

## **Volume 1: Written Statement**

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## **1. Introduction**

### **1.1 Background and Site Description**

- 1.1.1 Nan Clach Extension Limited (hereafter known as 'the Applicant') submitted the planning application for Tom na Clach Wind Farm Extension on 6<sup>th</sup> April 2022 to the Energy Consent Unit (ECU) of the Scottish Government, for a 7-wind turbine scheme and associated infrastructure (known as the 'Proposed Development').
- 1.1.2 An Environmental Impact Assessment Report ('EIA Report' (Infinergy, 2022) was prepared in support of the planning application for the Proposed Development.
- 1.1.3 Following submission of the application, the ECU consulted relevant organisations as well as the public. Once all the consultation responses had been received, the Application considered matters raised and has undertaken limited further work where appropriate; the submission of Additional Information ('AI') is the outcome.

### **1.2 Scottish Environmental Protection Agency response**

- 1.2.1 Scottish Environmental Protection Agency (SEPA) first responded to the Proposed Development application by email (25/04/22), requesting updated Figures to be provided, in addition to clarifications of where to obtain information within the EIA Report, which the Applicant provided and can be seen in **Appendix 1.A**.
- 1.2.2 Further communication between SEPA and the Applicant was in relation to a request from SEPA for updated Figures to show aerial photography relating to Hydrology, Hydrogeology, Geology & Peat (Chapter 13, EIA Report), which can be found in **Appendix 1.B**.
- 1.2.3 Following these clarifications provided by the Applicant, SEPA responded and requested further clarification, which the Applicant provided in writing (01/06/22 see **Appendix 1.C**).
- 1.2.4 Following these further informal exchanges with the Applicant, SEPA responded requesting in their formal response (see **Appendix 1.D**, 22/07/22, Ref: 4954) and made a number of suggestions which they considered, if possible, would reduce the environmental impact of the Proposed Development:
- 1. T1, which should be moved further north to avoid deep peat;*
  - 2. The spur track to T3, there is shallower peat and disturbed areas to the north and an existing track to the north west;*
  - 3. The Indicative Substation, other areas around the existing substation need to be considered. In addition, could the existing substation be utilised, or area already disturbed for it;*
  - 4. The orientation of T5, which could make more use of the shallower eroded peat to the south-west (but still including buffer to watercourse);*

5. *The track to T6, access via T4 would potentially avoid deep peat and would reduce track length by approximately 400m.*

- 1.2.5 The site layout for the Proposed Development has been redesigned in response to this feedback from SEPA. The Applicant considered in full the suggestions SEPA made (points 1-5 above), an exchange of the response with SEPA can be found in **Appendix 1.E** and **Appendix 1.F**.
- 1.2.6 In addition, in a final exchange of emails as an informal response between the Applicant and SEPA can be found in **Appendix 1.G**.
- 1.2.8 Two of the suggestions made by SEPA were not possible, as the Applicant did not have legal control over the areas indicated as possible alternative locations for Proposed Development infrastructure (no. 3 above).
- 1.2.9 Other alternative options for internal access tracks were discounted in earlier site iterations, as the iterative design process for the Proposed Development emerged, due to a range of civil engineering, health & safety and financial considerations (see Chapter 2: Table 2.2 of the EIA Report for more detail).
- 1.3.0 SEPA (**Appendix 1.G**) also requested that the Applicant consider:  
'..(3) you include proposals for track rationalisation and restoration, showing which existing tracks will be restored to compensate for the new track infrastructure required in the same vicinity.'
- 1.3.1 Following agreement with Cawdor Estate ('the Estate'), the Applicant is happy to commit to the restoration of the *redundant* Estate access track identified in email exchange between the Applicant and SEPA (11/11/22, **Appendix 1.G**) and can be seen in **Figure 1.0(A)** with track identified in red.
- 1.3.2 This redundant track, which is being proposed to be restored, is north west of Turbine T3 of the Proposed Development. The Outline Peat Management Plan (Appendix 13.C of the EIA Report) demonstrated that there will be a number of locations where good quality peat will be excavated as part of the windfarm construction, which can be used for reinstatement in this area.
- 1.3.3 The track identified by the Applicant in the same email exchange referred to in 1.3.0 (and seen in **Figure 1.0(B)**, north-east of Turbine T3), is still in daily active use by the Estate for its land management activities and is outside the Applicant's legal control.
- 1.3.5 In the email exchange referred to in 1.3.0 (17/11/22), SEPA also requested two additional areas for consideration for track restoration and rationalisation, and viewed in **Figure 1.0(C)**.
- 1.3.6 The existing Estate track, which runs along the track to Turbine T6 in a north-south direction, whilst running in a similar direction to Turbine T6 is unsuitable as an alternative access track due to it being outside legal control of the Applicant.
- 1.3.7 The other area identified by SEPA is also in active use by the Estate, and is not able to be offered by the Applicant for the reason of outside legal control.
- 1.3.8 The Estate has noted SEPA's suggestion about future track restoration and rationalisation for access tracks in active use by the Estate where duplication

could be created by the presence of new windfarm access tracks, and that potential streamlining of the estate road network will be considered in any separate future planning application for access tracks by the Estate, in sole use by the Estate within the redline boundary of the Proposed Development area, but with the express provision that those sections adopted as replacement road are preserved as permanent and for continued estate usage after the life of the wind farm as is the case with existing estate roads.

- 1.3.10 Location of wind farm infrastructure for the Proposed Development is designed in a way so it does not interfere with existing access tracks which are for the sole use by the Estate. It is on this basis, the Applicant is restricted in what it is allowed to offer by way of track rationalisation and restoration as it is outside its legal control.

#### **The Revised Development**

- 1.3.11 The Applicant has moved Turbine T1 approximately 61m north-east, and moved related infrastructure to avoid the crane pad being located in deeper peat and relocation of a turning head to avoid being located within a watercourse buffer.
- 1.3.12 Turbine T4 has been moved approximately 32m north, and track and turning head has also been relocated, to avoid a naturally defined water channel and bog pool.
- 1.3.13 The Applicant is happy for the redundant track referred to in **Figure 1.0** (and paragraph 1.3.2) be restored, this commitment to be secured by way of an appropriate planning condition.
- 1.3.14 The remaining 5 turbines, and related infrastructure, remain in the same location and unchanged from the Proposed Development. The 7-turbine scheme promoted in this AI for Tom na Clach Wind Farm Extension is hereafter known as the 'Revised Development'.

#### **1.4 Historic Environment Scotland response**

- 1.4.1 Historic Environment Scotland (HE.30.3S) in their response (see **Appendix 1.C**) did not object to the Proposed Development, but did state:

*"..we strongly recommend the applicant explores options for deleting or relocating turbines 5 and 7".*

- 1.4.2 The Applicant, based on all the response received from statutory consultees in the round has no plans to delete or relocate turbines with the exception of minor micro-siting of turbines related infrastructure as described in 1.3.11 and 1.3.12, following the SEPA objection.

#### **1.5 Ironside Farrar response**

- 1.5.1 Ironside Farrar, on behalf of the Scottish Government's Energy Consents Unit, responded with a 'Peat Landslide Hazard Risk Assessment Stage 1 Checking Report' which can be viewed in **Appendix 1.H**.

- 1.5.2 The Applicant's response to this can be viewed in the form of a covering letter, Report and supporting Figures in an updated **Appendix 13.D**.

## **1.6 Structure of the Additional Information**

- 1.6.1 The AI for the Revised Development is split into three volumes, **Volume 1** of the AI contains written statements informing each area of assessment considered throughout the EIA process. The AI needs to be read in conjunction with the EIA Report.
- 1.6.2 **Volume 2** contains the Figures that inform the AI.
- 1.6.3 **Volume 3** contains supporting information and appendices for each of these technical chapters, and additional studies that have been prepared to inform the relevant assessment as reported in the AI.

## **1.7 Document Structure**

- 1.7.1 The AI provides details of the application consultation responses, description of changes to the Revised Development site layout and reports the change in the significant of effect resulting from the revised layout.
- 1.7.2 The AI comprises the following documents:
- **Volume 1:** Written Statement (this volume);
  - **Volume 2:** Figures; and
  - **Volume 3:** Appendices.
- 1.7.3 Figures have been updated where appropriate to illustrate the findings of the report. The AI is limited to identifying the change in effect resulting from the Revised Development from those described within the EIA Report. The AI maintains the same structure as the EIA Report covering the following information.
- 1.7.4 The assessment for the Proposed Development, and where it was required to be updated for the Revised Development, was undertaken by a number of consultancies and in-house by Infinergy; who can be seen in Table 1.0.

**Table 1.0**

| <b>Section Number</b> | <b>Title</b>                 | <b>Project Role</b>  |
|-----------------------|------------------------------|----------------------|
| <b>1</b>              | Introduction                 | Infinergy            |
| <b>2</b>              | EIA Process                  | Infinergy            |
| <b>3</b>              | Project Description          | Infinergy            |
| <b>4</b>              | Planning Policy              | DB Planning          |
| <b>5</b>              | Climate Change Policy Carbon | Fluid                |
| <b>6</b>              | Socio-Economic               | Wood                 |
| <b>7</b>              | Traffic & Transport          | Pell Frischmann      |
| <b>8</b>              | Noise                        | Wood                 |
| <b>9</b>              | LVIA                         | OPEN                 |
| <b>10</b>             | Cultural Heritage            | Headland Archaeology |
| <b>11</b>             | Ecology                      | BSG Ecology          |
| <b>12</b>             | Ornithology                  | NRP                  |
| <b>13</b>             | Hydrology & Hydrogeology     | Fluid                |
| <b>14</b>             | Shadow Flicker & Safety      | Infinergy            |
| <b>15</b>             | Infrastructure               | Infinergy            |

## **1.8 Availability of the Additional Information**

- 1.8.1 The AI and the supporting documentation are also available online; please visit the dedicated website at [www.tomnaclachwindfarm.co.uk](http://www.tomnaclachwindfarm.co.uk), under Project/Downloads. A copy of the NTS and a Cd or USB stick containing the full AI are available free of charge (while stocks last), by contacting Infinergy Limited at [info@tomnaclachwindfarm.co.uk](mailto:info@tomnaclachwindfarm.co.uk) or in writing to Freepost Infinergy Limited (no stamp or further address detail necessary). If required, a hard copy of the entire AI can be provided at a cost of £250 plus VAT.
- 1.8.2 Copies of the AI will also be available to view during opening hours at the following locations:
- Highland Council;
  - The Strathdearn.

## **1.9 Representation to the Applicant**

- 1.9.1 Any representations to the application should be made directly to the Energy Consents Unit/Scottish Government.

## **2. EIA Process**

### **2.1 Overview**

2.1.1 Chapter 2 of the EIA Report describes the process for the Proposed Development. The process and principles outlined in that chapter have been carried through to the post-submission stage and remain valid for the preparation of the AI.

2.1.2 The findings of the EIA were presented in the EIA Report submitted April 2022. The minor amendments to wind farm infrastructure layout which form the Revised Development which are considered within the AI are described in section 3.1.1.

2.1.3 Environmental effects have therefore already been considered for a larger scale development scenario than that considered within the AI. The AI focuses on outlining the change in predicted effects arising from the Revised Development.

### **2.2 EIA Methodology**

2.2.1 The AI has been prepared following a systematic approach to EIA and project design following the principles outlined within Chapter 3 of the EIA Report. Since submission of the EIA Report, the further key elements have been:

- Consultation on the application and EIA Report;
- Revision of project design with input from the EIA team;
- Preparation of the AI; and
- Submission of the AI and required advertising procedures;
- Further consultation on the Revised Development.

### 3 Description of the Revised Development

#### 3.1 Revised Site Layout

3.1.1 The main components of the Revised Development remain as described in Chapter 3 of the EIA Report for the Proposed Development. The amendments are the following:

- Turbine T1 moves 61m north-east and relocation of related infrastructure (crane pad/turning circle/access track);
- Turbine T4 moves 32m north and relocation of related infrastructure (crane pad/turning circle/access track).

3.1.2 The turbine co-ordinates for the Revised Development can be found in Table 3.1.

**Table 3.1 Revised Development Turbine Co-ordinates**

|           |        |        |
|-----------|--------|--------|
| <b>T1</b> | 287093 | 835457 |
| <b>T2</b> | 287546 | 835407 |
| <b>T3</b> | 287203 | 834826 |
| <b>T4</b> | 286950 | 834181 |
| <b>T5</b> | 286341 | 833716 |
| <b>T6</b> | 287551 | 834304 |
| <b>T7</b> | 287070 | 833723 |

#### Turbines

3.1.3 There is no change to the proposed turbine dimensions from the EIA Report.

#### Crane Hardstanding Areas

3.1.4 There is no change to the proposed crane hardstanding areas from the EIA Report.

#### Construction Compound

3.1.5 There is no change in the proposed dimensions from the EIA Report

#### Transformers and Cable

3.1.6 There is no change from the EIA Report

#### Sub-Station/Control Building

3.1.7 Following a SEPA request (**Appendix 1.E**), the substation for the Revised Development will be located adjacent to the existing substation for the Operational Scheme which can be seen in **Figure 3.0**.

#### On-site Access Tracks

3.1.8 There is a minor change in the internal access tracks required, which will now be 3.99km for the Revised Development, compared against 4.05km for the Proposed Development.



**4. Planning Policy**

No change to the assessment contained with the EIA Report.

**5. Climate Change**

No change to the assessment contained with the EIA Report.

**6. Socio-economics, Tourism & Recreation**

No change to the assessment contained with the EIA Report.

**7. Traffic and Transport**

No change to the assessment contained with the EIA Report.

**8. Noise**

No change to the assessment contained with the EIA Report.

## 9. Landscape and Visual Impact Assessment

- 9.1 The Revised Development is the same as the Proposed Development with the exception of movements to T1 and T4 which have moved 61 m to the north-east and 32 m to the north respectively
- 9.2 The table below summarises the changes that would arise as a result of the Revised Development compared to the Proposed Development in respect of the 17 representative viewpoints assessed in detail in the submitted Landscape and Visual Impact Assessment (LVIA). Comparative wirelines for each of the viewpoints is presented in the accompanying Figures 9.1a – 9.1q.

| Viewpoint                             | T1  | T4  | Magnitude of Change                     |
|---------------------------------------|---|---|---|
| 1 Balvraid Lodge                      | Not visible   | Not visible   | No change                               |
| 2 Carn Glas-choire                    | No perceptible change                               | Moved into gap to reduce effect of overlap          | Slight improvement owing to spacing     |
| 3 Ptarmigan Lodge                     | No perceptible change owing to distance of 31.79 km | No perceptible change owing to distance of 31.79 km | No perceptible change owing to distance |
| 4 Creagan a Chaise, Hills of Cromdale | No perceptible change owing to distance of 24.36 km | No perceptible change owing to distance of 24.36 km | No perceptible change owing to distance |
| 5 Minor Road north of Drynahan        | Moved into gap to reduce effect of overlap          | No perceptible change                               | Slight improvement owing to spacing     |
| 6 B9007 near Lochindorb               | No perceptible change                               | No perceptible change                               | No perceptible change                   |
| 7 Geal Charn Mor, Monadhliath         | Not visible   | Only visible as a blade                             | No perceptible change                   |
| 8 A9 (T) north of Tomatin Junction    | Not visible   | Only visible as a blade                             | No perceptible change                   |
| 9 Meall a' Bhuachaille                | No perceptible change owing to distance of 25.23 km | No perceptible change owing to distance of 25.23 km | No perceptible change owing to distance |
| 10 A9 (T) River Findhorn Bridge       | Not visible   | Not visible   | No change                               |
| 11 Blackfold, near Dochgarroch        | No perceptible change owing to distance of 28.38 km | No perceptible change owing to distance of 28.38 km | No perceptible change owing to distance |
| 12 Gorton Hill                        | No perceptible change                               | No perceptible change                               | No perceptible change                   |
| 13 A939 at milestone                  | No perceptible change                               | No perceptible change                               | No perceptible change                   |
| 14 Shore Road Lochindorb 1            | No perceptible change                               | Moved into gap to reduce effect of overlap          | Slight improvement owing to spacing     |

|                               |  |   |  |
|-------------------------------|--|---|--|
| 15 Shore Road<br>Lochindorb 2 | Moved into gap to<br>reduce effect of<br>overlap | T4 moved from<br>overlap with T6 to<br>coincide with T6 | Slight improvement<br>owing to spacing |
| 16 Creag Ealraich             | No perceptible<br>change                         | Not visible   | No perceptible<br>change               |
| 17 Dava Way                   | No perceptible<br>change                         | No perceptible<br>change                                | No perceptible<br>change               |

### Summary

- 9.3 The table demonstrates that from two viewpoints there would be no change, from 11 viewpoints there would be no perceptible change, and from four viewpoints there would be a slight improvement. This analysis shows that there will mostly be no change or no perceptible change, with some slight improvements where spacing is improved, although not so notable as to change the original visual assessment.

### Conclusion

- 9.4 The Revised Development would, therefore, not alter the original assessment based on the Proposed Development, owing to the incremental nature of the movements to T1 and T4.

**10. Cultural Heritage**

No change to the assessment contained with the EIA Report.

## **11. Ecology**

11.1 This chapter considers the likely significant effects on terrestrial Ecology that may occur as a result of the Revised Development.

11.1.1 No further baseline surveys have been undertaken to inform this report. It is considered that the results of the previous surveys completed in 2020 can be relied upon as they are unlikely to have changed significantly during the intervening period.

11.1.2 The principles of the assessment within the EIA Report remain valid and appropriate. They have therefore not been reassessed unless otherwise stated.

11.1.3 The following figures have been updated to reflect the layout changes:

- **Figure 11.1:** NVC Habitat Map – M19;
- **Figure 11.2:** NVC Habitat Map – M18, M2 and M3;
- **Figure 11.3:** NVC Habitat Map – H12;
- **Figure 11.4:** NVC Habitat Map – H9, H16, H21a, H22;
- **Figure 11.5:** NVC Habitat Map – H13, M6c, W19b;
- **Figure 11.6:** NVC Habitat Map – U4 and U5.

### **11.2 Introduction**

11.2.1 The Ecology chapter of the AI considers the predicted significant effects on terrestrial ecology that will result from the Revised Development. The potential effects have been considered for the construction, operational, and decommissioning phases.

### **11.3 Baseline Conditions**

11.3.1 No further survey work has been completed to inform this assessment. Whilst Turbines 1 and 4 are proposed to be repositioned, and relocation of related infrastructure, the destination positions remain within the extent of land surveyed to inform the EIA Report. The ecological baseline is considered to remain as described within the EIA Report.

## 11.4 Change in Effects

### Construction Effects

- 11.4.1 This section provides an assessment of the change in potential effects of the construction phases on ecological features as a result of the proposed repositioning of Turbines 1 and 4 and related infrastructure.

### Habitats

- 11.4.2 Habitats present at the revised position of Turbine 1 are no different from those at the original position. No additional habitats will be affected. The dominant habitats present are M19a and M19b (75 – 95 % cover) (heather *Calluna vulgaris* – hare's-tail cotton-grass *Eriophorum vaginatum* blanket mire (M19) with a sub-community of either cross-leaved heath *Erica tetralix* (M19a) or crowberry *Empetrum nigrum* (M19b)).
- 11.4.3 Other communities present include the M19c subcommunity (10 – 25 % cover) (heather – hare's-tail cotton-grass blanket mire, cowberry *Vaccinium vitis-idaea*) (up to and M2 *Sphagnum cuspidatum* – *Sphagnum recurvum* bog pool community (less than 1 % cover).
- 11.4.4 As no changes to the habitats to be affected are reported, the conclusion remains that the M2 habitat is unlikely to be dependent on groundwater based on the underlying geology. The M19a, b, and c subcommunities are more likely to be dependent on surface water.
- 11.4.5 The habitats present at the revised position of Turbine 4 are M19c (75 – 95 % cover), M19a and M19b (10 – 25 % cover), M2 (less than 1 % cover), and M3 common cotton-grass *Eriophorum angustifolium* bog pool community (less than 1 % cover). No additional habitats will be affected.
- 11.4.6 As with Turbine 1, these NVC communities are considered unlikely to be dependent on groundwater.
- 11.4.7 The Revised Development means that the overall land-take will be less than originally predicted, however the scale of this reduction is not considered sufficient to alter the conclusion drawn in the EIA Report.

### Species

- 11.4.8 Given the minimal changes to the design in repositioning Turbines 1 and 4, no changes to the predicted effects on protected species are expected.
- 11.4.9 The principles of the assessment made in the EIA Report remain valid and appropriate. The impacts on protected species are therefore not reassessed.

### Operational Effects

- 11.5.0 The Revised Development indicates minimal changes from the original design. The operational effects identified within the EIA Report are expected to remain unchanged as a result of the Revised Development. The conclusion drawn in the EIA Report remain valid. Operational effects are therefore not reassessed.

**Decommissioning Effects**

- 11.5.1 The principles of the assessment within the EIA Report remain valid and appropriate. Effects relating to decommissioning have therefore not been reassessed.

**Assessment of Cumulative Effects**

- 11.5.2 The EIA Report considered cumulative effects with one additional windfarm development 5 km east of the Proposed Development. The EIA concluded that no significant cumulative effects were predicted. The minor repositioning of two turbines and related infrastructure within the overall development boundary is not considered significant, therefore no change to the assessment presented in the EIA are predicted.

**11.6 Mitigation**

- 11.6.1 The Revised Development does not result in changes to the impact assessment with regards to designated sites, habits, or protected species. The mitigation measures proposed in the EIA Report are considered to remain appropriate and therefore remain unchanged.

**11.7 Assessment of Residual Effects**

- 11.7.1 There is no change in the assessment of residual effects as described within the EIA Report.

**11.8 Monitoring**

- 11.8.1 The changes to the proposed layout do not result in changes to the likely significant effects on any ecological feature. As a result, no change the monitoring proposals set out within the EIA Report are necessary.

## **12. Ornithology**

No change to the assessment contained with the EIA Report.



### 13. Hydrology, Hydrogeology, Geology & Peat

- 13.1 The changes to turbines T1 and T4 have altered the assessment of impact on hydrology and peat due to a change in peat excavation volumes, change in peat hazard landslide risk ('PLHRA', which can be seen in **Appendix 13.D**) and a change in the interaction with water features and groundwater dependent terrestrial ecosystems (GWDTE). These changes are shown in **Figures 13.1 to 13.8**.

**Table 13.0 Updated assessment for Revised Development**

| Turbine                            | Location                | Description   | Magnitude   |
|------------------------------------|-------------------------|---|---|
| <b>T1</b><br>(6157m <sup>2</sup> ) | NGR<br>287093<br>835457 | <p>Gradient: gentle slope.</p> <p>Water feature proximity: Allt na t'Slugain Mhor is located approximately 80m to the north-west and down-gradient. Small drainage line north of crane pad.</p> <p>Peat: Present on 95.7% of area. Average peat depth 1.00m.</p> <p>Estimated peat extraction volume: 6,013m<sup>3</sup></p> <p>PSHRA: low peat slide likelihood.</p> <p><u>Other sensitivities:</u></p> <p>Watercourses in catchment drain to the Rilean Burn.</p> <p>Turbine approximately 20m to a potential high GWDTE (NVC M6, 10-25% cover), to the north and northwest that aligned with a minor drain and the Allt na t'Slugain Mhor. These are unlikely to be truly GWD based on the hydrogeological regime as impermeable bedrock and in the upper reaches of the catchment. Predominantly surface water and rainwater fed.</p> | <p><b>Medium</b> for water drainage disturbance as turbine is located in a gently sloped area avoiding drains and crane pad is near minor drainage area.</p> <p><b>Low</b> for water quality, due to the distance top the nearest tributary</p> <p><b>High</b> for peat disturbance.</p> <p><b>Low</b> overall peat slide risk</p> <p><b>Low</b> for groundwater disturbance</p> <p><b>Low</b> for potentially high GWDTE downgradient.</p> |

| Turbine                            | Location                | Description  | Magnitude   |
|------------------------------------|-------------------------|--|---|
| <b>T4</b><br>(6157m <sup>2</sup> ) | NGR<br>286950<br>834141 | <p>Gradient: Low</p> <p>Water feature proximity: turbine located 140m from Allt Carn an t-Sean-liathanaich to south. Located adjacent to diffuse drainage area and on a muirburn ditch which is connected to drain by diffuse flow.</p> <p>Peat: Present at 99.4% of area where it has an average depth of 1.33m.</p> <p>Estimated peat extraction volume: 8,217m<sup>3</sup></p> <p>PSHRA: Small part of main hardstanding and turbine have moderate peat slide likelihood, moderate consequence.</p> <p>Other sensitivities:</p> <p>No potential GWDTEs at turbine or crane pad footprint, but a potential high GWDTE (NVC M6, 10-25% cover) which is associated with the small drain that feeds into the Allt Carn an t-Sean-liathanaich. These are unlikely to be truly GWD based on the hydrogeological regime as impermeable bedrock and till superficial deposits. Predominantly surface water.</p> | <p><b>Low to medium</b> for water drainage disturbance. Muirburn ditch can be blocked.</p> <p><b>Low</b> for water quality.</p> <p><b>High</b> for peat disturbance.</p> <p><b>Low</b> overall peat slide risk with best practice mitigation.</p> <p><b>Low</b> for groundwater disturbance</p> <p><b>Low</b> for GWDTE as not considered to be groundwater dependent</p> |

13.2 The new locations of Turbines 1 and 4 have had a positive effect on potential impacts.

#### **Turbine 1**

13.2.1 Although the infrastructure is slightly closer to the watercourse it is now further away from the potential GWDTE, although it is considered that this is not actually a GWDTE.

13.2.2 The peat was previously present over 92% of the footprint and although this has increased slightly to 95.7%, the average peat depth has reduced from 1.43m to 1.00m and the overall peat excavation volume reducing from 9,751m<sup>3</sup> to 6,013m<sup>3</sup>. These changes, although an improvement, do not change the overall magnitude of impact or therefore the likelihood of effect.

13.2.3 The PLHRA remains as a low likelihood.

#### **Turbine 4**

13.2.4 The infrastructure has moved further away from the main watercourse and now does not cover the minor natural watercourse at the southern end of the hardstanding. The turning head on the approach to T4 has also been moved to reduce the impact on the bog pool.

13.2.5 The peat was previously present over 99.4% of the footprint and has remained the same however the average peat depth has increased from 1.17m to 1.33m and the overall peat excavation volume has increased slightly from 7,909m<sup>3</sup> to 8,217m<sup>3</sup>.

13.2.6 The main hardstanding and turbine had a moderate peat slide likelihood with a moderate consequence and the movement of the hardstanding to the north has

reduced the extent of the hardstanding in this area of moderate likelihood although a small section is still present.

### **Overall Infrastructure Change**

- 13.3 These changes have resulted in a reduction in overall track area from 17,253m<sup>2</sup> to 16,236m<sup>2</sup> and combined with an increased amount of floating road an overall reduction in excavated peat from the whole of the infrastructure from 70,500m<sup>3</sup> which includes a 10% bulking factor to 60,200m<sup>3</sup>, also with 10% bulking factor. This is nearly a 15% reduction in the volume of peat being excavated and, as already demonstrated in the peat management plan, the site has sufficient areas of eroded peat for all of this peat to be used in restoration and reinstatement.

### **Summary**

- 13.4 The minor changes to the infrastructure have resulted in positive overall effects on the hydrology, peat excavation volumes, PLHRA and GWDTE, however they have not changed the assessment of the significance of impact and therefore the mitigation and management measures discussed in the EIA Report continue to apply.

**14. Shadow Flicker & Safety**

No change to the assessment contained with the EIA Report.

**15. Infrastructure**

No change to the assessment contained with the EIA Report.