3 Proposed Development

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3 Proposed Development

3.1 Introduction

3.1.1 This chapter provides a description of the Proposed Development and its geographical context.

3.2 Site Status and Context

Background and Site Description

3.2.1 Hagshaw Hill Wind Farm is Scotland's first commercial wind farm which was constructed in 1995 with an operational capacity of 15.6 MW (the "Existing Development"). It comprises 26 turbines (55 m to tip), across the three hills, Hagshaw Hill, Common Hill and Broomerside Hill, site centred on British National Grid (BNG) NS 79240 30238 (refer to Figure 1.2a). The existing turbines are now 23 years old and nearing the end of their operational life. The Existing Development site is currently operated by Scottish PowerRenewables (SPR), under a lease from William Mitchell & Sons Ltd (part of the same group of companies as the Applicant). The Applicant proposes to re-power the Existing Development by replacing the 26 existing turbines with 14 new turbines (up to 200 m to tip). Due to the wake separation requirements for modern, larger turbines the Applicant proposes to extend the Existing Development site area towards the south for the Proposed Development, which would have a reduced number of turbines but an increased generating capacity of around 84 MW (plus around 20 MW of storage).

3.2.2 The Proposed Development site covers a total area of 275 ha and sits within moorland and areas of agricultural grazing. Directly adjacent to the northern site boundary is the Cumberhead Forest complex.

3.2.3 The village of Glespin is approximately 1.6 km to the south of the nearest turbine and the village of Douglas approximately 3.2 km to the east. The M74 motorway is approximately 6 km east of the proposed turbines, and the site boundary incorporates two access route options from the M74 to the proposed turbine locations.

3.2.4 The closest residential properties are located at Monksfoot, The Shieling and Inches Cottage situated along the A70 approximately 1.0 to 1.2 km south of the nearest proposed turbine (T1).

A Coordinated Strategy for the Future of the Hagshaw Wind Cluster

3.2.5 As landowners of Scotland's first wind farm at Hagshaw Hill, William Mitchell & Sons Ltd have been approached by a number of developers about the potential to repower the Existing Development at the end of the existing lease. As neighbouring landowners to Cumberhead Forest, William Mitchell & Sons Ltd have also recently been contacted by a number of developers seeking to secure access over their land to develop an 'infill' wind energy scheme on the eastern part of Cumberhead Forest as an extension to the consented Douglas West Wind Farm.

3.2.6 These opportunities are clearly of interest to other developers, which in many ways confirms their commercial viability. However, following careful consideration the landowner considers that there are benefits in taking both projects forward themselves, as a local business, helping to sustain existing employment levels, maximise local benefits and keep income generated in the local area.

3.2.7 There are also benefits from a physical perspective in terms of a coordinated layout, phasing, access, grid connection and landscape strategy for the future of the 'Hagshaw Cluster' which can be achieved by taking forward both projects as part of a coherent strategy that takes account of future plans for the adjoining Hagshaw Hill and Douglas West Wind Farm schemes. A coordinated strategy for the development of the Hagshaw Hill Repowering (the Proposed Development) and Douglas West Extension schemes (a Scoping Opinion for the latter having been requested from the Scottish Ministers in November 2018), will allow for:

- delivery of an outcome which is better designed in landscape terms, more strategically efficient and cost-effective;
- better coordinated habitat management proposals;
- a more efficient use of existing grid assets and local grid improvements;
- consideration of energy storage options;
- optimisation of future renewable generation potential from this established wind farm location;
- better public access delivery across multiple sites and the potential to develop Adventure Tourism opportunities across the sites and the Applicant's landholding; and
- a significant Community Benefit/Shared Ownership package which would generate a 30-year income stream to fund a Community-Led Investment Strategy for the Douglas Valley post-mining.

This application therefore forms the first formal part of the Forward Strategy (refer to Appendix 1.1) for the future of the Hagshaw Cluster.

Wind Farm Repowering and the Proposed Development

3.2.8 As noted in the Scottish Government's Onshore Wind Policy Statement (2017), many established onshore wind sites will be coming to the end of their consented life during the coming decade and beyond. As the need and demand for renewable power increases, the Scottish Government expects developers to review the potential for "repowering" at existing sites. This could be in the form of measures designed to extend the life of components and turbines at such sites, or replacing and replanting existing turbines with new turbines.

3.2.9 The Scottish Government's position remains one of clear support in principle for repowering at existing sites. This is on the grounds of its potential to make the best use of existing sites, and – through the continued use of established infrastructure, grid connections and strong wind resource – provide a cost effective option to deliver our renewable and decarbonisation targets.

3.2.10 Scotland's first wind farm at Hagshaw Hill is one such site that is now nearing the end of its operational life, and the opportunity to repower the wind farm with the new generation of turbines presents itself. The landowners of Hagshaw Hill propose to repower the existing wind farm as part of a phased programme for redevelopment of the Hagshaw Cluster over the next five years, which aims to replace the aging machines in the existing wind farm with new modern and more efficient machines which will maximise the strong wind resource available at this site. This will ensure that Scotland's first commercial wind farm continues to make a meaningful contribution to Scotland's renewable energy and decarbonisation targets for many years to come.

3.2.11 Wind turbine technology has developed greatly since the Existing Development was constructed in 1995. The much shorter separation distances between the smaller machines that were erected at that time mean that a greater landtake is required to accommodate the wake separation distances for the modern, larger turbines that would be required to support the site's continued viability in a subsidy-free market. It is therefore proposed that the area of the hill which the Existing Development occupies be extended to the south, to take in a part of the hill that is flanked on either side by the later Hagshaw Hill Extension area, and to the west-south west by the Galawhistle Wind Farm (refer to Figure 3.2). This will provide sufficient land to repower the site with modern machines to ensure the site can deliver its full renewable generation potential. It is therefore proposed to replace the 26 original turbines with 14 modern machines with a new 30-year operational lifespan. **The repowered site has the potential to deliver approximately six times the amount of renewable power and 14 times the community benefit of the Existing Development, from just over half the number of turbines.**

Decommissioning of the Existing Development

3.2.12 Decommissioning of the Existing Development (26 turbines) is covered by the original planning permission for Hagshaw Hill Wind Farm (permission ref. P/LK/01940252 P) and is therefore not assessed as part of this application. The retention of aspects of the Existing Development infrastructure which will be re-used by the Proposed Development is however covered within this application and EIA Report. Additionally, timing of decommissioning of the Existing Development and construction of the Proposed Development, including potential periods of overlap, is considered in assessments where appropriate. Further information on the construction programme is provided in Section 3.4 of this chapter.

Environmental Designations

3.2.13 Figure 3.1 shows sites with environmental designations (excluding landscape designations) within 5 km of the Proposed Development site boundary. A brief summary of these is provided below with full descriptions provided in the relevant technical chapters of the EIA Report.

3.2.14 There are no statutorily designated sites within the site boundary.

3.2.15 Between the site boundary and up to 5 km from the site boundary the relevant designations are as follows:

- one Special Area of Conservation (SAC), Coalburn Moss SAC;
- four Sites of Special Scientific Interest (SSSI), Coalburn Moss, Miller's Wood, Shiel Burn, and Birkenhead Burn;
- two Scheduled Monuments (SM), Thorril Castle and St Bride's Chapel;
- two A-listed buildings and 19 B-listed buildings;
- one Conservation Area, Douglas; and
- two Geological Conservation Review sites, Birkenhead Burn and Shiel Burn.

3.2.16 Additional to the above, between 5 and 10 km from the site boundary the relevant designations are as follows:

- one Special Protection Area (SPA), Muirkirk & North Lowther Uplands;
- one SAC, Red Moss;
- nine SSSIs, Muirkirk Uplands and North Lowther Uplands;
- New Lanark World Heritage Site and Conservation Area, including several listed buildings and structures within;
- three additional A-listed Buildings and several B-listed Buildings; and
- one Garden and Designed Landscapes (GDL), Falls of Clyde.

3.2.17 Between 10 and 15 km from the site boundary the relevant designations are as follows:

- 12 Garden Designed Landscapes (GLDs) including Lee Castle;
- 16 SSSIs including Tinto Hills and Upper Nethan Valley Woods; and
- a number of listed structures and SMs.

3.2.18 There are a number of areas of Ancient Woodland noted within close proximity of the site, as shown on Figure3.1.

Other Relevant Developments within 5km

3.2.19 Figure 3.2 shows the locations of other relevant large wind developments at scoping, in planning, consented/under construction, and operational within 5 km of the Proposed Development turbines at the time of writing (refer to Table 3.1). Potential cumulative effects with these developments have been assessed throughout the EIA Report, where there is sufficient information.

3.2.20 Although sites in scoping would typically not be included in cumulative assessments, it has been discussed and agreed with SNH, SLC and the Scottish Government Energy Consents Unit that it is appropriate in this case to consider cumulative effects arising from the proposed Douglas West Extension Wind Farm, given that it is within the control of the same company and forms part of the development strategy for the wider wind energy cluster. Similarly, it has been agreed that it is appropriate to consider potential cumulative effects arising from both the consented design and the proposed new design (in scoping at the time of writing) of the nearby Cumberhead Wind Farm. Further detailed discussion on the approach to cumulative assessment is presented in each technical assessment chapter as relevant.

Table 3.1 – Cumulative Developments within 5 km of Proposed Development Turbines

Development	Status	Number of turbines	Direction from site	Approx. distance to nearest turbine
Operational, Consented and In Planning				
Douglas West Wind Farm	Consented	13	North-east	1.6 km
Dalquhandy Wind Farm	Consented	15	North	1.3 km
Cumberhead Wind Farm	Consented	11	North-north-west	0.5 km
Poniel Wind Farm	Consented	3	North-east	4.9 km
Hagshaw Hill Extension	Operational	26	East & West	0.3 km & 0.3 km
Nutberry Wind Farm	Operational	6	North-west	1.5 km
Galawhistle Wind Farm	Operational	22	West	0.4 km
Hazelside Farm	Operational	2 (1 operational)	East-north-east	1.5 km
Glentaggart	In Planning	5	South-east	4.6 km
Scoping				
Douglas West Wind Farm Extension	Scoping	13	North-north-east	0.3 km
Cumberhead Wind Farm Revised	Scoping	14	North, north-west	0.6 km

3.3 Description of the Development

3.3.1 The final Proposed Development layout is illustrated in Figures 1.2 a to c.

Turbines and Turbine Foundations

3.3.2 The Proposed Development will comprise 14 wind turbines of up to 200 m maximum tip height, each with a typical generating capacity of around 6 MW. The specific turbine manufacturer and model has not yet been selected as this will be subject to a pre-commencement tendering exercise and will be confirmed post consent. Therefore, for the purposes of the EIA maximum turbine dimensions and operational attributes have been established as the development scenario. The turbine parameters for the Proposed Development have been set as a maximum overall height (to blade tip) of 200 m, with a maximum blade length of 76 m, a maximum rotor diameter of 155 m, and a maximum hub height of 135 m (refer to Figure 3.3).

3.3.3 The proposed final locations of the turbines have been defined in order to enable the EIA to describe fully the Proposed Development for which permission is being sought. The British National Grid coordinates denoting where each of the turbines are proposed to be located are listed in Table 3.2.

Table 3.2 – Wind Turbine Coordinates (British National Grid)

Turbine	Easting	Northing
T1	278749	629561
T2	279149	629586
T3	279760	629664
T4	279042	629950
T5	279595	630026
T6	280015	630194
T7	279831	630506
T8	279327	630246
T9	278976	630329
T10	279546	630730
T11	279242	630900
T12	278864	630881
T13	278604	631053
T14	279584	631279

3.3.4 Whilst these locations have been determined through an iterative environmental based design process (refer to Chapter 2), there is the potential for these exact locations to be altered through micro-siting allowances prior to construction. A micro-siting allowance of 50 m in all directions is being sought in respect of each turbine in order to address any potential difficulties which may arise in the event that pre-construction surveys identify unsuitable ground conditions or unforeseen environmental constraints. It is proposed that the final positioning will be addressed through an appropriately worded condition.

3.3.5 Each of the turbines comprises the following components:

- blades;
- tower;

- nacelle;
- hub; and
- transformer.

3.3.6 Each turbine will be mounted on a tapered tubular concrete/steel tower and consist of a nacelle containing the gearbox, generator and associated equipment, to which are attached a hub and rotor assembly including three blades. An elevation drawing of a typical turbine is illustrated in Figure 3.3. The turbines will be of a typical modern, three-blade, horizontal axis design in semi-matt white or light grey with no external advertising or lettering except for statutory notices.

3.3.7 A full ground investigation will be completed prior to construction, however, typical foundations would comprise concrete and steel reinforcement. For the purposes of the EIA Report it has been assumed that all 14 turbines will have gravity base foundations with a typical radius of approximately 15 m and 3.5 m in depth.

3.3.8 The area above the foundations is backfilled up to the turbine with topsoil and seeded, with a native seed mix to encourage re-vegetation.

3.3.9 An illustration of a typical turbine foundation is provided in Figure 3.4. The final foundation design will be specific to the turbine selected and the site conditions as verified during detailed site investigations undertaken before construction commences. In the unlikely event that ground conditions are unsuitable for the standard foundation design described above, a piled foundation design may be required, involving the installation of a series of concrete piles per turbine, with each pile being bored or driven until the underlying bedrock is reached.

Crane Hardstandings

3.3.10 To enable the construction of the turbines, a crane hardstanding area and turning area at each turbine location will be required to accommodate assembly cranes and construction vehicles. This will comprise a crushed stone hardstanding area measuring approximately 50 m long by 30 m wide, with a typical thickness of approximately 500 mm, but subject to the specifications required by the selected turbine manufacturer and crane operator, and following detailed ground investigations prior to construction.

3.3.11 The crane hardstandings will remain in place during the lifetime of the Proposed Development to facilitate maintenance works.

3.3.12 Indicative crane hardstandings are illustrated as part of the site layout on Figure 1.2a and Figure 3.5.

Access

3.3.13 The proposed access route for the turbines will be from the King George V Port in Glasgow. The route will follow the M8 and then onto the M74, exiting at junction 11 (Poniel) where there is direct access to the site via a private haul road. The access route to the site is shown in Figure 3.11.

3.3.14 The proposed access from the M74 to the turbine locations utilises the existing tarmac road from Junction 11 of the M74 to the consented industrial area (M74 Heat & Power Park) at Alder Burn. At this point the proposed track turns south west along the route of a former railway, to the site of a colliery spoil heap (the Douglas West bing) which is proposed to be excavated and the material used in the Proposed Development access road construction. At the south end of the bing, the proposed access splits into two options: the existing Hagshaw Hill access leading west from the bing; and a proposed new southern access track leading south from the bing. These two routes provide access options from the bing site to the main development area including all proposed turbine locations.

3.3.15 There are existing onsite access tracks for the Existing Development, where possible these access tracks will be retained, re-used and upgraded (where necessary), however additional areas of new access tracks will be required to connect turbines T1, T2, T3, T4, T5, T6 and T7. Further new access tracks will be required to connect turbines T7 with T10 and T11. All new access tracks have been designed to avoid any sensitive environmental receptors and will be made of locally sourced stone

(within South Lanarkshire, potentially all or in part from on-site borrow pits and colliery spoil material (if suitable)), and have a typical running width of approximately 5 m, with an average stone thickness of 500 mm. An indicative cross section of the proposed access tracks is provided in Figure 3.6.

3.3.16 The total length of roads for the Proposed Development is approximately 17.14 km and can be sub-divided into the categories detailed in Table 3.3.

Table 3.3 – Access Track Composition

Type	Description	Length (km)	Percentage of Total
Existing	Existing haul road from the M74 towards the site, tarmac surfaced road to consented industrial area/CHP Plant	3.52	21%
New	New road in consented industrial area	0.40	2%
New	Short length of link road to old railway line	0.65	4%
New (on existing old railway)	New road over existing old railway line, re-use of existing track (former railway line) to minimise new land take/earthworks and new watercourse crossings	2.53	15%
New	New wind farm spine road	4.06	23%
New	New wind farm spur roads	2.92	17%
Existing	Existing Development roads to be upgraded	3.06	18%
	Total	**17.14**	**100 %**

3.3.17 It is proposed that there will be a micro-siting allowance of 50 m in all directions for all access tracks to allow for potentially unsuitable ground conditions or unforeseen environmental constraints identified by pre-construction surveys. It is proposed that the final positioning will be addressed through an appropriately worded condition.

3.3.18 A transport assessment (Chapter 12) has been undertaken in support of the application for the Proposed Development and this provides detail on access routes to the site for construction vehicles and provides an estimate of trip generation during construction. The transport assessment includes a review of the proposed route, construction traffic impacts, and an abnormal load route review. Traffic and transport effects are discussed further in Chapter 12.

3.3.19 Prior to construction, any required improvements to public roads will be undertaken and appropriate highway safety measures will be agreed with South Lanarkshire Council (SLC) and Transport Scotland, with necessary signage or traffic control measures implemented throughout the construction phase on the agreed basis.

Core Paths

3.3.20 Some sections of the proposed site access tracks are designated as Core Paths (refer to Figure 13.1). These areas include the old railway line at and extending southwest from the bing (refer to paragraph 3.3.14), the track leading west from the bing to the main site area, and the Existing Development access tracks. These Core Paths will all be retained and/or upgraded as part of the

Proposed Development, and they will be accessible throughout the operational life of the Proposed Development.

3.3.21 In the interests of health and safety, the paths will need to be temporarily diverted during construction. Temporary diversions will be put in place for the construction period affecting each path section, with suitable alternatives clearly signposted. It is proposed that details of temporary path diversions can be secured by an appropriately worded condition.

Watercourse Crossings

3.3.22 A number of watercourses will be crossed by the proposed access tracks within the site. It is proposed that there will be a micro-siting allowance of 50 m in all directions for all watercourse crossings to allow for local variations in ground conditions, topography or unforeseen environmental constraints identified by pre-construction surveys. It is proposed that the final positioning will be addressed through an appropriately worded condition.

3.3.23 The access tracks within the site will require new crossings to be put in place, or existing crossings to be upgraded, for the following watercourses (Figure 11.2a), as detailed Table 3.4 below. Further details of the water crossings (existing and proposed) are included in Appendix 11.2 and discussed within Chapter 11.

Table 3.4 – New Water Crossings Detail

Reference	Historic/ Existing/ New	Type	New Track required for Access
Water Crossing 1 (High Boomerside Drainage Ditch)	New	Proposed 600nm diameter HDPE pipe	Yes
Water Crossing 2 (Smithy Burn crossing)	New	Galvanised Steel bottomless arch culvert with seating rails and foundations	Yes
Water Crossing 3 (Old Shielings water crossing)	New	Galvanised Steel bottomless arch culvert with seating rails and foundations	Yes
Water Crossing 4 (Broadlea Burn crossing)	Historic	Replacement concrete bridge deck on historic water crossing	Yes
Water Crossing 5 (Windrow Burn crossing)	Existing	Works to embankment above existing water crossing	Yes

3.3.24 It is proposed that the final solution and detailed design for all water crossings, including any potential upgrades or amendments required to existing crossings, will be addressed through an appropriately worded condition and in accordance with the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011.

Drainage

3.3.25 Surface or sub-surface water flow within the vicinity of the access tracks and hardstanding areas will be routed into drainage channels or will flow across the hardstanding areas. The drainage channels

will be situated on the upstream side of the infrastructure and run in parallel with them. These channels will pass under the hard areas, via small diameter carrier drains, to the downstream side where the run-off will percolate to the riparian zone.

3.3.26 Where ground conditions permit, channels may connect with infiltration trenches on the downhill side of the hard areas, with a small sump at the inlet to collect silt and treat run-off prior to infiltration to the surrounding soils. Silt traps will also be located along trenches to further facilitate the collection of silts. These will be cleaned out periodically, as required.

3.3.27 The edges of the access tracks will be flush to allow the surface water from the road to route directly into the collection channels or infiltration trenches. On steeper sections of track, regular cross drains, connected to infiltration trenches, will be installed to collect surface run-off and ensure longitudinal flow is intercepted, thus avoiding rutting and subsequent breakup of the track surface. Trenches will maintain linear flows to downstream areas avoiding point discharge of large flows.

3.3.28 Where the access tracks follow contours, earthworks may be required to accommodate these. Where earthworks are required a collection ditch will be installed at the head of the cutting, with appropriate dams and sumps, to collect silt and prevent sediment transfer to watercourses.

3.3.29 A detailed drainage design will be undertaken and submitted to the Scottish Ministers, in consultation with the Scottish Environment Protection Agency (SEPA), for approval prior to construction.

Grid Connection & Energy Storage

3.3.30 The electrical power produced by the individual turbines will be fed to an onsite substation and energy storage compound via underground cables. The substation and energy storage compound is located in the south east of the site as shown on Figure 1.2a-c. The design of the substation and control room building is relatively flexible and where appropriate may be clad in local materials to match in with the surroundings. Technology continues to develop in the field of energy storage, therefore the design of that element of the compound is proposed to be secured by an appropriately worded condition.

3.3.31 The Proposed Development will most likely be connected to the wider electricity network via the Coalburn Transmission Substation to the north east of the site. The final routing and design of the grid connection is still under discussion with National Grid and Scottish Power Transmission but permission is being sought within this application to lay underground export cables alongside the main access track to a proposed collector substation (to be separately consented) at junction 11 of the M74 (refer to Figure 3.12).

3.3.32 The cables will be laid in trenches, typically approximately 0.5 m deep and 1 m wide, laid on a sand bed and backfilled using suitably graded material. The trenches will also carry earthing and communication cables for the operation of the Proposed Development. Cabling will mainly be located adjacent to the access tracks (refer to Figure 3.6) within the wind farm itself, and (as noted above) export cables are also anticipated to continue from the on-site substation, alongside the access track leading south east then north east from the substation location, and alongside the existing haul road to the roundabout at Junction 11 of the M74.

3.3.33 The substation and energy storage compound will be approximately 100 m by 60 m, to incorporate a substation and control room building, energy storage facility, and potentially some external electrical equipment. The substation and control building is anticipated to be around 30 m long by 10 m wide have a height to ridge of around 5 m. The building will accommodate all the equipment necessary for automatic remote control and monitoring of the Proposed Development, in addition to the electrical switchgear, fault protection and metering equipment required to connect the Proposed Development to the electricity transmission network. Depending on the nature of the connection, there may be external electrical infrastructure adjacent to the control building. Subject to economic viability, a separate energy storage facility providing around 20 MW of storage capacity will be located adjacent to the control building. Details of the final design of all components of the substation and energy storage compound are proposed to be secured through an appropriately

worded condition. An indicative substation elevation drawing and energy storage facility elevation drawing are provided in Figure 3.7.

3.3.34 It is proposed that there will be a micro-siting allowance of 50 m in all directions for the substation and energy storage compound to allow for local variations in ground conditions, topography or unforeseen environmental constraints identified by pre-construction surveys. It is proposed that the final positioning will be addressed through an appropriately worded condition.

Meteorological Monitoring Mast

3.3.35 There will be two steel lattice tower meteorological monitoring masts located within the site boundary at locations shown in Table 3.5 below:

Table 3.5 – Meteorological Mast Details

Met Mast No.	Easting	Northing
1	279793	629948
2	279200	630588

3.3.36 The masts will be used to record wind speeds across the site and each will measure up to 100 m in height. An elevation drawing of a typical mast is provided as Figure 3.8.

Construction Compound

3.3.37 Two construction compounds will be required as a control centre for all site activities and to provide facilities for the day-to-day needs of the project and the workforce. One will be located adjacent to the main spine road in the south east part of the main site as shown on Figure 1.2a-c. It will comprise an area of approximately 100 m long by 60 m wide. An indicative layout of a typical construction compound is provided in Figure 3.9.

3.3.38 The compound area will house temporary portable cabin structures to be used as the main site office and welfare facilities, including toilets, clothes drying and kitchen, with the provision for sealed waste storage and removal. It will also be used for the storage and assembly of certain components, containerised storage for tools and small parts, and oil and fuel storage. A concrete batching plant will also be located here. Adequate parking will be provided for cars and light vehicles. A portable cabin controlling access to the main site with mandatory signing in and out procedures will be located at the entrance to the compound.

3.3.39 A second temporary construction compound will be located adjacent to the access track at the existing Douglas West bing, which is proposed as a borrow pit to provide materials for site construction, as shown in Figure 1.2b and Figure 3.10. This will provide a facility for vehicles and plant to access the bing area and undertake excavation and removal of materials onto the new access road.

3.3.40 The proposed locations of the compounds are generally on firm ground and avoid habitats of highest sensitivity. Prior to commencing construction work, a detailed appraisal of the areas will be required, including an assessment by the project ecologist and also trial pits and /or boreholes to confirm the nature of the sub-strata.

3.3.41 The detailed location, size and engineering properties of the construction compounds will be confirmed prior to the start of construction, after the turbine supplier and model have been confirmed. It is proposed that there will be a micro-siting allowance of 50 m in all directions for the construction compounds in order to allow operational flexibility. It is proposed that the final positioning will be addressed through an appropriately worded condition.

3.3.42 A concrete batching plant will be located within the construction compound within the main body of the site (as indicated on Figure 1.2a). The concrete batching plant will comprise aggregate and

cement hoppers, water bowsers/tanks, a mixer and a control cubicle is proposed on site. Aggregates and sand would be stockpiled and contained adjacent to the plant. It will be necessary to provide a limited private water supply and foul drainage; this is considered further in Chapter 11.

3.3.43 On completion of construction works, it is proposed that all temporary structures be removed and the compound areas be restored for agricultural purposes.

Temporary Turbine Laydown Area

3.3.44 A temporary turbine laydown area will be required to enable construction of the Proposed Development. It will comprise an area of approximately 150 m long by 70 m wide. The proposed location of the laydown area will be located west of main access road in the centre of the site (refer to Figure 1.2a).

3.3.45 Various design iterations have been undertaken to minimise the environmental impact of the siting of the laydown area to minimise disturbance to a known archaeological asset and to avoid sensitive habitats including an area of Annex 1 blanket bog (refer to Chapter 2). Prior to commencing construction work, a detailed appraisal of the area will be undertaken, including an assessment by the project ecologist, and trial pits and /or boreholes to confirm the nature of the sub-strata.

3.3.46 The detailed location, size and engineering properties of the temporary turbine laydown area will be confirmed prior to the start of construction, after the turbine supplier and model have been confirmed. It is proposed that there will be a micro-siting allowance of 50 m in all directions for the temporary turbine laydown area in order to allow operational flexibility. It is proposed that the final positioning will be addressed through an appropriately worded condition.

3.3.47 On completion of construction works, it is proposed that the laydown area be restored for agricultural purposes, such as rough grazing.

Borrow Pits

3.3.48 To minimise the volume of imported material brought onto the site and any associated environmental impact, borrow pits located within the site will be used to source stone for track construction. A borrow pit is an area where material has been excavated for use at another location.

3.3.49 Two borrow pit search areas have been identified and it is proposed that the actual borrow pit(s) would be located within these search areas, however, would only require using a portion of the search areas. The location of the search areas is shown on Figure 1.2b

3.3.50 Detailed site investigations prior to construction will be carried out to further confirm the rock type, rock characteristics and suitability, as well potential volumes to be extracted from the search areas. The final borrow pit(s) identified during the geotechnical evaluation will be defined within the Construction Environmental Management Plan (CEMP) (refer to Section 3.4 below). The pollution control measures to be implemented during usage of the borrow pit(s) and its reinstatement will also be covered within this document.

3.3.51 The borrow pit(s) will require the use of plant to both win and crush the resulting rock to the required grading. It is anticipated that rock will be extracted by breakers and other relevant methods that may be required. Noise associated with stone extraction is discussed in Chapter 9.

3.3.52 Environmental considerations have influenced the location of the borrow pit search areas to minimise the effect on ecology, hydrology and landscape, and to allow successful reinstatement measures to be put in place as appropriate. Following construction, the borrow pit(s) will be restored and reinstated to agreed profiles.

Douglas West Bing

3.3.53 A large colliery spoil heap from the former Douglas West Colliery is located to the north-east of the former railway and station at Douglas West (see Figure 1.2b, marked on OS mapping as “Disused Workings”, adjacent to the proposed construction compound). The colliery spoil heap (or “bing”)

consists of stone and coal mining waste excavated from the adjacent abandoned pits and deposited here until the 1960s

3.3.54 The main heap is around 200 m long, 120 m wide at the base, and is around 20 m high above surrounding ground level. It is steep sided on the south, east and west sides and the north side slopes more gently to ground level. The bing continues northward for circa a further 200 m at a lower level from the main heap and is more heavily landscaped. The top of the southern area is relatively flat and exposed. Most of the top and northern area has been partially landscaped.

3.3.55 Subject to appropriate environmental and geotechnical testing it is considered the colliery spoil may provide a viable resource for the construction of wind farm roads and a review has been undertaken to see how this could be extracted.

3.3.56 To minimise the impact on existing landscape screening and cover planting it is proposed to carry out extraction from the south-east corner of the heap by forming a ramp part way up the face and working the area to form a working platform/s which can be used to load site trucks which will transport the material to the road locations which are primarily to the south and west of its position.

3.3.57 It is considered that approximately 62,500 m^3 may be used which will reduce the spoil heap by around 35 m (in lateral extent) if worked from the south.

3.3.58 During extraction it will be necessary to form working platforms to reduce the height of excavations and to maintain stable slopes.

3.3.59 When extraction is complete it is proposed to retain some of these platforms for landscape planting and to grade the slopes of the new excavated faces to provide shallower gradients which can be topsoiled and seeded.

3.3.60 Details of the proposed work is shown on Figure 3.10.

3.3.61 If this proposal can be adopted then approximately 12,500 fewer off site vehicle movements will be required (6250 each way).

3.4 Construction

3.4.1 The on-site construction period for the Proposed Development is expected to be approximately 24 months and includes a two-phase construction programme (refer to Table 3.5 and Figure 1.2a). The indicative construction programme below includes the construction of the new site infrastructure and turbines, and an indicative timeline for the decommissioning of the Existing Development which will be regulated separately under the existing planning permission ref. P/LK/01940252, all as shown in Table 3.5. Table 3.5 shows the decommissioning of the Existing Development being undertaken in parallel with the construction of Phase 2 of the Proposed Development (refer to Table 3.5 and Figure 1.2a). Discussions are ongoing with the existing leaseholder, SPR, about the exact timeframe for the decommissioning of the existing turbines on the site, therefore, a fully detailed construction programme will be provided within the CEMP prior to the commencement of construction – this can be addressed through an appropriately worded condition.

3.4.2 Normal construction hours will be between 07:00 and 19:00 Monday to Friday and 07:00 to 13:00 on a Saturday. These times have been chosen to minimise disturbance to local residents. It must, however, be noted that during the turbine erection phase, operations may proceed round the clock to ensure that lifting processes are completed safely. Table 3.5 provides an indicative programme for the main items of work to be carried out.

Table 3.5: Indicative Construction Programme

Task Phase	Expected Duration (working days)	Construction Month											
		2	4	6	8	10	12	14	16	18	20	22	24
Phase 1													
Mobilisation to site	20												
Access road Industrial area to site	65												
Access Tracks 1-7	60												
Cabling installation	55												
Substation works	60												
Substation commissioning	15												
Crane Hardstanding 1-7	65												
Foundations 1-7	60												
Turbine Delivery 1-7	60												
Turbine Erection 1-7	60												
Commission/ Test 1-7	60												
Phase 2													
Existing Development switch off	1												
Decommission Existing Development	241												
Mobilisation	20												
Access tracks 8-14	50												
Cabling installation	30												
Substation works	60												
Substation commissioning	15												
Crane Hardstanding 8-14	65												
Foundations 8-14	60												
Turbine Delivery 8-14	60												
Turbine Erection 8-14	60												
Commission/Test 8-14	60												
Site Re-instatement	20												

Summary of Development Areas

3.4.3 Table 3.6 below summarises the approximate areas for which aggregate material will be required for each of the main infrastructure elements described in Section 3.3. The transport assessment in Chapter 12 has been prepared on a "worst-case" basis that all construction aggregate will be imported to site. However, if base materials (at least) are won on site this would result in an approximately 60% reduction in delivery volumes / traffic. Further detail on traffic volumes associated with the importation of construction materials is provided in Chapter 12.

Table 3.6 - Proposed Development Areas

Infrastructure	Area (m^2)
Base Material	62,200
Capping	28,300
Control building and Contractors Compound	12,000
Central Laydown Areas	10,500

Construction Materials

3.4.4 The main materials likely to be required in part or total for the construction of the track, turbine and substation/control building foundations, hardstanding areas and cable trenches are described below:

- crushed stone;
- geotextile;
- cement;
- sand;
- concrete;
- steel reinforcement; and
- electrical cable.

3.4.5 Necessary excavations will be made, initially by stripping back the soil from the area to be excavated. This soil will typically be stored separately either in a mound adjacent to the excavation area for backfill, if required, or stored at a designated area on site for further use or reinstatement of temporary works areas. The handling of soils will be undertaken in accordance with best practice techniques.

3.4.6 For the purposes of the transport assessment, it has been assumed that concrete will be batched on site within the identified concrete batching area and materials will be delivered to site on a spread programme.

3.4.7 Should surface water run-off or groundwater enter the excavation during construction of the turbine foundations, appropriate pumping measures away from watercourses will be implemented to ensure the works are safely carried out and the excavation is sufficiently dry to allow concrete placement. Once the concrete is cast, the excavated material will be used for backfill and compacted to the required design density. Once this backfill is completed, the crane hardstanding areas will be constructed.

3.4.8 The proposed method for constructing the wind turbines is as follows. The turbines will be erected using a large mobile crane or crawler crane, positioned on the hardstanding adjacent to the turbine

base. A smaller tail crane will be positioned adjacent to the delivery position of the turbine components. The two cranes will lift the tower sections and blades into their assembly positions, and the main crane will lift the tower sections, nacelle and blades into their operational positions.

3.4.9 As soon as practical, once installation is complete, the immediate construction area will be restored to its original profile, although the crane hardstandings will be retained for future maintenance. The soils will be replaced and reseeded where appropriate and as advised by an onsite Environmental Clerk of Works (ECoW). Any surplus soils will be used to restore track edges after construction. This progressive reinstatement has been found to assist with re-establishment of the local habitats as it minimises the time soils are in storage.

Traffic & Transportation

3.4.10 A detailed transport assessment is provided within Chapter 12, and the proposed access route to the site is shown on Figure 3.11.

3.4.11 Construction traffic associated with the construction and maintenance of the Proposed Development falls into two main categories, namely Abnormal Indivisible Loads (AIL) and Construction/Maintenance Loads. The abnormal loads are those that will require an escort, either by private contractor or by police escort. Construction/maintenance loads are those that do not require any special escort or permissions and are only influenced by normal traffic regulations.

3.4.12 The Applicant will ensure that the vehicles will be routed as agreed with SLC, Transport Scotland and Police Scotland, to minimise disruption and disturbance to local residents and road users. Further details regarding transport and access can be found in Chapter 12 of this EIA Report.

Pollution Prevention & Health & Safety

3.4.13 Prior to commencement of construction activities, a pollution prevention strategy, contained within a CEMP, will be agreed with SEPA to ensure that appropriate measures are put in place to protect watercourses and the surrounding environment. Further details regarding the contents of the CEMP are provided later in this chapter.

3.4.14 As with any development, during the construction stage there is the potential for impacts on the quality of the water environment in surrounding watercourses and local ditches. These mostly arise from poor site practice and careful attention will be paid to SEPA's *Guidance for Pollution Prevention (GPPs) Guidance 5 (GPP5) – Works and Maintenance In or Near Water and SEPA's Pollution Prevention Guidelines, Guidance 6,(PPG6) – Working at Construction and Demolition Sites (SEPA, 2007) t*o prevent impacts.

3.4.15 Any fuel or oil held on site will only be of an amount sufficient for the plant required. This will be stored in a bunded area, as noted above, and an oil interceptor will be installed to prevent pollution in the event of a spillage, in accordance with *GPP2 – Above Ground Oil Storage (SEPA, 2018).* There will be no long-term storage of lubricants or petrochemical products on-site.

3.4.16 High standards of health and safety will be established and maintained. At all times, all activities will be undertaken in a manner compliant with applicable health and safety legislation and with relevant good practice, as defined under applicable statutory approved codes of practice and guidance.

3.4.17 Further details of site specific storage and management of fuel and oil and protection of watercourses during construction are presented in Chapter 11.

Construction Environmental Management Plan (CEMP)

3.4.18 As part of the construction contract, the contractor responsible for undertaking the construction and/or decommissioning works (the Contractor) shall sign up to produce, and adhere to, a CEMP. The CEMP shall be developed in accordance with the joint Scottish Renewables, SNH, SEPA, and Forestry Commission Scotland guidance on *Good Practice During Windfarm Construction (SNH, 2015).*

3.4.19 The CEMP shall describe how the Contractor will ensure suitable management of, but not limited to, the following environmental issues during construction of the Proposed Development:

- noise and vibration;
- dust and air pollution;
- surface and groundwater;
- ecology and ornithology (including protection of habitats and species);
- agriculture (including protection of livestock and land);
- cultural heritage;
- waste (construction and domestic);
- details of the size, location and volumes to be extracted from borrow pits;
- pollution incidence response (for both land and water); and
- site operations (including maintenance of the construction compound, working hours and safety of the public).

3.4.20 The Contractor shall provide the following for the above environmental issues:

- details of all the environmental mitigation which is described within this Environmental Statement (Chapter 17) that is required during construction (and decommissioning) of the Proposed Development, and of how the Contractor will implement this mitigation and monitor its implementation and effectiveness;
- details of how the Contractor will abide by the local and national legislative requirements e.g. The Water Environment (Controlled Activities) (Scotland) Regulations 2011;
- details of how the Contractor will implement and monitor construction best practice techniques e.g. the control of noise and dust;
- details of a Waste Management Plan that will include opportunities to reduce and re-use waste on site, recycling of waste which cannot be reused and disposal of waste to landfill; and
- details on how the Contractor will liaise with the public and local landowners and how they will respond to any queries and/or complaints.

3.4.21 The Contractor and/or Applicant shall consult with the Scottish Ministers, SNH, SEPA, Historic Environment Scotland (HES) and SLC on the production of the CEMP. The Contractor shall amend and improve the CEMP as required throughout the construction and decommissioning period.

3.4.22 The CEMP shall, where applicable, cross-reference and correspond with the Construction Traffic Management Plan (CTMP). The CTMP will detail the management of traffic to and from site, including abnormal loads and daily workers commute. It shall also include mitigation for impacts to public transport, local private access and public footpaths, cycleways and bridleways. The Contractor and/or Applicant shall amend and improve the CTMP as required throughout the construction and decommissioning period.

3.4.23 Specific requirements of the CEMP for each of the environmental topics assessed in the EIA are provided in the relevant EIA Report chapters.

3.5 Operation & Maintenance

3.5.1 During operation, only site maintenance vehicles and local utility company vehicles will normally be required on the site for the Proposed Development. Daily visits to the control building by site

management personnel in four wheel drive or conventional passenger vehicles will occur following the commissioning phase.

3.5.2 Any diesel or oil stored on-site will be held within an appropriately bunded location.

3.5.3 Health and safety will also be controlled as set out in the construction phase.

3.5.4 Once the Proposed Development is operational, daily routine maintenance inspections and servicing visits by site management / technicians in one to two vehicles are expected.

3.5.5 In the unlikely event that a major turbine component requires replacement, vehicles will use the new access tracks and crane pads.

Operation Environmental Management Plan

3.5.6 The Applicant will implement an Operation Environmental Management Plan (OEMP). Similar to the CEMP, the OEMP will set out how the Applicant will manage and monitor environmental effects throughout operation. Much of the focus will be on the application of mitigation measures as specified through consent condition. Most of which are likely to be based on the Schedule of Mitigation. The OEMP will be developed in consultation with the Scottish Ministers, SNH, SEPA and SLC and will include but not be limited to:

- details on the track, water crossings and turbine maintenance;
- the control and monitoring of noise;
- the control and monitoring of surface and groundwater;
- a pollution prevention plan and a pollution incidence response plan;
- details of how the Applicant will abide by the local and national legislative requirements e.g. The Water Environment (Controlled Activities) (Scotland) Regulations 2011; and
- a Species Protection Plan.

3.6 Decommissioning

3.6.1 This assessment assumes that the operational lifespan of the Proposed Development would be 30 years, after which it would be appropriately decommissioned. It is expected that decommissioning would take approximately 12 months. The environmental effects of decommissioning are considered to be similar to those during construction but excluding habitat loss which would have already occurred under the construction phase.

3.6.2 During the decommissioning phase, vehicles would access the site by the same routes used for delivery and construction.

3.6.3 Either the main construction compound and laydown area would be re-established or a new compound would be developed as agreed with the Scottish Ministers/Local Authority at the appropriate time, to temporarily store decommissioned plant and equipment. The nacelles and blades would be removed using cranes situated on the crane pads as previously constructed. The towers would then be dismantled.

3.6.4 All components would be removed from the site for disposal and/or recycling as appropriate and in accordance with regulations in place at that time.

3.6.5 If required, exposed parts of the concrete foundations would be ground down to below sub-soil level, however, the remaining volume of the foundations would remain in situ.

3.6.6 The turbine base areas and crane pads would be returned to their original appearances unless further consents were granted. The additional onsite access tracks created for the Proposed Development would be narrowed to farm-width and retained. The tarmac road from the M74 that exists at present would remain.

3.6.7 If, after the operational lifespan of the Proposed Development has expired there is potential for re-powering, this would be subject to a new and separate application.

3.7 Climate Change & Carbon Considerations

3.7.1 Increasing atmospheric concentrations of greenhouse gases (GHGs), including carbon dioxide (CO_2) - also referred to as carbon emissions - are resulting in climate change. A major contributor to this increase in GHG emissions is the burning of fossil fuels. With concern growing over climate change, reducing its cause is of utmost importance. The replacement of traditional fossil fuel power generation with renewable energy sources provides high potential for the reduction of GHG emissions. This is reflected in UK and Scottish Government climate change and renewable energy policy and commitments. The relevant aspects of such policies are summarised in Chapter 5.

Energy Generation

3.7.2 Whilst the Proposed Development will reduce carbon emissions by replacing the need to burn fossil fuels for power, carbon emissions will result from the component manufacturing, transportation and installation processes associated with the Proposed Development. There is also the potential for carbon fixers and sinks to be lost through the clearing of vegetation during construction. There must, therefore, be a sufficient balance between the carbon reduction associated with renewable energy development and that which is produced through construction/ fabrication processes and lost through site preparation.

3.7.3 The electrical output capacity from the Proposed Development will be around 84 MW, with the exact capacity depending on the model and type of turbine selected. It would be expected that the site would generate around 237 GWh per year (again depending on the turbine selected).

3.7.4 The average electricity consumption per household in the UK quoted by RenewableUK is 3,900 kWh (RenewableUK, 2017). Assuming generation of 237.7 GWh annually, the Proposed Development would generate enough power to supply approximately 60,940 average UK households.

3.7.5 Although future wind yields cannot be guaranteed, if the Proposed Development continued to generate, on average, at this load factor over its proposed 30-year lifespan, it is expected that around a total of approximately 7,130 GWh of renewable energy could be generated.

Carbon Emissions Savings

3.7.6 A technical review of energy displacement by the UK Energy Research Centre (UKERC) considered over two hundred studies and papers from all round the world for the UK Government and concluded that *"it is unambiguously the case that wind energy can displace fossil fuel-based generation, reducing both fuel use and carbon dioxide emissions"* (UKERC, 2006).

3.7.7 Whilst the wind turbines will reduce carbon emissions by replacing the need to burn fossil fuels for power, there is the potential for carbon fixers and sinks to be lost through the clearing of vegetation and materials for construction. There must therefore be a sufficient balance between the carbon reduced and that which is produced and lost through associated processes.

3.7.8 The Proposed Development site is covered in low grade agricultural land that has been partly developed previously for the Existing Development. Peat depths identified across the site are typically less than 1 m, with no peat identified across much of the site area. No tree felling is proposed as part of the development proposals. The overall carbon sink loss from the Proposed Development will therefore be minimal.

3.7.9 The Scottish Government's online Carbon Calculator Tool V1.5.0 has been completed for the Proposed Development. Input parameters are based on the proposed site design, infrastructure dimensions, results from peat depth surveys and laboratory testing of peat, and other information gained from site survey work, desk study and, where applicable, assumptions relating to groundwater, drainage, and habitat regeneration.

3.7.10 The output from the Carbon Calculator indicates the expected total carbon dioxide loss for the Proposed Development (from manufacture of turbines, construction, decommissioning, and carbon sink losses, also taking account of gains due to restoration of borrow bits) is 124,178 tonnes of carbon dioxide (tCO_2).

3.7.11 Scottish Government guidance on wind farm carbon savings (Scottish Government, 2008), states: "*carbon emission savings from wind farms should be calculated using the fossil fuel sourced grid mix…, rather than the grid mix."* Taking account of the expected total CO_2 loss from the Carbon Calculator result, the Proposed Development would be expected to result in a saving of approximately 98,061 tonnes of carbon dioxide (tCO_2) per year, meaning a total of over 2.94 million tonnes over the 30-year lifetime of the development, through displacement of carbon-emitting generation. (RenewableUK, 2017).

3.8 Public Access & Outdoor Recreation Opportunities

3.8.1 A range of public access and outdoor recreation opportunities also exist on the landholding that the Applicant is keen to deliver as part of the Proposed Development, including:

- Developing and enhancing the Public Access Strategy and Heritage Trail commitments that form part of the existing planning permission for the Douglas West Wind Farm.
- Creating a Visitor Welcome Area, car parking, and some (initially) basic visitor facilities on the landholding.
- Design and implement a range of bike trails across the landholding incorporating Hagshaw Hill and adjoining areas which can be accessed direct from a new Visitor Welcome Area.
- A range of waymarked walking routes that take in the new Heritage Trail around Douglas and Coalburn that can also can be accessed directly from a new Visitor Welcome Area.
- Signposting and visitor information about local cafes in Douglas and Coalburn that are achievable as part of a walking circuit from a Visitor Welcome Area.
- Plans for promoting an Adventure Tourism offering around Douglas and Coalburn more widely throughout the local area, including within the refurbished Cairn Lodge Services, and beyond, to increase visitor potential.

3.9 Socio-Economic Benefit

3.9.1 Based on an installed capacity of 84 MW, the Proposed Development will generate a £12.6 million Community Benefit Contribution to communities in the Douglas Valley over the life of the project, comprising financial contributions of £5,000/MW. The aim of this funding will be to support the delivery of strategic projects in the Douglas Valley over the next 30 years.

3.9.2 The Applicant is exploring the potential to establish a Douglas Valley Development Trust which would receive income from the Proposed Development (and potentially the Douglas West Extension project) which would yield the financial resources to deliver a Community-Led Investment Strategy for each village (Glespin, Douglas, Coalburn, Rigside and Douglas Water). The Strategy would seek to deliver on the aims of the Coalburn, Douglas and Glespin Community Action Plan (August 2016) and the Rigside and Douglas Water Community Action Plan (2018 – 2023) in the first instance.

3.9.3 The communities in each of these villages have prepared Action Plans for how they would like to see their communities develop over the coming years and the Applicant would very much like the Proposed Development to provide a dedicated stream of funding to deliver on the objectives of each Action Plan, and any other future projects identified. The overarching objective of the Development Trust would be to deliver real improvement to the physical and recreational environment of Glespin, Douglas, Coalburn, Rigside and Douglas Water.

3.9.4 In order to achieve this, the Applicant proposes that the Proposed Development Community Benefit Contribution would fund a full-time Local Development Officer who would be dedicated to the task

of developing and delivering the Community-Led Investment Strategy for the area. This would include seeking out, developing and submitting grant applications on behalf of local groups for specific improvement projects in the above villages that would fulfil the objectives of each Community Action Plan. Each village would have a dedicated 'pot' of money ring fenced for their community by the Development Trust on an annual basis. It is proposed that this funding could be used as 100% finance for one-off projects, or as part of match-funding arrangements for larger schemes. Revenue funding could also be considered for the right projects/facilities. It is initially proposed that the Local Development Officer would be based locally in Douglas, Coalburn or Lanark and would work closely with the South Lanarkshire Council Economic Development & Regeneration Team, and all local groups and third sector agencies in the Douglas Valley Communities.

3.9.5 The Applicant is also committed to exploring the potential to open up a revenue share in the Proposed Development for the local community, creating the opportunity for local community groups in the Douglas Valley to acquire a share in the future revenue of the repowered wind farm.

3.9.6 The Applicant proposes that any interested local groups should initially engage with Local Energy Scotland, who manage the Scottish Government's Community and Renewable Energy Scheme (CARES), to seek advice on the ways in which to acquire a revenue share of up to 5% in the Proposed Development.

3.9.7 This proposed Shared Ownership structure conforms with Option 2 on page 16 of the Scottish Government Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments.

3.9.8 As part of the Applicant's Forward Strategy for their landholding and businesses, the Proposed Development creates opportunities to develop and fund (through the Community Benefit Contribution) outdoor recreation infrastructure on the landholding which could act as a catalyst for the newly established Development Trust to grow an Adventure Tourism offering in the Douglas Valley, capitalising upon the significantly increased visitor numbers calling at the renovated Cairn Lodge Service Station.

3.9.9 The final community benefit arrangements are to be agreed with local communities, SLC and the Scottish Ministers.

3.9.10 The Proposed Development represents a significant investment in the Douglas Valley and the Applicant has committed to taking a number of steps to ensure that benefits from the Proposed Development are maximised locally. The Applicant is committed to a local supplier approach that will ensure that supplier contracts are sourced locally wherever possible, sustaining local businesses and providing employment opportunities for local people. Construction companies will also be encouraged to offer local apprenticeship and work experience places during the construction phase of the Proposed Development as part of a Responsible Contracting Policy.

3.9.11 An independent assessment of the socio-economic impact of the Proposed Development has been undertaken and included as Chapter 13 of this EIA Report. The assessment concludes that the Proposed Development represents a major investment in the South Lanarkshire and Scottish economies and will therefore deliver a range of positive economic impacts. During the development and construction phase the Proposed Development would generate a positive economic impact of up to £46.1 million and 423 job years of employment in the Scottish economy, of which £17.1 million and 152 job years would be within South Lanarkshire. During each year of the operational phase (30 years) the Proposed Development would generate a positive economic impact of up to £1.1 million and 9 job years in the Scottish economy, of which £0.7 million and 6 job years would be in South Lanarkshire. There would also be wider socio-economic benefits associated with the Proposed Development as a result of the Community Benefit Contribution of £5,000 per MW per year, and the opportunity for local communities to acquire a revenue share of up to 5% in the Proposed Development. There would additionally be benefits to the public sector from payment of non-domestic rates estimated to be worth £0.9 million each year. The positive economic impacts of these benefits are discussed further in Chapter 13.

3.10 Summary

3.10.1 This chapter has provided a description of the site and the surrounding area, alongside details of the Proposed Development and a summary of the associated infrastructure. A description of the likely activities to occur during the construction, operation and decommissioning phases is also provided.

3.10.2 The Public Access and Outdoor Recreation Opportunities created by the Proposed Development have been summarised, as have the main Community Benefit and Shared Ownership proposals (refer to Chapter 13 for full details)

3.10.3 Finally, a high-level assessment of the predicted carbon savings has been conducted for the Proposed Development.

3.11 References

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