Our ref: PCS/134205
Your ref:

If telephoning ask for:
Stephanie Balman

12 August 2014

Karen Gallacher
The Scottish Government
Energy Consents & Deployment Unit
4th Floor 5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

By email only to: EconsentsAdmin@scotland.gsi.gov.uk

Dear Ms Gallacher

**The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000**
**Town and Country Planning (Scotland) Acts**
**Application to construct and operate Talladh-a-Bheithe Wind Farm**
**Talladh-a-Bheithe Estate, North East of Bridge of Gaur, Rannoch, Perthshire**

Thank you for your consultation letter which SEPA received on 23 June 2014.

We **object** to this planning application on the grounds of a lack of information relating to:

- the potential consentability (under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR)) of the proposed access to the windfarm (via Loch Ericht)
- impacts to peatlands
- borrow pits

We will consider reviewing this objection if the issues detailed in the attached Annex (in particular Sections 1, 2 and 3) are adequately addressed. Further detailed comments and **conditions** (detailed in Section 5 & 9) which we request are attached to any consent (if granted) are also detailed in the attached Annex.

If you have any queries relating to this letter, please contact me by telephone on 0131 449 8559 or e-mail at Stephanie.Balman@sepa.org.uk.

Yours sincerely

Stephanie Balman
Planning Officer
Planning Service

ECopy to: craig.wallace@eu.jll.com Jones Lang LaSalle



Strathearn House
Broxden Business Park,
Lamberkine Drive, Perth, PH1 1RX
tel 01738 627989 fax 01738 630997
www.sepa.org.uk

*Disclaimer*
*This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at the planning stage. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. If you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found in How and when to consult SEPA, and on flood risk specifically in the SEPA-Planning Authority Protocol.*

## Annex: SEPA's detailed comments, recommendations & conditions

### 1. Impacts to peatland

1.1 We welcome that a peat survey has been undertaken and the results of this are shown on Figure 11.10. However, there is a lack of information on how the volume of peat to be excavated and reused has been calculated and some of the proposals for reuse outlined are also not acceptable. We therefore **object** and request that the information detailed below is provided.

1.2 The Peat Management Plan (PMP) (Section 11.2 of the Environmental Statement (ES)) states that the total amount of waste peat estimated on site is 131,158 $m^3$ with the potential identified reuse for peat being 128,378 $m^3$, leaving 2,780 $m^3$ to be disposed of. It is not clear from the document how the total peat figures were ascertained and such we **require** further clarification with respect to this. In particular how the figures for Actrotelmic and Catotelmic peat (for each area of construction) were calculated.

1.3 The PMP states that the 131,158 m3 of peat excavated is made up of 104,368m3 of Acrotelmic Peat (the more useful and reusable peat) and only 26,790m3 of Catotelmic peat (often the most difficult to reuse). However, there is no evidence of this having been surveyed, the peat survey details provided only give total peat depths rather than differentiated Acrotelmic and Catotelmic depths, as such it is unclear how this differentiation has been made.

1.4 In addition to this, we also **request** clarification as to how the re-use volumes were calculated, it has been stated that there is scope to reuse 128,378m3 of peat material. We therefore **request** that typical dimensions such as the lengths, depths and widths of areas of road batter sections (which is partially provided), turbine base restoration and borrow pit restoration be provided.

1.5 If the figures are correct then that still leaves 26,790m3 of Catotelmic peat to dispose of on site, this material can often be sloppy and amorphous and as such not practicable for the types of reuse proposed (road verge batters, restoration of borrow pits and turbine bases). The PMP (Section 3.3) states that this Catotelmic material may be mixed with other *"excavated superficial overburden deposits"* to stabilise it prior to reuse, which indicated that it is indeed amorphorus. However, this would result in the creation of an even greater volume of peat material which required disposal / reusing. We would consider this a waste treatment activity and as such would require a Waste Management Licence. However, it is unlikely that an application to do this would be successful. We therefore **request** that alternative proposals for the reuse of peat on site are made.

1.6 We would expect any reuse proposals to be in accordance with the Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste and our Regulatory Position Statement – Developments on Peat.

1.7 The applicant should refer to Section 11 below for further guidance on this issue.

### 2. Site access and regulatory requirements

2.1 Both the Planning Statement and Chapter 3 of the Environmental Statement (ES) discuss access to the site which is very constrained. One option under investigation is the use of Rannoch Station and we do not have any concerns with this proposed route.

2.2 However, the other proposed access (discussed in the Planning Statement, Section 1.3.13 and Section 3.3.16 of Chapter 3 of the ES) is to use Loch Ericht as a shipping route and transport equipment / turbines down the loch from Dalwhinnie using barges. However, there appears to have been no consideration given to the any regulatory requirements (authorisations required from SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR)) for this potential access route for infrastructure (such as jetties, docks, loading areas at either end of the loch etc) on the banks of Loch Ericht. This was raised at a pre-planning meeting which we attended with the applicant's consultant on 27 January 2011.

2.3 It is noted in the ES that this aspect should be considered *"post consent"* (Chapter 3.3.16 of the ES) however, we do not feel that this is appropriate. The type of infrastructure proposed on Loch Ericht and the number of shipping movements have a high potential to damage the water environment and cause pollution. There is also a lack of information at this time to confirm if the structures/ engineering required in the water environment will be consentable under CAR.

2.4 Each of the "port" areas at either end of the loch would also require to have run-off treated using a SUDS (sustainable drainage) treatment system. There is a lack of information at this stage to determine what level of authorisation this may require under CAR.

2.5 We therefore object and **request** that there is a full consideration and assessment of the risks of shipping on the loch and the pollution risks and proposed mitigation actions presented to SEPA.

## 3. Borrow pits

3.1 We note that there are four search areas which have been identified to use as potential borrow pits. However, there are no details provided as to whether other areas on site were considered nor details of the methodology used (other than visual inspection); as such there appears to have been no assessment of the suitability of the material available on site for construction purposes. The search areas have been shown but not the final locations for each borrow pit.

3.2 Given the constrained access to site, the amount of aggregate estimated to be needed and the likelihood that additional material may need to be brought to site we would expect that a fuller assessment of the suitability of the material available on site for construction purposes to have been carried out at this stage and not post consent as suggested in the document. The reason for this is the lack of available aggregate on site would likely impact the overall viability of the site for this proposed land use.

3.3 Ideally the Department for Transport guidance on aggregate suitability should be followed (Manual Of Contract Documents For Highway Works) and the type of rock available should match as closely as possible the British Standards for Type 1 and 2 aggregate (BS EN 13282) and the respective Los Angeles Coefficients. If proposed material is significantly below this standard then we would **request** evidence be provided of its suitability for the proposed use. The reasons behind this are that the use of sub-standard and unsuitable materials won from borrow pits in the construction of site roads on sites such as these are known to be a prime cause of silt pollution during the construction phase.

3.4 We therefore **object** and **request** that further information is provided with respect to how the search areas for the borrow pits were determined. We also **require** justification to be

provided which demonstrates that the material available will be suitable for its proposed use.

## 4. Wetland ecology

4.1 It should be noted that types of wetland designated as Groundwater Dependant Terrestrial Ecosystems (GWDTEs) are specifically protected under the Water Framework Directive.

4.2 Mapped NVC habitats were provided for the survey area in relation to the turbine bases. It would have been helpful if details of access tracks and borrow pits could also have been provided on the maps. A few of the habitat types noted in the key of figure 8.5 NVC survey (including some M23) were not found on the map. These may be very small areas that were lost in the scale of the map or from previously surveyed areas. We recommend that this is checked by the applicant.

4.3 The main habitats associated with the infrastructure are not considered to be highly groundwater dependent, although there are areas of M15 and mosaic of M15 habitat which can be moderately groundwater dependent and most likely reliant on precipitation inputs and some base flow from peat masses. The main habitat of the site is blanket bog, an Annex 1 habitat with a few small patches of wet modified bog and some areas of peat erosion. The report considered that much of the original mire has been substantially modified by previous land usage and grazing. The detail of this was not available and we request that the more diverse and least modified areas be avoided by micro-siting and that there is minimal disturbance to this habitat in preference to restoration of more modified bog.

4.4 It has been demonstrated that the impact from direct and indirect losses will be less than 10% in the construction of this wind farm (through the construction of roads, hard standings, bases and borrow pits). We therefore request that a similar sized area of Annex 1 habitat is created to mitigate this loss. The area to be cleared for forestry and areas where there has been peat erosion are specifically mentioned as areas that would be suitable for restoration, with some re-wetting of areas of blanket bog by grip blocking. We recommend that SNH are consulted on the creation of this Annex 1 habitat. We would expect that details regarding this to be included with the finalised Habitat Management Plan (HMP) and we would welcome the opportunity to comment on this.

4.5 Dry heath which is another Annex 1 habitat and the peat erosion are present in patches across the site (NVC survey) however, appear to have been avoided by the development.

4.6 Detailed proposals for mitigation should be included within the CEMP. Please refer to Section 12 below for further guidance.

## 5. Environmental management and pollution prevention

5.1 We welcome that it is proposed to produce a construction environmental management plan (CEMP). Some of proposed measures relate to works which may be regulated by us however, many of the works will not be and need to be covered by condition. Therefore, we request that a **condition** is attached to the consent requiring the submission of a full site specific construction environmental management plan (CEMP). To assist, the following wording is suggested:

At least two (2) months prior to the commencement of any works, a full site specific construction environmental management plan (CEMP) must be submitted for the written

approval of the planning authority [in consultation with SEPA] [and other agencies such as SNH as appropriate] and all work shall be carried out in accordance with the approved plan.

Reason: to control pollution of air, land and water.

5.2 The applicant should refer to Section 13 below for further details of our requirements for the CEMP.

## 6. Protection of the water environment

6.1 We note that there are new water course crossings required and these are detailed within Appendix 11.3. When a watercourse crossing cannot be avoided, bridging solutions or bottomless or arched culverts which do not affect the bed and banks of the watercourse should be used. The crossings will require authorisation from SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR), the level depending on the final design. Appendix 11.3 within the ES only includes potential crossings on the main wind farm site and does not include details of any engineering required as part of the proposals to access the site via Loch Ericht. See Section 2 above and 7 below for further details.

6.2 The ES (Table 11.13) notes that there are no private water supplies (PWS) identified within the same catchments as the proposed development and as such no issues are anticipated.

6.3 Section 11.7.5 of chapter 11 “Geology, Hydrogeology and Hydrology” states that “drainage infrastructure is designed to accommodate storm flows in a 1 in 200 year plus climate change scale”. We ask that justification be provided as to how this will be achieved.

6.4 We recommend that the access track in the vicinity of Turbines 3 and 4 follows the existing track and good practice is implemented in this area to prevent contaminated run-off entering the watercourse.

6.5 Figure 11.2 showed a large number of artificial drains within the development area. These drains could act as preferential pathways and have potential to transport contaminants, in particular sediments, from the construction areas. These should be monitored closely and treatment systems maintained to prevent contamination of larger watercourses downstream. Wetlands and sensitive habitats should not be used for the treatment of contaminated water or for the storage of excavated material.

6.6 It should be noted that Allt Ghlass SEPA WFD classification in 2012 was high status and not poor as reported Ref: GB200391_M_020_A1. Not all of the development area is within the Allt Ghlass catchment and tributaries of Killichonan Burn and River Ericht also drain the area.

## 7. Water Framework Directive requirements

7.1 Section 4.7 of SEPA’s Land Use Planning System – Guidance Note 4 outlines procedures for the provision of an indication of the ‘consentability’ of a Section 36 windfarm proposal under Water Framework Directive requirements. In line with this we are unable to confirm at this stage whether the proposal accords with the WFD objectives and as such whether it is ‘capable’ of being authorised under CAR. This is on the basis of the information available and without prejudice to any future applications for authorisation under CAR.

## 8. Flood risk

8.1 We have reviewed the information provided in this consultation and it is noted that, elements of the proposed development lie adjacent to the medium likelihood (0.5% annual probability or 1 in 200 year) flood extent of the SEPA Flood Map, and may therefore be at medium to high risk of flooding.

8.2 Scottish Planning Policy states in paragraph 203, that "For planning purposes the functional flood plain will generally have a greater than 0.5% (1:200) probability of flooding in any year. Development on the functional flood plain will not only be at risk itself, but will add to the risk elsewhere." Built development should not therefore take place on the functional flood plain.

8.3 However, as these elements are adjacent to the indicative flood envelope and we hold no additional information to indicate that the site is at flood risk, we have no objection to the proposed development on flood risk grounds. It is recommended that contact is made with your Flood Prevention Authority regarding this issue. If your authority requires further comment from us, additional information would be necessary to enable us to comment upon the flood risk at the application site.

8.4 With respect to the proposed new watercourse crossings and the upgrading of the existing crossing. We welcome the proposals to ensure that all hydraulic structures should be suitably sized and scaled so that they can each convey the 1 in 200 year flow at their respective locations and are therefore compliant with Scottish Planning Policy.

8.5 The SEPA Flood Maps have been produced following a consistent, nationally-applied methodology for catchment areas equal to or greater than 3km$^2$ using a Digital Terrain Model (DTM) to define river corridors and low-lying coastal land. The maps are indicative and designed to be used as a strategic tool to assess flood risk at the community level and to support planning policy and flood risk management in Scotland. For further information please visit www.sepa.org.uk/flooding/flood_maps.aspx.

8.6 Please note that we are reliant on the accuracy and completeness of any information supplied by the applicant in undertaking our review, and can take no responsibility for incorrect data or interpretation made by the authors.

8.7 The advice contained in this letter is supplied to you by SEPA in terms of Section 72 (1) of the Flood Risk Management (Scotland) Act 2009 on the basis of information held by SEPA as at the date hereof. It is intended as advice solely to the Scottish Government as Planning Authority in terms of the said Section 72 (1). Our briefing note entitled: "*Flood Risk Management (Scotland) Act 2009: Flood risk advice to planning authorities*" outlines the transitional changes to the basis of our advice inline with the phases of this legislation and can be downloaded from www.sepa.org.uk/planning/flood_risk.aspx.

## 9. Restoration

9.1 We request that a planning **condition** is attached to any approved consent seeking a Decommissioning and Restoration Plan. The plan should be submitted at least two years prior to the end of the design life of the development and based on best practice guidelines which are applicable at the time of submission.

## 10. Carbon balance

10.1 No validation of the carbon balance assessment has been undertaken.

## Detailed advice for the applicant

## 11. Disturbance and re-use of excavated peat

11.1 There are important waste management implications of measures to deal with surplus peat as set out within our Regulatory Position Statement - Developments on Peat. Landscaping with surplus peat (or soil) may not be of ecological benefit and consequently a waste management exemption may not apply. In addition we consider disposal of significant depth of peat as being landfilled waste, and this again may not be consentable under our regulatory regimes. Our Planning and Energy webpage provides links to current best practice guidance on peat survey, excavation and management.

11.2 Excavated peat should only be re-used on site where there is an environmental benefit and is in keeping with the surrounding topography. Re-use should only occur at point of extraction (i.e. peat should not be used to back fill areas that previously had no peat). Any soil or peat to be removed should be stored as close as possible to point of extraction, it should not be stored on environmentally sensitive areas e.g. away from water courses and GWDTE's and should be stored in a way which does not allow pollution to those environments. Stockpiles should also be stored in a way so as to avoid drying out.

11.3 Please note, the placement of surplus peat to borrow pits (either on a temporary or permanent basis) or bunds is not encouraged as experience has shown that peat used as cover can suffer from significant drying and oxidation. In addition, peat deposited at depth can lose structure and create a hazard when the stability of the material deteriorates.

11.4 The use of alternative methods of anchoring the turbine bases could be considered to reduce the amount of excavated peat if the scope for on-site re-use is limited.

## 12. Wetland ecology

12.1 There should be mitigation implemented to preserve local hydrology and the carbon stores within the peat mass, as well as preserving, as far as possible, the surface hydrology of blanket bog and heath habitats. SEPA requests sensitive restoration, permeable tracks (preferably floating), chemically suitable aggregate and minimising the need for trackside drainage by promoting diffuse run-off.

12.2 Any de-watering of the foundations should be kept to a minimum period during construction. Any pumped water should be treated efficiently through a water treatment system (such as settlement ponds/ silt fences) and not situated directly on areas of GWDTE. Water should ideally be discharged downslope to replenish natural hydrological flow paths which have been intercepted by the excavation. Water being discharged to downslope wetlands should be of suitable quality and the method of discharge should not cause further pollution issues or threats to the GWDTEs e.g. erosion due to point source discharges.

12.3 SUDS (sustainable drainage systems) or soils should not be located or placed on areas of GWDTE. Detailed proposals for mitigation to minimise impacts to wetlands specifically

GWDTEs should be included within the Construction Environmental Management Plan (CEMP) which we have requested is produced by condition.

## 13. Environmental management and pollution prevention

13.1 Please note that we have requested that a planning **condition** is attached to any approved consent requiring the submission of a construction environmental management plan (CEMP) to be submitted at least two months prior to the proposed commencement of development. The CEMP should incorporate detailed pollution prevention and mitigation measures for all elements of the proposal potentially capable of giving rise to pollution during all phases of construction, reinstatement after construction and final site decommissioning.

13.2 As part of the CEMP, a construction method statement (CMS) will be required for all works likely to affect water quality, such as road and turbine base construction, site compound, river crossings, borrow pits and waste water drainage. The CMS should also include pollution mitigation strategies and design (including port areas on Loch Ericht), wet weather working protocols, water course crossing methodology and justification.

13.3 We also request that a Drainage Management Plan is included within the CEMP. Surface water drainage from access roads, turbine foundations, site compounds, site buildings and borrow pits should be treated by a suitable SUDS system in accordance with the General Binding Rules of CAR (GBR 10, GBR 21 and GBR 22). Appropriate treatment must be provided prior to discharge to the water environment which should include, cut off drains, silt fencing, swales, and silt settlement ponds. Run-off should be shed at regular intervals to grassland soakaways or to silt settlement areas particularly on steep slopes.

13.4 The provision of adequately sized silt settlement lagoons will need to be provided in all areas of high risk particularly with roads on steep inclines leading to river crossing points. Detail should be provided in the CMS with respect to pollution control methods during river engineering works.

13.5 Details of borrow pit excavation and reinstatement (including the profile) should also be included in the CMS or CEMP. We also request that this includes proposals for how any groundwater will be dealt with, if encountered.

13.6 To address the issue of waste we recommend that a site waste management plan (SWMP) is included within the CEMP which addresses how all waste streams will be managed. This should include waste materials excavated on site and the importation of any waste materials to the site. Advice on how to prepare a site waste management plan is available on the NetRegs website and from Envirowise who also provide free advice on resource efficiency. Further advice on the reuse of demolition and excavation materials is available from the Waste and Resources Action Programme. Full details of what should be included in the CEMP can be found on our website.

13.7 If any felling is required then the applicant should refer to our Forestry webpage for further guidance. Any brash and tree stumps on site should be dealt with as detailed within the guidance provided in the Use of Trees Cleared to Facilitate Development on Afforested Land. It should be noted that any forestry waste (if applicable) should also be included in the CEMP.

13.8 Guidance on the design and implementation of crossings can be found in our Construction of River Crossings Good Practice Guide. Other best practice guidance is also available within the water engineering section of our website.

13.9 In addition we also refer you to *Good Practice During Windfarm Construction* prepared by SNH, SEPA and the windfarm industry and to our guidance note Promoting the sustainable reuse of greenfield soils in construction.

## 14. Regulatory requirements

14.1 It should be noted that watercourse crossings, cable crossings of waterways, sluice installation and borrow pit drainage (along with any other engineering in or near the water environment) may require authorisation from SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR). Contact should be made with the local regulatory team (see Section 14.3 below) regarding this if required.

14.2 If there is a requirement for a crusher/screener on site then this should be authorised by us under Part B of The Pollution Prevention and Control (Scotland) Regulations 2012 (PPC 2012).

14.3 Details of regulatory requirements and good practice advice for the applicant can be found on our website at www.sepa.org.uk/planning.aspx. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the regulatory team in your local SEPA office (tel: 01738 627989).