carbon development, local planning authorities should:

- a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and,
- b) approve the application if its impacts are (or can be made) acceptable*. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.'

* Footnote 54 attached to paragraph 158, '*a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as suitable for wind energy development in the development plan; and, following consultation, it can be demonstrated that the planning impacts identified by the affected local community have been fully addressed and the proposal has their backing.*'

2.8 National Planning Practice Guidance (PPG) has been amended to reflect these changes and to provide further guidance and clarification. It states that:

- In considering impacts, assessments can use tools to identify where impacts are likely to be acceptable. For example, landscape character areas could form the basis for considering which technologies at which scale may be appropriate in different types of location. Landscape Character Assessment is a process used to explain the type and characteristics of landscape in an area. Natural England has used Landscape Character Assessment to identify 159 National Character Areas in England which provide a national level database. Landscape Character Assessment carried out at a county or district level may provide a more appropriate scale for assessing the likely landscape and visual impacts of individual proposals. Some renewable energy schemes may have visual impacts on the marine and coastal environment and it may be appropriate to also to assess potential impacts on seascape character.³
- Identifying areas suitable for renewable energy in plans gives greater certainty as to where such development will be permitted.⁴
- Suitable areas for wind energy development will need to have been allocated clearly in a Local or Neighbourhood Plan. Maps showing the wind resource as favourable to wind turbines or similar will not be sufficient.⁵

2.9 The recent changes do not overrule the National Policy Planning Framework (NPPF) and in particular, the key role of national policy in securing radical reductions in greenhouse gas emissions and supporting the delivery of renewable and low-carbon energy and associated infrastructure. With regards to renewable energy specifically,

Local Policy: Existing Core Strategy Approach

2.10 The policy approach to renewable energy within the existing Core Strategy relies on a generic policy approach (Policy EN7) and the consideration of all proposals on a case-by-case basis. The existing policy does not allow for large scale renewable energy infrastructure in areas of

³ PPG Paragraph: 005 Reference ID: 5-005-20150618 <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>

⁴ PPG Paragraph: 005 Reference ID: 5-005-20150618 <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>

⁵ PPG Paragraph: 032 Reference ID: 5-032-150618

national importance such as the Area of Outstanding Natural Beauty (AONB) unless it can be demonstrated that the objectives of the designation are not compromised.

- 2.11 Since the adoption of the Core Strategy in 2008 there has clearly been a shift in the national approach in this policy area, as set out below as the existing policy does not identify suitable areas for wind energy development, and consequently, the continuation of such an approach could potentially be seen to conflict with the provisions of national planning policy, which seek local planning authorities to 'have a positive strategy to promote energy from renewable and low carbon sources. It is clear that through the new emerging Local Plan the Council is required to consider alternative approaches based on the identification of suitable sites for the generation of wind energy. In addition a suitable policy approach will need to be developed in order to guide assessment of proposals submitted within any defined area/areas. It is these areas that set out where proposals may be suitable and be consulted on through the Local Plan process.
- 2.12 A failure to address the requirements could introduce a potential soundness issue. It could also leave the council at risk of planning applications for wind turbines for the entirety of the District and at risk at appeal. In this regard, the Council have received a number of suggested sites for wind development through the call for sites.
- 2.13 Appendix 1 sets out the approved energy schemes in North Norfolk as at August 2022.

Recent Case History

- 2.14 The Council has undertaken a number of significant wind energy appeals, the most recent of which, covers two applications at Bodham and Selbrigg farm, Hempstead (see Table 1 for details). Both of these appeals were initially allowed but then subsequently not supported by the Secretary of State, being quashed by order of the High Court in March 2017. However, further appeals were allowed on the two applications in February 2020 for one wind turbine at Bodham⁶ and one wind turbine at Selbrigg⁷.
- 2.15 Central to both 2020 appeals were the following matters:
- Landscape Character and Visual Impact;
 - Designated Heritage Assets;
 - Living conditions of local residents;
 - Planning balance
- 2.16 It is pertinent to note that as part of the planning balance, the 2020 appeals reference other important developments, in the form of North Norfolk District Council's declaration of a climate emergency going on to state that the Council has already supported many policy compliant renewable energy schemes onshore and is playing an active part in Nationally Significant Infrastructure Projects. In light of these matters, the Inspector comments that it would be something of a contradiction to resist further policy-compliant schemes in the District.

⁶ APP/Y2620/W/15/3134132 – Pond Farm, Bodham

⁷ APP/Y2620/W/16/3143028 – Selbrigg Farm, Hempstead

3. Identifying a Preferred Approach for Regulation 18

- 3.1. National guidance as detailed above advises that when identifying suitable areas through the Local Plan it is also important to set out the factors that will be taken into account when considering individual proposals in these areas. It is clear that in order to assess the suitability of these sites it will be necessary to establish and apply a clear policy approach.
- 3.2. An initial steer was given from Members of the Planning Policy and Built Heritage Working Party (PPBHWP) in November 2017, to what was considered an appropriate way to manage renewable energy proposals and in particular, wind energy development through the emerging Local Plan, including the potential policy approaches that the Local Plan could take in identifying suitable areas for wind energy development more information is contained in Appedix2.
- 3.3. The preferred approach was to develop a policy approach based around the identification of high value landscape /designations where there would be policy prohibition of wind turbines in these areas and a criteria based policy to aid in the determination of applications for those outside of the sensitive area. It was also recognised that further evidence would be required to help differentiate between sensitivity of landscape types. Members also requested that a number of former airfields be evaluated in terms of landscape impacts.
- 3.4. In so doing a North Norfolk Landscape Sensitivity Study (LSS) was commissioned to look at all types of renewable energy and low carbon development. The resulting document is the North Norfolk Landscape Sensitivity Assessment (LSA) 2018 and which, was subsequently adopted as a Supplementary Planning Document in 2021, which provides the appropriate evidence and justification for policy formation within the emerging Local Plan and has been used to directly inform the emerging Renewable energy policy and to assist in the identification of potentially suitable areas for wind turbines. LSA uses the updated 2018 Landscape Character Assessment (LCA) (adopted as SPD 2021) as the basis for identifying the overall sensitivity to different renewable energy developments for each Landscape Character Type (LCT), indicating areas that may be more or less sensitive in the landscape and visual terms.
- 3.5. The LSA SPD 2021 shows the sensitivity maps for wind energy development of different scales, which shows the following:
 - Large scale (80m hub, 130m tip) wind turbines; the entire District has high sensitivity
 - Medium scale (60m hub, 100m tip) wind turbines; the Area of Outstanding Natural Beauty (AONB), Wooded Glacial Ridge and the River Valleys Landscape types have high sensitivity, the remaining areas of the District are classified as Moderate-High sensitivity.
 - Small scale (30m hub, 45m tip) wind turbines; Parts of the AONB is classed as having high sensitivity, the rest of the AONB, River Valleys and Wooded Glacial Ridge landscape types have moderate - high sensitivity and the remainder of the District has moderate - low sensitivity.
- 3.6. Table 5.1 of the LSS (2021) provides a table showing the sensitivity studies for field scale solar PV development, onshore cable routes, industrial types of development (commercial battery storage, anaerobic digestion plants, cable relay stations and sub-stations) and reservoirs, respectively. The table scores the sensitivity both in and out of the AONB for each Landscape

Character Type (LCT). It indicates that large scale wind energy development would have high sensitivity across all of the Landscape Types in the District and that medium scale wind energy development is classed as having high sensitivity in the AONB along with the LCT's of Coastal Shelf, Wooded Glacial Ridge and River Valleys. The remaining LCT's score moderate-high sensitivity for the medium scale wind development. Proposed small scale wind energy development would also have high sensitivity within the AONB, but moderate or moderate-high across the LCT's outside the AONB.

3.7. It is also noted that the Table shows the relative high sensitivity to all renewable energy development types apart from onshore cable routes and reservoirs, within the AONB.

Table 5.1 taken from LSA (2021) showing sensitivity ratings for typical scales of wind energy development by LCT.

LCT	Large scale wind		Medium scale wind		Small scale wind		Solar PV		Onshore cable routes		Industrial type dev		Reservoir	
	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB
Coastal Plain	H	H	MH	H	M	H	M	H	LM	MH	M	H	M	MH
Coastal Shelf	H	H	H	H	MH	H	MH	H	MH	MH	MH	H	MH	MH
Drained Coastal Marshes		H		H		H		H		H		H		H
Low Plains Farmland	H		MH		M		M		M		M		M	
Open Coastal Marshes		H		H		H		H		H		H		H
Rolling Heath & Arable		H		H		H		H		MH		H		MH
Rolling Open Farmland	H	H	MH	H	M	H	MH	H	M	MH	M	H	M	MH
River Valleys	H	H	H	H	MH	H	H	H	MH	H	MH	H	MH	H
Settled Farmland	H		MH		M		M		M		M		M	
Tributary Farmland	H	H	MH	H	M	H	MH	H	M	MH	M	H	M	MH
Wooded Ridge	H	H	H	H	MH	H	MH	H	MH	H	MH	H	MH	H

3.8. The LSA also shows the sensitivity for wind energy development of different scales and other types of renewable energy development within a range of airfields across the District and shows that in the case of:

- Large scale (80m hub, 130m tip) wind turbines; all airfields have high or moderate-high sensitivity
- Medium scale (60m hub, 100m tip) wind turbines; North Creake (close to the AONB) and Langham (within the AONB) are classified as high sensitivity and Coltishall classified as moderate-high sensitivity. The remaining areas of the District are classified as moderate sensitivity.
- Small scale (30m hub, 45m tip) wind turbines; the majority of the District is classified as having low- moderate sensitivity. Whilst North Creake (close to the AONB) and Langham (within the AONB) classified as moderate-high and Coltishall is moderate. The remaining airfields are classified as low-moderate.

3.9. Table 5.2 of the LSA below, sets out the sensitivity for wind energy development of different scales and other types of renewable energy development within a range of airfields across the District. It shows that:

- Large scale (80m hub, 130m tip) wind turbines would have high or moderate-high sensitivity for all the airfields.
- Medium scale (60m hub, 100m tip) wind turbines, North Creake (close to the AONB) and Langham (within the AONB) are classified as high sensitivity and Coltishall classified as moderate-high sensitivity. The remaining areas of the District are classified as moderate sensitivity.
- Small scale (30m hub, 45m tip) wind turbines, the majority of the District is classified as having low- moderate sensitivity, but North Creake (close to the AONB) and Langham (within the AONB) are classified as moderate-high and Coltishall is identified as moderate sensitivity. The remaining airfields are classified as low-moderate.

Table 5.2 from the LSA showing sensitivity ratings for typical scales of renewable energy development by airfield.

Airfield (LCT)	Large scale wind	Medium scale wind	Small scale wind	Solar PV	Onshore cable routes	Industrial type dev	Reservoir
Coltishall (LPF)	MH	MH	M	LM	LM	LM	LM
Langham (TF)	H	H	MH	M	M	MH	M
Little Snoring (TF)	MH	H	LM	M	LM	M	M
North Creeke (ROF)	H	H	MH	LM	LM	M	M
Sculthorpe (ROF)	MH	H	LM	L	L	L	L
West Raynham (ROF)	MH	M	LM	L	L	L	LM

3.10. It is clear from the LSA Table 5.2 that landscape sensitivity is typically lower for airfields within the district, although there is still relatively high sensitivity for large and medium scale wind energy developments in some of the LCT's.

3.11. The above evidence leads to the Regulation 18 draft wording for Policy SD7 (see Chapter 4) to support the principle of wind energy development for proposals that lie outside of an area classified as having high sensitivity within the LSA where it can be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate- High'. This sensitivity classification maintains opportunities for wind energy development of up to 60m hub/100m tip height across the least sensitive parts of the District. And as a consequence, directs development within the area identified as suitable for wind energy development but all proposals will still need to be assessed against the landscape evidence base and a comprehensive criteria based policy.

4. Policy Justification & Policy SD 7: Renewable Energy Regulation 18

4.1. The above evidence leads to the Regulation 18 draft wording for Policy SD7 (see Chapter 4) to support the principle of wind energy development for proposals that lie outside of an area classified as having high sensitivity within the LSA where it can be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate- High'. This sensitivity classification maintains opportunities for wind energy development of up to 60m hub/100m tip height across the least sensitive parts of the District. And as a consequence, directs development within the area identified as suitable for wind energy development but all proposals will still need to be assessed against the landscape evidence base and a comprehensive criteria based policy.

4.2. The resulting policy justification and Policy SD7 Renewable Energy First Draft Local Plan Regulation 18 is as follows:

The purpose of this policy is to help increase the use and supply of renewable energy, low carbon energy and heat.

- 7.55. The Framework requires that Local Plans develop a positive strategy to promote energy generation from renewable and low carbon sources. The Framework encourages Local Plans to maximise renewable and low carbon energy development, while ensuring that adverse impacts are addressed satisfactorily, and to consider identifying suitable areas for development, and support community-led initiatives for renewable and low carbon energy.
- 7.56. The Framework states that when determining planning applications for renewable and low carbon development, local planning authorities should approve the application if its impacts are (or can be made) acceptable. Proposed wind energy development should not be considered acceptable unless it is located in an area identified as suitable for wind energy development in the Plan; and, following consultation, it can be demonstrated that the planning impacts identified by the affected local community have been fully addressed and the proposal has their backing.
- 7.57. Whilst the Council is keen to support renewable energy developments, these developments can have significant negative effects on the environment and these need to be carefully managed. There is a need to ensure sufficient protection for the distinctive and sensitive landscape and environment in North Norfolk.
- 7.58. The Landscape Sensitivity Study, 2018 (LSS), provides evidence and context for policies within the Draft Plan and has been used to inform the draft Renewable Energy policy and to assist in the identification of potentially suitable areas for wind turbines. LSS uses the updated 2018 Landscape Character Assessment (LCA) as the basis for identifying the overall sensitivity to different renewable energy developments for each Landscape Character Type (LCT) and in the Area of Outstanding Natural Beauty (AONB), indicating areas that may be more or less sensitive in the landscape.
- 7.59. Wind energy development proposals will be supported in principle where it can be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate-High'. This sensitivity classification maintains opportunities for wind energy development of up to 60m hub/100m tip height across the least sensitive parts of the District. All proposals should complement the particular characteristics of the surrounding landscape and the Landscape Character Assessment will assist in assessing the impact of individual proposals.
- 7.60. There is considerable potential for offshore wind power to contribute to renewable energy production, and, while offshore proposals are not subject to planning consent, permission is required for the associated on-land infrastructure. These applications will be determined in line with the criteria contained in the policy below.

Policy SD 7 Renewable Energy

Renewable energy proposals will be supported and considered in the context of sustainable development and climate change, taking account of the wide environmental, social and economic benefits of renewable energy gain and its contribution toward energy supply.

Proposals for renewable energy technology, associated infrastructure and integration of renewable technology on existing or proposed structures will be permitted where individually, or cumulatively, there are no significant adverse effects on;

1. the surrounding landscape, townscape and cumulative landscape character and visual impacts; and
2. the special qualities of all nationally important landscape, heritage assets, including their settings which must be conserved or enhanced; and
3. residential amenity (noise, fumes, odour, traffic, broadcast interference); and

In the case of proposals for wind energy development, proposals that lie outside of an area classified as having high sensitivity within the Landscape Sensitivity Assessment , 2018 and there are no significant adverse effects on;

1. the cumulative impacts on air traffic safety, radar, reflected light, heritage, radar and telecommunications, or any such impacts have been adequately mitigated; and
2. residential amenity in terms of shadow flicker, vibration and visual dominance; and
3. landscape character, unless it can be demonstrated that the impact is acceptable in accordance with the adopted landscape character evidence base.

All planning applications for wind turbines should demonstrated that the planning impacts identified by the affected local community have been fully addressed and the proposal should have their backing.

5. Regulation 18 consultation feedback and conclusions for Policy SD7

- 5.1. The above evidence leads to the Regulation 18 draft wording for Policy SD7 (see Chapter 4) to support the principle of wind energy development for proposals that lie outside of an area classified as having high sensitivity within the LSA where it can be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate- High'. This sensitivity classification maintains opportunities for wind energy development of up to 60m hub/100m tip height across the least sensitive parts of the District. And as a consequence, directs development within the area identified as suitable for wind energy development but all proposals will still need to be assessed against the landscape evidence base and a comprehensive criteria based policy.
- 5.2. The First Draft Local Plan (Part 1) went out to consultation between 7 May 2019 and 19 June 2019. A summary of the consultation feedback for policy SD7: Renewable Energy is set out below:
- **Individuals:** One objection, one of support and one general comment was received. One supporting that onshore wind turbines should be discouraged due to their inherent impact on the appearance and character of the countryside and that solar farms should be limited and screened by hedging. The objection states that Norfolk is extremely suitable for onshore wind power, which is an obvious way to cut carbon emissions. The general comment requests that the policy wording is unnecessarily negative and that it should be amended to read, Proposals for renewable energy should be 'encouraged' rather than 'permitted'.
 - **Parish & Town Councils:** One objection from Kelling Parish Council was received, stating that the policy justification and wording is too general, offering little specific protection against future inappropriate onshore wind turbine development. The Parish Council is concerned that the policy does not seem to accord with the Landscape Sensitivity Assessment, which found that there are no landscapes in North Norfolk that score 'low' or even 'low-moderate' sensitivity to commercial wind energy developments and that the policy should offer more prescribed protection, in consideration of the valued landscape and local community.
 - **Statutory Bodies & Other Organisations:** One objection, three responses in support and three general comments were received. Comments from a housing developer and Norfolk Wildlife Trust include that the policy wording needs to better accord with the Vision and Aims and Objectives statements in the Plan and take more account of the declared climate change emergency, in order to provide more positive support for renewable energy provision. The latter organisation recommends that the policy should provide support for other renewable energy opportunities in new development, such as solar panels on new build roofs. This is also reiterated by the Environment Agency who refer to encouraging alternative heating systems as well. Natural England include recommendations that renewable energy projects are considered strategically in terms of timings of works, particularly for cable lines and grid connections, in order to minimise disturbance and highlighting that Policy ENV4: Biodiversity & Geology should be referenced in this Policy to ensure delivery of green infrastructure.

- 5.3. In general, the content of the consultation feedback is looking for a clear and more positively worded policy that would still provide the necessary strong protection to the most valued areas of the natural and built environment, to the amenity of local communities and to the biodiversity of the district.
- 5.4. This policy approach did not identify suitable areas in the district where the principle of renewable energy, including wind energy, development would be acceptable, which does not accord with the aims of paragraph 158 (b) of the NPPF, where the footnote clearly states that ‘a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as suitable for wind energy development in the development plan...’.

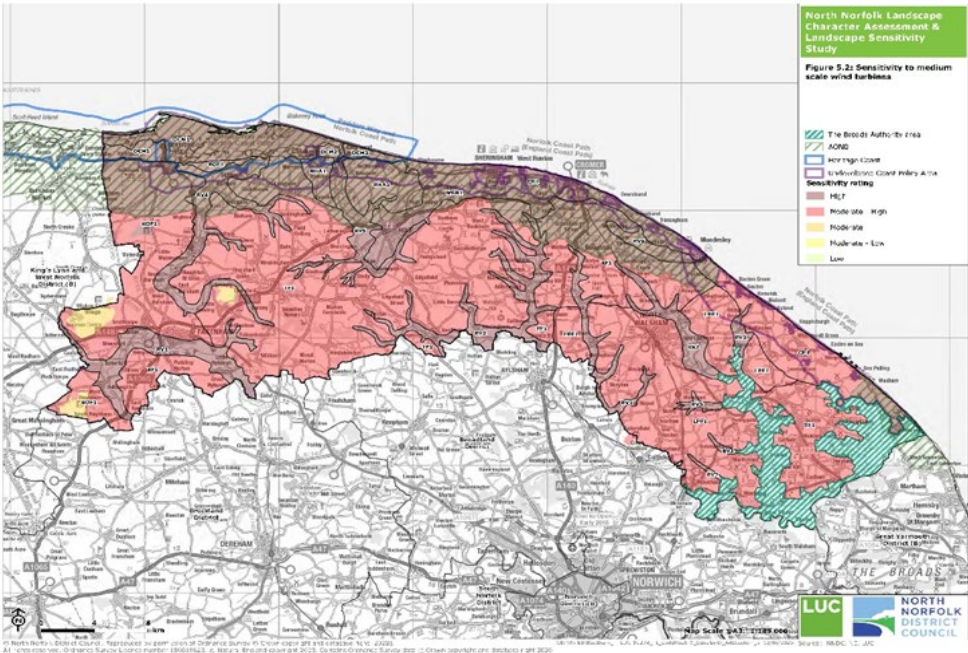
6. Review and amendments to Policy SD7: Renewable Energy for Regulation 19

- 6.1. Since the Regulation 18 version of the Policy was drafted the government has committed to a legally binding target requiring the country to be net carbon zero by 2050 and the Council has declared a Climate Emergency coupled with the positive implementation of a Green Agenda including the commitment to the production of an Environmental Charter. Combined, these are considered to raise the importance of providing a positive approach to renewable energy development in the district.
- 6.2. In response to the wide ranging comments relating to the need to address climate resilience through sustainable development, the Council’s desire to ensure the principles of climate change, environmental considerations and the inclusion of revised corporate priorities and the Environmental Charter, the Local Plan was amended to enable upfront considerations of climate change principles. As part of the restructuring of the Local Plan, this policy is renamed **Policy CC2: Renewable & Low Carbon Energy**.
- 6.3. Given the consultation feedback and overall shift in national and local direction with regard to climate change, this policy was revised and updated where more positive wording was applied to encourage the principle of all types of renewable energy development, including any brought forward through community-led initiatives, linking with Policy SS 3. The intention is that the principle of proposals will be supported where the site is not located in an area that does not exceed ‘moderate-high’ sensitivity within the LSA document. It is considered that this approach is more even-handed in protecting the most sensitive landscape features of the district across the different types of renewable energy than the previous draft of the policy. As such the policy is less likely to be amended at examination in relation to alignment to national policy.
- 6.4. The policy wording has also been amended to better align with the paragraph 158(b) of the NPPF, which states that local authorities should ‘approve the application if its impacts are (or can be made) acceptable.’ As such, the wording has been adjusted so that renewable energy proposals would need to demonstrate that any individual or cumulative adverse impacts have been ‘satisfactorily mitigated.’
- 6.5. The policy wording retains a criteria based element where any proposal would need to demonstrate its suitability against all of these requirements. This has been amended to provide one common list of criteria for all renewable development types, which has been

expanded to include the special qualities of nationally and internationally designated conservation sites, habitats and biodiversity.

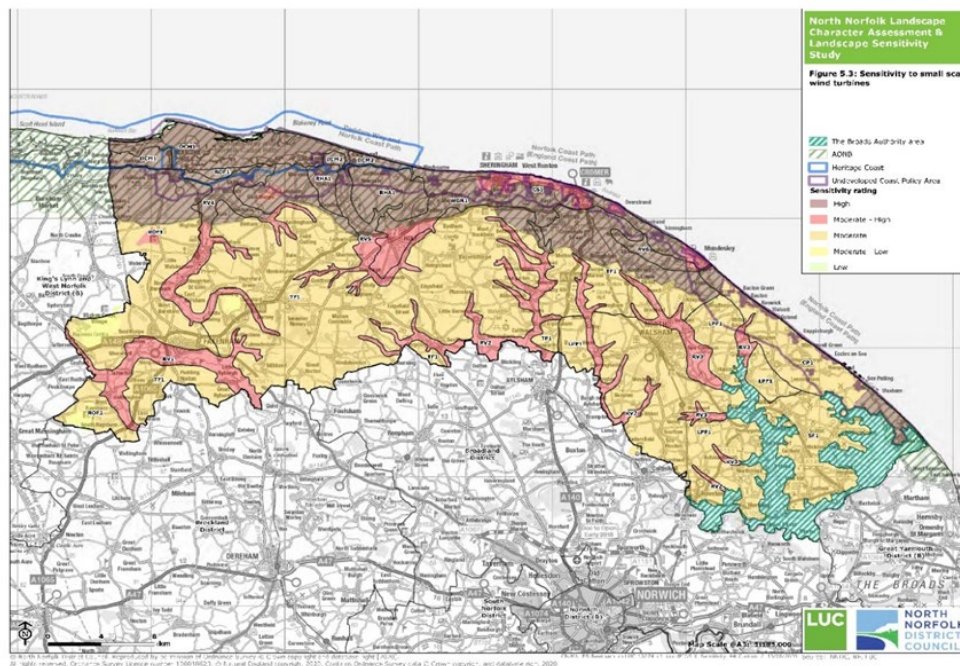
- 6.6. In order to be clear, the last paragraph of the policy has been altered to ensure that all wind energy proposals link to an identified area in line with NPPF 154(b) in order that any such proposal is informed by the relevant map, which will identify the broad areas that fall within the Low to Moderate-High sensitivity ranges. This map will be based on the two wind energy maps currently referenced as Figures 5.2 and 5.3 in the LSA. These are included below for information.
- 6.7. An updated version of the North Norfolk Landscape Sensitivity Assessment SPD (LSA) was adopted in January 2021. The LSA uses the adopted Landscape Character Assessment 2021 SPD (LCA) as the basis for identifying the overall sensitivity to different renewable energy developments for each Landscape Character Type (LCT) the Area of Outstanding Natural Beauty (AONB) and airfields, indicating areas that are likely to be more or less sensitive in the landscape, ranging from high to low sensitivity.
- 6.8. Figure 5.2 of the LSA below, where the areas indicated in light red and yellow would be suitable, in principle, for medium scale wind energy development.

Figure 5.2 of LSA



- 6.9. Figure 5.3 of the LSA below, where the areas indicated in light red and yellow would be suitable, in principle, for small scale wind energy development.

Figure 5.3 of LSA



- 6.10. Overall, it is concluded that the revised policy as set out in chapter 7 will provide a positively worded and balanced approach to future renewable and low carbon energy development within the district.
- 6.11. The proposed preferred approach for Regulation 19 seeks to identify areas suitable for wind energy development based on the findings of the LCA and LSA as summarised above.
- 6.12. Wind energy development proposals will be supported in principle where it can be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate- High'. This sensitivity classification maintains opportunities for wind energy development of up to 60m hub/100m tip height across the least sensitive parts of the District. Within the area identified as suitable for wind energy development all proposals will be assessed against the landscape evidence base and a comprehensive criteria based policy.
- 6.13. Wind energy development proposals on airfields will be considered potentially suitable where the sensitivity does not exceed Moderate- High, larger scale wind turbines in principle will be acceptable in some airfield locations subject to compliance with the Renewable Energy Policy.

7. Policy CC2 Renewable Energy and Low Carbon Energy (Regulation 19)

- 7.1. In order to provide greater certainty in providing opportunities for renewable energy development, whilst protecting sensitive landscape character types within the district, the policy directs proposals for all types of renewable energy development to be located within areas of the District that do not exceed 'Moderate-High' within the LSA sensitivity classification. Careful consideration will also be needed in areas close to high sensitivity landscapes, such as the AONB, Heritage Coast and Undeveloped Coast and the cumulative impacts of an increasing number of renewable developments within an area. In addition to the spatial aspect, all proposals will be assessed against a comprehensive set of criteria, which includes requirements around the restoration of a site if a renewable energy development is subsequently removed.

- 7.2. Onshore Wind Energy Wind energy development proposals will be supported in principle where it can be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate - High'. This sensitivity classification maintains opportunities for wind energy development of up to 60m hub/100m tip height across the least sensitive parts of the District. This approach would also allow for large scale wind energy proposals (80m hub, 130m tip wind turbines) at four of the district's airfields; West Raynham, Sculthorpe, Little Snoring and Coltishall. All proposals should complement the particular characteristics of the surrounding landscape and the LCA will assist in assessing the impact of individual proposals.
- 7.3. Offshore Wind Energy In November 2020, the government published 'The Ten Point Plan for a Green Industrial Revolution'⁸, which sets out the ten areas that are being promoted in order to achieve the net zero carbon target by 2050. Point 1 relates to the aim of quadrupling offshore wind capacity and by 2030, the aim is to produce 40GW of offshore wind, including 1GW of innovative floating offshore wind in the windiest parts of our seas. As such, there is considerable potential for offshore wind power to contribute to renewable energy production and while offshore proposals are not subject to local authority planning consent, permission is required for the associated on-land infrastructure, including cable routes. To date, North Norfolk has positively embraced offshore wind developments in the North Sea. However, there is concern about the potential increasing number of cable corridors and grid related infrastructures, including substations and cable relay stations, being proposed by offshore wind developments, due to the potential loss of landscape features and habitats and their cumulative adverse impacts. Consequently, the Council is encouraging and supportive, at a National level, of the development of an Offshore Ring Main, to minimise the construction impacts on the coastal region in the short term and to rationalise grid connections for greater efficiency in the long term.
- 7.4. Solar Photovoltaic Farms Field-sized solar farms provide an opportunity for greater energy production as well as potential enhancement to biodiversity, but it is important that they are carefully planned and screened to ensure any amenity and visual impacts are minimised. The PPG encourages the effective use of land by focussing large scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value. The Council is supportive of the use of low carbon technologies within all new development and encourages the incorporation of integrated solar panels on new homes to help meet the energy efficiency construction aims set out in Policy CC3 Sustainable Construction, Energy Efficiency & Carbon Reduction.
- 7.5. Industrial type development Anaerobic Digestion (AD) plants can be classified into two general categories: those that process predominantly agricultural feedstock (such as manures, slurries, crops and crop residues); and those that use predominantly municipal, commercial and industrial waste streams as feedstock. The biogas produced can either be burned on-site to generate heat and/or power (Combined Heat & Power - CHP); or upgraded to biomethane for injection into the national gas grid. Anaerobic Digestion proposals are regarded as waste treatment facilities, where feedstock is classified as waste under relevant legislation and so relevant related national and county best practice guidance and policies will apply. Anaerobic Digestion proposals raise a number of planning issues including visual and landscape impacts arising from industrial scale plant / buildings; location concerns, in terms of sustainability relative to the source of biomass and where relevant, combined heat and power (CHP);

⁸ <https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution>

electricity and/or gas grid connection), potential odour impacts, air emissions, noise impacts, protection of the water environment and traffic impacts. Energy storage has multiple benefits including allowing a greater use of renewable technology such as solar, wind and tidal to generate electricity (which may not always be generated at the time it is most needed) and greater security of supply by providing a grid which is more resistant to disruptions. A change to the Infrastructure Planning (Electricity Storage Facilities) Order 2020(20) allows battery storage to bypass the Nationally Significant Infrastructure Project (NSIP) process, which came in to force on 2 December 2020. This means that storage projects above 50MW in England will now be assessed by local planning authorities.

Policy CC 2: Renewable & Low Carbon Energy

1. Renewable energy proposals, including from community-led initiatives, will be supported and considered in the context of Sustainable Development and climate change, taking account of the wider environmental, social and economic benefits of renewable energy gain and its contribution towards energy supply.
2. Proposals for renewable energy technology including the landward infrastructure for offshore renewable schemes or the integration of renewable technology on existing or proposed structures with any associated infrastructure, will be supported where the site is located in an area that does not exceed 'moderate-high' sensitivity within the Landscape Sensitivity Assessment 2021 SPD and it is demonstrated that any individual or cumulative adverse impacts would be satisfactorily mitigated in respect of all of the following:
 - a. the visual impacts on the surrounding landscape, townscape and landscape character;
 - b. the special qualities of all designated nationally important landscapes and heritage assets including their settings;
 - c. the special qualities of nationally and internationally designated conservation sites and their qualifying features, habitats and biodiversity;
 - d. residential and local amenity relating to (visual dominance, noise, fumes, odour, vibration, glint and glare, shadow flicker traffic generation, broadcast interference;
 - e. air traffic safety, radar, reflected light, radar and telecommunications; and,
 - f. there is appropriate details / mechanism in place to restore the land to its original use and the removal of the technology at the end of its generating term.
3. The location of all planning proposals for wind turbines will be informed by **Figure 5 - Wind Energy Areas**, which details the suitable areas for such development and, following consultation, must demonstrate that the planning impacts identified by the affected local community have been fully addressed.

Figure 5: Wind Energy Areas (Proposed Submission Version Local Plan, January 2022)

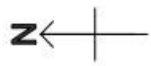
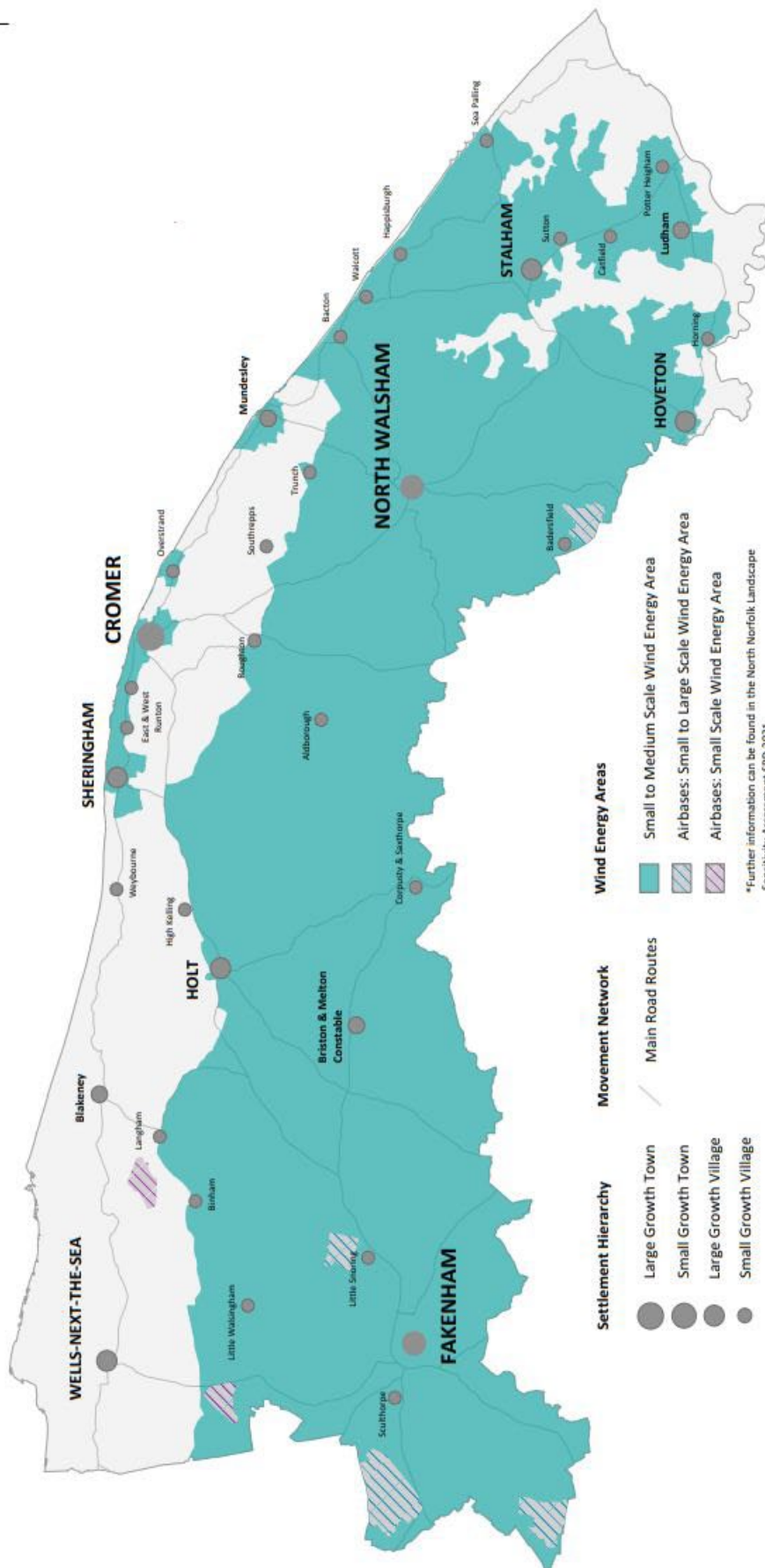


Figure 5 - Wind Energy Areas



*Further information can be found in the North Norfolk Landscape Sensitivity Assessment SPD 2021

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Appendix 1: Approved Renewable Energy Schemes in North Norfolk (as at August 2022)

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
N Walsham Carlton Farm	PF/11/0418	Construction of 5mw solar generating facility	Solar	24 May 2011	15ha.	5 MW	1,000	Yes
Northrepps	PF/12/0816	Construction of solar photovoltaic generating facility	Solar	16 Nov 2012	27ha.	10 MW	2,000	Yes
Egmere	PF/12/1318	Construction of 20 mw solar photovoltaic farm and associated works including inverter housing, landscaping and security measures	Solar	07 Feb 2013	42ha.	20 MW	4,000	Yes
East Beckham	PF/13/0772 & PF/15/1486 & PF/19/1009	Installation of a 10.15mw solar development	Solar	23 Sept 2013	25 ha.	10.15 MW	1,671	Yes - Extended in 2019 to allow 40 year operational lifetime
Bodham	PF/13/0960	Installation of 3.6mw solar development	Solar	15 Nov 2013	8ha.	3.6 MW	610	Yes
West Raynham	PF/13/1166 & PF/19/0893	Installation of 49.9MW solar farm with plant housing and perimeter fence	Solar	16 Jan 2014	96.5ha.	49.9 MW	10,212	Yes – Extended in 2019 to allow 40 year operational lifetime

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
Scottow	PF/14/1334	Installation and operation of a ground mounted solar photo voltaic array to generate electricity of up to 50MW capacity comprising photo voltaic panels, inverters, security fencing, cameras and other association infrastructure	Solar	09 Jan 2015	122.8ha.	50 MW	11,000	Yes
N Walsham: Bunns Hill	PF/15/0936	Development of ground mounted solar voltaic panels and associated works.	Solar	16 Oct 2015	12.6ha.	5 MW	1,060	Yes
N Walsham: Frogs Loke	PF/15/0938	Proposed development of ground mounted solar photovoltaic panels and associated works.	Solar	16 Oct 2015	9.1ha.	5 MW	1,060	Yes
N Walsham: Wayside Farm	PF/15/1536	Installation of 5MW solar farm with ancillary buildings, security fencing, CCTV, access tracks and landscaping.	Solar	17 Feb 2016	15ha.	5 MW	955	Planning permission implemented but not yet operational
					Solar Total	158.65MW	41,508	

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
Scottow	PF/11/1426	Construction of biomass (renewable energy) facility	A.D plant	25 May 2012	2.8ha	2 MW	Not Specified	Yes
Hempton	PF/12/1079	Erection of buildings to house anaerobic digester plant and formation of vehicular access	A.D plant	09 Jan 2013	13.7ha	1.5 MW	Specified (gas)	Yes
Egmere	PF/12/1256	Construction of biomass renewable energy facility with associated landscaping and vehicular access	A.D plant	05 Feb 2013	3.3ha	1.5MW	2,500 (gas)	Yes
					A.D. Total	5MW	2,500+ (gas)	

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
East Ruston	11/1313	Erection of wind turbine with a hub height of 24.6m and overall blade height of 34.2m	Turbine	22 March 2012	0.0142ha	Not specified	N/A	Yes
Bodham	14/0925	Erection of wind turbine with a hub height of 40m and blade tip height of 66m with associated substation buildings, access tracks and crane hardstanding	Turbine	February 2020 Allowed at Appeal	0.6478ha	900kW	655	Not known
Selbrigg	14/1669	Installation of a single wind turbine with a maximum height to tip of 78m, a new access track, a hardstanding, a small substation building, a temporary meteorological mast and associated infrastructure	Turbine	February 2020 Allowed at Appeal	0.28ha	Not specified	343	Not known

Appendix 2: Approach to Wind Energy - Discussion Document

Local Plan

Approach to Wind Energy - Discussion Document

Local Plan and Built Heritage Working Party

November 2017

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1. Introduction and Scope

- 1.1 Local Planning Authorities are required to have a positive strategy to promote energy from renewable and low carbon sources, NPPF, para 97. The Secretary of State has clearly set out that new Local Plans will need to address this issue⁹. In the case of wind energy, local planning authorities should only grant planning permission for wind energy proposals if they fall within an area identified as suitable for wind energy development. National Planning Practice Guidance, PPG has been amended to reflect the Secretary of States comments and goes onto state:

Suitable areas for wind energy development will need to have been allocated clearly in a Local or Neighbourhood Plan. Maps showing the wind resource as favourable to wind turbines or similar will not be sufficient...

In the case of wind turbines, a planning application should not be approved unless the proposed development site is an area identified as suitable for wind energy development in a Local or Neighbourhood Plan.

- 1.2 In an effort to mitigate climate change, the UK is committed to reducing its greenhouse gas emissions by 80% by 2050 and sourcing at least 15% of its energy from renewable sources by 2020. In 2013/14 this target was almost met, and wind energy contributed 9% of the UK's power needs, and at points throughout the year surpassed nuclear energy in its contribution to day to day energy needs.
- 1.3 It is clear that renewable energy will continue to play an important role in enabling the UK to meet its climate change targets and local planning authorities must play their part in promoting renewable energy and facilitating appropriate new development through the planning system. North Norfolk has not shied away from this as evidenced through the significant number of solar farms across the District. (see table 1)
- 1.4 With the benefits of wind energy however come concerns over its potential impacts. Local planning authorities, whilst needing to embrace wind energy must at the same time ensure that new wind energy development is of an appropriate scale and location so as not to give rise to unacceptable impacts on local communities and the special character of local areas. It is also necessary to ensure an appropriate mix of renewable energy schemes suitable for the District is achieved. When identifying suitable areas it is also important to set out the factors that will be taken into account when considering individual proposals in the District. These can include but are not limited to, appropriate wind speeds, impacts on landscape character and visual amenity, residential amenity wildlife conservation and appropriate cumulative impacts.
- 1.5 The policy approach to renewable energy within the existing Core Strategy relies on a generic policy approach and the consideration of all proposals on a case by case basis. It does not identify suitable areas, such an approach if continued could potentially be seen to conflict with the provisions of national planning policy which seek local planning authorities to 'have a positive strategy to promote energy from renewable and low carbon sources. It is clear that through the new emerging Local Plan the Council is required to consider alternative approaches based on the identification of suitable sites for the generation of wind energy¹⁰. In addition a suitable policy approach will need to be developed in order to guide assessment

⁹ <https://publications.parliament.uk/pa/cm201516/cmhansrd/cm150618/wmstext/150618m0001.htm>

¹⁰ Further explanation contained in section 2

of proposals submitted within any defined area/areas. It is these areas that set out where proposals may be suitable and be consulted on through the Local Plan process.

- 1.6 In line with the national PPG It is proposed that the Council should establish an approach to defining areas for wind energy development that can be taken forward in the emerging Local Plan.
- 1.7 The purpose of this paper is to explore the potential policy approaches available to the Council in identifying suitable areas for wind energy development and provide the basis for further discussion. The development and subsequent preparation of a preferred policy approach and reasonable alternatives will form further consideration as part of the emerging Local Plan.**

2 Context

National and Local Policy

- 2.1 On the 18th June 2015 the Secretary of State for Communities and Local Government (Greg Clark) through a Written Ministerial Statement set out new national provisions relating to wind energy development¹¹. The Statement sets out that local planning authorities, should only grant planning permission for proposals for wind energy *development if the development site is in an area identified as suitable for wind energy development*. It goes on to note that these areas need to be **allocated clearly in a Local or Neighbourhood Plan** and following consultation can be demonstrated that it has backing of the local community. In the meantime, until such time areas are identified in a development plan a transitional approach has been put in place requiring proposals have the backing of the *affected* community., see para 2.5
- 2.2 National Planning Practice Guidance (PPG) has been amended to reflect these changes and to provide further guidance and clarification. It goes on to state that:

- *In the case of wind turbines, a planning application should not be approved unless the proposed development site is an area identified as suitable for wind energy development in a Local or Neighbourhood Plan:*¹²
- *When identifying suitable areas it is also important to set out the factors that will be taken into account when considering individual proposals in these areas. These factors may be dependent on the investigatory work underpinning the identified area; and*
- *Suitable areas for wind energy development will need to have been allocated clearly in a Local or Neighbourhood Plan. Maps showing the wind resource as favourable to wind turbines or similar will not be sufficient.*¹³

- 2.3 The recent changes do not over rule the National Policy Planning Framework (NPPF) and in particular the key role of national policy in securing radical reductions in greenhouse gas emissions and supporting the delivery of renewable and low-carbon energy and associated infrastructure. With regards to renewable energy specifically, Paragraph 97 the NPPF states that local planning authorities should:

- *Recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources;*
- *Have a positive strategy to promote energy from renewable and low carbon sources;*
- *Design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;*

¹¹ <https://publications.parliament.uk/pa/cm201516/cmhansrd/cm150618/wmstext/150618m0001.htm>

¹² PPG Paragraph: 005 Reference ID: 5-005-20150618 <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>

¹³ PPG Paragraph: 032 Reference ID: 5-032-150618

- Consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources; and
- Support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning.

Local Policy: Current Approach

2.4 The current approach being taken is to reach an informed and balanced decision on each individual planning application for wind turbine proposals, giving full consideration to all material planning issues including those raised by the local community. Each proposal is tested against the policies in the adopted Core Strategy relating to residential amenity, landscape, heritage, ecology, etc. and the associated Supplementary Planning Documents such as the Landscape Character Assessment SPD. No specific areas are identified and each determination is required to assess the suitability of the proposed location as well as its impacts with regard the whole policy suit contained in the Core Strategy along with other material considerations.

2.5 This is in line with the transitional arrangements contained in the 2015 Ministerial Statement which states that the following transitional provision applies;

In such instances, local planning authorities can find the proposal acceptable if, following consultation, they are satisfied it has addressed the planning impacts identified by affected local communities and therefore has their backing.

2.6 The policy approach to renewable energy within the existing Core Strategy relies on a generic policy approach and the consideration of all proposals on a case by case basis. It does not identify suitable areas and although the continuation of such a policy approach remains an option it could potentially be seen to conflict with the provisions of national planning policy which seek local planning authorities to 'have a positive strategy to promote energy from renewable and low carbon sources. It is clear that through the new emerging Local Plan the Council is required to consider alternative approaches based on the identification of suitable sites for the generation of wind energy . In addition a suitable policy approach will need to be developed in order to guide assessment of proposals submitted within any defined area/areas. It is these areas that set out where proposals may be suitable and be consulted on through the Local Plan process.

2.7 Table 1 - Appraisal of Existing Permitted Turbine and other renewable schemes across the District

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
East Ruston	11/1313	Erection of wind turbine with a hub height of 24.6m and overall blade	Turbine	22 March 2012	0.0142ha	Not Specified	N/A	Yes

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
		height of 34.2m						
OTHER RENEWABLE SCHEMES								
N Walsham Carlton Farm	PF/11/0418	Construction of 5mw solar generating facility	Solar	24 May 2011	15ha.	5 MW	1,000	Yes
Northrepps	PF/12/0816	Construction of solar photovoltaic generating facility	Solar	16 Nov 2012	27ha.	10 MW	2,000	Yes
Egmere	PF/12/1318	Construction of 20 mw solar photovoltaic farm and associated works including inverter housing, landscaping and security measures	Solar	07 Feb 2013	42ha.	20 MW	4,000	Yes
East Beckham	PF/13/0772	Installation of a 10.15mw solar development	Solar	23 Sept 2013	25 ha.	10.15 MW	1,671	Yes
Bodham	PF/13/0960	Installation of 3.6mw solar development	Solar	15 Nov 2013	8ha.	3.6 MW	610	Yes
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Scottow	PF/14/1334	Installation and operation of a ground mounted solar photo voltaic array to generate electricity of up to 50MW capacity comprising photo voltaic panels, inverters, security fencing, cameras and	Solar	09 Jan 2015	122.8ha.	50 MW	11,000	Yes

Scheme	Planning ref	Description of Proposal	Type of scheme	Date of Approval	Area of proposal	Size of output	Approximate No. Households power will generate	Operational
		other association infrastructure						
N Walsham: Bunns Hill	PF/15/0936	Development of ground mounted solar voltaic panels and associated works.	Solar	16 Oct 2015	12.6ha.	5 MW	1,060	Yes
N Walsham: Frogs Loke	PF/15/0938	Proposed development of ground mounted solar photovoltaic panels and associated works	Solar	16 Oct 2015	9.1ha.	5 MW	1,060	Yes
N Walsham: Wayside Farm	PF/15/1536	Installation of 5MW solar farm with ancillary buildings, security fencing, CCTV, access tracks and landscaping	Solar	17 Feb 2016	15ha.	5 MW	955	No
					Total	158.65 MW	41,508	
Scottow	PF/11/1426	Construction of biomass (renewable energy) facility	A.D plant	25 May 2012	2.8ha	2 MW	Not Specified	Yes
Hempton	PF/12/1079	Erection of buildings to house anaerobic digester plant and formation of vehicular access	A.D plant	09 Jan 2013	13.7ha	1.5 MW	Not Specified (gas)	Yes
Egmere	PF/12/1256	Construction of biomass renewable energy facility with associated landscaping and vehicular access	A.D plant	05 Feb 2013	3.3ha	1.5MW	2,500 (gas)	Yes
					Total	5MW	2,500+ (gas)	

Emerging Local Plan

- 2.8 Given the revised national policy context producing a new Local Plan which does not consider the requirements for on shore wind generation has the potential to introduce **a level of risk to plan making. A failure to address the requirements could introduce a potential soundness issue. It could also leave the council at risk of planning applications for wind turbines for the entirety of the District and at risk at appeal.**
- 2.9 In addition to the national policy requirements the Council have received a number of suggested sites for wind development through the call for sites. National guidance as detailed above advises us that when identifying suitable areas through the Local Plan it is also important to set out the factors that will be taken into account when considering individual proposals in these areas. It is clear that in order to assess the suitability of these sites it will be necessary to establish and apply a clear policy approach.

Recent Case History

- 2.10 The Council has undertaken a number of significant appeals, the most significant covers two applications at Bodham and Selbrigg farm, Hempstead¹⁴. Both of these appeals were allowed but subsequently not supported by the Secretary of State.
- 2.11 Central to both appeals:
- Impact on heritage assets;
 - Cumulative effect of 'less than substantial harm' on numerous heritage assets;
 - Landscape impact;
 - Impact on residential amenity;
 - Inherent conflict between high wind speeds up on Cromer Ridge and wide visual impact due to high level topography;
 - Planning balance

3 Methodology

- 3.1 This paper sets out potential approaches for identifying suitable locations for wind energy development which will help to inform future work on the Local Plan. The preferred approach and alternatives considered will be subjected to a sustainability appraisal and public consultation as part of the emerging Local Plan process.

¹⁴

Appeal Ref: APP/Y2620/W/15/3134132 &
APP/Y2620/W/15/3143028

- 3.2 All options must align with national policy as defined by the NPPF and reflect guidance in the national PPG, to ensure that the emerging Local Plan is considered sound in this area. It is important that the approach taken and potential areas identified should be fully justified and should not seek to effectively rule out the delivery of all future wind energy development in the District.
- 3.3 The scenarios presented below represent a range of reasonable alternatives considered acceptable within the bounds of the national policy context. The policy options set out could form the basis form of a strategic tool indicating where wind energy development proposals could be considered broadly acceptable in principle. This would be achieved by defining areas suitable for wind energy development on the formal Local Plan Proposals Map and be subject to scrutiny at examination, coupled to a new Policy which sets out how planning applications for wind energy development would be considered.
- 3.4 Adopting the approach of identifying areas means that the Council will not generally be able to grant consent for **any** wind energy development proposals that fall outside of areas identified areas as suitable for wind energy development. This would include any community led and rural diversification schemes as well as those proposed on a speculative basis. Community led schemes and other proposals for wind energy development which fall outside of the Local Plan's identified areas could only be enabled where communities choose to identify their locations within additional areas suitable for wind energy development in a Neighbourhood Plan or produce a Community Right to Build Order.
- 3.6 The options are presented range from a fully unconstrained approach to one which is constrained by environmental and technical constraints. These are identified through analysis of a series of "hard" and "soft" constraints which either need to be met or could be applied as a result of planning judgment. Hard constraints are generally those which are physical such as roads, woodlands and others due to the limitation of technology such as the availability of appropriate wind speeds as well as other physical constraints where turbines could not be physically installed. Soft constraints are those that potentially could restrict the positioning of turbines such as the considerations around environmental and historical considerations.

Review of available evidence

- 3.7 This section scopes out the available evidence in relation to wind energy development both locally and nationally. To underpin this work, a review has been made of evidence including a brief explanation of each and whether it is beneficial to be used to inform conclusions made in this paper.
- 3.8 The Department for Energy and Climate Change, DECC, commissioned consultants to develop a methodology for appraising the opportunities and constraints for renewable and low carbon energy development. In doing so it developed and published (2010) a standard methodology to establish the opportunities and constraints for the development of renewable and low carbon energy at a local scale and identified specific factors to consider in relation to wind energy generation.

3.9 The methodology is based around a sequential constraint methodology, where constraints are progressively applied through a sequential process. Layers of analysis are applied that progressively reduce the total theoretical opportunity to what is practically achievable. . . The stages in the methodology are numbered from 1 to 7, with stages 1 to 4 representing physical, technical and regulatory constraints and stages 5 onwards representing delivery constraints such as supply chains and economies of provision and operation. In broad terms, Stages 1 and 2 represent the opportunity for harnessing the renewable energy resource on the basis of what is naturally available vis-à-vis the limitations of existing technology solutions. Stages 3 and 4 address the constraints to the deployment of technologies in relation to the physical environment and planning/regulatory limitations. Stage 5 reviews the economic considerations, such as the cost of the technology, and the potential returns in relation to the overall capital cost, while stage 6 and 7 allow for the review of supply side constraints.

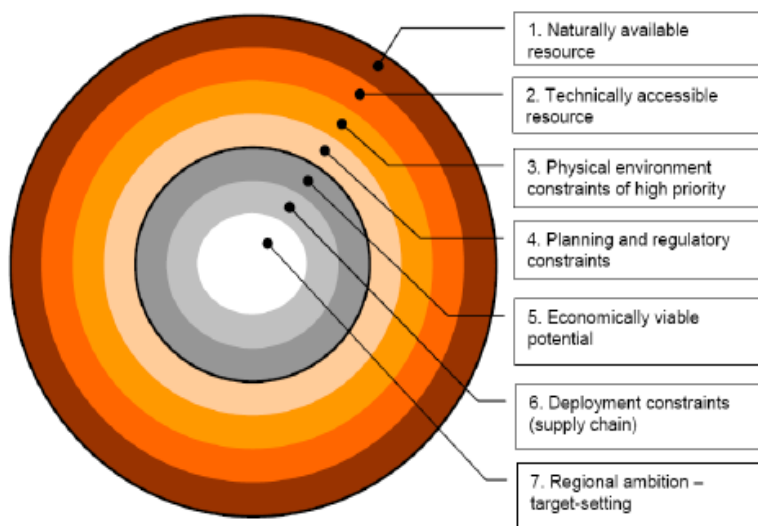


Figure 2. Stages for developing a comprehensive evidence base for renewable energy potential (Source: Renewable and Low-Carbon Energy Capacity Methodology for the English Regions, SQW Energy, January 2010)

3.10 The East of England Renewable and Low Carbon Energy capacity Study for the DECC was published in 2011 and utilised this methodology in examining the resource potential for renewable energy generation in East of England and the potential take up by 2020. It provides a basis for more detailed information to be available at a local level which could be used to support local delivery of renewable schemes.

3.11 The study is a wide ranging paper covering all renewable and low carbon energy development. And whilst the methodology deals with a number of different issues and produces results against some parameters, the studies are only intended to inform the regional-level evidence base and are not detailed enough to identify broad locations for development.

3.12 Identified in layer one and main considerations for selecting a suitable site for wind energy development is a location that has sufficient wind speed. As can be seen on the map below North Norfolk has some of the highest wind speeds in the East of England. **The study concludes that there is sufficient wind capacity across the entire District to support wind energy generation** and that further work was expected to be undertaken on a local level.

Norfolk Wind Speeds

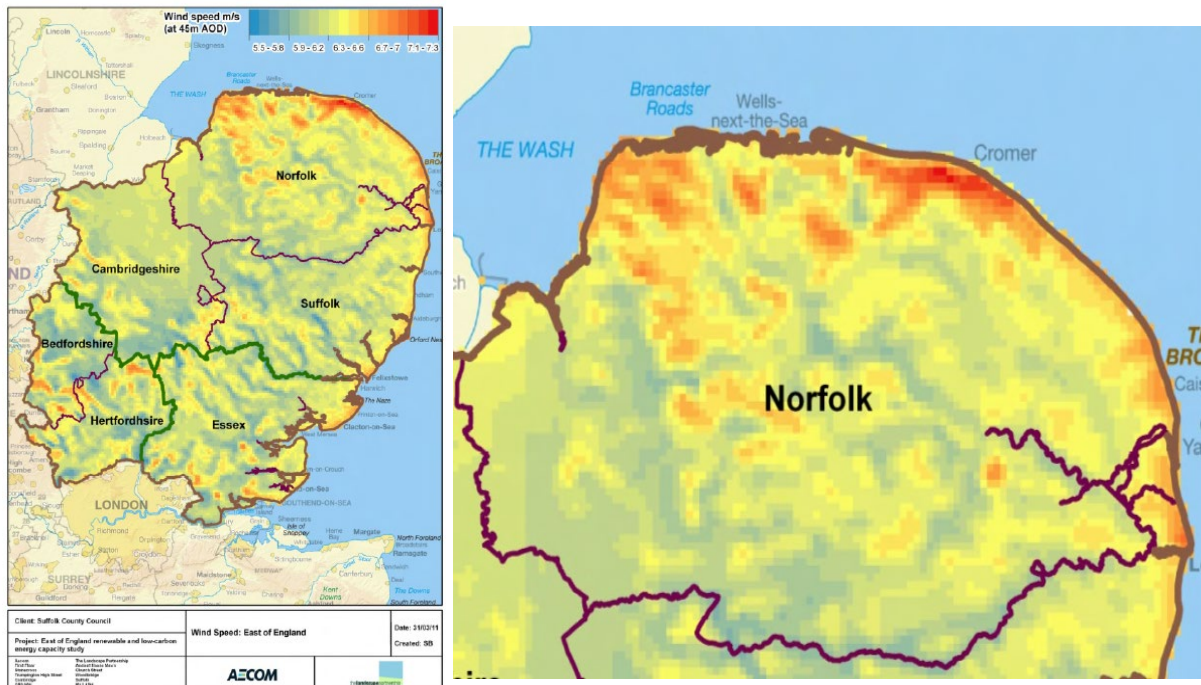
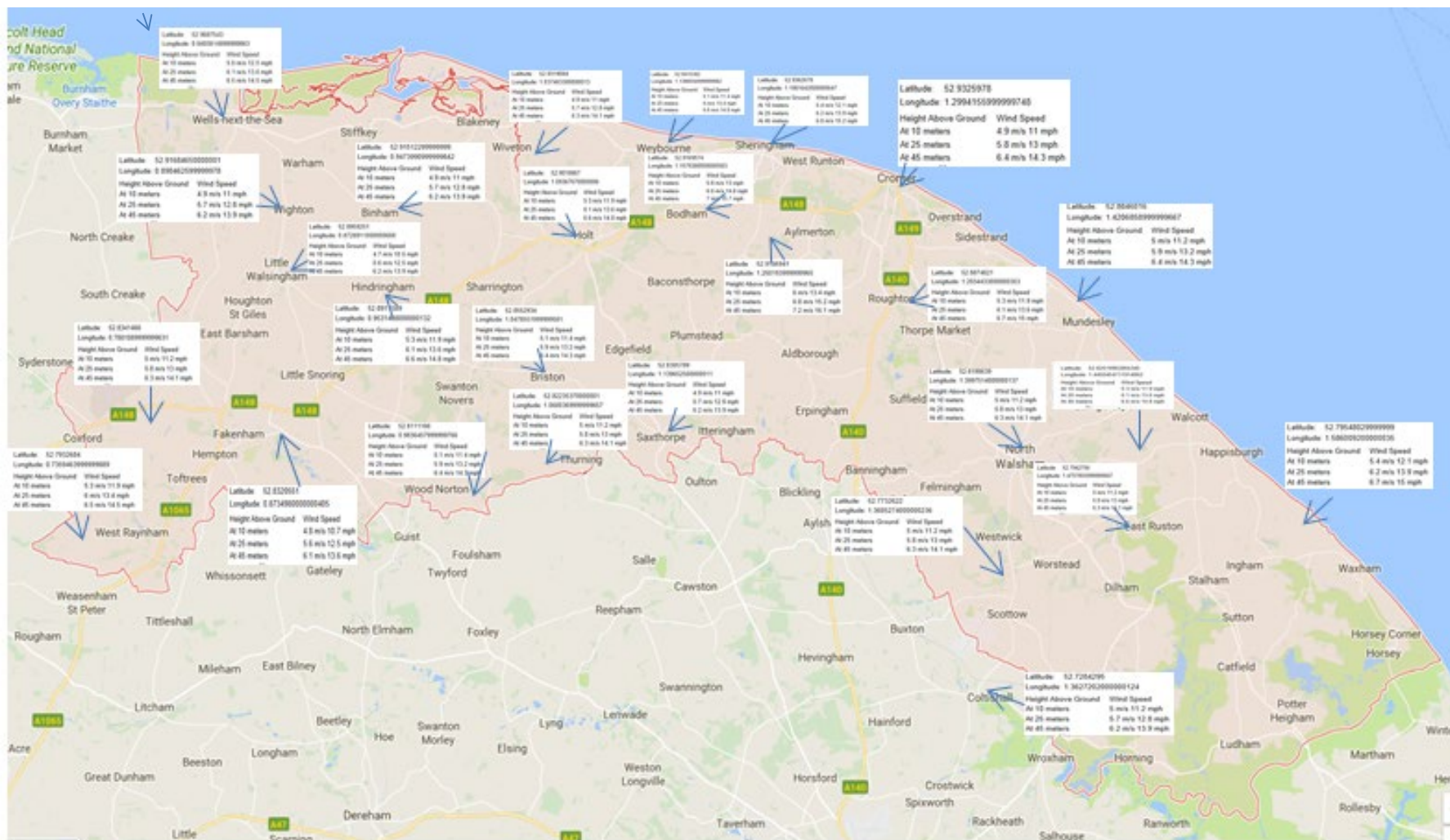


Figure 14. Map of wind speeds across the EoE region based on the UK Windspeed database.

Source: East of England renewable and low carbon energy capacity study 2011

- 3.13 The DECC methodology sets out the benchmark used for minimum commercially viable average wind speed varies between 5m/s and 7 m/s at 45 agl. In practice, the developers currently consider sites with wind speeds of over 6m/s at 45m agl. The threshold wind speed largely depends on the electricity price and financial incentives available. As very windy sites become used up, progressively lower wind speeds are likely to be considered. Technically, areas with wind speeds at and above 5m/s at 45m agl are viable for large scale turbines and adopting a 5m/s at 45m agl lower limit ensures that future opportunities (by 2020) are not ruled out. This is considered to be the accepted approach used by the wind industry in the UK.
- 3.14 The DECC methodology identifies that the best source to find wind speeds is from the UK Wind speed Database (NOABLE). NOABLE provides a good high-level and publicly available database that can be used for high-level wind speed analysis. The methodology warns however that whilst the database is suitable for providing a regional-level assessment, where site specific assessment are to be undertaken, more detailed and accurate data sources would be required. However for the sake of this paper, it is considered sufficient to show that the District has suitable wind speeds.
- 3.15 The map below shows a snap shot of wind speeds across North Norfolk obtained by inputting site addresses across the District into the NOABL website (www.rensmart.com/Weather/BERR). The estimated wind speed are shown at three heights

10m, 25m and 45m and collaborates that East of England Study findings that the district has sufficient wind speeds to support renewable energy generation from wind based on wind speed mapping at 45m height and a wind turbine of 100m rotor diameter and 135m tip height.



Map showing the wind speed across North Norfolk. Source: NOABL Wind Map

Wind Turbine Size

3.16 The DECC methodology sets out that an average wind turbine size is: 2.5MW installed capacity with the dimensions of tip height: 135m, rotor diameter: 100m, hub height: 85m. It is considered that this size of turbine is standard for planning applications which are currently been prepared or submitted. The figure below represents a comparison of different size turbines and a 2.5MW turbine,.

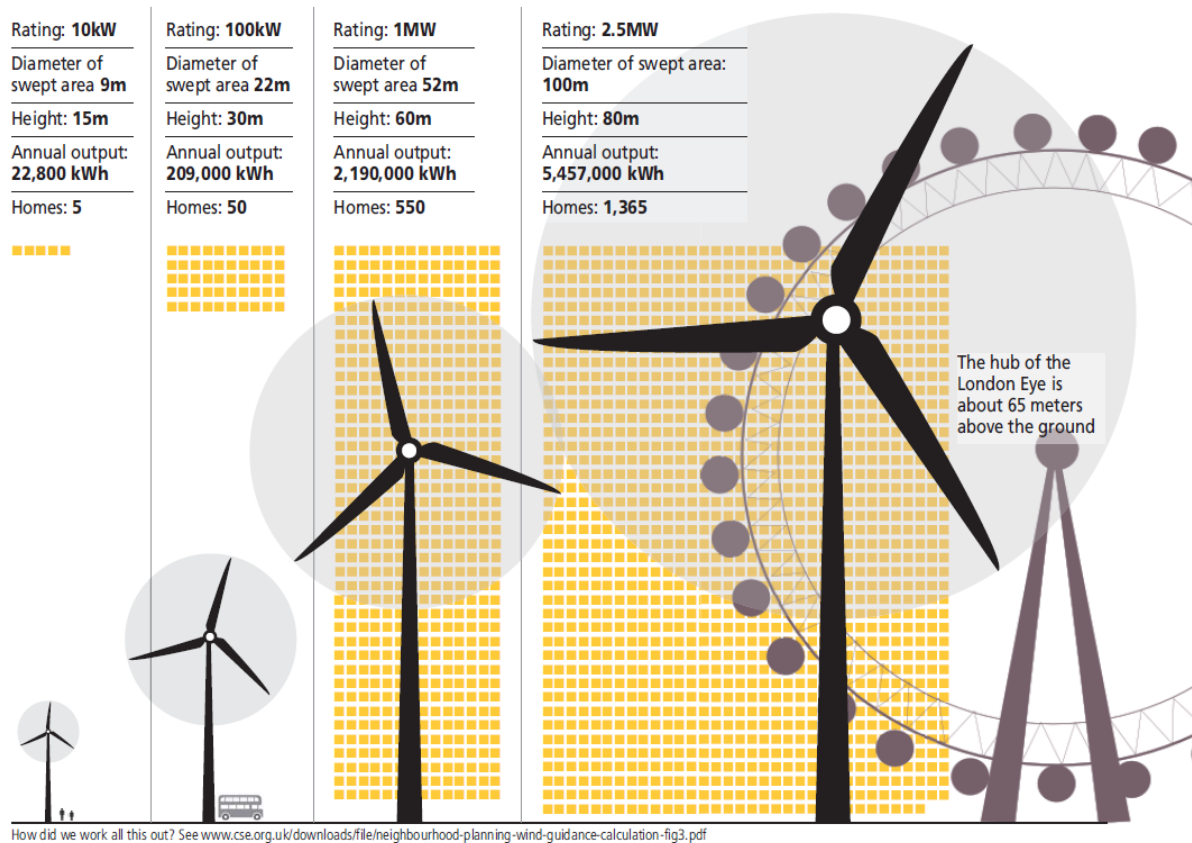


Figure 1- Sizes of wind turbines Source Neighbourhood-planning-wind-guidance.pdf from cse.org.uk

3.17 One of the main difficulties when considering wind energy development is not knowing the size, scale or location of proposals that will come forward at Local Plan stage. Thereby making the assessment of the impact on landscape, heritage and on the community more difficult. In order to get more information on this, more local evidence is available to make these assessments. This local evidence includes:

- A) The National Heritage List and maps for England which details heritage designations and holds the official records for listed buildings, scheduled monuments, Registered Parks and Gardens, World Heritage Sites, Registered Battlefields and Protected Wrecks. It includes a description of what is important about the heritage of the building or site. This list can be used to identify heritage designations across the District in order to illustrate and consider their impact from wind energy development.

B) The NNDC Landscape Character Assessment (LCA) which was adopted by the Council in 2009 and forms part of the North Norfolk Local Development Framework alongside the Core Strategy. The LCA identifies maps, classifies and describes each Landscape Character area within North Norfolk and makes judgements based on those character areas in order to inform a range of decisions. This document could be used as a basis for identifying character types and key landscape characteristics to ascertain the impact wind energy could have on each character area. The document is generally vague in relation to the landscape impacts from different scale turbines. It is considered that any update would need to quantify how any identified development impacts affect the “defined special landscape features and it would benefit from containing Further analysis/information on the sensitivity of each Landscape Character Area would be beneficial in order to have a better understanding of the implications of wind energy on each.

C) The connection of any proposed wind energy development into the relevant electricity network is an important consideration. Although the location of wind energy in relation to the network may not be critical because the cost of installing a new connection to a suitable part of the grid may be relatively economic. The design and capacity of the network at the point of connection may be more critical in terms of the viability of the connection, potentially requiring increased capacity in sub-stations or the network lines. It should be considered though that as economic conditions change and technology (both wind and power distribution) develops, grid connection costs may be able to be mitigated to varying degrees even within remote locations.

It is difficult to obtain accurate information on the ability of sites to connect to electricity grid infrastructure without doing site by site assessments and there is no specific evidence available. Therefore at this stage a simple geographic mapping exercise is not possible. It should however be considered when looking at suitable sites/proposals.

D) Conservation Area Appraisals: Where these are up to date they can provide additional evidence particularly on a case by case basis.

4 Policy Approaches

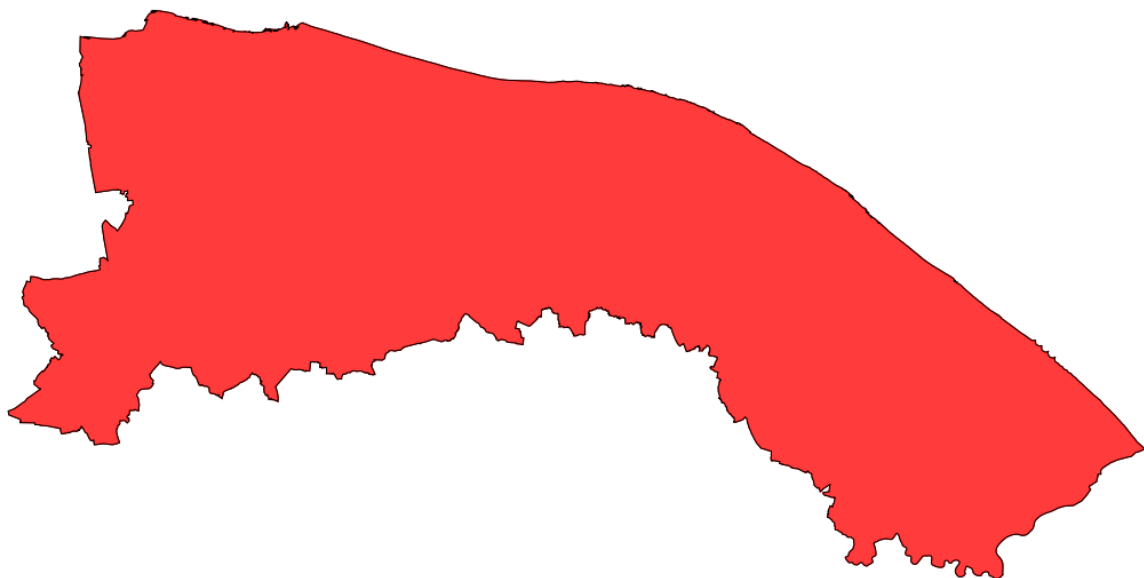
4.1 This section sets out the different approaches that could be used to identify areas considered broadly suitable in principle for wind energy in North Norfolk. The approaches presented are informed by a review of Local Plan approaches, national best practice and identified current guidance. They are considered to be distinct policy approaches utilising a reasonable range of constraints which together are not seen as unreasonable or overly constrain development opportunities. For each approach further consideration is given to the resource required and the suitability of the current evidence base in order to inform the approach along with an assessment as to whether the approach when combined with the expected time line of the Local Plan could feasibly undertaken in house.

4.2 Each approach is set out with a brief summary, a map showing the area that would be affected, and consequences/ resource required for each. The approaches are as follows:

- Approach 1 – Unconstrained Approach (Existing Approach);
- Approach 2 – Constrained Approach : landscape Designations;
- Approach 3 – Further Environmental Constraints Approach, settlement exclusion and other physical constraints;
- Approach 4 – Environmental, Residential & other Buffers;
- Approach 5 – Approach to Airfields.

Approach Option 1 – Unconstrained Approach

- 4.3 No areas within North Norfolk would be considered inherently unsuitable for wind energy development or constrained in any way. Wind energy development would be considered acceptable in principle throughout the entirety of the Local Authority Area and proposals would be solely considered against Development Management policies and the current evidence base such as the adopted Landscape Character Assessment. This would be the same as the current approach, where there is no specific area identified as suitable for wind energy and proposals are considered against Core Strategy policies are used including Policy EN7 'Renewable Energy'. Where it must be considered individual/cumulatively that there is no significant adverse effect from the proposal in relation to landscape, townscape and heritage, amenity and nature/biodiversity considerations. A revised DM policy covering renewable energy and or wind generation (large scale and or micro scale) will need to be developed).



Option 1 – Map showing Unconstrained Approach

The red area identified indicates that wind energy proposals would be considered suitable notwithstanding other policy considerations.

Advantages	Disadvantages
Simplest model to implement with Development Management continuing to determine applications against policy consideration.	May not meet Governments objective to define areas suitable for wind turbine development. Does not necessarily seek areas for local approval and has the potential to conflict with the provisions of the NPPF
No 'areas of search' defined therefore removing potential objections from communities.	Lack of any added protection from future development in designated landscapes such as ANOB, Scheduled Parks and the Broads
Allowing future opportunities for all communities to develop proposals which meet identified energy need.	Continued development may have adverse impact on general quality of life in terms of access and enjoyment of the countryside.
Maintaining future opportunities for wind proposals increasing long term growth of the industry.	Potential for impact on tourism activity including key coastal landscape and attractions.
Provides a greater contribution towards national climate change.	Impact on wildlife and heritage impact, light and noise impact
Individual proposals assessed on an individual basis to a set criteria based policy	Current evidence base is not sufficient to identify areas of low, moderate and high landscape sensitivities and does not generally provide sufficient evidence to inform the scale of wind energy development which might be appropriate at any given location within this identified area.(District)
	Development Management and communities haven't got a clear steer of preferred location of wind turbine based on evidence. Each proposal will need to be assessed against the full Local Plan
	Potential objections from local communities

Examples used across the UK

- 4.4 North Devon and Torridge initially proposed to earmark the entire two local authority areas as potentially suitable for wind energy where it could be demonstrated that the landscape sensitivity for the proposed scale of turbine does not exceed 'Moderate'. In subsequent revisions the policy approach has had to be refined, and although the entire district (s) remain identified as potentially suitable further evidence commissioned allows for the policy approach to differentiate across the District (s) according to the scale of wind turbines and degree of landscape impact and landscape character.
- 4.5 Kings Lynn doesn't define areas across the district and relies on a development management policy which states –*"Decisions regarding wind energy will rely on national policy in the Ministerial Statement of 18 June 2015 and guidance in the renewable and low carbon energy section of the Planning Practice Guidance... And The Council will provide a consistent cross boundary approach with neighbouring North Norfolk District Council by affording greater protection from development within the Norfolk Coast Area of Outstanding Natural Beauty (AONB)."*

Approach Implications Risks/ Implications

- 4.6 Identifying the whole District as suitable for wind energy and turbine development leaves the Council at risk for speculative proposals across the District .In terms of new policy it may not accord with the intentions of the revised legislation and could be seen as an inappropriate response to the matter and one which could potentially be seen to conflict with the provisions of national planning policy which seek local planning authorities to ‘have a positive strategy to promote energy from renewable and low carbon sources’, particularly given the potential wind energy resource that is provided in North Norfolk.
- 4.7 If this approach was chosen then there would be a requirement to add significant further detail. The NPPF foot note 17 requires plans that identify suitable areas for renewable and low carbon development to include details on “what size of development the areas are considered suitable for” i.e in the case of wind energy this would be an indication of the size of turbine. The Landscape Character Assessment would need to be reviewed, as it is generally considered not able to provide sufficient evidence across the whole of the district to distinguish between potential landscape impacts and different scales of turbine development. This would have to be undertaken externally due to the specialist nature of the work and the time constraints to meet current Local Plan time line; this would have to be undertaken immediately.
- 4.8 Work on a Criteria based policy would also be required alongside other Development Management Policy work. This work would be done in house and informed by the revised evidence base.

Advantages of relying on criteria based policy:

- 4.9 Assessments can be made on a case by case basis depending on the nature, scale and location of the development. Development would not have been ruled out due to its location.

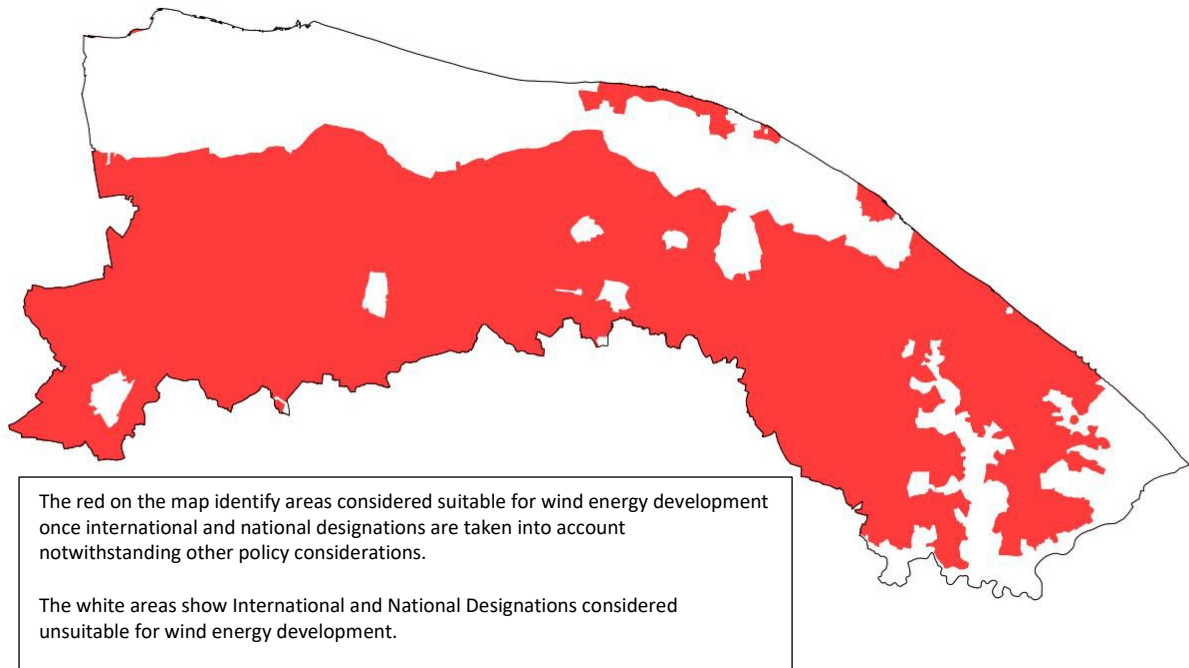
Approach 2 – Constrained Approach: landscape Designations

- 4.10 The District has a high proportion of outstanding landscape including a number of International and National Designations. It could be considered that these designations should be excluded from the area considered suitable for wind development due to the potential impact on the environment and conflict with their designation. This approach would have the potential to rule out much of the sensitive landscape.
- 4.11 The areas covered by International and National Designations and therefore areas excluded could be: the Area of Outstanding Natural Beauty (AONB), Scheduled Parks & Gardens and the Broads Area (outside Planning NNDC Jurisdiction). The areas that fall outside these constraints would then be identified as potential suitable areas for wind development and proposals that fall into these areas would need to be considered against Local Plan criteria based policy. Such a policy would need to reflect a range of local factors such as local community views, ecology, cumulative impacts and take account of Conservation Area Appraisals and is detailed in section 5 of this discussion document.

The PPG States: proposals in National Parks and Areas of Outstanding Natural Beauty, and in areas close to them where there could be an adverse impact on the protected area, will need

Careful consideration. However national policy does not explicitly restrict renewable energy development within nationally important landscape areas. The subject of buffer zones is considered later in this discussion document but it is clear that any criteria based policy would need any turbine proposal to consider the setting of such landscape designations.

Figure 2: Approach 2– Indicative International and National Landscape Designations, Scheduled Parks and Gardens Constrained Approach



Advantages	Disadvantages
Simplest model to implement with defined areas - Development Management continuing to determine applications against policy	Might not meet Governments objective to define areas suitable for wind turbine development.- may be challenged ,
	Current evidence base does not generally provide sufficient evidence to inform the scale of wind energy development suitable in different landscapes which might be appropriate at any given location within the defined in principle zone
No 'areas of search' defined therefore removing potential objections from communities	Continued development may have adverse impact on general quality of life in terms of access and enjoyment of the countryside.
Significant added protection from future development in designated landscapes such as ANOB	Potential for impact on tourism activity including key coastal landscape and attractions.
Allowing future opportunities for all communities outside protected areas to	Restricts small scale turbine development in excluded areas along with larger scale. Zone only based on landscape features.

develop proposals which meet identified energy need .i.e Neighbourhood planning	
Maintaining future opportunities for wind proposals increasing long term growth of the industry.	Potential for further landscape impacts beyond designated landscapes including the immediate setting of the AONB.
Individual proposals in the identified area assessed on an individual basis to a set criteria based policy	Opportunity for consideration of further landscape impacts diminished.

Resource Required

4.12 Adopting an approach that seeks to recognise important landscapes based on national and international designations and scheduled parks and gardens is seen as appropriate and proportionate to the available evidence.

4.13 A criteria based policy would also be required in order to assess proposals in the remainder of the District which would be considered potentially suitable for wind development. This work could be done in house.

Implications / Risks

4.14 There is a risk with this approach that it could be challenged at examination, It should however be considered that other Councils have adopted similar approach. The approach would still require a policy in order to determine suitability across the remaining parts of the District. The approach would not protect areas immediately adjacent to the identified landscape designations which could be seen as sensitive especially in terms of visual amenity into and out of the landscape designated area and the impact on any areas setting would need to be part of any criteria based policy. The approach is based on landscape designations only and does not seek to include other designations such as Special Protection Areas, SPAs and Sites of Special Scientific Interest, SSSI,s. The inclusion of such an approach would require an understanding of the reason/ specific feature for the designation of each site and how that potentially impacts wind turbines.

4.15 The Landscape Character Assessment would need to be reviewed, as it is generally considered not able to provide sufficient evidence across the whole of the district to distinguish between potential landscape impacts and different scales of turbine development.

Approach Option 3 –Further Environmental Constraints Approach and Exclusion of Settlements and Other Physical Constraints.

4.16 In addition to the International and National designations as highlighted in the above approach, further locations could be excluded including the Undeveloped Coast policy (assuming it is carried forward into the emerging Local Plan). Some justification for this can be found in the Placing Renewables in the East of England, 2008 study ¹⁵which identified the

¹⁵ Placing Renewables in the East of England , East of England Regional Assembly 2008

North Norfolk Coast as an area that “exhibits a medium High Sensitivity to commercial wind turbine development. The variety of texture, dynamic and detailed nature of the landscape increases the sensitivity of this landscape to turbine development. The study characterises Medium – High Sensitivity landscape character as areas that are vulnerable to change recommends the landscape is only suitable for small scale wind development¹⁶.

4.17 Similarly consideration could be given around excluding urban areas around main towns/ villages within the District (as identified in the Core Strategy SS2 and or emerging local plan) and or all residential areas across the district.

4.18 The PPG States: protecting local amenity is an important consideration which should be given proper weight in planning decisions however the physical nature of the constraint does effectively exclude these areas from large scale wind development and it could be considered that such an approach is not necessary. If this route was chosen the question remains to what extent the urban areas should be identified – the complete dispersed settlement or just the growth locations.

4.19 A further option also exists around the mapping of other physical constraints such as :

- Public roads (A and B roads)
- Railway lines
- Inland water
- Pipelines
- Power lines
- Public footpaths and bridleways

Advantages	Disadvantages
Development Management continuing to determine applications against policy inside identified areas.	Might not meet Governments objective to define areas suitable for wind turbine development.
A reduction rate of development around residential properties, likely to have reduced impact on residents and reduce complaints received.	Concentration and Continued development may have adverse impact on general quality of life in terms of access and enjoyment of the countryside.
Significant added protection from future development in international and national designated landscapes such as ANOB as well as other local designations.	Potential to rule out small scale turbine development in and around settlements
Protect further environmental constraint areas for example Undeveloped Coast.	Significant resource required. It is considered that any application would need to consider these in any case and it is potentially unnecessary.
Allows future opportunities for all communities outside protected areas to develop proposals which meet identified energy need. i.e through neighbourhood planning.	Potential for further landscape impacts beyond designated landscapes including the immediate setting of the AONB.

¹⁶ Placing Renewables in the East of England , East of England Regional Assembly 2008, Table D1.1 Appendix 1, & pages D1-D6

Maintaining future opportunities for wind proposals increasing long term growth of the industry.	
Identifies distinct areas and helps provide reassurance to communities around settlements	Potential to impact properties that aren't within towns, and in towns without an appropriate buffer.
Protect properties within towns from effects.	Increased evidence base
If roads and settlements were mapped then areas of hard /physical constraints are readily identified	

Resource Required

- 4.20 If this approach was considered then a decision would need to be taken around the advantages / disadvantages and the risk around the use of the settlement hierarchy or the incorporation of all built up areas
- 4.21 In terms of an approach excluding more local environmental designations, it is thought that supporting evidence from an update of the Landscape Character Assessment and or a Landscape Sensitivity study would be required.
- 4.22 Mapping physical constraints such as roads and rail would follow the approach taken in the East of England Renewable and Low Carbon Energy capacity Study 2012, however it is potentially a significant undertaking at local level and it is considered that any application would need to consider these in any case.
- 4.23 Work on a Criteria based policy would also be required alongside other Development Management Policy work. This work could be done in house.

Risk / Implications

- 4.24 There is a risk that this approach would not meet the Government objective to define suitable areas for wind energy. The approach would require criteria based policy in order to determine suitability across the rest of the District. Although this approach would identify certain areas where physical constraints and softer landscape considerations informed policy development there could be a risk that areas immediately adjacent to the designated areas could be developed. Utilising the settlement hierarchy the approach would also only exclude areas around towns/villages identified as growth locations rather than all settlements / residential properties which could be considered equally as sensitive.

Approach Option 4 – Buffers including consideration of the setting of designated areas

- 4.25 The dispersed settlement pattern across much of the district effectively excludes areas from further consideration as possible location for large scale wind development and is seen as a robust approach given the physical nature and land use constraint. In addition to the physical

constraint of settlements the Council could consider applying buffers around international and national sites (as identified in approach option 2) and around residential areas (approach option 3). However this does not necessarily mean small scale or single turbines should be excluded in the same way.

Residential Properties Buffer

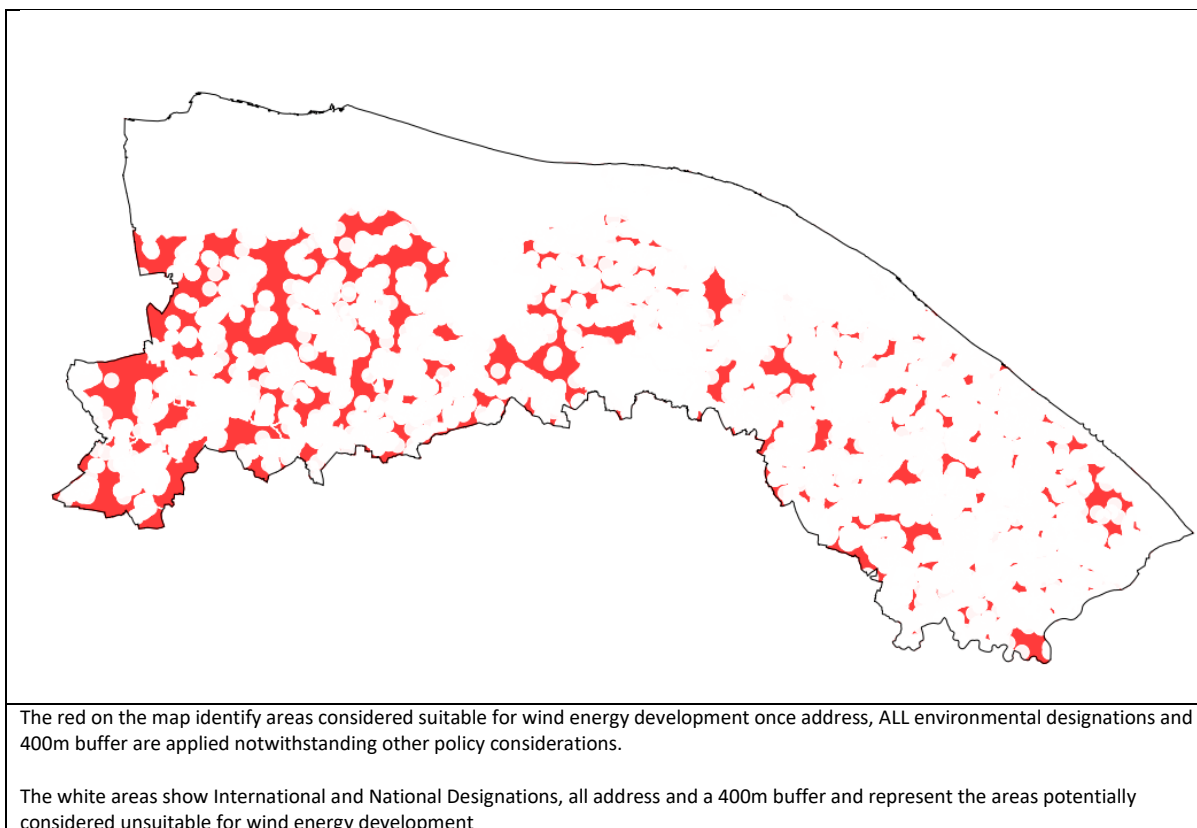
4.26 For this approach a buffer of 400m could be placed around all residential properties, as shown in figure 3. In practice a minimum distance required between a wind farm and residential properties is site specific, dependent on the proposed turbine (topple distance) and ambient background noise. A distance of 400-600m is identified as a minimum in the Renewable and Low Carbon Energy Capacity Methodology, DECC 2010¹⁷. This distance is considered to protect residents from noise, shadow flicker and visual impact associated with all scales of turbines. This is equivalent to applying a buffer of 8 times the rotor diameter, so for a large 2.5MW turbine with 50 metre blade, this would result in a buffer of around 400m. This approach was put forward in North Devon District Council Wind Energy Development Policy options, which was based on 'The Assessment and Rating of Noise from Wind Farms' (ETSU-R-97) good practice 7. This document provided a framework for the measurement of wind farm noise and gave indicative noise levels calculated to offer a reasonable degree of protection to wind farm neighbours, without placing unreasonable restrictions on wind farm development. The ETSU-R-97 document provides some discussion on minimum separation distances with regards to noise impacts (page 46) and concludes that due to the difference in emissions between different turbines, the increase in scale of turbines and wind farms, and varying topographical effects that a minimum distance of 350-400m cannot be relied upon to give adequate protection to neighbours of wind farms.

Designated Sites Buffer

- 4.27 A buffer around international and national sites could also be considered. A distance for this buffer has not been established as part of this paper as further work would be required to determine a suitable buffer distance. However it is thought establishing a suitable buffer is dependent on the different physical attributes of the landscape in each location and also dependent on the extent of any proposal and the cumulative effects. Given this it would be hard to establish and justify a consistent approach. It is considered more suitable to consider the setting of landscape designations and there on a case by case basis.
- 4.28 The map below sets out the suitable areas of the District for wind energy (in red) and where development proposals would be considered against an established Development Management policy, the adopted Landscape Character Assessment and Landscape Sensitivity Assessments for North Norfolk. The map shows a buffer of 400m around properties **and the international & national designations** as identified in Approach 2.

¹⁷ Renewable and Low Carbon Energy Capacity methodology, DECC 2010, page 32

Approach 4 – Buffers (Indicative)



***Note- for this map a 400m buffer was plotted around each international and national environmental designation including SPA, SSSI's etc and address (employment and residential) in North Norfolk and therefore the area shown has the potential to overestimate residential areas and areas landscape designations as put forward above**

Advantages	Disadvantages
Areas identified and which are broadly distributed throughout the District.	Some communities and wards would be potentially divided by identified areas which may result in objections.
A reduced rate of development around residential properties, likely to have reduced impact on residents and reduce complaints received.	Not supported by Government policy. Not likely to be accepted as a Local Plan policy(see below) Hard to justify given the potential significant differences in proposals and lack of supporting evidence
Protect areas surrounding all properties.	Only selective locations considered suitable for wind energy. – may lead to concentrations in some areas
Protect areas surrounding international and national designated sites.	Reduced contribution towards national climate change, renewable energy targets with fewer opportunities to decentralise energy supplies.
Continued development may result in the potential for perceived impacts on the general quality of life in terms of access and enjoyment	Less likely to be able to refuse applications in areas considered 'suitable' in this approach.

of the countryside, although designated sites, residential properties afforded additional protection.	
Allows future opportunities for all communities outside protected areas to develop proposals which meet identified energy need. i.e through neighbourhood planning. And or develop appropriate buffers around important local designations / assets subject to evidence	Hard to establish an appropriate buffer on smaller assets such as Heritage assets and their settings -

Government Policy

4.29 At this current point in time government policy does not include separation distances from residential properties. There have been three Private Members Bills raised in both the House of Commons and the Lords providing proposals for establishing a legal basis for a separation distance between turbines and residential properties.

- ***Wind Turbines (Minimum Distances from Residential Premises) Bill [House of Lords] 2010-12***
- ***Onshore Wind Turbines (Proximity of Habitation) Bill [House of Commons] 2010-12***
- ***Wind Turbines (Minimum Distance from Residential Premises) Bill [House of Lords] 2012-13***

4.30 With the planning guidance (PPG) stating that ***“Local planning authorities should not rule out otherwise acceptable renewable energy developments through inflexible rules on buffer zones or separation distances. Other than when dealing with set back distances for safety, distance of itself does not necessarily determine whether the impact of a proposal is unacceptable. Distance plays a part, but so does the local context including factors such as topography, the local environment and near-by land uses. This is why it is important to think about in what circumstances proposals are likely to be acceptable and plan on this basis.”***

Separation distances used across the UK

4.31 A number of Councils have sought to introduce minimum separation distances between wind turbines and residential properties into their local plans, with varying degrees of success. The table below provides a range of examples to illustrate both the range of distances selected and the ‘status’ of the approach.

Local Authority Approaches			
Cherwell District Council	800m	Informal planning guidance Recommends separation distances between turbines and settlements/dwellings, based on amenity and other issues such as landscape, noise, heritage, safety and shadow flicker.	Adopted 'without status'
Lincolnshire County Council	700m (2km if there are noise issues)	Wind Energy Position Statement: This is a set of guidelines that the County Council prepared and hoped local planning authorities would take into account in decision making. In reality they carry very little weight.	No Status
Milton Keynes Council	Sliding scale approximately 10 times height	Supplementary Planning Guidance based on noise / safety.	Quashed 'no status' ¹¹
Aberdeenshire Council	Specified minimum distances for specific turbine models, ranging from 125m to 630m.	Planning Guidance note on noise ¹² . The Council's Environmental Health section has calculated a range of minimum separation distances that will be required for a number of specified turbine models to limit noise to an acceptable level.	Planning Guidance Note

Local Authority Approaches			
Wiltshire Council	Sliding scale up to 3km	The Wiltshire Core Strategy submission document proposed a range of minimum distances that would be applied and set out the intention to prepare additional guidance on the matter. The Inspector considered the distances were unjustified in light of the evidence provided and considered they would unduly restrict the scope for larger turbines.	Inspector removed text from Plan as considered unjustified
Allerdale Council	800m	The supporting text of Policy S19 in Allerdale's Local Plan expects a minimum separation distance of 800m between wind turbines (over 25m) and residential properties. It allows for some flexibility where site specific characteristics make it appropriate to vary the threshold.	Adopted July 2014

4.32 It should be noted that research has shown that Allerdale District Council are the only council to have a distance away from residential adopted within their Local Plan, which requires 800m between turbines and properties but does allow for flexibility with the policy stating ‘*where it can be demonstrated through evidence that there is no unacceptable impact on residential amenity. Shorter distances may also be appropriate if there is support from the local community*’. The inspector stressed that taking into account the specific topographical conditions for that area that an 800m distance would not be “unreasonably excessive”.

Planning Appeals

4.33 The following table shows planning appeals across the country in relation to distances from residential properties.

Appendix 3: Wind Turbine Planning Appeals

PINS Ref	Year	Location	Distance	Details	Notes and Quotes
APP/D2510/A/1 2/2176754	2013	Lincolnshire	800m	8 turbines (115m)	'The appellants were able to show by reference to other appeal and called-in application decisions that in England, no property 800m or more from a wind farm scheme had been judged to be potentially affected by the visual presence of turbines to the extent that the living conditions of its residents would be unacceptably harmed.'
APP/P2114/A/1 0/2125561	2011	Isle of Wight	900m	3 turbines (125m)	'Given the distance to the nearest dwellings, along with the local topography, I do not consider that there are any special circumstances or factors which would apply here to indicate that both construction and operational noise from the proposed wind farm could not be adequately controlled by the conditions suggested to the Inquiry.'
APP/X2410/A/1 0/2134009	2011	Leicestershire	610 m	1 Turbine (132m)	'The noise assessment indicates that the limit could be comfortably met.'
APP/C1625/A/0 9/2116088	2010	Gloucestershire	400m	1 Turbine (70m)	'Given the distance of the site from the nearest properties, there would be no likelihood of disturbance to local residents from any sounds arising from the movement of wind through the structure'
APP/D2510/A/1 0/2121089	2010	Lincolnshire	700m	8 Turbines (2Mw)	'As to the totality of noise considerations there is no justifiable basis to conclude that this is a factor to be weighed against the project.'
APP/R1038/A/0 9/2107667 And APP/P1045/A/0 9/2108037	2010	Derbyshire	650m	5 Turbines (126m)	'Living conditions would be unacceptably harmed, to varying degrees, by noise and visual impact.'

APP/J1915/A/09 /2104406	2010	Hertfordshire	750m	3 Turbines (119m)	'I conclude on the third issue that neighbouring residents would not suffer unacceptable disturbance from noise or shadow flicker'
APP/M0933/A/0 8/2090274	2009	South Lakeland	600m	6 Turbines (120m)	'I consider that the turbines are unlikely to cause unacceptable noise at nearby dwellings.'
APP/L2630/A/08 /2084443	2008	Norfolk	700m	7 turbines (125m)	A distance of 700m from the nearest residential dwelling was found to be appropriate.
APP/B3030/A/0 8/2072487	2008	Nottinghamshire	800m	5 turbines (100m)	A distance of between 600 and 800m from the nearest residential dwelling was also found to be appropriate.
APP/X2220/A/0 8/2071880	2008	Dover	1km	5 turbines (125m)	From the nearest dwelling (360m), the Inspector found that the turbine would be 'looming', 'unpleasantly overwhelming', and 'unpleasantly overwhelming and unavoidable' impact extended to dwellings within 800m. At a settlement 1km away from the turbines, the impact too would be dominating and unavoidable.
APP/V3310/A/0 6/2031158	2008	Somerset	440m	5 turbines (120m)	'There is no clear evidence that noise from the turbines, noise related problems or shadow flicker would cause any unacceptable harm to living conditions locally, especially if controlled by appropriate conditions.'
APP/W0530/A/0 5/1190473	2006	Cambridgeshire	800m	16 turbines (100m)	Inspector considered that the impact of the turbines on a settlement 800m away would be significant. The turbines were found to completely dominate the character and appearance of the area, and the appeal was dismissed.

Source: Allerdale Local Plan (Part 1) Wind Turbine Separation Distance Topic Paper May 2013

Resource Required

- 4.34 If buffers are applied then this would need to be justified through appropriate evidence. Including where the buffer should apply and the distance of a buffer based on different size turbines. This could be done through a technical approach, best guidance or by case by case basis.
- 4.35 An update of the Landscape Character Assessment and or a Landscape Sensitivity study would be required. This would have to be undertaken externally. However to meet current Local Plan time line, this would have to be undertaken immediately
- 4.36 The approach would require criteria based policy in order to determine suitability across the rest of the District.
- 4.37 If this route was taken more accurate work would need to be undertaken to map buffers around settlements. As above there is also an option of mapping hard constraints such as roads and other utility infrastructure.

Risks / Implications

- 4.38 There are risks associated with applying buffers to environmental designations and to residential properties. It is unlikely that one distance would be appropriate for the whole District and might be ruling out otherwise suitable locations. It would also go against national guidance and be challengeable.
- 4.39 A standard approach for the whole of North Norfolk with one distance is likely to be at risk of being challenged. It might be most appropriate to determine a suitable buffer distance on a case by case basis, based on criteria based policy, however this might also be difficult to justify.
- 4.40 The national PPG states that wind turbines should not be ruled out through inflexible rules on buffer zones and separation distances.

Other buffers

- 4.41 There are other significant constraints which, in general, are likely to inhibit the development of large wind energy developments. These have not been included above as there could be either: a) some variation and uncertainty in their spatial extent or b) the possibility to develop within the area concerned but with appropriate mitigation. These are as follows:

a) Buffers around Heritage Assets

- 4.42 Buffers could also be introduced around heritage assets, this could include:

- Listed buildings
- Conservation areas
- World Heritage Sites

- Scheduled Ancient Monuments
- Registered parks and gardens

4.43 The planning guidance states: *As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of wind turbines on such assets. Depending on their scale, design and prominence a wind turbine within the setting of a heritage asset may cause substantial harm to the significance of the asset. Great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting;*

4.44 However it is considered that the impacts of heritage could be considered through a general policy and not through the identification of suitable areas in the local plan. Four main reasons 1) given the unknown scale of proposals and the local nature of impacts it would be hard to apply a consistent buffer / approach . 2) Cumulative impacts are also a considerations. 3) if the asset falls into an areas identified as suitable a community could further develop the the policy in relation to local historic impacts subject to evidence in a NP.4) considered resource intensive

b) Biodiversity and Ecology

4.45 Specifically the impact of wind energy on bird/bats sites and migration zones which might lead to priority habitats and species being excluded from suitable areas. It is considered that biodiversity assessments are best addressed at a site level through a criteria based policy requirement. There may be cases where mitigation measures may enable development to proceed in some areas. However early indications are that the Habitats Regulation Assessment of the Local Plan is likely to review migration patens in Birds and provide commentary and evidence in relation to policy formation in this area . Early indications are that this could be a consideration in areas to the west of the district.

4.46 The planning guidance states: *Evidence suggests that there is a risk of collision between moving turbine blades and birds and/or bats. Other risks including disturbance and displacement of birds and bats and the drop in air pressure close to the blades which can cause barotrauma (lung expansion) in bats, which can be fatal. Whilst these are generally a relatively low risk, in some situations, such as in close proximity to important habitats used by birds or bats, the risk is greater and the impacts on birds and bats should therefore be assessed. The map below taken from the RSPB shows a wind farm sensitivity map of North Norfolk in terms of ecological.*



c) Local topography

4.47 It is an important factor in assessing whether wind turbines and large scale solar farms could have a damaging effect on landscape and recognise that the impact can be as great in predominately flat landscapes as in hilly or mountainous areas;

D) Cumulative Impacts

4.48 Cumulative impacts require particular attention, especially the increasing impact that wind turbines and large scale solar farms can have on landscape and local amenity as the number of turbines and solar arrays in an area increases.

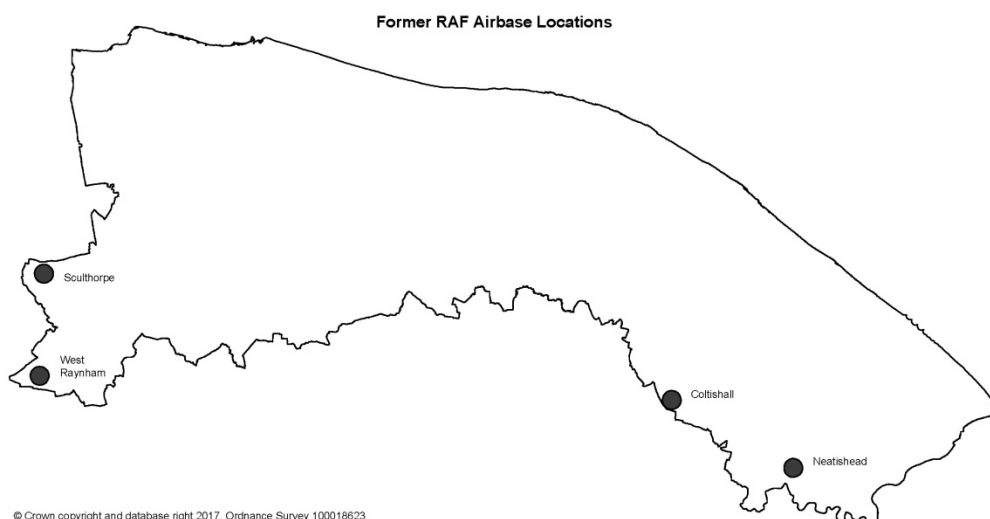
Approach Option 5 – To identify vacant airfields as areas within the District suitable for Wind Energy

4.49 Other considerations include Aviation and exclusion areas such as:

- Civilian airports
- Aerodromes
- Military airfields and airbases
- MOD training areas
- Explosive safeguard areas
- MOD exclusion areas
- Radar sites

4.50 An alternative or additional approach would be to identify vacant airfields as areas where wind energy development could be considered acceptable in principle. Vacant airfields tend to be remote with lower populations and limited number of dwellings. The areas also tend to be less affected by national and international designations than other areas across the District. It could therefore be considered that wind energy could have a lower impact on landscape, townscape and residential amenity than other approaches listed. The proposals that fall within this area would then be considered against Development Management Policies and the adopted Landscape Character Assessment. To date however these have been used to support the provision of renewable energy through solar power.

4.51 The map below shows the former RAF airfields in the district ,



Advantages	Disadvantages
A site would be clearly identified to where wind energy development would be suitable, making it easier for the decision maker dealing with an application.	Continued development in one location may result in the potential for perceived impacts on the general quality of life in terms of access and enjoyment of the area within that location.
A reduction rate of development around residential properties, likely to have reduced impact on residents and reduce complaints received.	Some communities and wards would be potentially divided by identified area which may result in objections.
Likely to meet Governments objective to define areas suitable for wind turbine development.	Only selective locations considered suitable for wind energy maybe challenged as overly restrictive - Would require increased evidence to justify allocation of individual sites and non-suitability of other areas.
Protect areas surrounding international and national designated sites.	Reduced contribution towards national climate change, renewable energy targets with fewer opportunities to decentralise energy supplies.
Would protect the majority of the District including Heritage assets and their settings.	Less likely to be able to refuse applications in areas considered 'suitable' in this approach.
	Significant solar power already in existence on these sites.
	May not be deliverable due to infrastructure requirements

Example

4.52 The Local Plan Submission for Hull City Council has identified Employment/Port Areas, Farmland, Open Space greater than 2.5m and education sites greater than 1 hectare as areas considered to be potentially suitable for wind turbines. Areas that are excluded from this are: Historic parks, local nature reserves, cemeteries, green corridors and Conservation Areas.

Risk and Resource Required

- 4.53 This approach would provide consistency when identifying areas for wind energy development, focussing all development to airfields and thereby taking the impact away from the rest of the District. However airfields may be constrained and further evidence would be required to determine the suitability of the airfields for wind energy; considering the infrastructure available, the impact on the surrounding areas and the feelings of the local communities. This approach would also require an update of the Landscape Character Assessment and the DM policy.
- 4.54 The approach may not be viable given the remoteness from the electricity network for some of the former airbase.

5 Conclusions

- 5.1 Given the revised national policy context, producing a new Local Plan which does not consider the requirements for on shore wind generation **potentially introduces a level of risk to plan making**. A failure to address the requirements could introduce a potential soundness issue. It could also leave the council at risk of planning applications for Wind Turbines for the entirety of the District and at risk at appeal. It is therefore important that the approach chosen and the alternative considered are complete and fully justified. Any approach that seeks to unnecessarily rule out the delivery of future wind energy development in the District could be considered restrictive.
- 5.2 However with this in mind, it is important that the need for renewable or low carbon energy does not automatically override environmental protections and hard constraints. And the approaches including these environmental protections (all but approach 1) therefore should be considered highly.
- 5.3 An early indication from this paper would suggest that developing a policy approach based around the identification of important landscape designations and a criteria based policy to aid in the determination of applications on a case by case basis outside sensitive areas could be explored further. Such an approach could lead to the identification of potentially suitable areas a consistent approach across the whole District whilst giving added protection to national and international Landscaped designated areas. Any DM policy would have to ensure that the setting of such landscape is considered - Buffer zones are not considered to be justified.
- 5.4 The Landscape Character Assessment would need to be reviewed, as it is generally considered not able to provide sufficient evidence across the whole of the district to distinguish between potential landscape impacts and different scales of turbine development and inform what size of development is considered suitable in each landscape area.
- 5.5 It is clear that whatever approach is chosen that a criteria based policy will also be required. This policy will then be used to assess future planning application and also be used to consider the wind energy sites put forward through the Call for Sites. Further work will go into developing this considering the points and concerns raised following the discussion of this paper.
- 5.6 The following considerations should be made within the criteria based policy. The policy and alternatives will all be subject to a Sustainability Appraisal (SA):
- Landscape and visual impact, including the setting of Landscape designations and conservation areas
 - Townscape and Historic features
 - Residential amenity
 - Nature , ecology and biodiversity considerations
 - Local interest/ people – potential
 - Archaeology,

- Air traffic
- Turbine size thresholds(micro generation)
- Cumulative impacts

Suggested that an approach would be to:

- request that all individual proposals for development within any defined area would be required to undertake compulsory pre application community consultation prior to submission of a formal planning application
- Supported by appropriately detailed landscape visual impact assessment which builds on the adopted Landscape Character Assessment.

Note adopting the approach of identifying areas means that the will not generally be able to grant consent for any wind energy development proposals that fall outside of areas identified areas as suitable for wind energy development. This would include any community led and rural diversification schemes as well as those proposed on a speculative basis, including micro generation. Community led schemes and other proposals for wind energy development which fall outside of the Local Plan's identified areas could only be enabled where communities choose to identify their locations within additional areas suitable for wind energy development in a Neighbourhood Plan.

Appendix

Further Work and Evidence

Wind Energy Supplementary Planning Document (Examples are Cornwall, Rugby, Cumbria and Bath & North East Somerset)

Landscape Sensitivity Analysis (Bath) –

This document provides an assessment of the landscape sensitivity to wind energy development in Bath and forms part of the evidence base to inform policies within the Local Plan. The document uses the Local Character Assessment as a basis to consider the landscape and visual impact of wind energy on each LCA character area. The document also considers the impact of wind turbines on designations such as the ANOB and Conservation Area. The document provides maps and tables showing the impact of different sized wind turbines on the LCA character areas.

This type of document might need to be produced to inform policies and to ensure that there is evidence to back up any sites proposed as suitable for wind energy in North Norfolk.

Strategic Environmental Assessment

A Strategic Environmental Assessment would consider all of the significant environmental impacts of wind energy developments. Further work would be required to establish if a SEA is required.

Direct Links from Document

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North Devon and Torridge Council (December 2015) 'North Devon and Torridge Local Plan: Wind Energy Development - Policy Options' Available from: http://consult.torridge.gov.uk/portal/planning/localplan/wind_energy_options

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North Norfolk District Council (June 2009) 'Landscape Character Assessment SPD ' Available from: <https://www.north-norfolk.gov.uk/tasks/planning-policy/view-core-strategy/>

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Other Links

Department of Energy and Climate Change (January 2013), 'Guidance: Onshore wind: part of the UK's energy mix'. Available from: <https://www.gov.uk/onshore-wind-part-of-the-uks-energy-mix>

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Department of Energy and Climate Change (July 2011), 'Overarching National Policy Statement for Energy (EN-1)'. Available from: <https://www.gov.uk/onshore-wind-part-of-the-uks-energy-mix>

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Infrastructure' Available from: <http://www.cumbria.gov.uk/planning-environment/countryside/countryside-landscape/civi/civi.asp>

Appendix 1: Renewable and low-carbon capacity assessment methodology

No	Parameter	Description	Assessment requirement	Where to source data from
Opportunity assessment - natural and technically accessible resource				
1	Wind speed	Average annual wind speed in a 1sq km grid - indicating wind availability (m/s)	Apply a lower limit of 5m/s measured at 45m above ground level (agl) – i.e. consider all areas with wind speed at and above 5m/s at 45m agl .	UK Wind speed database (NOABLE) ⁸
2	Wind turbine size	Typical capacity of turbines	Apply standard average turbine size of 2.5 MW installed capacity (dimensions:, tip height: 135m, rotor diameter:100m, hub height: 85m)	no data required
3	Wind turbine density	Maximum installed capacity in a unit of area (MW/km ²)	Apply distance between turbines of 5 rotor diameters or a benchmark of 9MW/km ² – whichever results in the greater capacity deployment figure.	no data required
Constraints assessment - physically accessible and practically viable resource				
4	Non-accessible areas	Areas where wind turbines cannot be installed due to physical environment constraints	Exclude from the assessment the following areas (footprint): <ul style="list-style-type: none"> Roads (A, B and motorways) Railways Inland waters (rivers, canals, lakes and reservoirs) Built-up areas (settlement polygons) Airports MOD training sites 	GIS layers: OS Strategi@ ² - includes data on roads, railways, inland waters and built-up areas (cities, towns, villages – as polygons) MOD
5	Exclusion areas	Areas where wind developments are unlikely to be permitted.	Exclude from the assessment the following areas: <ul style="list-style-type: none"> Ancient semi-natural woodland Sites of historic Interest (but no buffer to be applied) Buffer around roads and rail lines: tip height + 10% (=150m) Buffer around all built-up areas (settlement polygons – as defined in OS Strategi@): 600m Buffer around all airports and airfields: 5Km. Civil Air Traffic Control 	GIS layers: OS Strategi@ Multi Agency 'MAGIC' database www.magic.gov.uk MOD

No	Parameter	Description	Assessment requirement	Where to source data from
			constraints	
			<ul style="list-style-type: none"> • MOD training areas • Explosive safeguarded areas, danger areas near ranges 	
6	Designated Landscapes and Nature Conservation Areas	Potential for renewable energy within these areas	For internationally and nationally recognised landscape and nature conservation designations, apply the 5-step approach specified at the end of Chapter 3 in order to assess the overall type and level of renewable energy infrastructure that could be accommodated within these designations.	Multi Agency 'MAGIC' database www.magic.gov.uk
7	MOD constraints	Additional exclusion areas relating to MOD sites and radar issues	Consult with the MOD for specific regional advice on any additional constraints that may need to be applied including: <ul style="list-style-type: none"> • MOD sites (other operational and unused land) • Air defence and air traffic control radar – request MOD to indicate what amount (ha, km² or %) of the accessible resource should be further excluded from the assessment due to radar constraints. • Other safeguarded areas • Danger areas and MOD bye laws 	MOD Aviation safeguarding maps http://www.restats.org.uk/safe-guarding_maps.htm

Source: SQW Energy and Land Use Consultants

Appendix 1: Renewable and low-carbon capacity assessment methodology

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Source: SQW Energy and Land Use Consultants

Appendix 2: Landscape Sensitivity Assessment 2018

Table 2: Sensitivity ratings for typical scales of renewable energy development by airfield

LCT	Large scale wind		Medium scale wind		Small scale wind		Solar PV		Onshore cable routes		Industrial type dev		Reservoir	
	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB	OUT AONB	IN AONB
Coastal Plain	H	H	MH	H	M	H	M	H	LM	MH	M	H	M	MH
Coastal Shelf	H	H	H	H	MH	H	MH	H	MH	MH	MH	H	MH	MH
Drained Coastal Marshes		H		H		H		H		H		H		H
Low Plains Farmland	H		MH		M		M		M		M		M	
Open Coastal Marshes		H		H		H		H		H		H		H
Rolling Heath & Arable		H		H		H		H		MH		H		MH
Rolling Open Farmland	H	H	MH	H	M	H	MH	H	M	MH	M	H	M	MH
River Valleys	H	H	H	H	MH	H	H	H	MH	H	MH	H	MH	H
Settled Farmland	H		MH		M		M		M		M		M	
Tributary Farmland	H	H	MH	H	M	H	MH	H	M	MH	M	H	M	MH
Wooded Ridge	H	H	H	H	MH	H	MH	H	MH	H	MH	H	MH	H

Airfield (LCT)	Large scale wind	Medium scale wind	Small scale wind	Solar PV	Onshore cable routes	Industrial type dev	Reservoir
Coltishall (LPF)	MH	MH	M	LM	LM	LM	LM
Langham (TF)	H	H	MH	M	M	MH	M
Little Snoring (TF)	MH	M	LM	M	LM	M	M
North Creeke (ROF)	H	H	MH	LM	LM	M	M
Sculthorpe (ROF)	MH	M	LM	L	L	L	L
West Raynham (ROF)	MH	M	LM	L	L	L	LM