RE: PROPOSED WIND FARM AT DEN BROOK

CLOSING SUBMISSIONS
ON BEHALF OF
DEN BROOK JUDICIAL REVIEW GROUP

INTRODUCTION

1. The evidence before this Inquiry has demonstrated that this wind farm proposal is not the right way of providing renewable energy. The proposed development would adversely affect the quality of life in the rural community around it in a hugely significant way. It is the wrong proposal in the wrong location.

2. For reasons I shall explain, the proposed wind farm is contrary to the Development Plan, it is contrary to national planning policy in PPS22, PPG7, PPG9, PPG15 and PPG24. The benefits that it might bring in terms of renewable energy are very small. The planning balance lies firmly against the grant of planning permission.

THE PROPER APPROACH TO THE DECISION

Section 38(6) of the 2004 Act

3. It is of course a requirement of section 70(2) of the 1990 Act and section 38(6) of the 2004 Act that the approach to your decision must be:

   a) To assess whether the proposed development accords with the Development Plan;

   b) If it does not accord with the Development Plan then planning permission should be refused unless there are material considerations indicating that permission should be granted which outweigh the conflict with the Plan;

   c) If it does accord with the Development Plan then planning permission should be granted unless there are material considerations indicating that permission should be refused which outweigh the support of the Plan.

4. Mr. Stewart in his evidence to the Inquiry bizarrely appeared to suggest that, as a result of PPS22 and paragraph 20 of PPS1:

   a) the statutory process required by the 2004 Act did not have to be applied or is tempered in some way;

b) the weight to be given to conflicts with the development plan is to be reduced; and

c) the weight to be given to conflict with other national planning policy is to be reduced.

5. That is fundamentally incorrect. There is nothing in PPS22 or PPS1 that suggests that the 2004 Act approach is somehow disapplied in the case of proposed wind farm developments. Indeed, even if it did the publication of policy by central Government cannot change an approach to the determination of an application for planning permission that is prescribed by Parliament in primary legislation.

6. In any event, there is nothing in PPS22 or PPS1 that even remotely indicates that when considering wind farm development, where a breach of the Development Plan or a conflict with other national planning policy guidance is found to exist it should be ignored or even given any less weight in the planning balance than would be the case for any other form of development. Mr. Stewart's zeal to secure a planning permission for his client has led him to an interpretation of policy that is irrational, absurd and must not be followed. His approach is entirely misconceived and has no basis in either law or policy. You must give no weight whatsoever to Mr. Stewart's conclusion that planning permission should be granted.

7. If you find that the proposed development breaches Development Plan policy then the development will not accord with the Plan. Such breaches must be given full weight in the planning balance when considered against any other material considerations.

The Precautionary Principle

8. In opening I also identified that the precautionary principle should be applied. European Union environmental policy is based upon the application of the precautionary principle[1]. The principle is enshrined with the Directives on Environmental Impact Assessment.

9. PPS1 explains that sustainable development is the core principle underpinning planning[2]. The precautionary principle is fundamental to the concept of sustainable development within the English planning system. It is identified with the UK Sustainable Development Strategy as one of the guiding principles adopted by the UK Government to achieve sustainable development[3]. As a result it is National Planning Policy that, where outcomes

[1] See EU Treaty Article 174
[2] CD15 paragraph 3
[3] Securing the Future: Delivering UK Sustainable Development Strategy Page 16 Section 4 box out – using Science Responsibly.

are uncertain in environmental impact appraisal, a precautionary approach may be necessary[4].

10. It is submitted that as a result of the above, where there are uncertainties in the environmental impact appraisal of the appeal scheme, the precautionary principle requires that assumptions must be adopted which most favour the protection of the environment. Any environmental policy decision taken within the UK including a development control decision that does not adopt this approach will not accord with UK Government policy or with planning policy.

11. This is of particular importance when considering the uncertainties arising in the assessment of the impact of the proposed WF upon ecology and in terms of noise. I shall return to this point when I deal with each of these topics below.

Previous Decisions

12. I should also deal with two further matters before moving on to examine whether the proposed development accords with the Development Plan and national planning policy. Firstly, the status and weight to be given to the previous Inspector's decision in relation to the Den Brook wind farm proposal and secondly, the status of the High Court Judgment of Mitting J in the judicial review proceedings.

13. It is perfectly plain that the previous Inspector's decision can be given no weight in this Inquiry. That decision was quashed by an Order of the Court of Appeal on the basis that it was not lawfully reached. As such that decision is of no legal effect. As a matter of law it is as if that decision was never taken which is why the appeal has been remitted to you for your decision. You are not bound by the earlier decision in any way.

14. Besides, you are not in a position to be able to give the judgments reached in that earlier decision any weight because they were based upon evidence provided at and cross-examination conducted at that Inquiry that you did not see or hear.

15. In relation to the assessment of the impact of the proposed WF on the landscape and visual amenity Mr. Goodrum accepted in XX to me that he had adopted a different methodology than has been used by RES at the previous inquiry. He accepted that the LVIA assessment methodology had changed and that the material presented previously did not meet the newer standards. The newer methodology presented at this Inquiry is based upon relevant character assessments that were not before the previous Inquiry. Mr. Goodrum accepted that the judgments to be made now have to be made in the light

[4] PPS1 paragraph 24 (vi)

of those character assessments[5]. Mr. Goodrum included additional views tothose considered previously. He identified additional impacts to those identified at the previous Inquiry.

16. In relation to the assessment of noise an entirely different appraisal was produced compared to that at the previous inquiry based upon a different methodology, examining different receptor locations and using different assumptions[6].

17. In these circumstances any submission to the effect that you should feel circumscribed to come to the same conclusions as the previous Inspector in order to ensure consistency of decision making is patent nonsense. You must judge whether to grant or refuse planning permission for the proposed WF on the basis of the evidence before you. What you must do is determine the application as if the previous Inquiry had never happened and form your own judgments on the issues based upon the evidence presented to you. To give the previous Inspector's decision any weight whatsoever would give rise to an error of law.

18. Mitting J's judgment was quashed by the Court of Appeal. It too is of no legal affect. It is not even of persuasive effect. The views expressed in that judgment are not binding upon you or anyone else whatsoever. To give weight to the views expressed in that judgment would also give rise to an error of law.

RENEWABLE ENERGY POLICY IN THE DEVELOPMENT PLAN

19. The SP and the LP both contain renewable energy development policies. Policy CO12 of the SP states that provision should be made for renewable energy developments in the context of Devon's 2010 target for renewable sources:

"subject to the consideration of their impact upon the qualities and special features of the landscape and upon the conditions of those living or working nearby."

20. Firstly, it must be noted that Policy CO12 does not state that a failure to meet the 2010 target would mean that support for renewable energy from the SP would be strengthened. Secondly, the support of the policy is provisional. It is subject to consideration of the impact of the proposed development upon the landscape and upon amenity. It follows that if the proposed WF causes harm to the qualities and special features of the landscape or to amenity generally, it will not have the support of Policy CO12.

[5] XX to Wadsley
[6] confirmed XX McKenzie

21. The Local Plan explains[7]:

"The Government's aims with regard to renewable energy are to ensure that society's needs for energy are satisfied in a way which is consistent with protecting the local and global environment; to ensure that any environmental damage or loss of amenity caused by energy supply and ancillary activities is minimised…"[8]. I return to the theme of minimising environmental effects much later but mention it now so that it can borne in mind throughout these submissions.

22. Policy PS10 of the LP provides[9]:

"Renewable energy developments will be supported provided that they have no significant adverse impact upon the qualities and special features of the natural landscape or townscape upon nature conservation or upon the conditions of those living and working nearby."

23. Again, this policy is supportive of the proposed WF but only if no significant adverse impacts upon landscape, nature conservation or amenity arise. If you were to conclude that such impacts do arise then the proposed WF would be contrary to this policy.

24. This Development Plan approach is entirely consistent with that set out in PPS22 Key principles 1(i) and 1(viii) which require the impacts of renewable energy to be addressed satisfactorily and to be minimised[10].

25. It can be concluded that if the proposed wind farm gives rise to significant impacts upon the environment then it will not have the support of the Development Plan unless it can be shown that these impacts cannot be further minimised.

LANDSCAPE AND VISUAL IMPACT

26. PPS7 sets out a number of objectives for rural areas. Perhaps the most apposite for the consideration of landscape and visual impacts is the objective that the quality of life in rural areas should be raised[11]. This in turn involves the promotion of:

- good quality, sustainable development that respects and, where possible, enhances local distinctiveness and the intrinsic qualities of the countryside; and
- continued protection of the open countryside for the benefit of all, with the highest level of protection for our most valued landscapes and environmental resources.

[7] CD14 p149 para 8.67
[8] CD14 p149 para 8.67
[9] CD14 p152
[10] This is addressed in more detail below.
[11] PPS7 Objectives (i)

27. PPS7 goes on to promulgate policies designed to protect the countryside by requiring development to preserve or enhance the environment[12]. Particularly important is the guidance at paragraph 1(iv):

> "New building development in the open countryside away from existing settlements, or outside areas allocated for development in development plans, should be strictly controlled; the Government's overall aim is to protect the countryside for the sake of its intrinsic character and beauty, the diversity of its landscapes, heritage and wildlife, the wealth of its natural resources and so it may be enjoyed by all."

28. It is fundamental when considering the impact of development in the countryside to have regard to the aim of protecting the countryside for its own sake. It is submitted that you should ask yourself, when considering the potential landscape and visual impact sof the proposed WF, whether that aim of protection is achieved.

29. PPS7 also provides criteria against which a development proposed for a countryside location should be assessed:

> "All development in rural areas should be well designed and inclusive, in keeping and scale with its location, and sensitive to the character of the countryside and local distinctiveness."[13]

30. You need to ask yourself then whether the WF is in keeping with its location, whether it is in scale with its location, whether it is sensitive to the character of the countryside around it and whether it is sensitive to local distinctiveness.

31. PPS7 also confirms that National Parks have the highest status of protection in relation to landscape and scenic beauty. It provides that the conservation of the natural beauty of the landscape and countryside should therefore be given great weight in planning policies and development control decisions in these areas[14]. It follows that if any harm to the Dartmoor National Park is identified whatsoever that must be given great weight in the planning balance against the grant of planning permission.

32. Unsurprisingly, the themes of PPS7 are reflected in RPG10 which explains that a key objective of regional planning policy is to safeguard and enhance the quality and diversity of the natural, cultural and built environment across the region giving the highest level of protection to designated areas and features of national and international importance[15]. Policy EN1 indicates that in relation to the landscape the aim is to conserve and enhance

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[12] PPS7 para 1(i) second bulltet, 1(ii), 15
[13] PPS7 para 1(vi)
[14] PPS7 para 21
[15] CD9 p45 para 4.3

local character and to protect the character of the countryside and the environmental features that contribute towards that character[16]. Again, the aim is to preserve or enhance existing character i.e. not to harm existing character. This approach is maintained in the draft RSS[17].

33. The Devon Structure Plan also emphasises the conservation of Devon's special landscape character as an objective and that the protection of the rural environment is one of the main elements of the SP[18]. Policy CO1 explains that the distinctive qualities and features of Devon's landscape character zones should be "sustained **and** enhanced"[19]. This means that simply doing no harm is insufficient. For the purposes of the SP development must enhance the countryside. Policy CO1 goes on to state that development proposals should be "informed by and be sympathetic to [Devon's] landscape character and quality".

34. Policy CO2 of the SP seeks to protect Dartmoor National Park. It provides that particular care must be taken to:

    "ensure that no development is permitted outside Dartmoor…National Park which would damage [its] natural beauty, character and special qualities or other prejudice the achievement of National Park purposes."

35. Those purposes are statutorily defined and include "to conserve and enhance the natural beauty, wildlife and cultural heritage of the designated areas".

36. Similar policy objectives are promulgated in SP Policies CO3 and CO4 in respect of Areas of Outstanding Natural Beauty and Areas of Great Landscape Value[20]. As I have already identified the renewable energy development policy within the SP (Policy CO12) indicates that support for such development is contingent upon there being no harmful impact upon the qualities and special features of the landscape[21].

37. The LP follows these policy themes also. The LP makes clear that the quality and character of the countryside is to be protect and where possible enhanced[22]. It explains that[23]:

    "Development in the countryside should benefit economic activity and maintain or enhance the environment. The character of the landscape in West Devon is unique and it

[16] CD9 p51
[17] CD10 p144 policy ENV1, ENV2, and ENV3
[18] CD8 p51 para 4.6
[19] CD8 p52
[20] CD8 p56 Policy CO3 and CO4
[21] CD8 p67 Policy CO12
[22] CD14 p20 para 2.23
[2323] CD14 p20 para 2.23

is important that the balance between economic/community benefit and enhancing the environment is dealt with sympathetically. The primary objective in the open countryside will be to conserve its character, landscape wildlife, agricultural, recreation and natural resource value."

38. Policy NE10 provides that development within the countryside will not be permitted unless[24]:

    i) "it provides an overriding economic or community benefit **and cannot be reasonably located within an existing settlement**;" and

    ii) "it does not cause **unacceptable harm** to the distinctive landscape character of the areas and importance natural and made feature that contribute to that character **including views.**"

39. Thus, in order to comply with Policy NE10 RES has to establish that the capacity for renewable energy proposed for the WF site could not be provided by another form of renewable energy generation located within an existing settlement. In considering this, it should be noted that it is not a question of whether a WF could be accommodated but whether any form of renewable energy could be accommodated. RES's contention that alternatives are irrelevant is plainly incorrect on the face of this policy. The ability of providing renewable energy capacity with an existing settlement has not even been assessed by RES. It has not established that the first proviso of Policy NE10 has been complied with. Thus, even before we get to considerations of landscape character and impact on views, there is conflict with Policy NE10.

40. In relation to Dartmoor National Park, Policy NE7 provides that development close to the edge of the Dartmoor National Park will not be permitted where the proposal will have an unacceptable adverse effect on the setting of the Park's landscape, on viewpoints within the Park or on the wider environmental qualities of the Park[25]. It would be possible to have a debate as to whether the proposed WF is "close to the edge" of Dartmoor. However such a debate is sterile given the clear intent of SP Policy CO2 to ensure that no development outside of the park give rise to harm within it. Policy NE7 has to be read in that context. If the proposed WF gives rise to harm within Dartmoor National Park then it will be contrary to Policy NE7 of the LP.

[2424] CD14 p25
[25] CD14 p21

41. It is submitted that from these policies, in relation to landscape impact and visual impact in order to gain the support of PPS7, the RSS, the SP and the LP, RES has to demonstrate that the proposed wind farm would:

    (1) Enhance the countryside in order to obtain the support of SP Policy CO1;

    (2) preserve or enhanced the particular and distinctive quality of the landscape is i.e. not harm the existing character of the landscape;

    (3) not cause harm to views; and

    (4) not give rise to harm to any features for which the Dartmoor National Park was designated or to its statutory purposes i.e. not cause harm to its natural beauty.

42. RES has completely failed to address any of the relevant policy tests in its evidence. RES faces a fundamental difficulty in that neither Mr. Stewart nor Mr. Goodrum actually appraised the impact of the proposed WF against the policy tests whatsoever. You will recall that Mr. Stewart confirmed in XX to me that he had not carried out any appraisal of the impact of the proposed development upon landscape character or of visual impact himself. He relied upon Mr. Goodrum's evidence for that. Mr. Stewart's conclusions were therefore dependent upon Mr Goodrum applying the correct policy tests. However, in XX to me Mr. Goodrum confirmed that in his assessment, whilst he identified the significance of impacts he made no qualitative judgment as to whether they were adverse or not. In other words, where Mr. Goodrum identified an impact he did not make any judgement as to whether that impact was harmful or not. Thus, remarkably RES produced no evidence that assessed the potential impact of the WF against the relevant policies that protect landscape character, designated landscapes and visual amenity.

43. Mr. Goodrum did accept in XX to me however that where he identified an impact of whatever significance this could not be seen to be an enhancement. As a matter of simple logic this must mean that his impacts cannot be seen to be positive impacts. If they are not positive then they must be negative. Thus, where Mr. Goodrum identifies even a slight impact he is actually identifying that the proposed WF would cause harm because even a slight impact does not conserve or enhance landscape character or views.

Impact on Landscape Character

44. In order to determine the likely impact of a development proposal upon landscape character, there are two relevant considerations:

    a) the sensitivity of the landscape i.e. the capacity of the landscape to accommodate change; and

    b) the magnitude of the change that the proposed development would bring about.

45. It is by bring these two elements together that judgments can be made as to the significance of that impact. To assist you in analysing the difference between the RES and DBJRG in relation to these factors Ms. Reynolds and Mr Goodrum helpfully produced a set of tables entitled landscape character effects.

46. I have explained above, it was established in XX and as a matter of logic that where Mr. Goodrum identifies in his evidence a significant impact of whatever degree he is in fact identifying that the WF would cause harm contrary to the policies I have referred to above. From these Tables is can be seen that even of Mr. Goodrum's appraisal the proposed WF would be contrary to policy due to impacts as follows:

    a) Upon the Den Brook and Upper Yeo Valley;

    b) Upon the Area between the Rivers Taw and Okements

    c) The Inland Undulating Uplands LCA

    d) Open Inland Plateau LCA

    e) Taw Valley

    f) Mid Devon Farming Belt LCA

47. Thus, even if the evidence presented on behalf of RES is accepted at face value there are significant conflicts with PPS7, RPG10, the SP and the LP. However, Mr. Goodrum's evidence should not be accepted because it substantially understates the significance of the impact upon landscape character.

48. Ms. Reynolds and Mr. Holland both disagreed with Mr. Goodrum in key respects with regard to his assessment of the sensitivity of the landscape and the magnitude of change that he identified.

49. It may be suggested on behalf of RES that Ms. Reynolds failed to carry out a systematic or thorough landscape appraisal in some way. She totally refuted such a suggestion in XX. She is a highly experienced and respected expert landscape architect. Any suggestion that she does not know how to conduct and did not conduct a thorough appraisal would be ludicrous. It is what she does day after day for a living. She explained to you the thorough way in which she had gone about her assessment. There is no basis to give her assessment any other than significant weight.

Sensitivity of the Landscape

50. The starting point for any appraisal of landscape character impact is to examine the relevant landscape character assessments. In this case these are:

    (1) DCC Landscape Appraisal of 2002;

    (2) Mid-Devon Landscape Character Assessment 2007;

    (3) West Devon landscape character assessment;

51. Mr. Goodrum identified a generally lower sensitivity in the landscape than either Ms. Reynolds or Mr. Holland i.e. he expressed the view that the landscape has a greater ability to accommodate change.

52. Of course, in the context of examining a proposed WF with nine turbines that are 120m tall, it is crucial to consider the vertical scale of the landscape character areas. It is submitted that there is nothing of a similar vertical scale within the existing landscape to these massive structures that are proposed. The valleys are about half the height of the turbines. The turbines would exceed the height of the hills around them significantly[26]. The turbines are many times the height of referable buildings and trees.

53. It is also relevant to consider movement within the existing landscape. This is limited to vehicular traffic usual seen at distance and is at ground level. There is no movement within the existing landscape at a level even remotely equivalent to that of the turbine blades proposed.

54. It is submitted that Mr. Goodrum's appraisal failed to give cognisance to these two crucial factors. As a result he understates the sensitivity of the landscape to accommodate change and over states its capacity to absorb change. He is isolated in his opinion. In particular:

[26] Reynolds p54 para 6.14.

1) The key characteristics identified for all the relevant LCZs in the DCC Landscape character assessment[27], LCAs in the West Devon LCA and Mid Devon LCA do not identify any features that even begin to approach the same vertical scale as the proposed turbines nor do they identify any key features that involve movement comparable to that of the spinning turbine blades at height.

2) The LUC Report makes clear that the proposed WF site lies within an area where large clusters of or the larger scale turbines are inappropriate due to landform scale[28] and with an area which is of moderate to high sensitivity[29].

3) The key characteristics of the landscape include views to and including the Dartmoor igneous mass which forms a dark and moody backdrop. These views are not interrupted by any vertical element on a comparable scale to the proposed turbines;

55. It is submitted that Ms. Reynolds evidence should be accepted when she categorised the landscape sensitivity as follows:

"The scale of the local landscape can be described and has been described as small to medium, and this is relative to the landscape in the south-west generally. Compared to the landscape of the south and east of England for example, the scale may be described as just small scale. The rolling topography, the interplay of vegetation and field banks, the historic landscape pattern and the scale of the fields produce a rich texture. In lower parts there is an intimacy…"[30]

56. The classifications of sensitivity that Ms. Reynolds identifies in the agreed Table are to be preferred and the assessment of significance should be made by reference to a higher sensitivity to change than that adopted by Mr. Goodrum.

57. It may be argued that you should give weight to the findings on the previous Inspector with regard to the ability of the landscape to accommodate change. In particular, RES may seek to rely upon his findings regarding the suitability of the proposed wind farm site compared to sites in Devon more generally. I have already explained above why no weight can be given to these comments. If RES wished to establish the point made by the Inspector then they would have needed to adduce evidence that compared this site

[27] see Reynolds p23-27.
[28] Reynolds p34 to 36
[29] Reynolds p 50.
[30] Reynolds p54 para 6.13.

with other sites in Devon more generally. They have not and the point has not been established in evidence before you.

Magnitude of Change

58. In terms of the magnitude of change, again there were differences of view between Mr. Goodrum on the one hand and Ms Reynolds and Mr. Holland on the other. As can be seen from the Tables, Mr. Goodrum consistently finds a lower magnitude of change than Ms. Reynolds.

59. The LCA Guidance[31] explains that if the key characteristics which are identified within a LCA were to change or be lost there would be significant consequences for the current character of the landscape[32]. It follows that when one is considering the magnitude of change one is considering the extent to which the key characteristics identified for each LCA would be lost or changed.

60. The proposed wind farm would obviously add significant new features to the landscape. In that sense it is difficult to see that key characteristics might be lost by the introduction of the turbines. It is plain however that the proposed WF would result in change to the key characteristics of the LCAs over a wide area.

61. In particular, it was Mr. Goodrum's evidence that the proposed wind farm would result in the introduction of a new atypical feature which not characteristic of any part of the English landscape[33]. Thus, to the extent that the windfarm is visible i.e within the ZVI (Goodrum Fig 1), it would introduce change in the form a new key characteristic that is atypical and uncharacteristic of the existing countryside. This means that the proposed WF will inevitably result in a wide ranging degree of change which is of significance over a vast area of the countryside. Mr. Goodrum accepted that the proposed WF would not reinforce traditional character nor would it enhance the existing character of the landscape[34].

62. Even Mr. Goodrum identified that within 1 km of the nearest turbine the WF would be the most dominant characteristic in the near vicinity[35]. He accepted that it would become one of the key characteristics within 4 km from the nearest turbine[36]. He accepts in his evidence significant effect up to 10 km away[37]. For reasons explained in the previous

[31] CD47
[32] See Goodrum p36
[33] XX to Taylor and Goodrum para 6.2.19 and 6.2.12
[34] XX to Taylor
[35] Goodrum p13 and para 3.2.9.
[36] Goodrum p36 para 6.2.17 and XX to Taylor
[37] Goodrum p36 para 6.2.17.

paragraph, this is an obvious understatement of the magnitude of change that would be suffered but it demonstrates that even Mr. Goodrum identified a huge area over which there would be significant and necessarily adverse effects. The reality is that, where these turbines are visible within the landscape, because they are alien, atypical and uncharacteristic features of the countryside they will cause harm to landscape character.

63. I have very deliberately not taken time going through an analysis of each LCA as I know that Mr. Wadsley will be examining this in more detail shortly. The DBJRG supports the Council's submissions with regard to the significance of the impact of the wind farm upon landscape character. The only sensible conclusion is that the proposed WF will necessarily harm the character of the countryside for miles and miles around. It is totally contrary to PPS7, RPG10, the SP and the LP as a result.

Impact upon Views

64. RES has sought to argue that visual impact appraisal should be confined to considering whether the impact upon a view would be so great as to impinge upon residential amenity. That is certainly part of what you must consider, however it is not the whole picture. As I have explained above the Development Plan requires you consider whether there would be a significant impact upon views[38]. That policy test is not confined to simply looking at residential amenity.

65. I will not spend time in closing going through each viewpoint that was examined at the Inquiry. You have the visual material to assist you, you have the evidence and you have been to the viewpoints. Ultimately whether or not the proposed development will have significant visual impacts is a judgment for you to make.

66. The DBJRG submits however that the introduction of nine turbines 120m in height would create a large group of urban features of considerable dominance within the views up to 5km distant. The turbines would become a significant part of the panorama as viewed from Dartmoor and the fringe landscape at 5-7km distance. The movement of the turbines will draw the viewer's eye[39] particularly as it is asynchronous and there are many viewpoints from which turbines would be seen against one another. The proposed turbines would create vast and unacceptable changes to the skyline and to the inter-visibility between the viewer and Dartmoor from many viewpoints, which are currently one of the distinctive features of the landscape in this part of Devon[40].

[38] CD14 Policy NE10.
[39] Accepted by Goodrum XX to Taylor
[40] Reynolds p54 para 6.16

67. Part of your consideration of visual impact involves the assessment of visual impact upon residential properties. The exercise undertaken by RES in relation to residential properties is fundamentally flawed because it confined itself to too narrow an area. The error is driven by a misinterpretation of policy. RES has restricted itself to examining whether the proposed wind farm would be over dominant or over bearing in relation to residential properties. As I have explained above the Development Plan does not confine itself in this way.

68. This error has meant that RES confined its consideration to properties within 3 km. Even here RES failed to identify the properties with the care and precision that can be reasonably be expected of a responsible developer when considering the impact of a proposal upon people's homes. But then again, if care had been taken a greater level of impact would inevitably have been identified and so that might explain why RES was not highly motivated to get the assessment right. The RES assessment was hugely sloppy. It failed to identify a vast number of properties. Residents identified 300 to 350 more properties within 3 km than had been identified in the ES and SEI[41]. There are many many more beyond this distance.

69. In fact to confine the consideration of impact upon residential properties to 3 km is clearly incorrect. In relation to landscape character changes Mr Goodrum did not rule out significant impacts at up to 10 km away. There is a curious inconsistency here. RES would have us accept on its evidence that the landscape can be significantly affected up to 10 km away but residential properties cannot. DBJRG submits that this is nonsense. Indeed, in relation to landscape character Mr. Goodrum explained that the turbines would become one of the key characteristics of the landscape with 4 km. If an atypical and uncharacteristic feature becomes one of the key characteristics of the landscape around a residential property, it is difficult indeed to understand how it can be sensibly concluded that this will not have an adverse impact upon views from that property.

70. The reality is that for whatever reason RES has failed to asses the likely impact upon residential properties properly. Residential occupiers for miles around would suffer unacceptable harm to views as a result of the proposed WF. In this respect it is again contrary to Development Plan Policy.

Impact Upon Dartmoor National Park

71. As I have explained above Dartmoor National Park has the highest status of protection in relation to landscape and scenic beauty. Any impacts upon it are to be given great weight

[41] Reynolds p59.

against the grant of planning permission in the planning balance. Again, the impact upon the NP is a matter for you to judge.

72. DBJRG submits as follows. Whilst the WF is not proposed to be located within the boundary of the NP it would be about only some 5.3 km from its boundary. The landscape and visual appraisals presented to you have identified many locations from which there would be direct views of the turbines within the wider northern panorama of the NP and Dartmoor. The turbines would be noticeable, distinctive and distracting when viewed from many panoramas within the NP. They would create a large scale of an urban form of development atypical and uncharacteristic of the English countryside that would intrude significantly into some of the finest views from Dartmoor of North Devon.

73. Far from conserving and enhancing the Dartmoor National Park, the proposed WF would positively harm it. This is contrary to the statutory purposes of designation and is contrary to national, regional and Development Policy. This policy conflict must be given great weight in the planning balance.

74. There will also be significant impacts upon the AGLV for reasons explained by Ms. Reynolds. This too results in a breach of Development Plan Policy.

75. It is also right, when considering the weight to attach to such wide ranging breaches of national, regional and Development Plan policy as I have identified, to remember the value that people attach to the rural landscape in this part of the world. You have heard from many many residents who have spoken of their concern for their local landscape; of their fears for their livelihoods that depend in large part upon tourism related to the desire of visitors to experience the tranquil and rural nature of the landscape. The residents of the Den Brook Valley do not want their landscape marred in any way. They do not want it changed into an industrial landscape. They want to be able to continue to enjoy the countryside in the way it has been for countless generations. They want their children and grandchildren to grow up in this valley in an unspoiled and natural landscape[42].

Conclusion

76. Even on RES's own evidence, it is plain that the proposed WF would introduce alien, urbanising and uncharacteristic features into the landscape. The proposed WF would have significant adverse impacts upon the character of the landscape over a very wide area. It would give rise to significant adverse effects upon views and upon the residential amenity of many hundreds of properties. It would have a significant adverse impact upon

[42] E.g. Coles proof

the qualities of the Dartmoor National Park. As such it is obviously contrary to PPS7, PPS22, RPG10 and the Development Plan. These breaches of policy are significant and must be given a very great amount of weight in the planning balance against the grant of planning permission.

HERITAGE ASSETS

77. It is also apparent that the proposed WF would have a significant and adverse effect upon a large number of heritage assets.

78. I start with listed buildings. PPG15 provides:

> "It is fundamental to the Government's policies for environmental stewardship that there should be effective protection for all aspects of the historic environment. The physical survivals of our past are to be valued and protected for their own sake, as a central part of our cultural heritage and our sense of national identity. They are an irreplaceable record which contributes, through formal education and in many other ways, to our understanding of both the present and the past. Their presence adds to the quality of our lives, by enhancing the familiar and cherished local scene and sustaining the sense of local distinctiveness which is so important an aspect of the character and appearance of our towns, villages and countryside. The historic environment is also of immense importance for leisure and recreation."[43]

79. The TCP(Listed Buildings and Conservation Areas) Act 1990 requires a planning decision maker to consider the desirability of preserving the setting of the building[44]. A development which does not preserve the setting of a listed building will therefore be contrary to national planning policy.

80. The development plan policies all adopt the test of ensuring that the setting of listed buildings should be conserved or enhanced i.e. not harmed[45]. Mr. Stewart confirmed that an absence of harm was the appropriate policy test that had to be attained in XX. He confirmed in XX that draft PPS15 does not alter this policy approach.

81. The appraisal of impact upon listed buildings can be found in the ES and the SEI 2006[46]. Mr Stewart confirmed that the appraisal set out therein was conducted by him. He of course has no formal qualifications in assessing the impact of development proposals upon heritage assets. He explained the approach the he adopted to assessing impact upon setting in his proof of evidence and in XX. He confirmed to me that the approach he had followed was to ask whether the turbine site might fall within the setting of each listed building he had considered. If the WF fell within that setting then an assessment of

[43] PPG15 para 1.1
[44] section 66
[45] SP CD8 p62 Policy CO7, LP CD14 p31 Policy BE3.
[46] ES p 7-297 and following

the potential effects on the setting was carried out. If the WF fell outside of the setting then no assessment was carried out[47].

82. This revealed a fundamental misunderstanding of policy. PPG15 gives guidance as to the nature of the setting[48]:

> "The setting is often an essential part of the building's character, especially if a garden or grounds have been laid out to complement its design or function. Also, the economic viability as well as the character of historic buildings may suffer and they can be robbed of much of their interest, and of the contribution they make to townscape or the countryside, if they become isolated from their surroundings, eg by new traffic routes, car parks, or other development."

83. It also advises that identifying the setting this[49]:

> "should not be interpreted too narrowly: the setting of a building may be limited to obviously ancillary land, but may often include land some distance from it. Even where a building has no ancillary land - for example in a crowded urban street - the setting may encompass a number of other properties. The setting of individual listed buildings very often owes its character to the harmony produced by a particular grouping of buildings (not necessarily all of great individual merit) and to the quality of the spaces created between them. Such areas require careful appraisal when proposals for development are under consideration, even if the redevelopment would only replace a building which is neither itself listed nor immediately adjacent to a listed building. Where a listed building forms an important visual element in a street, it would probably be right to regard any development in the street as being within the setting of the building. **A proposed high or bulky building might also affect the setting of a listed building some distance away**, or alter views of a historic skyline." (emphasis added)

84. In other words it is plain from PPG15 that development outside of the setting of a listed building may nevertheless adversely affect the setting of the building. Mr. Stewart has therefore adopted an assessment process that is at odds with PPG15 and with the requirements of the 1990 Act. He was required to assess the potential impact of the proposed WF on the setting of all listed buildings whether the WF lay within the setting of that listed building or not. The assessment that he has produced is therefore not reliable, is not robust and is not compliant with policy.

85. In any event, the methodology employed in the ES and SEI is flawed. It relies upon combining a sensitivity with a magnitude of effect to derive a significance level. This not how to judge whether a development would harm the setting of a listed building. To assess harm to the setting is simply a matter of appraising whether or not the proposed development would bring about a harmful change from within the setting. Where there is any adverse effect within the setting then there is policy conflict.

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[47] see Stewart p68 para 9.4.3
[48] PPG15 para 2.16.
[49] PPG15 para 2.17

86. The SEI 2006 identifies impact upon a number of listed buildings of varying degree but in error Mr Stewart did not identify any of these as being harmed. It has to be remembered that in order to show policy compliance the setting must be preserved or enhanced. It follows that where any degree of harm is identified even if that is slight harm a conflict with policy will arise. It follows that, if that appropriate policy test is adopted, the SEI reveals that the proposed development would harm the following listed buildings[50]:

    a) the Barton (Grade II*)

    b) Westacott Barton (Grade II*)

    c) Former Church of St Martin Brodnymett (Grade II)

    d) Crooke Farmhouse (Grade II)

    e) Barn at Westacott Farm (Grade II)

    f) Nichols Nymet House Hotel (Grade II)

    g) Higher Nichols Nymet (Grade II)

    h) South Hill Farm House (Grade II)

    i) Barn and Linhay (Grade II)

    j) Heath Farmhouse

    k) Stockhay (Grade II)

87. The setting of all of these properties will be harmed to some degree on RES's own appraisal. That is a considerable list of Listed Buildings that are adversely affected.

88. Even then this appraisal cannot be right. If the visual impact tables are examined in the SEI 2006 it will be seen that it includes a number of properties that are included in the listed buildings table[51]. In the residential property table the impacts identified however are significantly greater. For example, Nichols Nymet House Hotel is identified for visual impact appraisal purposes as receiving a significant impact. Whereas its setting is said previously not to be significantly affected. There are many similar inconsistencies. It is plain that the RES appraisal of the potential impact upon the setting of listed buildings is flawed, internally inconsistent, and downright shoddy. The real impact will be much more significant.

[50] See SEI 2006 p18 Table – slight impact = harm
[51] compare pages 20-21 with the table on p 18

89. Mr. Goodrum's evidence indicates that within 4km of the nearest turbine the WF would become one of the key characteristics of the landscape. This means that it will necessarily intrude as an atypical and uncharacteristic feature into the setting of every listed building with 4km that lies within the ZVI. There are significant numbers of listed buildings within Bow, North Tawton and Spreyton which have simply been ignored by RES in its assessment. DBJRG submits that these properties must not be ignored.

90. It is submitted that there would be wide ranging impacts upon a very large number of listed buildings, at the very least those I have identified above. This renders the proposed WF contrary to PPS15 and the policies in the Development Plan that seek to preserve and enhance the setting of these buildings. This is a factor that must be given significant weight.

91. Similarly to listed buildings, the setting of conservation areas is also protected by policy. The setting of conservation areas is to be preserved and enhanced[52]. PPG15 explains[53]:

> "The desirability of preserving or enhancing the [conservation] area should also, in the Secretary of State's view, be a material consideration in the planning authority's handling of development proposals which are outside the conservation area but would affect its setting, or views into or out of the area."

92. Again, this makes it plain that development proposals which are outside the setting of CA but which would affect that setting must be assessed. Again, Mr. Stewart's flawed approach to the assessment of impact upon setting means that RES has failed to appraise the impact upon the setting of conservation areas properly. I have already set out Mr. Goodrum's evidence that within 4 km the WF would introduce a new key characteristic to landscape character. Further, there are a number of CAs within the ZVI from within which these atypical and uncharacteristic turbines would be visible[54]. This inevitably means that there will be a harmful impact upon the setting of the following conservation areas:

    a) Zeal Monachorum

    b) Bow

    c) Sampford Courtenay

    d) North Tawton

    e) South Tawton

[52] see also SP CD8 p62 Policy CO7
[53] PPG15 para 4.14
[54] see ES Figure 7.2 – although note that CAs are not marked on plan.

f) South Zeal

93. The proposed WF would harm the setting of these CAs. As such it is contrary to PPS15 and the relevant policies in the Development Plan.

94. There is also a very significant impact upon the setting of the Scheduled Ancient Monument at Bow. These are very important remains as Ms Griffiths identified. This SAM lies within the 1 km area within which Mr Goodrum identified as the area within which the WF would become the dominant key characteristic. It then beggars belief to see within the RES assessment that the impact upon the setting of this SAM is said to be insignificant. These two elements of the RES case are totally inconsistent. The only conclusion that can be sensibly drawn is that there will be a very great and very significant impact upon the setting of the SAM[55]. English Heritage continues to object to the development in this respect. The significant adverse impact upon the setting of the SAM is in direct conflict with national and Development Plan policy[56].

95. The conflict with national and Development Plan policy in relation to heritage assets is very significant indeed. It must be given very significant weight in the planning balance to be struck.

ECOLOGY

96. PPS9 provides that local planning authorities should adhere to a number of key principles to ensure that the potential impacts of planning decisions on biodiversity and geological conservation are fully considered when determining a planning application[57]. These key principles include that:

> "The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. Where granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that, before planning permission is granted, adequate mitigation measures are put in place. Where a planning decision would result in significant harm to biodiversity and geological interests which cannot be prevented or adequately mitigated against, appropriate compensation measures should be sought. If that significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused."

97. It follows that if you find that the proposed WF would cause significant harm to a nature conservation interest, you would have to be satisfied that the proposed development

[55] Indeed there are adverse effects identified in the ES upon the setting of two others – roman fort at Newland Mill and roman for south of Yeoford – SEI 2006 p17 bottom of page
[56] SP CD8 p62 Policy CO8
[57] PPS9 para 1

could not reasonably be located on an alternative sites that would result in less or no harm. RES has adduced no such evidence. It follows that if you conclude that the proposed development would cause significant harm to a nature conservation interest, you would have to conclude that the development was in conflict with PPS9 because there has been no alternatives appraisal.

98. Furthe,r at paragraph 16 of PPS9 Biodiversity Action Plan (BAP) species are protected from "adverse" effects of development. If you were to conclude that the proposed development would have an adverse effect upon a BAP species then again you would have to conclude that it conflicted with PPS9.

99. The relevant Development Plan policies can be found in:

a) Policy CO10 of the Devon Structure Plan[58] – which provides that development likely to have an adverse effect on a specially protected species should only be permitted where appropriate measures are taken to secure its protection; and

b) Policies NE4 and NE5[59] of the Local Plan.

100. Policy NE4 provides that the Council will take account of the need to sustain the bio-diversity and earth science resource of the natural environment and to maintain its diversity and distinctiveness.

101. Policy PS10 of the LP provides that there should be no significant adverse impact on nature conservation[60].

102. It follows from the above that in terms of the Development Plan the issue is whether the development would have an adverse effect on protected or BAP species. This is in line with PPS9.

103. DBJRG contends that having regard to the proper application of the precautionary principle there will be an adverse impact upon bat species as a result of the proposed development that is not reduced through mitigation.

104. RES has only conducted 3 surveys for Bats. Two of these surveys were conducted more than five years ago, the most recent four and a half years ago. Surveys that are so out of date cannot form a robust basis upon which to draw conclusions about bat populations resorting to the Den Brook Area or how development to be carried out now would impact upon these populations. As Dr. Holloway candidly admitted in XX bat

[58] CD8 p64
[59] CD14 p18-19
[60] CD14 p152

populations can go down as well as up. The conclusions drawn in his evidence then were based upon information that was woefully out of date.

105. In addition the surveys that were undertaken did not comply with the surveying methodology published by Dr. Holloway's own practice[61]. Mr. Buxton explained in XX that Dr. Holloway's firm's survey guidance was wide recognised as definitive. It states in terms that a minimum of three complete nights of data are collected for each turbine location on at least three occasions through April to September[62]. Even on sub-optimal sites three survey visits are recommended[63]. This however is a site with a moderate to high level of bat activity[64]. Thus a higher level of survey than the minimum could be expected.

106. In fact, in total, RES collected a measly 4½ hours of data. This too is woefully inadequate. Dr. Holloway struggle manfully to try to defend the position but the reality is that the assessment process utilised was inadequate. You Sir are not in a position to conclude on the basis of 4 ½ hours of data collected some 4 ½ to 5 years ago that significant harm would not be cause to bats. The bats in question are of course protected species and BAP species. You must adopt a precautionary approach that assumes that harm would be caused.

107. Dr. Holloway explained that whether turbines pose a real threat to bat populations is unknown at present[65]. He indicated that bat mortality due to collision and barotrauma has to be assumed as part of a precautionary approach[66]. In XX he accepted that one would have to adopt an assumption that bats would die as a result of the proposed WF given the presence of Noctule Bats which are known to fly at the height of the swept area of the proposed turbines..

108. Dr. Holloway himself identified that:

"Overall impact magnitude is negative on a receptor of district importance. Impact magnitude is negative and impact significance moderate negative." [67]

109. Thus, Dr. Holloway himself concludes that the proposed development would have an adverse effect upon bats which are protected and BAP species. Even after mitigation Dr Holloway found a minor negative impact[68]. However, that latter judgment is flawed. The mitigation proposed consists of the provision of additional roosts with the objective of

[61] see Buxton App 2.
[62] Buxton App 2 p25 RH column bottom
[63] Buxton App 2 p26 RH colum middle.
[64] Holloway p22 para 5.4.21
[65] Holloway p21 para 5.4.19
[66] Holloway p21 para 5.4.19
[67] Holloway p22 para 5.4.27

drawing bats away from their current roosts. However, the survey work included no assessment of the location of roosts at present[69]. If you do not know where the roosts are located at present you cannot form a judgment as to the likely effectiveness of the proposed mitigation at drawing bats away from the WF site[70]. Thus, the effectiveness of the proposed mitigation cannot be judged. Accordingly, it is not possible to conclude on a robust basis that the proposed mitigation would have any effect in reducing the significance of the impact that would otherwise arise. Indeed, the new roosts might actually have the effect of drawing bats to the WF site depending upon the location of the existing roosts[71].

110. In the circumstances, given the uncertainty arising from the age and inadequacy of the bat surveys, a precautionary approach must be adopted to the assessment of impact. On this basis, a significant impact upon bats which are protected and BAP species cannot be ruled out. The proposed WF is therefore contrary to PPS9, Policy CO10 of the SP and Policies NE4 and 5 and PS10 of the Local Plan.

NOISE

111. PPS22 explains that "local planning authorities should ensure that renewable energy developments have been located and designed in such a way to minimise increases in ambient noise levels…The 1997 report by ETSU for the Department of Trade and Industry should be used to assess and rate noise from wind energy development"[72].

112. PPG24 makes it perfectly clear that noise from a development should not cause an unacceptable level of disturbance[73].

113. So far as Development Plan policy is concerned, Policy BE18 of the Local Plan provides that development should not give rise to an unreasonable increase in noise.

114. PPS22 requires ETSU-R-97 ("ETSU") to be used to assess and rate noise from windfarms[74]. The Development Plan policies referred to above must be interpreted as requiring assessment on this basis also in order for them to be consistent with PPS22. It follows that if the assessment of noise impact does not accord with ETSU and the approach advocated in that document is not utilised there is an immediate and significant conflict with national and Development Plan policy.

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[68] Holloway p22 para 5.4.27
[69] confirmed in XX by Holloway
[70] accepted Holloway in XX
[71] XX Holloway
[72] PPS22 para 22.
[73] PPG24 para 10.
[74] PPS22 para 22.

115. There is a fundamental difference of approach between the RES and DBJRG to the noise impact assessment. It stems from the fact that ETSU does not prescribe a method for predicting the noise propagation from the turbines to receptor properties. Because it does not do this, ETSU is silent as to how the effects of wind shear should be addressed. ETSU was of course developed at a time when the importance of the relationship between noise propagation from WFs and windshear was not so well understood as it is now. ETSU was also developed at a time when turbines were of a considerably smaller scale that those proposed in this case.

116. Supposedly in order to deal with windshear, RES have adopted an assessment approach that fails to accord with ETSU. There can be no doubt that RES and the entire WF development community would be thrilled to have a decision from you Sir that endorsed their assessment approach. That is because it is an approach that is far less precautionary than an approach that is compliant with ETSU. It provides WF developers with a greater margin for turbine noise than would be provided by the assessment method that Mr. Stigwood identifies in order to take account of windshear. However, RES have been so keen to promulgate an assessment methodology that provides them with wriggle room they have thrown the baby out with the bath water. RES's assessment methodology totally fails to accord with ETSU. However, the Government has confirmed very recently that noise from windfarms must be rated and assessed in accordance with ETSU[75].

117. Dr. McKenzie would try to have you believe that the methodology that he has employed results from consensus as it comes from an article published in the IoA Bulletin[76]. He even described it as "guidance" in his evidence. It is nothing of the kind. It is an expression of the views of the authors of the Report of which he is one. It is not policy and it is not a document that government requires the use of in assessing and rating the noise impacts of WFs. Importantly, it does not contend anywhere in the paper that the methodology accords with ETSU. It is not peer reviewed. It contains no assessment of the reliability of the method proposed. It does not assess the uncertainties involved in the method it proposes. The fact that the methodology utilised by Dr. McKenzie is contained in this article does not mean that it is an appropriate methodology or that it is one that accords with ETSU.

118. It is submitted that Mr. Stigwood described in very clear terms a methodology that complies with ETSU and takes account of wind shear. It has four steps:

[75] PPS22 and CD170 recent statement of Lord Hunt and the PM Office response to petition.
[76] CD100

(1) The correlation of windspeed measured at 10m at the windfarm site with background noise levels measured at receptors;

(2) An identification of appropriate noise criteria to protect amenity based upon that assessment;

(3) The prediction of noise from the turbines taking account of site and time specific windshear based upon measurements from a tall anemometer through the provision of a range of predictive curves related to 10m windspeed;

(4) Comparison of the range of predicted noise from the turbines against the noise criteria identified.

(1) Correlation of windspeed at 10m with Background Noise Levels

119. Dr. Mckenzie on behalf of RES maintained that Mr. Stigwoods approach was not that approach required by ETSU. He maintained that ETSU required the correlation of wind speed at hub height calculated to a 10m height at the windfarm site with background noise levels measured at the receptor.

120. It is submitted that Dr. Mckenzie's approach is plainly at odds with ETSU.

121. A central principle of ETSU is that with increasing wind the background noise levels at receptor sites will increase and that this background level increases more with windspeed than the noise from turbines. Accordingly at higher windspeeds at the receptor site the background noise will mask turbine noise[77].

122. Dr Mckenzie's approach that requires simply correlation of hub height wind speed to background noise level means that the actual windspeed at 10m on the wind farm site is irrelevant and does not need to be measured. As Dr Barlow confirmed in her proof the calculated windspeed derived by Dr Mckenzie "is not representative of the true 10m windspeed". His approach does not involve measuring windspeed at 10m on site in any way[78]. Such measurements have not been taken. Thus if ETSU indicates that the windspeed at 10m should be measured at the WF site that would show that Dr McKenzie's interpretation must be incorrect. That is exactly what ETSU does indicate.

123. Page 84 of ETSU states in terms that:

"The limits proposed are set in relation to the existing background noise level at wind speeds up to 12 m/s **measured on the wind farm site at 10m elevation.** It is

[77] Mckenzie Proof p10 para 4.7.
[78] XX McKenzie

therefore necessary that the background noise measurements should be correlated with wind speed **measurements** performed at the proposed site…"

124. The wording could not be clearer. The first sentence states in terms that the limits are to be set by reference to wind speeds actually measured at the wind farm site at 10m elevation. Dr Mckenzie did not do this. In the second sentence the "wind speed measurements" which are to be correlated are plainly those referred to in the first sentence i.e. those measured on the wind farm site at 10m elevation. Dr McKenzie did not do this.

125. Again there is clear reference to correlating wind speed measured at 10m on site with the background noise level measurements at page 87 of ETSU:

"if **measurements have been gathered of wind speed at 10 metres height**, the background noise levels measurements may be correlated with this measurement height data and any noise conditions based upon this wind speed measurement height."

126. There are many more references in ETSU to the requirement to measure wind speed at 10m in height[79]. Indeed, the "Supplementary Guidance Notes" section of ETSU in the section relating to wind speed measurements prior to construction of the wind farm states that wind speed measurements "should preferably be made using instruments mounted at 10m height"[80]. ETSU specifically prefers wind speed measurement to be undertaken at 10m at the windfarm site. Why on earth would it express a preference to actual measurement at 10m at the WF site if such measurements were an irrelevance to the assessment process intended by ETSU. This preference and all of these reference are entirely inconsistent with Dr. McKenzie's interpretation. They demonstrated that his assessment methodology does not accord with ETSU.

127. Dr. Mckenzie explained in XinC that on the basis of his interpretation actually standardisation to 10m was totally unnecessary. He tried to explain away the references to measurement at 10m height by arguing that this was only included in ETSU for convenience as this fitted standard industry practice for measurement of noise emissions from turbines. Here again, however, the language used in ETSU indicates this cannot be correct. ETSU explains that the measurement of wind speed data at 10m was a "potential **additional** benefit"[81] because this is the reference height used by the IEA. For Dr. McKenzie however the only reason for standardisation was to obtain this benefit. The use of the word "additional" must means that the benefit must be additional to something. He was unable to identify what it was additional to in XX. From the context it is obviously

[79] CD61 ETSU pp 85, 86, 95, 100
[80] CD61 ETSU p100

additional to the measurement of wind speed at 10 metres height referred to in the previous sentence. The reason for utilising 10 metre height is plainly because that is the height at which measured wind speed on the wind farm site is to be correlated with background noise levels at the receptors. The additional benefit is that this is the height used by the IEA. Again, the DBJRG approach is consistent with ETSU but Dr McKenzie's approach is not.

128. Dr McKenzie's alternative reason for reference to 10m measurements in ETSU was poor drafting. How convenient that when a document does not say what you wish it did you blame the draftsman. The alternative view of course is that it is not poor drafting that is to blame; it is that Dr. McKenzie's approach is inconsistent with ETSU.

129. A central plank of Dr. McKenzie's case was that ETSU could not mean what Mr. Stigwood contends because he said there is no direct relationship between windspeed on the windfarm site at 10m and windspeed at the receptor. However, ETSU specifically identifies a direct relationship between wind progressing across the ground from the site to the receptor. It explained that there is a "good correlation of background noise level with site wind speed" because a "gust of wind progressing **across the ground** at 5 m/s will cover a distance of 300 metres in a minute. Therefore, separation distances between a windfarm and a dwelling of 1200 metres….will create a time lag of 4 minutes." It is plain from the context of that point that the windspeed being considered was whether wind travelling "across the ground"[82] i.e. at low level not at hub height would arrive at the receptor location within the relevant timeframe. The "good correlation" referred to in the previous sentence must therefore be one between wind speed at low level on the wind farm site and background noise at the receptor. Thus, ETSU in terms disagrees with Dr. McKenzie because it finds that there is a direct relationship between wind speed on site and wind speed at the receptor. This section of ETSU is totally inconsistent with Dr. Mckenzie's interpretation.

130. If Dr. Mckenzie's approach were correct ETSU would not examine whether wind progressing across the ground would arrive at the receptor site within the relevant time frame. It would examine instead whether wind travelling at hub height would arrive at the receptor. There is no such examination within ETSU. This again demonstrates that Dr. Mckenzie's approach is not supported by an examination of ETSU.

131. It was put to Mr. Stigwood in XX that there was no relationship between wind speed at 10m on site and background noise level because there might be wind directional effects and/or changes in wind speed due to altitude that would remove any such

[81] CD61 ETSU p87 third para

relationship. However Dr. McKenzie disavowed himself of the wind directional effects point in XX. As to the point regarding altitude, given that hub height is higher than 10m, the point put in XX to Mr. Stigwood would seem to apply with more force to Dr. McKenzie's methodology rather than Mr. Stigwood's. It was somewhat of an own goal. If increasing the height of the wind speed measurement location removes correlation[83] then the correlation is more adversely affected by using hub height wind speed data than data measured at 10m. In any event, as Mr. Stigwood explained in XX, ETSU recognises the altitude issue and says that it should be addressed where necessary on a site by site basis. ETSU expressly identifies that in the case of valley situations site specific examination of the relationship between wind speed on the wind farm site and at the receptor may be necessary[84]. There is nothing in Dr Mckenzie's points here that demonstrates that ETSU supports his interpretation.

132. A further point in ETSU that demonstrates that Dr. Mckenzie's interpretation cannot be right relates to the way in which it addresses correction to 10m where wind speed has in fact been measured a different height. ETSU explains that correction to 10m should be performed using the procedure described under the heading "wind shear" in the glossary[85]. The glossary contains the procedure. This requires that a single windspeed measurement is put into a formula to derive the windspeed at 10m[86]. The procedure within ETSU for standardising does not involve taking the windspeed measured to a hub height and then standardising[87]. It involves a single calculation from the measured height to 10m. This approach is totally inconsistent with Dr. Mckenzie's interpretation. If correlation between hub height and background noise levels were what was intended this procedure would require the measurement to be calculated to hub height and then corrected to 10m.

133. Dr. Mckenzie in XX tried to argue that on page 86 of ETSU where it refers to correction to 10m it did not prescribe a methodology for doing so. That is plainly incorrect. It shows how desperate Dr. McKenzie was to find anything within ETSU to support his approach that he was prepared to make such a ludicrous suggestion. The words in ETSU on the preceding page make it perfectly plain that the correction methodology to be used is that set out in the glossary.

134. In relation to his interpretation however, Dr, Mckenzie was unable in XX to point to:

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[82] CD 61 ETSU page 56 bottom to p 57
[83] as suggested by Mckenzie during XX
[84] CD 61 ETSU page 48 at the top.
[85] CD61 p85 bottom.
[86] See CD61 p120 and XX McKenzie.
[87] Confirmed by McKenzie in XX.

a) A single reference in ETSU that referred to the need to measure or calculate wind speed at hub height;

b) A single reference in ETSU that referred to the existence of a relationship between wind speed at hub height on the wind farm site and background noise level;

c) Any reference what so ever that stated that wind speed at measured or corrected to hub height was to be correlated with the background noise levels.

135. In short Dr. Mckenzie was unable to point to any words within ETSU whatsoever that supported his contention that his methodology accorded with ETSU. His approach and the methodology he has employed to assess impact do not accord with ETSU. By contrast the DBJRG has been very careful to identify numerous references that show that ETSU supports the approach that it advocates. When examining the submissions on behalf of RES we ask you to look very carefully to see if they contain any reference to passages within ETSU that support the methodology adopted by Dr. McKenzie. There will be none.

136. It may be submitted by RES that all of this makes no difference in any event. This submission is not supported by the evidence of Dr. McKenzie as I shall explain below. You will recall the cross examination of Dr. Hoare where it was put to her that if measured wind speed data were used the relationship between the turbine curve and the background noise data plots would remain the same but everything would shift to the left a bit. The question may not have been intended to obfuscate, I know not, however, the question that was put was not put on a fair basis having regard to the need to account for wind shear in the turbine predictions.

137. The reality is that all of the above is indeed significant. If the ETSU approach of measuring at 10m on the wind farm site is adopted it changes the relationship between the various curves on the graphs. Mr. Stigwood and Dr Hoare explained that it means that the background noise measurements that are used to draw the line of best fit shift to the left on the graphs.

138. This in turn changes the identification of the appropriate assessment criteria because in part these depend upon where on the graphs the background noise data is plotted.

139. There is also however a change in the relationship with the curves showing the noise effects of turbine noise because the effects of windshear have to be taken into account in a different way to that adopted by dr. McKenzie. If the background noise levels are correlated to 10m wind speed measured at the WF site those measurements do not have

to take account of wind shear in any way[88]. It follows that wind shear must be taken into account in the predictive methodology for the propagation of turbine noise instead. Dr. Mckenzie indicated that this was all too difficult to do[89]. He is wrong.

140. As Mr. Stigwood explained in his proof and in his XinC, wind shear can be taken into account in the assessment process by producing a set of predicted turbine noise level curves which relates to the different levels of wind shear that can be measured on site. The impact of the proposed wind farm can then be examined against the range of wind shear conditions that have been measured. Indeed, as Dr Barlow confirmed it is perfectly possible to identify the degree of wind shear and how often each degree of wind shear is likely to be experienced if the relevant data are collected and examined on site by the wind farm developer. Such an approach allows the uncertainties associated with wind shear to be taken into account in the assessment process when forming judgments as to the likelihood of and the degree of the potential impact of a wind arm development. I return to deal with the issue of uncertainty and wind shear later.

141. In XX Dr. McKenzie accepted that it was possible to assess on this basis. He queried how it could be used for compliance testing. However, it is plain that a condition could be imposed by the decision maker based upon a particular curve founded upon a level of wind shear that the decision maker considers would adequately protect amenity having regard to the uncertainties. It is a perfectly workable approach. It is one that is consistent with ETSU.

142. If Mr. Stigwood's approach is adopted it results in significant changes in the relationship between the noise limit line on the graph and the turbine noise prediction as can be seen from his examples for Lower Itton, Ham farm and Coxmoor[90]. If applied to the data in the present case it moves the predicted turbine noise much closer to/above the noise limits. By contrast the approach adopted by Dr. McKenzie provides a greater margin in terms of that relationship so it is small wonder that his approach is preferred by RES. It is however not a precautionary approach.

143. The precautionary approach which must be adopted is that explained by Mr. Stigwood. Mr. Stigwood's approach accords entirely with ETSU and caters appropriately for wind shear. It is the approach that is appropriate to assess the noise impact from wind farms.

144. Dr. McKenzies approach of correlating hub height wind speed to background noise levels has no support from within ETSU. His whole noise assessment is based upon a

[88] Confirmed by McKenzie in XX
[89] McKenzie Proof p15 para 5.10.

fundamental misinterpretation of ETSU. The noise assessment presented on behalf of RES is therefore flawed because it does not accord with ETSU. PPS22 requires noise to be assessed in accordance with ETSU. This has not been done. The impact of the proposed development has therefore not been assessed on a proper basis or on a basis that is consistent with the requirements of PPS22 and Development Plan Policy.

145. This is reason enough of itself to refuse planning permission in this case. Planning permission cannot be granted because an ETSU compliant assessment has not been undertaken. As a result conditions cannot be imposed that would protect residential amenity on a basis that is consistent with ETSU.

146. If however you do not agree, I must address you on some other aspects of the assessment that RES has presented. Even if the RES approach to assessment is adopted it demonstrates that there will be significant impacts upon residential amenity as a result of noise from the turbines. All the more so once proper account is taken of uncertainty on the assessment process.

Noise Criteria

147. DBJRG submits that the day time lower limit value adopted by RES is inappropriate. ETSU recognises that a person should be able to enjoy their garden or patio at their home by being able to fall asleep in it. If that were used as a threshold, a limit of 33 dBA LA90 would be adopted but ETSU considered that this would place a material constraint on the ability to find wind farm sites[91]. In order to allow wind farm development it therefore set a range of 35-40 dBA[92]. It is very important to recognise that even adopting 35 dBA LA90 as a noise limit already involves the adoption of a threshold that is above a level of 33 dBA LA90 which would protect amenity: the use of 35 dBA already includes 2 dB of impact upon residents in the name of wind farm generation.

148. For a level of 37.5 dBA to be adopted as suggested by RES therefore requires local residents to potentially accept a further 2.5 dBA i.e. 4.5dBA of impact above the threshold at which adverse effects upon amenity would actually be experienced. This further addition again is to be justified in the name of allowing the "benefits" of wind generated energy. You will recall that the basic approach of ETSU is not to allow anything of 5 dBA above background adopting a dose response level from BS4142[93]. The adoption of 37.5 dBA therefore already imposes almost this burden over the threshold that masks the level at which there would actually be an onset of amenity effects (4.5 dBA vs 5 dBA).

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[90] Stigwood proof p 32-37
[91] CD61 ETSU p62 second para below table
[92] CD 61 ETSU p 63 second para following bullets
[93] CD 61 ETSU p60

To ask a rural community to bear any additional impact over and above 35 dBA must therefore be fully justified by reference to the factors set out in ETSU[94].

149. It was established with Dr. McKenzie that there is no such justification before you. No appraisal of the number of dwellings likely to be affected, no examination of the effect of different noise limits on the number of kWh generation and no examination of the duration of exposure. It is clear that 37.5 dBA was chosen because it is simply a mathematical mid point between 35 and 40 dBA without any justification whatsoever. It is plain that the LPA should not have agreed to it given the lack of justification. The fact that it was adopted by the previous Inspector is an irrelevance because it was not challenged at the previous Inquiry. It has been challenged now and it is obvious that there no basis to use it. 37.5 dBA is not a threshold that represents the onset of impacts upon amenity; rather it is a level some 4.5 dBA above the threshold at which effects upon amenity arise. It is wholly inappropriate to use as a threshold of significance. The lower day time figure that should be used for impact assessment purposes must be 35 dBA in the knowledge that even this already involves an imposition upon the quality of life of residents as I have explained above.

150. The adoption of a lower day time limit affects the appraisal materially because it results in the predicted turbine noise moving closer to the threshold of significance on the graphs[95]. But it is also hugely important if you were to grant planning permission notwithstanding these submissions, because it is the level that should be adopted in any relevant noise condition imposed to protect amenity in the future. If you set conditions by reference to 37.5 dB you have to recognise that you are not limiting potential effects to a level above which amenity effects would arise; rather you would be limiting potential effects to a level some 4.5 dBA above that at which effects upon amenity arise.

Background Noise Measurements

151. Even if you do not accept the submissions above regarding the failure to follow ETSU, the noise assessment produced by RES suffers from further significant flaws because the background noise measurements have not been conducted in a rigorous way. As a result they do not achieve the objective set in ETSU of obtaining a reliable assessment of the prevailing background noise levels at properties[96]. I emphasise the words reliable assessment

152. The issues I shall address are:

[94] CD 61 ETSU p 65.
[95] See XX McKenzie
[96] CD61 p85 and see SOCG para 2.1

a) the locations selected;

b) the instrumentation utilised;

c) rainfall;

d) under range data;

e) over range data;

f) extraneous sources of noise;

g) wind direction;

153. **a) the locations selected**: DBJRG contends that the measurement locations selected are not locations that are representative in the sense intended by ETSU. The day time noise limits are intended to apply in gardens, patios etc. Accordingly, it is appropriate to locate measurement positions in relation to the day time limits in sheltered locations no closer than 3.5m to buildings where people are most likely to relax outdoors. This will tend to be nearer to the property. The night time noise limits are set by reference to sleep disturbance criteria and apply outside bedroom windows as Dr. McKenzie confirmed in XX. An appropriate location for night time will therefore also be closer to a property as a measurement remote from a property is not a location suitable to protect those sleeping within one at night.

154. Dr. McKenzie explained that the approach used in his evidence was deliberately to select locations away from properties[97]. That is totally at odds with the locations that the criteria are designed to protect. The specific criticisms that DBJRG has of each of the measurement locations adopted are set out in Mr. Stigwood's evidence and in the SoCG. I will not repeat that evidence. You will visit the properties tomorrow and be able to judge for yourself whether the appropriate locations have been adopted. When you go on your site visit tomorrow we ask you Sir to consider whether the locations adopted are appropriate and representative given the intention of the noise limits within ETSU. DBJRG submits that they are not.

155. Dr.McKenzie's approach could only be rescued if validation measurements had been undertaken to ensure that the background noise levels at the receptor locations were actually representative of locations closer to the properties. They were not.

[97] McKenzie paragraph 11.2

156. Dr McKenzie gave the remarkable evidence that he could say that the locations were representative because he had been on site and listened for himself. This is remarkable because of course the background noise levels are measured in LA90. No human can hear the LA90 component of noise received by the ear. Listening as the basis for determining whether a location is representative is simply not good enough; it has to be measured and has not been. This is particularly important in relation to Itton Manor because there is absolutely no evidence whatsoever that shows that the location used there is representative of Lower Itton given the change in topography between the two locations.

157. The existence of playthings in a garden or tarpaulins is no excuse for failing to conduct validation measurements. Tarpaulins can be temporarily removed whilst short term validation measurements are undertaken. Children similarly can be kept out of garden whilst short term validation measurements are recorded.

158. The approach to site selection has not been sufficiently rigorous to ensure that the background noise levels identified are representative. The background noise appraisal therefore fails to achieve the objective set in ETSU of obtaining a reliable assessment of the prevailing background noise levels at properties. The noise assessment therefore fails to accord with ETSU in this respect.

159. **b) instrumentation:** It has not been demonstrated that the microphones used were not subject to flow induced noise from wind blowing onto the windshield. Dr Mckenzie could produce no wind tunnel study that examined the likely level of flow induced noise at the sorts of wind speeds likely to be experienced by the microphones on the sound level meter used with the wind shield used. No such study had been undertaken. The paper by Hessler et al[98] indicates that microphones can experience 18 to 30 dBA of flow induced wind noise in the range of wind speeds that might be experienced at a receptor site[99]. In low level conditions this could result in the sound level meter recording a level of up to 3dB greater than was actually occurring[100]. This is highly significant in the context of a case where the margin between predictions and thresholds[101] is 3 dB or less for many properties (Crook Burnell, Ham Farm, Itton Manor, Broadnymet) The inclusion of flow induced noise thus results in the identification of a prevailing background noise level that is higher than is actually the case. The extent to which flow induced noise has influenced the background noise readings is unknown and this creates uncertainty with regard to their reliability. ETSU requires reliable assessment.

[98] CD99
[99] confirmed by McKenzie in XX
[100] accepted by McKenzie in XX
[101] even using 37.5 dBA threshold which should not be for reasons explained above

The lack of any assessment of the potential effects of flow induced noise renders the background noise unreliable and therefore contrary to the objective of ETSU. The Inquiry and DBJRG have still not been provided with the certificate which is said to demonstrate that the sound level meter used meets the Type 1 standard with the windshield in place. As a result it has not been established in evidence that the equipment utilised reached the relevant measurement standard.

160. **c) Rainfall:** ETSU is very clear that background noise measurements during periods of rainfall should be excluded from the assessment. Rainfall will cause noise levels to rise in a way which is not correlated with windspeed and thus should be removed[102]. Dr. McKenzie has excluded data where the hourly met data recorded at North Wyke met station indicates it was raining. This is not good enough. It is perfectly possible for reasons clearly described in Mr. Stigwood's evidence for it to be raining at a receptor site but not at North Wyke. Indeed, it was accepted during the conditions session that a rain gauge should be provided at the receptor for the purposes of the noise condition. If that is necessary for the purposes of a condition, it must be necessary as part of the assessment process There is therefore no certainty that Dr. McKenzie has excluded the data that ETSU requires him to exclude. Dr. McKenzie could have placed rain gauges at each receptor. If he had done the level of uncertainty would have been reduced considerably. However, he did not and the result is that the background data may be elevated in a way that is not ETSU compliant. ETSU requires reliable assessment. The lack of any rigorous exclusion of rain data renders the background noise unreliable and therefore contrary to the objective of ETSU.

161. d) under range data: Sound levels beneath the noise floor of the sound level meters were recorded and included in the analysis. Thus, the data record does not properly reflect the actual noise environment to this extent. When recording in a quiet environment it is important to ensure that the right tools are used for the job. There are sound level meters that are able to record very quiet noise levels[103]. There is no credible reason why these could not have been used. To the extent that the data plots used in the background noise assessment include under range data they do not include all of the data points that are truly representative of the actual background noise environment. ETSU requires reliable assessment. A background noise measurement process that fails to actually record what actual background noise environment is cannot be described as reliable.

[102] ETSU CD61 p86
[103] confirmed by Stigwood XinC and Mckenzie XX

162. **e) over range data:** sound levels above the noise ceiling of the sound level meters were recorded and used in the analysis. Mr. Stigwood explained that points above the best fit line have more of an influence in drawing the line upwards in the graph than those below. Thus including over range data will tend to the draw the best fit line upwards disproportionately. ETSU requires reliable assessment. The failure to exclude over range data adds to the lack of reliability in the assessment process utilised.

163. **f) extraneous sources:** On p86 third paragraph, ETSU identifies certain factors that may increase noise levels at measurement positions; rain is one, but it also identifies other sources such as work in fields, milking equipment, traffic and aircraft noise. In the next paragraph ETSU explains that increased levels of noise due to sources not associated with the wind reduce the correlation between wind speed and background noise levels. It is clear from the guidance that it is because noise associated with rain is not wind related that it is to be removed. This demonstrates that ETSU accepts the basic principle that noise sources that are not associated with the wind are to be removed from the assessment. These "extraneous sources" i.e. human and animal activity are to be removed during the day time but it is not necessary to do this at night because at night such sources are insignificant.

164. Dr. McKenzie sought to argue however that there was no need to account for such extraneous sources. The background noise is the background noise he suggested. You use what you measure only stripping out rain affected data. He is however inconsistent in his approach on this point.

165. In his proof he states that when looking for measurement locations "I look for areas free of corruption from atypical noise sources"[104]. The only basis for this statement must be an acceptance that non-wind related sources should not be captured in the background noise survey. Dr.Mckenzie sought to remove the data associated with the generator at Ham Farm. Again, the only logical basis for doing so was that this was accepted to be a source unrelated to wind speed. Further, he stripped out data points associated with logs recorded at Coxmoor by the occupier. The only logical basis for this was again an acceptance that noises that are unrelated to the wind should not be used in the background noise assessment. Dr. McKenzie said one thing to the Inquiry but on inspection we can see that he does not accept that the background noise should simply be used as recorded.

166. The difficulty here for Dr. Mckenzie is that the sound level meters were left unmanned and no tape recording of the noise monitored was made. It is therefore

[104] Mckenzie Proof p40 para 11.2

impossible to identify the extent of the influence of noise sources that are "extraneous" within the data. This means that the background noise assessment during the day may be affected by extraneous sources that should have been stripped out. By leaving such sources in the background noise levels identified will be higher than if those sources were stripped out. This is not robust as it means the impact assessment may be being made against a background noise level that is higher than should be the case if the exercise were done properly in accordance with ETSU. ETSU requires reliable assessment. The failure to exclude atypical data adds to the lack of reliability in the assessment process utilised.

167. **g) Wind Direction:** ETSU recognizes that variations of the background level may be caused by a change in wind direction. It is submitted that in order to achieve the ETSU objective of a reliable assessment of prevailing background noise levels it is necessary to have noise measured over a representative range of wind directions likely to be experienced. A comparison of the wind roses for the data collected during the survey periods with the long term wind rose set out in Dr. McKenzie's proof[105] reveals material differences[106]. The background noise data was not therefore collected in circumstances that are representative of the likely rage of wind conditions. This failure adds again to the lack of reliability in the assessment process.

168. From the above it can be seen that the background noise assessment that RES has undertaken is riddled with a lack of rigour and a lack of robustness. It falls a very long way short indeed of what is to be expected in order to achieve the reliable and representative assessment required by ETSU and thus PPS22.

Wind Shear

169. The lack of reliability does not end there however. The methodology used by Dr. McKenzie seeks to account for wind shear in the process of relating hub height wind speed to the background noise levels through the use of, firstly, the power law and then,secondly, the use of the ETSU formula I have already discussed above.

170. Dr. Hoare carried out a careful analysis of the wind shear at Den Brook which was not challenged in XX. She identified the average daily variation in shear exponent for Den Brook using 4 years of data [107]. She calculated that conditions were either stable or very stable 53% of the time. She identified that Den Brook demonstrates a very high range

[105] McKenzie proof Tab 5
[106] Candidly accepted in XX by Mckenzie
[107] Hoare Tab D Fig 4

wind shear and a greater wind shear than even a flat East of England site[108]. Dr. Barlow agreed in XX with that assessment.

171. The only conclusion that can be drawn on the evidence is that the Den Brook site exhibits a wide range of wind shear. It is therefore very important to consider whether the methodology utilised by Dr. McKenzie adequately addresses that wide range of wind sheer. DBJRG contends that it does not.

172. Dr. McKenzie's methodology relies upon utilising the "power law approach". Mr. Stigwood explained in his evidence that that was a good starting point. However, the power law does not explain the vertical wind speed profile at all times. Indeed, it is agreed that no single mathematical expression will hold true in describing the vertical wind profile in the atmosphere at all times[109]. Dr. Barlow confirmed that she had not examined the extent to which the power law would explain the wind profile at Den Brook. She agreed that it was possible to do this by taking measurements with relevant instrumentation[110] over a relevant period. It has to be remembered that wind speeds have been monitored for 4 years on site. There was no reason why over this period of time RES could not have similarly monitored the vertical wind speed profile. WF Developers who wish to obtain planning permission for the newer larger turbines should be forced to take the uncertainties surrounding wind shear very seriously. RES should have examined this issue at Den Brook particularly but there is not a single reference to the wide range of wind shear at Den Brook in the ES, SEI or proofs of evidence.

173. Dr. Barlow emphasised in her proof of evidence and in XX that in order to draw conclusions site specific data are required. In the absence of any site specific vertical wind speed profile measurements from RES it is not possible to judge the extent to which the power law will or will not explain the vertical wind speed profile. This results in a significant degree of uncertainty in the reliability of the approach to assessment that Dr. McKenzie has utilised which is totally unquantified.

174. In addition to this inability to explain the extent to which the power law approach does explain the vertical wind speed profile at Den Brook there are other meteorological phenomena that may affect the relationship between wind speed at height and wind speed at lower level. Mr. Stigwood raised the possibility of the nocturnal jet descending to within the swept area of the turbines. Dr. Barlow explained this was possible where the ground was cold and the night clear. She thought it might be an unlikely event but

[108] Hoare p16 para 6.5.
[109] SoCG para 5.4.
[110] e.g. LIDAR or SODAR.

she could not rule this phenomenon out. She identified a study where 2 out of 15 readings revealed the nocturnal jet descending to a level approximate to the swept area.

175. ETSU requires a reliable assessment. The assessment produced by RES is based upon assumptions regarding wind shear that have not been proven to be robust because there has been no investigation of the level of uncertainty associated with the vertical wind speed profile. In the absence of any information whatsoever regarding the degree of uncertainty it is almost impossible to form a judgment as to likelihood of exceedence of criteria using RES's appraisal. Accordingly, the correlation produced by Dr. Mckenzie between wind speed and background noise levels cannot be described as resulting in a reliable assessment of the prevailing background noise levels at properties for a given wind speed at hub height. This too renders it contrary to ETSU.

The Spread of Data

176. The result of applying the RES methodology is that there is a very wide spread of data points in the graphs that are used by Dr. Mckenzie as the basis for appraisal. The degree of difference between the ETSU correlations of wind speed measured on site at 10m and Dr. McKenzie's graphs are marked. To assess impact then simply by reference to a best fit "average" line through the data points is not robust. It fails to acknowledge that the data reveals background noise levels significantly below the turbine levels. A precautionary approach requires appraisal against the spread of data points rather than against a best fit curve.

177. Simply by looking at Dr. McKenzie's graphs it is possible to get a feel for how likely it is that turbine noise will affect amenity. Dr. Hoare explained BS4142 identified 10 dB LAeq above background as a threshold where complaint is likely. As an L90 this becomes 8 dB (using the ETSU shorthand method of deducting 2 dB). Dr. Mckenzie challenged the appropriateness of using dose responses from BS4142 for wind farms. However, one only needs to go to ETSU to see that it is appropriate to use BS4142. ETSU explicitly adopts a limit of +5 dB above background based upon BS4142. If the document that defines the criteria against which significance is to be assessed utilised the dose response from BS4142 then it is difficult indeed to see how Dr. Hoare can be criticised for doing so. An appraisal against 8 dB above background is a valid approach to examining whether complaint is likely. You will have a note of where Dr. McKenzie agreed that background data points were exceeded by 10 dB or more from XX. It is submitted that this means that the 8 dB complaints likely threshold would be breached as follows even without taking into account any further uncertainty factors:

2) at Halse farm at night

3) Lower Itton at night and amenity hours

4) Ham Far at night and during amenity hours

5) Crook Burnell at night and amenity hours

6) Broadnymett at night

7) Coxmoor at night

178. In other words there is not a single property examined that for some of the time would not be affected to a degree that BS4142 indicates would be likely to give rise to complaints based upon RES's own data. This is particularly the case at night. This demonstrates in and of itself the unacceptability of the noise impact of the proposed WF.

179. Dr. Hoare produced a more numerical analysis of this approach in her Tables 5 and 6. She was criticised for applying the amenity background noise curves to periods during which it did not apply. But as with much of the XX of DBJRG witnesses that is simply a poor attempt at obfuscation. As Dr. Mckenzie agreed in XX the times of day when the turbines are noisiest and vegetation noise lowest are the times when the wind shear is greatest. That is in the evening and at night i.e. when the BNL curves used actually apply. Any exceedences identified are therefore likely to have occurred at the times when the BNL curves used were appropriate to use.

180. This criticism also has a double edge so far as RES is concerned. Because if the data relating to times outside night and amenity hours are stripped out of Tables 5 & 6 in relation to the last 2 columns relating to the exceedence of criteria, the percentages will go up significantly.

181. The last element of criticism related to the inclusion of all turbines where only one lies within the down wind quadrant. But even that goes no where. As Dr. McKenzie explained himself during XX his own appraisal methodology as set out in the graphs assumes that all turbines lie down wind. The data in the graphs of course includes data for all wind directions. What is sauce for the goose is sauce for the gander. If it is right for him to assume that in order to be robust then it must be right for Dr. Hoare to have made the same assumption.

182. Dr. Hoare's examination in Table 5 is appropriate and can be given weight for the reasons set out above. It demonstrates that even on the basis of the RES assessment there will be significant impacts, a conclusion that is supported simply by looking at the graphs.

183. Of course that is without taken into account any uncertainties in the turbine noise propagation modelling. Even Dr McKenzie acknowledged that his use of a ground factor of 0.5 might make it appropriate to add 2 dB to his turbine curves. If one conducts the exercise of examining the graphs to identify how far data points fall below a curve shifted up by 2 dB, the conclusions reached are that the 8 dB complaints likely threshold would be breached for the night and during the amenity hours at all properties. This conclusion supports the figures set out in Dr. Hoare's Table 6.

184. Finally, it is only right to point out that ETSU itself examines the range of data in order to draw conclusions about the extent of time that properties will experience high levels of turbine noise above background[111]. Unless this is done, as I have explained the use of a best fit curve will mask the fact that there will be times when impacts will actually be suffered. Small wonder then that RES and Dr. McKenzie produced no such exercise; if they had it would have revealed impacts which they would really rather have you ignore. We submit that the impact of the proposed turbines must be undertaken on a robust and precautionary basis. When this is done as I have explained it is apparent even on RES's own data that complaints will be likely both during the day and at night at all properties. The noise impacts of the proposed wind farm are significant and wide ranging. I shall address you further on this point in relation to the relevant day and night time criteria below.

Prediction of Turbine Noise Propagation

185. There are a number of uncertainties involved with the use of the ISO9613 model that Dr. Mckenzie has utilised. It is of course only a predictive tool. When using any predictive tool it is important to understand its limitations and the uncertainties involved in its use. All the more so when making judgments which have the potential to affect the quality of life of people's homes. This necessarily involves examining what the potential impacts may be in relation to identifiable uncertainties. Indeed, where there is uncertainty in environmental impact assessment the precautionary principle requires the adoption of robust assumptions to ensure protection of the environment.

186. Mr. Stigwood, Dr. Hoare and Dr. McKenzie all agreed that ISO9613 is used outside of its parameters in the assessment undertaken by RES. This is plain from reading the ISO itself:

a) It cannot be used where there is wind and a temperature inversion[112]

[111] ETSU CD 61 Appendix C
[112] CD68 page 1 second para under Scope;

b) It is limited to wind conditions of between 1 m/s and 5 m/s measured between a height of 3m and 11m[113]. ESTU of course requires assessment of wind conditions outside of this range[114]; and

c) Its ground effect calculation only applies to ground which is flat or with a constant slope. You will be able to judge for yourself tomorrow whether these conditions apply to the ground around the receiver positions. It is submitted that they do not in relation to Crooke Burnell, Lower Itton and Halse Farm particularly.

187. Because Dr. McKenzie's assessment uses ISO9613 outside of these conditions (particularly b above), the assessment of its accuracy in section 9 is inapplicable. Its accuracy has not been assessed in the ISO for the distance between source and receiver that exists in Dr. McKenzies appraisal[115]. Its accuracy has not been assessed in the ISO in relation to the value of "h" that applies to Dr. Mckenzie's appraisal[116].

188. In short Dr. McKenzie is using ISO9163 for purpose it was not intended to be used for. He was unable to identify what the level of uncertainty is when using the ISO in the way he has. Even if we take the highest value of h and the furthest distance the ISO identifies uncertainty at +/- 3 dB. Even that is acknowledged within the ISO to be an underproduction if one is comparing to measurements made at a given site on any given day. When conducting that exercise the ISO indicates that the variation is likely to be considerably larger than the +/-3 dB.

189. Unless there is clear and compelling evidence that there is no underprediciton involved in using ISO9613, some allowance must be made in the assessment process for modelling uncertainty. The precautionary principle requires the application of at least +3 dB to the turbine curves in the graphs when assessing the potential impact of the WF in order to take account of this uncertainty in a way which protects the environment.

190. Dr. McKenzie relies upon the paper presented to the Aalborg conference by Dr. Bullmore[117] as demonstrating that there is no underprediction involved in using ISO 9613 in the way that he has. Close examination of that paper reveals that it demonstrates nothing of the kind.

191. You will recall the litany of points made by Mr. Stigwood which demonstrated beyond peradventure that the paper cannot be relied upon as showing that Dr. McKenzie's use of

[113] CD 68 page 3 section 5 second bullet
[114] CD 61 page 84 bottom.
[115] CD 61 page 14 only valid for < 1000m confirmed by Mckenzie in XX
[116] Dr Hoard confirmed h at about 36 but CD61 Table 5 has max value of h as 30, confirmed XX Mckenzie
[117] CD155

ISO 9613 will not involve underpredicition. It is not peer reviewed. It examines only three sites. It provides no data on wind turbine types or locations which permit independent verification of the calculations and conclusions drawn. It provides no data regarding the wind shear characteristics. This is crucial because you will remember Dr. Barlow cautioning against comparing the wind shear from one site to another. There is nothing that reveals whether the wind shear experienced during the measurements taken at any of the three sites was remotely comparable to the wind range of wind shear and high degree of wind shear experienced at Den Brook. You will recall Dr. Barlow referred to topographical features as potential contributing factor to the high degree of shear at Den Brook[118]. Site A is described as a high plateau within minimal vegetation[119]. Site B is described as flat terrain with minimal vegetation[120]. Site C is described a slightly undulating with ground conditions a mix of grassland and flooded areas with large areas of forestry further away. None of these sites are therefore described as having topographical features that are remotely comparable to Den Brook.

192. Site A used a down wind angle outside the range of conditions required by ISO9613[121]. It cannot therefore be used as a comparator.

193. Sites B and C were both sites where the turbine involved was a two speed turbine. Only the data relating to the faster speed was used in the analysis. This means that the only data used in the analysis was that recorded at the higher wind speed pertaining when the turbine was operating at the faster speed. The analysis for these sites does not analyse measured data across the windspeeds for a turbine comparable to that modelled by Dr. Mckenzie.

194. Dr. Mckenzie used an assumption of a ground factor of G=0.5 and when the graphs for Site C are examined (the only site examined for G=0.5) these show that the predictions under predict in the vast majority of cases and that this under prediction lies typically in the range of 3 to 5 dB LA90. Dr. Mckenzie suggested that 2 dB might be added to allow for a harder ground factor. But even if that is done it does not explain the degree of under prediction. There is still a further margin of 1 – 3 dB. It is also worth noting that the model appears to be worse at prediction the further the receptor from the source[122].

195. For all of these reasons the paper produced to the Aalborg conference does not form a robust basis for concluding that Dr. McKenzie's modelling is likely to result in under

[118] Barlow proof para 3.5
[119] CD 155 p4
[120] CD155 p4
[121] 110 degrees compared to the 90 degree quadrant in section 5 of ISO9613 – CD155 p 6
[122] CD155 figure 6b p 17 for example.

prediction. It does not even come close to establishing that. If it shows anything it is that at the very least the addition of a 2 dB margin to cater for ground factor (given that the ground can obviously be cold/frozen for substantial parts of the year) and a 3 dB margin for modelling uncertainty would be justified in order to adopt a robust and precautionary approach to assessment.

196. There is a further uncertainty that must also be taken into account. The input assumptions with regard to the sound power levels for the turbine. Dr. McKenzie insisted that he had used generic warranty data that was unlikely to be exceeded by any site specific warranty. However he could not rule out the possibility of a turbine actually having a louder site specific warranty in XX. Indeed, of course he could not because he had no idea on what data the warranty provided by Vestas was based or even if it was actually based upon measured data at all.

197. Dr. Hoare in her rebuttal evidence used the measured data provided by RES to show that the warranty produced by Vestas for the 105m tall turbine appears to be under the data measured for the turbine once uncertainty was taken into account[123]. Dr. McKenzie said that this was because the measured data provided was not that used to produce the warranty but that was total speculation.

198. In the circumstances, it is appropriate to make an allowance of a further 2-3 dB as suggested by Dr. Hoare and as done in relation to the ES appraisal at Armistead and by Dr. McKenzie's own partner in the Hempnall ES for these very turbines[124].

199. There is of course no commitment to use Vestas V90s as yet. In the *Rochdale*[125] case, Sullivan J explained in very clear terms that developments that are the subject of EIA must be sufficiently defined in the planning permission that is granted to ensure that the environmental impacts that are experienced when the permission is implemented are those that have been assessed in the ES. Dr. McK confirmed that if any of the other candidate turbines examined at the Inquiry were used other than the Enercon E82 the impacts would be different from those assessed in the SEI. It follows that if your are to grant planning permission for the proposed development as a matter of law a condition must be imposed that confines the sound power levels of any turbine for the development to one that has the same or less SPL at any given windspeed to that which has been assessed.

Conclusions on Noise

[123] Hoare rebuttal p 5 Table 3 and in XX to Mckenzie.
[124] Hoare proof p12 paras 5.8-11.
[125] R V Rochdale MBC [2000] ENv L R 1.

200. The RES methodology does not accord with ETSU because it is based upon correlating wind speed measured at hub height with background noise levels. This is not contemplated by ETSU; ETSU makes it plain that it is wind speed at 10m measured at the WF site that is to be correlated to background noise. RES has not assessed and rated the noise from the proposed WF in accordance with ETSU. This is in conflict with PPS22 and recent statements by Ministers. This conflict is sufficient reason of itself to refuse planning permission.

201. Even if this submission is not accepted, the background noise measurement exercise fails to comply with ETSU because it is not sufficiently reliable nor is it representative of background noise levels. If anything, it is likely to have over predicted background noise levels.

202. The effects of wind shear have to be taken into account and these are unknown due to a total failure by RES to measure and examine them on a site specific basis notwithstanding that this is possible to do.

203. The predictions of turbine noise are not robust. Even if they are accepted at face value Dr. McKenzie is showing exceedence of the 37.5 dB amenity hours criterion at Crooke Burnell. If 35 dB is used as the criterion the exceedence is substantial. This was waved away by RES as insignificant because it is asserted that the occupier has a financial interest in the project. There is no proof of this before the Inquiry. Further and in any event, if permitted the project has a 25 year lifetime. It has not been established that all future occupiers of Crook Burnell will have a financial interest in the property over that period. That being the case it is wholly inappropriate to assess the significance of impact upon this property on the basis that the occupier has a financial interest and so will tolerate the impact as a result. The impact upon this property alone is sufficient reason to refuse planning permission and that is without taking further uncertainties into account.

204. I asked Dr. McKenzie to confirm in XX that if it cannot be shown that taking uncertainty into account that the relevant criteria would be met then one could conclude that there would be a significant impact from the development. He refused to answer that question three times as you will no doubt recall. His refusal to answer was obviously because he knew the proposition to be true and he did not wish to make an admission that might damage his client's case. It always saddens me when an expert feels he has to behave in this way. It is wholly inappropriate. The proposition I put to Dr. McKenzie is clearly right.

205. Indeed, on the evidence it has not been shown that if uncertainty is taken into account that even the 37.5 criterion would be met.

206. At least the following margins for uncertainty must be applied in order to assess the impact of the proposed WF upon local residents in a robust and precautionary way:

a) + 3 dB for modelling

b) + 2 dB to allow for hard ground factor

c) +2 dB to allow for uncertainty regarding the sound power levels

207. At least once 7 dB is added to the turbine prediction curves and then comparison is made it becomes apparent, that against the measured background noise level data, there would be significant exceedences of 8 dB or more both during the amenity hours and at night. Thus there would be widespread cause for complaint day and night if the proposed development were permitted.

208. Not only that but at night the night time limit would be breached at Lower Itton, Ham Farm, Crooke Burnell, Broadnymett and Coxmoor. That limit is set at a level designed to prevent sleep disturbance. Once uncertainty is accounted for it is apparent that residents over a wide area could have their sleep disturbed by the proposed windfarm. With sleep disturbance comes health impact as Dr. McKenzie recognised[126].

209. With uncertainty accounted for, there would be breaches of the 37.5 dB based amenity hours limit at Halse Farm, Lower Itton, Ham Farm, Crooke Burnell, Broadnymett and Coxmoor; in other words at all of the properties examined. The extent of the breaches is of course even worse if a 35 dB based criterion is utilised. Gone would be the days of falling asleep in your garden of a weekend if you live near this windfarm.

210. Thus, even if you accept that the RES methodology is in accordance with ETSU, the only sensible conclusion is that the proposed windfarm has the potential to have a very wide ranging and damaging impact upon residential amenity in the local area.

211. Amongst all these technical arguments, it is very easy to lose sight of what is at stake in dealing with this application. You have heard from Claire Hodgson and many many other residents about how valued the tranquillity of this community is, how much local people value their residential amenity and quality of life for themselves and their children. You have heard their fears for their quality of life if the windfarm were to be permitted. As I have already demonstrated those fears are well founded. They are highly material to

[126] To Inspector.

your decision and must be given weight in it. The proposed windfarm will significantly and adversely affect the lives of people residing in the locality. They will have their sleep disturbed. They will be prevented from using their gardens and properties in the peace and tranquillity they are entitled. The proposed windfarm is totally unacceptable in noise terms.

212. This results in a very significant conflict with PPS22, PPG24 and Development Plan policy[127].

Amplitude Modulation

213. RES's case regarding the absence of need for a condition to protect against excessive AM was based upon the existence of a 5 dB margin in the predictions compared with the night noise limit. That stance completely failed to take into account any uncertainty (not even that for the ground factor that Dr. McKenzie acknowledged). As I have explained above, once uncertainty is taken into account that margin more than disappears.

214. There is no consensus regarding the causes of AM. As a result it is impossible to rule out the possibility of AM being caused at Den Brook if you were to permit it. In those circumstances, if you were to grant planning permission it is necessary to impose a condition that enables AM to be taken into account were it to arise. RES's resistance to such a condition is unfathomable. Surely any reasonable developer would wish to ensure that their activities were regulated in a way that did not result in sleep disturbance at residential properties. It is even harder to understand the opposition to an AM condition when one considers that RES does not believe AM will be an issue. If RES really believes that then why does it no agree to the condition? If RES is right it will never need to be invoked. The reality is that RES opposes an AM condition because it does not want to have to address AM if it arises as an issue; after all to do so might affect the profit margin.

215. Sir, if you are to permit this wind farm, I ask you to impose an AM condition because if AM did arise then it is necessary that the specific characteristics of it are taken into account in order to protect residential amenity. You heard from Jane Davis how her family had been adversely affected by AM. Don't let that happen at Den Brook. DBJRG has proposed a perfectly workable condition. The values used in it have been completely justified by Mr. Stigwood.

[127] Policy BE18 of the Local Plan

CONFLICT WITH PPS22

216. In opening I explained that PPS22 and its Companion Guide set a framework which is generally supportive of appropriately located renewable energy developments. Appropriately located renewable energy developments are given policy support; conversely inappropriately located developments are not.

217. PPS22's key principles include that environmental impacts must be addressed satisfactorily[128] and that development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures[129]. Thus a proposed development which does not address the environmental impacts satisfactorily and which has impacts which are not demonstrated to have been minimised will offend against the key principles of PPS22.

218. The Government's support for appropriately located renewable energy development is thus contingent on the developers doing what they can through choice of design and location to minimise impacts. This is, of course, what one would expect. These developments will necessarily involve impacts on the local population; impacts which are considered acceptable in the wider interests of society; but they are only considered acceptable when they have been minimised. In short, there is no policy support for renewable energy development which has not been designed or located so as to minimise impacts.

219. Obviously, in examining whether impacts have been minimised it will be relevant to have regard to financial viability. It is submitted that the policy in PPS2 cannot be sensibly interpreted as requiring minimisation of impacts beyond a level at which a WF development would be unviable. The difficulty for RES however is that it has failed to adduce any evidence that any particular reduction in the scale of the WF, either in terms of the size/height of the turbines, number of turbines or layout of turbines, would render the WF unviable. If viability is to be used to identify a threshold below which one is not required to go in the name of minimising impacts, then evidence must be presented to establish this. Mere assertion is not good enough. At the very least an open book appraisal of viability must be produced and made subject to XX. RES has done nothing of the sort[130]. Unsubstantiated assertions by Mr. Stewart regarding viability are totally insufficient to establish that any further changes to the WF in terms of size, number or

[128] PPS22 1(i)
[129] PPS22 1(viii)
[130] confirmed by Stewart in XX

layout would render the scheme uneconomic. As a result, there is no viability evidence before you Sir that establishes a baseline for minimisation.

220. Consequently, we simply have to consider whether there is anything that might be done to further reduce impacts. If there is then it can be concluded that the impacts will not have been minimised, that the WF is inappropriately designed and located and that the proposed WF is contrary to the key principles of PPS22.

221. It has been proven time and time again in this Inquiry that the development will have significant environmental impacts. The ES, the SEI, the proofs of evidence, the XX of the witnesses called on behalf of RES all accept this. Given this and the context of PPS22, it is remarkable that RES has totally failed to consider the issue of the minimisation of environmental impacts at any stage of the process. What it has done is to seek to ensure that the generating capacity (and thus profit levels) are maximised. What has not done is to establish the environmental impacts are minimised. This rush for profit regardless of impact upon the local community should not be sanctioned.

222. Mr. Goodrum accepted in XX that he had identified that significant impacts would arise. He also accepted that there is no appraisal within the ES/SEI that examined whether the landscape and visual impacts. He had not been ask to consider and had not considered whether changes to the size of turbines, number of turbines, layout of turbines might reduce the impact. Plainly, changes to these factors would act so as to reduce the scale of the impacts.

223. In relation to Heritage Assets as I have explained above the ES appraisal and Mr Stewart accepted that harm would be cause to heritage assets. There has been nothing presented to the Inquiry that demonstrates that these impacts would not be reduced if there were changes to the scheme in terms of the size of turbines, number of turbines and/or the layout of turbines.

224. In relation to ecology, again as I have explained there is a significant and material impact. Again, there is no evidence of any appraisal by RES that demonstrates that changes to the scheme would not reduce the potential risk to bats (e.g. fewer turbines).

225. In relation to noise, it is a matter of common sense that fewer, smaller turbines located further from residential properties would produce less noise at residential properties and would reduce the impacts. Dr. Mckenzie confirmed that he had seen no appraisal that identified that examined the consequences of fewer turbines, smaller turbines or a change of layout.

226. It follows that RES has not established that the impacts have been minimised. It has not established that the WF has been appropriately designed and located. As a result the proposed WF conflicts with two of the key principles of PPS22. The proposed WF cannot attract the support of PPS22 in these circumstances. It is contrary to national planning policy in this regard. This is a highly significant material consideration to weigh in the balance against the grant of planning permission alongside the significant conflicts with Development Plan policy I have already identified above.

BENEFITS

227. Against all of this conflict with national planning policy and Development Plan policy you have to weigh any benefits of the scheme. RES argues that these benefits outweigh any conflict with the Development Plan or national planning policy that may be found to exist. In essence RES contends that the WF is needed to ensure that the region and the UK meet relevant renewable energy targets.

228. The difficulty for RES is that it is well established in planning law that where a development will have significant impacts and/or where it gives rise to significant policy conflict, the weight that can be given to benefits on the basis of a claimed need falls to be assessed by reference to whether that need could be met on alternative sites which would give rise to less harm or less policy conflict[131]. Simon Brown J explained at 299:

> "Where…there are clear planning objections to development upon a particular site then it may well be relevant and indeed necessary to consider whether there is a more appropriate alternative site elsewhere. This is particularly so when the development is bound to have significant adverse effects and where the major argument advanced in support of the application is that the need for the development outweighs the planning disadvantages inherent in it."

229. That statement of the law could not be clearer. There are clear planning objections here as I have set out above. This development is bound to have significant adverse effects. The major argument advanced in support of the argument is that the need for renewable energy outweighs the planning disadvantages. It follows that for RES to secure full weight for its "need" argument it has to demonstrate that the renewable energy that would be delivered by the proposed WF could not be delivered elsewhere in the region without similar or worse environmental impacts arising.

[131] ***Trusthouse Forte Hotels Ltd. v Secretary of State for the Environment and Another*** (1987) 53 P. & C.R. 293

230. RES has not even attempted to do this. There is no evidence before you that demonstrates that the contribution to renewable energy targets that the capacity of the proposed WF might make could not be delivered elsewhere in Devon or the South West in a way which would give rise to a lesser degree of impact. There has been no examination of the various forms of renewable energy and how they might or might not be delivered in Devon, No examination of potential sites. No examination of the potential impacts of delivering renewable energy on any identified sites. In the absence of such an appraisal demonstrating that the need cannot be met elsewhere the benefit of delivery renewable energy should be given only limited weight in the planning balance.

231. I know that Mr. Wadsley will be spending some time dealing with the issues that arose at the Inquiry regarding benefits. DBJRG supports his submissions generally as to the limited nature of the benefits in terms of meeting targets and delivering renewable energy that the proposed WF would bring. The proposed WF cannot assist in meeting the Devon 2010 target. There is no policy that indicates that if the 2010 targets are missed the shortfall must immediately be made up. So far as the 2020 target, DBJRG supports the submission that it has not been demonstrated that the proposed WF is necessary in order to meet it.

232. In short, RES has exaggerated the benefits of the proposed WF scheme. It would bring some benefit in the form of renewable energy but this it is not necessary in order to meet renewable energy targets. The benefits can at best have only limited weight in the planning balance.

CONCLUSION

233. The proposed WF is contrary to the Development Plan in numerous respects:

(1) It would have significant adverse impacts upon the character of the landscape over a very wide area. It would give rise to significant adverse effects upon views and upon the residential amenity of many hundreds of properties. It would have significant impact upon the qualities of the Dartmoor National Park.

(2) The propose WF would cause harm to the setting of numerous listed buildings, conservation areas and Schedule Ancient Monuments. It leads to erosion of the value of these cherished assets from our past to the detriment of our quality of life in the future.

(3) Dr Holloway on behalf of RES identified an adverse effect upon bats which are protected and BAP species. It cannot be said with nay certainty that the Turbines will

not kill bats through collision or by ripping their lungs out as a consequence of air pressure changes near the blades.

(4) The noise impacts have be assessed in a way that is woefully inadequate and which is contrary to national planning policy. This is sufficient of itself to justify a refusal of planning permission. In any event, the evidence has established that once a robust and precautionary approach is adopted there would be significant adverse impacts upon local residents including harmful loss of amenity within gardens and widespread sleep disturbance at night

234. All of these effects are contrary to the Development Plan.

235. So far as material considerations are concerned, in terms of national planning policy the proposed development is contrary to PPS7, PPS9, PPS15, PPG24 and PPS22. In particular there has been total failure to demonstrate that the impacts of the proposed WF have been minimised contrary to the key principles of PPS22. These conflicts weigh very, very heavily against the grant of planning permission.

236. Weighed against all this are the limited benefits that arise. Benefits which RES has not established could not be met elsewhere without giving rise to the substantial impacts I have identified.

237. In this case, the planning balance is a simple one to strike. The weight of considerations against the grant of planning permission is overwhelming. Planning permission must be refused.

238. Sir, I ask you on behalf of the residents of the Den Brook area to protect their quality of life. To recognise that the tranquillity and beauty of the Den Brook area is precious and deserving of better than the introduction of these massive, alien and urbanising turbines. A windfarm is not wanted here. A wind farm should not be permitted here. I ask you Sir to refuse planning permission and to dismiss the appeal.

26th October 2009

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