

18 Summary of Residual Effects

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Table 18.1: Summary of Residual Effects – Construction/Decommissioning Phase

Description of Effect	Significance of Potential Effect		Mitigation Measure (standard and specific)	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
6. Landscape and Visual					
Refer to operation effects below					
7. Ornithology					
Disturbance of greenshank	Significant effect	Adverse	Pre-felling/construction survey to develop mitigation measures if required	Not significant	Adverse
Disturbance of common crossbill/destruction of common crossbill nest	Significant effect	Adverse	Pre-felling/construction survey to develop mitigation measures if required	Not significant	Adverse
Disturbance of breeding birds	Not significant	Adverse	N/A	Not significant	Adverse
8. Ecology					
Disturbance of semi-natural ancient woodland	Not significant	Adverse	Standard pollution prevention measures.	N/A	N/A
Loss and modification of habitat: M15c, M27a, W4c and potential GWDTEs	Significant	Adverse	Implementation of Habitat Management Plan (HMP), including habitat reinstatement, restoration and enhancement.	Not significant	Beneficial

Description of Effect	Significance of Potential Effect		Mitigation Measure (standard and specific)	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Disturbance of protected species: otter and pine marten	Not significant	Adverse	Construction works around potential otter couch carried out under NatureScot (NS) licence. Pre-construction protected species survey Installation and monitoring of two artificial pine marten boxes.	N/A	N/A
Disturbance of habitats from removal of infrastructure during decommissioning	Not significant	Adverse	Habitat reinstatement.	Not significant	Beneficial
Disturbance of protected species during decommissioning	Not significant	Adverse	A suite of good practice measures will be implemented during decommissioning to provide additional protection for protected species. These measures will be agreed with THC prior to decommissioning commencement.	N/A	N/A
Pollution of watercourse	Not significant	Adverse	Standard pollution prevention measures.	N/A	N/A
9. Geology, Peat, Hydrology and Hydrogeology					
Sedimentation/ chemical contamination of watercourses	Minor	Adverse	Standard mitigation: suitable design, implementation of CEMP.	Minor	Adverse
Effects on groundwater quality and flow	Minor	Adverse	Standard mitigation: suitable design, implementation of CEMP.	Minor	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure (standard and specific)	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Removal of peat	Minor	Adverse	Standard mitigation: suitable design and implementation of CEMP. Additional mitigation: implementation of PMP and peatland restoration via HMP.	No effect	N/A
Peat slide effects on watercourses	Negligible	Adverse	Standard mitigation: suitable design, implementation of CEMP, pre-construction site investigations.	Negligible	Adverse
Soil compaction	Negligible to Minor	Adverse	Standard mitigation: suitable design, implementation of CEMP. Additional mitigation: use of designated working corridors.	Negligible	Adverse
Pollution of watercourses from forestry felling	Minor	Adverse	Standard mitigation: suitable design, implementation of CEMP, good practice felling practices.	Minor	Adverse
Effects on the integrity of banking	Minor	Adverse	Standard mitigation: suitable design, implementation of CEMP.	Minor	Adverse
10. Noise					
Noise from road traffic	Negligible	N/A	None required	Negligible	N/A

Description of Effect	Significance of Potential Effect		Mitigation Measure (standard and specific)	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Noise from construction activities	Negligible	N/A	Implementation of good practice during construction works	Negligible	N/A
11. Cultural Heritage					
Direct impact on quarry (7)	Minor	Adverse	No mitigation required	Minor	Adverse
Potential impact on remains of possible shieling hut (4)	Moderate	Adverse	Appointment of ACoW. Watching brief to a scope of work agreed with HET through WSI.	Minor	Adverse
Possible direct effects on buried archaeological remains.	Major or Moderate	Adverse	Appointment of ACoW. Watching brief to a scope of work agreed with HET through WSI.	Minor	Adverse
12. Traffic and Transport					
Traffic effects on the A836	Minor	Adverse	Implementation of Construction Traffic Management Plan, development of RUSA reviewed access junction and detailed access management plan, provision of construction traffic road signage, convoy escorts for ALL movements, provision of localised road improvement works.	Minor	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure (standard and specific)	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
13. Socio-Economics and Tourism					
Generation of employment and economic activity	Minor	Beneficial	N/A	Minor	Beneficial
Disruption or severance to tourist amenity	Negligible	Adverse	N/A	Negligible	Adverse
Disruption to Recreational activity – impact on the National Cycle Route 1	Minor	Adverse	This will be managed through the implementation of a Construction Traffic Management Plan (CTMP) for general construction traffic and a Traffic Management Plan (TMP) for abnormal loads (which could form part of the CTMP).	Minor	Adverse
Disruption to Recreational activity – others	No Effect	N/A	N/A	No Effect	N/A
14. Aviation					
Effects to aviation and radar receptors and operations	None	N/A	Infra-Red lights to satisfy MOD requirements	None	N/A

Description of Effect	Significance of Potential Effect		Mitigation Measure (standard and specific)	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
15. Telecommunication					
Effects on telecommunication	No effect	N/A	None required	No effect	N/A
16. Forestry					
Long term loss of Forest resource as a result of the felling for the Proposed Development	Moderate	Adverse	Off- site compensatory planting of equivalent area	None	N/A
Long term loss of broadleaf woodland including areas of NWSS or ASNW	Major	Adverse	Off-site compensatory planting of an equivalent area but not able to compensate for the loss of NWSS status	Moderate	Adverse
Loss of forest resource due to felling for temporary infrastructure such as construction compounds).	Minor	Adverse	Off- site compensatory planting of equivalent area	None	N/A

Table 18.2: Summary of Residual Effects – Operation

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
6. Landscape and Visual					
Effects on Landscape Elements					
Coniferous forestry	Not significant	Adverse	N/A	Not significant	Adverse
Deciduous woodland	Not significant	Adverse	N/A	Not significant	Adverse
Rough grassland and moorland	Not significant	Adverse	N/A	Not significant	Adverse
Effects on Landscape Character					
Farmed and forested slopes with crofting (LCT 145) Lairg unit	Not significant	Adverse	N/A	Not significant	Adverse
Rounded Hills (LCT 135) Loch Shin unit	Significant effect on a small area (4 km-6.5 km away); elsewhere not significant	Adverse	N/A	Significant effect on a small area (4 km-6.5 km away); elsewhere not significant	Adverse
Rounded Hills (LCT 135) Meallan Liath Mor unit	Significant effect on a small area (4.6 km-6.5 km away);	Adverse	N/A	Significant effect on a small area (4.6 km-6.5 km	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
	elsewhere not significant			away); elsewhere not significant	
Rounded Hills (LCT 135) north Strath Fleet unit	Not significant	Adverse	N/A	Not significant	Adverse
Strath (LCT 142) Strath Tirry unit	Significant effect on a small area (up to 4 km away); elsewhere not significant	Adverse	N/A	Significant effect on a small area (up to 4 km away); elsewhere not significant	Adverse
Strath/Sweeping Moorland and Flows (LCTs 134/142)	Significant effect on a small area (up to 4 km away); elsewhere not significant	Adverse	N/A	Significant effect on a small area (up to 4 km away); elsewhere not significant	Adverse
Sweeping Moorland and Flows (LCT 134) Dalnessie/Strath Tirry unit	Significant effect on a small area (1 km-4 km away); elsewhere not significant	Adverse	N/A	Significant effect on a small area (1 km-4 km away); elsewhere not significant	Adverse
Effects on Landscape-Related Designated Areas (in terms of Special Qualities)					

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Ben Klibreck and Loch Choire SLA	Not significant	Adverse	N/A	Not significant	Adverse
Effects on Wild Land Areas					
WLA 34 (Reay-Cassley)	Not significant	Adverse	N/A	Not significant	Adverse
WLA 35 (Ben Klibreck-Armine Forest)	Not significant	Adverse	N/A	Not significant	Adverse
WLA 37 (Foinaven-Ben hee)	Not significant	Adverse	N/A	Not significant	Adverse
Effects on Viewpoints					
Viewpoint 1 A836 bird hide layby	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 2 A836 at Allt Chaiseagail Bridge	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 3 A836 south of Dalmichy	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 4 A836 north of Dalnessie entrance	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 5 A836 north of Rhian Bridge	Significant	Adverse	N/A	Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Viewpoint 6 A836 South of Crask	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 7 Blarbuie	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 8 Tirryside	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 9 Saval	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 10 Rhian Breck, Lairg	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 11 Sallachy	Significant	Adverse	N/A	Significant	Adverse
Viewpoint 12 Meall Dola	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 13 Track to Loch Sgeireach	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 14 Creag Mhor	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 15 Ben Klibreck	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 16 Ben More Assynt	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 17 Cnoc an Alaskie	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 18 Ben Hee	Not significant	Adverse	N/A	Not significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Viewpoint 19 Maovally	Not significant	Adverse	N/A	Not significant	Adverse
Viewpoint 20 The Ord	Not significant	Adverse	N/A	Not significant	Adverse
Effects on Principal Visual Receptors					
A836/NCR1	Significant effect (intermittent/ very intermittent) for approx. 7 km for northbound travellers and 5.2 km for southbound travellers	Adverse	N/A	Significant effect (intermittent/very intermittent) for approx. 7 km for northbound travellers and 5.2 km for southbound travellers	Adverse
A838	Not significant	Adverse	N/A	Not significant	Adverse
Core Paths SU16.02 (Gunn's Wood) and SU16.07 (Balloan-Lairg)	Not significant	Adverse	N/A	Not significant	Adverse
Core Path SU16.03 (Ord Hill)	Not significant	Adverse	N/A	Not significant	Adverse
Core Path SU16.05 (Loch Shin Hide)	Significant	Adverse	N/A	Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
7. Ornithology					
Collision risk for breeding greylag goose from Loch Shin IBA	Not significant	Adverse	N/A	Not significant	Adverse
Collision risk for overwintering pink-footed goose	Not significant	Adverse	N/A	Not significant	Adverse
Collision risk for overwintering whooper swan	Not significant	Adverse	N/A	Not significant	Adverse
8. Ecology					
Accidental spillage of fuels, chemicals or lubricants affecting habitats, otter and fish	Not significant	Adverse	Standard pollution prevention measures.	N/A	N/A
Accidental injury/death from vehicle collisions with otter, pine marten and deer	Not significant	Adverse	Restricted speed limits on-site during construction and operation. Deer management plan to control population numbers.	N/A	N/A

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Collison of bats with wind turbines	Not significant	Adverse	Woodland felling by keyholing rather than clear felling.	N/A	N/A
9. Geology, Peat, Hydrology and Hydrogeology					
Effects on surface water drainage regime	Negligible	Adverse	Standard mitigation: suitable design, implementation of DS and HMP	Negligible	Adverse
Effects on fluvial geomorphology	Negligible	Adverse	Standard mitigation: suitable design, implementation of DS	Negligible	Adverse
Long-term effects on groundwater quality and flow	Minor	Adverse	Standard mitigation: suitable design, implementation of HMP	Minor	Adverse
10. Noise					
Noise from fixed non-turbine plant	Negligible	N/A	Selection of plant which complies with specified maximum sound power level, or installation of appropriate acoustic enclosure where plant sound power level is above maximum specified, such that the derived noise limits are met.	Negligible	N/A

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Noise from wind turbines at all NSRs	Negligible to Minor	Adverse	None required	Negligible to Minor	Adverse
11. Cultural Heritage					
Impacts on the settings of two Scheduled Monuments, of high sensitivity: (SM 5081 and SM 5300).	Moderate	Adverse	None	Moderate	Adverse
Impacts on the settings of 14 other Scheduled Monuments, of high sensitivity.	Minor	Adverse	None	Minor	Adverse
Impacts on the settings of two Category C Listed Buildings of low sensitivity: (LB 8018 and LB 8027).	Minor	Adverse	None	Minor	Adverse
12. Traffic and Transport					
No impacts anticipated and therefore no effects					

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
13. Socio-Economic and Tourism					
Generation of employment and economic activity	Negligible	Beneficial	N/A	Negligible	Beneficial
Effect on tourism	Negligible	Adverse	N/A	Negligible	Adverse
Effect on specific tourism receptors	Negligible	Adverse	N/A	Negligible	Adverse
Effect on recreational receptors	Negligible	Adverse	N/A	Negligible	Adverse
14. Aviation					
Effects to aviation and radar receptors and operations	None	N/A	Infra-Red lights to satisfy MOD requirements	None	N/A
15. Telecommunications					
Effects on telecommunication	No effect	N/A	None required	No effect	N/A
16. Forestry					
No impacts anticipated and therefore no effects					

Table 19.3: Cumulative Effects

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
6. Landscape and Visual				
Cumulative Effects on Landscape Character				
Farmed and forested slopes with crofting (LCT 145) Lairg unit	Effect on landscape character	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Rounded Hills (LCT 135) Loch Shin unit	Effect on landscape character	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Rounded Hills (LCT 135) Meallan Liath Mor unit	Effect on landscape character	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Rounded Hills (LCT 135) north Strath Fleet unit	Effect on landscape character	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Strath (LCT 142) Strath Tirry unit	Effect on landscape character	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
Strath/Sweeping Moorland and Flows (LCTs 134/142)	Effect on landscape character	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Sweeping Moorland and Flows (LCT 134) Dalnessie/ Strath Tirry unit	Effect on landscape character	Operational and under-construction wind farms	Not significant	Adverse
		Operational, under-construction, and consented wind farms	Intermittent significant cumulative effect on the southern part of the receptor	Adverse
Cumulative Effects on Landscape-Related Designated Areas				
Ben Klibreck and Loch Choire SLA	Effect on special qualities	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Cumulative Effects on Wild Land Areas				
WLA 34 (Reay-Cassley)	Effect on wildness attributes/qualities	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
WLA 35 (Ben Klibreck-Armine Forest)	Effect on wildness attributes/qualities	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
WLA 37 (Foinaven-Ben hee)	Effect on wildness attributes/qualities	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Cumulative Effects on Viewpoints				
Viewpoint 1 A836 bird hide layby	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 2 A836 at Allt Chaiseagail Bridge	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 3 A836 south of Dalmichy	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 4 A836 north of Dalnessie entrance	Effect on the view available	Operational and under-construction wind farms	Not significant	Adverse
		Operational, under-construction and consented wind farms	Significant for southbound travellers Not significant for northbound travellers	Adverse

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
Viewpoint 5 A836 north of Rhian Bridge	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 6 A836 South of Crask	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 7 Blarbuie	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 8 Tirryside	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 9 Saval	Effect on the view available	Operational and under-construction wind farms	Not significant	Adverse
		Operational, under-construction and consented wind farms	Not significant at the viewpoint itself Significant at nearby locations (where woodland screening is not apparent)	Adverse

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
Viewpoint 10 Rhian Breck, Lairg	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 11 Sallachy	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 12 Meall Dola	Effect on the view available	Operational and under-construction wind farms	Not significant	Adverse
		Operational, under-construction and consented wind farms	Significant	Adverse
		Operational, under-construction, consented and application-stage wind farms	Significant	Adverse
Viewpoint 13 Track to Loch Sgeireach	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 14 Creag Mhor	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
Viewpoint 15 Ben Klibreck	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 16 Ben More Assynt	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 17 Cnoc an Alaskie	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 18 Ben Hee	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 19 Maovally	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Viewpoint 20 The Ord	Effect on the view available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Cumulative Effects on Principal Visual Receptors				

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
A836/NCR1	Effect on the views available	Operational and under-construction wind farms	Not significant	Adverse
		Operational, under-construction and consented wind farms	Significant effect (intermittent/very intermittent) for approx. 7 km for northbound travellers and 5.2 km for southbound travellers	Adverse
A838	Effect on the views available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Core Paths SU16.02 (Gunn's Wood) and SU16.07 (Balloan-Lairg)	Effect on the views available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Core Path SU16.03 (Ord Hill)	Effect on the views available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
Core Path SU16.05 (Loch Shin Hide)	Effect on the views available	Operational, under-construction, consented and application-stage wind farms	Not significant	Adverse
7. Ornithology				

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
No significant cumulative effects				
8. Ecology				
No impacts anticipated and therefore no effects				
9. Geology, Peat, Hydrology and Hydrogeology				
No impacts anticipated and therefore no effects				
10. Noise				
All NSRs	Cumulative wind turbine noise	Small turbine at NSR3 Rhian Bridge scoped out of consideration	Minor	Adverse
11. Cultural Heritage				
Cumulative impacts on the settings of 16 Scheduled Monuments.	Minor	Consented Creag Riabhach Wind Farm; Consented Lairg II Wind Farm; Consented Braemore Wind Farm	Minor	Adverse

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
12. Traffic and Transport				
Traffic effects on the A836 corridor	Minor	Consented developments of Creag Riabhach, Lairg 2 and Braemore wind farms (assuming that construction activities coincide)	Minor	Adverse
13. Socio-Economic and Tourism				
Socio-Economy / Local community	Generation of employment and economic activity	All wind farms within the local area	Minor	Beneficial
Tourism and tourism receptors	Reduction in the number of visitors	All wind farms within the local area	Negligible	Adverse
Recreation receptors	Reduction in use	All wind farms within the local area	Negligible	Adverse
14. Aviation				
Effects to aviation and radar receptors and operations	None	N/A	None	N/A
15. Telecommunications				
Effects on telecommunication	No effect	None identified	No effect	N/A

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
16. Forestry				
No impacts anticipated and therefore no effects				