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1.0 Introduction

1.1 This highways technical note has been written in response to comments received by National Highways dated the 29th February 2024 as part of consultation on the planning application for Old Wood Energy Park (application reference: 24/00161/FUL), which is for the construction, operation and subsequent decommissioning of a renewable energy park comprising ground mounted Solar PV with co-located battery energy storage system (BESS) at the point of connection, together with associated infrastructure, access, landscaping and cabling (the proposed development). The proposed development is located on land north of Wysall Road (the southern parcel, which includes part of the solar farm, the substation and the BESS) and land west of Bradmore Road (northern parcel, which includes the rest of the solar farm). The site location can be seen below at Figure 1.1:

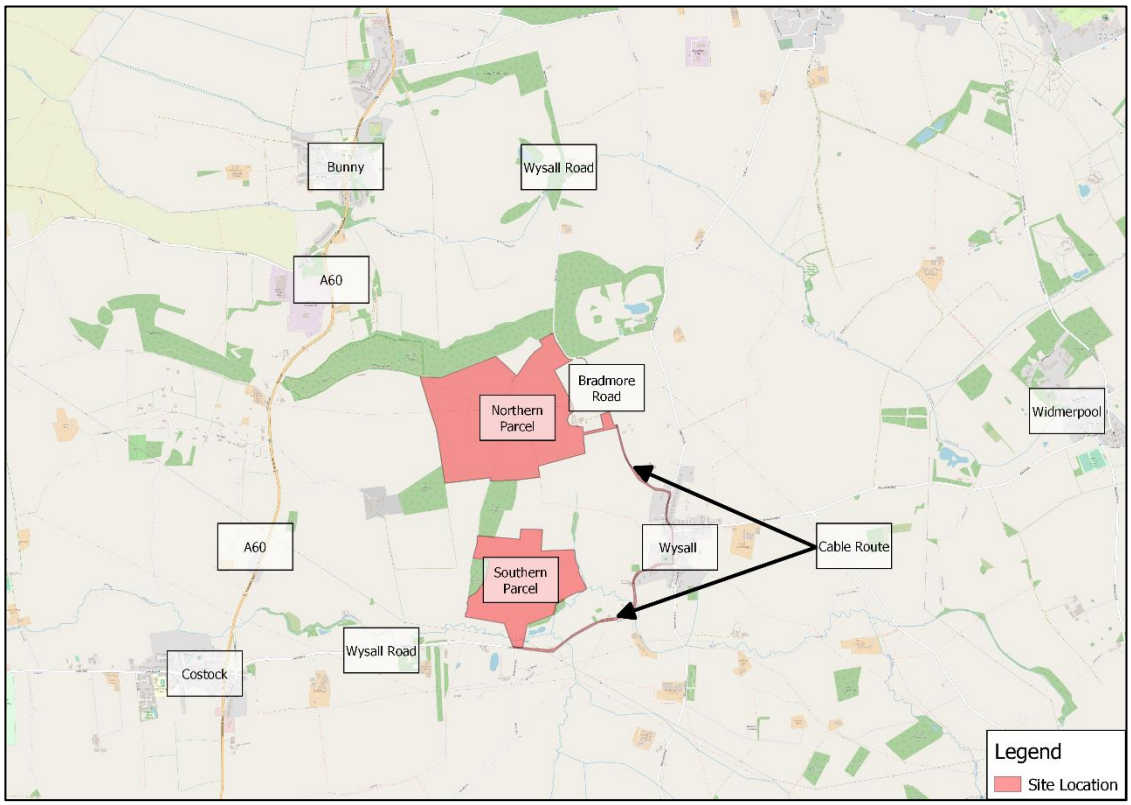

Figure 1.1 – Site Location Plan

1.2 This highways technical note will address each comment raised by National Highways in turn, specifically providing clarification on:

- Site set up HGV movements;
- Staff movements; and
- Hourly trip generation.

2.0 Site Set Up Heavy Goods Vehicle (HGV) Movements

2.1 National Highways state:

"The Transport Assessment however states that, for initial site set up for the first 2-3 weeks of construction that two-way HGV deliveries will be higher than the average of 12 two-way HGV deliveries. No further details are given."

2.2 National Highways requested additional information as to the estimated number of HGV movements for site set up (Transport Statement paragraph reference 3.22 and 3.27). Site set up includes the construction of the accesses off the public highway, installation of staff welfare facilities/site office etc and initial construction materials. As shown in Table 3.1 and Table 3.2 of the Transport Statement, the vehicles will be of various sizes with around 70% being 8-10m rigids and the remaining 30% being 16.5m articulated vehicles. Table 3.1 and Table 3.2 state a combined total of 284 two-way vehicle movements associated with site up, this equates to 26 two-way HGV movements per day across a 2 week site set up period across the two parcels.

3.0 Staff movements

3.1 National Highways state:

"The purpose of the 'light vehicles' mentioned above has not been explained and we note no mention of vehicle trip generation for construction worker staff."

3.2 Paragraph 3.24 and paragraph 3.29 of the submitted Transport Statement make reference to light vehicle movements for the northern and southern parcels respectively. These light vehicles are associated with staff travel to and from site.

3.3 It is estimated that there will be approximately 50 staff on site at any one time during construction. At similar solar farm developments it has been observed that construction staff often travel to site via minibus, travelling together from local accommodation. This is an average of 3.3 staff per vehicle allowing for some individuals to arrive by private car.

3.4 It is therefore estimated that up to 15 light vehicles associated with staff movements will arrive at the northern parcel at the beginning of the construction day (08:00) and up to 15 light vehicles associated with staff movements will arrive at the southern parcel at the beginning of the construction day. At the end of the construction day (18:00) these vehicles will exit the site. This equates to a maximum of 60 two-way light vehicle movements associated with staff per day if both parcels are being constructed simultaneously.

4.0 Hourly Trip Generation

National Highways state:

"It should be noted the Transport Assessment and Construction Traffic Management Plan should set out the traffic generation and distribution for the entire construction phase including staff trips. To satisfy National Highways, the hourly trip generation broken down into the different vehicle types should be presented."

4.1 The hourly trip generation associated with the development separated by vehicle type can be seen in Table 4.1:

Parcel	Vehicle Type	Total vehicle movements through construction	AM Peak	PM Peak	Average hourly movements
Northern	HGV	1,578	0	0	1.5
	Light Vehicles	1,320	15	0	N/A
Southern	HGV	2,514	0	0	2.375
	Light Vehicles	2,640	15	0	N/A

Table 4.1 – Average two-way vehicle movements

4.2 As stated at paragraph 3.4, staff will arrive at site by 08:00 AM for the beginning of the construction day (we have assessed all staff arriving at 08:00, during the peak hour for robustness) and all staff leave the site after 18:00 PM, outside of the PM peak.

4.3 As stated within the CTMP, no HGV deliveries will occur during the AM or PM peak hours. Deliveries will therefore occur between 09:00 – 17:00, an 8-hour time period.

4.4 The northern parcel is estimated to generate 12 two-way HGV movements per day, equivalent to 1.5 HGV movements per hour.

4.5 The southern parcel is estimated to generate 19 two-way HGV movements per day, equivalent to 2.375 HGV movements per hour.

4.6 For context the A52, the closest road used by construction traffic managed by National Highways had an average daily flow of 2656 HGVs in 2022 (Department for Transport count point 27370). The count point data can be viewed at **Appendix A**. The proposed developments HGV traffic therefore represents a 1.17% increase in HGV traffic on the A52 for a temporary 24-week period.

5.0 Summary and Conclusion

5.1 This highways technical note has been written in response to comments received by National Highways dated the 29th February 2024 in relation to planning application for Old Wood Energy Park, application reference: 24/00161/FUL, for the construction, operation and subsequent decommissioning of a renewable energy park comprising ground mounted Solar PV with co-located battery energy storage system at the point of connection, together with associated infrastructure, access, landscaping and cabling.

5.2 This technical note demonstrates that:

- On average for the 2-week initial site set up period the proposed development will generate 26 two-way HGV movements per day
- There will be 15 light vehicle movements associated with staff travel to and from the site, equivalent to 30 two way-movements per day
- On average there will be 3.875 HGV movements per hour, throughout the estimated 24-week construction period.

Appendix A

Count Point 27370 average annual daily flow data

count_poir	year	region_id	region_nar	local_auth	local_auth	road_name	road_type	start_junct	end_junctio	easting	northing	latitude	longitude	link_length	link_length	estimation	estimation	direction_o	pedal_cycl	two_wheel	cars_and_t
27370	2000	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	2	73	13189
27370	2000	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	2	92	13064
27370	2001	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	2	81	13598
27370	2001	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	2	101	13469
27370	2002	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	2	83	13992
27370	2002	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	2	103	13860
27370	2003	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	4	108	14719
27370	2003	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	1	95	14221
27370	2004	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	4	110	14969
27370	2004	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	96	14462
27370	2005	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	4	105	14864
27370	2005	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	92	14361
27370	2006	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	4	114	15117
27370	2006	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	100	14605
27370	2007	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	3	72	14863
27370	2007	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	1	101	14036
27370	2008	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	3	70	14759
27370	2008	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	98	13938
27370	2009	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	3	73	14567
27370	2009	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	103	13757
27370	2010	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	1	209	15091
27370	2010	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	4	142	13456
27370	2011	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	1	206	15000
27370	2011	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	3	140	13375
27370	2012	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	3	106	16243
27370	2012	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	3	81	14031
27370	2013	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	3	111	16049
27370	2013	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	3	85	13864
27370	2014	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	0	175	15701
27370	2014	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	1	97	14069
27370	2015	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	0	181	16174
27370	2015	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	100	14493
27370	2016	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	E	0	188	16658
27370	2016	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Estimated	Estimated	W	1	104	14927
27370	2017	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	E	0	101	16872
27370	2017	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	1.8	1.12	Counted	Manual co	W	0	90	14992
27370	2018	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Counted	Automatic	E	0	93	14822
27370	2018	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Counted	Automatic	W	0	89	14048
27370	2019	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Counted	Manual co	E	0	78	16341
27370	2019	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Counted	Manual co	W	0	83	15604
27370	2020	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Estimated	Estimated	E	0	46	10979
27370	2020	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Estimated	Estimated	W	0	49	10484
27370	2021	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Counted	Manual co	E	0	70	13854
27370	2021	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Counted	Manual co	W	0	67	13034
27370	2022	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Estimated	Estimated	E	0	80	15980
27370	2022	2	East Midla	2	Nottinghar	A52	Major	A60	A606	458000	334600	52.90571	-1.13909	2	1.24	Estimated	Estimated	W	0	77	15035

buses_and	lgvs	hgvs_2_rig	hgvs_3_rig	hgvs_4_or_	hgvs_3_or_	hgvs_5_art	hgvs_6_art	all_hgvs	all_motor_vehicles
72	1917	503	72	62	115	296	206	1254	16505
65	1851	590	71	58	156	301	210	1386	16458
74	2024	496	83	62	105	263	239	1248	17025
67	1955	582	82	58	142	267	244	1375	16967
76	2040	509	92	69	98	235	269	1272	17463
69	1971	597	91	64	132	238	275	1397	17400
65	1917	460	76	62	128	280	248	1254	18063
69	1948	526	75	76	103	317	245	1342	17675
54	2134	491	86	72	123	250	275	1297	18564
57	2168	562	85	89	99	283	271	1389	18172
52	2232	494	84	76	110	221	294	1279	18532
55	2268	565	83	94	88	250	290	1370	18146
50	2339	508	85	83	100	198	318	1292	18912
53	2377	582	83	102	80	224	314	1385	18520
52	2042	316	43	36	94	259	170	918	17947
36	2028	430	63	61	92	246	259	1151	17352
53	2046	308	48	37	88	245	179	905	17833
37	2033	419	69	64	86	233	273	1144	17250
55	2114	285	48	36	81	211	174	835	17644
39	2100	388	69	62	80	201	265	1065	17064
31	2035	344	63	43	76	258	225	1009	18375
39	2055	393	76	71	68	249	278	1135	16827
31	2082	338	67	48	58	251	234	996	18315
39	2102	386	80	79	52	242	289	1128	16784
24	2002	313	58	45	27	230	211	885	19260
20	2143	376	71	44	58	218	273	1039	17314
25	2125	319	63	51	21	227	223	904	19215
20	2275	383	78	50	44	214	288	1057	17302
47	2363	240	57	124	84	260	197	963	19248
44	2422	372	49	104	100	260	298	1183	17815
46	2626	251	64	130	108	270	205	1027	20054
43	2692	389	55	109	129	270	309	1260	18589
47	2836	266	62	148	112	259	214	1061	20790
44	2907	413	53	123	134	259	323	1306	19288
24	3279	307	81	165	83	331	223	1191	21467
18	2677	435	101	175	38	334	305	1389	19165
21	3027	275	72	150	74	295	198	1065	19027
16	2635	417	95	169	36	318	289	1325	18112
31	2662	301	72	90	72	316	328	1179	20291
26	2863	334	89	103	38	340	378	1283	19858
19	2116	248	61	76	62	277	277	1001	14162
16	2276	276	75	87	33	299	319	1089	13913
27	2839	309	91	144	22	233	474	1275	18065
29	2944	397	66	138	13	454	247	1315	17388
29	3110	314	86	161	23	238	485	1308	20508
31	3224	403	62	154	13	463	253	1348	19715