mackenzie bradshaw environmental consulting

PROPOSED DORENELL WIND FARM

INQUIRY INTO AN APPLICATION UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 TO CONSTRUCT AND OPERATE A WIND FARM, NEAR DUFFTOWN, MORAY

Matters on Which Further Representations/Information is Requested

Ecology & Nature Conservation Excluding Ornithology

Additional Response on behalf of the Applicant by
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1. SCOPE AND STRUCTURE OF THESE FURTHER REPRESENTATIONS

1.1.1 This written submission follows from the previous further representation focused on the ecological and nature conservation aspects of the proposed Dorenell Wind Farm and related necessary works. This written submission is given on behalf of the applicant; Dorenell Ltd.

1.1.2 This written submission is made to assist the Reporter in relation to four submissions only received recently by the applicant from Alasdair M Gordon-Rogers and Kate Gordon-Rogers of Elgin. The four submissions are as follows:

- Letter to Moray Council dated 19th June 2008 from Kate Gordon-Rogers;
- Letter to Moray Council dated 19th June 2008 from Alasdair M Gordon-Rogers;
- Letter to ECU dated 19th August 2008 from Kate Gordon-Rogers; and
- Letter to ECU dated 19th August 2008 from Alasdair M Gordon-Rogers.

2. FURTHER REPRESENTATIONS

2.1.1 As noted by Kate Gordon-Rogers (second paragraph, 19th June 2008 letter) the area is home to many species of wildlife and these issues have been fully addressed in the Environmental Statement, 2008 (ES), Supplementary Environmental Information, 2010 (SEI) and other relevant information in relation to the proposed wind farm. In the same paragraph she also mentions vibrations (as does Alasdair M Gordon-Rogers's letter of 19th June 2008, fifth bullet point) and strobing effects. I am unaware of any creditable, detailed scientific work which has proven any such effects on terrestrial or aquatic species (including microbial effects) from such potential impacts. In the same paragraph she addresses damage to peatland. It is important to point out that the design and iterative development of the turbine base locations and the tracks has been undertaken to minimise all such damage; and although the site covers a large area, the amount of affected such habitat within the site is actually small. This is detailed and discussed in the ES, Chapter 11.

2.1.2 It is noted by Kate Gordon-Rogers (paragraph 5, bullet point 8, 19th June 2008 letter and bullet point 22 in the letter to the ECU dated 19th August 2008 from Kate Gordon-Rogers) that the Black Water catchment could be adversely affected by various forms of pollution resulting from the proposed windfarm. While there is always a level of risk from any such development, the applicant has minimised these risks to acceptable levels and the Fisheries Management Plan, in particular, includes detailed monitoring and mitigation. The acceptance of

this risk minimisation, I would suggest, is accepted by the fact that SNH have said there would not be likely to be an effect on the integrity of the River Fiddich (part of the River Spey SAC), which is the catchment adjacent to the Black Water (SNH letter to ECU dated 18th June 2009). The River Spey SAC includes Atlantic salmon as a qualifying interest of the designation and they were considered as part of the applicant's and SNH's assessments.

2.1.3 It is noted by Kate Gordon-Rogers (paragraph 5, bullet point 9, 19th June 2008 letter) and Alasdair M Gordon-Rogers (letter of 19th June 2008, second, third and sixth bullet point) that peat disturbance can be significant in a number of ways.

It is true that peat disturbance can lead to breakdown and chemical oxidation; however, it is important to understand the particular characteristics of this site. Large areas of the peatland in this area are in what ecologist's term *in unfavourable condition*. Specifically, they are not currently active peat forming bogs, they have widespread signs of erosion including hagging, water channelling, bare peat and past erosion exposing the underlying rock based substrates. A walk across this site, away from the existing tracks amply demonstrates this to the non-specialist. In other words, these processes are occurring in the area and the site and are at a much greater degree than any disturbance which would be likely to be caused by the development itself. The causes of the widespread "natural" erosion of blanket peat in Scotland are many and complex but positively, some secondary vegetation cover has occurred in places on the Dorenell site but at a much lower peat depth. In other words, significant quantities of peat have been eroded from this site in recent times.

It is also important to take into consideration that areas of deep peat for both access tracks and turbine bases have been avoided as much as possible through the iterative design process. I am aware of the work by academics at Stirling University (Alasdair M Gordon-Rogers, letter of 19th June 2008, sixth bullet point) on the effects of peat disturbance. This was undertaken particularly in relation to one particular wind farm site that had particular construction issues which were specific to that situation (Braes of Doune) and in my personal opinion totally avoidable from the details I am aware of.

2.1.4 Another peat related point which was raised in the Letter to ECU dated 19th August 2008 from Kate Gordon-Rogers (NTS commentary page 4 of 6, pages 26-28) and the letter of the same date from Alasdair M Gordon-Rogers (bullet point two) relates to "peat at depths of 0.5m or more should not be disturbed". The map of peat depths which is being referred to here (see ES, Volume 2, Figure 11.3) is a depth map based on a limited number of clear depth categories but graded to try to represent, on a precautionary basis, the actual gradation of deeper peat areas on the site.

It is acknowledged that this is an over simplification of the actual situation that we are fully aware of on the site: for example, there are areas of peat on the site that are severely eroded and this map represents measurements only on maximum depths. Also, the non-blanket bog vegetation classifications and the detailed area calculations of habitats in the main chapter of the ES (Chapter 11) and summarised in the NTS clearly indicate that the whole site is not covered in peat over 0.5m in depth. The design has taken this into account and deeper peat

areas have been avoided as much as possible to minimise disturbance (much of the bog habitat on the site is not of high quality, actively accreting peat).

2.1.5 Alasdair M Gordon-Rogers letter of 19th June 2008 (first bullet point) mentions the possible long-term effects of concrete and lack of predictability of environmental effects. I am not aware of any such proven long-term effects. The effects of which I am well aware relate to concrete before it is set and the risks to the aquatic environment, which is managed by standard pollution avoidance guidance and best practice. I am aware that concrete can leach chemicals which are of a high pH: for example, concrete erosion on structures can locally increase pH values. However, in the acidic environment of these soils and catchments, the buffering capacity of the acids present is phenomenal; and this would have no measurable effect on the surrounding environment, even locally.

2.1.6 Alasdair M Gordon-Rogers (letter of 19th June 2008, fifth bullet point) makes a rather sweeping statement regarding ecological damage being huge; and then goes on to detail this further. I would point out that this depends on the precise location and circumstances; and I would agree that a wind farm positioned in the wrong location, such as the one in Norway which resulted in multiple sea eagle deaths, can cause significant ecological damage. However, the ecologists advising on this proposed wind farm have helped to ensure through detailed survey and assessment work, as well as on-going design iteration, that this is not applicable to the Dorenell site. The level of impacts and effects of this proposal on the aspects he mentions, have all been analysed and assessed within the ES and subsequent documentation; and SEPA and SNH have also carried out their own appraisal of this site and the likely level of impacts on which they have reported.

2.1.7 The Letter to ECU dated 19th August 2008 from Kate Gordon-Rogers and Alasdair M Gordon-Rogers (NTS commentary page 4 of 6, pages 26-28) makes mention of red deer. While the numbers are exaggerated for the Dorenell site alone, the possible disturbance during construction is not seen as being significant for anything other than a very small part of the area which is available to them at present.

I am unaware of this being an issue in relation to other similar situations; but it is certainly not a conservation or welfare issue. It may be a localised issue during stalking, which would be suspended within the wind farm area in any event.

In relation to deer management, I acknowledge that this is a difficult issue. However, it is perfectly possible to control deer numbers with the consent of the landowner and this is the intention outlined in the ES and in the outline Habitat Management Plan, to improve habitats away from the wind farm. This does not necessarily mean culling on a massive, one-off scale; but rather, regular close control over future years, which would still allow a sustainable deer stalking programme to continue.

2.1.8 The Letter to ECU dated 19th August 2008 from Kate Gordon-Rogers and Alasdair M Gordon-Rogers (NTS commentary page 4 of 6, pages 28 & 29) suggests that water abstraction has not been accounted for. In terms of potential ecological impacts, it has, but is not specifically mentioned in the NTS summary.

Chapter 12 of the ES, (e.g. paragraph 12.8) specifically mentions it and indicates that it is accounted for. In addition, the amounts of water involved will be assessed, allowed and carefully controlled by SEPA as the regulator.

2.1.9 These letters mention many specific bird species and comments. These are not addressed in this supplementary submission; but Paul Bradshaw (ornithologist on behalf of the applicant) will be happy to assist the Reporter with any specific queries that arise from any of these points.

3. REFERENCES USED

CD H 2-6 Infinergy (2008). Dorenell Wind Farm Environmental Statement, all volumes.

CD H 7 Infinergy (2010). Dorenell Wind Farm Supplementary Environmental Information.

CD K 20 Scottish Natural Heritage (2009). SNH letter to the Energy Consents Unit dated 18 June 2009.