

FILE NOTE

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Our reference: 2480492 – Farr Wind Farm Extension

Dear Robert,

WIND FARM DEVELOPMENT AT FARR – PROPOSED APPLICATION FOR A SECTION 36 VARIATION

Ventient Energy are currently considering applying for a section 36 variation to the relevant condition of the existing planning permission for Farr Wind Farm, near Inverness, within the Kyllachy Estate (Ref: 02/00871/S36IN). Farr Wind Farm was granted consent in October 2004 and construction of the wind farm began in April 2005 with the last turbine erected in March 2006. A section 36 application would allow the continuation of its use rather than the planned decommissioning after the consented 25 years. No changes to existing turbines or infrastructure are proposed.

RSK Biocensus has undertaken a baseline review of the existing ecological and ornithological information for the site to inform this s36 variation application. In addition, the available baseline information from the adjacent Glen Kyllachy Wind Farm has also been reviewed insofar as it provides further relevant information in terms of the wider environment around the Farr Wind Farm site.

Baseline Review - Ornithology

Reference material

The following documents have been used in this review:

- Farr Section 36 Conditions (2004)
- Ecology UK (2009) Farr Wind Farm Raptor Monitoring Summary Report March 2007—August 2007;
- Ecology UK (2009) Farr Wind Farm Raptor Monitoring Summary Report September 2007—February 2008;
- Ecology UK (2009) Farr Wind Farm Raptor Monitoring Summary Report March 2008—August 2008;
- Ecology UK (2008) Farr Wind Farm 2006 and 2007 Breeding Wader Report;
- Ecology UK (2009) Farr Wind Farm 2009 Draft Breeding Wader Report;

- Ecology UK (2009) Farr Wind Farm Raptor Monitoring Summary Report March 2009—August 2009;
- Ecology UK (2009) Farr Wind Farm Raptor Monitoring Summary Report September 2008—February 2009;
- National Wind Power (2002) Farr Wind Farm Environment Statement;
- Rob Firth and Associates Ltd (2011) Farr Wind Farm 2011 Draft Breeding Wader Report;
- Rob Firth and Associates Ltd (2011) Farr Wind Farm Raptor Monitoring Summary Report March 2010-August 2010;
- Rob Firth and Associates Ltd (2011) Farr Wind Farm Raptor Monitoring Summary Report September 2011-December 2011;
- Rob Firth and Associates Ltd (2012) Farr Wind Farm Ornithological Surveys Data Summary; and
- Shaun P. Coyle (2016) Farr Wind Farm 2016 Golden Plover Report and 10-year summary

The results of the review are presented below.

Farr Wind Farm ES

The environmental statement (ES) completed for Farr Wind Farm concluded that there would be some short-term displacement of breeding birds within the wind farm site during construction, but no significant impacts were expected during the operation of the wind farm.

Whilst the data within the ES provides a robust initial data set for the review below, the focus of the review below relates primarily to the data collated following the consenting of the wind farm as opposed to the original ES and associated surveys. Such data offers two main advantages, those being that it represents the most up to date information in relation to the avian species observed on site and also provides an analysis of the ongoing effects of the wind farm on those species.

Pre-Construction and Construction Surveys

Pre-construction bird surveys were undertaken at the site, as well as during construction, in order to ensure that construction practices adhered to legal and best practice requirements in terms of safeguarding avian species. These revealed that the following species were present in and around the site: Black Kite (*Milvus migrans*) (a single flight in 2002), Buzzard (*Buteo buteo*), Dunlin (*Calidris alpina schinzii*), Eurasian Sparrowhawk (*Accipiter nisus*), European Golden Plover (*Pluvialis apricaria*), Golden Eagle (*Aquila chrysaetos*), Greylag Goose (*Anser anser*), Hen Harrier (*Circus cyaneus*), Kestrel (*Falco tinnunculus*), Merlin (*Falco columbarius*), Northern Goshawk (*Accipiter gentilis*), Osprey (*Pandion Haliaetus*), Peregrine falcon (*Falco peregrinus*), Pink Footed Goose (*Anser brachyrhynchus*), Red Kite (*Mivus milvus*) and Short Eared Owl (*Asio flammeus*). No Schedule 1 raptors were found to be breeding on or near the site however, breeding Dunlin and Golden Plover were recorded within the site.

Red Grouse (*Lagopus lagopus scoticus*) were recorded over the entire site while Common Skylark (*Alauda arvensis*) and Meadow Pipit (*Anthus pratensis*) were also recorded in low numbers. Several

common woodland or woodland edge species were recorded along access tracks and the possible presence of Scottish Crossbill (*Loxia scotica*) was also noted but not confirmed.

Planning Conditions

The planning consent for Farr Wind Farm included several conditions in relation to ornithology. Of those, the requirements of, and resultant survey data relating to, conditions 3.9, 3.10 and 3.11 are considered most relevant to this review and are described below.

Condition 3.9: Relates to the requirement to conduct breeding bird surveys at the site: *“The company shall undertake six years of monitoring of breeding birds from the date of this consent: first, annually for a period of 3 years following the final commissioning of the development, and second at five yearly intervals, at 5, 10 and 15 years after the construction phase is completed. This monitoring should be conducted to an identical standard on both the wind farm site and an appropriate reference site. The detail of this monitoring and of the reference site shall be submitted to and approved by the Scottish Ministers in consultation with the planning authority and Scottish Natural Heritage. The findings of these surveys shall be collated into two reports, after three and fifteen years, and all of the original data (in formats agreed by the Scottish Ministers in consultation with Scottish Natural Heritage), and the reports will be made available to the Scottish Ministers, the planning authority and Scottish Natural Heritage. After the first report, any mitigation measures developed and approved by Scottish Ministers in consultation with Scottish Natural Heritage shall be implemented.”*

Conditions 3.10 and 3.11, related to the recording and reporting of bird flight activity through the wind farm site as detailed below.

Condition 3.10: *A group, chaired by an officer of the Scottish Executive as appointed by the Scottish Ministers to be known as the Farr Windfarm Monitoring Group (“FWMG”) shall be established. Membership of the group (apart from the Chair) shall comprise representatives of Scottish Natural Heritage and the Royal Society for the Protection of Birds and the independent ecological contractor.*

Condition 3.11: *Prior to any work commencing on site, the company shall identify an independent contractor whose appointment has been approved by the Scottish Ministers in consultation with Scottish Natural Heritage and the Royal Society for the Protection of Birds. If at any point in this process, the Scottish Ministers determine that the independent contractor has failed to implement these provisions, the company shall identify a replacement whose appointment shall be approved in accordance with the foregoing terms. This contractor shall to undertake a programme of monitoring for a schedule of species to be agreed by FWMG. All costs relating to this programme shall be met by the company. This programme of monitoring shall include:*

- 1) three three-hour watches from a minimum of three vantage points each month from the date of this consent until 5 years after the commissioning of the development. These observations shall record flight-lines, any collisions or avoidance activity, narrative report as specified by FWMG; and*
- 2) observations to identify individual red kites in the area from their wing-tags; and*
- 3) studies of searches for collision casualties; and*

4) searches for available carrion and its removal from the area.

The contractor shall present written reports and a full dataset to FWMG on a twice yearly- basis. These reports and datasets shall be made available to all parties expressing an interest. Following the first year of these studies, if in the opinion of FWMG a significant number of red kites use the site, FWMG shall advise the company whether a radio-tracking study of red kites in this part the of Scotland and any further mitigation measures, are required. Said mitigation measures may include temporary shutdown of turbines which have been identified as responsible for red kite mortalities. FWMG shall advise on the conditions which would lead to the consideration of shutdown and the duration of proposed shutdown. The company shall, implement the required supplementary monitoring and mitigation measures, as identified by FWMG in their entirety.”

The following summarises the findings of the monitoring surveys undertaken to satisfy the conditions above.

Condition 3.9 - Breeding Wader Monitoring Surveys

Monitoring of breeding Dunlin and Golden Plover has suggested that breeding populations of both species are stable.

Ecology UK (later known as Rob Frith and Associates Ltd) began undertaking bird surveys at the wind farm site in 2002 and in April 2007 were re-appointed as the approved ecological contractor by Farr Wind Farm Limited to undertake the breeding bird surveys in compliance with condition 3.9.

The principle reason for these breeding bird surveys was to record and assess the post construction breeding densities of Dunlin and European Golden Plover at the site in a manner comparable with the pre-construction surveys. The results of these surveys generally suggested that the number of territories of both these species remained fairly consistent across the whole study area. In 2010, there was a reduction in Golden Plover on the wind farm, however this was attributed to an exceptionally cold winter followed by a cold and wet breeding season and breeding pairs increased again in 2011.

Shaun P. Coyle (formerly Ecology UK and Rob Frith and Associates Ltd) was commissioned to undertake further breeding wader surveys from 2012 to 2016. The results from this period showed that Golden Plover breeding pairs generally fluctuated depending on the conditions during the breeding season, as expected, and the number of breeding pairs in 2016 was 40 which is considered to be the average over the 10 year post construction monitoring period. The results of the Dunlin monitoring between 2012 and 2016 were also considered to show a stable breeding population, as in previous years.

Condition 3.11 Raptor and Bird Flight Monitoring

Raptor and bird flight monitoring suggest there has been no overall significant impact on bird species during operation of the wind farm.

Ecology UK were also appointed to undertake bird monitoring required under Condition 3.11, commencing in 2005 and lasting until 2011. This included a review of vantage point surveys in 2006 when most of the turbines at the site had been erected, in order to monitor any site avoidance exhibited by raptors as well as to continue with the recording of flight activity at the site. In addition, radio-tracking of tagged Red Kite was undertaken as well as breeding Merlin surveys. All species recorded during post-construction and construction vantage point surveys were again recorded between 2007 and 2011 (i.e.

post construction) with the exception of Black Kite (one record from 2002 only), Osprey (one record from 2002 and one from 2004) and Pink Footed Goose (recorded in 2004, 2005 and 2006 only). There was only a single flight by a Golden Eagle post construction and only five flights were recorded pre 2006.

Turbine collision monitoring (TCM) was also undertaken at the site to cover all 40 turbine bases. Carcass removal monitoring was also undertaken, commencing in 2007, to determine the efficiency of collision monitoring. At the end of 2011, the total number of bird carcasses found on the site was 53. Of these, 49 were Red Grouse with 82 % being found within 30 m of the turbine column. The others were one each of Common Gull (*Larus canus*), European Golden Plover, Mallard (*Anas platyrhynchos*) and Willow Warbler (*Phylloscopus trochilus*).

Glen Kyllachy Wind Farm

Bird surveys have also been undertaken on a neighbouring wind farm site – Glen Kyllachy Wind Farm. These comprised breeding bird surveys in 2011 and 2012 and non-breeding walkover surveys conducted over the 2011-12 winter season as well as vantage point surveys throughout the 2011-2013 survey period. These surveys revealed that three target species had a low to moderate risk of being displaced during the breeding season while the wind farm was being constructed. As with Farr Wind Farm, these species were Dunlin and Golden Plover but also included Lapwing (*Vanellus vanellus*). It was stated that the risk of permanent disturbance to all of these species would be low.

In regard to collision risk, collision risk assessment was undertaken on several target species including Curlew (*Numenius arquata*), Golden Eagle, Oystercatcher (*Haematopus ostralegus*), Peregrine Falcon and Red Kite. It was determined that the wind farm would not have a significant impact on the majority of target species in terms of both displacement and turbine collision. Red Kite were identified as having the greatest risk from collision. Population modelling for this species was undertaken and it was concluded that the wind farm would not cause a significant impact on the northern Scotland population.

Baseline Review – Ecology

Reference material

The following documents have been used in this review:

- National Wind Power (2002) Farr Wind Farm Environment Statement;
- Boreas Ecology (2005) Farr Wind Farm Proposals for Habitat Management, Mitigation and Enhancement;
- Kyllachy Wind Farm (2013) Environmental Statement Volume 1 – Non-Technical Summary; and
- Kyllachy Wind Farm (2013) Environmental Statement Volume 2.

The results of the review are presented below.

Farr Wind Farm ES

Ecological surveys of Farr Wind Farm were undertaken by Dr. T. Dargie (of Boreas Ecology) and Mr. P. James in 2002 to inform the ES. These comprised a phase 1 habitat survey and national vegetation classification (NVC) survey. The wind farm site was reported to be dominated by blanket bog with small areas of acidic flush, dry heath and wet heath with some juniper scrub, woodland and areas of bare peat. Surveys at this time identified evidence of Otter (*Lutra lutra*) and Water Vole (*Arvicola amphibius*) with

Common Frog (*Rana temporaria*), Common Lizard (*Zootoca vivipara*) and Mountain Hare (*Lepus timidus*) all being recorded during the phase 1 habitat walkover survey. Large Heath butterfly (*Coenonympha tullia*) was also recorded as its main larval food source, *Eriophorum vaginatum* (Hare's-tail Cottongrass), was recorded to be present throughout the site.

The ES concluded that the only residual effects on ecological receptors would be minor losses of wet heath and dry heath during construction, considered to be of minor negative significance. A document was produced by Boreas Ecology in 2005 to detail the habitat management, mitigation and enhancement which was included within the ES for the wind farm, this document also included details from the environmental management plan for the site as well as a detailed re-instatement method statement.

Glen Kyllachy Wind Farm

Ecological surveys at Glen Kyllachy Wind Farm were undertaken by Boreas Ecology in 2008 and 2009. These comprised a phase 1 habitat survey and NVC survey as well as protected species surveys. Otter, Pine Marten (*Martes martes*), Red Squirrel (*Sciurus vulgaris*) and Water Vole were all recorded during these surveys, although Red Squirrel evidence was found only outside the site boundary.

Update surveys for Badger (*Meles meles*), Otter, Pine Marten, Water Vole and Wildcat (*Felis silvestris*) were undertaken by SLR Consulting Ltd in 2011 and 2012 to inform the ES. In addition, bat surveys using static detectors on met masks were undertaken at the site by Central Environmental Surveys (CES) in 2011 and 2012. Fish surveys were undertaken by The Spey Foundation in 2011 and a habitat suitability index survey of a single pond was undertaken for Great Crested Newt (GCN) by SLR Consulting Ltd in 2011. These additional surveys confirmed the continued presence of Otter and Water Vole within the site but did not find any evidence of Badger, Pine Marten, Red Squirrel or Wildcat. Common Pipistrelle (*Pipistrellus pipistrellus*) was the only species of bat recorded on the static detectors. The surveyed pond was deemed to be of low suitability for GCN and no further surveys were undertaken. Common Lizard were seen within the site and the fish surveys revealed the presence of Salmon (*Salmo Salar*) and Sea Trout (*Salmo trutta trutta*) in watercourses within the site. The ES stated that, provided the proposed avoidance and mitigation was implemented, there would not be any residual impacts of significance on ecological receptors with the exception of blanket bog, wet heath and upland dry heath. The loss of these habitats remained as a significant residual impact at the local level, similar to the conclusions of the Farr ES.

Section 36 Application

Based on the information provided above, it is clear that a substantial amount of data regarding ornithological interests in and around the wind farm is available from both the site itself and the neighbouring wind farm. Monitoring surveys on Farr Wind Farm itself have provided substantial additional data to that collected during the planning process and no further concerns in regard to bird species have been raised by these monitoring visits. In regard to non-ornithological receptors, as the turbines and related infrastructure will not be altered, it is not considered necessary to undertake any additional ecology surveys to inform the application for a section 36 variation for an extension of life of the wind farm as no additional habitat will be lost or affected and it is considered highly likely that any species

present on or near the site have habituated to the presence of infrastructure and turbines over the 14 years it has already been in operation.

Yours sincerely,

A solid black rectangular box used to redact the signature of Ruth Morton.

Ruth Morton, principal ecological consultant
On behalf of RSK Biocensus