



**Heathland Wind Farm**  
**Environmental Statement Addendum**

September 2016

## Quality Management

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## **Contents**

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- 1 Introduction**
- 2 Response to SEPA – Private Water Supplies**
- 3 Landscape and Visual Resources Addendum**

## Preface

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This Addendum is provided in support of an existing application (Ref: EC00003124) for consent under Section 36 of the Electricity Act 1989 by Heathland Wind Farm LLP, wholly owned by Partnerships for Renewables Development Company Limited (PfR), to construct and operate a wind farm at Heathland Forest, near Forth, South Lanarkshire.

Following submission of the application, in response to further consultation which took place with West Lothian Council (WLC) and South Lanarkshire Council (SLC) in June 2016, the design of the original submitted layout for the proposed Heathland Wind Farm has been amended to remove three turbines and the associated access infrastructure serving these turbines. It is therefore now proposed that the installed capacity of the proposed Heathland Wind Farm will be 68 MW, comprising 17 turbines with a ground to blade tip height of 132 metres.

This Addendum supplements the Environmental Statement (February 2016) provided for the existing application and should therefore be read in conjunction with it. It details the amendments to the originally submitted layout for the proposed Heathland Wind Farm and provides further information in support of the amended design including updated wirelines and photomontages and a revised landscape and visual assessment. Furthermore, in response to issues raised during consultation by the Scottish Environment Protection Agency (SEPA), further information is also provided regarding the location of a private water supply in the vicinity of the proposals.

Copies of this Addendum supplementing the Environmental Statement have been made available for public inspection during normal office hours from the following addresses:

Forth Sports & Community Centre	West Lothian Council	South Lanarkshire Council
Main Street	Planning Services	Planning & Building Standards
Forth	West Lothian Civic Centre	Montrose House
ML11 8AA	Howden South Road	154 Montrose Crescent
	Livingston	Hamilton
	EH54 6FF	ML3 6LB

Copies of this Addendum may also be obtained from Partnerships for Renewables Development Company Limited (tel: 0800 731 7395) at a charge of £200 hard copy and £15 on CD.

### **13. Waste Management Licensing (Scotland) Regulations 1994**

- 13.1 We encourage waste minimisation whenever possible. Further details can be found on our website. We similarly encourage the recovery and reuse of controlled waste, such as soils from other sites provided that it is in accordance with the Waste Management Licensing Regulations 1994. Any proposals for reuse or recycling of materials, such as soils from other sites, may require to be registered with us under a Waste Management Exemption. There are specific criteria which if met will constitute an exemption from licensing under these Regulations (namely Paragraph 35 of Schedule 3 to the Regulations). These exemptions are required to be registered by SEPA and the details must be forwarded to the relevant SEPA.
- 13.2 The drainage and watercourse crossing proposals appear to be in accordance with the best practice guidance for minimisation of pollution. The applicant should ensure relevant authorisations are in place prior to work commencing.

### **14. Dewatering**

- 14.1 Dewatering is controlled via The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) (as amended). Any dewatering during excavations should be in compliance with GBR 2 and / or GBR 15. A rule of GBR15 is that groundwater must not be abstracted from any excavations that are within 250m of a GWDTE. Abstraction of groundwater in quantities greater than 10m<sup>3</sup>/day will require a CAR registration or licence depending on the scope and duration of the works. Details at CAR application should be provided of how any dewatering will be managed, the amount of groundwater proposed to be abstracted and the anticipated timescales.

### **15. Mobile Crushing Plant**

- 15.1 Plant of this nature must hold a permit and SEPA should be notified of its location. The applicant should note that permits issued outside of Scotland are no longer valid in Scotland.

### **16. Cabling Works**

- 16.1 While cabling works generally do not constitute activities requiring authorisation, they can pose a high risk to the water environment. Cabling works usually comprise a mobile operation which will not have permanent pollution control in place but can expose large tracts of soil susceptible to mobilisation in heavy rain. We would therefore emphasise minimising the impact from all cabling operations.
- 16.2 SEPA must be notified prior to commencement of any cabling works especially if moling techniques are to be used.

### **17. The Water Environment (Oil Storage) (Scotland) Regulations 2006**

- 17.1 The Regulations apply to any kind of container which is being used and which is stored on premises above ground, whether inside or outside a building. These include fixed tanks, intermediate bulk containers, drums (oil drums or similar containers used for storing oil) or mobile bowsers. The range of premises covered by the Regulations is wide including land and mobile plant but does not include storage of oil in vehicles or vessels.

# 1 Introduction

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## 1.1 Purpose of this Addendum

- 1.1.1 Heathland Wind Farm LLP, wholly owned by Partnerships for Renewables Development Company Limited (PfR), applied to the Scottish Ministers in February 2016 for consent under the Electricity Act 1989 to construct and operate a 20 turbine wind farm at Heathland Forest (Central Grid Reference NS 96750 57250) and for a direction under Section 57(2) of the Town and Country Planning (Scotland) Act 1997 that planning permission for the development be deemed to be granted.
- 1.1.2 Under the terms of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 an Environmental Impact Assessment (EIA) was undertaken to identify and assess the likely environmental effects of the proposed 20 turbine Heathland Wind Farm and outline mitigation measures, where required. An Environmental Statement (ES) was subsequently produced to report the findings of the EIA and accompanied the application for consent.
- 1.1.3 Following submission of the application, in response to further consultation which took place with West Lothian Council (WLC) and South Lanarkshire Council (SLC) in June 2016, the design of the original 20 turbine submitted layout for the proposed Heathland Wind Farm has been amended.
- 1.1.4 The purpose of this Addendum supplementing the ES is to detail the proposed amendments to the design of the original submitted layout and provide further information in support of the amended design including updated wirelines and photomontages and a revised landscape and visual assessment. Furthermore, in response to issues raised during consultation by the Scottish Environment Protection Agency (SEPA), further information is also provided regarding the location of a private water supply in the vicinity of the proposals.

## 1.2 Amended Wind Farm Site Design

- 1.2.1 The proposed wind farm development as originally applied for comprised 20 wind turbines and associated infrastructure with a total installed capacity of up to 68 MW. Further details of the original 20 turbine submitted scheme are provided in Chapter 4 of the Heathland Wind Farm ES (February 2016), with a site layout for the original scheme shown on ES Figure 1.2.
- 1.2.2 The amended Heathland Wind Farm as now proposed will comprise 17 turbines and associated infrastructure with a total installed capacity of up to 68 MW. The design changes between original and the amended development layout are confirmed as follows:
- Three turbines have been deleted from the scheme (T14, T19 and T20).
  - The on-site access track spurs serving the three deleted turbines have been removed, along with the turning heads for T19 and T20.
  - The crane hardstanding areas serving the three deleted turbines have been removed.

- 1.2.3 The number of turbines has been reduced in response to initial concerns raised by WLC and SLC over the landscape and visual impacts of the original 20 turbine submitted scheme. Further details on these concerns and how they have been addressed by the revised smaller 17 turbine scheme are detailed in the Landscape and Visual Resources Addendum which forms parts of this Addendum.
- 1.2.4 The amended site layout is shown on Figure 1.2 of this Addendum. To avoid any potential confusion between the original and amended site layout the original turbine numbers have been retained.
- 1.2.5 The development control footprint and turbine co-ordinates for the original 20 turbine layout are detailed in Tables 4.1 and 4.3 of the Heathland Wind Farm ES (February 2016). For clarity, these tables have been amended for the proposed smaller 17 turbine scheme below, with changes highlighted in **bold text**.

**Revised Table 4.1 Development Component Footprint**

Component	Area
<b>Permanent Infrastructure</b>	
17 x Turbine bases (approximately 21 m diameter)	<b>0.59 ha</b>
17 x Crane hardstanding areas (approximately 45 m x 25 m)	<b>1.91 ha</b>
1 x Substation control building and compound (approximately 31 m x 18 m)	0.06 ha
Proposed new access tracks (approximately 5 m wide x <b>6.03</b> km)	<b>3.02 ha</b>
Upgrading of existing forestry track (approximately 5 m wide x <b>9.04</b> km)	<b>4.42 ha</b>
Upgrading of proposed forestry track (approximately 5 m wide x 1.18 km)	0.59 ha
<b>8</b> x Turning head (approximately 5 m wide x 64 m each)	<b>0.42 ha</b>
1 x meteorological mast base (approximately 4 m x 4 m) and associated laydown area (approximately 95 m x 15 m)	0.14 ha
Total permanent land take	<b>11.15 ha</b>
<b>Temporary Infrastructure</b>	
Temporary construction compound (approximately 50 m x 50 m)	0.25 ha
Total temporary land take	0.25 ha

- 1.2.6 As detailed in the Revised Table 4.1, the removal of the turbine bases and crane hardstanding serving the three deleted turbines will reduce the permanent footprint of the proposed Heathland Wind Farm by approximately 0.34 ha.
- 1.2.7 The removal of the access spurs serving the three deleted turbines will reduce the length of the proposed new access track by 1.42 km (which equates to approximately 0.7 ha) and the length of existing forestry track that requires to be upgraded by 0.21 km (which equates to approximately 0.1 ha). The removal of the turning heads serving T19 and T20 will reduce the footprint by a further 0.11 ha.
- 1.2.8 The total permanent footprint of the revised smaller 17 turbine scheme compared to the original submitted 20 turbine scheme will therefore reduce by approximately 1.25 ha.

**Revised Table 4.3 Turbine Locations**

Turbine Number	Easting	Northing
T1	295418	657141
T2	295855	657356
T3	295797	656934
T4	295993	656676
T5	296241	657696
T6	296280	657207
T7	296502	656880
T8	296737	657508
T9	296898	657190
T10	296820	658133
T11	297123	657884
T12	297266	657555
T13	297528	657081
T15	297811	657695
T16	297709	657028
T17	298160	657475
T18	298039	656842

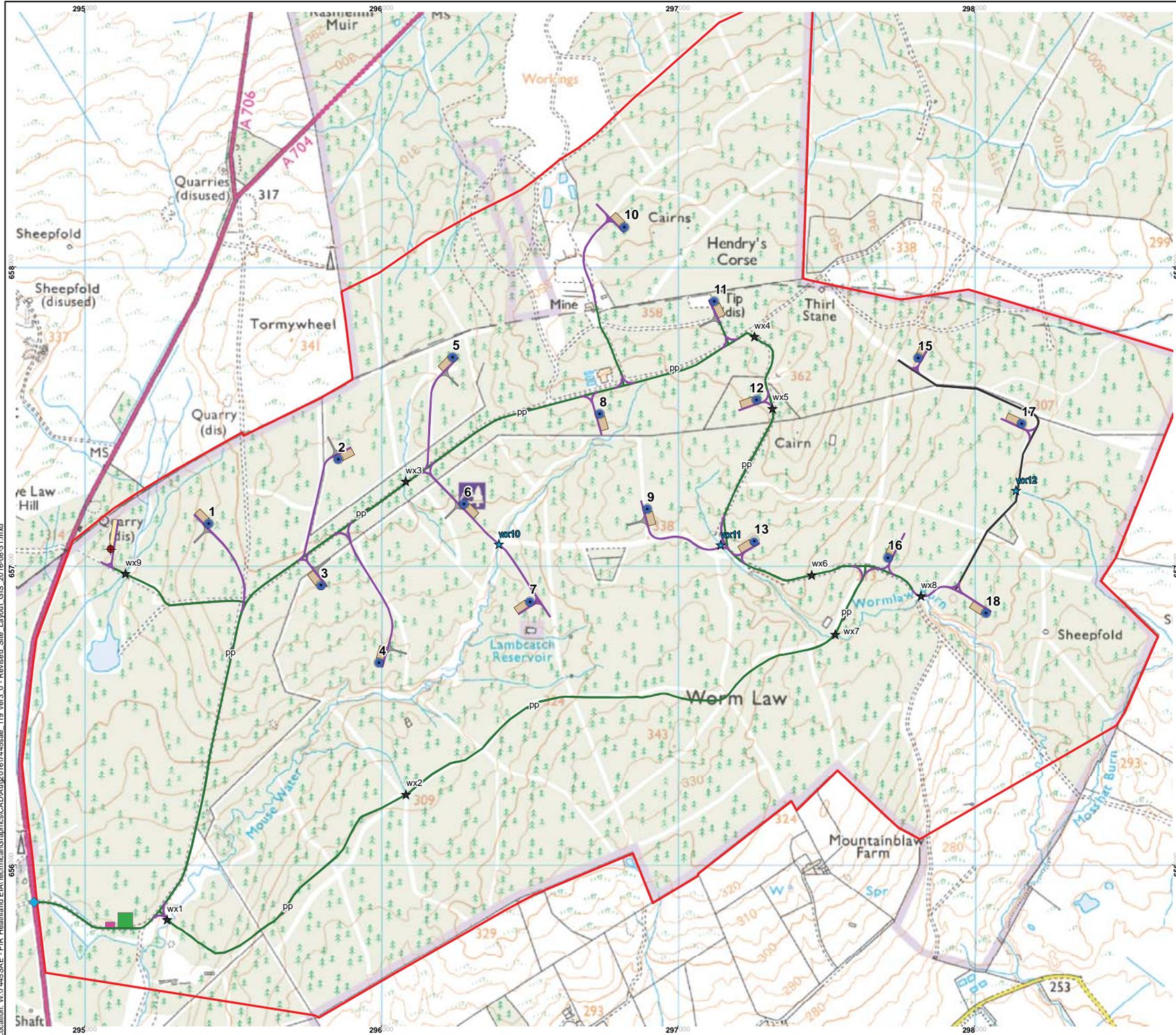
1.2.9 For the avoidance of doubt, the turbine parameters will remain the same and there will be no other changes to the proposed wind farm as previously described in Chapter 4 of the Heathland Wind Farm ES (February 2016).

### 1.3 Structure of the Addendum

1.3.1 This Addendum to the ES comprises the following additional information:

- **Private Water Supply Information.** A copy of the response submitted to SEPA in relation to their initial consultation response dated 29 March 2016, along with a copy of their further response dated 26 April 2016.
- **Landscape and Visual Resources Addendum.** This stand-alone report concentrates on the changes to landscape and visual effects that the removal of the three turbines will make. The report is accompanied by figures including updated wirelines and photomontages of the proposed smaller scheme.

1.3.2 The scope of this additional information included in this Addendum was agreed with the Scottish Government Energy Consent and Deployment Unit on 2 September 2016.



- Legend**
-  Application boundary
  -  Proposed turbine locations
  -  Proposed access track
  -  Proposed FCS access track (to be upgraded)
  -  Existing access track (to be upgraded)
  -  Proposed crane hardstanding
  -  Proposed construction compound
  -  Proposed substation compound
  -  Proposed turning area
  -  Proposed passing place (pp)
  -  Upgrade existing stream crossing
  -  Proposed stream crossing
  -  Proposed permanent met mast (NS 95088 57056)
  -  Proposed met mast laydown area
  -  Wind farm site access (NS 9483 5587))

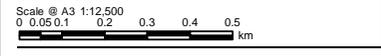
Turbine	Grid Reference	Turbine	Grid Reference
1	NS 95418 57141	11	NS 97123 57884
2	NS 95855 57356	12	NS 97266 57555
3	NS 95797 56934	13	NS 97258 57081
4	NS 95993 56676	15	NS 97811 57695
5	NS 96241 57697	16	NS 97709 57028
6	NS 96280 57207	17	NS 98160 57475
7	NS 96502 56880	18	NS 98039 56842
8	NS 96737 57508		
9	NS 96898 57190		
10	NS 96820 58133		



Project name: Heathland Wind Farm

Title : Revised Site Layout

Date: 31/08/2016      Dm: KAG    App'd: RC



Ver: 3.0      A3      Figure : 1.2  
Revised Aug 2016

## **2 Response to SEPA – Private Water Supplies**

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Our ref: PCS/145265  
Your ref: MF/pmc/SAE7445

Joyce Melrose  
The Scottish Government  
Energy Consents Unit  
4th Floor, 5 Atlantic Quay  
150 Broomielaw  
Glasgow  
EH6 6JH

If telephoning ask for:  
Keith Smith

29 March 2016

By email only to: [representations@scotland.gsi.gov.uk](mailto:representations@scotland.gsi.gov.uk)

Dear Madam

**Town and Country Planning (Scotland) Acts**  
**Planning application: MF/pmc/SAE7445**  
**Heathland Wind Farm**  
**South Lanarkshire**

Thank you for your consultation letter which SEPA received on 17 February 2016.

We **object** to this planning application on the grounds of lack of information in regard to private water supply. We will review this objection if the issues detailed in Section 1 below are adequately addressed.

We also ask that the planning **conditions** in Sections 3, 4 and 6 requiring the submission of the CEMP, SWMP and PMP be attached to the consent. If these conditions will not be applied, then please consider this representation as an **objection**. Please also note the advice provided below.

**Advice for the Energy Consents Unit**

**1. Groundwater and Private Water Supply (PWS)**

- 1.1 We acknowledge the applicant requested information on the location and nature of private water supplies (PWS) from South Lanarkshire Council. However the applicant notes that the information may not be complete. This is reported in the ES.
- 1.2 The applicant notes that one PWS is close to the site, Mountainblaw, although the grid reference for this PWS given on table 13.14 (page 13-18 of the Environmental Statement (ES)) and its position shown in Figure 13.1 of the ES do not match. Further, the applicant states that there are no PWS within the site boundary (Section 13.3.79 of the ES), in contradiction with the information shown in Figure 13.1. We therefore **object** on the grounds of lack of information regarding the location of the Mountainblaw PWS and request that the applicant confirm the location.

- 1.3 We would also highlight the presence of Lambcath reservoir water feature near to turbine location 7 at NGR NS 96511 56777. The applicant's agent has confirmed by email dated 29 March 2016 that the reservoir is disused and is not connected to a water source and that it will not be used as a water source for the wind farm.
- 1.4 We would note the closest CAR-authorized groundwater abstraction is approximately 0.5 km north of the site boundary. We would highlight that any abstractions, including PWS, within 250m of turbine foundations or borrow pits, or within 100m of road, tracks or trenches should be fully risk assessed. The source of any groundwater supply should be clearly identified by NGR coordinates with the type of source and estimated abstraction rate stated. If any PWS are recognised as being potentially at risk, it is recommended that mitigation measures are in place to ensure that the works do not adversely affect supplies.
- 1.5 Further information in this regard can be found in [SEPA's guidance on assessing the impacts of windfarm development proposals on groundwater abstractions and groundwater dependent terrestrial ecosystems](#). Further guidance for wind farm planning applications may be found in Land Use Planning System SEPA Guidance Notes 4 ([LUPS-GU4](#)) appendix 2.

## 2. Dewatering and Abstraction

- 2.1 We note the applicant states that dewatering may be required during the construction phase of the proposed development (Section 13.5.33 of the ES). Any dewatering during excavations should be in compliance with GBR 2 and / or GBR 15 of the Water Environment (Controlled Activities) (Scotland) Regulations 2011(as amended) (CAR). Abstraction of groundwater in quantities greater than 10m<sup>3</sup>/day will require a CAR permit depending on the scope and duration of the works.
- 2.2 Details at CAR application should be provided of how any dewatering will be managed, the amount of groundwater proposed to be abstracted and the anticipated timescales. For further guidance we would advise reference to our [The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011 \(as amended\) – A Practical Guide](#).

## 3. Construction Environmental Management Plan (CEMP)

- 3.1 A site specific Construction Environmental Management Plan (CEMP) should be submitted for the approval of the Planning Authority in consultation with SEPA.
- 3.2 Adopting this approach provides a useful link between the principles of development which need to be outlined at the early stages of the project and the method statements which are usually produced following the award of contracts.
- 3.3 We would ask that a **condition** is attached to any planning permission granted, such that the CEMP is submitted for approval to the determining authority and would recommend at least two months and no less than three weeks, prior to the proposed commencement (or relevant phase) of development. This time period should provide consultees with sufficient time to assess the information.

- 3.4 The document should incorporate detailed pollution prevention and mitigation measures for all construction elements potentially capable of giving rise to pollution during all phases of construction, reinstatement after construction and final site decommissioning. It should also include any site specific Construction Method Statements provided by the contractor as required by the planning authority and statutory consultees. Certain techniques, which aren't necessarily covered within guidance, e.g. clean water cut off trenches, frequent use of staggered silt trap ponds along the road system etc can avoid problems arising in the first instance.
- 3.5 All works must comply with General Binding Rules (GBR) 10 and 11 of the Water Environment (Controlled Activities) (Scotland) Regulations 2011(as amended) (CAR). The applicant/operator should set up an appropriate water quality monitoring regime to obtain baseline data prior to any works commencing. The monitoring location and analytical determinants should be agreed with SEPA before any monitoring is undertaken.
- 3.6 A robust surface water management plan should be included in the Construction Environmental Management Plan (CEMP) and we should be informed of any updated designs as they become available.

#### **4. Site Waste Management Plan (SWMP)**

- 4.1 There are waste management implications associated with surplus peat and forest waste. We would therefore ask that a **condition** is attached to any planning permission granted that a site waste management plan (SWMP), dealing specifically with peat and forest waste, is submitted for approval to the determining authority at least two months prior to the proposed commencement (or relevant phase) of development in order to provide consultees with sufficient time to assess the information.
- 4.2 Details for dealing with surplus peat and forest waste, including estimated volumes and the possible need for offsite disposal with any required authorisations should be provided.

#### **5. Groundwater Dependent Terrestrial Ecosystems (GWDTE)**

- 5.1 GWDTEs are specifically protected under the Water Framework Directive and in this respect SEPA regulates discharges, abstractions and engineering activities which could impact upon wetlands. These are sensitive receptors to the pressures that are potentially caused by development.
- 5.2 We note an NVC survey has been carried out (Section 11.2.14 of the ES) and acknowledge there are areas of high GWDTE potential within 250 m of proposed turbine locations e.g. an area of M23 close to turbine 7 (Figure 11.6).
- 5.3 We acknowledge the site has been heavily modified by the existing forestry plantation and any remaining GWDTEs are in the rides between the stands of coniferous trees. Most of the proposed infrastructure is on existing forestry tracks to be upgraded or new track constructed along forestry rides. We note the applicant proposes to use floating roads and through drains where necessary and as such there should be limited impact on groundwater flow to GWDTEs.

5.4 It is normal practice that all GWDTEs that are identified as being at potential risk from the development will require a qualitative assessment to demonstrate that the risks to the GWDTE are not significant (as detailed in [SEPA's LUPS-GU4, Appendix 2](#)). However, in this case, owing to the current land use as forestry plantation and the site's heavily modified nature, we are generally satisfied with the proposals such that we consider there should be limited impact on groundwater flow to GWDTEs.

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

6.1 There are important peat management implications associated with disturbance of peat. We ask that a **condition** is attached to any planning permission granted that a peat management plan (PMP) is submitted for approval to the determining authority at least two months prior to the proposed commencement (or relevant phase) of development in order to provide consultees with sufficient time to assess the information.

6.2 We have assessed the peat survey works undertaken at the site and the outline peat management proposals as outlined in Chapter 4 of the ES and Technical Appendix 13.4 Annex 2 Outline Peat Management Plan. Peat depths across the site are illustrated by Figure TA 13.4.A2.1 – Peat Survey Map (overview) and Sheets 1 to 8. We are generally satisfied with the scope, findings and conclusions of the outline peat management proposals at the site. We would however request that the finalised Peat Management Plan (PMP) is duly submitted for our approval once the additional detailed site investigations have been completed.

6.3 We would request that the applicant ensure that any excavated peat is reused sympathetically and in line with our guidance (see [Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste](#) and our [Regulatory Position Statement – Developments on Peat](#)).

6.4 Please note that this advice is given without prejudice to any decision made on elements of the proposal regulated by us, which may take into account factors not considered at the planning stage.

## 7. Engineering Works and the Water Environment

7.1 We note that the ES states four new watercourse crossings and eight upgraded crossings are proposed and that these are shown on Figure 4.2 (Section 4.5.24). We would note that Figure 4.2 refers to 'Typical Turbine Foundation'. Figure 1.2 shows the locations of the proposed watercourse crossings but identifies nine upgraded and three new crossings. We would advise that the number of new and upgraded watercourse crossings should be double checked and clarified. Any proposals to undertake alterations to, or works on, the bank or bed of the watercourse constitutes an activity which requires to be authorised under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR).

7.2 We can confirm that watercourses not classified on a 1:50,000 ordnance survey map are considered to be minor watercourses. SEPA does not require any authorisation for engineering activities on minor watercourses with the exception of culverting for land gain, dredging and permanent diversions/realignments.

- 7.3 We would advise that should the watercourse be equal to or less than 2 metres wide then a registration will be required. If the watercourse is wider than 2 metres then a simple licence would be required.
- 7.4 Notwithstanding the advice above we would recommend that the applicant contact our local operations team (contact details in Section 19) in advance of any work commencing on site regarding the required water crossings, and other any engineering works in and around the watercourse, to discuss the requirements for the site under CAR and the correct level of authorisation required.
- 7.5 Please note that this advice is given without prejudice to any decision made on elements of the proposal regulated by us, which may take into account factors not considered at the planning stage.

### **Detailed advice for the applicant**

You will note we object to the planning application on the grounds of lack of information and also request that three conditions are included in any planning permission granted. We recommend you take account of the information detailed above.

## **8. Surface Water and Groundwater Quality**

- 8.1 We would highlight the water body classification data for the Mouse Water included in Volume 1 Written Statement (Section 13.3.31), Technical Appendix Volume 3 Part 18 (Section 13.3.47) and Part 19 (Section 13.4.19 – Table A1.1) is several years out of date. Up to date data is available at the [Scotland's Environment](#) online resource.

## **9. Peat Management Plan**

- 9.1 We acknowledge investigation works that have been undertaken to understand the extent of the peat arisings at the site and furthermore the measures taken to avoid and minimise the impact on the peatlands at the site by modifying the site design.
- 9.2 Notwithstanding this approach it is recognised that peat deposits will require to be extracted, stored and reused at the site during the construction phase of the wind farm. We are satisfied with the indicative strategies as outlined in the draft PMP, however, we note and accept that further site investigations works are necessary to finalise the PMP at the site.
- 9.3 We have therefore asked that any planning approval issued to you includes a **condition** requiring the finalised PMP to be submitted for our further assessment and approval at the relevant time.

## **10. Engineering Works and the Water Environment**

- 10.1 As noted in Section 7 above we would recommend that the applicant contact our local operations team (contact details in Section 19) in advance of any work commencing on site regarding the required water crossings, and other any engineering works in and around the watercourse, to discuss the requirements for the site under CAR and the correct level of authorisation required.

- 10.2 We would recommend that best practice measures are adopted when installing crossing points on all (including minor) watercourses in order to avoid pollution. Further detail is set out within our engineering in the water environment [good practice guide on river crossings](#).
- 10.3 Please note that watercourse crossing culvert design is to be agreed with SEPA at the detailed design stage. It should be noted that single culverts, as opposed to a series of smaller pipes to form a culvert, are required. A series of smaller pipes used to create crossings form barriers to fish movement and are no longer considered to be acceptable.

## **11. Construction SUDS**

- 11.1 It is a requirement of The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR) to provide a SUDS system throughout the construction phase of the development to ensure adequate protection of the water environment. The system should comply with the Rules detailed in GBR's 10 and 11. Suitable pollution control measures should be employed wherever there is an identifiable risk to the water environment. This should give particular consideration to contaminated surface water runoff arising from earthworks, roads, drainage, compounds, concrete batching facilities and any other associated infrastructure.

## **12. Construction/Demolition, Pollution Prevention**

- 12.1 Construction/demolition works associated with the development of the site must be carried out with due regard to the guidelines on avoidance of pollution. Reference should be made to the relevant Pollution Prevention Guidance (PPG) Notes available on our website at [www.sepa.org.uk](http://www.sepa.org.uk) and to the CIRIA publication C715 "Environmental Good Practice on Site – Pocket Book".
- 12.2 We would note that non mapped watercourse, drains and ditches often form pathways to larger watercourses. Polluting substances such as oils, fuels or other potentially polluting substances should be stored the appropriate distance away from all surface waters not just OS mapped ones. We would recommend that a buffer distance of at least 10m is formed in line with good practice.
- 12.3 We would advise that appropriate / suitable stone is used for track construction in order to prevent impact on the water environment. Previous experience has shown that a good quality granular material with low silt content and a high tolerance to break up under weight (vehicles) can significantly reduce the amount of silt laden runoff to the water environment.
- 12.4 Any waste materials imported to the site during construction must be stored and used only in accordance with a waste management licence or exemption under the Waste Management Licensing (Scotland) Regulations 2011. Similarly, any waste materials removed from the site must be disposed of at a suitably licensed or exempt waste management facility in accordance with these Regulations.
- 12.5 The applicants and their contractors should also be fully aware of the relevant requirements relating to the transport of controlled waste by registered carriers and the furnishing and keeping of duty of care waste transfer notes.

17.2 It is not necessary for storage facilities to be registered with SEPA however applicants should ensure compliance with the Regulations. Full details of the requirements can be found from SEPA's website at [www.sepa.org.uk/regulation/oilstorage2006/index.html](http://www.sepa.org.uk/regulation/oilstorage2006/index.html).

## **18. Site Waste Management Plan (SWMP)**

18.1 We would note that no details regarding forestry waste are provided in the ES or associated documents. We have therefore asked that any planning approval issued to you includes a **condition** requiring a SWMP to be submitted for our assessment and approval at the relevant time. The SWMP should also include details of the arrangements for surplus peat arising from the proposed site works. It should also more generally discuss how waste arising as a result of the proposed site works would be dealt with. The SWMP should be linked to the PMP.

## **Regulatory advice for the applicant**

### **19. Regulatory requirements**

- 19.1 Please note that the discharge of sewage effluent to the water environment, inclusive of groundwater, will require to be authorised by us, in accordance with the terms of The Water Environment (Controlled Activities)(Scotland) Regulations 2011(as amended) (CAR). Further details on this matter can be found on our website [www.sepa.org.uk](http://www.sepa.org.uk). If sewage arising from welfare facilities will tankered off site it should be stored in a sealed tank not a septic tank which has an outfall. Additionally, it must be by a suitably licensed operator going to a suitably licensed site.
- 19.2 Details of regulatory requirements and good practice advice for the applicant can be found on the [Regulations section](#) of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in your local SEPA office at:

Angus Smith Building  
Maxim 6  
4 Parklands Avenue  
Eurocentral  
Holytown  
North Lanarkshire  
ML1 4WQ

Tel: 01698 839 000

If you have any queries relating to this letter, please contact me by telephone on 01698 839 000 or e-mail at [planning.sw@sepa.org.uk](mailto:planning.sw@sepa.org.uk).

Yours faithfully

Keith Smith  
Planning Officer  
Planning Service

ECopy to: [michael.fenny@rpsgroup.com](mailto:michael.fenny@rpsgroup.com)

*Disclaimer*

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**From:** David Cassidy [mailto:David.Cassidy@pfr.co.uk]  
**Sent:** 13 April 2016 14:00  
**To:** planning.sw@sepa.org.uk  
**Cc:** Magnus Hughson  
**Subject:** FAO Keith Smith - Heathland Wind Farm (PCS/145265)  
**Importance:** High

**FAO Keith Smith**

Dear Keith

Thank you for your attached consultation response dated 29<sup>th</sup> March 2016 (your ref: PCS/145265) in relation to the s36 consent application for Heathland Wind Farm (case ref: EC00003124).

I note that in your response you have objected in relation to Private Water Supply and state that if the issues in Section 1 of your letter are adequately addressed you will review the objection. In order to address this matter our EIA consultant, RPS Planning & Development, has provided the following clarification which I hope you will find helpful:

**It is confirmed that the location of the Mountainblaw Private Water Supply (PWS) spring as shown on Figure 13.1 of the ES (297246, 656439) is correct and that the grid reference cited in Table 13.14 of the ES is an error.**

**For the avoidance of confusion, the location of PWS was sought through consultation with South Lanarkshire Council (SLC). In response SLC advised that there was a PWS spring serving Mountainblaw. Whilst they were unable to provide the precise geographic co-ordinates of the PWS spring in their response (this information being based upon a form provided by the occupier of Mountainblaw from 2005/2006), they did identify that the PWS spring was at Worm Law within the forestry plantation to the north. The approximate location of the PWS source as identified on Figure 13.1 of the ES corresponds with the water pipeline route constraints information provided by FCS. However, in recognition of potential uncertainty over the precise location of the PWS source, paragraph 13.6.52 of the ES (and Table 17.1 of the ES) acknowledges that site investigation work will be required prior to the commencement of development to confirm the precise location of the source of the Mountainblaw PWS and to assesses the risk to this supply from the construction of the proposed wind farm. This matter can be controlled through an appropriately worded planning condition.**

I trust the above clarification is clear and my apologies for the unintentional error in the table. I would be grateful if you could please confirm whether you are now in a position to withdraw the objection. Please do not hesitate to contact me if you would like to discuss this matter further.

Kind regards

David

CC: Magnus Hughson, case officer at Local Energy and Consents

**David Cassidy**  
**Project Developer**  
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Our ref: PCS/146282  
Your ref: MF/pmc/SAE7445

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If telephoning ask for:  
Keith Smith

26 April 2016

By email only to: [representations@scotland.gsi.gov.uk](mailto:representations@scotland.gsi.gov.uk)

Dear Madam

**Town and Country Planning (Scotland) Acts**  
**Planning application: MF/pmc/SAE7445**  
**Heathland Wind Farm**  
**South Lanarkshire**

SEPA is in receipt of additional information from the applicant in regard to the above planning application. The additional information is in relation to our objection (dated 29 March 2016; our reference PCS/145265) on the grounds of lack of information regarding the location of a private water supply in the vicinity of the proposed development. We would confirm we are in a position to **remove our objection** to the planning application.

We also ask that the planning **condition** in Section 1 be attached to the consent. If the condition is not applied, then please consider this representation as an **objection**. Please also note the advice provided below.

Please note we have asked in our previous letter dated 29 March 2016 (PCS/145265) for further conditions to be applied to the consent. We would ask that you note and take account of our previous response.

**Advice for the planning authority**

**1. Groundwater and Private Water Supply (PWS)**

- 1.1 We previously raised concerns and objected to the planning application for the proposal on the grounds of lack of information regarding the location of the Mountainblaw private water supply (PWS), in the vicinity of the proposed development.
- 1.2 The applicant has confirmed that the source of Mountainblaw PWS is that shown on Figure 13.1: Surface Water Hydrology & Private Water Supply of the Environmental Statement (ES), with that shown in Table 12.14, Chapter 13 of the ES being in error. The correct grid reference is NS 97246 56439 as confirmed by way of email from the Applicant to SEPA dated 13 April 2016.



Chairman  
Bob Downes

Chief Executive  
Terry A'Hearn

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- 1.3 We would note the applicant has advised by email (dated 13 April 2016) to SEPA that this location is approximate, and that “*site investigation work will be required prior to the commencement of development to confirm the precise location of the source of the Mountainblaw PWS and to assesses [sic] the risk to this supply from the construction of the proposed wind farm. This matter can be controlled through an appropriately worded planning condition*”.
- 1.4 The approximate location of Mountainblaw PWS shown on Figure 13.1 of the ES is around 140m from the nearest proposed upgraded access track, and around 640m from the nearest turbine foundation.
- 1.5 We would request the following condition be included in the consent:

*The buffer zones around groundwater abstractions identified on Figure 13.1 of the ES shall be implemented in full throughout the construction, operation and decommissioning of the development. There shall be no development, machinery movement or operations within the buffer zones without the agreement of the Planning Authority in consultation with SEPA. The buffer zone shall be demarcated on the ground.*

*Reason: In order to prevent potential unacceptable impacts on groundwater abstractions.*

*Informative: The buffer zone shall be 100m for all development with excavations or intrusions less than 1 metre depth. The buffer zone shall be 250m for all development with excavations or intrusions greater than 1 metre depth.*

### **Detailed advice for the applicant**

You will note we are in a position to **remove our objection** on the basis that a **condition** is attached to the consent. We recommend you take account of the advice provided above. Please also note we asked that further planning conditions be attached to the consent in our previous letter dated 29 March 2016 (PCS/145265).

### **Regulatory advice for the applicant**

## **2. Regulatory requirements**

- 2.1 Details of regulatory requirements and good practice advice for the applicant can be found on the [Regulations section](#) of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in your local SEPA office at:

Angus Smith Building  
Maxim 6  
4 Parklands Avenue  
Eurocentral  
Holytown  
North Lanarkshire  
ML1 4WQ

Tel: 01698 839 000

If you have any queries relating to this letter, please contact me by telephone on 01698 839 000 or e-mail at [planning.sw@sepa.org.uk](mailto:planning.sw@sepa.org.uk).

Yours faithfully

Keith Smith  
Planning Officer  
Planning Service

ECopy to: [michael.fenny@rpsgroup.com](mailto:michael.fenny@rpsgroup.com); [david.cassidy@pfr.co.uk](mailto:david.cassidy@pfr.co.uk)

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### **3 Landscape and Visual Resources Addendum**

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**Heathland Wind Farm**  
**Section 36 Application (ECDU)**

**Proposed Design Changes -**  
**Revised Visualisations and Landscape Addendum**

August 2016



# **Heathland Wind Farm Landscape and Visual Resources Addendum to the Environmental Statement**

**11 August 2016**

**Project Number:** 8189SAP

**RPS**

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# CONTENTS

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<b>1.</b>	<b>INTRODUCTION AND OVERVIEW .....</b>	<b>1</b>
<b>2.</b>	<b>DESIGN DEVELOPMENT .....</b>	<b>2</b>
<b>3.</b>	<b>CUMULATIVE EFFECTS ON LANDSCAPE CHARACTER.....</b>	<b>3</b>
<b>4.</b>	<b>CUMULATIVE EFFECTS ON VISUAL RECEPTORS.....</b>	<b>5</b>
	Cumulative Zones of Theoretical Visibility.....	5
	Cumulative Viewpoint Analysis.....	5
	Residential Properties .....	10
	Cumulative Sequential Visual Effects .....	11
	Summary of Cumulative Effects on Visual Receptors .....	11
<b>5.</b>	<b>REFERENCE.....</b>	<b>13</b>

## FIGURES

## APPENDIX 1

# 1. INTRODUCTION AND OVERVIEW

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1.1 This report considers the likely cumulative landscape and visual effects of the proposed redesigned Heathland Wind Farm option in combination with other wind energy developments, as an addendum to the Section 36 application, Environmental Statement (ES), Chapter 9 Landscape and Visual Resources. The report concentrates on the change in the effects originally identified following a reduction in the scheme from 20 turbines to 17 turbines through the removal of turbines 14, 19 and 20.

## ***Published Guidance***

1.2 As a matter of best practice, the assessment within this addendum report has been undertaken based on the same published guidance on landscape and visual assessment as the ES. This includes:

- Landscape Institute and Institute of Environmental Management and Assessment (2013), *Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> Edition*;
- Countryside Agency and SNH (2002), *Landscape Character Assessment – Guidance for England and Scotland*; and
- Landscape Institute (2011), *Advice Note 01/11 Photography and Photomontage in Landscape and Visual Impact Assessment*.

1.3 Further to the range of best practice guidance which relates specifically to the assessment of wind farms within the study area referenced in the ES, the South Lanarkshire Council (SLC) Supplementary Guidance 10: Renewable Energy, Landscape Capacity Study for Wind Turbines, 2016 updates the previous draft document of 2015.

## 2. DESIGN DEVELOPMENT

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- 2.1 Following the submission of the Section 36 application in February 2016, further consultation took place with West Lothian Council (WLC) and South Lanarkshire Council (SLC) in June 2016 regarding the scheme design. This consultation, which was preceded by a letter from SLC recommending the removal of turbines 15 to 20, was focussed on both Councils' concerns about the landscape and visual impacts of the submitted 20 turbine scheme. These concerns related to cumulative impacts of the proposed wind farm on the surrounding landscape and communities
- 2.2 At this consultation meeting the Applicant agreed to concentrate on a reduction of three to four turbines to address both Councils' concerns. Following a review of the layout and design of the proposed wind farm the Applicant is proposing the removal of turbines 14, 19 and 20 (see Figure 1). A detailed assessment of the predicted cumulative impacts and effects on landscape and visual receptors as a result of these design changes is included in chapters 3 and 4 of this report. The proposed revised scheme is designed to create a greater level of physical and visual separation between the proposed Heathland Wind Farm and the existing Pates Hill Wind Farm to reinforce the perception of discrete wind farms in the landscape and to contribute to the pattern of wind energy developments/clusters which diminish in scale in the landscape as they progress from west to east (see Figure 2).
- 2.3 This new, slightly smaller scheme would provide a balanced layout of turbines which would avoid, as far as is possible, significant effects on key landscape receptors, minimise the significant effects on the visual receptors within the vicinity and avoid significant cumulative effects on landscape and visual receptors. These changes will provide improvements, compared to the submitted scheme, for residents living in the area, visitors traveling through the area and the general landscape character of the study area.
- 2.4 Illustrative material includes a set of locations plans, wirelines and photomontages at Figures 3 to 33 for each of the 14 viewpoints chosen in consultation with SLC and WLC from the 27 locations in the ES. WLC requested that the photomontages include wind farms which have been approved, but are not yet constructed, to address their specific concerns about cumulative impacts. This forms an improvement to the approach adopted for the ES photomontages (which were undertaken in accordance with current SNH guidance and best practice and therefore only show existing wind farms) as it enables a more realistic interpretation of the cumulative situation to be illustrated. The wirelines and photomontages focus on eight specific cumulative schemes at Tormywheel, Black Law, Black Law phase 1 extension, Black Law phase 2 extension, Pates Hill, Pearie Law, Harburnhead and Camilty wind farms. These have been agreed with SLC and WLC as the most relevant wind energy developments to inform the analysis of the revised scheme option.
- 2.5 Appendix 1 comprises a set of 14 pairs of wirelines for the 14 viewpoints to enable a direct comparison to be made of the 20 turbine ES scheme and the current 17 turbine scheme option.

### 3. CUMULATIVE EFFECTS ON LANDSCAPE CHARACTER

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- 3.1 The majority of the cumulative schemes within the 40km radius study area are located in the Lowland Plateau character type.
- 3.2 The proposed wind farm would be located predominantly within the 'South Lanarkshire Plateau Moorland Forestry' character area and partially within the 'North-West Pentland Fringe' character area.
- 3.3 Removal of turbines 19 and 20 would slightly reduce the direct impact of the wind farm on the specific 'Central Plateau: Black Law' area (previously 'Eastern Plateau Black Law' area within the SLC Draft Landscape Capacity Study for Wind Energy) of the 'South Lanarkshire Plateau Moorland Forestry' character area, which forms the main host character area for the scheme. This large character area extending west from the base of the Pentland Hills contains the existing Pates Hill Wind Farm and part of the Black Law Wind Farm. Approved wind energy schemes within this character area include the neighbouring Tormywheel Wind Farm, Black Law extension and four further schemes form the core of the established pattern of wind energy development which extends in an east to west band across the landscape of West Lothian.
- 3.4 Removal of turbine 14 would reduce the direct effect of the proposed Heathland Wind Farm on the specific 'Gladsmuir/Woodmuir/Camilty Fringes' area of the 'North-West Pentland Fringe' landscape character area to a single turbine on the northern edge of the scheme.
- 3.5 These cumulative schemes and the proposed Heathland Wind Farm would be located in areas of mainly commercial forestry with some areas of grazing land and moorland and would result in a slight cumulative loss of landscape features. A reduction in the number of proposed turbines from 20 to 17 would slightly reduce the direct adverse cumulative impact on the fabric of the character areas.
- 3.6 The proposed Heathland Wind Farm would be placed into this context of wind farms and single turbines and would provide a repetition and an intensification of these features. The cumulative baseline landscape would contain wind energy development as a defining characteristic. The broader Plateau Moorland landscape character type, in which the site is predominantly located, is identified in SLC draft 2015 landscape capacity study as lying within an 'Area of Significant Cumulative Development'. The SLC Supplementary Guidance 10: Renewable Energy, Landscape Capacity Study for Wind Turbines, 2016, describes the landscape capacity of the Central Plateau: Black Law area of the Plateau Moorlands LCT, in which the proposal site is located, and defines that *'further limited and carefully located development of turbines would not significantly alter the landscape'*. The number and size of proposed turbines at the proposed wind farm can be accommodated in this location without any unacceptable effects on the features, elements or characteristics of the landscape. The proposal would maintain the overall balance of landscape features and elements without becoming the dominant element within the landscape, more typified by the cluster of Black Law Wind Farm and extensions. Removal of turbines 19 and 20 from the eastern side of the Heathland Wind Farm would provide a slightly greater degree of separation with the existing Pates Hill Wind Farm. Clusters of turbines would be visible as discrete elements in the landscape and diminish in scale from west to east when viewed from most locations within the study area, adhering to the two primary SNH design criteria.
- 3.7 The turbines of the proposed Heathland Wind Farm would form a co-characterising feature to the conifer plantations and farmland/moorland. A reduction in the scale of the

wind farm would assist in preventing the creation of a wind farm landscape sub-type. The sensitivity of the 'South Lanarkshire Plateau Moorland Forestry' character area is low. Although there would be a minimal reduction in the impact on landscape character as a result of the slightly smaller proposed wind farm, this would not change the level of effect, as defined in the Landscape and Visual Resources methodology of the ES. The magnitude of cumulative change would be small and the level of additional cumulative effect on character would be slight, which would not be significant.

- 3.8 The level of effect on the wider Lowland Plateau character type within the study area would be negligible, which is not significant.
- 3.9 The addition of a small proportion of the proposed Heathland Wind Farm to the 'North-West Pentland Fringe' character area, in the context of operational and consented schemes at Black Law, Tormywheel, Pates Hill, Pearie Law and Harburnhead within the same character area, would result in a negligible magnitude of cumulative impact on a landscape of medium sensitivity. The level of cumulative effect would be negligible, which is not significant.
- 3.10 A reduction in the scale of the proposed Heathland Wind Farm from 20 turbines to 17 turbines would, at times, be apparent in the context of the elevated landscape of the Pentland Hills 'Upland' character type, approximately 5 km to the east of the site. The slightly reduced Heathland Wind Farm would have a similar footprint and turbine size to consented schemes in the context of this designated landscape of high scenic quality. The scheme would result in the same additional, indirect slight level of cumulative effect on the character of the landscape of the Pentland Hills, which is not significant.

## 4. CUMULATIVE EFFECTS ON VISUAL RECEPTORS

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### **Cumulative Zones of Theoretical Visibility**

- 4.1 A reduction in the number of turbines within the proposed Heathland Wind Farm from 20 to 17 would not significantly alter the extent of the schemes ZTV or the cumulative ZTV's when combined with other wind energy developments within the study area. Therefore, the assessment of cumulative ZTV's would remain unchanged.

### **Cumulative Viewpoint Analysis**

- 4.2 Cumulative visual effects have been assessed based on 14 key viewpoints (agreed with SLC and WLC) of the 27 locations included within the ES and local residential receptors within settlements and individual properties (see Figures 3 to 34). The cumulative wind energy schemes would be visible in combination with the proposed Heathland Wind Farm either in the same field of view or successively if the receptor turns through up to 270 degrees. Operational, consented and schemes in planning have been illustrated within wireline images or photomontages, in combination with the proposed Heathland Wind Farm. Cumulative schemes at the scoping stage have not been illustrated.

#### ***Viewpoint 2: Minor road near Haywood***

- 4.3 Occupiers of vehicles travelling north towards the site would gain near, open and transient views of the proposed Heathland Wind Farm, partly visible as mainly blade tips on the farmed horizon. Removal of turbines 19 and 20 from the right hand side of the scheme would reduce the horizontal spread of turbines within the view and the overall extent of wind energy development. This would also remove the visual overlapping with more distant turbines at Pates Hill Wind Farm and prevent any barely discernible level of cumulative visual effects. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as slight, which is not significant.

#### ***Viewpoint 3: Minor Road at Woolford's Cottages***

- 4.4 Occupiers of vehicles travelling between Woolford's Cottages and Auchengray would gain near views over an open, grazed landscape to the proposed Heathland Wind Farm on the horizon. Removal of turbine 20 to the left of the view would not be visible due to clump of intervening mature trees and would not change the perception of the wind farm. Removal of turbine 14 from the right side of the cluster would reduce the horizontal spread of turbines within the view and the extent of the wind farm. This would increase the separation between the scheme and the existing turbines at Pates Hill Wind Farm to the right, improving the perception of a pattern of wind energy development in the landscape. Removal of turbine 19 from the centre of the cluster would slightly reduce the density of the turbine cluster and the proximity of the wind farm as this would be the closest turbine to the receptor. There would be a noticeable reduction in the width of the wind farm and a negligible reduction in the density of the turbine cluster and perception of its proximity. Consented schemes at Pearie Law and Harburnhead Wind Farms would combine to form a large and prominent linear group of turbines emerging from commercial forestry in close proximity to the north-east. There would be a negligible difference in the perception of the reduced Heathland Wind Farm in combination with these two cumulative schemes. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as slight, which is not significant.

#### ***Viewpoint 4: Breich***

- 4.5 Occupiers of houses on the edge of Breich would gain near views across blocks of commercial conifer of the proposed Heathland Wind Farm turbines on the. The blade tip of turbine 19 would have previously been obscured by intervening trees, therefore its removal would not change the view. Turbine 20 would also not be visible from this location. Turbine 14 previously represented the closest point within the wind farm to the receptor. Removal of this turbine would slightly reduce the density of the turbine cluster and the proximity of the wind farm. There would be no change in the visible separation distances between the proposed Heathland Wind Farm and other cumulative schemes, including Tormywheel, with which it would overlap. There would be no change in the moderate level of additional cumulative visual effects through the removal of the three turbines from the scheme, which is not significant.

#### ***Viewpoint 5: Forth***

- 4.6 Users of the playground and public open space on the northern edge of Forth would gain partly obscured views of the proposed Heathland Wind Farm on a low, forested ridge. Removal of turbines 19 and 20 from the right hand side of the scheme would reduce the horizontal spread of turbines within the view and the overall extent of wind energy development. This would increase the separation between the wind farm and the consented scheme at Harburnhead Wind Farm, in the distance to the right. However, the existing and proposed single turbines at Upper Haywood would still overlap with the right side of the Heathland scheme. Removal of turbine 14 from the centre of the cluster would slightly reduce the density of the turbine cluster. There would be a noticeable reduction in the width of the wind farm and a barely perceptible reduction in the density of the turbine cluster.
- 4.7 Existing turbines at Muirhall (Stallashaw Moss) are likely to be partially visible beyond trees within the intervening landscape. Turbines at Black Law Wind Farm, to the west, would be obscured beyond houses within Forth. Turbines at consented schemes at Tormywheel to the left of the site and Harburnhead and Burnfoot Poultry Farm would be partly obscured by trees within the landscape. There would be a negligible reduction in the perception of the reduced Heathland Wind Farm in combination with these two cumulative schemes. The additional level of effect of the proposed wind farm within the cumulative context would remain as moderate, which is not significant.

#### ***Viewpoint 6: Climpy***

- 4.8 Occupiers of vehicles travelling north on the B715 near south of Climpy would gain mid-distance, partially obscured, oblique views of several turbine blade tips just visible beyond the intervening ridge. Removal of turbine 20 from the right hand side of the scheme would reduce the horizontal spread of turbines within the view and the overall extent of wind energy development. This would increase the separation between the wind farm and the existing and proposed single turbines at Upper Haywood. The consented scheme at Harburnhead Wind Farm to the right is too far in the distance and too low on the horizon to be perceptible as a potential cause of cumulative effects. Removal of turbines 14 and 19 from the cluster would result in a barely perceptible reduction in the density of the turbine cluster due to the minor extent of the blade tips that would previously have been visible. Overall there would be a barely perceptible reduction in the width and turbine cluster density of the wind farm. The new development would be easily missed during a journey and the character of the transient view would be substantially unaltered. The very large cluster of turbines within the Black Law and Black Law Extension wind farms would form the most prominent developments within the wider view to the north and west. Together with the two single turbines in close proximity to the north-east at Greenwall Farm, this group of schemes defines the cumulative wind energy context for receptors in the vicinity of Climpy. There would be no change in the moderate level of additional

cumulative visual effects through the removal of the three turbines from the Heathland Wind Farm, which is not significant.

***Viewpoint 8: Fauldhouse***

- 4.9 Walkers using this footpath on the southern edge of Fauldhouse would gain mid-distance, open views across farmland to the wind farm on a low ridge. Removal of turbines 19 and 14 from the left side of the cluster would reduce the horizontal spread of turbines within the view and would increase the separation between the Heathland Wind Farm and the existing Pates Hill Wind Farm to the left, improving the perception of a pattern of wind energy development in the landscape. The removal of turbine 20 would not affect views from this location as the turbine is obscured beyond the brow of the hill. The consented scheme at Tormywheel would be prominent in the view to the south immediately in front of the right side of the Heathland scheme and would create a considerably more developed context for the proposal. The schemes would be perceived as one large wind farm, visually separate from other nearby schemes. The very large cluster of turbines within the Black Law and Black Law Extension wind farms would form a prominent development within the wider view to the south-west. The magnitude of cumulative change would remain as small and the additional level of effect of the proposed wind farm would be moderate, which is not significant.

***Viewpoint 10: Longridge***

- 4.10 Occupiers of residential properties on the southern edge of Longridge would gain mid-distance open views over the broad river valley plain of relatively flat farmland to the wind farm on the low ridge of commercial forestry. Removal of turbine 19 from the left side of the cluster would reduce the horizontal spread of turbines within the view and would increase the separation between the Heathland Wind Farm and the existing Pates Hill Wind Farm to the left. The blade tip of turbine 20 would be barely perceptible beyond the ridge and its removal would not change the view. Turbine 14 is the closest point of the wind farm to this viewpoint location and its removal would reduce the prominence of the wind farm and the density of the cluster of turbines. The perception of a pattern of discrete wind farms in the landscape would be very slightly improved for this reduced option. However, the additional level of cumulative visual effect of the proposed wind farm would remain as moderate, which is not significant.

***Viewpoint 12: B7016 at Braehead***

- 4.11 Residents living on the northern edge of the village of Braehead would gain mid-distance, open views over pasture and rough grazing land to the wind farm on a low undulating ridge emerging from a band of conifer plantation on the crest. Removal of turbines 19 and 20 from the right side of the wind farm would reduce the horizontal spread of turbines in the view and prevent the overlapping of the wind farm with the existing Pates Hill scheme. Removal of turbine 14 from the centre of the cluster would slightly reduce the density of the wind farm, although would not change the general character of the scheme. The schemes relationship with the consented Tormywheel Wind Farm, overlapping the left side of the proposed wind farm would remain unchanged. The single very large linear grouping of the proposed Heathland Wind Farm with Tormywheel Wind Farm and Pates Hill Wind Farm would be broken up through the reduction in the size of the proposed scheme and the separation created with Pates Hill Wind Farm, improving the visible pattern of developments in the landscape. The very large cluster of turbines within the Black Law and Black Law Extension wind farms would combine to form the most prominent development within the wider view to the north-west. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as moderate, which is not significant.

***Viewpoint 13: A70 Maidenhill***

- 4.12 Occupiers of vehicles travelling north on the A70 in this location would gain mid-distance, open views over rough grazing land and linear belts of mature trees to the wind farm on a

low ridge of conifer plantation. The removal of turbine 14 from the right side of the scheme would reduce the horizontal extent of the wind farm and create a more compact grouping of turbines in the landscape. The revised scheme would also create a greater level of visual separation with the existing Pates Hill Wind Farm to the right, highlighting the pattern of diminishing clusters of turbines from Black Law in the west to Pates Hill in the east. Removal of turbines 19 and 20 from the front edge of the wind farm would slightly reduce the density of the grouping of turbines and the perception of the wind farms proximity to the viewer. Tormywheel Wind Farm would remain partly visible through the proposed turbines at Heathland Wind Farm. The very large cluster of turbines within the Black Law and Black Law Extension wind farms would form a distant development to the left of the proposals and the consented Harburnhead and Pearie Law wind farms would form a partly visible cluster of turbines in closer proximity to the north. These wind energy developments would add to the well-developed cumulative context into which the Heathland Wind Farm would be placed. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as slight, which is not significant.

***Viewpoint 16: Five Sisters Bing***

- 4.13 Walkers on the high point of this landform would gain mid-distance open views south-west over the post-industrial landscape of farmland, moorland, rough grazing and commercial forestry within West Lothian. Removal of turbines 19 and 20 from the left side of the wind farm would reduce the horizontal spread of turbines in the view and create visual separation with the existing Pates Hill Wind Farm. Removal of turbine 14 from the centre of the cluster would slightly reduce the density of the wind farm, although would not change the general character of the scheme. The schemes relationship with the consented Tormywheel Wind Farm, overlapping the right side of the proposed wind farm would remain unchanged. The single very large linear grouping of the proposed Heathland Wind Farm with Pates Hill, Tormywheel and Black Law Wind Farms would be broken up through the reduction in the size of the proposed scheme and the separation created with Pates Hill Wind Farm. The consented wind farms to the south at Pearie Law, Harburnhead and Camilty would create a well-developed wind energy cumulative context and the proposed schemes relationship with them would not be changed. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as moderate, which is not significant.

***Viewpoint 18: Carnwath (A70)***

- 4.14 Occupiers of vehicles travelling north out of Carnwath would gain distant, transient open views north over a farmed landscape of smooth gently undulating grazing land to the new wind farm on the skyline. Removal of turbines 19 and 20 from the right side of the wind farm would reduce the horizontal spread of turbines in the view and create greater visual separation with the existing Pates Hill Wind Farm to the right. Removal of turbine 14 from the centre of the cluster would slightly reduce the density of the wind farm, although would not change the general character of the scheme. The schemes relationship with the consented Tormywheel Wind Farm, overlapping the left side of the proposed wind farm would remain unchanged, forming a large clustered group of turbines. The pattern of diminishing, discrete clusters of turbines from Black Law in the west to Pates Hill in the east would be reinforced. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as slight, which is not significant.

***Viewpoint 21: Eastcraigs Hill***

- 4.15 Walkers using this footpath in this elevated location above the village of Blackridge would gain mid-distance, open views south-east over a landscape of rough grassland and settlements with many blocks of conifer plantation. Removal of turbine 19 from the left side of the wind farm would slightly reduce the horizontal spread of turbines in the view and create slightly greater visual separation with the existing Pates Hill Wind Farm to the left. Removal of turbine 14 from the centre of the cluster would slightly reduce the density

of the wind farm, although would not change the general character of the scheme. Only the blade tip of turbine 20 would be visible therefore its removal would be barely perceptible within the overall scheme. The schemes relationship with the consented Tormywheel Wind Farm, overlapping the right side of the proposed wind farm, would remain unchanged. The small wind farm at Torrance Farm would remain as the most prominent scheme in the foreground, in front of the site. Consented schemes at the Black Law Extensions would form the greatest concentration of development which is intensified further by the West Benhar Wind Farm in the mid-distance. The cumulative design criteria of visually discrete developments in the landscape, diminishing in scale from west to east would generally be retained, and slightly improved with this option. The magnitude of change and the additional level of effect of the proposed Heathland Wind Farm would remain as negligible, which is not significant.

#### ***Viewpoint 22: West Cairn Hill***

- 4.16 Walkers at one of the highest peaks within the Pentland Hills on the Cauldstone Slap footpath would gain open, mid-distance, elevated views west over an undulating landscape of moorland and grassland with contrasting dark, geometric blocks and strips of commercial forestry plantation. The removal of turbine 20 from the left side of the wind farm and turbine 14 from the right side of the wind farm would reduce the overall horizontal extent of the scheme in this panoramic view of the landscape. The removal of turbine 19 from the central cluster of turbines would very slightly reduce the visual density of the scheme however, the presence of existing wind farms at Muirhall, Pates Hill and Black Law and the most visually prominent consented schemes at Pearie Law, Tormywheel the Black Law Extensions, Camilty and Harburnhead would provide an extensively developed context for the proposed scheme. The Heathland Wind Farm would form an intensification of wind energy development within a quadrant of the view where wind turbines would be a defining feature of the landscape. The composition and character of the view would not be altered due to the reduction in the size of the scheme. The magnitude of change and the additional level of effect of the proposed wind farm would remain as negligible, which is not significant.

#### ***Viewpoint 23: Cairnpapple Hill***

- 4.17 Walkers on the summit of Cairnpapple Hill would gain mid-distance, open views south over a foreground of undulating grazing land to the new wind farm on a low ridge beyond. The blade tips of turbines 19 and 20 would be barely perceptible on the left side of the wind farm therefore, their removal from the scheme would not alter the perception of the wind farm in the distant landscape. Removal of turbine 14 from the centre of the scheme would result in a negligible reduction in the density of the turbine cluster and the character of the view would remain largely unchanged. The schemes relationship with the consented Tormywheel Wind Farm, overlapping the right side of the proposed wind farm, would remain unchanged. The presence of the existing Black Law Wind Farm to the right and the most visually prominent consented schemes at Harburnhead, Pearie Law and Camilty to the left and the Black Law Extensions to the right would provide an extensively developed context for the proposed scheme. The Heathland Wind Farm would form an intensification of wind energy development within a quadrant of the view where wind turbines would be a defining feature of the landscape. The composition and character of the view would not be altered due to the reduction in the size of the scheme. The magnitude of change and the additional level of effect of the proposed wind farm would remain as negligible, which is not significant.

## **Residential Properties**

### ***Residential Properties within Settlements***

#### *Wilsontown*

- 4.18 Properties 22 and 29 at Wilsontown are two storey houses where residents are able to gain views of blade tips of some turbines within the proposed Heathland Wind Farm from upper floors. Removal of turbines 19 and 20 from the right side of the scheme would slightly reduce the horizontal spread of turbines within the view. Turbine 14 would not be visible from these locations. The blade tips of some turbines at the consented Tormywheel Wind Farm may also be visible through the Heathland turbines in the foreground. The visual relationship between the two schemes would not be altered. A single large cluster of blade tips, although slightly narrower, would be visible. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context would remain as slight, which is not significant.
- 4.19 The 14 properties at Pleasant Row are single storey and set within a woodland context. The cumulative change in view would be similar to that described above.
- 4.20 Occupiers of Glenview Cottage would gain more open views towards the site. Removal of turbines 19 and 20 from the right side of the scheme would slightly reduce the width of the wind farm in the context of the Tormywheel Wind Farm, visible beyond to the left. The combined cluster of turbines would be visible as a single group, slightly reduced in extent. The additional level of cumulative effect of the proposed Heathland Wind Farm would remain as slight, which is not significant.

#### ***Woolfords***

- 4.21 The residents within the 50 properties at Woolfords Cottages would experience similar changes in view to those described above for receptors at Viewpoint 2 Woolfords. The magnitude of cumulative change would remain as small and the additional level of effect of the proposed wind farm would be moderate, which is not significant.

### ***Individual Residential Properties***

- 4.22 Mountainblaw Farm and Upper Haywood Farm lie in close proximity to the south of the site. Occupiers of farmhouses in these two locations would gain open views of the proposed Heathland Wind Farm, partly visible as mainly blade tips on the horizon. Removal of turbines 19 and 20 from the right hand side of the scheme would reduce the horizontal spread of turbines. Apart from single turbine schemes at Upper Haywood and Burntwood Poultry Farm there is no significant cumulative context within which the proposed Heathland Wind Farm would be visible and therefore no change in the level of cumulative effects.
- 4.23 Wester Heathland Farm lies to the south-west of the site. Removal of turbines 19 and 20 from the right side of the scheme would very slightly reduce the horizontal extent of turbines within the view. Turbine 14 would be obscured beyond the brow of the hill and its removal would not alter the change in view. Turbines at the consented Tormywheel Wind Farm would be visible overlapping with the left side of the Heathland Wind Farm and the reduction in the scheme would not alter this visual relationship. A single large cluster of turbines, although very slightly narrower, would be visible. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context provided by the Tormywheel scheme would remain as moderate, which is not significant.
- 4.24 23 properties are located on Tashieburn Road to the south of the site. Where views north towards the site are possible, the change in view would be similar to that described above for Viewpoint 2. Removal of the blade tips of turbines 19 and 20 from the right hand side of the scheme would reduce the spread of turbines and the visual overlapping with more

distant turbines at Pates Hill Wind Farm. A greater sense of separation would be achieved for these two schemes. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context is likely to remain as moderate, which is not significant.

- 4.25 Farmhouses at Wester Mosshat and Easter Mosshat lie to the south-east of the site. Removal of turbines 19 and 20 from the front of the wind farm would provide greater separation between receptors and the proposals and slightly greater separation with the Pates Hill Wind Farm to the right of the view. Turbine 14 would not be visible therefore its removal would have no effect on the view. Tormywheel Wind Farm is also unlikely to be visible beyond the domed landform. The extent of wind energy development in the view would be reduced. Overall, the additional level of effect of the proposed Heathland Wind Farm to the cumulative context is likely to remain as moderate, which is not significant.

### **Cumulative Sequential Visual Effects**

- 4.26 Where transport routes lie in close proximity to the site and the proposed Heathland Wind Farm development becomes the most prominent wind farm in views the removal of turbines 14, 19 and 20 would be most noticeable. Slightly greater visual separation with the Pates Hill Wind Farm there would be apparent, briefly, within some journeys. Whilst the reduction in the size of the proposed scheme would improve the perception of the scale and pattern of wind farms in the landscape there are still likely to be some significant, cumulative sequential effects on receptors on the A706 north of Lanark and south of the A71, on the Livingston to Lockerbie railway between Auchengray and Woolford's Cottages, the A70 between Harburnhead and Tarbrax and the railway between Fauldhouse and West Calder. Whilst travelling on routes in other areas receptors would not experience a significant cumulative increase in the perception of wind farms in the landscape as a result of the addition of the proposed Heathland Wind Farm.

### **Summary of Cumulative Effects on Visual Receptors**

- 4.27 The closest existing cumulative schemes are at Pates Hill Wind Farm approximately 1.2 km to the north-east, Black Law Wind Farm located approximately 4 km to the south-west and Muirhall Wind Farm and Extension approximately 4.5 km to the south-east. In addition, of particular relevance, is the consented Tormywheel Wind Farm which lies immediately adjacent to the western edge of the site with further consented schemes at Black Law Extensions, Pearie Law, Harburnhead and Camilty Wind Farms which complete the linear series of cumulative schemes which extend across the landscape of the central part of the study area. The combination of these cumulative schemes and the proposed Heathland Wind Farm are particularly relevant to the following SNH primary design criteria:

- A series of wind farm schemes diminishing in scale from the largest in the west to the smallest in the east, towards the Pentland Hills;
- The ability to see individual schemes as discrete elements in the landscape.

- 4.28 The previous assessment of the 20 turbine Heathland Wind Farm, when added to the future cumulative baseline, is that it would not further disrupt the first design criterion and would only slightly diminish the second design criterion for some visual receptors in some locations. The removal of three turbines from the scheme layout would primarily provide greater visual separation between the Heathland Wind Farm and the Pates Hill Wind Farm to the east. The combined Heathland and Tormywheel cluster of turbines would be perceived as a discrete wind farm lying between, and separate from in many views, nearby wind farms at Black Law and Pates Hill. Whilst the pattern and separation of wind energy developments in the landscape of the study area would be improved through the reduction in the number of turbines within the proposed Heathland Wind Farm, the level of cumulative effect on visual receptors would not measurably reduce, in terms of the adopted methodology. However, most visual receptors within local communities would experience some degree of improvement in their perception of wind energy development

within the landscape in which they live and work as a result of a reduction in the number of turbines within the proposed Heathland Wind Farm. Instances of turbines within the Pates Hill Wind Farm visually overlapping with the Heathland Wind Farm would be largely prevented, avoiding any visual confusion. Many residents and visitors to the area would gain views of a slightly smaller scheme that would have a reduced horizontal spread of turbines with a greater separation from Pates Hill Wind Farm, within the context of a well-developed cumulative wind energy baseline. These proposed improvements would help to minimise the level of cumulative wind energy impacts on the landscape and visual receptors, and would avoid any significant adverse effects.

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# FIGURES

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- Figure 1 – Proposed Heathland Wind Farm Layout
- Figure 2 – Viewpoint Locations Overview
- Figure 3 – Location Plan, Viewpoint 2 – Minor Road near Haywood and Bughtknowes
- Figure 4 – Wirelines (2a and 2b), Viewpoint 2 – Minor Road near Haywood and Bughtknowes
- Figure 5 – Location Plan, Viewpoint 3 – Minor Road at Woolfords Cottages
- Figure 6 – Wirelines (3a and 3b), Viewpoint 3 – Minor Road at Woolfords Cottages
- Figure 7 – Location Plan, Viewpoint 4 - Breich
- Figure 8 – Cumulative Photomontage and Wireline (4a), Viewpoint 4 - Breich
- Figure 9 – Cumulative Photomontage and Wireline (4b), Viewpoint 4 - Breich
- Figure 10 – Location Plan, Viewpoint 5 – Forth
- Figure 11 – Wirelines (5a and 5b), Viewpoint 5 – Forth
- Figure 12 – Location Plan, Viewpoint 6 – Climpy
- Figure 13 – Wirelines (6a and 6b), Viewpoint 6 – Climpy
- Figure 14 – Wirelines (6c), Viewpoint 6 – Climpy
- Figure 15 – Location Plan, Viewpoint 8 – Fauldhouse
- Figure 16 – Wirelines (8a and 8b), Viewpoint 8 – Fauldhouse
- Figure 17 – Location Plan, Viewpoint 10 – Longridge
- Figure 18 – Wirelines (10a and 10b), Viewpoint 10 – Longridge
- Figure 19 – Location Plan, Viewpoint 12 – B7016 at Braehead
- Figure 20 – Wirelines (12a and 12b), Viewpoint 12 – B7016 at Braehead
- Figure 21 – Location Plan, Viewpoint 13 – A70 Maidenhill
- Figure 22 – Cumulative Photomontage and Wireline (13a), Viewpoint 13 – A70 Maidenhill
- Figure 23 – Cumulative Photomontage and Wireline (13b), Viewpoint 13 – A70 Maidenhill
- Figure 24 – Location Plan, Viewpoint 16 – Five Sisters Bing
- Figure 25 – Cumulative Photomontage and Wireline (16a), Viewpoint 16 – Five Sisters Bing
- Figure 26 – Cumulative Photomontage and Wireline (16b), Viewpoint 16 – Five Sisters Bing
- Figure 27 – Location Plan, Viewpoint 18 – Carnwath (A70)
- Figure 28 – Wireline (18a), Viewpoint 18 – Carnwath (A70)
- Figure 29 – Location Plan, Viewpoint 21 – Eastcraigs Hill
- Figure 30 – Cumulative Photomontage and Wireline (21a), Viewpoint 21 – Eastcraigs Hill
- Figure 31 – Location Plan, Viewpoint 22 – West Cairn Hill
- Figure 32 – Cumulative Photomontage and Wireline (22a), Viewpoint 22 – West Cairn Hill
- Figure 33 – Location Plan, Viewpoint 23 – Cairnpapple Hill
- Figure 33 – Cumulative Photomontage and Wireline (23a), Viewpoint 23 – Cairnpapple Hill