

Hare Hill Windfarm Repowering and Extension

Volume 3

Appendix 11.5: Estimated Vehicle
Movements

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Glossary

Term	Definition
Abnormal Loads Vehicles	A vehicle which delivers a load which cannot be broken down into smaller parts for the purposes of transportation.
Borrow pits	Used for stone extraction instead of quarries to minimise traffic on the public roads.

Abbreviations

Abbreviation	Description
ALV	Abnormal Loads Vehicle
HGV	Heavy Goods Vehicle
HHR1	Hare Hill Windfarm Extension and Repowering Phase 1
HHR2	Hare Hill Windfarm Extension and Repowering Phase 2
LGV	Light Goods Vehicle

1. Estimated Construction Traffic

1. The estimated construction traffic for both HHR1 and HHR2 for both 'worst-case' and 'realistic worst-case' scenarios are presented in the following subsections below. Construction scheduling was provided by ScottishPower Renewables (UK) Limited and is outlined in **Chapter 5: Development Description** and construction material volumes by Kiloh Associates.

Worst-Case HHR1

Activity	Month																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
HGVs and ALVs																								
Decommissioning of Hare Hill	276	274																						550
Mobilisation		116																						116
Construction Compound		494					378																	872
Tracks & Hardstands and Platforms			1,810	3,266	3,266	3,266	3,266	3,266	3,266	3,266	3,266	3,266	3,266	3,264										37,734
Turbine Foundation Reinforcement								194	194	194	194	194	194	194	192	190								1,740
Substation Compound					74	50	150	92	50	50	48													514
Cable Trenching, Installation, Backfill								212	212	212	212	212	210	210	210	210	210							2,110
Crane																26					26			52
Turbine Deliveries																	320	320	320					960
Demobilisation																					40	38	38	116
Subtotal	276	884	1,810	3,266	3,340	3,316	3,794	3,764	3,722	3,722	3,720	3,672	3,670	3,668	402	426	530	320	320	26	40	38	38	44,764
Concrete																								
Ready Mix Concrete Delivery								536	536	536	536	536	536	268	268	268								4,020
LGVs and Cars																								
Transformer ALV Escort								4																4
Crane Escort																16				16				32
Turbine Escort																	240	240	240					720
Construction Personnel	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	30,360
Subtotal	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,324	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,336	1,560	1,560	1,560	1,336	1,320	1,320	1,320	31,116

Total Movements	1,596	2,204	3,130	4,586	4,660	4,636	5,114	5,624	5,578	5,578	5,576	5,528	5,526	5,256	1,990	2,030	2,090	1,880	1,880	1,362	1,360	1,358	1,358	79,900
Daily Average LGVs	60	60	60	60	60	60	60	62	60	60	60	60	60	60	60	62	72	72	72	62	60	60	60	1,422
Daily Average HGVs & ALVs - Excluding Concrete	14	42	84	150	152	152	174	172	170	170	170	168	168	168	20	20	26	16	16	2	2	2	2	2,060
Daily Average All Vehicles – Excluding Concrete	74	102	144	210	212	212	234	232	230	230	230	228	228	228	80	82	96	86	86	62	62	62	62	3,472
Daily Average Concrete Delivery Day HGVs & ALVs	2	14	176	46	294	292	248	440	438	438	438	436	436	436	288	288	30	18	14	2	4	2	2	4,782
Daily Average Concrete Delivery Day Total Traffic	62	74	236	106	354	352	308	502	498	498	498	496	496	496	348	350	102	90	86	64	64	62	62	6,204

Worst-Case - HHR2

Activity	Month															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
HGVs and ALVs																
Decommissioning of Hare Hill Extension	456	454														910
Mobilisation		116														116
Tracks & Hardstands and Platforms			994	994	994	994	992	992	992	992						7,944
Turbine Reinforcement Foundation								186	186	186	186	184				928
Cable Trenching, Installation, Backfill						110	110	110	110	110	108					658
Crane											26			26		52
Turbine Deliveries												240	240			480
Demobilisation															116	116
Subtotal	456	570	994	994	994	1104	1102	1288	1288	1288	320	440	256	26	116	11,236
Concrete																
Ready Mix Concrete Delivery								536	536	536	268	268				2,144
LGVs and Cars																
Crane Escort											16			16		32
Turbine Escort												160	160			320
Construction Personnel	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	19,800
Subtotal	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,336	1,512	1,512	1,336	1,320	20,216
Total Movements	1,776	1,890	2,314	2,314	2,314	2,424	2,422	3,144	3,144	3,144	1,924	2,220	1,768	1,362	1,436	33,596
Daily Average LGVs	60	60	60	60	60	60	60	60	60	60	62	70	70	62	60	924
Daily Average HGVs & ALVs - Excluding Concrete	22	26	46	46	46	52	52	60	60	60	16	20	12	2	6	526

Daily Average All Vehicles – Excluding Concrete	82	86	106	106	106	112	112	120	120	120	76	90	82	62	66	1,430
Daily Average Concrete Delivery Day HGVs & ALVs	22	26	46	46	46	52	52	327	327	328	283	288	12	2	6	1,862
Daily Average Concrete Delivery Day Total Traffic	60	60	60	60	60	60	60	387	387	388	345	358	70	62	60	2,476

Realistic Worst-Case – HHRI

Activity	Month																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
HGVs and ALVs																								
Decommissioning of Hare Hill	276	274																						550
Mobilisation		98																						98
Borrow Pits		30													30									60
Tracks & Hardstands and Platforms			320	684	684	684	684	684	684	684	684	682	682	682										7,838
Batching Plant and Materials								408	396	396	396	396	390	390	390	402								3,564
Substation Compound					50	50	50	92	50	50	48													390
Cable Trenching, Installation, Backfill								212	212	212	212	212	210	210	210	210	210							2,110
Crane																26				26				52
Turbine Deliveries																	320	320	320					960
Demobilisation																					34	32	32	98
Subtotal	276	402	320	684	734	734	734	1,396	1342	1,342	1,340	1,290	1,282	1,282	630	638	530	320	320	26	34	32	32	15,720
LGVs and Cars																								
Transformer ALV Escort								4																4
Crane Escort																16				16				32
Turbine Escort																	240	240	240					720
Construction Personnel	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	30,360
Subtotal	1,320	1,320	1,320	1,320	1,324	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,336	1,520	1,520	1,520	1,336	1,320	1,320	1,320	31,116
Monthly Total Vehicle Movements	1,596	1,722	1,640	2,004	2,054	2,054	2,054	2,720	2,662	2,662	2,660	2,610	2,602	2,602	1,950	1,974	2,090	1,880	1,880	1,362	1,354	1,352	1,352	46,836
Daily Average LGVs	60	60	60	60	60	60	60	62	60	60	60	60	60	60	60	62	72	72	72	62	60	60	60	1,422
Daily Average HGVs & ALVs	14	20	16	32	34	34	34	64	62	62	62	60	60	60	30	30	26	16	16	2	2	2	2	740

Daily Average All Vehicles	74	80	76	92	94	94	94	124	122	122	122	120	120	120	90	90	96	86	86	62	62	62	62	2,150
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Realistic Worst-Case HHR2

Activity	Month															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
HGVs and ALVs																
Decommissioning of Hare Hill Extension	456	454	454													910
Mobilisation		98	98													98
Borrow Pits		30									30					60
Tracks & Hardstands and Platforms			246	246	246	246	246	246	246	246						1,968
Turbine Foundation Reinforcement								390	378	378	378	388				1,912
Cable Trenching, Installation, Backfill						110	110	110	110	110	108					658
Crane											26			26		52
Turbine Deliveries												240	240			512
Demobilisation															98	98
Subtotal	456	582	246	246	246	356	356	746	734	734	542	644	256	26	98	6,268
LGVs and Cars																
Crane Escort											16			16		32
Turbine Escort												192	192			384
Construction Personnel	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	19,800
Subtotal	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,336	1,512	1,512	1,336	1,320	20,216
Monthly Total Vehicle Movements	1,776	1,902	1,566	1,566	1,566	1,676	1,676	2,066	2,054	2,054	1,878	2,156	1,768	1,362	1,418	26,484
Daily Average LGVs	60	60	60	60	60	60	60	60	60	60	62	70	70	62	60	924
Daily Average HGVs & ALVs	22	28	12	12	12	18	18	34	34	34	26	30	12	2	6	300
Daily Average All Vehicles	82	88	72	72	72	78	78	94	94	94	86	98	82	62	66	1,218

