



Decision by Malcolm Mahony, a Reporter appointed by the Scottish Ministers

- Planning appeal reference: PPA-330-2022
- Site address: Costa Head (land near), Swannay, Orkney KW17 2NW
- Appeal by Costa Head Wind Farm Limited against the decision by the Orkney Islands Council
- Application for planning permission 16/580/TPPMAJ dated 22 December 2016 refused by notice dated 21 September 2016
- The development proposed: erect four wind turbines (maximum capacity 14.4MW, maximum height 125 metres), erect a meteorological mast (maximum height 81 metres), substation and associated infrastructure (including access track)
- Application drawings: listed in schedule at the end of the notice
- Date of site visit by Reporter: 14-17 January 2019

Date of appeal decision: 18 April 2019

Decision

I allow the appeal and grant planning permission subject to the 23 conditions listed at the end of the decision notice. Attention is drawn to the five advisory notes and to the habitats regulations appraisal at the end of the notice.

Preliminary

1. On 16 May 2017, the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 came into force. The 2017 regulations revoked the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 with certain exceptions. The 2011 Regulations continue to have effect for an application (and any subsequent appeal) for planning permission where the applicant submitted an environmental statement in connection with the application before 16 May 2017. That was done in this case. I have therefore determined this appeal in accordance with the 2011 regulations as they applied before 16 May 2017.

2. In carrying out my environmental impact assessment of this proposal, I have had regard to all of the environmental information and to the responses to it from consultees and other parties. As part of that process, I have considered direct and indirect effects of the proposed development on human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and cultural heritage. However, in this decision notice I have focussed on those that are critical to the acceptability of the proposal and over which the main parties disagree.



3. I deal with effects on human beings and landscape in the sections of this notice dealing with seascape, landscape and visual impact, impact on residential properties, tourism and recreation, and socio-economics. Effects on flora and fauna are covered in my ornithology and ecology sections. Soil, water, air and material assets were not raised in the reasons for refusal and I agree that any effects could be successfully addressed by conditions. The issue of climate is dealt with under carbon considerations, National Planning Framework 3 and Scottish Planning Policy. Effects on cultural heritage are considered in my historic environment section.

Reasoning

4. I am required to determine this appeal in accordance with the development plan, unless material considerations indicate otherwise.

5. Having regard to the provisions of the development plan, the main issues in this appeal are: seascape, landscape and visual impact; impact on the historic environment; impact on nearby residential property; ornithology; socio-economic effects; energy output; carbon displacement; contribution towards to the needs case for a subsea electricity transmission cable; and the potential to support objectives in National Planning Framework 3.

6. The appeal site is located near Costa Head on the north coast of West Mainland, Orkney, adjacent to Costa Hill and north of Loch of Swannay. It generally comprises heathland and grazing land which slopes from the edge of coastal cliffs down to the A966 road. There are scattered residential properties beyond the site, mainly to the south and west.

7. The proposal, as amended in March 2018, is for four wind turbines, each with a maximum blade tip height of 125 metres, a combined maximum installed capacity of 16.32MW (megawatts) and a 25 year operational phase. There would be a meteorological mast, a sub-station, access tracks and other associated development typical of wind farms.

8. In his committee report on the application, the Executive Director of Development and Infrastructure (the Executive Director) recommended that the application be approved subject to conditions and a planning obligation or some other appropriate financial bond or letter of credit to ensure that decommissioning and reinstatement would be completed at the developer's expense. He acknowledged, however, that his recommendation was finely balanced between the benefits and residual adverse effects and should the decision-maker place additional weight on any of the concerns regarding the development, that could legitimately tip the balance against the development.

9. The council, however, refused the application for the following reasons:

- 1) The scale, location, siting and design of the proposed development would have an unacceptable adverse impact on the quality of life and amenity of residents of properties located closest to the development.
- 2) The scale, location, siting and design of the proposed development would have a significant adverse impact and cumulative impact on the landscape character of the

area, being located within the Coastal Hills and Heath landscape type which was identified as having a low underlying capacity for wind turbines.

- 3) The scale, location, siting and design of the proposed development would have a significant adverse visual impact in its own right and cumulatively with other wind turbine developments.
- 4) The scale, location, siting and design of the proposed development would have a significant adverse impact and cumulative impact on the visual amenity of the area, which was a clifftop and coastal location.
- 5) The proposed development is contrary to the following:
 - The Orkney Local Development Plan 2017:
 - Policy 1 - Criteria for All Development, parts (i), (ii), (iv), (ix) and (x).
 - Policy 2 - Design, section (ii).
 - Policy 7 - Energy, section D - Onshore Wind Energy Development, parts (i.a) and (i.b).
 - Policy 9 - Natural Heritage and Landscape, section G - Landscape, parts (i) and (ii).
 - Policy 12 - Coastal Development, section A - Criteria for All Coastal Development, part (i).
 - Supplementary Guidance - Energy:
 - Development Criterion 1 - Communities and Amenity.
 - Development Criterion 2 - Landscape and Visual Impact.
 - Landscape Capacity Assessment for Wind Energy in Orkney.

Site selection, design and access

10. The appellant states that development opportunities for commercial wind farms are extremely restricted in Orkney. The application was submitted following a site selection process carried out across the islands of Orkney over a period of more than seven years. Potential offshore wind farm sites are restricted to specific Crown Estate development zones, of which there are none in the vicinity of the Orkney Isles. Consequently, the appellants assessed only onshore sites. Costa Head was selected for reasons of: wind resource (the appellant expecting that the site would easily outperform the Scottish average); direct access from the A966 road; absence of national or international designations for natural heritage or cultural heritage, including archaeology, within the site; lack of aviation constraints; and absence of peat in key locations.

11. The appellant's Design and Access Statement outlines the six iterations of turbine layout resulting in the present scheme. The development was initially submitted as a five turbine development. Following consultation responses, including regarding landscape impacts and the potential effect on peregrine falcons, the layout was amended. The array was reduced to 4 turbines and their height was reduced. Also their locations were adjusted to maximise distances from sensitive receptors, to avoid higher ground, to reduce scale comparison with coastal cliffs, to reflect the curved alignment of the cliffs and the bowl-shaped topography, and to tighten the turbine cluster. Additionally, the site infrastructure was subject to a number of design iterations to minimise and avoid environmental effects whilst meeting technical requirements. For example, night-time lighting was eliminated, access tracks aligned with existing field boundaries, and the sub-station orientated in line with typical agricultural buildings in the locality. To reflect the above changes, an Environmental Statement Addendum was submitted on 23 March 2018.

12. I concur with the Executive Director's conclusion that the design iteration process has minimised landscape impacts, thereby satisfying Policy 9G(i) of the local development plan.

13. It is expected that the site will be accessible to people with mobility disabilities via the proposed access road and internal tracks. It may also be possible to link with the aspirational Core Path along the coast, depending on the council's detailed proposals for that path.

Seascape, landscape and visual impact

14. The appeal site is located within the Coastal Hills and Heath landscape type as defined in the Scottish Natural Heritage (SNH) Orkney Landscape Character Assessment (1998). The assessment has been adopted as non-statutory planning advice. This landscape type is characterised by grassland hills creating an irregular rim to the West Mainland, typically meeting the sea at dramatic cliffs. The assessment identifies landscape sensitivities including "potential sites for radio masts/wind turbines with consequent visual intrusion and potential scarring by access tracks."

15. In terms of seascape, the Local Coastal Character Area comprises north-facing cliffs exposed to the Atlantic, with an expansive large-scale seascape to the north and west. It is a relatively regular and linear coastline in comparison with the west-facing coasts of West Mainland. Settlement in the vicinity of the site is fairly sparse but widespread.

16. As with most land on Orkney, the locality of the site is relatively open. However, Costa Head benefits from some screening by the surrounding landform, especially to the east and south where Burgar Hill, Costa Hill, Hundland Hill and Kirbuster Hill would partly contain views. From the north, views would be across the open sea. This extensive marine component of the view would assist in accommodating the scale of the development. To the east, Rousay lies some 5 kilometres across Eynhallow Sound.

17. The proposal is not located within any designated landscape. The Hoy and West Mainland National Scenic Area lies some 13 kilometres to the south. Hoy Wild Land Area is over 20 kilometres to the south. There are Gardens and Designed Landscapes at Balfour Castle, some 20 kilometres to the south-east, and Skail House, some 12 kilometres to the south. No significant effects were predicted on any of these designations.

18. The Environmental Statement Addendum describes the assessment of 114 Landscape Character Types, and 117 Local Coastal Character Areas within its study area. It predicts significant residual effects on five Landscape Character Types, namely those near the site and inland areas nearby to the south and on nine Local Coastal Character Areas (some of which overlap with the five Landscape Character Types), as well as indirect effects on adjacent coastal areas to the west and east, and on Eynhallow, the south/south-west coast of Rousay and the south-west coast of Westray.

19. Whilst not objecting to the proposal, SNH comments that the proposal is contrary to the findings of the council's Landscape Capacity Assessment for Wind Energy in Orkney, 2014. It says that the proposal would far exceed the site's capacity to accommodate this

development. It would lead to significant landscape change and significant visual effects on the local and wider population. Accepting significant landscape change at this site, it says, has the potential to limit capacity for further development of any scale in the wider area.

20. With regard to these comments, I have some reservation about the council's two landscape assessment studies, as explained below. Moreover, the 2015 study looks for a strategy based on an acceptance of landscape change. Whilst it is possible that the capacity for further development in the wider area would be affected, that is hypothetical and can attract limited weight in my consideration.

21. The council commissioned a Landscape Capacity Assessment for Wind Energy in Orkney, which was published in 2014 and has been adopted as non-statutory planning policy advice. In this assessment, the host landscape type is identified as having a low underlying capacity for wind turbines. The assessment concludes that sensitive coastal and upland locations should remain turbine-free.

22. In a follow up document entitled Landscape Assessment for Potential Strategic Wind Energy Development in Orkney published in 2015, the consultants were requested to identify a strategy for siting turbines up to 125 metres in height under a presumption of a degree of landscape change rather than of landscape accommodation; a presumption which "would introduce a non-fundamental or acceptable level of change to key landscape characteristics and visual resources." The main areas identified for larger turbines were Sanday, Stronsay, south-west Scapa Flow and the northern moorland hills of Mainland. The study also looked for areas where landscape could be allowed to change more fundamentally in order to meet local and national policy objectives for wind energy development; one location was identified, encompassing Flotta, Fara and part of Hoy around Lyness.

23. The study advised that, as a strategic level study, it provides a context for the consideration of capacity for, and the cumulative effects of, potential future wind turbine developments on Orkney, and that no site specific conclusions should be drawn from it in relation to proposed wind farms.

24. Landscape consultants for the appellant have reviewed both studies. They criticise them variously for, among other things: not distinguishing the relative sensitivity of receptors; according high sensitivity to areas with very limited visibility; an overly broad-brush approach to diverse landscapes; identifying areas close to the National Scenic Area and Wild Land Area as preferred areas; and identifying preferred areas which are constrained for non-landscape reasons. They also point out that the 2015 study focussed on areas identified in the 2014 study rather than re-examining other areas, including the locality of the appeal site, in more detail. Using the same criteria as the 2015 study, the consultants found that Costa Head could accommodate up to six turbines at 125 metres height.

25. I share those reservations expressed by the appellants' consultants which I have summarised above. I also note that some of the areas identified in the 2015 study as having highest underlying capacity fall within the category of Areas of Significant Protection in the Spatial Strategy Framework for wind farm development in the 2017 Orkney Local Development Plan. The latter, which is based on landscape and other criteria, has statutory

status and is more up to date. Moreover, whilst strategic studies provide useful guidance, especially for developers' areas of search, all schemes require to be assessed by detailed landscape and visual impact assessments as the Environmental Statement Addendum has done.

26. The Spatial Strategy Framework for wind farm development identifies the appeal site as lying within an Area with Potential for Wind Farm Development, the most favourable of three categories.

27. In the Environmental Statement Addendum, visual impacts are assessed using a methodology in line with best practice advice. Of the 18 representative viewpoints selected for the Environmental Statement Addendum, six are predicted to experience significant effects when the development is operational. These are: the A966/National Cycle Route 1 north of Vinquin Hill; the Point of Buckquoy; Swannay Farm; the A966 at Queena; Marwick Head; and Mid Hill.

28. In terms of routes, significant visual effects are predicted for: A967 Stromness to Meikleplank northbound; A966 Birsay Bay to Finstown in both directions; B9055 Stenness to Loch of Skail northbound; part of National Cycle Route 1 in both directions; core path Wm 25 in both directions; core path Wm 26 eastbound; and the aspirational core path that follows the coast on the northern site boundary, in both directions.

29. Regarding impact on the Outstanding Universal Value and setting of the Heart of Orkney World Heritage Site, the appeal site is not located on any of the defined World Heritage Site sensitive ridgelines, but is located on the northern edge of the wider World Heritage Site sensitive area. The blade tips of two turbines would be visible from the Ring of Brodgar at a distance of just under 16.5 kilometres. From the Stones of Stenness, two turbines from hub height and two blade tips would be visible at a distance of some 17.1 kilometres. Panoramic views are available from these locations; those to the north include the ridgelines formed by Greeny Hill and Skelday Hill, and those to the south include the dramatic hills on Hoy.

30. The council has had particular regard to the comments of its Development and Marine Planning service, which considers that the visual impacts of the proposal are minor, but that the effects of the development would be compounded by existing wind farm developments at Evie, Burgar Hill and Holodyke. Evie and Burgar Hill comprise a linear array of 6 turbines with heights to blade tip varying between 76 and 116 metres. The array lies some 5 kilometres to the south-east of Costa Head. Holodyke turbine stands some 67 metres to blade tip, and lies near Dounby some 8.5 kilometres to the south of Costa Head. The service comments that impacts of those other wind farms would only be evident on a clear day and would not merit refusal in their own right, although it should be a material consideration when evaluating the merits of the proposal as a whole.

31. Having visited the World Heritage Site locations in both poor and good visibility, and carefully considered the visualisations, I am satisfied that the visual impact of the proposal would be minor, both independently and in association with existing turbines.

32. Several objectors maintain that users of the A966 road would experience cumulative and sequential views of the above wind farms and of Hammars Hill Wind Farm, which lies some 11 kilometres to the south-east of the appeal site. This, they say, would affect tourists, including from cruise liners, whose coaches take this route to Birsay

33. However, bearing in mind the assessment in the Environmental Statement Addendum and the advice of SNH and the Development and Marine Planning service, I am satisfied that the effects are acceptable.

34. In my site visits, I took particular account of the visual effects of the proposal from the various viewpoints highlighted in the Environmental Statement Addendum as well as from the nearby roads and paths, both independently and as seen cumulatively with other wind farms. I accept that the proposal would result in seascape and landscape change and would have significant visual effects, particularly in the vicinity of the site. However, by its nature, commercial wind energy development will necessarily result in some significant adverse impacts on landscape and visual receptors. In this case, the proposal would not have a significant effect on designated landscapes including the Hoy and West Mainland National Scenic Area, the Hoy Wild Land Area or the Heart of Neolithic Orkney World Heritage Site. Moreover, I am satisfied that the appellant has taken reasonable steps to minimise negative impacts and to make the development sympathetic to natural and historic features within the landscape as described in the design section above. I am not persuaded that cumulative or sequential effects with other developments would be unacceptable. The Executive Director considers that the proposal accords with the terms of local development plan Policy 9G: Landscape. Based on all of the above, I agree with that conclusion.

Historic environment

35. Historic Environment Scotland does not object to the proposal as impacts are not likely to reach a level where significant issues for its interests would be raised. However, it considers some impacts have been underestimated in the Environmental Statement Addendum.

36. The County Archaeologist considers that the proposal would have a negative impact on the setting of several scheduled monuments on Rousay, where the landscape is already disrupted by other turbines in the wider area. The methodology underestimates cumulative and sequential impact on the Rousay scheduled monuments, by arguing that because of the estimate of zero impact, it could not accumulate. He, nevertheless, concludes that the impacts are not unacceptable.

37. The council considers that there would be a negative impact on the setting of several scheduled monuments on Rousay where turbines in the wider area already disrupt the landscape setting. It expresses particular concern regarding three of those monuments. Mid Howe Chambered Cairn lies some 6.5 kilometres east of the nearest proposed turbine. The array would be partly screened by Costa Hill with the hub of one turbine and blades tips of the other three visible in a fairly tight cluster. Burgar Hill and Evie Wind Farm would be seen as a linear development some 5 kilometres to the south-west, and Hammars Hill Wind Farm some 8 kilometres to the south. The other two monuments, Moa Ness Cemetery and Knowe of Yarso, being further to the south-east on Rousay, are closer to the

existing wind farms and further from Costa Head. As all views are across Eynhallow Sound, there is a sense of separation from Rousay, and I consider that the additional effect of the proposed turbines is relatively small. I therefore agree with the County Archaeologist that the impacts are not unacceptable, and, subject to planning conditions, I find no breach of Policy 8: Historic Environment and Cultural Heritage of the local development plan in this respect.

Impact on residential properties

38. For nearby residential properties, the council considers that the turbines would be overbearing, particularly at Mannobreck, Swannay House and Swannay Farm. Also that these properties would experience shadow flicker, would be affected by noise during operation of the turbines and would be affected by construction noise. It is contended that they would likely be regarded as unattractive places in which to live.

39. In terms of visual impact, whilst planning law is not intended to protect the view from individual private properties, it is generally accepted that it would not be in the public interest for a development to create unacceptable living conditions at a dwelling. In wind farm cases which have come before the Scottish Ministers, the Ministers have considered whether the development would result in “overbearing visual effects on residential amenity to a degree that any property might be considered an unattractive place in which to live.” With this test in mind, I have considered those dwellings within two kilometres of the appeal site, other than those which would have limited or no visibility of the turbines. The council expresses specific concern regarding Mannobreck, Swannay House and Swannay Farm, although I note that Swannay Farm is in use as a craft brewery.

40. There are 33 residential properties within two kilometres of the proposal. The effect on each of the properties is analysed in the Environmental Statement Addendum, including the extent to which principal views are affected, and overall impact is assessed on a six point scale from very large to no change. Eight of the properties were assessed as being potentially subject to large impacts. “Large” is defined as where the proposed development would form a prominent element from the property, generally seen at close range in views from several key locations within the property, resulting in considerable change to the quality and character of views from the property but not to the extent that the impact of the development would be likely to be considered oppressive or overbearing. The eight properties are: Belmont, Bokieha, Mannobreck, Neven, Surtidale, Swannay Cottage, Swannay House and Wenvoe. Three of these lie within one kilometre of the nearest turbine, the closest being Surtidale at 787 metres (as measured in the Assessment of Residential Visual Amenity). A further 16 properties are assessed as being potentially subject to medium impacts.

41. In all cases, the houses would have the impression of looking towards the array rather than of being within it. I note that, particularly in the closer properties, the view of turbines would occupy a limited sector of an extensive panoramic view. Other key factors relate to the orientation of each property, position of windows, location of garden ground, screening by landform or buildings, backclothing of the turbines, and composition of the array. Based on my site visits, the analysis in the Environmental Statement Addendum and representations, I am satisfied that, although the turbines would be prominent in some

views, the visual effects would not be overbearing to the degree that any of the properties might be considered an unattractive place to live.

42. The reasons for refusal also refer to shadow flicker at nearby houses. Shadow flicker occurs within buildings when the sun casts the shadow of rotors blades through a narrow window. The locations and frequency of this happening can be calculated for any property, incorporating information on average sunshine hours and the pattern of wind direction, to arrive at probable frequency in local conditions. Whilst there is no UK statutory guidance on acceptable levels of shadow flicker, best practice used across Europe and generally accepted guidance adopt maximum limits of 30 hours per year or 30 minutes on the worst affected day. Government advice states that generally shadow flicker should not be a problem where the separation between turbines and dwellings is greater than 10 rotor blade diameters. Shadow flicker has been calculated as potentially affecting properties at Mannobreck, Swannay House and Swannay Farm in early mornings (05:30 to 06:30 hours) from April to September for durations significantly below the above thresholds (less than 9 hours per year). In such circumstances, it is normal to require developers to provide a protocol setting out a procedure for addressing and mitigating any complaints received. Mitigation could involve shutting down turbines for critical periods.

43. The council, nevertheless, maintains that the three properties would experience significant shadow flicker. As it offers no technical evidence to support that claim, I have no basis for finding other than that shadow flicker would not be a significant issue.

44. The council contends that, given the size and proximity of turbines to Mannobreck, Swannay House and Swannay Farm, noise levels from the operation and construction would harm amenity at those properties.

45. The appellant's noise study looked at five locations: Mannobreck, Swannay House, Surtidale, Scruit and Crismo. It was carried out in accordance with government-recommended ETSU-R-97 guidance and with the Institute of Acoustics Good Practice Guide. The study found that the predicted turbine noise levels for the proposal meet the ETSU-R-97 specified derived daytime and night-time noise limits at all residential receptors neighbouring the site without the need for mitigation. The minimum margin is 0.6dB (decibels) during the daytime at Mannobreck with wind speeds of 7 metres per second, and 0.3dB during night-time at Surtidale with wind speeds of 7-8 metres per second. The residual effects are therefore not significant.

46. A planning condition has been proposed to monitor and control noise from the wind farm. Where a breach of this condition occurs, the developer is required to put in place a scheme designed to mitigate the breach and to prevent its future recurrence.

47. The study is criticised by a resident for failing to take proper account of the reflective effect of Swannay Loch in the calculations. The study uses a ground effect variable of 0.5. According to current best practice, this is the recommended variable for rural areas, where 0 describes hard ground, including water, and 1 describes soft ground such as vegetation. Noise emitted from three of the turbines would cross parts of Swannay Loch to reach Surtidale, but the majority of ground crossed would be vegetated and therefore soft. This matter was discussed during consultation with the council's environmental health service,

who did not dispute the explanation given. I therefore see no reason to question the appropriateness of the chosen variable.

48. Any turbine chosen would meet, or enable curtailment options to meet, the guideline limits for all of the nearby residential properties. The council's Environmental Health service has no objection, subject to an appropriate planning condition.

49. Another resident has submitted journal extracts alleging health impacts from turbine noise. My assessment must be guided by Scottish Government advice, as contained in the 2014 Web-Based Planning Advice: Onshore Wind Turbines. This indicates use of the ETSU-R-97 report as a framework for assessing wind farm noise, as was used in the study for this proposal. The government's advice takes account of potential health impacts; the relevant studies are summarised on the web-based site. The council's environmental health service was consulted over the details of the study and has not objected.

50. Noise from construction and traffic would be audible at times, but would be controlled by planning conditions and mitigation measures such as use of quiet plant, work within defined hours and timing of construction traffic and deliveries. Consequently, the residual effects of this noise would not be significant.

51. The council has submitted no technical evidence to support its contrary position. I therefore find that the impact on nearby residential properties would not constitute a reason for refusal.

Ornithology

52. The Environmental Statement Addendum assessed a number of key species in relation to potential habitat loss, disturbance, displacement and mortality through collision with turbine blades. The assessment narrowed down the key concern to potential effects on the peregrine population. In response to feedback from statutory consultees, the scheme layout was amended to reduce effects on peregrine, and additional surveys were carried out in relation to that and other key species. The revised scheme involved moving the turbines back from the cliff and removing one turbine from the array. This reduced the magnitude of collision risk and reduced the potential disturbance effects on peregrine by increasing the separation distance (from 130 metres to 330 metres) between their breeding range on the adjacent cliffs and the turbines.

53. The revised assessment identified no significant ornithological effects for the proposal on its own, but stated: "Given the small population size of the NHZ2 peregrine population, it is not possible to robustly justify a conclusion of no significant effect resulting from cumulative collision mortality during the operation of the proposed development. On a precautionary basis, it is considered that the estimated cumulative collision mortality of 0.445 birds per annum could be a significant effect on the regional (NHZ2) population."

54. The Environmental Statement Addendum found: that there were no further layout changes which would avoid impacts; that there were no feasible measures for mitigation of the operation of the wind farm, for example, by temporary turbine shutdown, as periods of increased risk were too difficult to predict; and that there was no scope to enhance habitat for peregrines further from the wind farm. As this leaves a significant residual effect on the

regional peregrine population, the appellant proposes a compensatory measure in the form of the design and implementation of a Peregrine Research and Management Plan across the Orkney and North Caithness Natural Heritage Zone (NHZ2). (NHZ2 includes Hoy SPA, North Caithness Cliffs SPA and part of East Caithness Cliffs SPA). It is maintained that this plan would have the potential to identify management measures to benefit the regional population of peregrines.

55. SNH removed its earlier objection to the proposal in relation to peregrines. It is now satisfied that removal of one turbine from the array and the revised layout means that the turbines would be a sufficient distance from the cliff edge and the nest locations to make it unlikely that peregrines would be displaced from their breeding territory during the operation of the wind farm. It considers that the revised scheme would reduce the collision risk significantly, so that it is now relatively low and is likely not to have any significant adverse impact on the Orkney/NHZ populations. It considers that there would be no adverse effect on the integrity of the SPAs at Hoy, North Caithness Cliffs and East Caithness Cliffs.

56. SNH welcomes the proposed research and management plan but considers that would be unlikely to mitigate or compensate for the, albeit low, collision risk. It recommends post-construction monitoring of peregrines.

57. The Royal Society for the Protection of Birds Scotland (RSPB) has maintained an objection to the proposal, subject to receiving additional information. It contests various technical matters, and estimates that the peregrine population would reduce by 10% over the life of the wind farm, without considering cumulative effects. It is concerned about lack of information to gauge impacts on populations in the SPAs and that potential impacts on those populations cannot be ruled out. If the appeal were allowed, the society would likely support the proposed research and management plan, to improve understanding of the situation.

58. Third party representations, including from the Orkney Field Club, raise other detailed concerns especially with respect to peregrine, hen harrier and great skua. With respect to the latter birds, the Environmental Statement Addendum found no significant effects on hen harrier or great skua, with the exception of very local significant effect on breeding great skua due to operational displacement. The RSPB recommended the council to monitor cumulative effects of future wind farm proposals on great skua, but did not object on this ground.

59. The committee report, accepting that the proposed Peregrine Research and Management Plan would be designed to offset an impact on the NHZ2 population, concluded that ornithological impacts do not merit refusal of the application. The council has not refused the application on this basis.

60. The appellant proposes that ground works and construction works would be timed to avoid the bird breeding season, and that a qualified Ecological Clerk of Works would be employed to supervise the protection of birds.

61. SNH is the government's advisor on a range of matters including ornithology. It has been in dialogue with parties regarding the issues and has provided detailed and cogent

reasons for its position. Whilst understanding the concerns of the RSPB and Orkney Field Club, I consider that I must accept the SNH advice.

62. Policy 9B(i) of the local development plan states that “development likely to have an adverse effect on any protected species will not be permitted unless it can be justified in accordance with the relevant protected species legislation.” In view of all the above evidence, I do not consider that the proposal would be in breach of that policy or that its impacts would constitute grounds for refusal of the application.

63. In relation to the above matters, I have carried out a Habitats Regulations Appraisal, which may be found in a schedule at the end of this notice. Material from this appraisal is also relevant to my considerations in the ornithology section of my notice.

Ecology

64. With regard to non-avian ecology, the site is not located within any international or national statutory designation for wildlife or natural heritage. Its eastern end lies within Costa Hill Local Nature Conservation Site, designated for its heath and maritime habitats. Most of the development footprint would be located on improved grassland, but 0.5 hectares of dry heath and 0.13 hectares of marsh would be lost. Policy 9 of the local development plan states that developments likely to affect a Local Nature Conservation Site will only be permitted where there is no feasible alternative location and satisfactory mitigation measures are taken, or any effects are clearly outweighed by social, environmental or economic benefits. In this case, the loss of habitat would be offset by a commitment to restore and enhance an area of 20 hectares adjoining the site and within the Local Nature Conservation Site. Therefore, in the context of environmental impact assessment regulations, the effect would not be considered as significant.

65. Assessments show that other ecological impacts can be adequately managed by mitigation measures and by the imposition of planning conditions.

Tourism and recreation

66. The committee report states that, whilst visitors would note the presence of the turbines, there is no substantiated evidence that visitor numbers, repeat visitors and visitor spend within the local area or wider region would be affected negatively. Some representations express fears about reduction in visitor numbers, but I have received no substantive evidence to support those views, and studies cited by the appellants find otherwise.

67. Policy 10A: Core Paths and Access of the local development plan says development should have no unacceptable adverse impact on, among other things, core paths. Enhancement and expansion of multi-functional green networks is encouraged. In this case, West Mainland Core Path 25 runs adjacent to the site and an aspirational core path to the north of the site forms part of the St Magnus Way, the route of the St Magnus Pilgrimage. The setting for users would change, albeit the main focus of the coastal path is seaward views, which would be away from the turbines. The aspirational path through the site would be closed temporarily during construction, although it would then be improved as part of the scheme. The appellant proposes to enable access for disabled people using the

internal track system and possibly connecting the access track to the coastal path. The council does not find the overall effect to be unacceptable and I have no reason to take a different opinion.

Subsea cable transmission link

68. The Orkney electricity grid is currently connected to Caithness by two 33kV (kilovolt) cables with a combined capacity of 38MW. Orkney is one of Britain's leading centres for innovation in renewable energy, and has significant renewable resources from onshore wind, wave and tidal. Following considerable growth in small-scale renewable electricity generation, the existing Orkney electricity network reaches full capacity at times, preventing new electricity generators connecting and curtailing the output of some existing generators. Further commercial renewable energy generation in Orkney is therefore dependent on an interconnector. The construction of a new interconnector has been a stated strategic priority for the Orkney Islands Council over many years.

69. As a result of pressure from the Scottish Government, Island Councils and the renewables industry, the opportunity for eligible onshore Remote Island Wind projects to participate in the next Contracts for Difference auction in May 2019 has been agreed by the UK government. To be eligible, a project requires to hold a valid planning consent, a grid offer and a land agreement. Since they would be competing against offshore wind projects, island projects need to be commercially viable, so turbines with a tip height of 125 metres or greater are required. It is not known whether future auctions beyond May 2019 will be held.

70. There is a proposal to install a 220kV High Voltage Alternating Current subsea cable between Orkney and the Scottish mainland at Caithness to relieve the pressure on the current system and allow new generators to connect, followed by a second cable of similar specification once further generation has committed and the economic case has been made for the further investment. To receive approval for a cable, the government regulator for gas and electricity markets in the United Kingdom, Ofgem, must agree that a 'needs case' demonstrates sufficient demand and value to Orkney and Scottish mainland customers.

71. In March 2018, Scottish and Southern Electricity Networks submitted a Strategic Wider Works Final Needs Case to Ofgem, for a subsea cable transmission link from Orkney to the Scottish mainland. Its analysis concludes that the 'tipping point' to justify the investment for the first cable is no more than 70MW, the point at which the cost of the investment is exceeded by the benefits of the renewable energy supplied to energy consumers. Scottish and Southern Electricity Networks has therefore requested a conditional approval of the Needs Case from Ofgem subject to demonstration that 70MW of generation have been committed to by developers.

72. In National Planning Framework 3, the 'Orkney Waters' are identified as an 'Energy Hub' and an area of co-ordinated action; relieving current electricity grid constraints is stated as an objective. The Framework states that: "Strengthening the electricity grid will be essential in unlocking renewable resources, both onshore and offshore. Interconnectors to the Western Isles, Orkney and Shetland and onshore connections for offshore renewables

on other parts of the coast are all required to fully realise the potential for diverse and widely distributed renewable energy development.”

73. The Framework also refers to Kirkwall and Orkney, noting that “Ambitious plans for wave and tidal energy, together with the wider area’s importance as a strategic location for shipping and energy infrastructure, provide significant new opportunities for the town...Improved grid connection will be a vital component in the future success of Orkney’s marine energy sector. As part of this, there will be opportunities to develop new technologies and approaches to harness renewable power generation on and around the islands.”

74. Subject to the capacity of available turbines of appropriate dimensions by the commissioning date, the proposal would contribute between 14.4MW and 16.32MW to the 70MW of energy generation required for the needs case. The appellant points out that its application at Hesta Head on Orkney, which I am also considering at appeal, would similarly contribute to the needs case. That proposal has a capacity of between 18MW and 20.4MW.

75. The appellant states that, whilst other technologies, including wave and tidal, are in development, currently, only commercial scale wind farms (with a tip height of 125 metres or greater) are economically viable and therefore capable of underpinning the needs case.

76. A new interconnector would result in new jobs and protection of existing jobs in Orkney. Over 300 residents on Orkney are employed in the renewable energy industry. An interconnector would enable Orkney to export more energy, improve its security of electricity supply and remove a significant barrier to marine energy development and innovation.

77. The Executive Director’s report refers to the importance of “the contribution of energy generation towards the needs case, and therefore the strategic importance of the interconnector for the Orkney economy generally, and innovation associated with the renewable electric generation industries in particular.”

78. Scottish Planning Policy confirms that, “Grid capacity should not be used as a reason to constrain the areas identified for wind farm development or decisions on individual applications for wind farms. It is for wind farm developers to discuss connections to the grid with the relevant transmission network operator.”

79. In response to a claim that the proposed developments at Hesta Head and Costa Head were irrelevant to the interconnector as the new cables would be laid regardless, Scottish and Southern Electricity Networks have written to deny that this was the case.

80. In view of the potential for economic benefits to Orkney and the potential to support objectives in National Planning Framework 3, I place particular weight on this issue.

Socio-economics

81. The council, referring to the Environmental Statement Addendum, states that, during the 12 month construction period, the development would sustain up to 4.9 full-time-

equivalent jobs (with a similar figure for decommissioning), and during the operation of the wind farm, it would sustain up to 2.9 full-time-equivalent jobs per year. These figures are based on direct and supply chain economic impacts. The council considers that the number of jobs which would be created is insignificant, especially in the operational phase.

82. The appellant states that the Environmental Statement Addendum presents the most conservative case as it is based on national average employment statistics. A more detailed assessment by BiGGAR Economics, including analysis of the Orkney labour market arrives at figures for Orkney of 30 full-time-equivalent jobs in development and construction and 4 full-time-equivalent jobs per year during operation, with a further 93 jobs and 7 jobs per year, respectively, for Scotland.

83. The appellant also draws attention to the additional potential job creation related to a new Orkney interconnector, if built. Some representations argue that these would be long-term, high value jobs. National Planning Framework 3 states: “It has been estimated that the renewables sector could, by reaching its full potential, bring ... over 4,500 full-time-equivalent jobs on Orkney by 2030.”

84. The appellant’s consultant calculates the economic benefit to Orkney to be £15.8 million (gross value added) and for Scotland to be £30.1 million (gross value added), using wider economic multiplier effects. A new interconnector would create additional economic benefit.

85. Calculations such as these are inevitably subject to uncertainty, and in this case the differences between the estimates are considerable. But I place weight on the fact that the appellant’s consultant has taken account of local circumstances including that Orkney’s island situation is likely to result in more of the benefits staying local. I would therefore expect the figures to be higher than those cited in the Environmental Statement Addendum. I also consider that, were the interconnector to be built, the additional employment opportunities and economic benefits could be considerable.

86. Scottish Planning Policy states that “Communities can also gain new opportunities from increased local ownership and associated benefits.” The appellant has committed to a Shared Ownership scheme for local individuals and groups. A Shared Ownership Steering Group has been set up. An initial offer of 10% of project value has been made, and the appellant has proposed a low minimum “buy-in” as far as possible to maximise local participation. Because the site is eligible for Contracts for Difference there would be certainty of income for 15 years, thereby reducing investment risk. The scheme would therefore have the potential for a net economic benefit to the local community. To the extent that the offer is taken up, it would contribute to the Scottish Government target for two gigawatts of shared ownership developments by 2030. Local ownership is noted as a positive impact in Supplementary Guidance: Energy.

87. I therefore find that the scheme is likely to have a positive net socio-economic effect at both local and national levels.

Energy output and carbon considerations

88. The appellant states that the Scottish Energy Strategy, Climate Change Plan and Onshore Wind Policy Statement present ever stronger positive advice and new targets in relation to renewable energy generation, and that the October 2018 IPCC report on climate change provides further support for the need for the proposed development.

89. The Sustainable Orkney Energy Strategy 2017-2025 is the result of collaboration between the council, Orkney Renewable Energy Forum, Community Energy Scotland and Highland and Islands Enterprise. It aims to promote innovation, energy research and technology development and thereby provide growth, quality jobs and exports. Its vision is for “A secure and sustainable, low carbon island economy driven uniquely by innovation and collaboration, enabling the community to achieve ambitious carbon reduction targets, address fuel poverty and provide energy solutions to the world”. However, in view of the inadequate existing electrical grid infrastructure, significant investment in connectivity is required to allow export to the Scottish mainland. The proposed development would support the aims of this strategy.

90. Based on the collection of two years’ wind resource data from the site, the proposed development is expected to have a capacity factor of at least 50%, which is almost double the Scottish average.

91. The anticipated total power output of the proposed development is between 14.4MW and 16.32MW, with an annual indicative total energy output of around 48,944 to 55,470 megawatt hours. Over the 25 year lifetime of the project, it is predicted to displace more than 359,604 tonnes of carbon dioxide. This would be a useful contribution to the government’s renewable energy and carbon targets.

National Planning Framework 3

92. The government’s vision for Scotland is as: a successful, sustainable place; a low carbon place; a natural, resilient place; and a connected place. It aims to achieve at least an 80% reduction of greenhouse gas emissions by 2050; to reduce total final energy demand by 12% and to meet at least 30% of overall energy demand from renewables by 2020; and for the equivalent of 30% of the energy for Scotland’s heat, transport and electricity consumption to be supplied from renewable sources by 2030.

93. It is maintained that rural communities will benefit from well-planned renewable energy development and that such development presents “an opportunity to improve the long-term resilience of rural communities”. However, there must be a balance between allowing appropriate development and protecting the most sensitive landscapes.

94. New offshore electricity transmission cabling of or exceeding 132kV is designated as a national development, and I discuss relevant parts of the Framework above. Overall, I consider that the proposal accords with and is strongly supported by the Framework.

Scottish Planning Policy

95. Scottish Planning Policy sets out national outcomes, including: a successful, sustainable place; a low carbon place; and a natural, resilient place. Having examined these matters in this notice, I am satisfied that the proposal is consistent with the desired outcomes.

96. The policy references the Climate Change (Scotland) Act 2009, which has the target of reducing greenhouse gas emissions by at least 80% by 2050, with an interim target of reducing emissions by at least 42% by 2020. It requires public bodies to act so as to contribute to delivery of the emissions target and to deliver the government's climate change programme.

97. The policy requires planning authorities to set out a spatial framework to identify the most appropriate areas for onshore wind developments. This facilitates a balanced assessment between energy generation and economic benefits on the one hand, and protection of environmental, cultural and other assets on the other.

98. The policy has introduced a presumption in favour of development that contributes to sustainable development. Its aim is to achieve the right development in the right place, not to allow development at any cost. My analysis in this notice of the benefits and disbenefits of the proposal over the long term lead me to find that overall the proposal would be economically, environmentally and socially sustainable and therefore find policy support from the presumption.

Orkney Local Development Plan 2017

99. The development plan for the Orkney Isles comprises the Orkney Local Development Plan 2017. The council's reasons for refusal indicate that the proposal fails to accord with a number of policies, including three criteria within Policy 1: Criteria for All Development of the plan. These state that development will be supported where: (i) it is sited taking into consideration the location and wider townscape, landscape and coastal character, (ii) the proposed density of the development is appropriate to the location, and (iv) the amenity of the surrounding area is preserved and there are no unacceptable adverse impacts on the amenity of adjacent and nearby properties/users. As this policy covers all types of development, the criteria require to be applied appropriately to an onshore wind project. With that in mind, and my assessments above, notably those on landscape and visual, and on residential amenity, I am satisfied that the criteria are met.

100. Policy 2: Design, section (ii) requires that, where relevant, proposals demonstrate a positive or neutral effect on the appearance and amenity of the area. This, again, is a policy which covers all types of development and it is qualified by the phrase, "where relevant". I am not persuaded that it is appropriate to apply the terms of this policy to wind power developments, especially those of commercial scale, as some degree of impact on the appearance and/or amenity of an area is generally unavoidable, and these aspects of wind power developments are subject to specific policies in the plan. I note that the Hesta Head Wind Farm proposal has not been refused under this policy, although the council has refused it on grounds of the appearance and amenity of the area.

101. The council also considers that under Policy 7D: Onshore Wind Energy Development (i.a) and (i.b) of the plan there would be significant adverse individual or cumulative impacts on communities, amenity, landscape and visual impact. Policy 7D (iii) indicates that where a wind farm development proposal is located within an Area with Potential for Wind Farm Development, as identified in the Spatial Strategy Framework, it is likely to be supported in principle subject to compliance with the development criteria contained in Supplementary Guidance: Energy and any other material planning considerations. The proposal lies within such an area.

102. The Supplementary Guidance: Energy, which has statutory status, requires decisions on wind farms to weigh potential benefits against anticipated adverse impacts on known constraints. The guidance lists the following factors: communities and amenity; landscape and visual impact; natural heritage; historic environment; tourism and recreation; peat and carbon rich soils; water environment; aviation, defence and communications; and construction and decommissioning. The key and contentious factors are covered in the topic sections above. On balance, I am satisfied that the anticipated adverse impacts are outweighed by the potential benefits.

103. The reasons for refusal cite Policy 9: Natural Heritage and Landscape, section G – Landscape, parts (i) and (ii). Among other things, these require: the siting and design of developments to minimise negative impacts on landscape and seascape characteristics, and to be sympathetic to natural and historic features; and consideration to be given to the scale and cumulative effects of the proposal. I have considered these matters above under the headings of seascape, landscape and visual impacts, and historic environment and am satisfied that the terms of the policy are met.

104. The reasons for refusal also cite Policy 12: Coastal Development, section A – Criteria for All Coastal Development, part (i). This requires that development in coastal zones have no significant adverse effect on landscape/coastal character, seascape, etc. unless those effects are clearly outweighed by socio-economic effects. As with Policy 2: Design, this is a broad policy for all types of coastal development. Again, I am not persuaded that it should be applied to onshore wind energy proposals, for which there is a separate policy framework in the plan. I note that Hesta Head Wind Farm proposal has not been refused under this policy, although it has a coastal location and the council has refused it on landscape/coastal and seascape grounds.

Other issues

105. The appellant has committed to providing a community benefit fund and an additional contribution towards a fuel poverty fund. However, these are not material planning considerations.

106. A number of representations express concern about the impacts of the potential electricity transmission infrastructure, including what route might be taken and what type of poles used. Whilst I am aware of this issue, which is common to many wind power projects, it does not fall within my remit as it would be subject to a separate consenting regime.

Conditions

107. No objections were raised by statutory consultees. Some raised concerns but I consider that those concerns can be addressed by mitigation, monitoring and planning conditions.

108. The council has suggested planning conditions to control aspects of the development, including in respect of a financial guarantee. Subject to some additions and amendments, including in response to letters from the Scottish Environment Protection Agency (SEPA) of 8 May and 25 October 2018, I agree with these.

Summary findings and conclusion

109. In summary, I find that the proposal would have significant but acceptable impacts on seascape, landscape and visual amenity and on archaeological assets. Cumulative visual impacts would not be sufficient to reject the proposal. There would be impacts on the amenity of nearby residential properties, but not to an extent which would fail the test which has been applied by Scottish Ministers in similar cases. Effects on tourism and recreation are acceptable. Ornithological impacts would not merit refusal of the application. Ecological impacts can be adequately managed by mitigation measures and by the imposition of planning conditions. The proposal is likely to have positive net socio-economic effects at both local and national levels. It would support the aims of local and national strategies for renewable energy output and carbon reduction. It would represent an important element of the case for a new grid interconnector to mainland Scotland with consequent economic benefits for Orkney and nationally. Other potential impacts could be appropriately managed through planning conditions and other control regimes. The proposal accords with and is strongly supported by National Planning Framework 3. It is generally consistent with Scottish Planning Policy. The proposal accords with the provisions of the local development plan, in particular Policies 1, 7 (together with Supplementary Guidance: Energy), 8, 9, 10 and 12.

110. I therefore conclude, for the reasons set out above, that the proposed development accords overall with the relevant provisions of the development plan and that there are other material considerations which strongly support the grant of planning permission.

111. In arriving at my findings and conclusion, I have assessed all the relevant environmental information, including that contained in the appellant's Environmental Statement Addendum.

Malcolm Mahony

Reporter

(Four schedules follow: Plans and Drawings; Planning Conditions; Advisory Notes; Habitats Regulations Appraisal.)

Plans and Drawings

Site location plan	Figure 1.1	March 2018
Site layout plan	Figure 1.2	March 2018
Turbine elevation	Figure 2.3	March 2018
Meteorological monitoring mast elevation	Figure 2.3b	March 2018
Substation detail	Figure 2.8	March 2018

Planning Conditions

Duration of the Consent

01. This planning permission shall expire and cease to have effect after a period of 25 years from the date 12 months from the date of commencement of works, or when electricity is first exported from any of the approved wind turbines to the electricity grid network (the "First Export Date"), whichever is earlier. Upon the expiration of that 25 year period, the wind turbines shall be decommissioned and removed from the site. Written confirmation of the First Export Date, within the period 12 months from the date of commencement, shall be submitted in writing to the Planning Authority, within one month of the First Export Date.

(Reason: To allow the Planning Authority to calculate the date of expiry of the consent.)

Redundant turbines

02. The wind farm operator shall, at all times after the First Export Date, record information regarding the monthly supply of electricity from the site and electricity generated by each individual turbine within the development and retain the information for a period of at least 12 months. The information shall be made available to the Planning Authority within one month of any request by them. In the event that any wind turbine installed and commissioned fails to supply electricity on a commercial basis for a continuous period of 12 months, then unless otherwise agreed, the wind turbine, along with any ancillary equipment, fixtures and fittings not required in connection with retained turbines, shall, within 3 months of the end of the said continuous 12 month period, be dismantled and removed from the site and the surrounding land fully reinstated in accordance with this condition. For the avoidance of doubt, in making a direction under this condition, the Planning Authority shall have due regard to the circumstances surrounding the failure to generate and shall only do so following discussion with the wind farm operator and such other parties as they consider appropriate.

All decommissioning and reinstatement work required by this condition shall be carried out in accordance with the approved decommissioning, restoration and aftercare strategy, or, should the decommissioning, restoration and aftercare strategy not have been approved at that stage, other decommissioning and reinstatement measures approved in writing by the Planning Authority.

(Reason: To ensure that any redundant wind turbine is removed from site, in the interests of safety, amenity and environmental protection.)

Duration of works

03. No development shall commence unless and until a timetable for the construction period has been agreed in writing with the Planning Authority. The timetable shall include the start and finish date, noting that the construction work shall not exceed a period of three years from the date of commencement unless otherwise approved in writing by the Planning Authority.

(Reason: To ensure proper planning and other environmental control of the development.)

Design and operation of wind turbines

04. No turbines shall be erected until full details of the proposed wind turbines have been submitted to, and approved in writing by, the Planning Authority. These details shall include:

- The make, model, design, power rating and sound power levels of the turbines to be used.
- The external colour and/or finish of the turbines to be used (including towers, nacelles and blades) which should be non-reflective pale grey semi-matt.
- Overall height of the turbines shall not exceed 125 metres to the tip of the blades in a vertical position.
- Each wind turbine shall have three blades and all wind turbines shall rotate in the same direction.

Thereafter, development shall progress in accordance with these approved details and, with reference to part 2 above, the turbines shall be maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned.

(Reason: To ensure that the environmental impacts of the turbines forming part of the development conform to the impacts assessed in the environmental statement and in the interests of the visual amenity of the area.)

Signage

05. Notwithstanding the provisions of the Town and Country Planning (Control of Advertisements) (Scotland) Regulations 1984 (as amended), and unless there is a demonstrable health and safety or operational reason, none of the wind turbines substation buildings/enclosures or above ground fixed plant shall display any name, logo, sign or other advertisement without express advertisement consent having been granted on application to the Planning Authority.

(Reason: To ensure that the turbines are not used for advertising, in the interests of visual amenity.)

Design of sub-station and ancillary development

06. No development shall commence until full details of the location, layout, external appearance, dimensions and surface materials of all control and/or substation buildings, welfare facilities, compounds and parking areas, as well as any fencing, walls, paths and any other ancillary elements of the development, have been submitted to, and approved in writing by, the Planning Authority. Thereafter,

development shall progress in accordance with these approved details. For the avoidance of doubt, details relating to the control and substation buildings shall include additional architectural design, carried out by suitably qualified and experienced people, to ensure that they are sensitively scaled, sited and designed.

(Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.)

Construction Hours

07. Hours of construction work on site involving the use of machinery and powered tools, or any other operation that would audible from any noise-sensitive receptor, and all HGV movements to and from the site, shall only take place between the hours of 08:00 and 18:00 Mondays to Fridays, 08:00 to 12:30 on Saturdays and not at all on Sundays or the Christmas or New Year Public Holidays, unless otherwise agreed, in writing, with the Planning Authority. Outwith these specified hours, development on the site shall be limited to maintenance, emergency works, dust suppression, and the testing of plant and equipment, unless otherwise approved in advance in writing by the Planning Authority.

(Reason: In the interests of local amenity.)

Traffic Management Plan

08. No development shall commence until a Construction Traffic Management Plan (CTMP) has been submitted to, and approved in writing by, the Planning Authority in consultation with Roads Services. The CTMP, which shall be implemented as approved, shall include the measures as follows:

- A description of all measures to be implemented by the developer to manage traffic during the construction phase (including routing strategies), with any additional or temporary signage and traffic control undertaken by a recognised suitably qualified traffic management consultant.
- The identification and delivery of all upgrades to the public road network to ensure that it is to a standard capable of accommodating construction-related traffic (including the formation or improvement of any junctions leading from the site to the public road) to the satisfaction of Roads Services, including:
 - A route assessment report for abnormal loads and construction traffic, including swept path analysis and details of the movement of any street furniture, any traffic management measures and any upgrades and mitigations measures as necessary.
 - An assessment of the capacity of existing bridges and other structures along the construction access routes to cater for all construction traffic, with upgrades and mitigation measures proposed and implemented as necessary.
 - A videoed trial run to confirm the ability of the local road network to cater for turbine delivery. Three weeks' notice of this trial run must be made to the Roads Services who must be in attendance.
- Drainage and wheel washing measures to ensure water and debris are prevented from discharging from the site onto the public road.
- A risk assessment for the transportation of abnormal loads to site during daylight hours and hours of darkness.

- A contingency plan prepared by the abnormal load haulier. The plan shall be adopted only after consultation and agreement with the Police and Roads Services. It shall include measures to deal with any haulage incidents that may result in public roads becoming temporarily closed or restricted.
- A procedure for the regular monitoring of road conditions and the implementation of any remedial works required during the construction period.
- A detailed protocol for the delivery of abnormal loads/vehicles, prepared in consultation and agreement with interested parties. The protocol shall identify any requirement for convoy working and/or escorting of vehicles and include arrangements to provide advance notice of abnormal load movements in the local media. Temporary signage, in the form of demountable signs or similar approved, shall be established, when required, to alert road users and local residents of expected abnormal load movements. All such movements on public roads shall take place outwith peak times on the network, including school travel times, and shall avoid local community events.
- A detailed delivery programme for abnormal load movements, which shall be made available to Roads Services and community representatives.
- Details of any upgrading works required at the junction of the site access and the public road. Such works may include suitable drainage measures, improved geometry and construction, measures to protect the public road and the provision and maintenance of appropriate visibility splays.
- Details of appropriate traffic management which shall be established and maintained at the site access for the duration of the construction period. Full details shall be submitted for the prior approval of Roads Services.
- A concluded agreement in accordance with Section 96 of the Roads (Scotland) Act 1984 under which the developer is responsible for the repair of any damage to the local road network that can reasonably be attributed to construction related traffic. As part of this agreement, pre-start and post-construction road condition surveys must be carried out by the developer, to the satisfaction of Roads Services.
- Measures to ensure that construction traffic adheres to agreed routes.
- Appropriate reinstatement works shall be carried out, as required by Roads Services, at the end of the turbine delivery and erection period.

(Reason: To maintain safety for road traffic and the traffic moving to and from the development, and to ensure that the transportation of abnormal loads will not have any detrimental effect on the road network.)

Construction and Operational Environmental Management Plan

09. No development shall commence unless a Construction and Operational Environmental Management Plan (COEMP) outlining site specific details of all on-site construction works, post-construction reinstatement, drainage and mitigation, operational environmental monitoring, together with details of their timetabling, has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH and SEPA.

The COEMP shall include (but shall not be limited to):

- A site waste management plan (dealing with all aspects of waste produced during the construction period other than peat), including details of contingency planning

in the event of accidental release of materials which could cause harm to the environment.

- Details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing.
- A construction dust management plan.
- A construction noise management plan.
- Details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network.
- A pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site.
- Soil storage and management.
- A drainage management strategy, demonstrating how all surface and waste water arising during and after development will be managed and prevented from polluting any watercourses or sources.
- A surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water.
- A peat management plan, to include details of all peat stripping, excavation, storage and reuse of material in accordance with best practice advice published by SNH and SEPA.
- Sewage disposal and treatment.
- Temporary site illumination.
- The construction of the access into the site and the creation and maintenance of associated visibility splays.
- Provision of wheel washing facilities.
- The method of construction of the crane pads.
- The method of construction of the turbine foundations.
- The method of working cable trenches.
- The method of construction and erection of the wind turbines and meteorological masts.
- Details of engineering works in the water environment, for example watercourse crossings (including size) and diversions, including timings.
- Demonstration that appropriately-sized buffers have been incorporated into the final site layout.
- Confirmation that present ground levels are not changed (increased) in the flood plain as a result of any development adjacent to the watercourses.
- Post-construction restoration/reinstatement of the working areas not required during the operation of the development, including construction access tracks, construction compound, storage areas, laydown areas, access tracks, passing places and other construction areas. Wherever possible, reinstatement is to be achieved by the careful use of turfs removed prior to construction works. Details should include all seed mixes to be used for the reinstatement of vegetation.

All construction work associated with the Development must be carried out in

accordance with the current BS 5228, 'Code of practice for noise and vibration control on construction and open sites'.

(Reason: To ensure that all construction operations are carried out in a manner that minimises their impact on amenity and the environment, and that the mitigation measures contained in the Environmental Statement Addendum are fully implemented.)

Ecological Clerk of Works

10. No development shall commence unless the Planning Authority has approved in writing the terms of appointment by the Company of an independent and suitable qualified Ecological Clerk of Works (ECoW) in consultation with SNH and SEPA as necessary. The terms of appointment shall:

- Impose a duty to monitor compliance with the ecological and hydrological requirements set out in the Environmental Statement Addendum and any other information lodged in support of the application, the Construction and Environmental Management Plan, and the Habitat Management Plan.
- Undertake or oversee a series of repeat ecological surveys within 12 months prior to construction and/or decommissioning.
- Require the ECoW to report to the Company's nominated construction project manager any incidences of non-compliance with the ECoW works at the earliest practical opportunity.
- Require the ECoW to submit monthly reports to the Planning Authority summarising works undertaken on site.
- Require the ECoW to report to the Planning Authority any incidences of non-compliance with the ECoW Works at the earliest practical opportunity.
- The ECoW shall be appointed on the approved terms throughout the period from Commencement of Development, to completion of post-construction restoration works.

No later than 18 months prior to decommissioning of the development or the expiry of this consent (whichever is the earlier), details of the terms of appointment by the wind farm operator of an independent ECoW throughout the decommissioning, restoration and aftercare phases of the development shall be submitted to the Planning Authority for written approval in consultation with SNH and SEPA.

An ECoW shall also be appointed under the terms of this condition throughout the decommissioning and restoration phases of the development.

(Reason: To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the development.)

Micro-siting

11. Wind turbines, buildings, masts, areas of hardstanding and tracks may be adjusted by micro-siting within the site as shown on Figure 1.2 of the Environmental Statement Addendum (site layout plan), subject to the following restrictions:

- No wind turbine, building, access track directly associated with a turbine, mast or hard standing shall be moved more than 50 metres from the position shown on Figure 1.2 of the Environmental Statement Addendum.
- No general access track shall be moved more than 20 metres from the position

shown on Figure 1.2 of the Environmental Statement Addendum.

- All micro-siting permissible under this condition must be approved in advance in writing by the ECoW.
- No wind turbine proposed within 800 metres of a non-financially involved residential property shall be micro-sited closer to that residential property.

Prior to commencement of works, the Planning Authority shall be notified in writing with a plan of the development, showing the final position of all wind turbines, masts, areas of hardstanding, tracks and associated infrastructure forming part of the development. The plan should specify areas where micro-siting has taken place and, for each instance, be accompanied by copies of approval of the micro-siting by the ECoW.

(Reason: To control environmental impacts while taking account of local ground conditions.)

Habitat and Species Management Plan

12. No development shall commence unless a habitat and species management plan has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH, SEPA and RSPB as necessary. The habitat and species management plan shall set out proposed habitat and species management of the wind farm site during the period of construction, operation, decommissioning, restoration and aftercare of the site, and shall provide for the improvement, maintenance, monitoring and reporting of high focus habitats and species. It shall include the mitigation measures described in chapters 7 and 10 of the Environmental Statement Addendum.

The approved habitat and species management plan shall include provision for regular monitoring and review to be undertaken to consider whether amendments are needed to better meet the habitat and species plan objectives. In particular, the approved habitat and species management plan will be updated to reflect ground condition surveys undertaken following construction and prior to the date of Final Commissioning and submitted to the Planning Authority for written approval in consultation with SNH and SEPA.

The habitat and species management plan will incorporate a Grazing Management Plan, to include measures reducing grazing activities as described in Chapter 7 of the Environmental Statement Addendum.

Unless otherwise agreed in advance in writing with the Planning Authority, the approved habitat and species management plan shall be implemented in full.

(Reason: In the interests of good land management and the protection of habitats and species.)

Protection of Breeding Birds

13. No ground works (site clearance and stripping of vegetation) or construction works will be undertaken during the bird breeding season (March to August inclusive) unless previously agreed in writing by the Planning Authority. If an application is made to the Planning Authority to undertake such works during the bird breeding season, then the

ECoW or another suitably qualified surveyor will undertake a pre-construction survey prior to commencement of works to check if the peregrine breeding site adjacent to the development site is in use and if so to inform how works can best be programmed to avoid disturbance.

If an active peregrine breeding site is found, appropriate measures will be implemented in consultation with SNH to avoid disturbance.

The ECoW will also carry out a pre-construction breeding bird survey prior to commencement of works to locate any active nests used by other bird species. Any active nests will be cordoned off to a suitable distance (agreed in consultation with SNH) and construction/decommissioning operations delayed within the cordon until the young have fledged and the nest becomes vacant, to be confirmed by the ECoW.

The ECoW will carry out a watching brief during works.

(Reason: To ensure legal compliance with respect to breeding birds.)

Peregrine

14. Prior to the First Export Date, a Peregrine Research and Management Plan for peregrines across the NHZ2 (Orkney and North Caithness) region will be designed and submitted to, and approved in writing by the Planning Authority in consultation with SNH. The Peregrine Research and Management Plan will be implemented in accordance with the approved terms and timing.

(Reason: To offset potential adverse effects on peregrine through furthering understanding of the NHZ2 peregrine population and implementing any identified mitigation.)

Archaeological Clerk of Works

15. No development shall commence unless the Planning Authority has approved in writing the terms of appointment of an independent Archaeological Clerk of Works (ACoW). The scope of the ACoW's appointment shall include:

- Monitoring compliance with the archaeological mitigation works that have been approved in this consent.
- Advising the Company on adequate protection and recording of archaeological interests on the site.
- Checking for new records of archaeological interests for which additional mitigation may be required.
- Directing the micro-siting and placement of turbines and tracks.
- Monitoring the compliance with mitigation, reinstatement and restoration measures approved in this consent.
- Reporting any breaches of the mitigation, reinstatement and restoration measures approved in this consent to the Planning Authority in writing.

The ACoW shall be appointed on the approved terms throughout the period from Commencement of Development, throughout any period of construction activity and during any period of post construction restoration works.

No later than 18 months prior to decommissioning of the development or the expiration of this consent (whichever is the earlier), details of the terms of appointment of an independent ACoW shall be submitted to and approved in writing by the Planning Authority. The ACoW shall be appointed on the approved terms throughout the decommissioning, restoration and aftercare phases of the development.

(Reason: To ensure the protection or recording of archaeological features on the site.)

Recreation and Access Plan

16. No development shall commence unless a Recreation and Access Plan for the construction and operation phases of the wind farm has been submitted to, and approved in writing by, the Planning Authority, including new infrastructure and upgrades to Core Path 25 and Aspirational Core Path/St Magnus Way within the site, and how that would be maintained in perpetuity. Thereafter the plan shall be implemented in full.

(Reason: In the interest of maintaining public access.)

Noise

17. The rating level of noise immissions from the combined effects of the wind turbines (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes, shall not exceed the values for the relevant integer wind speed set out in, or derived from, the tables attached to these conditions at any dwelling which is lawfully existing or has planning permission at the date of this permission and:

- a) The wind farm operator shall, for turbines which are under his control, continuously log power production, wind speed and wind direction, all in accordance with Guidance Note 1(d). These data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) to the Planning Authority on its request, within 14 days of receipt in writing of such a request.
- b) No electricity shall be exported until the wind farm operator has submitted to the Planning Authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the Planning Authority.
- c) Within 21 days from receipt of a written request from the Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Planning Authority to assess the level of noise immissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

d) The assessment of the rating level of noise immissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise immissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the Planning Authority under paragraph (c), and such others as the independent consultant considers likely to result in a breach of the noise limits.

e) Where a dwelling to which a complaint is related is not listed in the tables attached to these conditions, the wind farm operator shall submit to the Planning Authority for written approval proposed noise limits selected from those listed in the Tables to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from the Tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The rating level of noise immissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the Planning Authority for the complainant's dwelling.

f) The wind farm operator shall provide to the Planning Authority the independent consultant's assessment of the rating level of noise immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Planning Authority for compliance measurements to be made under paragraph (c), unless the time limit is extended in writing by the Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Planning Authority with the independent consultant's assessment of the rating level of noise immissions.

g) Where a further assessment of the rating level of noise immissions from the wind farm is required pursuant to Guidance Note 4(c), the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (d) above unless the time limit has been extended in writing by the Planning Authority.

h) Once the Planning Authority has received the independent consultant's noise assessment required by this condition, including all noise measurements and any audio recordings, where the Planning Authority is satisfied of an established breach of the noise limits set out in the attached tables 1 and 2, upon notification by the

Planning Authority in writing to the wind farm operator of the said breach, the wind farm operator shall within 21 days propose a scheme for the approval of the Planning Authority. The scheme shall be designed to mitigate the breach and to prevent its future recurrence. This scheme shall specify the timescales for implementation. The scheme shall be implemented as reasonably approved by the Planning Authority and according to the timescales within it. The scheme as implemented shall be retained thereafter unless otherwise agreed with the Planning Authority.

i) Where it is shown to the satisfaction of the planning authority that the occupier of any dwelling to which the above noise limits apply has a financial involvement in the development, any number in table 1 or table 2 below (Noise limits expressed in dB LA90,10-minute periods) which is less than 45.0 shall be taken to be 45.0.

Table 1 – Between 07:00 and 23:00 – Noise limits expressed in dB LA90,10-minute as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10 minute periods.

Location	Standardised wind speed at 10 metre height (m/s) within the site averaged over 10 minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Mannobreck	35.0	35.0	35.0	35.0	35.6	37.8	40.0	42.2	44.2	44.2	44.2	44.2
Swannay House	35.0	35.0	35.0	35.0	35.6	37.8	40.0	42.2	44.2	44.2	44.2	44.2
Surtidale	35.0	35.0	35.4	37.4	39.9	42.4	44.9	47.0	47.0	47.0	47.0	47.0
Crismo	35.0	35.0	35.0	35.0	35.7	37.4	39.3	39.3	39.3	39.3	39.3	39.3

Table 2 – Between 23:00 and 07:00 – Noise limits expressed in dB LA90,10-minute as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10 minute periods.

Location	Standardised wind speed at 10 metre height (m/s) within the site averaged over 10 minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Mannobreck	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.4	43.4	43.4
Swannay House	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.4	43.4	43.4
Surtidale	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	44.1	44.1	44.1	44.1
Crismo	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0

Table 3: Coordinate locations of the properties listed in Tables 1 and 2.

Property	Easting	Northing
Mannobreck	329588	1029290
Swannay House	329597	1029253
Surtidale	330140	1028985
Crismo	331496	1028840

Note to Table 3: The geographical coordinate references are provided for the purpose of identifying the general location of dwellings to which a given set of noise limits applies.

Guidance Notes For Noise Conditions

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSUR-97 refers to the publication entitled “The Assessment and Rating of Noise from Wind Farms” (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

(a) Values of the LA90,10-minute noise statistic should be measured at the complainant’s property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

(b) The microphone should be mounted at 1.2 to 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Planning Authority, and placed outside the complainant’s dwelling. Measurements should be made in “free field” conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall submit for the written approval of the Planning Authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.

(c) The LA90,10-minute measurements should be synchronised with measurements of the 10-minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed and wind direction at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods, unless otherwise agreed in writing with the Planning Authority. The mean wind speed data for the operating turbines shall be ‘standardised’ to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data, averaged across all operating wind turbines, which is

correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10-minute periods shall commence on the hour and in 10-minute increments thereafter.

(e) Data provided to the Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

Guidance Note 2

(a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2.

(b) Valid data points are those measured in the conditions specified in the agreed written protocol under paragraph (d) of the noise condition but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurements periods set out in Guidance Note 1. In specifying such conditions the Planning Authority shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.

(c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90,10-minute noise measurements and corresponding values of the 10-minute wind speed, as derived from the standardised ten metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, “best fit” curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where, in accordance with the approved assessment protocol under paragraph (d) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

(b) For each 10-minute interval for which LA90,10-minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10 minute period. The 2-minute periods should be spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

(c) For each of the 2-minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104 -109 of ETSU-R-97.

(d) The tone level above audibility shall be plotted against wind speed for each of the 2-minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.

(e) A least squares “best fit” linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line at each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure 17 on page 104 of ETSU-R-97 (The Assessment and Rating of Noise from Wind Farms)

Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the Planning Authority in its written protocol under paragraph (d) of the noise condition.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.

(c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant’s dwelling approved in accordance with paragraph (e) of the noise condition, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

(d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:

(e). Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the Planning Authority in its written request under paragraph (c) and the approved protocol under paragraph (d) of the noise condition.

(f) The wind farm noise (L1) at this speed shall then be calculated as follows where

L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L1 = 10\log[10 L2/10 - 10 L3/10]$$

(g) The rating level shall be re-calculated by adding the tonal penalty (if any is applied in accordance with Note (3) to the derived wind farm noise L1 at that integer wind speed.

(h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with guidance note (3) above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Planning Authority for a complainant's dwelling in accordance with paragraph (e) of the noise condition then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Planning Authority for a complainant's dwelling in accordance with paragraph (e) of the noise condition then the development fails to comply with the conditions.

(Reason: in the interest of local residential amenity.)

Shadow Flicker

18. No development shall commence unless and until a Shadow Flicker Protocol has been submitted to, and approved in writing by, the Planning Authority. The Shadow Flicker Protocol shall set out a protocol for addressing any complaint received from a residential receptor within the study area defined in Chapter 14 of the Environmental Statement Addendum, and will set out mitigation and management options.

Operation of the turbines shall take place in accordance with the approved Shadow Flicker Protocol and any mitigation measures that have been agreed through the protocol shall be implemented.

(Reason: In the interest of local residential amenity.)

Aviation Safety

19. No development shall commence until the Planning Authority, Ministry of Defence, Defence Infrastructure Organisation Safeguarding (DIOS), Defence Geographic Centre (DGC) and Civil Aviation Authority (CAA) have been provided with the following information, and evidence has been provided to the Planning Authority that this has been done:

- The date of the expected commencement of each stage of construction.
- The height above ground level of the tallest structure forming part of the development.
- The maximum extension height of any construction equipment.
- The position of the turbines and masts in latitude and longitude.

(Reason: In the interest of aviation safety.)

Post-construction Restoration

20. No development shall commence until a scheme of restoration of areas disturbed as a result of the construction process has been submitted to, and approved in writing by, the Planning Authority. The scheme will include (but not be limited to):

- Offsite bridge structures and retaining walls.
- Offsite carriageway and road widening. Area of temporary construction compound.
- Anemometer mast(s).
- Areas around turbines.
- Track edges and trenching.

Thereafter the scheme of restoration will be implemented in accordance with the approved timescales to the satisfaction of the Planning Authority.

(Reason: To ensure proper restoration after construction.)

Site Decommissioning, Restoration and Aftercare

21. The development shall cease to generate electricity and shall be decommissioned by no later than the date 25 years from the date 12 months from commencement of works, or First Export Date. The total period for restoration of the site in accordance with this condition shall not exceed three years from the date of Final Decommissioning without prior written approval of the Planning Authority.

No development shall commence unless a decommissioning, restoration and aftercare strategy has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH and SEPA. This strategy will be reviewed every 5 years. The strategy shall outline measures for the decommissioning of the development, restoration and aftercare of the site and will include, without limitation, proposals for the removal of the development, the treatment of ground surfaces, the management and timing of the works, and environmental management provisions.

No later than three years prior to decommissioning of the development or the expiration of this consent (whichever is the earlier) a detailed decommissioning, restoration and aftercare plan, based upon the principles of the approved decommissioning, restoration and aftercare strategy, shall be submitted to the Planning Authority for written approval in consultation with SNH and SEPA. The detailed decommissioning, restoration and aftercare plan will provide updated and detailed proposals for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environment management provisions which shall include:

- A site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases).
- Details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing.
- A dust management plan.
- Construction noise management plan.
- Details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road

network.

- A pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site.
- Details of measures for soil storage and management.
- A surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt-laden water.
- Details of measures for sewage disposal and treatment.
- Temporary site illumination.
- The construction of any temporary access into the site and the creation and maintenance of associated visibility splays.
- Details of watercourse crossings.
- A species protection plan based on surveys for protected species (including birds) carried out no longer than 18 months prior to submission of the plan.
- Traffic management plan.
- Community liaison plan.
- ECoW/site environment management appointment.

The Development shall be decommissioned, the site restored and aftercare undertaken in accordance with the approved plan, unless otherwise agreed in writing in advance with the Head of Development and Regulatory Services in consultation with SNH and SEPA.

(Reason: To ensure the decommissioning and removal of the development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.)

Financial Guarantee

22. No development shall commence until:

- i. Full details of a bond or other financial provision to be put in place to cover all of the decommissioning and site restoration measures outlined in the approved decommissioning, restoration and aftercare strategy have been submitted to, and approved in writing by, the Planning Authority.
- ii. Confirmation in writing by a suitably qualified independent professional that the amount of financial provision proposed under part (i) above is sufficient to meet the full estimated costs of all decommissioning, dismantling, removal, disposal, site restoration, remediation and incidental work, as well as associated professional costs, has been submitted to, and approved in writing by, the Planning Authority.
- iii. Documentary evidence that the bond or other financial provision approved under parts (i) and (ii) above is in place has been submitted to, and confirmation in writing that the bond or other financial provision is satisfactory has been issued by, the Planning Authority.

Thereafter, the developer shall:

- iv. Ensure that the bond or other financial provision is maintained throughout the duration of this permission.
- v. Pay for the bond or other financial provision to be subject to review five years after the commencement of development and every five years thereafter until the wind

farm is decommissioned and the site restored.

Each review shall be:

- vi. Conducted by a suitably qualified independent professional.
- vii. Published within three months of each five-year period ending, with a copy submitted upon its publication to both the landowner(s) and the Planning Authority.
- viii. Approved in writing by the Planning Authority without amendment or approved in writing by the Planning Authority following amendment to their reasonable satisfaction.

Where a review approved under part (viii) above recommends that the amount of the bond or other financial provision should be altered (be that an increase or decrease) or the framework governing the bond or other financial provision requires to be amended, the Wind Farm Operator shall do so within one month of receiving that written approval, or another timescale as may be agreed in writing by the Planning Authority, and in accordance with the recommendations contained therein.

(Reason: To ensure financial security for the cost of the restoration of the site to the satisfaction of the Planning Authority.)

CAA Notification

23. Prior to commencement of any works on the hereby approved development, the developer shall notify the Civil Aviation Authority (CAA) of the proposed development and works, at the following address:

Off Route Airspace 5, Directorate of Airspace Policy, Civil Aviation Authority, CAA House, 45-59 Kingsway, London WC2B 6TE (Email: airspace@caa.co.uk).

(Reason: In the interest of aviation safety.)

Advisory notes

1. **The length of the permission:** This planning permission will lapse on the expiration of a period of three years from the date of this decision notice, unless the development has been started within that period (See section 58(1) of the Town and Country Planning (Scotland) Act 1997 (as amended)).
2. **Notice of the start of development:** The person carrying out the development must give advance notice in writing to the planning authority of the date when it is intended to start. Failure to do so is a breach of planning control. It could result in the planning authority taking enforcement action (See sections 27A and 123(1) of the Town and Country Planning (Scotland) Act 1997 (as amended)).
3. **Notice of the completion of the development:** As soon as possible after it is finished, the person who completed the development must write to the planning authority to confirm the position (See section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended)).

4. Display of notice: A notice must be displayed on or near the site while work is being carried out. The planning authority can provide more information about the form of that notice and where to display it (See section 27C of the Town and Country Planning (Scotland) Act 1997 Act (as amended) and Schedule 7 to the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013).

5. Construction Site Licence: SEPA indicate that their local regulatory team should be consulted about the possible need for a Construction Site Licence.

Habitats Regulations Appraisal

1. This appraisal should be read together with the ornithology section in my decision notice above.
2. In view of concerns raised by parties in connection with peregrine falcon in relation to European sites, I consider that I require to carry out a Habitats Regulations Appraisal in accordance with regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994, as amended. As this is a delegated appeal, I am the Competent Authority in terms of the regulations. The first stage of the Appraisal is to screen out cases which do not require Appropriate Assessment and involves two tests.
3. Regarding the first of these tests, Appropriate Assessment is required in this case if the proposal, either alone or in combination with other projects, is likely to have a significant effect on a European site: in this case an SPA. The phrase “likely significant effect” is used in the sense that it would be capable of having an effect (based on the opinion of the Advocate General in the Sweetman case - European Court of Justice C-258/11). The threshold is therefore relatively low.
4. The Costa Head proposal would occupy a clifftop site near to a peregrine nesting area, where impacts on peregrine are predicted. Although the site does not lie within a Natura 2000 site, three such sites have been identified as potentially affected, namely the SPAs at Hoy (23 kilometres south), North Caithness Cliffs (50 kilometres south – to Stroma) and East Caithness Cliffs (80 kilometres south).
5. The Environmental Assessment Addendum concluded that: “Given the small population size of the NHZ2 peregrine population, it is not possible to robustly justify a conclusion of no significant effect resulting from cumulative collision mortality during the operation of the proposed development. On a precautionary basis, it is considered that the estimated cumulative collision mortality of 0.445 birds per annum could be a significant effect on the regional (NHZ2) population.” The NHZ2 area includes part or all of each of the three SPAs mentioned above. In a letter to the council dated 1 March 2017, SNH comments on the proposal that, “there is ... potential for connectivity with the SPAs and an adverse impact on the peregrine feature of these sites.” SNH did not change its view in this respect following submission of the revised scheme in 2018. In its letter of 18 May 2018, RSPB Scotland disagrees with the appellant’s position, stating that “the conclusion of an unlikely effect on the SPA peregrine populations is unfounded.”

6. The Orkney Islands Council carried out a Habitats Regulations Appraisal, having regard to the SNH advice of 7 May 2018, which concludes that “it is considered unlikely that the proposed wind farm, either on its own or in combination with other wind farms, would adversely affect the SPA peregrine populations.” From this advice, the council concludes that Appropriate Assessment is not required. However, I cannot agree with this conclusion as it uses the wrong test. The advice given by SNH incorporates terms related to the Appropriate Assessment rather than to the screening exercise.
7. In relation to the second test, all parties agree that the proposal is not connected with, or necessary to, site management for conservation of the SPAs. It is not therefore exempt on that ground.
8. These considerations lead me to find that the proposal, individually or in combination with other plans or projects, is likely to have a significant effect on the three above-mentioned SPAs in relation to peregrine. Consequently, I require to make an Appropriate Assessment of the implications of the proposal for the SPAs in view of their conservation objectives.
9. Turning to that Appropriate Assessment, the Competent Authority may only grant permission for the proposal “after having ascertained that it will not adversely affect the integrity of the European site”.
10. Each of the three SPAs is classified, among other things, for peregrine as a European non-priority interest. For each site, the relevant conservation objectives are: to avoid deterioration of the habitats or significant disturbance to the species, thus ensuring that the integrity of the site is maintained; also to ensure that the following are maintained in the long term: population of the species as a viable component of the site; distribution of the species within the site; distribution and extent of habitats supporting the species; structure, function and supporting processes of habitats supporting the species; and no significant disturbance of the species.
11. The peregrine population at Hoy SPA is currently in favourable condition; that at North Caithness Cliffs SPA is currently in unfavourable, declining condition; and that at East Caithness Cliffs SPA is currently in favourable condition.
12. The applicant investigated potential effects on the SPAs in the Environmental Statement Addendum and these are summarised in my ornithology section above. The Statement found that the proposal when considered together with other development and proposals in the region presented a potentially significant collision risk to peregrine, leaving a significant residual effect on the regional peregrine population. It commented that this finding was arrived at on a precautionary basis. It then found that there were no feasible measures to mitigate the residual effect, and put forward a compensatory measure comprising a Peregrine Research and Management Plan, described in my ornithology section.
13. As to the admissibility of such a compensatory measure, judgements in the European courts have made or adopted the finding that compensatory measures

cannot be taken into account in an Appropriate Assessment. However, a Court of Session judgement (*Bagmoor Wind Ltd vs. Scottish Ministers*, 2010) has taken a different line on the basis of the UK regulations, stating that compensatory measures which are proposed to be the subject of a planning condition can be taken into account in accordance with regulation 48(6) of the Conservation (Natural Habitats &c.) Regulations 1994, as amended. In the present case, the conditions suggested by the council include one requiring a Peregrine Research and Management Plan. I have not received legal representations on this matter. However, were I to take account of the proposed Plan, I consider that its outcome and benefits are too uncertain to be afforded more than minimal weight. This is because details of the Plan are scant and I see no clear evidence of how the Plan might achieve the potential benefits claimed. Moreover, SNH considers that the Plan would be “unlikely to mitigate or compensate for the, albeit low, collision risk at Costa Head.”

14. In its letters to my office of 2 May and 2 November 2018, RSPB Scotland maintained that there is insufficient information to conclude that there will not be an adverse impact on the three SPAs. Among other things, it criticised the appellant’s document *Information to Inform Habitats Regulations Appraisal* (an appendix to the *Environmental Statement Addendum*) on two grounds. Firstly, that the reduced population figures it cites are unreliable as the calculation uses an collision risk avoidance rate of 99% rather than the 98% advised by SNH, and consequently the longer term impacts on overall productivity and recruitment into the SPA populations was unclear. Secondly, because SNH had advised that indirect effects arising from a reduced number of juveniles being available for recruitment should be investigated, the modelling required to look at individual SPA populations rather than the NHZ2 population as a whole, but the appellant had not done this. RSPB argued that, If the modelled dramatic decrease in NHZ2 population takes place, it is unlikely that there would not be some consequence for the SPAs.
15. When consulted on the planning application, SNH initially objected to the proposal until sufficient information had been supplied to allow adequate assessment of the potential impacts on the peregrine population of NHZ2 and of the peregrine features of the SPAs within NHZ2. However, in its letter to the council of 7 May 2018, SNH explained that revisions to the proposal (described in the *Environmental Statement Addendum*) together with the additional information supplied, were sufficient for SNH to remove its objection. It also gave advice on the impact of the proposal on SPAs in terms of the *Town and Country Planning Environmental Impact Assessment (Scotland) Regulations 2011*.
16. In the course of the appeal, I sought further information from SNH regarding the effect of the proposal on the three SPAs in terms of the *Habitats Regulations* and specifically the *Appropriate Assessment* test. The SNH response, dated 1 April 2019, stated in summary that in its view “the Costa Head Wind Farm on its own or in combination with other proposals, will not adversely affect the integrity of the SPAs Hoy, North Caithness Cliffs and East Caithness Cliffs.”
17. SNH explained that its appraisal considered three factors:
 - (1) The distance between the proposed site and the SPAs means that, in accordance with SNH guidance, the peregrines nesting at Costa Head are not

considered part of the SPA breeding populations. However, the Costa Head and SPA peregrines are all part of the wider NHZ2 peregrine population. In 2014, there were an estimated 22 pairs of peregrine in NHZ2, 10 of these pairs being in the SPAs.

- (2) Displacement is considered unlikely at the Costa Head site. The predicted collision rate for peregrine is relatively low for Costa Head on its own (0.16 birds per annum at 98% avoidance rate). In combination with other wind farms (including the Hesta Head proposal) the cumulative collision rate is estimated to be 0.89 birds per annum at 98% avoidance rate.
- (3) Population modelling carried out by the applicants predicts that a collision rate of 0.89 birds per annum could lead to a decline to about 56% of the current NHZ population. The Costa Head collision mortality is unlikely to contribute to a significant proportion of the overall cumulative mortality. SNH considers that the modelled population decline for Costa Head on its own and in combination with the Hesta Head and other NHZ2 wind farms is likely to over-estimate impacts to the NHZ population for three reasons.
 - i. The model assumes that breeding birds adjacent to the appeal sites are replaced almost immediately after being lost. In reality, the territory might be abandoned or single birds might not pair up for some time. The consequent decrease in flight activity would result in a reduction in collision risk.
 - ii. The model assumes that the appeal sites would act as “sinks” for the whole NHZ population, whereas any replacement bird at the site is likely to be an unpaired adult or a sub-adult, and breeding pairs, being site-faithful, would continue to use their established territories, including at the SPAs.
 - iii. The appellant has modelled impacts to the SPAs, but only through depressed recruitment. This does not take into account the effects of adult mortality on the breeding population, as predicted by its modelling of impacts to the NHZ population. However, for the reasons given above, that modelling over-estimates the rates of population decline.

On the basis of that appraisal, SNH acknowledges that there are some uncertainties around the appellant’s modelling, but does not rely entirely on that modelling and is satisfied that, with the additional information now supplied, and supplemented by the reasoning outlined above, it has sufficient grounds on which to reach the conclusion set out in the previous paragraph.

18. In response to the SNH letter, RSPB Scotland maintains the position it set out in its letters of 2 May and 2 November 2018, the appellant is content to rest on existing submissions and Orkney Islands Council has not commented.
19. SNH is the government’s statutory advisor with respect to natural heritage issues. It has engaged in detailed discussions of the above issues with the council, the appellant’s agents and RSPB Scotland. It has given detailed and cogent reasoning to support its advice, and in particular to address the RSPB’s concerns.
20. In conclusion, having carried out an Appropriate Assessment based on all of the above ornithological information and advice, I am satisfied that the proposal, either

on its own or in combination with other wind farms, would not have an adverse effect on the integrity of Hoy, North Caithness Cliffs and East Caithness Cliffs SPAs.

21. This means that there is no impediment to my granting planning permission for the proposed development.