APPENDIX A SUBMISSIONS REGISTER

Table A-1: Agency / Organisation Submissions

Stakeholder Type	Name	Position
Government Agency	DPIE Biodiversity and Conservation Division	Comments
Government Agency	DPIE Water and the Natural Resources Access Regulator (NRAR)	Comments
Government Agency	NSW Environment Protection Authority	Comments
Government Agency	Transport for NSW, Roads and Maritime Services Division	Comments
Government Agency	WaterNSW	Comments
Government Agency	Crown Lands	Comments
Government Agency	Department of Defence	Comments
Government Agency	Department of Primary Industries, Agriculture Land Use Planning Division	Comments
Government Agency	Department of Primary Industries, Fisheries NSW	Comments
Government Agency	Heritage NSW	Comments
Government Agency	National Parks and Wildlife Service	Comments
Government Agency	NSW Department of Regional NSW, Mining, Exploration & Geoscience Division	Supports
Government Agency	Transport for NSW	Comments
Government Agency	Rural Fire Service	Comments
Government Agency	Airservices Australia	Comments
Government Agency	Civil Aviation Safety Authority	Comments
Government Agency	Forestry Corporation of NSW	Supports
Government Agency	Muswellbrook Shire Council	Objects
Government Agency	Cessnock City Council	Comments
Government Agency	City of Newcastle	Comments
Government Agency	Tamworth Regional Council	Objects
Government Agency	Upper Hunter Shire Council	Comments
Organisation	Australasian Cave and Karst Management Association	Objects
Organisation	Newcastle and Hunter Valley Speleological Society	Objects
Organisation	Volunteer Organisation PTSD Care	Objects
Organisation	Friends of Kentucky Action Group	Objects
Organisation	Timor Community	Objects
Organisation	RE-Alliance	Supports
Organisation	Tamworth Regional Residents and Ratepayers Association	Comments
Organisation	Hills of Gold Preservation Inc.	Objects
Organisation	Ryde Gladesville Climate Change Action Group	Supports
Organisation	Upper Peel Landcare Group	Objects
Organisation	Yass Landscape Guardians	Objects

Community Submission Register

Submission ID	Location	State	Position	Traffic and Transport	Biodiversity	Project Justification	Landscape and Visual	Noise and Vibration	Hazards	Soils and Water	Social and Economic	Environmental Impact
Organisation												
SE-11831959	HANGING ROCK	NSW	Objects									
SE-12694513	BELMONT	NSW	Objects									
SE-12824336	KENTUCKY	NSW	Objects									
SE-13523311	BATHURST	NSW	Objects									
SE-13579973	TIMOR	NSW	Objects									
SE-13746714	NUNDLE	NSW	Objects									
SE-13753979	BUNGENDORE	NSW	Supports									
SE-13755716	CALALA	NSW	Comments									
SE-13990074	UNKNOWN	NSW	Supports									
SE-14026661	BOOKHAM	NSW	Objects									
SE-14027450	NUNDLE	NSW	Objects									
Community												
SE-11777138	CASULA	NSW	Objects									
SE-11785515	NUNDLE	NSW	Objects									
SE-11804239	MUSCLE CREEK	NSW	Objects									
SE-11828772	ABERDEEN;NSW	NSW	Objects									
SE-11845213	NUNDLE	NSW	Objects									
SE-11852477	WOOLOMIN	NSW	Objects									
SE-11864253	NUNDLE	NSW	Objects									
SE-11864767	JANNALI	NSW	Supports									
SE-11872235	BEXLEY	NSW	Supports									
SE-11885429	PETERSHAM	NSW	Supports									
SE-11890758	NUNDLE	NSW	Objects									
SE-11904305	KORORA	NSW	Objects									
SE-11968840	NUNDLE	NSW	Supports									
SE-12036710	NUNDLE	NSW	Supports									
SE-12041709	BEECROFT	NSW	Supports									
SE-12082901	BANORA POINT	NSW	Objects									
SE-12109977	BELMONT	NSW	Objects									
SE-12234010	NUNDLE	NSW	Objects									
SE-12288637	NUNDLE	NSW	Supports									
SE-12302133	CLOVELLY	NSW	Supports									
SE-12302481	BEVERLEY PARK	NSW	Supports									

SE-12351263	HANGING ROCK	NSW	Supports									
SE-12360770	NUNDLE	NSW	Supports									
SE-12363218	ARMIDALE	NSW	Supports									
SE-12365709	SYDNEY	NSW	Supports									
SE-12522473	HANGING ROCK	NSW	Supports									
SE-12635767	HANGING ROCK	NSW	Objects									
SE-12664959	NUNDLE	NSW	Supports									
SE-12678590	WILLOW VALE	NSW	Objects									
SE-12689602	BEDFORDALE	WA	Objects									
SE-12697478	WENTWORTH FALLS	NSW	Objects									
SE-12721978	NOOSAVILLE	QLD	Objects									
SE-12729120	WATTLE GROVE	NSW	Objects									
SE-12780627	NUNDLE	NSW	Objects									
SE-12791750	NUNDLE	NSW	Objects									
SE-12801023	BANORA POINT	NSW	Objects									
SE-12824210	NUNDLE	NSW	Supports									
SE-12830229	TIMOR	NSW	Objects									
SE-12788315	PENSHURST	NSW	Objects									
SE-12830011	NUNDLE	NSW	Objects									
SE-12788344	WOOLOMIN	NSW	Supports									
SE-12830425	NUNDLE	NSW	Supports									
SE-12823596	NUNDLE	NSW	Supports									
SE-12874796	WILLOW VALE	NSW	Objects									
SE-12882709	NUNDLE	NSW	Objects									
SE-12889774	NUNDLE	NSW	Supports									
SE-12874915	NUNDLE	NSW	Supports									
SE-12882859	NUNDLE	NSW	Supports									
SE-12891997	NUNDLE	NSW	Supports									
SE-12892004	NUNDLE	NSW	Supports									
SE-12912528	BAULKHAM HILLS	NSW	Objects									
SE-12916838	HANGING ROCK	NSW	Supports									
SE-12918356	WATTLE PONDS	NSW	Supports									
SE-12918362	HUNTERVIEW	NSW	Supports									
SE-12911175	WATTLE PONDS	NSW	Supports									
SE-12918402	HORSHAM	VIC	Supports									
SE-12911202	STEWARTS BROOK	NSW	Supports									
SE-12944740	WILLOW VALE	NSW	Objects									

SE-12959505	HANGING ROCK	NSW	Supports									
SE-12961430	ANNANDALE	NSW	Objects									
SE-12974016	MARTINS CREEK	NSW	Objects									
SE-12974246	WILLOW VALE	NSW	Objects									
SE-12974531	NEWTOWN	NSW	Supports									
SE-12981899	WOOLOMIN	NSW	Supports									
SE-12990978	NUNDLE	NSW	Supports									
SE-12991498	NUNDLE	NSW	Supports									
SE-12991279	NUNDLE	NSW	Objects									
SE-12988909	NUNDLE	NSW	Objects									
SE-12998137	TIMOR	NSW	Objects									
SE-12999431	BUNGENDORE	NSW	Objects									
SE-13006958	MOUNT MURRAY	NSW	Objects									
SE-13016975	NUNDLE	NSW	Supports									
SE-13019226	RUTHERFORD	NSW	Objects									
SE-13019255	RUTHERFORD	NSW	Objects									
SE-13017678	NEW LAMBTON	NSW	Objects									
SE-13025001	CONCORD	NSW	Objects									
SE-13031288	AVALON BEACH	NSW	Objects									
SE-13029628	GLENBROOK	NSW	Objects									
SE-13050431	HANGING ROCK	NSW	Supports									
SE-13072634	HANGING ROCK	NSW	Supports									
SE-13129482	HANGING ROCK	NSW	Objects									
SE-13132731	NUNDLE	NSW	Objects									
SE-13142241	NUNDLE	NSW	Objects									
SE-13142271	MELBA	ACT	Objects									
SE-13142275	NUNDLE	NSW	Objects									
SE-13143335	HANGING ROCK	NSW	Objects									
SE-13159983	HANGING ROCK	NSW	Objects									
SE-13171959	SAMFORD VALLEY	QLD	Objects									
SE-13191149	BUNGENDORE	NSW	Objects									
SE-13194351	NUNDLE	NSW	Objects									
SE-13191187	HILLVUE	NSW	Supports									
SE-13219456	NUNDLE	NSW	Objects									
SE-13196285	KARIONG	NSW	Objects									
SE-13264708	NUNDLE	NSW	Objects									
SE-13270923	MOSMAN	NSW	Objects									

SE-13284504	NUNDLE	NSW	Supports									
SE-13291499	NUNDLE	NSW	Objects									
SE-13312485	HORNSBY	NSW	Objects									
SE-13325478	HANGING ROCK	NSW	Supports									
SE-13336404	COAL POINT	NSW	Objects									
SE-13352224	TIMOR	NSW	Objects									
SE-13363227	WAMBERAL	NSW	Objects									
SE-13358543	LEWISHAM	NSW	Objects									
SE-13364078	BRIDGMAN	NSW	Supports									
SE-13364178	HANGING ROCK	NSW	Objects									
SE-13372282	MARTINS CREEK	NSW	Objects									
SE-13377497	CHARLESTOWN	NSW	Objects									
SE-13382774	NUNDLE	NSW	Objects									
SE-13379365	ARNCLIFFE	NSW	Objects									
SE-13389809	HANGING ROCK	NSW	Supports									
SE-13414257	MYLESTOM	NSW	Objects									
SE-13426974	VALENTINE	NSW	Objects									
SE-13445762	HANGING ROCK	NSW	Supports									
SE-13448835	HANGING ROCK	NSW	Supports									
SE-13455467	OGUNBIL	NSW	Objects									
SE-13463662	NUNDLE	NSW	Objects									
SE-13488074	NUNDLE	NSW	Objects									
SE-13498456	NEMINGHA	NSW	Objects									
SE-13500249	ANNANDALE	NSW	Objects									
SE-13494167	MORTDALE	NSW	Objects									
SE-13516757	NEMINGHA	NSW	Objects									
SE-13517467	BALCOLYN	NSW	Objects									
SE-13503683	BRANXTON	NSW	Supports									
SE-13518023	WATTLE PONDS	NSW	Supports									
SE-13516463	NUNDLE	NSW	Supports									
SE-13516498	NUNDLE	NSW	Supports									
SE-13519995	NUNDLE	NSW	Objects									
SE-13521653	NEMINGHA	NSW	Supports									
SE-13518051	NEMINGHA	NSW	Supports									
SE-13526132	NUNDLE	NSW	Objects									
SE-13525810	HANGING ROCK	NSW	Objects									
SE-13536348	WEST TAMWORTH	NSW	Objects									

SE-13523702	UMINA BEACH	NSW	Supports									
SE-13536352	OAK FLATS	NSW	Supports									
SE-13531756	BOWLING ALLEY POINT	NSW	Objects									
SE-13541243	HARGRAVES	NSW	Supports									
SE-13531768	NUNDLE	NSW	Supports									
SE-13531772	AVOCA BEACH	NSW	Objects									
SE-13531805	NUNDLE	NSW	Supports									
SE-13531808	ARNCLIFFE	NSW	Objects									
SE-13516610	ARNCLIFFE	NSW	Objects									
SE-13555673	CALALA	NSW	Objects									
SE-13553566	HANGING ROCK	NSW	Objects									
SE-13557314	KOOTINGAL	NSW	Objects									
SE-13559233	MAROUBRA	NSW	Supports									
SE-13558345	REDFERN	NSW	Supports									
SE-13558353	REDFERN	NSW	Supports									
SE-13563713	LIVERPOOL	NSW	Objects									
SE-13565035	ARMIDALE	NSW	Supports									
SE-13562692	ELEEBANA	NSW	Objects									
SE-13570211	BUNGENDORE	NSW	Objects									
SE-13564880	ARMIDALE	NSW	Supports									
SE-13571975	GOULBURN	NSW	Supports									
SE-13568635	MARRICKVILLE	NSW	Supports									
SE-13571174	CARLTON	NSW	Supports									
SE-13571301	NUNDLE	NSW	Objects									
SE-13571205	MOUNT SAINT THOMAS	NSW	Supports									
SE-13576716	BEVERLEY PARK	NSW	Supports									
SE-13572852	NUNDLE	NSW	Objects									
SE-13572892	GREENHILLS BEACH	NSW	Supports									
SE-13572907	CRONULLA	NSW	Supports									
SE-13572914	REDFERN	NSW	Supports									
SE-13574290	ALFREDTON	VIC	Objects									
SE-13574137	PYRMONT	NSW	Supports									
SE-13571374	SCONE	NSW	Objects									
SE-13579969	SALISBURY PLAINS	NSW	Objects									
SE-13571422	NUNDLE	NSW	Objects									
SE-13577802	SYDNEY	NSW	Supports									
SE-13577808	CRAWNEY	NSW	Objects									

SE-13576778	NUNDLE	NSW	Supports									
SE-13577843	DENILIQUIN	NSW	Objects									
SE-13577861	JANNALI	NSW	Objects									
SE-13582510	BOLWARRA HEIGHTS	NSW	Objects									
SE-13590224	BOWLING ALLEY POINT	NSW	Objects									
SE-13582545	NUNDLE	NSW	Objects									
SE-13577869	TIMOR	NSW	Objects									
SE-13590258	KATOOMBA	NSW	Objects									
SE-13577884	CRAWNEY	NSW	Objects									
SE-13593463	NUNDLE	NSW	Objects									
SE-13593708	TIMOR	NSW	Objects									
SE-13595278	MT FAIRY	NSW	Objects									
SE-13590262	BORO	NSW	Objects									
SE-13582609	NUNDLE	NSW	Objects									
SE-13595043	NUNDLE	NSW	Objects									
SE-13593487	LEWISHAM	NSW	Comments									
SE-13587909	NUNDLE	NSW	Objects									
SE-13614353	NUNDLE	NSW	Objects									
SE-13614190	NUNDLE	NSW	Objects									
SE-13618297	CRAWNEY	NSW	Objects									
SE-13618323	TIMOR	NSW	Objects									
SE-13623965	WARNERS BAY	NSW	Objects									
SE-13623520	HANGING ROCK	NSW	Objects									
SE-13628010	KELLYS PLAINS	NSW	Objects									
SE-13628014	NUNDLE	NSW	Objects									
SE-13629742	NUNDLE	NSW	Objects									
SE-13629755	WEST TAMWORTH	NSW	Objects									
SE-13627869	BRAEFIELD	NSW	Objects									
SE-13629775	HANGING ROCK	NSW	Supports									
SE-13627634	HANGING ROCK	NSW	Objects									
SE-13629783	NUNDLE	NSW	Objects									
SE-13627678	NUNDLE	NSW	Objects									
SE-13630362	KOOTINGAL	NSW	Objects									
SE-13627700	NUNDLE	NSW	Objects									
SE-13631729	NUNDLE	NSW	Objects									
SE-13632460	HANGING ROCK	NSW	Objects									
SE-13632711	NUNDLE	NSW	Supports									

SE-13632715	EAST TAMWORTH	NSW	Supports									
SE-13632283	NUNDLE	NSW	Supports									
SE-13633762	BUDGEE BUDGEE	NSW	Objects									
SE-13632624	NUNDLE	NSW	Objects									
SE-13633790	NUNDLE	NSW	Objects									
SE-13632663	DULWICH HILL	NSW	Objects									
SE-13634228	HANGING ROCK	NSW	Objects									
SE-13630683	NUNDLE	NSW	Objects									
SE-13632996	DULWICH HILL	NSW	Objects									
SE-13635990	MAROUBRA	NSW	Objects									
SE-13635000	NUNDLE	NSW	Supports									
SE-13635011	NUNDLE	NSW	Supports									
SE-13637464	NUNDLE	NSW	Objects									
SE-13634160	ELDERSLIE	NSW	Objects									
SE-13628195	MOUNT FAIRY	NSW	Objects									
SE-13637571	NUNDLE	NSW	Objects									
SE-13641724	NUNDLE	NSW	Objects									
SE-13641972	SANS SOUCI	NSW	Objects									
SE-13638415	EAST TAMWORTH	NSW	Objects									
SE-13642985	HEDDON GRETA	NSW	Objects									
SE-13643310	OXLEY VALE	NSW	Supports									
SE-13645728	OATLEY	NSW	Objects									
SE-13639132	NUNDLE	NSW	Supports									
SE-13645276	SOUTH TAMWORTH	NSW	Supports									
SE-13644910	PIALLAMORE	NSW	Objects									
SE-13645289	MOONEY MOONEY	NSW	Supports									
SE-13649458	WEST TAMWORTH	NSW	Supports									
SE-13647880	CALALA	NSW	Comments									
SE-13649462	CONCORD	NSW	Objects									
SE-13647232	CURRABUBULA	NSW	Objects									
SE-13658212	EDEN	NSW	Objects									
SE-13663563	OXLEY VALE	NSW	Objects									
SE-13678467	ROCKDALE	NSW	Supports									
SE-13678508	MIDDLE FALBROOK	NSW	Supports									
SE-13676489	MCCULLYS GAP	NSW	Objects									
SE-13679350	HUNTERVIEW	NSW	Supports									
SE-13686223	MUSWELLBROOK	NSW	Supports									

SE-13680351	NUNDLE	NSW	Objects									
SE-13686461	RUTHERFORD	NSW	Supports									
SE-13686059	NUNDLE	NSW	Objects									
SE-13684786	AUCHENFLOWER	QLD	Objects									
SE-13685853	NUNDLE	NSW	Objects									
SE-13686255	MUSCLE CREEK	NSW	Objects									
SE-13686772	MUSWELLBROOK	NSW	Supports									
SE-13687459	NUNDLE	NSW	Supports									
SE-13590672	HANGING ROCK	NSW	Objects									
SE-13687986	SOUTH TAMWORTH	NSW	Objects									
SE-13689217	REDFERN	NSW	Supports									
SE-13691233	GUYRA	NSW	Objects									
SE-13690491	GUILDFORD	NSW	Objects									
SE-13692483	HANGING ROCK	NSW	Objects									
SE-13694088	ALEXANDRIA	NSW	Objects									
SE-13701541	NUNDLE	NSW	Objects									
SE-13701545	NUNDLE	NSW	Objects									
SE-13700281	NUNDLE	NSW	Objects									
SE-13704742	HEDDON GRETA	NSW	Objects									
SE-13702520	LIVERPOOL	NSW	Objects									
SE-13705783	MOUNT WILSON	NSW	Supports									
SE-13701305	CONCORD	NSW	Objects									
SE-13705788	HANGING ROCK	NSW	Objects									
SE-13704827	CONCORD	NSW	Objects									
SE-13702559	LIVERPOOL	NSW	Objects									
SE-13705678	RYDE	NSW	Objects									
SE-13705053	NUNDLE	NSW	Objects									
SE-13705403	CAPE BRIDGEWATER	VIC	Objects									
SE-13705685	MUSCLE CREEK	NSW	Objects									
SE-13702587	BUSBY	NSW	Objects									
SE-13701318	PRAIRIEWOOD	NSW	Objects									
SE-13708458	BUSBY	NSW	Objects									
SE-13702591	ELERMORE VALE	NSW	Comments									
SE-13708462	KINGSWOOD	NSW	Objects									
SE-13702595	SOUTH TAMWORTH	NSW	Objects									
SE-13708480	BUSBY	NSW	Objects									
SE-13708499	BUSBY	NSW	Objects									

SE-13705876	NUNDLE	NSW	Objects									
SE-13705895	NUNDLE	NSW	Objects									
SE-13701358	NORTH TAMWORTH	NSW	Objects									
SE-13702634	EAST TAMWORTH	NSW	Objects									
SE-13705151	NUNDLE	NSW	Objects									
SE-13700346	CRAWNEY	NSW	Objects									
SE-13702698	NORTH TAMWORTH	NSW	Supports									
SE-13708566	ARNCLIFFE	NSW	Objects									
SE-13704892	ELEEBANA	NSW	Objects									
SE-13722224	MUSCLE CREEK	NSW	Objects									
SE-13721596	STANMORE	NSW	Objects									
SE-13716100	MANLY	NSW	Objects									
SE-13723528	SOUTH TAMWORTH	NSW	Objects									
SE-13724713	ERMINGTON	NSW	Objects									
SE-13724734	MONA VALE	NSW	Objects									
SE-13723303	ELLALONG	NSW	Objects									
SE-13724742	MOUNT ANNAN	NSW	Objects									
SE-13725020	BARDWELL PARK	NSW	Objects									
SE-13723738	WEST TAMWORTH	NSW	Objects									
SE-13724272	ROOTY HILL	NSW	Objects									
SE-13725797	BELMONT	NSW	Objects									
SE-13700334	NUNDLE	NSW	Objects									
SE-13725078	PEAKHURST	NSW	Objects									
SE-13724356	MOSMAN	NSW	Objects									
SE-13726466	WESTLEIGH	NSW	Objects									
SE-13725265	WOOLWICH	NSW	Objects									
SE-13725280	EASTWOOD	NSW	Objects									
SE-13725195	HANGING ROCK	NSW	Supports									
SE-13727268	SANDY CREEK	NSW	Objects									
SE-13727784	NEWTOWN	NSW	Supports									
SE-13730711	DRUMMOYNE	NSW	Objects									
SE-13727827	KILLCARE HEIGHTS	NSW	Objects									
SE-13726928	KAREELA	NSW	Objects									
SE-13727843	NIANGALA	NSW	Objects									
SE-13727872	NUNDLE	NSW	Objects									
SE-13732065	MARRICKVILLE	NSW	Supports									
SE-13728943	BELMONT	NSW	Objects									

SE-13733971	BENDEMEER	NSW	Objects									
SE-13726945	SEDGEFIELD	NSW	Supports									
SE-13728949	GLADESVILLE	NSW	Objects									
SE-13726954	NUNDLE	NSW	Objects									
SE-13732606	MARRICKVILLE	NSW	Supports									
SE-13733986	MUSCLE CREEK	NSW	Objects									
SE-13735996	NUNDLE	NSW	Objects									
SE-13736974	STRATHFIELD	NSW	Objects									
SE-13735784	TERRIGAL	NSW	Objects									
SE-13738000	MUSWELLBROOK	NSW	Supports									
SE-13738573	NUNDLE	NSW	Supports									
SE-13738120	ABERDEEN	NSW	Supports									
SE-13738126	MUSWELLBROOK	NSW	Supports									
SE-13739707	EAST TAMWORTH	NSW	Objects									
SE-13738699	CHISHOLM	NSW	Supports									
SE-13738896	MUSWELLBROOK	NSW	Supports									
SE-13736310	HANGING ROCK	NSW	Objects									
SE-13741214	EAST BRANXTON	NSW	Supports									
SE-13738159	MUSWELLBROOK	NSW	Supports									
SE-13734640	BEVERLY HILLS	NSW	Objects									
SE-13738170	MUSWELLBROOK	NSW	Supports									
SE-13741256	SANDY HOLLOW	NSW	Supports									
SE-13736382	EAST TAMWORTH	NSW	Objects									
SE-13732692	NUNDLE	NSW	Objects									
SE-13736405	NUNDLE	NSW	Objects									
SE-13734681	NUNDLE	NSW	Supports									
SE-13740129	NUNDLE	NSW	Supports									
SE-13744994	RUTHERFORD	NSW	Supports									
SE-13741925	NORTH CURL CURL	NSW	Objects									
SE-13742155	LINLEY POINT	NSW	Objects									
SE-13746793	HANGING ROCK	NSW	Objects									
SE-13751960	HANGING ROCK	NSW	Objects									
SE-13748906	HAWTHORN	South Australia	Objects									
SE-13753035	WARNERS BAY	NSW	Objects									
SE-13747412	ERINA	NSW	Comments									
SE-13756265	MURRINGO	NSW	Supports									
SE-13758236	PADDINGTON	NSW	Objects									

SE-13755061	GLENDALE	NSW	Objects									
SE-13756751	NUNDLE	NSW	Objects									
SE-13758445	CALALA	NSW	Supports									
SE-13754047	NUNDLE	NSW	Objects									
SE-13756798	HORNSBY	NSW	Supports									
SE-13763478	NUNDLE	NSW	Objects									
SE-13759862	HANGING ROCK	NSW	Supports									
SE-13759859	RYDE	NSW	Objects									
SE-13763745	NEMINGHA	NSW	Objects									
SE-13765241	PENSHURST	NSW	Objects									
SE-13765246	LEURA	NSW	Objects									
SE-13759931	LEURA	NSW	Objects									
SE-13756888	CARLINGFORD	NSW	Supports									
SE-13763558	HANGING ROCK	NSW	Objects									
SE-13764299	HANGING ROCK	NSW	Objects									
SE-13763056	MUSWELLBROOK	NSW	Objects									
SE-13762558	HANGING ROCK	NSW	Objects									
SE-13763764	MUSWELLBROOK	NSW	Objects									
SE-13764324	CASEY	ACT	Objects									
SE-13763773	LAKE ALBERT	NSW	Objects									
SE-13767967	NUNDLE	NSW	Objects									
SE-13767971	LEURA	NSW	Objects									
SE-13767974	NUNDLE	NSW	Objects									
SE-13765375	LEURA	NSW	Objects									
SE-13976287	WEST TAMWORTH	NSW	Objects									
SE-13977034	HANGING ROCK	NSW	Supports									
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SE-13976003	UNKNOWN	NSW	Objects									
SE-13982477	TWEED HEADS	NSW	Objects									
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SE-13987474	CAMBEWARRA	NSW	Objects									
SE-13984968	UNKNOWN	NSW	Objects									
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SE-13990032	NIANGALA	NSW	Objects									
SE-13982570	UNKNOWN	NSW	Supports									

SE-13990124	NUNDLE	NSW	Objects									
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SE-14027439	MANLY	NSW	Objects									
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SE-14039480	NUNDLE	NSW	Supports									
SE-14039482	CHITTAWAY BAY	NSW	Objects									
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SE-14039232	NUNDLE	NSW	Supports									
SE-14039498	WOOLOMIN	NSW	Supports									
SE-14038497	NUNDLE	NSW	Supports									
SE-14039502	NUNDLE	NSW	Supports									
SE-14038507	HANGING ROCK	NSW	Supports									
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SE-14050736	NUNDLE	NSW	Supports									
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SE-14061230	NUNDLE	NSW	Objects									
SE-14062727	NUNDLE	NSW	Objects									
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SE-14062738	NUNDLE	NSW	Supports									
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SE-14062808	KOOTINGAL	NSW	Objects									
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SE-14064218	CRONULLA	NSW	Objects									
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SE-14062829	NUNDLE	NSW	Supports									
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SE-14064222	TIMOR	NSW	Objects									
SE-14062831	CHARLESTOWN	NSW	Objects									
SE-14064224	ABERMAIN	NSW	Objects									
SE-14062833	CHARLESTOWN	NSW	Objects									
SE-14062835	VALENTINE	NSW	Objects									
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SE-14064228	MEDOWIE	NSW	Objects									
SE-14064230	BALCOLYN	NSW	Objects									
SE-14062837	WARNERS BAY	NSW	Objects									

SE-14059841	BALCOLYN	NSW	Objects									
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SE-14064364	TIMOR	NSW	Objects									
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SE-14064375	NUNDLE	NSW	Objects									
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SE-14092476	HANGING ROCK	NSW	Supports									
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SE-13695496	HURSTVILLE GROVE	NSW	Objects									
SE-13690603	TIMOR	NSW	Objects									
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SE-14092478	NUNDLE	NSW	Supports									
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SE-14092538	NUNDLE	NSW	Supports									
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SE-14110123	QUIRINDI	NSW	Supports									
SE-14107044	NUNDLE	NSW	Supports									
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SE-14110137	NUNDLE	NSW	Supports									
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SE-14109042	SOUTH TAMWORTH	NSW	Supports									
SE-14109047	NUNDLE	NSW	Supports									
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SE-13764246	TINTINHULL	NSW	Objects									
SE-13760461	ASHMORE	QLD	Objects									
SE-13763569	HANGING ROCK	NSW	Objects									
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SE-14092530	NUNDLE	NSW	Objects									
SE-13990051	NUNDLE	NSW	Objects									
SE-13735773	PRAIRIEWOOD	NSW	Objects									
SE-13745714	HANGING ROCK	NSW	Objects									

APPENDIX B RESPONSE TO ORGANISATION AND COMMUNITY SUBMISSIONS

RESPONSES TO COMMUNITY ORGANISATIONS SUBMISSIONS

Table 6-1: – Hills of Gold Preservation Inc. Submission Response

Reference No.	Theme	Comment	Response
HOGPI_1	Soil and Water	Redo Soil and Water Assessment based on correct Land and Soil Capability mapping, paying particular attention to Class 8 soil, high erosion and mass movement risk.	■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. ■ The additional assessment includes site specific analysis of the NSW Land and Soil Capability Scheme, noting the Land and Soil Capability (LSC) mapping is for use in the context of broad-scale agricultural purposes. Consideration of the LSC class descriptions, including photographic examples, site-based investigations, current land use and geotechnical assessments confirms that the overall Development Footprint for the wind farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use.
HOGPI_1		Conduct on site soil survey and use results in modelling of erosion hazards.	■ Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report provided in Appendix N of the Amendment Report.
HOGPI_1		Use Hanging Rock rainfall modelling (up to 50% higher than Nundle Post Office) and use figures to inform runoff and erosion mitigation.	■ Additional consideration of soil and erosion potential and erosion and sediment control measures has been included in a Soil and Water Addendum Report, including an updated Erosion Hazard Assessment in Appendix A of the report. The Soil and Water Addendum Report is provided in Appendix N of the Amendment Report.
HOGPI_1		Address potential for moving soil and water-based pathogens between sites (including Ben Halls Gap Nature Reserve).	■ Only minor sections of the Project Development Footprint lie within the upper catchments of the national parks. Section 5 of the Soil and Water Addendum Report provides an analysis of the area of disturbed footprint within the Peel River sub catchments. ■ The Soil and Water Addendum Report provided in Appendix N of the Amendment Report considers a concept approach to erosion and sediment control management in the vicinity of the NPWS estate adjacent to the Project.
HOGPI_1		Incorporate wash down facilities to avoid contamination or rare and endangered flora and fauna, weed spread and fungus movement affecting frogs.	■ The Biodiversity Management Plan for the construction and operation of the Project will incorporate weed management and frog hygiene requirements in consultation with NPWS and EES.
HOGPI_1		Address potential impacts of flooding, particularly on floodplain crossings needed for heavy transport vehicles.	■ As part of the Project amendments outlined in the Amendment Report, it is proposed that all Project traffic will access the Project Area via Morrisons Gap Road only. The Head of Peel Road will not be used for Project related traffic and will be for emergency vehicle access only. As such, no road upgrades will occur on the Head of Peel Road, Kirks Road or Woodleys Road and hence consideration of flooding especially at creek crossings and floodplains along this route is not necessary. The upgrade of Morrisons Gap Road is primarily on a ridgetop and does not pass through a floodplain. All other transport routes are along classified roads constructed and managed by TfNSW or local councils for use by heavy vehicles.
HOGPI_1		Take into account the gradient of the site in engineering of road realignment, internal access roads, wind turbine and associated infrastructure construction.	■ Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report provided in Appendix N of the Amendment Report. Further geotechnical assessments and site surveys will be undertaken as needed during the detailed design phase to inform the civil and structural engineering designs. Construction contractors and wind turbines suppliers have confirmed the ability to construct, transport and operate the project based on geotechnical results and constraints provided.
HOGPI_1		Modify wind turbine and site layout based on high erosion and mass movement risk.	■ Additional consideration of soil and erosion potential and erosion and sediment control measures has been included in a Soil and Water Addendum Report, provided in Appendix N of the Amendment Report. This has been informed by geotechnical investigations undertaken across the Project Area. ■ Project amendments have been made including the removal of 2 turbines (WP1 and WP 19) considered to be in higher erosion risk areas. Turbines and roads have been relocated to avoid higher erosion risk and achieve earthworks reductions. Chapter 3 of the Amendment Report provides a summary of the project amendments and reduced impacts associated.
HOGPI_1		Incorporate Class 8 soil high erosion and mass movement risk implications for road and wind turbine, and other infrastructure, into Capital Investment Value Report.	■ The CIV valuation has been prepared by a Quantity Surveyor in accordance with the requirements of the EP&A Act (Appendix B of the EIS).
HOGPI_1	Traffic and Transport	Provide satisfactory evidence for safely transporting turbine components, overcoming the steep gradients of the range, without adverse biodiversity and heritage impacts, at the northern and southern access points of the Project Area.	■ Following regular consultation with the respective Councils in relation to the transport route and route safety, the updated transport assessment has refined the proposed route to both avoid urban roads through Muswellbrook and Nundle wherever possible, as well the complete removal of the route option along Head of Peel Road. This has in turn removed the proposed southern access point to the site. ■ All road users including emergency vehicles will continue to have access along the roads being upgraded or affected by Project traffic. ■ Consultation protocols and procedures between local residents and Project traffic travelling to and from site will be considered in the Traffic and Transport Management Plan. Updated commitments to road safety include offering vehicle escorts to all permanent residents during significant construction activities such as concrete pours along Morrisons Gap and Barry roads, the preparation of a detailed Emergency Response Plan in consultation with the local emergency services, call up protocols for all heavy vehicles entering Morrisons Gap Road and project vehicle speed limits.

Reference No.	Theme	Comment	Response
			■ Additionally, the Project is committing to carry out a number of road and asset upgrades where necessary and in mutual agreement with Councils. Currently the proposed upgrades to the local road networks along Lindsays Gap, Morrisons Gap and Barry roads include but are not limited to: ▪ Laybys to allow traffic to pass along Lindsay Gap Road, Barry Road and Morrison Gap Road; ▪ Tarring of Morrisons Gap Road following construction and improvements to the safety of its use, including speed limits, improvement visibility in some corners and increased reflective lights; and ▪ Upgrades to bridges along Lindsays Gap Road to increase width and load bearing capacity. ■ Separate conversations with Muswellbrook Shire Council are also seeing the Project review the existing Council asset lists with a view to making commitments to assess and upgrade any deemed to be of insufficient condition to accommodate all Project traffic. ■ Upgrades to the Devil's Elbow section of the transport route underwent 3 design options to arrive at the route with minimal impact to existing road tie-ins. The upgrade takes slower oversize overmass traffic onto a private road, whilst allowing all other traffic to continue to use the existing carriageway. Further refinements by experienced wind farm design and construction firms, CATCON and WGA to this private road section have also resulted in greater constructability through a reduction in required gradient along the modified route. This has increased both safety for both project traffic and other road users, as well as afforded further protection to existing heritage assets such as the Blake Snake Gold Mine. ■ The decision to use the Devil's Elbow as the primary transport route also has a positive safety influence for pedestrians in Nundle. ■ The removal of the Southern entrance route (Head of Peel Road) has markedly reduced the overall impact to biodiversity given the high level of flora along that route and the road modifications that would have been required. Further assessments have also confirmed that the transport route along the northern entrance to the project (Morrisons Gap Road) will be able to stay within the existing road reserve, helping to reduce the requirement for significant vegetation trimming. ■ Further information on the assessment of route options, determination of Barry Road to minimise impacts and assessment of impacts associated with the Devil's Elbow Bypass Upgrade is available in the response to Tamworth Regional Council submission in Chapter 5 of the Response to Submission Report.
HOGPI_1		HOGPI members ask that DPIE physically inspect the proposed steep realignment/new private road to judge its viability before determination and obtain expert geotechnical and engineering assessments.	■ Noted. DPIE have confirmed that a site inspection has been carried out prior to determination.
HOGPI_1		Include the estimated construction cost of the Devil's Elbow realignment in the Capital Investment Valuation Report.	■ The CIV valuation has been prepared by a Quantity Surveyor (Muller Partnership) in accordance with the requirements of the EP&A Act (Appendix B of the EIS). ■ The EIS report notes the main access stems from Morrisons Gap Rd and the Head of Peel Rd with the requirement of a private access road (approx. 48 km) (noting the removal of the Head of Peel as an access road as part of Project Amendments). The CIV includes all road upgrades, temporary widening, transport route adjustments and access components for transportation support as per EIS requirements.
HOGPI_1		Provide a realistic breakdown of the percentage of traffic each of the proposed six routes is estimated to carry on a daily basis during construction and operational period.	■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). ■ A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ The revised percentage breakdown in traffic each of the proposed routes to reach Nundle before all traffic access the project vial Barry Road and Morrisons Gap Road is: ▪ 68% - Nundle Road from Tamworth; ▪ 20% - New England Highway from Tamworth, Garoo Road and Lindsay Gap Road (20%); ▪ 10% - New England Highway from the south (10%) and Lindsay Gap Road; and ▪ 2% - Crawney Road from the Upper Hunter LGA. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C.

Reference No.	Theme	Comment	Response
HOGPI_1		Provide a new Traffic and Transport Impact Assessment based on realistic road assumptions for the town. Alternatively, if the applicant intends to reconstruct the village roads to reflect the project assumptions based on this report, we ask that the cost of these road upgrades must be included in the Capital Investment Valuation Report.	■ The Traffic and Transport assessment initially evaluated several different transport routes to provide flexibility and ensure that the most suited route was selected. The Head of the Peel route to site, where a proposed 20% of Project traffic was proposed, was eliminated through due process and consideration of feedback from the community around Nundle and on this route. This has avoided use of some village roads in Nundle. ■ The designated route has been confirmed by way of independent transport assessments to be the most suitable and viable route. The Traffic and Transport Addendum Report includes this revision, provided in Appendix H of the Amendment Report. ■ The peak trips and daily trips have reduced from what was presented in the EIS due to more accurate forecasting with contractor input, including lower estimate of workers and the proposed car-pooling initiatives (2.5 persons per vehicle). There is expected to be up to 311 daily trips through Nundle (down from 502 daily trips estimated in the EIS), during project peak traffic periods only. This should be considered against existing daily traffic volumes of 845 through Nundle including 144 return forestry truck movements.
HOGPI_1		Confirm through written contract that 60 workers will be travelling by bus.	■ The use of buses to transport workers to and from site has been considered as an option and the revised transport assessment has been updated without assuming shuttle services. A shuttle service will be considered to support further reduction in traffic volumes if it is safe at the time of construction.
HOGPI_1		Provide a thorough and realistic Traffic Safety Plan to be prepared by the applicant with utmost consideration given to maintaining safety for residents and tourists in Nundle and Hanging Rock.	■ All road users including emergency vehicles will continue to have access along the roads being upgraded or affected by project traffic. ■ Consultation protocols and procedures between local residents and Project traffic travelling to and from site will be considered in the Traffic Management Plan typically prepared by the construction contractors prior to construction. Updated commitments to road safety include offering vehicle escorts to all permanent residents during significant construction or delivery activities, the preparation of a detailed Emergency Response Plan in consultation with the local emergency services, call up protocols for all heavy vehicles entering Morrisons Gap Road and project vehicle speed limits. ■ A detailed Traffic Management Plan (TMP) will be prepared prior to construction in consultation with Transport for NSW, TRC, and other relevant roads authorities associated with the Project, to the satisfaction of the DPIE and TRC. The TMP will be implemented and govern Project traffic movements. The Secretary's approval is a secondary consent required to be obtained before the project commences construction. ■ A further commitment to include pedestrian crossings across the main road Junction of Oakenville and Jenkins Streets within Nundle is also being discussed with Tamworth Regional Council. ■ The decision to use the Devil's Elbow as the primary transport route has a positive safety influence for pedestrians in Nundle. Prior to this being the exclusive access route to site, it was proposed that 20% of vehicles accessing the site would use the Head of the Peel Road to access the south of the site. This meant vehicles using Herron Street North, Innes Street, Jenkins Street, and Gill Street. With the removal of these as transport routes, there will be no turning OSOM vehicles in Nundle and less construction traffic. Pedestrian safety will be ensured as all vehicles must adhere to speed limits, with a project vehicle speed limit being implemented along Morrisons Gap Road.
HOGPI_1		Provide intersection modelling to enable the local community to understand the transport impact of the proposal on their main street	■ Intersection modelling was completed as part of the Traffic and Transport Addendum Report (Appendix H of the Amendment Report) for five intersections in the Tamworth LGA: Goonoo Goonoo Road (NEH) / Scott Road / Vera Street; Murray Street / Marius Street; New England Highway / Nundle Road; Lindsays Gap Road and Nundle Road (Nundle) and Oakenville Street and Jenkins Street (Nundle). ■ The modelling shows that each of the intersections modelled would perform acceptably with and without the construction traffic from the Hills of Gold Wind Farm and that construction traffic would have minimal impact on the road network operation in both the morning and evening peaks.
HOGPI_2		Provide landholders' consent for blade and property road trespass prior to any further consideration of the project proceeding to the next phase of DPIE assessment.	■ The Project is subject to an approved Instrument of designation issued 18 November 2020 under Clause 49(2) of the Environmental Planning and Assessment Regulation 2000 as it is a project on land with multiple landowners within the meaning of clause 49 - 50 of the Regulation. ■ See table in TfNSW_17 response for status of landowner consents to lodge DA.
HOGPI_3		Confirm the exact blade length for the project.	■ The final WTG has not yet been selected. The EIS and associated technical assessments used a worst-case maximum blade length of 83.5 m for the impact assessment. Based on the assessment, the selected WTG will not have a blade length exceeding 83.5 m.
HOGPI_4		Provide a thorough Transport Assessment for Head of Peel Road.	■ The Traffic and Transport assessment initially evaluated several different transport routes to provide flexibility and ensure that the most suited route was selected. The Head of the Peel route to site, where a proposed 20% of Project traffic was proposed, was eliminated through due process and consideration of feedback from the community around Nundle and on this route. ■ The designated route has been confirmed by way of independent transport assessments to be the most suitable and viable route. The Traffic and Transport Addendum report includes this revision (refer Appendix H of the Amendment Report).
HOGPI_5		Include associated costs in the Capital Investment Valuation Report	■ The CIV valuation has been prepared by a Quantity Surveyor in accordance with the requirements of the EP&A Act (refer Appendix B of the EIS).

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HOGPI_6	Biodiversity	List significant species in, and protection measures required for Ben Halls Gap Nature Reserve and Crawney Pass National Park. Take into consideration Threatened Ecological Communities including Ben Halls Gap National Park Sphagnum Moss Cool Temperate Rainforest located adjacent to the Project Area.	■ The 1,500 m landscape buffer was assessed in the context of connectivity around the Project Area. ■ Following consultation with the DPIE Biodiversity, Conservation and Science Directorate and National Parks and Wildlife Service on 12 June 2020 based on the draft BDAR, it was agreed that a number of rapid Plant Community Type (PCT) verification and habitat assessment points would be carried out within the Ben Halls Gap Nature Reserve, where it is adjacent to the Development Footprint to improve on previous survey efforts. ■ The field survey methodology for target fauna species that could be subject to indirect impacts as a result of the wind farm operation, specifically birds and bats, is sufficient to detect any animals that may move through the site and utilise BHGNR. ■ The Proponent has removed 3 turbines assessed as having the potential for high impact to native bat species. This includes the removal of WP 31, adjacent to Ben Halls Gap National Park, and WP 23 and WP27 all benefiting connectivity impacts to the Ben Halls Gap National Park. ■ The closest turbine to the Crawney National Park, WP 1 has also been removed due to impacts associated with biodiversity, also improving potential connectivity impacts across high condition native vegetation. ■ The Proponent has updated its commitments in Table 72 “Proposed Mitigation Measures” in Section 8.9 of the Updated BDAR for inclusion in the Biodiversity Management Plan. The following summarises the measures for risk management to residual impacts to neighbouring National Parks and impacts to habitat connectivity: ▪ Implementing vegetated buffers between the access tracks and wind turbine pads and the National Park estate is to be considered during detailed design. The selection of areas of buffer plantings and species to be planted will be carried out in consultation with the Area Manager, Barrington Tops National Parks and Wildlife Service; ▪ Restore and rehabilitate all areas within the temporary development footprint. Priority should be given to movement corridors for fauna, significant habitats and threatened ecological communities; ▪ Explore opportunities to further minimise the disturbance footprint and clearing within important movement corridors for fauna in detailed design; ▪ Explore opportunities for post-works restoration of habitat connectivity within important movement corridors for fauna; ▪ Areas subject to temporary disturbance will be rehabilitated using a native species planting schedule as much as practical considering any operational and safety constraints; and ▪ The total area exposed and cleared at any one time will be minimised and planned to allow for fauna movement during construction and periods of temporary disturbance ■ Ben Halls Gap Nature Reserve is located adjacent to the Project Area, immediately to the east of the ridgeline. In portions of the National Park, Ben Halls Gap Sphagnum Moss Cool Temperate Rainforest EEC has been identified as requiring additional consideration to ensure activities associated with the project do not impact on the integrity of the EEC. The primary risk to impact upon the “sensitive location” is associated with runoff and sediment deposits. ■ Section 4.3 of the Updated BDAR makes reference to the location of the Sphagnum Moss TEC in the adjacent Ben Halls Gap Nature Refuge, with the location of this TEC mapped in Figure 8 and confirms that there will be no direct impacts on this area. ■ An updated assessment of site gradients and risk to this community is updated in the Soil and Water Addendum Report including project commitments to avoid impact in the EIS (Appendix N of the Amendment Report). Additional measures will be implemented to appropriately and effectively mitigate potential impacts associated with the identified sensitive location in the adjacent National Park. Measures are to be included in the progressive Erosion Sediment Control Plan (ESCP) to either: ▪ direct disturbed runoff away from the catchment area identified to contain the sensitive location, or ▪ process runoff through additional sediment controls (e.g. sumps and/or sediment basins) and discharge at a low, non-erosive velocity (ERM 2021). ■ Table 72 in Section 8.9 of the Updated BDAR has also been amended to make reference to new commitments to the management of stormwater and runoff on the Sphagnum Moss TEC.
HOGPI_7		Provide a buffer of at least a 500 m setback neighbouring remnant open forest with a high abundance of threatened species, such as the boundary of Ben Halls Gap Nature Reserve.	■ The Project has contiguous boundaries with two recognised National Parks, both National Parks hold great significance to the area’s rich biodiversity. ■ To ensure there is no direct or indirect impacts to these areas, a number of approaches have been taken: ▪ no part of the Project Area lies within the boundaries of these reserves; ▪ for the minor catchments upgradient of national parks runoff from disturbed areas will be directed away from the national parks or use of sediment traps constructed to ensure that any loose particles do not wash into watercourses or into the reserves; ▪ a waste management plan will be adopted so that all waste is disposed of properly;

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			▪ access to the park will still be restricted and fencing will be updated where needed; ▪ appropriate buffer spacing for turbine construction to not encroach on the parks; and ▪ potential for instating vegetated buffers between access tracks and the parks is being considered for the final design. ■ The full mitigation of impacts can be found in Table 6.8 of the EIS
HOGPI_8		Increase setbacks to 500 m for locations of known threatened bird and bat habitat and nests of raptors and owls, and bat roosts.	■ During the bird utilisation surveys, 51 bird species were recorded with 18 of these species recorded flying at the rotor swept height. During the bird utilisation surveys, 224 bird movements (flights) were recorded comprising 33 different bird species. Of the 224 flights recorded, 190 (or 85%) were recorded at between 5 and 20 metres vertical distance (height), indicating that the majority of bird activity within the Development Footprint will not be at risk of blade strike. ■ Average flight height assessment showed that only four species have an average recorded flight height that is within the rotor swept height, including Australian Raven, Brown Goshawk, Wedge-tailed Eagle and White-breasted Woodswallow. This indicates that for most flights, there are only a small number of native birds that are considered at risk of collision with turbines. ■ All of these birds considered most at risk are listed as least concern under the NSW BC Act and are not listed as listed threatened species or migratory species under the EPBC Act. The SEARs and the BAM require a more detailed assessment of collision risk for resident raptors. The field surveys identified two species of raptor most at risk of collision, Nankeen Kestrel and Wedge-tailed Eagle. The analysis and modelling of bird collision were conducted, and the returned results were as follows; Nankeen Kestrels have likely range of 0.07 and 0.36 collisions per year and Wedge-tailed Eagle have a likely range of 0.98 to 5.86 collisions per year. ■ Furthermore, a Bird and Bat Management Plan (BBMP) will be prepared and implemented. The BBMP will include: ▪ A description of measures to be implemented on the wind farm site for minimising bird and bat strike; ▪ Suitable measures must be identified for the minimisation and management bird and bat strike risks during operation; ▪ Trigger levels for further investigation and mitigation measures to be implemented; ▪ An adaptive management plan to be implemented if the monitoring determines threatened or at-risk species are subject to adverse impacts; and ▪ A detailed monitoring and reporting plan to assess the potential impacts and effectiveness of design and operational measures to mitigate bird and bat strike. ■ The updated BDAR (Appendix D in the Amendment Report) in Section D includes further analysis and examples of the BBAMP that are considered suitable for the Project. Bird activity within the site is generally concentrated around areas of vegetation. Therefore, a minimum safe distance of 30 m from the turbine blade tip to the adjacent tree canopy has been utilised to minimise any risk of bird or bat strike.
HOGPI_9		Provide a distance of at least 80 m from the blade tip to the canopy of hollow-bearing trees to reduce blade-strike risks to birds and bats.	■ 41 days of surveys across two years were completed by ARUP and Biosis and included bird utilisation surveys such as transects, nocturnal spotlighting, call playback and broadcast, targeted species (owls) and habitat identification in hollows and stick nest surveys. ■ As part of the project, preclearance assessments would be undertaken and clearing of hollow-bearing trees would be supervised by an ecologist, and any Greater Gliders utilising the habitat being removed from the Development Footprint would be captured and relocated. Due to the large areas of suitable habitat nearby (i.e. within the reserve system), it is likely that displaced individuals would be successfully relocated, assuring that the local population would not decrease in numbers as a result of the proposed works. ■ A Biodiversity Management Plan is to include specific requirements to minimise and manage any risk of fauna injury mortality during construction. This would include opportunities for the salvage and re-use of important habitat features, including tree-hollows and bush rock. Detailed procedures for the implementation of these activities are to be adopted. ■ A minimum safe distance of 30 m from the turbine blade tip to the adjacent tree canopy has been utilised to minimise any risk of bird or bat strike.
HOGPI_10		Assess and mitigate the cluttering effect on bird and bat strike of the southern cluster of turbines forming three fingers in an overlapping barrier of 27 turbines, placed unusually close together.	■ The Proponent has removed 3 turbines (WP 23, WP, 27, WP 31) creating a high risk of impact and 1 turbine (WP 01) creating a moderate risk of impact. Two additional turbines (WP50 and WP 2) with either high or moderate risk to impact have been relocated to create greater buffer to habitat mapped. ■ Chapter 8.3.1 Indirect/uncertain impacts to microbats has been revised in the updated BDAR (Appendix D of the Amendment Report). This includes a project specific risk assessment for the potential for turbine strike impacts for each microbats species in Table 56. ■ Section 8.3.2 Collision Risk (birds) of the Updated BDAR (Appendix D of the Amendment Report) has been updated to include a qualitative risk assessment of each bird species at risk. This includes a project specific risk assessment for the potential for turbine strike impacts for each bird species in Table 59.

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			■ Section 8.3.2 Collision Risk (birds) of the Updated BDAR (Appendix D of the Amendment Report) further assesses potential risk of impact to threatened species associated with turbine placement, barriers to movement and potential collision with turbine blades. A qualitative risk assessment has been prepared on a per turbine basis and is included in Table 61. ■ As a best practice measure, adaptive management is proposed through the preparation and implementation of an operational Bird and Bat Adaptive Management Plan (BBAMP) that will be prepared prior to operation. The BBAMP will contain stringent controls for the ongoing monitoring of any bat or bird mortality, continually testing the assumptions of this impact assessment and enable adaptive management measures to be implemented, if required, to reduce measured impacts. The plan will include methods for monitoring mortality, identify acceptable thresholds for mortality and specify adaptive management regimes if these thresholds are exceeded.
HOGPI_11		Assess and mitigate the cluster of turbines about 1 Km away from Crawney National Park (WP9-WP14) where the separation distance between blades is 100 m-120 m - making them even closer together than at Ben Halls Gap Nature Reserve.	■ Changes have been made to the Project layout to improve bird connectivity across and around the Project. This includes the removal of WP 31, adjacent to Ben Halls Gap National Park, and WP 23 and WP 27 all benefiting connectivity impacts to the Ben Halls Gap National Park. ■ The removal of WP 19 results in an increase separation gap from 1 – 1.5km between turbines in this location, to approximately 2.1km between turbine WP 18 and turbines WP 20-22 reducing habitat connectivity impacts in an area of the wind farm where moderate condition habitats occur on either side of the ridgeline. ■ The closest turbine to the Crawney National Park, WP 1 has also been removed to further reduce impacts associated with biodiversity, and also improve potential connectivity impacts across high condition native vegetation.
HOGPI_12		Provide evidence of biodiversity assessment for proposed realignment of Devil's Elbow.	■ Additional surveys to collect BAM plot data were carried out in March 2021 by four botanists over 100 person hours with collection of 24 additional plots. This included collection of plot data within the sections of 'Devil's Elbow' proposed for re-alignment, and along Morrisons Gap Road. Three additional BAM plots were undertaken at the Devil's Elbow. Updated design of the proposed bypass road has reduced impact from 17 ha (presented in the EIS) to 2.5 ha of native vegetation impact.
HOGPI_13		Provide a detailed plan of tree trimming and removal across the proposed transport route.	■ The updated Rex J Andrews report details the extent of tree removal required for access along the transport route. Further Information can be found at Appendix I of the Amendment Report. ■ The Project has committed to continuing to assess biodiversity impacts on detailed final design and to undertake pre-construction clearing surveys to ensure compliance with worst case assessment undertaken.
HOGPI_14		Provide further information about what the logging track is and why it is needed.	■ The Logging Track connected Head of Peel Road to the internal road infrastructure for the Project. It was required to be able to connect the internal infrastructure roads with the Head of the Peel access road. ■ The Traffic and Transport assessment initially evaluated several different transport routes to provide flexibility and ensure that the most suited route was selected. The Head of Peel route to site, where a proposed 20% of Project traffic was proposed, was eliminated through due process and consideration of feedback from the community around Nundle and on this route. The designated route has been confirmed by way of independent transport assessments to be the most suitable and viable route. The Traffic and Transport Addendum Report includes this revision.
HOGPI_15		State the duration of the five field studies in November 2018, August 2019, November 2019, February 2020, and August 2020.	■ Table 22 of the updated BDAR provides the survey design employed and survey effort for each candidate species.
HOGPI_16		Provide a more in-depth study of the north eastern section of the wind farm Project Area. Local knowledge suggests Threatened Fragrant Pepperbush (*Tasmannia glaucifolia*) is extensive between the northern Project Area and Morrisons Gap Road, and could potentially be impacted by roadside clearing to enable access to the proposed Project Area.	■ Table 30 of the Updated BDAR provides survey efforts for the Fragrant Pepperbush. ■ It is assessed and acknowledged that the species occurs within eucalypt forest within PCT 934, 931 and 927. However, no individuals or populations were recorded within the development footprint during field surveys
HOGPI_17		Conduct a thorough search for Eucalyptus oresbia, listed as vulnerable in NSW, which has been observed neighbouring the proposed project area, and can sometimes look like Mountain Gum.	■ Habitat suitability within subject land for *Eucalyptus oresbia* was assessed. It was concluded that the development footprint is not suitable to support this species due to the lack of 'very steep valleys and deeply incised creek lines with primarily south to southwest exposure' (NSW BioNet, DPIE 2021). Due to this habitat limitation, the species was excluded from assessment under the BAM. ■ Notwithstanding the habitat suitability constraints, the survey effort employed would have detected *Eucalyptus oresbia*.
HOGPI_18		Provide research by an independent bat and bird expert over a minimum 12 month period investigating "unique factors at each tower location that require precise locating of towers to cater for different topography, vegetation communities and flora and fauna species."	■ Consultation was carried out with the BCD of DPIE and NPWS on this amended BDAR on the 3 February 2021 and 27 May 2021 in response to their submissions which included comments on the adequacy of existing Collision Risk Assessment and surveys. As a result of this consultation additional targeted field surveys, desktop assessment and detailed analysis was completed as part of updating and amending the Collision Risk for Bats and Birds including:

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			▪ Additional geomorphological assessment was carried out to assess the potential for microbat roosts and breeding habitat. Figure 14 in the Updated BDAR has been provided to present the revised bat habitat; ▪ A microbat cave roost inspection was carried out between 29 March 2021 and 1 April 2021. All high priority areas that were identified via desktop as having a sudden change in elevation (ie potential large caves, and clifflines) were able to be visually inspected from the nearest accessible point. The new Appendix F "Geomorphology, ecology and potential microbat roosting habitat (Environmental Geosurveys)" in the Updated BDAR presents the assessment carried out; ▪ Large forest owl habitat suitability mapping and assessment was carried out. Figure 20 "Forest Owls Species habitat polygons" in the Updated BDAR provides the map of potential owl habitat. Survey efforts did not identify any large forest owls however it was still assumed that certain identified areas had the potential to host large forest owls and so their presence is assumed in the updated Assessment for the purposes of determining appropriate mitigation measures; ▪ Serious and irreversible impact (SAII) assessments were updated for microbat species. However subsequent design refinements have resulted in the SAII assessment for microbats no longer being required. Appendix E of the Updated BDAR provides details associated with assessments undertaken in accordance with serious and irreversible impact assessment, providing an update to the assessment of impacts to cave roosting bats; ▪ An assessment of prescribed impacts in accordance with the BAM was undertaken, as well as further detailed assessment of indirect impacts (including operational impacts from blade strike) to threatened species was updated and is available in Section 8.5 "Prescribed Impacts" of the updated BDAR; and ▪ A qualitative risk assessment was completed for impacts associated with bird and bat turbine strike, as well as a turbine specific risk assessment. Section 8.3 has been updated provide a more detailed assessment of the risk of bat species and each turbine. Three turbines previously considered high risk of impact has been removed from the project layout. The only remaining high risk of impact turbine has been micrositing 130 m and is outside of the habitat buffer. ■ Additional operational mitigation measures been provided to manage residual potential impacts from turbines and are referred to below in TRC_14. ■ Connectivity for fauna is addressed above in TRC_12. ■ Significant refinement has been achieved for previously assumed potential roosting / breeding habitat locations for cave dwelling bats including the threatened Eastern Cave Bat, Large Bent-winged Bat, Little Bent-winged Bat and Large-eared Pied Bat within and surrounding the Development Footprint. The former conclusion of a potential significant impact to Large-eared Pied Bat has been updated to unlikely, coupled with turbine removal and relocation. Further information is provided in Section 8.8 of the updated BDAR.
HOGPI_19	Soil and Water	A thorough Hydrological and Geotechnical Analysis (on ground study) to determine the potential impact on groundwater flow.	■ Geotechnical investigations have been undertaken across the Project Area, the outcomes of which have bene discussed in the Soil and Water Addendum Report, provided in Appendix N of the Amendment Report.
HOGPI_20		Determine potential impact on Tamworth water supply & Hunter / Manning catchments.	■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides further analysis of the area of disturbed footprint within the Peel River sub catchments. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km^2 sub catchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km from Chaffey Dam. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls.
HOGPI_21		To insist on a thorough investigation into potential impacts on surface and groundwater flows into the Peel River, as people rely on springs for domestic and stock water.	■ During geotechnical investigations (summarised in the Soil and Water Addendum Report), site observations by Coffey confirmed there was no indication of shallow groundwater, however discussions with local landowners revealed that many onsite dams were fed by nearby springs. ■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides an analysis of the area of disturbed footprint within the Peel River sub catchments, including reference to potential springs. The report identifies options for rainfall runoff and springs to reach down gradient watercourses, including drainage rock blankets installed for seepage and culverts installed at key watercourse crossing options, to be confirmed during detailed design phase. Figure 5.3 of the Soil and Water Addendum report provides indicative locations for culverts along the Transverse Track to ensure surface flows pass safely down gradient.
HOGPI_22		Note that in the EIS flooding has not been covered at all.	■ As part of the Project amendments outlined in the Amendment Report, it is proposed that all Project traffic will access the Project Area via Morrisons Gap Road only. The Head of Peel Road will not be used for Project related traffic and will be for emergency vehicle access only. As such, no road upgrades will occur on the Head of Peel Road, Kirks Road or Woodleys Road and hence consideration of flooding especially at creek crossings and floodplains along this route is not necessary. The upgrade of Morrisons Gap Road is primarily on a ridgetop and does not pass through a floodplain. All other transport routes are along classified roads constructed and managed by TfNSW or local councils for use by heavy vehicles.

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HOGPI_23		Include hardstands and compacted surfaces such as internal access roads in runoff modelling and mitigation.	■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides an analysis of the area of disturbed footprint within the Peel River sub catchments.
HOGPI_24	Heritage	Address the major adverse impact of the development on the setting and curtilage of the multiple listed heritage items within the Nundle township and surrounds, including natural heritage items The Hanging Rock and Yellow Rock.	■ The Historic Heritage Assessment includes the impact the development has on the areas where road upgrades are required, transmission line infrastructure and the whole wind farm development corridor. There were three items in the Tamworth LGA, which the Project was considered to have an impact on, all are associated with the transport route. ■ The St Peters Catholic Church and the Nundle Shire Officers were recognised as impacts on the transport route using Head of the Peel Road, however all alternative routes have been withdrawn and hence the insignificant impact has now been avoided. ■ A Revised Statement of Heritage Impact (SOHI) (Appendix Q of the Amendment Report) was completed to address the indirect impacts of the Project on the Black Snake Gold Mine LEP historic environment. The revised SOHI concludes that construction of the 'Devil's Elbow' proposed transport route upgrade will have no adverse indirect impacts through removal of secondary growth vegetation and minor cut and fill activities on the listed item.
HOGPI_25		Address the irreversible changes to the curtilage and significant views to listed and unlisted heritage items.	
HOGPI_26		Address the significant indirect heritage impacts of the proposed development as a result of the detrimental impact on the significance of the surrounding cultural landscape to the heritage character of Nundle.	
HOGPI_27		Address the impact of the proposed development on the setting and views within the town and its collection of numerous listed heritage buildings.	
HOGPI_29		Address the direct adverse impacts of road upgrades and the detrimental effect the works will have on the character of the village and the surrounding landscape including nationally listed Ben Halls Gap Nature Reserve.	■ The Devil's Elbow Bypass has been designed by CATCON and WGA, specialist civil design and constructions firms with a strong track record in wind farms. Design of the upgrade was based on transport requirements for the largest turbine components and used high resolution contours and imagery captured by a light fixed wind aircraft sent out specifically for the wind farm investigations. ■ The road design has been deemed suitable for vehicles regarding bend radii and a suitable gradient and is confirmed feasible from an engineering perspective. Additional design documents are provided in Appendix P of the Amendment Report, showing profiles of the upgrade. ■ Both biodiversity and heritage surveys have been conducted on the footprint of the bypass road, with consultation from Forestry Corporation. Biodiversity impacts were included in the original Appendix D – BDAR, with an updated BDAR including consideration of the amended Devil's Elbow alignment proposed as part of the Amendment report. The updated BDAR is provided in Appendix D of the Amendment Report. ■ The Historic Heritage Assessment includes the impact the development has on the areas where road upgrades are required, transmission line infrastructure and the whole wind farm development corridor. There were three items in the Tamworth LGA, which the Project was considered to have an impact on, all are associated with the transport route. ▪ The St Peters Catholic Church and the Nundle Shire Officers were recognised as impacts on the transport route using Head of the Peel Road, however all alternative routes have been withdrawn and hence the insignificant impact has now been avoided; and ▪ The Project has been rated to have a major direct impact to the Black Snake Gold Mine, a Tamworth LEP listed heritage item (Item I43). Geophysical survey work has been completed to determine the presence of mine shifts in the area of the proposed Devil's Elbow bypass road. The assessment identified area of subsurface anomalies, thought to be associated with possible tunnels. The conceptual Devil's Elbow bypass alignment options have been designed to ensure only fill works occur near the identified anomalies (ie no cut). Further assessment of the proposed bypass alignment and its impact on the heritage listed Black Snake Gold Mine has been completed as part of a Statement of Heritage Impact Addendum Report, provided in Appendix Q of the Amendment Report. A Revised Statement of Heritage Impact (SOHI) (Appendix Q of the Amendment Report) was completed to address the indirect impacts of the Project on the Black Snake Gold Mine LEP historic environment. The revised SOHI concludes that construction of the 'Devil's Elbow' proposed transport route upgrade will have no adverse indirect impacts through removal of secondary growth vegetation and minor cut and fill activities on the listed item. ■ The Project has contiguous boundaries with Ben Halls Gap Nature Reserve and Crawney Pass National Park, both hold great significance to the area's rich biodiversity. To ensure there is no direct or indirect impacts to these areas, a number of approaches have been taken: ▪ no part of the Project Area lies within the boundaries of these reserves; ▪ erosion and sediment control will be designed and implemented in accordance with the requirements of 'Managing Urban Stormwater: Soils and Construction' (Landcom,2004) (commonly referred to as the 'Blue Book'); ▪ a waste management plan will be adopted so that all waste is disposed of properly; ▪ access will still be restricted, and fencing will be updated where needed; ▪ appropriate buffer spacing for turbine construction to not encroach on the NPWS estate; and ▪ potential for instating vegetated buffers between access tracks and the NPWS estate is being considered for the final design.

Reference No.	Theme	Comment	Response
			■ The full mitigation of impacts can be found in Appendix C of the Amendment Report.
HOGPI_30		Undertake a social values assessment to inform the preparation of the assessment of heritage impact in accordance with the Burra Charter the management of a place.	■ The historic heritage assessment report has been prepared in accordance with this Charter and to the standards and principles it describes.
HOGPI_31		Conduct a geophysical survey or geotechnical assessment prior to DPIE assessment determine if there are voids or other substantial features present within the proposed road corridor.	■ A Devil's Elbow Proposed Upgrade – Geophysical Interpretative Report' was completed in March 2021. ■ The investigation identified three resistivity anomalies (Areas 1, 2 & 3). While it is possible that the anomalies identified at Areas 1, 2, and 3, likely associated with abandoned (historic) mine workings. ■ WGA and CATCON has redesigned and realigned the road such that the expected void locations are in areas of fill, reducing the risk of removing earth support. This is discussed in the Amendment Report. ■ The Geophysical report is provided in Appendix O of the Amendment report. WGA and CATCONs updated Devil's Elbow bypass alignment is provided in Appendix P of the Amendment report.
HOGPI_32	Visual Impacts	Resubmit the Landscape and Visual Impact Assessment to include at least seven missing residences and development application locations.	■ Photomontages, detailed in Appendix F of the EIS, were carried out at 27 indicative viewpoints, selected to best illustrate the potential appearance of the proposed windfarm for varying distances and locations. These included 10 from public viewpoint locations, selected based on feedback received from the community, as well as 17 from private residences. On the advice of Moir Landscape Architecture, the Proponent offered visual assessments from all private properties within 3,100 m of the proposed development, and most properties within 3,100 m - 4,550 m. ■ Section 14 of the LVIA notes that where effort was made to undertake detailed assessment on the Project Area from each dwelling identified through the Preliminary Assessment Tools, the NSW Wind Energy Bulletin states: "*where relatively close clustering of houses belonging to different landowners or occupants occur, representative viewpoints may be selected and assessed in lieu of every single dwelling in the following types of areas:* ▪ *rural residential clusters;* ▪ *rural villages; and* ▪ *urban residential and commercial areas."* ■ A number of desktop studies using 3D and the most current available aerial imagery were also conducted where access was either not granted or not available. In addition, photomontages and in wireframes were produced for residents interested in understanding specific visual impact that were not included in the LVIA. The Proponent provided opportunity for those within the community to express interest in an individual visual assessment even if this was not required by the guidelines. ■ The study method employed for the dwelling assessments, as outlined in Table 13 of the LVIA, is in accordance with the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3), The Residential Visual Amenity Assessment (RVAA) and Moir Landscape Architecture's (MLA's) extensive professional experience in undertaking LVIA's for wind energy projects. ■ Further consideration of visual impacts, including Project Amendments are provided in a LVIA Addendum Report, provided in Appendix G of the Amendment report.
HOGPI_33		DPIE representatives visit private residences and public viewpoints to understand the potential visual impact of the proposal.	■ Noted. It is understood DPIE has visited the Project Area and surrounding locality as part of their assessment of the Project.
HOGPI_34		Provide at least one animated wind turbine image rotating in a photomontage to illustrate the potential impacts of the proposal.	■ The photomontages completed as part of the Landscape and Visual Impact Assessment have been prepared in accordance with the requirements of the Wind Energy: Visual Assessment Bulletin. There is no requirement to undertake animated wind turbine photomontages.
HOGPI_34		Identify all residences within 4,550 m – 8,000 m of the proposed project area.	■ All dwellings within 5 km of a proposed turbine have been identified with residences further than 5 km from a proposed turbine also identified when required for assessment purposes. The LVIA is provided as Appendix F of the EIS, with the LVIA Addendum provided in Appendix G of the Amendment Report.
HOGPI_35		Provide a photomontage of clearing, road widening, 48.65km of access roads (including logging track and transverse track on the mountain face), concrete batching facilities, operations and maintenance building, battery energy storage system, substation, hardstands, turbine foundations, overhead cabling, and transmission lines and switching station.	■ Chapter 13 of the LVIA (Associated Infrastructure Assessment) in the EIS (Appendix F) assessed the visual impact associated with Access Roads, Transmission Lines (both internal and external) and associated infrastructure such as the substation, switching station and operations and maintenance centre. Due to the large scale and elevated siting of the proposed wind farm, access roads, transmission lines and other ancillary structures have the potential to alter the existing visual landscape.

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			■ Generally, the internal roads have been sited to reduce potential vegetation loss and limit earth work requirements. Due to the existing agricultural land use of the Study Area, farm roads traversing the landscape form a significant part of the existing landscape character. The proposed access roads are likely to be viewed as part of the existing character of the landscape and therefore visual impact would be low. ■ Generally, the above ground transmission lines transverse a large area of uninhabited land surrounded by undulating topography. Opportunities to view the transmission lines are limited due to distance, topography and vegetation. ■ The smaller scale of ancillary structures including the proposed substation and site compound have the ability to be screened by topography, existing vegetation or proposed screening vegetation. ■ Various mitigation and management measures are detailed in the LVIA (Appendix F of the EIS) and the LVIA Addendum (Appendix G of the Amendment Report).
HOGPI_36		Provide evidence of Development Application for meteorological masts.	■ A Development Application is not required for a meteorological mast in accordance with the provisions of Clause 39 of State Environmental Planning Policy (Infrastructure) 2007.
HOGPI_37		Assess the impact of night lighting for ancillary infrastructure including switching stations, and substations.	■ The LVIA included in Appendix F of the EIS incorporated an assessment of night lighting. Further consideration of lighting of ancillary infrastructure night lighting has been incorporated into an Addendum to the LVIA, provided in Appendix G of the Amendment Report. The assessment concluded “the proposed ancillary infrastructure has been carefully sited to minimise visibility from existing residences and publicly accessible viewpoints. It is unlikely the proposed night lighting associated with the ancillary infrastructure would create a noticeable impact on the existing night time landscape”. A range of design principles were recommended in accordance with best practice guidelines for lighting design.
HOGPI_38		Audit Hills of Gold Wind Farm against Upper Hunter Shire Council Development Control Plan and adjust turbine layout accordingly.	■ Development control plans do not apply to SSD under the provisions of Clause 11 of State Environmental Planning Policy State and Regional Development (SRD). Notwithstanding, Section 6.2.4.4 and Table 6-6 of the EIS considered the Upper Hunter Development Control Plan 2015.
HOGPI_39		Provide evidence that vegetation screening is a sufficient mitigation measure where affected properties are located in a valley where there is a 600 m difference in elevation to the range.	■ The LVIA (Appendix F of the EIS) incorporated screen planting recommendations. Further consideration of the effectiveness of screen planting has been incorporated into Section 4 of the Addendum to the LVIA, provided in Appendix G of the Amendment Report. The assessment included preparation of a wire frame image to illustrate the extent of potentially visible turbines (based on topography alone and not taking into account vegetation or buildings). The wireframe was then overlaid onto the panorama of an existing view to create a photomontage. Locations of indicative proposed trees were overlaid onto the wireframe image as indicative posts to determine the height required to adequately screen the Project. A photomontage was then prepared with the addition of vegetation at the minimum required height to screen views to turbines associated with the Project. Recommendations were made relating to tree stock size, planting and maintenance, and tree trunk prevention.
HOGPI_40	Tourism	Give greater recognition to the role of tourism to the economy of Nundle and surrounds, and the region in contributing to increased overnight stays and expenditure.	■ The Socio-Economic Assessment (Appendix P of the EIS) completed by SGS considers tourism. Further, Section 4.3 of the Updated Socio-Economic Assessment also considers tourism (Appendix R of the Amendment Report). This included consideration of various studies completed in Australia and overseas, including consideration of tourism and visitor generation. C7even commissioned the University of Newcastle to assess the impacts on tourism industry from wind farms (University of Newcastle, 2021) (refer Appendix H). ■ Renewable energy is widely welcomed by Australians and is becoming an opportunity for eco-tourism and educational visits, with wind farms such as Crookwell even being listed as a tourist attraction on the Visit NSW website (Crookwell Wind Farm - Crookwell | VisitNSW.com). Current research suggests wind farms can act as a tourist attraction if they are correctly managed, encouraging people to come to one off events such as open days would allow an opportunity for people to experience the wind farm as a tourism destination. A number of wind farms across Australia have successfully established popular initiatives and public events that support this research. One example is Woolnorth Tours, set up by Woolnorth wind farm to run educational bus tours through the site Woolnorth and Cape Grim Tours - Tour Options (woolnorthtours.com.au). This also includes a stop at a meteorology station. Snowtown wind farm in South Australia hosts a high profile cycling event each year, and also states that 200 local jobs, from a population of 2000 have been created as a result of the wind farm. Bangui wind farm in the Philippines also states that a number of local residents, taking note of increasing tourist arrivals, have set up shop and selling snacks, souvenir t-shirts and even miniature windmills made of bamboo to tourists.
HOGPI_41		Require Proponent to reassess the Visiting Friends and Relative (VFR) in their Socio-economic analysis to correct misinterpretation. VFR is a strong market segment to Destination Tamworth and Country Outback NSW.	■ The Socio-Economic Assessment (Appendix P of the EIS), page 28 under Tourism mentions that in the Tamworth Regional LGA 30% of tourism can be attributed to visiting friends and relatives. On page 34, the assessment indicates that in the Upper Hunter Shire LGA 45% of tourism was attributed to visiting friends and relatives. ■ There was not an evaluation identifying percentage of tourists visiting friends and relatives completed for the Liverpool Plains Shire Council.
HOGPI_42		Require the Proponent to better assess the socio-economic impacts the project will have on the existing and future tourism market, focusing particularly on visual amenity and traffic/transport.	■ A Socio-Economic Assessment was included in Appendix P of the EIS. SGS has provided a Response to Submission letter to address comments from the exhibition of the EIS. This response letter is provided in Appendix F of the RtS Report.

Reference No.	Theme	Comment	Response
			■ In Chapter 2 of the Socio-economic Assessment, SGS has included tourism data for each of the three LGAs. The data establishes how many tourism associated businesses there are in each LGA; the main purpose of trips to the LGAs and describes the type of events and sights visitors may be viewing (noting available tourism data for Liverpool Plains Shire was minimal). ■ In the literature review of the Socio-Economic Assessment (Appendix P of the EIS) (Chapter 4), a balanced position is presented in relation to the impact a wind farm can have on the local tourism market ie: acknowledging that a wind farm development may result in both positive and negative impacts. ■ Findings from the HoG consultation, in relation to tourism, are also presented in the assessment (see page 63). The assessment suggests the local Nundle community also presented a mixed view on the potential impact of the wind farm on local tourism. ■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C. ■ This finding suggests it is likely tourism traffic would not be significantly impacted by construction/operational traffic for the wind farm. ■ Like the Landscape & Visual Impact Assessment, the Socio-Economic Impact Assessment acknowledges that the landscape will visibly change with the development of a wind farm. The Landscape & Visual Impact Assessment concludes 'it is likely the character of areas which are valued for their high landscape quality and utilised for recreation and tourism will remain intact' and that regionally significant landscape features would remain as the dominant features of the landscape (see p.66). This finding suggests the landscape is likely to retain value for tourism purposes and is likely to still attract visitors to the area.
HOGPI_43	Capital Investment Value	Include installation cost for BESS to correctly reflect the total estimated value in the CIV and to comply with the recognition that installation of the BESS to help mitigate risks associated with unserved energy as recommended by AEMO, 2019.	■ The CIV valuation has been prepared by a Quantity Surveyor in accordance with the requirements of the EP&A Act (Appendix B of the EIS). ■ Muller Partnership has prepared a CIV Response Letter, provided in Appendix E of this RtS report. Response to each question is detailed herein. ■ The battery is not designed to take unserved energy as it is understood that the connection is sufficient for all energy from the wind farm. The battery is designed for a subsequent phase of construction hence its forecast cost and will provide stability to the grid at this point of connection if required. It may also provide smoothed output should that be required in the market. The cost of the battery includes supply and installation as noted in the original report.
HOGPI_44		Adjust the cost of all excavation works listed in 'Estimate Detail' must be adjusted to reflect rock material with on-site Geotechnical Data provided and amended in CIV.	■ The assessment was undertaken prior to any geotechnical investigations. The civil cost assumption is not based on detail design but based on average / benchmarked civil cost components as listed in the experience of Muller Partnerships. We believe this is consistent with projects of this nature and the stage of the project.
HOGPI_45		Update the Estimated cost must be updated upon completion of an onsite assessment of the crane hardstand areas.	■ The CIV is not intended to be produced upon detailed design which is typically after the DA determination. Provision has been included for hardstands typical of this nature. It should be noted that some hardstands have been included as "Just in Time" which reduces the area required.
HOGPI_46		Adjust cost to construct the turbine footing must be in line with concrete footing specifications described in the EIS.	■ The EIS is a worst case and assumes 25 m width but will depend on turbine selected, foundation loads, geotechnical investigations amongst other things. It is not unreasonable that the foundation will be 20 m wide with average 2 m depth given the angular nature of the gravity foundation. The CIV nominated foundation meets the volume requirements of the EIS (500-900m3).
HOGPI_47		HOGPI members request that the applicant either adjust the Project Specification output to 385 MW or adjust the cost 70 wind turbine generators to reflect a minimum output of 6 MW per wind turbine generator in the CIV.	■ Turbine selection has not been confirmed and there remains consideration of a turbine at 5.5 MW with lower impacts than assessed in the development application, which represents a worst case in the EIS but doesn't reflect a decision to use larger turbines. Muller Partnership are comfortable this is a reasonable assumption around the turbine cost and that potential competitive tension may reduce further.
HOGPI_48		HOGPI members request the applicant to identify and individually itemise all construction costs to each intersection and widening upgrade, blade trespass areas including compensation cost to consented landholders affected by blade trespass to every proposed route in the village of Nundle and Hanging Rock.	■ Focus on the CIV is not a detailed design assessment of a bill of quantities but a reasonable estimate given the project is still in the planning stages. It should be noted that actual costs following detail design and a competitive tender reflect sensitive intellectual property of bidding tenders and will remain commercial in confidence. Muller have assessed the capital costs consistent with their expertise in similar projects and project components. Muller Partnership are of the view that the report reflects a reasonable overall capital value given the stage of the Project and design level available.
HOGPI_49		HOGPI members request that the applicant must itemise the estimated value of the 48.64 km internal road access to clearly show the cost component	■ Item 23 page 8 of the CIV report (Appendix B of the EIS) includes the cost of 48 km of roads. EIS states the Transverse Track is included in the 48 km of estimated roads 'Internal access road calculation includes internal roads between hardstands, access track form Head of the Peel Road to Project Area and transverse track'. At this stage costing is estimated based on preliminary concept design and estimated requirements. Muller Partnership are satisfied these

Reference No.	Theme	Comment	Response
		(allocated to or otherwise to include) of the "transverse track" identified in the EIS (pg.49) in the CIV.	costs are reasonable for the preliminary concept design received and that further optimisation and competitive tension may improve results. Costs associated with the Project Amendment (ie reduction in internal access tracks associated with removal of WTGs and associated ancillary works) likely over represents some of the civil costs estimated.
HOGPI_50		As the "preferred and main access route" with 80% of traffic expected to travel through during the construction period, include the costs of construction to the Devil's Elbow bypass must be included to in estimated cost in the CIV.	■ The EIS report notes the main access stems from Morrisons Gap Road and the Head of Peel Road within the requirement of a private access road (approx. 48 km). The CIV includes all road upgrades, temporary widening, transport route adjustments and access components for transportation support as per EIS requirements. Muller Partnership recognise the final RAV route will be dependent on further consultation and approval from Transport for NSW, Tamworth Regional Council and private property owners along the route. Muller understands that costs associated with Head of the Peel upgrades are no longer required which over represents some of the civil costs estimated.
HOGPI_51		HOGPI members insist that the above exclusions must be included in the CIV in order to satisfy the requirement in Clause 3 of the Environmental Planning and Assessment Regulation 2000.	■ Muller Partnership notes the CIV satisfies the Environmental Planning and Assessment Regulation 2000 requirements (Clause 3 - Part 1 Preliminary) "Exclusion from definition of development" given the status of the currently available information.
HOGPI_52	Decommissioning	Since Engie (a large International corporate entity), is the owner of Hills of Gold Wind Farm, HOGPI members request that a detailed Decommissioning plan must be prepared with adequate and acceptable terms to secure an ethical Decommissioning process.	■ The land agreements the Hills of Gold Wind Farm has entered into make express provision for the Proponent's decommissioning obligations. ■ Decommissioning is discussed in section 3.6 of the EIS. The Project will be decommissioned in accordance with the Project's Environmental Management Strategy, and in accordance with conditions of approval.
HOGPI_53	Noise and Vibration	Redo the Noise Monitoring Assessment without bellowing cattle and generator noise for one of the Non-Associated Dwellings.	■ Sonus has prepared a Response to Submission Letter, provided as Section D of this Submissions Report. . Background noise measurements (the noise monitoring assessment) are conducted using the "LA90" descriptor. This descriptor records the lowest 10% of noise levels. That is, the highest 90% of the noise in every 10-minute period is excluded, which results in intermittent noise sources being excluded. Therefore, intermittent noise sources such as bellowing cattle or traffic on local roads do not increase the background noise levels. ■ If constant high noise sources had affected the results, the correlations would indicate high noise levels at low wind speeds. The noise from a constantly high source such as a generator would be most noticeable at low wind speeds and would result in a cluster of data points, at approximately the same noise level, for a wide range of wind speeds. The data do not indicate such clusters of data and therefore the generator has not artificially increased background noise levels.
HOGPI_54		Conduct noise assessments at Timor.	■ Timor is located approximately 13 km outside of the 30 dB(A) predicted noise level contour. The noise level at Timor is predicted to be well below 20 dB(A) and is therefore easily compliant with the NSW requirements.
HOGPI_55		Clarify if the different blade lengths influence wind turbine noise?	■ Each wind turbine model has a sound power level specified by the manufacturer. Many factors contribute to the sound power level, including blade length, rotational speed and blade design. Early wind turbines had smaller blade lengths than contemporary designs, but generally had higher sound power levels. With the increase in blade length, improvements in technology, such as serrated trailing edges and lower rotating speed, have resulted in noise emissions being reduced. ■ The noise from the final turbine selection will be modelled and tested to ensure that the noise criteria are achieved.
HOGPI_56		Give detail of noise implications for two rock crushing facilities.	■ The final location of the rock crushing facilities has not yet been decided. The Noise and Vibration Assessment provides preliminary noise predictions for example distances from the facilities. The assessment will be updated in the Project's Environmental Management Strategy once the final locations are known.
HOGPI_57		Provide a detailed plan of tree trimming and removal across the proposed transport route of the site to determine where and how much blasting would be required to construct Hills of Gold Wind Farm wind turbine foundations, hardstands, and access roads (including Transverse track and Devil's Elbow realignment), and its impact on surrounding residents. Blasting near Devil's Elbow may require closure of Hanging Rock Lookout or Barry Rd, causing additional inconvenience and safety risk to residents and tourists.	■ This can be determined once final geotechnical investigations have been completed and final design confirmed. Worse case impact has been assessed and surveys to confirm final design does not impact more than stated values will be confirmed.
HOGPI_58		Address topography impacts in the Noise and Vibration Assessment. Local knowledge highlights that noise travels long distances in the Hills of Gold and Wind Turbine, Construction, Blasting and Traffic noise assessment do not take that into account.	■ The model used to predict the noise from the wind farm includes the topography and an input. Therefore, the local conditions are already inherently incorporated into the Noise and Vibration Assessment.

Reference No.	Theme	Comment	Response
HOGPI_59		Take into account wildlife that is also affected by noise and vibration like humans. in the Noise and Vibration Assessment	■ Noise levels from the operation of a wind farm are no greater than that of other noise levels in the environment. That is, the noise levels, even close to a wind turbine, are no greater than gusts of wind in trees, birds and other wildlife, cars on public roads or aircraft flying over. ■ Vibration levels under wind turbines have been measured and are considered acceptable for highly sensitive uses such as an operating theatre. The level of ground vibration from a wind turbine is often less than below a large tree which moves with the wind. This is because the turbines are designed to transfer energy into electrical power, rather than transferring it into the ground.
HOGPI_60	Aviation	Follow up CASA with request for review of assessment referred by Planning.	■ Aviation Projects completed an Aviation Impact Assessment for the Project, included in Appendix H of the EIS. In response to submissions received and Project amendments an Aviation Impact Assessment Response to Submissions and Amendment Report letter has been prepared, provided in Appendix J of the Amendment Report. ■ The Aviation Impact Assessment and letter consider comments from various regulatory agencies, including CASA. Further consultation with CASA has occurred associated with obstacle lighting, the details of which are also provided in Appendix J of the Amendment Report.
HOGPI_61		Follow up organisations that have not responded to correspondence.	
HOGPI_62	Hazards and Risk	Take into account landholders bordering the project with livestock and workers within the Blade Throw range.	■ Blade throw was considered in Appendix K of the EIS. Additional assessment of risk including further consideration of blade throw risk has been undertaken as part of a Preliminary Hazard Analysis included in Appendix L of the Amendment Report.
HOGPI_63		Consider potential impacts for recreational users of this land; campers, hunters, bushwalkers.	■ The Project Area does not involve any sites that are used for recreational activities as it is privately owned land used for agricultural production.
HOGPI_64		Make provision for replacement of turbine blades after installation.	■ The consideration of the replacement turbines and components is a commercial matter for the Project. Following completion of the construction phase, the Project will ensure that the relevant agreements are in place with landowners and Councils throughout the operational phase to maintain ability to use public roads and any road upgrades to access the site with any major components should it be required.
HOGPI_65		Address the potential for Ice Throw, despite Hanging Rock being known for black ice and snow.	■ Additional assessment of risk including consideration of ice throw risk has been undertaken as part of a Preliminary Hazard Analysis included in Appendix L of the Amendment Report.
HOGPI_66		Advise whether Associated Dwelling (Lot 210 DP 819485), 350 meters from the turbine WP65 and 525 meters from the turbine WP64, will be dismantled? Will it continue being used and occupied despite the presence of the turbines nearby?	■ The structure at the stated coordinates was a barn shed in use during the previous potato farm operations at the site. The structure is used as a storage shed and is not an approved dwelling.
HOGPI_67		Address impacts of Morrisons Gap Road and Shearers Road residents driving through construction zone and between operating turbines.	■ The Addendum Traffic and Transport Assessment described above has been undertaken as part of the Amendment Report. It confirms that the Barry Road and Morrisons Gap Road previously referred to “preferred route” as the route for all OSOM traffic and construction traffic. The preliminary assessment had considered impacts already associated with this potential option. ■ Potential safety impacts from construction traffic and oversized construction machinery have been assessed in the Hills of Gold Wind Farm EIS Appendix G – Traffic and Transport Assessment, sections 4.1, 4.2, and 4.3. The Traffic and Transport assessment also commits to having a detailed Traffic Management Plan developed that will address these issues in more detail to outline the exact safety procedures and mitigation methods recommended once final design of the upgrades is completed. Part of this will be a community consultation plan involving times of oversized and over mass vehicles. Increased safety signage will be implemented, and a voluntary safe speed limit will be introduced. ■ The Proponent has made a commitment to seal Morrisons Gap Road following the completion of construction and deploy dust suppression measures such as polymers to prevent dust generation from traffic traveling to or from the Project Area during construction. A rumble grid has been proposed to shake dust off vehicles. A rumble grid may also be implemented with Forestry subject to further consultation. Onsite dust suppression using water trucks will be used, and vehicles may also be washed down on exit of site if required. ■ Community members, particularly those along Morrisons Gap Road and Tamworth Regional Council sought further details on upgrades proposed. The Proponent has undertaken an updated swept path analysis in response to community interest along Morrisons Gap Road. This is now attached in the amended Route Assessment, provided in Appendix I of the Amendment Report (RJA, 2021). Further consultation protocols and procedures between local residents and Project traffic travelling to and from site will be considered in the Traffic and Transport Management Plan. Updated commitments to road safety include offering vehicle escorts to all permanent residents during significant construction activities such as concrete pours along Morrisons Gap and Barry roads, the preparation of a detailed Emergency Response Plan in consultation with the local emergency services, call up protocols for all heavy vehicles entering Morrisons Gap Road and project vehicle speed limits.

Reference No.	Theme	Comment	Response
HOGPI_68	Hazards and Risk	Provide detail about where turbine blades would be cut and landfilled throughout the life of the project? What risks are associated with cutting the blades?	■ WTG manufacturers are ensuring that turbines remain as sustainable as possible. This means that turbines in general are currently 85% recyclable (Vestas, 2021). With improvements in not only turbine but also recycling technologies, this figure, along with Australian recycling capacity will improve over the lifetime of the Project. The recycling of the turbines will be carried out by the Proponent after decommissioning and will be transferred off site to a recycling plant for processing. This will be included in the Waste Management Plan for the Project. Circumstances may arise where unplanned equipment failure occurs due to environmental events or other factors. The majority of repairs can be undertaken during routine maintenance; however, WTG components requiring replacement would need to be undertaken using a crane in a similar manner to their installation. In addition, replacement of WTGs may occur throughout the operational life of the Project as improved technologies become available.
HOGPI_69	Site Visit	Provide site specific assessment, based on a site visit to understand the unique nature of the topography, ecosystem, and limited access.	■ During the development of the EIS there were specialists from a range of different areas of technical expertise who completed site visits to include site specific information in the EIS reports that were produced for each technical area. The technical experts that have been to the project site are as follows: ▪ Ecologists from BIOSIS and ARUP; ▪ Soil and water consultant from ERM; ▪ Aviation consultants from Aviation Projects; ▪ Aboriginal cultural heritage consultants from KNC; ▪ Registered Aboriginal Parties (RAPs); ▪ Wind Turbine Manufacturers; ▪ Balance of Plant Contractors; ▪ Geotechnical experts from Coffey; ▪ Historic heritage consultants from ERM; ▪ Landscape and visual consultants from Moir Landscape and Architecture; ▪ Noise and vibration experts from SONUS; ▪ Construction management experts from ENGIE; ▪ Wind monitoring experts from ART (Australian Radio Towers); and ▪ Traffic and transport experts from Rex Andrews Transport and The Transport Planning Partnership.
HOGPI_70	Aviation and Bushfire Risk	Address residents' real concerns and anxiety about the potential for wind turbines to restrict the movement of bushfire aviation firefighting to protect people and their land.	■ Aerial firefighting was considered in Section 3.15 of the Aviation Impact Assessment (AIA) (Appendix H of the EIS). Further analysis has been provided in an Aviation Impact Assessment Response to Submission and Amendment Report Advice Letter (Aviation Projects, 2021) provided in Appendix J of the Amendment Report. ■ NSW Rural Fire Service was consulted during the preparation of the AIA and advised as follows: "We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations." ■ Further consultation with NSW RFS, Civil Aviation Safety Authority (CASA), NPWS and Airservices Australia has also been conducted, and subsequent responses received to ensure appropriate mitigation methods are in place in the event of bushfire. The responses are as follows: ▪ Airservices Australia did not see the wind farm posing any increased risk or "have an impact on the safety, efficiency or regularity of existing or future air transport operations"; ▪ Following further consultation with CASA, confirmation of the acceptability of steady low intensity light instillations on nominated turbines to reduce visual severity. A draft lighting plan has bene prepared and submitted to CASA, who have since endorsed the plan. They have also requested that Airservices Australia publish a NOTAM to advise all pilots of the imminent construction of tall structures; and ▪ NSW RFS believed that the bush fire risk management strategies as outlines in table 13.11 of the EIS were acceptable and shall be incorporated into any consent granted. Further they stated the requirement for a detailed site plan with GPS coordinates of all turbine locations, to be issued and stored at the NSW RFS Liverpool Range District Office. ■ Final turbine layout maps are also to be issued to NSW RFS ahead of construction for their internal response planning. It is also noted that in the unlikely event of a fire spreading from the wind farm to the surrounding area, the turbines would not limit aerial firefighting capabilities on associated properties. ■ A number of learnings for emergency management procedures and protocols in relation to wind farms and bushfires have been reported by AFAC (2018) and Clean Energy Council (2017) and will be implemented at the Hills of Gold Wind Farm. These include (with specific reference to aerial firefighting):

Reference No.	Theme	Comment	Response
			▪ the wind farm's turbines did not present a hazard to aerial firefighting and the turbines were clearly visible to the pilots involved in operations; ▪ to maximise air space for firefighting between the turbines, turbines should be locked in the 'Y' position; ▪ communication protocols need to be in place between wind farm operators and fire and land management agencies to direct turbine shut-down procedures in an emergency situation and initiate emergency response plans; and ▪ precautionary measures should be considered to allow for aerial identification of meteorological masts (measurement towers), guy wires and other infrastructure such as transmission lines that are not easily visible from air. ■ The Bushfire Emergency Management and Operations Plan will detail appropriate risk control measures that would need to be implemented to safely mitigate potential risks to the health and safety of the firefighters and first responders. In accordance with the Hills of Gold Wind Farm Aviation Impact Assessment (Aviation Projects, 2020), further consultation will be held with RFS and the Proponent to ensure that appropriate mitigation methods are in place, so that in the event of a bushfire in the area, pilots are aware of the turbine locations and can respond appropriately.
HOGPI_71	Socioeconomic	HOGPI members ask for consistency in merit assessment and like Rocky Hill Coal Mine, encourage DPIE recommend that the Independent Planning Commission not approve Hills of Gold Wind Farm.	■ The Project will be subject to merit assessment in accordance with the requirements of the Environmental Planning and Assessment Act 1979.
HOGPI_72		Be transparent with the Nundle and Hanging Rock community regarding construction and ongoing jobs estimates.	■ A Socio-Economic Assessment was completed by SGS (Appendix P of the EIS). This assessment included construction and operational job estimates. ■ SGS used an Input/Output modelling approach. It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs.
HOGPI_73		Request a member of the Socio-economic Impact Assessment team visit Nundle and Hanging Rock.	■ The Socio-economic Assessment was completed by SGS. Whilst originally planned, due to the impact of COVID-19 restrictions, it was not possible to visit the site or hold face-to-face meetings. Instead, eleven phone interviews were conducted over the course of late March/April 2020 with people from the local community and region.
HOGPI_74		Provide construction and ongoing jobs estimates based on wind industry precedence.	■ A Socio-Economic Assessment was completed by SGS (Appendix P of the EIS). This assessment included construction and operational job estimates. An updated assessment has been completed to account for Project amendments, provided in Appendix R of the Amendment Report. ■ SGS used an Input/Output modelling approach. It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs.
HOGPI_75		Provide evidence that 60 construction workers will be transported by bus from strategic accommodation in Tamworth.	■ The use of buses to transport workers to and from site has been eliminated as an option and workers carpooling to site will be further incentivised. Further to this, a project specific car park situated outside of Nundle for all project LV's to park in before being shuttle bussed up to the project site is currently under discussion with Tamworth Council
HOGPI_76		Clarify that construction worker accommodation is not proposed.	■ The Project does not propose the construction of worker accommodation.
HOGPI_77		Disclose whether the CEF will be reduced if turbine numbers are decreased.	■ Final agreements are still under negotiation with Councils however the current commitment made by the Project is on a per turbine basis. Copies of the Offer Letters as issued to councils for review are attached at Appendix G of this RtS Report.
HOGPI_78	Community Objection	Accept the evidence that the majority of the community from Nundle and surrounds do not support the Hills of Gold Wind Farm and withdraw the Development Application.	■ The Project will be subject to merit assessment in accordance with the requirements of the Environmental Planning and Assessment Act 1979.

Table 6-2 – Tamworth Regional Residents and Ratepayers Association Submissions Response

Reference No.	Theme	Comment	Response
TRRRA_1	Soil and Water	Lack of a detailed hydrological assessment of what function the ridge upon the proposed windfarm is to be sited forms in acting as a water sink, storage or aquifer that has been historically regarded as the source of the Peel River, the Barnard River and Pages Creek that feeds into Hunter River. TRRRA request a full hydrological report of the site ridge line and an assessment of the ridgeline and surrounding catchment areas role as a water source for the Peel River (and Chaffey Dam) and the Barnard River and Pages Creek.	■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. ■ During geotechnical investigations (summarised in the Soil and Water Addendum Report), site observations by Coffey confirmed there was no indication of shallow groundwater, however discussions with local landowners revealed that many onsite dams were fed by nearby springs. ■ Section 5 of the Soil and Water Addendum Report provides an analysis of the area of disturbed footprint within the Peel River sub catchments, including reference to potential springs. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216ha, representing only 0.51% of its 420 km^2 subcatchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km from Chaffey Dam. This confirms its relatively minor area within these small tributary sub-catchments including the Nundle Creek. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls.
TRRRA_2		It is noted that despite a range of consultation having been attempted (Water NSW recorded as not responding) and Tamworth Regional Council having made no comment on matters water. It is our request that this important matter be re-visited with all who may be affected by work in their water catchments.	■ Relevant agencies with an interest in water and water catchments including WaterNSW, DPIE Water / NRAR and Tamworth Regional Council have all undertaken assessments of the Project and provided their comments.
TRRRA_3		Detailed construction plans and access including a better assessment of what the pier support of the WTG is going to be and the hydrological and soil stability impacts of such construction methods.	■ Detailed designs for the Project are still to be prepared and will be finalised in the detailed design phase. It is expected that the foundations to each turbine will likely be of a standard gravity fed design using concrete pads. ■ Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report provided in Appendix N of the Amendment Report. The Soil and Water Addendum Report considers a concept approach to erosion and sediment control management for the Project.
TRRRA_4	Biodiversity	The impact on biodiversity and the effect of those impacts on the Peel River (and Chaffey Dam) and the Barnard River and Pages Creek and catchments.	■ Section 5 of the Soil and Water Addendum Report provides an analysis of the area of disturbed footprint within the Peel River sub catchments. ■ The Soil and Water Addendum Report provided in Appendix N of the Amendment Report considers a concept approach to erosion and sediment control management, including in the vicinity of the NPWS estate adjacent to the Project.
TRRRA_5	Merit Assessment	A determination by the Planning Panel as to the robustness (based on the above 3 points) of the proposal development given the companies involved may by omission be inadequate for their investors by way of a poorly developed proposal EIS which is certainly deficient in terms of investigation, design and constructability aspects having a large influence on construction costs program and risk in the current format.	■ The Project will be subject to merit assessment in accordance with the requirements of the Environmental Planning and Assessment Act 1979.

Table 6-3 – Australasian Cave and Karst Management Association Submissions Response

Reference No.	Theme	Comment	Response
ACKMA_1	Biodiversity (Land clearing; Habitat loss)	Concerns about the intent to clear some 487 hectares of vegetation – native and introduced – as well as direct and indirect impacts on the nearby Timor Caves and other geological features and also bats which roost in, and in forest around, the caves which they forage in the area proposed for the wind farm. The proximity to caves means clearing and erosion will be part of the impact in the hydrological process associated with caves and karst let alone the loss of flora for all animals and the insects which are the food source of microbats whether they be forest dependant or cave dependant species.	■ The Proponent has engaged experienced wind farm construction contractors and a transmission line designer to undertake a review of the layout to provide advice on reducing the development footprint including impact along the proposed transmission line. Biosis undertook an assessment with the Proponent to advise on areas generating the highest impact. This resulted in project layout amendments and associated revised biodiversity impact, the details of which can be found in the response to TRC_15 of the Submissions report. ■ As a result of the targeted field surveys, significant refinement has been achieved for previously assumed potential roosting / breeding habitat locations for cave dwelling bats including the threatened Eastern Cave Bat, Large Bent-winged Bat, Little Bent-winged Bat and Large-eared Pied Bat within and surrounding the development footprint. Based on this further assessment, including of the changes made to the Project, it has been concluded that the Project is unlikely to have a significant impact to Large-eared Pied Bat h. Further information is provided in Section 8.8 of the Updated BDAR. ■ Vegetation clearing protocols will be followed including staged habitat removal, fauna handling and unexpected threatened species finds procedures for species (including of wombats, Koala, and other fauna) and any specified seasonal limits on clearing activities. ■ A Biodiversity Management Plan is to include the following specific requirements to minimise and manage any risk of fauna injury mortality during construction: ▪ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist;

Reference No.	Theme	Comment	Response
			▪ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations; and ▪ Opportunities for the salvage and re-use of important habitat features, including tree-hollows and bush rock, are to be identified and detailed procedures for the implementation of these activities are to be adopted. ■ A Bird and Bat Adaptive Management Plan is to be developed and implemented for the monitoring of threatened or at risk species subject to adverse operational impacts. Operational turbine specific mitigation measures have been included in Section 8.9.1. ■ Any unavoidable impact will be offset in accordance with the Biodiversity Conservation Act and as explained in the Amendment Report.

Table 6-4 – Volunteer Organisation PTSD Care Submission

Reference No.	Theme	Comment	Response
PTSD_1	Aviation	Concern that aviation lighting at night will cause a disturbance to the residents at the care home.	■ Section 2.1 of The Civil Aviation Safety Authority's (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: "CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking". For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. ■ CASA's Advisory Circular AC 139.E-05v1.0 '*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*' Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states "*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installation*". In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and ▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings. ■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape.
PTSD_2	Noise	Concern that the noise from the turbines will cause a disturbance to the residents at the care home.	■ Consideration for the impacts of noise and vibration has been addressed in section 10 of the EIS. A Noise and Vibration assessment was undertaken by Sonus for the construction and operation of the project (refer Appendix E) in accordance with the SEAR's. ■ Page 11 of the Wind Energy Noise Assessment Bulletin (DPE 2016c) states "in 2015, the [National Health and Medical Research Council] concluded that there is not direct evidence that exposure to wind farm noise affects physical or mental health", more specifically, they state that "while exposure to environmental noise is associated with health effects, these effects occur at much higher levels of noise than are likely to be perceived by people living in close proximity to wind farms in Australia". ■ All dwellings have been assessed for the long-term impact of noise from the proposed wind farm and have been confirmed to comply with the Wind Energy Noise Assessment Bulletin.

Table 6-5 – Newcastle and Hunter Valley Speleological Society Submission

Reference No.	Theme	Comment	Response
NHVSS_1	Biodiversity	Concern that the study undertaken to collect data on threatened species was only taken over a couple of short periods and is most likely considerably lacking in providing a holistic picture of species and their movements.	Survey efforts for candidate specifies have been provided in Table 22 of the Updated BDAR. These were undertaken in accordance with the BC Act.
NHVSS_2	Biodiversity	■ Impacts to threatened ecological communities and species with reference to White Box-Yellow Box-Blakely's Red Gum Grassy Woodland, Koala, Large-eared Pied and the Spotted-tailed Quoll.	■ Potential impacts of the Project on threatened ecological communities and species have been considered in the revised BDAR (provided in Appendix D) and confirm that there remains the potential for significant impacts to two EPBC Act listed fauna species being the Koala and the Spotted-tailed Quoll. Significant impacts to all other EPBC Act listed entities have been avoided by the amended Project, demonstrating that the changes made to the Project have removed the potential for significant impacts to one TEC being the Box Gum Woodland and Large-eared Pied Bat which was identified in the original BDAR carried out before the Project was updated. ■ Measures to avoid and minimise impacts to critical Koala habitat have been implemented as part of the ongoing design refinements made to the amended Project. As a result, impacts to Koala habitat have been reduced from the 50.76 ha assessed in the EIS down to a total of 36.44 ha (an 28% reduction in impacts) in the revised BDAR. ■ While the impact to Koala has been assessed as significant against the EPBC assessment requirements, it should be noted that during flora and fauna surveys carried out between 2018 and 2020 and over 1014 infrared motion detected camera trap nights, two Koalas were spotted in the Project area and 7 Koalas have been recorded within 10 km of the project site. There exists extensive suitable high condition habitat in neighbouring properties and over 3,000 ha in neighbouring nature reserves suitable for Koala relocation if found prior to construction. The Project has further committed to best practise for minimising the unavoidable residual direct impacts noted above including the development of management plans and protocols to be implemented before and during clearing of potentially suitable habitat. The establishment of Biodiversity Stewardship Sites on neighbouring properties will also provide high quality habitat. There is expected to be no net loss of Koala habitat following implementation of Biodiversity Offset requirements. ■ A total of 40.67 hectares of Spotted-tail Quoll habitat is proposed to be removed as part of the amended project, which is likely to adversely impact Spotted-tailed Quoll habitat within the immediate locality. However, there is still approximately 84,000 ha of native vegetation in the species' known habitat range which is considered to be adequate to enable local populations to successfully persist. Measures to avoid and minimise impacts to important Spotted-tailed Quoll habitat have been implemented during the design refinements made to the amended Project. Impacts to high and moderate condition PCTs which constitute Spotted-tailed Quoll habitat have been reduced by a total of 54.58 ha (a 57 % reduction in impacts). ■ Potential impacts to Koalas and the Spotted-tailed Quoll will be minimised through the construction phase of the Project will be minimised through implementation of the Biodiversity Management Plan that will target management actions specifically towards Koalas and Spotted-tailed Quoll including items such as pre-clearance surveys and exclusion fencing.
NHVSS_3	Soil and Water	Clearing established vegetation will enable soil erosion to occur, which could affect the downstream karst areas which contain caves and specialised echo systems.	■ Section 5 of the Soil and Water Addendum Report provides an analysis of the area of disturbed footprint within the Peel River sub catchments. ■ The Soil and Water Addendum Report provided in Appendix N of the Amendment Report considers a concept approach to erosion and sediment control management for the Project. Erosion and sediment control will be designed and implemented in accordance with the requirements of 'Managing Urban Stormwater: Soils and Construction' (Landcom, 2004) (commonly referred to as the 'Blue Book').

Table 6-6 – Friends of Kentucky Action Group Submission

Reference No.	Theme	Comment	Response
FKAG_1	Site suitability	Concern that the ridgeline where the Hills of Gold wind farm is proposed is not a suitable site.	■ Site suitability is addressed in full in section E2 of the executive summary of the EIS and also section 4.4 of the EIS. ■ The Hills of Gold wind farm siting was selected based on a set of factors that determine the viability of a wind farm to produce clean energy, limit the impact to the environment, provide benefits to the community surrounding it, complement the existing energy infrastructure and support government policy. ■ From these factors it was determined that the Hills of Gold Wind Farm: ▪ Aligns with the NSW Government Electricity Strategy, Transmission Infrastructure Strategy and the New England North West Regional Plan; ▪ Has shown it exhibits a high wind resource from detailed 10-year site studies; ▪ Sits predominantly on existing agricultural land; ▪ The Project is isolated and is in an area of low population density with limited residents within 4 km of the Development Footprint;

Reference No.	Theme	Comment	Response
			▪ The Project is located 13.5 km from the Liddell to Tamworth 330 kV transmission line with capacity to accept the generation capacity from the project, along with the ability for the Project to take advantage of the committed and in construction Queensland to NSW interconnector upgrades in Tamworth and along this line; and ▪ The proximity of the Project to provide economic benefit to the communities of Hanging Rock, Nundle and surrounds by providing not only jobs but also an injection of stimulus under the Community Enhancement Fund, Neighbour Benefit Sharing Scheme and diversified income for host landowners. The Project will also provide other benefits to these communities with road upgrades and possibilities for eco-tourism.
FKAG_2	Aviation and Hazards	Concern the ability to undertake aerial firefighting will be hindered.	■ Aerial firefighting was considered in Section 3.15 of the Aviation Impact Assessment (AIA) (Appendix H of the EIS). Further analysis has been provided in an Aviation Impact Assessment Response to Submission and Amendment Report Advice Letter (Aviation Projects, 2021) provided in Appendix J of the Amendment Report. ■ NSW Rural Fire Service was consulted during the preparation of the AIA and advised as follows: “We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations.” ■ Further consultation with NSW RFS, Civil Aviation Safety Authority (CASA), NPWS and Airservices Australia has also been conducted, and subsequent responses received to ensure appropriate mitigation methods are in place in the event of bushfire. The responses are as follows: ▪ Airservices Australia did not see the wind farm posing any increased risk or “have an impact on the safety, efficiency or regularity of existing or future air transport operations”; ▪ Following further consultation with CASA, confirmation of the acceptability of steady low intensity light instillations on nominated turbines to reduce visual severity. A draft lighting plan has bene prepared and submitted to CASA for review. They have also requested that Airservices Australia publish a NOTAM to advise all pilots of the imminent construction of tall structures; and ▪ NSW RFS believed that the bush fire risk management strategies as outlines in table 13.11 of the EIS were acceptable and shall be incorporated into any consent granted. Further they stated the requirement for a detailed site plan with GPS coordinates of all turbine locations, to be issued and stored at the NSW RFS Liverpool Range District Office. ■ Final turbine layout maps are also to be issued to NSW RFS ahead of construction for their internal response planning. It is also noted that in the unlikely event of a fire spreading from the wind farm to the surrounding area, the turbines would not limit aerial firefighting capabilities on associated properties. ■ A number of learnings for emergency management procedures and protocols in relation to wind farms and bushfires have been reported by AFAC (2018) and Clean Energy Council (2017) and will be implemented at the Hills of Gold Wind Farm. These include (with specific reference to aerial firefighting): ▪ the wind farm's turbines did not present a hazard to aerial firefighting and the turbines were clearly visible to the pilots involved in operations; ▪ to maximise air space for firefighting between the turbines, turbines should be locked in the 'Y' position; ▪ communication protocols need to be in place between wind farm operators and fire and land management agencies to direct turbine shut-down procedures in an emergency situation and initiate emergency response plans; and ▪ precautionary measures should be considered to allow for aerial identification of meteorological masts (measurement towers), guy wires and other infrastructure such as transmission lines that are not easily visible from air. ■ The Bushfire Emergency Management and Operations Plan will detail appropriate risk control measures that would need to be implemented to safely mitigate potential risks to the health and safety of the firefighters and first responders. In accordance with the Hills of Gold Wind Farm Aviation Impact Assessment (Aviation Projects, 2020), further consultation will be held with RFS and the Proponent to ensure that appropriate mitigation methods are in place, so that in the event of a bushfire in the area, pilots are aware of the turbine locations and can respond appropriately.
FKAG_3	Landscape and Visual	Concern that the natural amenity of the area will be negatively impacted due to the wind farm.	■ A Landscape and Visual Impact Assessment (LVIA) was prepared as part of the EIS (Appendix F of the EIS). Further, an LVIA Addendum (Appendix G of the Amendment Report) has been prepared in response to submissions and to assess Project amendments. ■ It is acknowledged that the placement of wind turbines in a rural landscape will alter the existing landscape and the impact of this will vary greatly depending on the viewers sensitivity to and acceptance of change. The visual impact is lessened as the distance of the vantage point increases. To this end, the topography surrounding the turbines significantly alters the visibility of the proposed development from many vantage points and amelioration methods incorporated into the design process in the conjunction with landscape and visual screening will have an effect on reducing visual impact at such sensitive viewpoints. Since the exhibition of the EIS, five (5) WTGs have been removed from the Project, reducing biodiversity and visual impacts.
FKAG_4	Socio Economic	Concern that the value of surrounding property will be negatively impacted.	■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property.

Reference No.	Theme	Comment	Response
			In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected.
FKAG_5	Biodiversity	Concern that the project will negatively impact the biodiversity of the area.	■ State significant developments are recognised to have an impact on the biodiversity in the project footprint. For this reason, it is important that a Biodiversity Development Assessment Report (BDAR) is carried out to assess the potential impacts of the project on biodiversity. ■ The project has conducted biodiversity surveys for over 2 years, with the findings presented in the BDAR, confirming that there are no serious and irreversible impacts from the Project. This is because: ▪ there is sufficient habitat availability in the wider landscape and study area to continue to support threatened species known to occur within the Development Footprint; ▪ the Project design has been refined so that the majority of vegetation impacts occur on areas that contain exotic grassland; ▪ the Project design avoids areas of breeding habitat for threatened microbats, by locating all infrastructure outside of the mapped cliffs and steep areas; ▪ impacts to high quality vegetation communities, containing higher quality fauna habitat have been minimised through the location of infrastructure; and ▪ residual impacts associated with the project will be offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. Once these offsets are applied, no net loss to biodiversity should be achieved. ■ The impacts to biodiversity as a result of the Project have been avoided and minimised as much as practicable through design phase refinements. Further mitigation measures are outlined and proposed to be adopted to minimise biodiversity impacts during the construction and operational phases and include the provisions of biodiversity offsets, management measures and monitoring and adaptive management measures. ■ Furthermore, pre-construction a Biodiversity Management Plan is to be introduced. The Biodiversity Management Plan is to include the following specific requirements to minimise and manage any risk of fauna injury mortality during construction: ▪ Strategies for fauna management during construction including any identification roles; ▪ Responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist; ▪ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations; and ▪ Protocols for fauna handling and management of adverse incidents. ■ A summary of the BDAR is provided in chapter 9 of the EIS and the full BDAR is provided in appendix D. An update to the BDAR addressing comments from specialist agencies and additional required surveys and analysis has been carried out and is available in Appendix D in the Amendment Report.
	Soil and Water	Concern that the large amount of construction required will negatively impact the hydrology of the area.	■ The Project has been designed to minimise impacts on both soils and water and to ensure ongoing access among other users both within the project site and surrounding area. In order to achieve this, consultation with a number of key agencies was conducted and responses to these agencies comments is provided in Chapter 5: Section 16.3.3 of the EIS gives details of the Hydrology Assessment carried out. The assessment identifies all the water courses within the area and examines the impact the project and its infrastructure will have on them. This is also summarised in Table 16-5 -Potential construction impacts on soils and water.The conclusion of the assessment, found in section 16.6 of the EIS notes that there is a low to moderate erosion hazard posed by the project. A standard suite of erosion and sediment controls, along with Progressive ESPC's and detailed SWMP's have all been included to provide suitable mitigation and management measures. Further, the EIS notes that the Project Area comprises of 0.00123% of the local three catchment areas. The existing condition of the creek crossings associated with the development footprint are also deemed to be in poor condition. The project will include enhancement of these crossings, including regular management measures, which will result in an improvement of downstream sediment impacts and water quality. ■ The amended Project, as detailed in the Amendment Report, results in a reduction of 213 ha of disturbance as a result of reduced WTGs, reduction in internal road network, and future design considerations.

Reference No.	Theme	Comment	Response
			■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides further analysis of the area of disturbed footprint within the Peel River sub catchments. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km^2 sub catchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km from Chaffey Dam. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls.
FKAG_6	Project justification	Concern that the energy demand required for Project construction will not be offset by energy produced by the Project.	■ The strategic justification for the Project is summarised in section 2 of the EIS. ■ Australia has one of the highest per capita emissions of Carbon Dioxide in the world contributing 5% of total emissions. This has led the energy sector in Australia to undergo a clean energy transition from a centralised system of large fossil fuel generation towards a decentralised system of widely dispersed renewable energy generators. This Project will aid in offsetting this carbon footprint by saving 608,000 tonnes of carbon emission per year.rehabil ■ A study done by Vestas (a turbine manufacturing company) stated that the 'carbon payback' time of a turbine ranges from 5-12 months. This was backed up by an independent US research team which stated that a turbine with a life span of 20 years will have a net benefit on energy and carbon within 5 to 8 months.

Table 6-7 – Upper Peel Landcare Group Submission

Reference No.	Theme	Comment	Response
UPLG_1	Biodiversity	Concerns about the land clearing needed for the Project and the impact this will have on the biodiversity of the area.	■ The Proponent has engaged experienced wind farm construction contractors and a transmission line designer to undertake a review of the layout to provide advice on reducing the development footprint including impact along the proposed transmission line. Biosis undertook an assessment with the Proponent to advise on areas generating the highest impact. This resulted in project layout amendments and associated revised biodiversity impacts reducing the overall development footprint by 213 ha. Further details can be found in the response to TRC_15 from the Submissions Report. Vegetation clearing protocols will be followed including staged habitat removal, fauna handling and unexpected threatened species finds procedures for species (including of wombats, Koala, and other fauna) and any specified seasonal limits on clearing activities. ■ A Biodiversity Management Plan is to include the following specific requirements to minimise and manage any risk of fauna injury mortality during construction: ▪ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist; ▪ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations; and ▪ Opportunities for the salvage and re-use of important habitat features, including tree-hollows and bush rock, are to be identified and detailed procedures for the implementation of these activities are to be adopted. ■ A Bird and Bat Adaptive Management Plan is to be developed and implemented for the monitoring of threatened or at risk species subject to adverse operational impacts. Operational turbine specific mitigation measures have been included in Section 8.9.1. ■ Any unavoidable impact will be offset in accordance with the Biodiversity Conservation Act and as explained in the Amendment Report
UPLG_2	Heritage	Concern about the proposed upgrade to avoid Devil's Elbow.	■ The EIS incorporated a Historic Heritage Impact Assessment and Statement of Heritage Impact (SoHI) (ERM, 2020) (Appendix N of the EIS). The SoHI confirmed that the Devil's Elbow proposed upgrades as detailed in the EIS would have a negligible impact on the setting of the LEP listed Black Snake Gold Mine, but would have the potential to impact archaeological features, such as potential mine shaft entries and tunnels. The assessment recommended a geophysical and / or geotechnical assessment be undertaken to determine if there are any subsurface voids beneath the proposed upgrade or other anomalies that may be indicators of archaeological features. ■ In line with this recommendation, the *Devil's Elbow Bypass Road – Geophysical Interpretative Report* (Coffey, 2021) (provided in Appendix O of the Amendment Report) used electrical resistivity testing in March 2021 to assess potential for subsurface voids relating to abandoned mine workings, and other possible anomalies that may indicate the presence of archaeological features. ■ The investigation identified three resistivity anomalies (referred to as Areas 1, 2 & 3). While it is possible that these areas are the result of natural geological processes unrelated to the Black Snake Gold Mine, it is considered they are likely to be associated with abandoned (historic) mine workings such as tunnels. Based on Coffey's extensive tunnel design experience it is expected that these potential tunnel areas would be very unlikely to be structurally impacted by road excavation so as to cause any subsidence or collapse provided that they have at least 5 m of sound rock cover and span less than 4 m and measures such as heavy blasting are avoided. ■ Based on the outcomes of the geophysical assessment (Coffey, 2021) Catcon and WGA (Wallbridge Gilbert Aztec) redesigned and realigned the road such that the potential void locations identified are limited to within areas of fill so as to avoid the risk of removing earth support. The realigned and redesigned bypass

Reference No.	Theme	Comment	Response
			road is identified in Figure 3-1c. A number of structural engineering solutions have been recommended by Coffey to ensure structural integrity of any subsurface voids in proximity to the works, and these will be confirmed during detailed design where necessary. ■ In addition, the SoHI was updated to include assessment of indirect impacts following a request from Tamworth Regional Council (ERM, 2021) The findings of the Updated SoHI (provided in Appendix Q to this Amendment Report) confirm that the road works will have no impacts on the heritage values of the former Black Snake Gold Mine. ■ Impacts associated with the exhibited project footprint in the EIS at Devil's Elbow comprised approximately 17 ha of native vegetation generally in high condition. Selection of a proposed route (from the larger potential area identified in the 17 ha) and substantial design revisions have reduced this impact to 2.5 ha of native vegetation removal, leading to direct and indirect benefits to previously impacted vegetation and habitats in this area. This includes avoidance of Box Gum Woodland Critically Endangered

Table 6-8 – Yass Landcare Guardians Inc Submission

Reference No.	Theme	Comment	Response
YLG_1	Landscape and Visual	Concerns about the visual impact of the Project	■ The Proponent has undertaken an independent Landscape and Visual Impact Assessment (LVIA), carried out by Moir Landscape Architecture in accordance with the SEARS's. A copy of the assessment is provided in Appendix F of the EIS. Further a LVIA Addendum has been completed in response to submissions and Project amendments (Appendix G of the Amendment Report). ■ It is acknowledged that the placement of wind turbines in a rural landscape will alter the existing landscape and the impact of this will vary greatly depending on the viewers sensitivity to and acceptance of change. The visual impact is lessened as the distance of the vantage point increases. To this end, the topography surrounding the turbines significantly alters the visibility of the proposed development from many vantage points and amelioration methods incorporated into the design process in the conjunction with landscape and visual screening will have an effect on reducing visual impact at such sensitive viewpoints. ■ Since the exhibition of the EIS, five (5) WTGs have been removed from the Project, reducing biodiversity and visual impacts.
YLG_2	Biodiversity	Concerns about the impact to flora and fauna surrounding the Project.	■ Vegetation clearing protocols will be followed including staged habitat removal, fauna handling and unexpected threatened species finds procedures for species (including of wombats, Koala, and other fauna) and any specified seasonal limits on clearing activities. ■ A Biodiversity Management Plan is to include the following specific requirements to minimise and manage any risk of fauna injury mortality during construction: ▪ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist; ▪ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations; and ▪ Opportunities for the salvage and re-use of important habitat features, including tree-hollows and bush rock, are to be identified and detailed procedures for the implementation of these activities are to be adopted. ■ A Bird and Bat Adaptive Management Plan is to be developed and implemented for the monitoring of threatened or at risk species subject to adverse operational impacts. Operational turbine specific mitigation measures have been included in Section 8.9.1. ■ Any unavoidable impact will be offset in accordance with the Biodiversity Conservation Act and as explained in the Amendment Report
YLG_3	Traffic and Transport	Concerns about the increased traffic during construction of the project	■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). ■ A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ The Traffic and Transport assessment initially evaluated several different transport routes to provide flexibility and ensure that the most suited route was selected. The Head of Peel Road route to site, where a proposed 20% of Project traffic was proposed, was eliminated through due process and consideration of feedback from the community around Nundle and on this route. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C.

Reference No.	Theme	Comment	Response
YLG_4	Biodiversity	Concerns about the land clearing needed for construction of this project.	The Proponent has engaged experienced wind farm construction contractors and a transmission line designer to undertake a review of the layout to provide advice on reducing the development footprint including impact along the proposed transmission line. Biosis undertook an assessment with the Proponent to advise on areas generating the highest impact. This resulted in project layout amendments and associated revised biodiversity impacts reducing the overall development footprint by 213 ha. Further details can be found in the response to TRC_15 from the Submissions Report. ■ Vegetation clearing protocols will be followed including staged habitat removal, fauna handling and unexpected threatened species finds procedures for species (including of wombats, Koala, and other fauna) and any specified seasonal limits on clearing activities. ■ Estimates of areas to be subject to rehabilitation works through seeding or planting with native species, includes a total of 271 hectares and includes: ▪ 10.60 hectares within the wind farm infrastructure development footprint; ▪ 89.02 hectares for internal access roads development footprint; ▪ 119.05 hectares for the transmission line development footprint; ▪ 23.80 hectares for the transmission line access tracks development footprint; and ▪ 28.10 hectares for the transport haul route development footprint. ■ These rehabilitation works will contribute towards minimising the impacts to native vegetation and fauna habitats within the development footprint. ■ During detailed design, opportunities to include trees and shrubs in the rehabilitation species mix will be considered where site constraints regarding safety and operation permit. Based on these current estimates for areas to be subject to rehabilitation, the loss of 206.70 hectares of native vegetation can be compensated by the 271 hectares of restoration as well as the Biodiversity Offset Strategy committed to be implemented and summarised in Appendix E.

Table 6-9 – Timor Community Submission

Reference No.	Theme	Comment	Response
TC_1	Biodiversity	Concern about the projects impacts to threatened and endangered species surrounding the footprint.	■ Potential impacts of the Project on threatened ecological communities and species have been considered in the revised BDAR (provided in Appendix D) and confirm that there remains the potential for significant impacts to two EPBC Act listed fauna species being the Koala and the Spotted-tailed Quoll. Significant impacts to all other EPBC Act listed entities have been avoided by the amended Project, demonstrating that the changes made to the Project have removed the potential for significant impacts to one TEC being the Box Gum Woodland and Large-eared Pied Bat which was identified in the original BDAR carried out before the Project was updated. ■ Measures to avoid and minimise impacts to critical Koala habitat have been implemented as part of the ongoing design refinements made to the amended Project. As a result, impacts to Koala habitat have been reduced from the 50.76 ha assessed in the EIS down to a total of 36.44 ha (an 28% reduction in impacts) in the revised BDAR. ■ While the impact to Koala has been assessed as significant against the EPBC assessment requirements, it should be noted that during flora and fauna surveys carried out between 2018 and 2020 and over 1014 infrared motion detected camera trap nights, two adult Koalas (and one joey) were spotted in the Project area and 7 Koalas have been recorded within 10 km of the project site. There exists extensive suitable high condition habitat in neighbouring properties and over 3,000 ha in neighbouring nature reserves suitable for Koala relocation if found prior to construction. The Project has further committed to best practise for minimising the unavoidable residual direct impacts noted above including the development of management plans and protocols to be implemented before and during clearing of potentially suitable habitat. The establishment of Biodiversity Stewardship Sites on neighbouring properties will also provide high quality habitat. There is expected to be no net loss of Koala habitat following implementation of Biodiversity Offset requirements. ■ A total of 40.67 hectares of Spotted-tail Quoll habitat is proposed to be removed as part of the amended project, which is likely to adversely impact Spotted-tailed Quoll habitat within the immediate locality. However, there is still approximately 84,000 ha of native vegetation in the species' known habitat range which is considered to be adequate to enable local populations to successfully persist. Measures to avoid and minimise impacts to important Spotted-tailed Quoll habitat have been implemented during the design refinements made to the amended Project. Impacts to high and moderate condition PCTs which constitute Spotted-tailed Quoll habitat have been reduced by a total of 54.58 ha (a 57 % reduction in impacts). ■ Potential impacts to Koalas and the Spotted-tailed Quoll will be minimised through the construction phase of the Project will be minimised through implementation of the Biodiversity Management Plan that will target management actions specifically towards Koalas and Spotted-tailed Quoll including items such as pre-clearance surveys and exclusion fencing.
TC_2	Soil and Water	Concerns about the projects impact on the natural water sources of the community of Timor	■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. ■ Section 5 of the Soil and Water Addendum Report provides an analysis of the area of disturbed footprint within the Peel River sub catchments, including reference to potential springs. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km^2 subcatchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km

Reference No.	Theme	Comment	Response
			from Chaffey Dam. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls. The Development Footprint is also located upgradient of a small number of first order streams at the very upper reaches of the Hunter River catchment to the south constituting a negligible proportion of the total river catchment. ■ Relevant agencies with an interest in water and water catchments including WaterNSW, DPIE Water / NRAR and Tamworth Regional Council have all undertaken assessments of the Project and provided their comments.
TC_3	Aviation	Concern about night aviation lights disrupting the amenity of the area	■ Section 2.1 of The Civil Aviation Safety Authority's (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: "CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking". For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. ■ CASA's Advisory Circular AC 139.E-05v1.0 '*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*' Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states "*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installation*". In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and ▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings. ■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape.
TC_4	Noise and Vibration	Concern about the noise and vibration impacts	■ Timor is located approximately 13 km outside of the 30 dB(A) predicted noise level contour. The noise level at Timor is predicted to be well below 20 dB(A) and is therefore easily compliant with the NSW requirements.
TC_5	Landscape and Visual	Concern about the significant visual impact to Timor	■ The proponent has undertaken an independent Landscape and Visual Impact Assessment (LVIA) carried out by Moir Landscape Architecture in accordance with the SEARS's. A copy of the assessment is provided in Appendix F of the EIS. Further, an LVIA Addendum (Appendix G of the Amendment Report) has been prepared in response to submissions and to assess Project amendments. Since the exhibition of the EIS, five (5) WTGs have been removed from the Project, reducing biodiversity and visual impacts. Photomontages, detailed in Appendix F of the EIS, were carried out at 27 indicative viewpoints, selected to best illustrate the potential appearance of the proposed windfarm for varying distances and locations. These included 10 from public viewpoint locations, selected based on feedback received from the community, as well as 17 from private residences. On the advice of Moir Landscape Architecture, the Proponent offered visual assessments from all private properties within 3,100 m of the proposed development, and most properties within 3,100 m - 4,550 m. ■ There was a public viewpoint photomontage taken from Timor/Crawney Road, which has been on display in the Murrurundi Library since December 2020.
TC_6	Soil and Water	Concern that the project will increase the threat of landslides and increase erosion.	■ Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum report provided in Appendix N of the Amendment Report. Further geotechnical assessments and site surveys will be undertaken as needed during the detailed design phase to inform the civil and structural engineering designs. ■ Additional consideration of soil and erosion potential and erosion and sediment control measures has been included in a Soil and Water Addendum Report, informed by geotechnical investigations.
TC_7	Hazards (Bush fire)	Concern the ability to undertake aerial firefighting will be hindered	■ Aerial firefighting was considered in Section 3.15 of the Aviation Impact Assessment (AIA) (Appendix H of the EIS). Further analysis has been provided in an Aviation Impact Assessment Response to Submission and Amendment Report Advice Letter (Aviation Projects, 2021) provided in Appendix J of the Amendment Report.

Reference No.	Theme	Comment	Response
			■ NSW Rural Fire Service was consulted during the preparation of the AIA and advised as follows: “We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations.” ■ Further consultation with NSW RFS, Civil Aviation Safety Authority (CASA), NPWS and Airservices Australia has also been conducted, and subsequent responses received to ensure appropriate mitigation methods are in place in the event of bushfire. The responses are as follows: ▪ Airservices Australia did not see the wind farm posing any increased risk or “have an impact on the safety, efficiency or regularity of existing or future air transport operations”; ▪ Following further consultation with CASA, confirmation of the acceptability of steady low intensity light instillations on nominated turbines to reduce visual severity. A draft lighting plan has been prepared and submitted to CASA, who has endorsed the plan. They have also requested that Airservices Australia publish a NOTAM to advise all pilots of the imminent construction of tall structures; and ▪ NSW RFS believed that the bush fire risk management strategies as outlines in table 13.11 of the EIS were acceptable and shall be incorporated into any consent granted. Further they stated the requirement for a detailed site plan with GPS coordinates of all turbine locations, to be issued and stored at the NSW RFS Liverpool Range District Office. ■ Final turbine layout maps are also to be issued to NSW RFS ahead of construction for their internal response planning. It is also noted that in the unlikely event of a fire spreading from the wind farm to the surrounding area, the turbines would not limit aerial firefighting capabilities on associated properties ■ A number of learnings for emergency management procedures and protocols in relation to wind farms and bushfires have been reported by AFAC (2018) and Clean Energy Council (2017) and will be implemented at the Hills of Gold Wind Farm. These include (with specific reference to aerial firefighting): ▪ the wind farm's turbines did not present a hazard to aerial firefighting and the turbines were clearly visible to the pilots involved in operations; ▪ to maximise air space for firefighting between the turbines, turbines should be locked in the 'Y' position; ▪ communication protocols need to be in place between wind farm operators and fire and land management agencies to direct turbine shut-down procedures in an emergency situation and initiate emergency response plans; and ▪ precautionary measures should be considered to allow for aerial identification of meteorological masts (measurement towers), guy wires and other infrastructure such as transmission lines that are not easily visible from air. ■ The Bushfire Emergency Management and Operations Plan will detail appropriate risk control measures that would need to be implemented to safely mitigate potential risks to the health and safety of the firefighters and first responders. In accordance with the Hills of Gold Wind Farm Aviation Impact Assessment (Aviation Projects, 2020), further consultation will be held with RFS and the Proponent to ensure that appropriate mitigation methods are in place, so that in the event of a bushfire in the area, pilots are aware of the turbine locations and can respond appropriately.
TC_8	Socio economic	Concern there will be a reduction in the land value of the area	■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected.
TC_9	Noise and Vibration	Concern that the noise monitoring done for the Timor area was inadequate	■ Timor is located approximately 13 km outside of the 30 dB(A) predicted noise level contour. The noise level at Timor is predicted to be well below 20 dB(A) and is therefore easily compliant with the NSW requirements.
TC_10	Community and Stakeholder Engagement	Concern that the Timor community was not adequately consulted with prior to lodgement of the EIS	■ Consultation with the Timor community has involved the following: ▪ Newsletters; ▪ Engagement through the CCC;

Reference No.	Theme	Comment	Response
			▪ Direct Contact and home visits during technical assessment photography; ▪ Photomontages from public viewpoints; ▪ Photomontages in the library; ▪ Photomontages for residents outside of the requirements of the guidelines; ▪ Direct email correspondence; ▪ Phone calls; ▪ A Community Information Hub set up in Nundle for 6 weeks; and ▪ Neighbour agreements were offered to residents living within 5km of a proposed turbine. ■ Community BBQ held on the 17th of April 2021, which included the attendance of 25 Timor community members and representatives from both ENGIE and Someva. The meeting minutes can be found in the Consultation Material Appendix C. ■ Additional Visual Assessments have been prepared for two dwellings in Crawney/Timor within 5km of the project following ongoing consultation with both Council and DPIE. ■ A winter edition of the Community Newsletter was issued on the 11th of August 2021 via the Hills of Gold Website and a letterbox drop was delivered on 18th August 2021. ■ A Business Survey for Nundle and Hanging Rock and Timor Businesses was issued on the 11th of August 2021.

RESPONSES TO COMMUNITY SUBMISSIONS

Table 6-10: Response to Community Submissions

Theme	Subtheme	Comment	Response
Landscape and Visual	Overall visual impact of the Project on the landscape	The WTGs will have a negative visual impact on the natural landscape/viewpoints	■ The Proponent undertook an independent Landscape and Visual Impact Assessment (LVIA) carried out by Moir Landscape Architecture in accordance with the SEARs. A copy of the assessment is provided in Appendix F of the EIS. Further, an LVIA Addendum (Appendix G of the Amendment Report) has been prepared in response to submissions and to assess Project amendments. The assessments were undertaken in accordance with the Wind Energy: Visual Assessment Bulletin (DPIE 2016). Since the exhibition of the EIS, five (5) WTGs have been removed from the Project, reducing biodiversity and visual impacts. ■ Photomontages, detailed in Appendix F of the EIS, were carried out at 27 indicative viewpoints, selected to best illustrate the potential appearance of the proposed windfarm for varying distances and locations. These included 10 from public viewpoint locations, selected based on feedback received from the community, as well as 17 from private residences. On the advice of Moir Landscape Architecture, the Proponent offered visual assessments from all private properties within 3,100 m of the proposed development, and most properties within 3,100 m - 4,550 m. The LVIA provides a summary of the key landscape features and valued viewpoints such as Crawney Pass National Park and Ben Hills Gap Nature Reserve as well as nearby towns and villages. ■ The LVIA details mitigation methods such as wind farm layout design, screen planting and design of night lighting. These are discussed in detail in Section 16 of the LVIA. ■ An evaluation of the Project against the visual performance objectives as detailed in the LVIA found that in the context of the scale of the Project, the impacts of the Project are considered acceptable. ■ It is acknowledged that the placement of wind turbines in a rural landscape will alter the existing surroundings and the impact of this will vary greatly depending on the viewer's sensitivity to and acceptance of change. The visual impact is lessened as the distance of the vantage point increases. To this end, the topography surrounding the turbines significantly alters the visibility of the proposed development from many vantage points and amelioration methods incorporated into the design process in the conjunction with landscape and visual screening will have an effect on reducing visual impact at such sensitive viewpoints.
	Visual impact on private properties	Visual impact to private properties	■ Dwelling Assessments, carried out as part of the LVIA included the assessment of 23 private dwellings identified within the visual catchment. Further details, as well as mitigation measures to help reduce visual impact are provided in Appendix F of the EIS. ■ The site was selected due to a relatively low number of existing residential dwellings within 5km for a project providing the scale of benefits. There are 56 dwellings within 5km. High impacted dwellings have been reassessed as moderate following removal of turbines and with vegetation screening if determined effective, or through neighbour agreements being reached. ■ There remains 1 existing dwelling and 1 proposed dwelling with high visual impacts and 9 existing dwellings that have been assessed as moderate impact with potential for effective visual screening. All existing dwellings meet shadow flicker guidelines.
	Aviation lighting	The visual impact that aviation and night lighting would have on the surrounding area	■ Section 2.1 of The Civil Aviation Safety Authority's (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: "CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking". For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. CASA's Advisory Circular AC 139.E-05v1.0 '*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*' Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states "*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installatio*n". In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and ▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings.

Theme	Subtheme	Comment	Response
			■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape.
	Photomontages	Photomontages were not carried out on all impacted properties. further information requested on the methodology of the LVIA	■ Photomontages, detailed in Appendix F of the EIS, were carried out at 27 indicative viewpoints, selected to best illustrate the potential appearance of the proposed windfarm for varying distances and locations. These included 10 from public viewpoint locations, selected based on feedback received from the community, as well as 17 from private residences. On the advice of Moir Landscape Architecture, the Proponent offered visual assessments from all private properties within 3,100 m of the proposed development, and most properties within 3,100 m - 4,550 m. Section 14 of the LVIA notes that where effort was made to undertake detailed assessment on the Project Area from each dwelling identified through the Preliminary Assessment Tools, the NSW Wind Energy Bulletin states: *"where relatively close clustering of houses belonging to different landowners or occupants occur, representative viewpoints may be selected and assessed in lieu of every single dwelling in the following types of areas:* ▪ *rural residential clusters;* ▪ *rural villages; and* ▪ *urban residential and commercial areas."* ■ A number of desktop studies using 3D and the most current available aerial imagery were also conducted where access was either not granted or not available. In addition, photomontages and in wireframes were produced for residents interested in understanding specific visual impact that were not included in the LVIA. The Proponent provided opportunity for those within the community to express interest in an individual visual assessment even if this was not required by the guidelines. ■ The study method employed for the dwelling assessments, as outlined in Table 13 of the LVIA, is in accordance with the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3), The Residential Visual Amenity Assessment (RVAA) and Moir's extensive professional experience in undertaking LVIA's for wind energy projects. ■ Further consideration of visual impacts, including Project Amendments are provided in a LVIA Addendum Report, provided in Appendix G of the Amendment report.
	Vegetative screening	Further information on the vegetative screening being proposed to help reduce visual impact in certain areas	Section 16 of the LVIA (Appendix F of the EIS) details the mitigation methods proposed to help reduce the projects visual impact. One of these mitigation methods is vegetative screening. Of the 43 dwellings assessed, a total of 11 were identified as having the potential to benefit from screen planting, with a further six dwellings benefitting from supplementary planting. Screen planting is recommended in circumstances where residences are subject to high levels of visual impact. As the viewing location of the Project would be generally fixed there is an opportunity to significantly reduce visual impact from such a proposal. Where road upgrades are expected to require the removal of vegetation close to or on private property, the relevant landowners will also be offered suitable landscape screening to offset any increased visual exposure. Further consideration of the effectiveness of screen planting has been incorporated into Section 4 of the Addendum to the LVIA, provided in Appendix G of the Amendment Report. The assessment included preparation of a wire frame image to illustrate the extent of potentially visible turbines (based on topography alone and not taking into account vegetation or buildings). The wireframe was then overlaid onto the panorama of an existing view to create a photomontage. Locations of indicative proposed trees were overlaid onto the wireframe image as indicative posts to determine the height required to adequately screen the Project. A photomontage was then prepared with the addition of vegetation at the minimum required height to screen views to turbines associated with the Project. Recommendations were made relating to tree stock size, planting and maintenance, and tree trunk prevention.
	Shadow Flicker	Concern over the impact of shadow flicker and how this will be mitigated	Section 11.3.8 of the EIS details the assessment process conducted to identify the potential effects of shadow flicker and blade glint. A total of nine dwellings were identified to experience potential shadow flicker based on a worst case scenario considering topography alone and not considering the screening impacts of vegetation or cloud cover which will reduce shadow flicker. Of these dwellings, only one (NAD_8) was identified as having the potential to exceed the threshold of 30 hours per year as set out by the Wind Energy Visual Assessment Bulletin. The presence of dense vegetation around NAD_8 however, was assessed as being more than likely to mitigate any potentially unacceptable limits of shadow flicker effects. Further analysis of the effects of shadow flicker are detailed in Appendix F of the EIS.
	Scenic quality of the ridgeline	The Project will reduce the scenic quality of the ridgeline	Chapter 15 of the LVIA considers the impact the Project will have on the local character of the area. The Project is to be located within a predominantly rural landscape, the broad character of which is dominated by primarily modified undulating hills. Generally, the Scenic Quality Classes of the Landscape Character Units (LCU) within the Study Area have been rated as moderate with some areas defined as moderate to high (refer to Section 5.6). Is it acknowledged that regardless of how visible the wind farm is, it will become a feature of an area that is largely unchanged for decades. however, section 5.2 of the LVIA (Appendix F of the EIS) notes that it is likely the character of areas which are valued for their high landscape quality and utilised for recreation and tourism will remain intact and be unaffected. Regionally, significant landscape features would remain dominant features of the landscape and it is unlikely the Project would degrade the scenic value of these landscape features.
	Consultation on turbine layout	A lack of consultation on any proposed turbine layouts	Extensive community engagement was conducted in order to seek feedback on the Project design. As part of the Preliminary Environment Assessment (PEA) and prior to the commencement of the EIS, a Stakeholder Engagement Strategy (Inclusive Engagement, 2018, Appendix C.1 of the EIS) was prepared to guide ongoing consultation during EIS preparation and following EIS lodgement. The overall feedback from the engagement strategy, and the key areas of concern were detailed in Table 7 of the EIS.

Theme	Subtheme	Comment	Response
			At all stages, stakeholders have been kept up to date as the Project layout has changed based on the iterative design process discussed in Chapter 5 of the EIS. Wherever possible, appropriate mitigation measures to help reduce the visual impact of the turbines has been adopted in accordance with The NSW Wind Energy; Visual Assessment Bulletin and the SEAR's. Of particular note was the preparation and sharing of photomontages of earlier layouts of the Project six months prior to the lodgement of the Development Application. These were printed in A1 and put on display at the Nundle Library as well as made available on the Project website. In addition, following further consultation with landowners, community bodies and Councils, the Project layout has undergone further review, the outcomes of which has resulted in the removal of five turbines (as defined in the Amendment Report) This will lead to a reduction in both biodiversity and visual impacts.
	National Wind Farm commissioners' recommendations	There was no mention of Wind Farm Commissioners turbine siting recommendations contained within the EIS	The Proponent engaged with the National Wind Farm Commissioner and staff in 2018 prior to lodgement of the Preliminary Environmental Assessment (PEA). Regular engagement, occurring since 2018 which has included presentations, a site visit, emails, and telephone conversations throughout the preparation of the EIS.
	Visual impact of new project roads	Concerns over the visual impact of new project roads and infrastructure on the existing landscape	Chapter 13 of the LVIA (Associated Infrastructure Assessment) in the EIS (Appendix F) assessed the visual impact associated with access roads, transmission lines (both internal and external) and ancillary infrastructure such as the substation, switching station and operations and maintenance facility. Due to the large scale and elevated siting of the Project wind farm, access roads, transmission lines and other ancillary structures have the potential to alter the existing visual landscape. Civil engineering concept designs have been completed for the internal access roads. The design has identified the most suitable locations for roads and hardstands to avoid earth works where practicable. The benefits this brings to the Project is that the roads are integrated into the existing contours where possible. The internal road network will be aligned on the route of existing farm of other access roads where possible to reduce potential vegetation loss and limit earth work requirements. Due to the existing agricultural land use of the Project Area, farm roads traversing the landscape form a significant part of the existing landscape character. The proposed access roads are likely to be viewed as part of the existing character of the landscape and therefore visual impact would be low. Generally, the above ground transmission lines traverse a large area of uninhabited land surrounded by undulating topography. Opportunities to view the transmission lines are limited due to distance, topography and vegetation. Ancillary structures including the proposed substation, BESS and site compound have the ability to be screened by topography, existing vegetation or proposed screening vegetation. Various mitigation and management measures are detailed in the LVIA (Appendix F of the EIS) and the LVIA Addendum (Appendix G of the Amendment Report). Photomontages have been prepared for the Devil's Elbow, provided in Appendix G of the Amendment Report. 3D visualisations have also been completed for the consent design, provided in Appendix P of the Amendment Report.
	Substation and Battery glow	Potential impacts of battery glow originating from the substation	A detailed night lighting assessment was completed as part of the LVIA (Appendix F of the EIS). The assessment includes a number of recommendations to reduce potential visual impacts from ancillary infrastructure lighting requirements. Batteries will be located within containers, minimising impact from battery glow. Night lighting is further considered in the LVIA Addendum (Appendix G of the Amendment Report).
Biodiversity	Impacts to Flora and Fauna	Concerns on the general impact to flora and fauna as a result of the Project such as, habitat loss and putting wildlife under stress	Assessment of biodiversity impacts is a key consideration for the Project. The Project has conducted biodiversity surveys for over two years, with the findings presented in section 9 of the EIS, Section 6.1 of the Amendment Report and in the Biodiversity Development Assessment Report (BDAR) (an updated BDAR is provided in Appendix D of the Amendment Report). The assessment has been prepared in accordance with the requirements of the Biodiversity Conservation Act 2016 and the Environmental Protection and Biodiversity Conservation Act 1999. The impacts to biodiversity as a result of the Project have been avoided and minimised as much as practicable through design phase refinements, as discussed Section 5.5 of the EIS. Further targeted layout changes have also occurred since the publication of the EIS to avoid habitat associated with species with the greatest risk of potential impacts. These changes are addressed in Chapter 3 and Appendix A of the Amendment Report. The assessment outcomes of the BDAR confirm that there are no serious and irreversible biodiversity impacts from the Project as: ■ there is sufficient habitat availability in the wider landscape and study area to continue to support threatened species known to occur within the Development Footprint; ■ the Project design has been refined so that the majority of vegetation impacts occur on areas that contain exotic grassland; ■ the Project design avoids areas of breeding habitat for threatened microbats, by locating all infrastructure outside of the mapped cliffs and steep areas; and ■ impacts to high quality vegetation communities, containing higher quality fauna habitat have been minimised through the location of infrastructure. A range of mitigation measures are outlined and proposed to be adopted to minimise biodiversity impacts during the construction and operational phases and include the provisions of biodiversity offsets, management measures and monitoring and adaptive management measures. Residual impacts associated with the Project will be offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. Once these offsets are applied, no net loss to biodiversity should be achieved. A Pre-construction Biodiversity Management Plan is to be prepared and will include specific requirements to minimise and manage any risk of fauna injury mortality during construction. These have also been updated following the publication of the EIS and can be found in Table 72 "Proposed Mitigation Measures" in Section 8.9 of the Updated BDAR. They include: ■ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist. ■ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations.

Theme	Subtheme	Comment	Response
			■ Pre-clearing protocols, including pre-clearing inspections, establishment of exclusion zones and on-ground identification of specific habitat features to be retained and/ or relocated. For example, occupation surveys for wombat burrows, application of exclusion measures / deterrents prior to vegetation clearing / earthworks, works undertaken in presence of spotter / catcher. ■ Protocols for fauna handling and management of adverse incidents. ■ Fauna monitoring and management protocol including identification and reporting of fauna mortalities to the relevant Biodiversity Conservation Division office.
	Impacts to bats	Concerns over the impact to the bat communities, including: ■ Loss of natural habitat; ■ The risk of barotrauma to bats; and ■ The risk of bats to collide with turbine blades, i.e., bat strike	■ The Project is considered unlikely to result in any serious and irreversible impacts to threatened bats due to potential indirect impacts associated with these indirect impacts. ■ Impacts to bat community and bat habitat has been considered in the BDAR (refer updated BDAR in Appendix D of the Amendment Report). ■ There are no known maternity roost sites for threatened bats within the Development Footprint, however there is a known winter roost for Large Bent-winged Bat at Timor Caves, approximately 5 km from the development footprint. The Development Footprint is also located within 150-280 km to the south and east of four known maternity roosts for Large-eared Pied Bat, which is known to disperse around 200 km from these maternity roosts. As no maternity roosts will be impacted, the project is not considered to result in an impact to the lifecycle or population dynamics of threatened microbat species. ■ The spacing of wind turbines will also allow for substantial locations for migrating and foraging bats to pass through the landscape, with spacing ranging from 300 m to over 500 m between turbines. The layout also retains areas of preferred foraging habitat in steeper areas of terrain, with more densely vegetation gullies. The layout of the turbines are generally on areas of more elevated terrain, providing increased clearance from the areas of foraging habitat above the tree canopy. Bat activity within the site is generally concentrated around areas of vegetation. Maintaining a minimum safe distance of 30 m from the turbine blade tip to the adjacent tree canopy to minimise any risk of bat strike. ■ Further assessment of risks to bat population was requested by BCS. Subsequently consultation was carried out with the BCD of DPIE and NPWS, resulting in additional targeted field surveys, desktop assessment and detailed analysis, completed as part of updating and amending the Collision Risk for Bats and Birds. Refer to response to TRC_13 and TRC_14 found in the Submissions Report, and Section 8.8 of the updated BDAR for further information.
	Tree and vegetation loss	Concern over loss of vegetation in the development footprint leading to habitat loss and a loss of biodiversity	■ The Project design has been refined so that the majority of vegetation impacts occur on areas that contain exotic grassland where possible. Additional surveys to collect BAM plot data have also been carried out following the publication of the EIS. This included collection of plot data within the sections of 'Devil's Elbow' proposed for re-alignment, and along Morrisons Gap Road. Subsequently, targeted project redesign was carried out with support from Project ecological consultants Biosis and AECOM. The resulting changes to the Project to reduce loss of trees and vegetation are addressed in the Project Amendment Report Chapter 3. ■ The following measures are proposed to be implemented post-construction to minimise impacts to flora and fauna within the transmission line easement: ▪ Promote the growth of vegetation under the transmission line to the maximum allowable height to maintain habitat connectivity for fauna; ▪ Understorey vegetation in easements should be managed to maintain composition and quality and to prevent weed invasion; and ▪ Install glider poles for glider species in areas where the width of the transmission line easement exceeds minimum requirements for species movement. ■ The following opportunities are to be fully explored as a part of the detailed design: ▪ Opportunities to further minimise the disturbance footprint and clearing within important movement corridors for fauna; ▪ Opportunities for post-works restoration of habitat connectivity within important movement corridors for fauna; ▪ Restore and rehabilitate all areas subject to temporary clearing within the development footprint; and ▪ Priority will be given to movement corridors for fauna, significant habitats and threatened ecological communities. ■ Information on the estimates of areas subject to rehabilitation works through seeding or planting with native species are included in the updated BDAR, attached at Appendix D of the Project Amendment Report. These rehabilitation works will contribute towards minimising the impacts to native vegetation and fauna habitats within the development footprint. ■ During detailed design, opportunities to include trees and shrubs in the rehabilitation species mix will be considered where site constraints regarding safety and operation permit. Based on these current estimates for areas to be subject to rehabilitation, the loss of 206.70 hectares of native vegetation can be compensated by the 271 hectares of restoration as well as the biodiversity Offset Strategy committed to be implemented and summarised in Appendix E of the Amendment Report..

Theme	Subtheme	Comment	Response
	Impacts on eagles	General impact to the local eagle population	■ 41 days of surveys across two years was completed by ARUP and included bird utilisation surveys such as transects, nocturnal spotlighting, call playback and broadcast, targeted species (owls) and habitat identification (hollows and stick nest surveys). ■ Surrounding areas were surveys including Ben Halls Gap National park to identify species in the area. ■ Impact assessment considered worst case turbine parameters for collision risk. ■ The impact to the local population of wedge-tailed eagles should not be dramatically impacted with the development of the Project. The main impact to eagles is the risk of collision with a turbine and this has been assessed returning a likely range of 1-6 strikes per year (as detailed in Section 4.1 of the BDAR). The BDAR concludes that the impact to eagles as a result of the Project is likely to be insignificant on the local population of eagles. ■ The configuration of Hills of Gold turbines is such that a bird is likely to encounter multiple turbines only in the rare event that it flies directly along the row of turbines reducing collision risk. ■ Changes made to the turbine layout to improve bird connectivity across and around the Project are detailed in chapter 6.1 of the Amendment Report.
	Survey methodology	The BDAR is inaccurate as it was prepared during a season of intense drought and bushfire.	■ 380 Person Hours of Surveys were undertaken over winter, sprint, summer and autumn between 2018 and 2020. Surveys were carried out during optimal seasonable conditions and weather conditions. 0.8% of native vegetation in the study area estimated to be impacted on a worst-case development footprint. ■ The monthly observations of weather data during the fauna survey period show the drought conditions from November and December 2019, with substantially lower than average total monthly rainfall recorded in these months. ■ These conditions were alleviated from January 2020, with an opposite trend of substantially higher falls than monthly means experience from January 2020 – May 2020, covering a large portion of the field survey campaign. ■ Note, temperature measurements on the Project development footprint are likely to be several degrees lower due to higher elevation, however the Murrurundi BOM station presented is the closest station with temperature data. ■ Also linked to the weather conditions during the field survey was the severe bushfire conditions that were experienced across south-eastern Australia in the 2019/20 summer. During the field survey campaign, the area experienced bushfires within the transmission line and access track footprints. Habitat mapping has taken into consideration these fire events, with the vegetation and condition assessments assuming pre-fire condition for the purpose of PCT mapping, condition assessment and likelihood of occurrence for threatened fauna. ■ All adverse conditions impacting the initial studies done for the BDAR were considered when assessing the project footprint and adjustments for this were included in the assessment. ■ Further work has also been done in 2021 since the EIS to further add to the already extensive knowledge of the existing environment and the potential impacts of the Project. The response to EES_3 found in the Submissions Report provides details of the updated surveys and where additional information has been provided for survey methodology in the Updated BDAR.
	Impacts on surrounding Nature Reserves	Concern of impact to Crawney Pass National Park and Ben Halls Gap Nature Reserve	■ The 1,500 m landscape buffer was assessed in the context of connectivity around the Project Area. ■ Following consultation with the DPIE Biodiversity, Conservation and Science Directorate and National Parks and Wildlife Service on 12 June 2020 based on the draft BDAR, it was agreed that a number of rapid Plant Community Type (PCT) verification and habitat assessment points would be carried out within the Ben Halls Gap Nature Reserve, where it is adjacent to the Development Footprint to improve on previous survey efforts. ■ The field survey methodology for target fauna species that could be subject to indirect impacts as a result of the wind farm operation, specifically birds and bats, is sufficient to detect any animals that may move through the site and utilise BHGNR. ■ The Proponent has removed 3 turbines assessed as having the potential for high impact to native bat species. This includes the removal of WP 31, adjacent to Ben Halls Gap National Park, and WP 23 and WP27 all benefiting connectivity impacts to the Ben Halls Gap National Park. ■ The closest turbine to the Crawney National Park, WP 1 has also been removed due to impacts associated with biodiversity, also improving potential connectivity impacts across high condition native vegetation. ■ The Proponent has updated its commitments in Table 72 “Proposed Mitigation Measures” in Section 8.9 of the Updated BDAR for inclusion in the Biodiversity Management Plan. The following summarises the measures for risk management to residual impacts to neighbouring National Parks and impacts to habitat connectivity:

Theme	Subtheme	Comment	Response
			■ Implementing vegetated buffers between the access tracks and wind turbine pads and the National Park estate is to be considered during detailed design. The selection of areas of buffer plantings and species to be planted will be carried out in consultation with the Area Manager, Barrington Tops National Parks and Wildlife Service. ■ Restore and rehabilitate all areas within the temporary development footprint. Priority should be given to movement corridors for fauna, significant habitats and threatened ecological communities. ■ Explore opportunities to further minimise the disturbance footprint and clearing within important movement corridors for fauna in detailed design. ■ Explore opportunities for post-works restoration of habitat connectivity within important movement corridors for fauna. ■ Areas subject to temporary disturbance will be rehabilitated using a native species planting schedule as much as practical considering any operational and safety constraints. ■ The total area exposed and cleared at any one time will be minimised and planned to allow for fauna movement during construction and periods of temporary disturbance The Erosion and Sediment Control Plan will include specific actions to identify sensitive receptors associated with the National Park estate, including waterways and the adjacent Sphagnum Moss TEC.
	Impact on birdlife	Impact to birdlife in the area and the bird strike that may occur	■ During the bird utilisation surveys, 51 bird species were recorded with 18 of these species recorded flying at the rotor swept height. During the bird utilisation surveys, 224 bird movements (flights) were recorded comprising 33 different bird species. Of the 224 flights recorded, 190 (or 85%) were recorded at between 5 and 20 metres vertical distance (height), indicating that the majority of bird activity within the Development Footprint will not be at risk of blade strike. ■ Average flight height assessment showed that only four species have an average recorded flight height that is within the rotor swept height, including Australian Raven, Brown Goshawk, Wedge-tailed Eagle and White-breasted Woodswallow. This indicates that for most flights, there are only a small number of native birds that are considered at risk of collision with turbines. ■ All of these birds considered most at risk are listed as least concern under the NSW BC Act and are not listed as listed threatened species or migratory species under the EPBC Act. The SEARs and the BAM require a more detailed assessment of collision risk for resident raptors. The field surveys identified two species of raptor most at risk of collision, Nankeen Kestrel and Wedge-tailed Eagle. The analysis and modelling of bird collision were conducted and the returned results were as follows; Nankeen Kestrels have likely range of 0.07 and 0.36 collisions per year and Wedge-tailed Eagle have a likely range of 0.98 to 5.86 collisions per year. ■ Furthermore, a Bird and Bat Management Plan (BBMP) will be prepared in consultation with BCS and to the satisfaction of the Planning Secretary. Further details are provided in the response to TRC_13 and TRC_14 found in the Submissions Report. The BBMP will include: ▪ A description of measures to be implemented on the wind farm site for minimising bird and bat strike; ▪ Suitable measures must be identified for the minimisation and management bird and bat strike risks during operation; ▪ Trigger levels for further investigation and mitigation measures to be implemented; and ▪ An adaptive management plan to be implemented if the monitoring determines threatened or at-risk species are subject to adverse impacts. ■ A detailed monitoring and reporting plan to assess the potential impacts and effectiveness of design and operational measures to mitigate bird and bat strike ■ Section 8.3.2 Collision Risk (birds) of the Updated BDAR (Appendix D of the Amendment Report) has been updated to include a qualitative risk assessment of each bird species at risk. This includes a project specific risk assessment for the potential for turbine strike impacts for each bird species in Table 59. ■ Further details on the proposed mitigation measures for prescribed impacts posed by blade strike are given in response to EES_9b found in the Submissions Report. ■ Bird activity within the site is generally concentrated around areas of vegetation. Therefore, a minimum safe distance of 30 m from the turbine blade tip to the adjacent tree canopy has been utilised to minimise any risk of bird or bat strike.
	Impact to threatened and endangered species	Negative impacts to threatened and endangered species leading to loss of habitat and species decline: ■ Koalas; ■ Greater Gliders; ■ Booroolong Frog; and	■ Potential impacts of the Project on threatened ecological communities and species have been considered in the revised BDAR (provided in Appendix D) and confirm that there remains the potential for significant impacts to two EPBC Act listed fauna species being the Koala and the Spotted-tailed Quoll. Significant impacts to all other EPBC Act listed entities have been avoided by the amended Project, demonstrating that the changes made to the Project have removed the potential for significant impacts to one TEC being the Box Gum Woodland and Large-eared Pied Bat which was identified in the original BDAR carried out before the Project was updated.

Theme	Subtheme	Comment	Response
		■ *Spot*ted-tailed Quoll	■ Measures to avoid and minimise impacts to critical Koala habitat have been implemented as part of the ongoing design refinements made to the amended Project. As a result, impacts to Koala habitat have been reduced from the 50.76 ha assessed in the EIS down to a total of 36.44 ha (an 28% reduction in impacts) in the revised BDAR. ■ While the impact to Koala has been assessed as significant against the EPBC assessment requirements, it should be noted that during flora and fauna surveys carried out between 2018 and 2020 and over 1014 infrared motion detected camera trap nights, two Koalas were spotted in the Project area and 7 Koalas have been recorded within 10km of the project site. There exists extensive suitable high condition habitat in neighbouring properties and over 3,000 ha in neighbouring nature reserves suitable for Koala relocation if found prior to construction. The Project has further committed to best practise for minimising the unavoidable residual direct impacts noted above including the development of management plans and protocols to be implemented before and during clearing of potentially suitable habitat. The establishment of Biodiversity Stewardship Sites on neighbouring properties will also provide high quality habitat. There is expected to be no net loss of Koala habitat following implementation of Biodiversity Offset requirements. ■ A total of 40.67 hectares of Spotted-tail Quoll habitat is proposed to be removed as part of the amended project, which is likely to adversely impact Spotted-tailed Quoll habitat within the immediate locality. However, there is still approximately 84,000 ha of native vegetation in the species' known habitat range which is considered to be adequate to enable local populations to successfully persist. Measures to avoid and minimise impacts to important Spotted-tailed Quoll habitat have been implemented during the design refinements made to the amended Project. Impacts to high and moderate condition PCTs which constitute Spotted-tailed Quoll habitat have been reduced by a total of 54.58 ha (a 57 % reduction in impacts). ■ Potential impacts to Koalas and the Spotted-tailed Quoll will be minimised through the construction phase of the Project will be minimised through implementation of the Biodiversity Management Plan that will target management actions specifically towards Koalas and Spotted-tailed Quoll including items such as pre-clearance surveys and exclusion fencing. ■ The local population of Greater Glider addressed in this assessment is not considered to be an important population of the species. The BDAR recognises that the project will have little to no impact to the greater population of Greater Gliders in Australia. ■ The amended Project only impacts 0.64 ha of potential Booroolong frog habitat and these are only the access tracks and transmission lines (reduced from 0.958 ha form the EIS layout as a result of Project design changes).
	Biodiversity Offset plan	Concerns over biodiversity stewardship program, in particular that it will fail to offset the impact and is not enough for the losses proposed	■ A Biodiversity Offset Strategy report for the project is attached in Appendix E of the Amendment Report and has been completed since the project went on public exhibition. ■ The report summarises three offsetting options available to meet the requirements of the project. They include payment to the Biodiversity Conservation Fund, purchasing credits from the open market or establishing a Biodiversity Stewardship Site. ■ For residual impacts that cannot be avoided or fully mitigated, offsets will be required to ensure no net loss of biodiversity. ■ During the detailed design phase of the project refinements to the BAM Calculator will be required to assess impacts and offsets and confirm final biodiversity credit requirements. ■ Biodiversity stewardship sites are a great opportunity for the project to support and protect similar biodiversity values that exist within the project development area and have become a priority for the proposed wind farm. ■ The Project has been investigating the potential to create Stewardship Sites on land surrounding the Project to provide a wildlife corridor between Ben Halls Gap Nature Reserve and Crawney Pass / Wallabadah Nature Reserve. There have been eight (8) neighbouring landowners identified who could potentially host a biodiversity stewardship site to deliver the wildlife corridor. The Project is seeking to enter into agreements with these neighbouring landowners to secure the potential wildlife corridor. Subject to these agreements being successfully concluded and Biodiversity Stewardship Sites established in accordance with legislative requirements, the Proponent commits to investigating a wildlife corridor between Ben Halls Gap Nature Reserve and Crawney Pass / Wallabadah Nature Reserve as part of the biodiversity offsets required for the Project. This wildlife corridor could provide enhanced connectivity between three NSW State Nature Reserves or National Parks including Ben Halls Gap Nature Reserve, Crawney National Park and Wallabadah Nature Reserve. ■ A vegetation condition was assessed across all areas investigated to determine the required management actions to facilitate an effective stewardship site. ■ A habitat-based assessment was completed to determine the presence of suitable habitat for species credits.
	Exotic weeds	The Project poses an ecological threat with the introduction of exotic weeds	■ Management measures would be prepared and implemented to avoid and minimise the environmental risks associated with weeds, pests and pathogens. As a minimum, these would include:

Theme	Subtheme	Comment	Response
			▪ Completion of a site weed assessment and development of a Weed Management Plan. The Weed Management Plan would sit as a sub-plan to the Environmental Management Strategy; ▪ Implementation of appropriate weed control and weed disposal in accordance with Biosecurity protocols; ▪ Any soil or other materials imported to the site for use in restoration or rehabilitation would be certified free from weeds and pathogens or obtained from sources that demonstrate best practice management to minimise weed and pathogen risks; ▪ Disposal of any weed material at an appropriately licensed facility; and ▪ Implementation of appropriate hygiene protocols where there are potential or known pathogen risks.
	Micro-Climate	Will the micro-climate be affected by the Project	■ The topic of microclimate impacts of wind farms is still being researched and studied as the number of wind farms increase globally. ■ A study published in April of 2016 focused on Black Law wind farm in Scotland, which has been operational since 2005. The research study assessed the impact to the ground-level climate by the operation of the wind farm. Temperature and humidity sensors were installed across the 18.6 square kilometres of site, and data was collected for 6 months in 5-minute intervals from the surface and 30-minute intervals from the soil. There was also a period when the wind farm was switched off for maintenance, which allowed for a direct comparison to be made. ■ The conclusion of the study is that wind farms have a small impact on the microclimate with a finding that even in the most extreme temperatures the air temperature increased by 1/5th of a degree Celsius within the direct area of the wind turbine. ■ Professor Stephen Mobbs one of the authors of the study mentioned that naturally there will be a temperature difference between the hub height and the ground level of a turbine. The warmer air at the hub height is brought down to the ground level as well as cold air moving from the ground higher up. This is the reasoning he outlines in the BBC article for the small warming recorded in the study. ■ To conclude, the study also noted the microclimate changes decrease with distance away from a turbine and are contained to the perimeter of the wind farm. ■ There was also an understanding that although the surface temperature was warmer, no heat was being added, it was just being mixed up by the rotating blade. (Armstrong et al, 2016)
Traffic and Transport	Road Designation	The inaccurate designation of Oakenville Street as a rural road.	■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). ■ A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C
	Increase in traffic	Concerns over increased traffic, including oversized over mass through parts of Nundle during construction: ■ Transport of heavy equipment during school bus times; ■ Incorrect Peak Hour time assumed between 7am-8am; ■ Alternate route traffic encroachment of private land on Gill, Innes, Head of the Peel, Crawney Road (Nundle side); ■ Traffic volumes during morning and evening peak; and	■ Following discussions with landowners along this route and concerns for traffic impacts, the Project has committed to a preferred route along Barry Road and Morrisons Gap Road. This is a significant mitigation measure, vastly reducing the number of residents' traffic will pass and private landowners required to support road upgrades. There will be no movement of OSOM vehicles and no construction traffic forecast on Head of the Peel Road. There will be no movement of oversized over mass vehicles and significantly reduced construction related traffic on Crawney Road, Jenkins St, Gill St and Innes St. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report (Appendix H of the Amendment Report.) provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. Further information on updated traffic numbers, traffic analysis and route refinements can be found in the responses to TRC_1 and TRC_2 of the Submissions Report. ■ The decision to use the Devil's Elbow as the primary transport route has a positive safety influence for pedestrians in Nundle. Prior to this being the exclusive access route to site, it was proposed that 20% of vehicles accessing the site would use the Head of the Peel Road to access the south of the site. This meant vehicles using Herron Street North, Innes Street, Jenkins Street, and Gill Street. With the removal of these as transport routes, there will be no turning OSOM vehicles in Nundle and less construction traffic. Pedestrian safety will be ensured as all vehicles must adhere to speed limits, with a project vehicle speed limit being implemented along Morrisons Gap Road.

Theme	Subtheme	Comment	Response
		■ Traffic congestion on proposed transport routes through residential streets in Nundle	■ Additionally, the Project is committing to carry out a number of road and asset upgrades where necessary and in mutual agreement with Councils. Currently the proposed upgrades to the local road networks along Lindsays Gap, Morrisons Gap and Barry roads include but are not limited to: ▪ Laybys to allow traffic to pass along Barry Road; ▪ Tarring of Morrisons Gap Road following construction and improvements to the safety of its use, including speed limits, improvement visibility in some corners and increased reflective lights; ▪ Upgrades to bridges along Lindsays Gap Road to increase width and load bearing capacity; and ▪ Construction of a pedestrian crossing in Nundle subject to Council approval. ■ Further commitments to ensure carpooling protocols are in place as a condition of the traffic management plan have also been introduced to help reduce traffic volumes through Nundle and Hanging Rock.
	Consultation with Forestry	Lack of perceived consultation with Forestry Corporation and the management of the cumulative impact of heavy vehicles such logging trucks and project traffic will have on school bus routes.	■ In order to ensure the safety and continued operation of the school bus services, the Project has committed to ensuring transportation of over oversize and over mass vehicles will occur outside the times in which the school buses are in operation. This is a commitment, as well as updated information regarding school bus routes and times will be prepared in the Traffic Management Plan. ■ Assessment of the cumulative impact of forestry trucking has been considered in Chapter 12.3.3 of the EIS, Existing Traffic Volumes. Specific observations during site visits indicate that most heavy vehicles travelling through Nundle are associated with loaded NSW Forestry trucks travelling westbound along Nundle Road and Lindsays Gap Road and returning empty eastbound. In the morning peak and evening peak volumes are in the order of six laden trucks and six returning trucks per hour. ■ Consultation with Forestry Corporation has been ongoing throughout the preparation of the EIS and all commitments and considerations included in the Traffic Management Plan will be subject to further consultation and input from therm. It should be noted that Forestry Corporation has continued to engage with the proponent and providing a submission of “Support” in the public exhibition of the project.
	Transport route	The viability of Morrisons Gap road and Shearers road as the main route for project traffic and the implications this will have to residents along them. Specific concerns related to: ■ Road Safety ■ Dust generation ■ Tree and vegetation removal	■ An Addendum Traffic and Transport Assessment described above has been undertaken as part of the Amendment Report. It confirms that the Barry Road and Morrisons Gap Road previously referred to “preferred route” as the route for all OSOM traffic and construction traffic. The preliminary assessment had considered impacts already associated with this potential option. ■ Potential safety impacts from construction traffic and oversized construction machinery have been assessed in the Hills of Gold Wind Farm EIS Appendix G – Traffic and Transport Assessment, sections 4.1, 4.2, and 4.3. The Traffic and Transport assessment also commits to having a detailed Traffic Management Plan developed before approval that will address these issues in more detail to outline the exact safety procedures and mitigation methods recommended once final design of the upgrades is completed. Part of this will be a community consultation plan involving times of oversized and over mass vehicles. Increased safety signage will be implemented, and a voluntary safe speed limit will be introduced. ■ The Proponent has made a commitment to seal Morrisons Gap Road following the completion of construction and deploy dust suppression measures such as polymers to prevent dust generation from traffic traveling to or from the Project Area during construction. A rumble grid has been proposed to shake dust off vehicles. A rumble grid may also be implemented with Forestry subject to further consultation. Onsite dust suppression using water trucks will be used, and vehicles may also be washed down on exit of site if required. ■ Community members, particularly those along Morrisons Gap Road and Tamworth Regional Council sought further details on upgrades proposed. The Proponent has undertaken an updated swept path analysis in response to community interest along Morrisons Gap Road. This is now attached in the amended Route Assessment, provided in Appendix I of the Amendment Report (RJA, 2021). Further consultation protocols and procedures between local residents and Project traffic travelling to and from site will be considered in the Traffic and Transport Management Plan. Updated commitments to road safety include offering vehicle escorts to all permanent residents during significant construction activities such as concrete pours along Morrisons Gap and Barry roads, the preparation of a detailed Emergency Response Plan in consultation with the local emergency services, call up protocols for all heavy vehicles entering Morrisons Gap Road and project vehicle speed limits. ■ Surveys of the Morrisons Gap Road corridor has been carried out by Land Surveys clarifying the exact road corridor and existing as built road and shoulders. Turnbull Engineering has undertaken design of required road upgrades along Morrisons Gap Road to determine whether any private land encroachment is required. The assessments conclude that all required upgrades will remain inside the existing road corridor (refer Appendix P of the Amendment Report).
	Road upgrade disruptions	Disruption created during road upgrades made for the project.	■ Consultation with authorities responsible for issuing secondary approvals to allow road upgrades to occur in their jurisdiction has been carried out. Specifically, this has occurred with Transport for NSW, Tamworth Regional Council, Muswellbrook Shire Council, the Port of Newcastle and other landowners on the transport route.

Theme	Subtheme	Comment	Response
			■ Key outcomes include the discussion of final design and construction timeframes requiring consultation and secondary approval through Works Authorization Deeds or S138 approvals. Safety and ongoing amenity of these roads will be assessed to ensure upgrades occur with minimal disruption and without greater safety risk to road users or construction workers.
	Increase in traffic noise	Concern there will be an increase in noise along transport route in Nundle and Hanging Rock	■ Following amendments to the proposed traffic route which now sees all traffic accessing the site along both Barrys Road and Morrisons Gap Road, Sonus carried out further assessments on the noise implications to residents along the transport route. The assessment has used a worst case scenario by taking the distance of the closest dwelling to a road (25 m for a highway, and 10 m within the town of Nundle and Hanging Rock). Sonus's findings can be found at Appendix F of the Amendment report. ■ Sonus recommended mitigation measures to reduce the temporary traffic noise impacts. These include: ▪ Avoiding excessive acceleration and braking; ▪ Communicate with the affected community; ▪ Establish and maintain a route into site so that heavy vehicles do not enter noise sensitive areas; ▪ Inform drivers of the route and sensitive locations prior to accessing the site so they can minimise noise; ▪ Scheduling of construction traffic to evenly disperse it as much as possible; and ▪ Restrict construction traffic to day-time operating hours. ■ Prior to construction, a Construction Noise Management Plan will be created to provide further detail surrounding the mitigation methods and plans.
	Road maintenance	Will the roads be repaired following the completion of the construction phase	■ Pre and post dilapidation reports covering the pavement, drainage, and bridge structures will be undertaken in consultation with Transport for NSW and local Councils for the proposed transport routes before and after construction. Regular inspections and consultation with local Councils would be developed. Any damage resulting from construction traffic, except normal wear and tear, will be repaired. ■ In addition performance bonds will be posted consistent with requirements of Councils and Transport for NSW. ■ Section 4.5 of Appendix G of the EIS covers Dilapidation Surveys and the commitments surrounding transport dilapidation impacts.
	Road Safety	Safety is a concern for existing users of Lindsays Gap Road, roads through Nundle and roads in H*anging Rock*. ■ Emergency vehicle access during construction ■ Devil's Elbow Private Road Upgrade safety concern ■ Impact to pedestrians in Nundle	■ Following regular consultation with the respective Councils in relation to the transport route and route safety, the updated transport assessment has refined the proposed route to both avoid urban roads through Muswellbrook and Nundle wherever possible, as well the complete removal of the route option along Head of Peel Road. This has in turn removed the proposed southern access point to the site. ■ All road users including emergency vehicles will continue to have access along the roads being upgraded or affected by Project traffic. ■ Consultation protocols and procedures between local residents and Project traffic travelling to and from site will be considered in the Traffic and Transport Management Plan. Updated commitments to road safety include offering vehicle escorts to all permanent residents during significant construction activities such as concrete pours along Morrisons Gap and Barry roads, the preparation of a detailed Emergency Response Plan in consultation with the local emergency services, call up protocols for all heavy vehicles entering Morrisons Gap Road and project vehicle speed limits. ■ Additionally, the Project is committing to carry out a number of road and asset upgrades where necessary and in mutual agreement with Councils. Currently the proposed upgrades to the local road networks along Lindsays Gap, Morrisons Gap and Barry roads include but are not limited to: ■ Laybys to allow traffic to pass along Lindsay Gap Road, Barry Road and Morrison Gap Road. ■ Tarring of Morrisons Gap Road following construction and improvements to the safety of its use, including speed limits, improvement visibility in some corners and increased reflective lights; and ■ Upgrades to bridges along Lindsays Gap Road to increase width and load bearing capacity. ■ Separate conversations with Muswellbrook Shire Council are also seeing the Project review the existing Council asset lists with a view to making commitments to assess and upgrade any deemed to be of insufficient condition to accommodate all Project traffic. ■ Upgrades to the Devil's Elbow section of the transport route underwent 3 design options to arrive at the route with minimal impact to existing road tie-ins. The upgrade takes slower oversize overmass traffic onto a private road, whilst allowing all other traffic to continue to use the existing carriageway. Further refinements by experienced wind farm design and construction firms, CATCON and WGA to this private road section have also resulted in greater constructability through a reduction

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			in required gradient along the modified route. This has increased both safety for both project traffic and other road users, as well as afforded further protection to existing heritage assets such as the Blake Snake Gold Mine. ■ The decision to use the Devil's Elbow as the primary transport route has a positive safety influence for pedestrians in Nundle. Prior to this being the exclusive access route to site, it was proposed that 20% of vehicles accessing the site would use the Head of the Peel Road to access the south of the site. This meant vehicles using Herron Street North, Innes Street, Jenkins Street, and Gill Street. With the removal of these as transport routes, there will be no turning OSOM vehicles in Nundle and less construction traffic. Pedestrian safety will be ensured as all vehicles must adhere to speed limits, with a project vehicle speed limit being implemented along Morrisons Gap Road. ■ A further commitment to include pedestrian crossings across the main road Junction of Oakenville and Jenkins Streets within Nundle is also being discussed with Tamworth Regional Council. ■ Further information on the assessment of route options, determination of Barry Road to minimise impacts and assessment of impacts associated with the Devil's Elbow Bypass Upgrade is available in the response to Tamworth Regional Council submission in Chapter 5 of the Response to Submission Report.
	Transport through Muswellbrook	Transport access through Muswellbrook not suitable for oversize loads. Concern that Muswellbrook Shire Council not consulted.	■ The Amendment Report outlines proposed changes to the Project since the exhibition of the EIS. The changes have been assessed in the Traffic and Transport Addendum Report in Appendix H of the Amendment Report. ■ Following consultation with Muswellbrook Shire Council, the Proponent is including optionality for the OSOM transport route through Muswellbrook, and includes the following route options. The transport route optionality is discussed in the Traffic and Transport Addendum Report (TTPP, 2021), provided in Appendix H of the Amendment Report: The proposed routes are: ▪ Route 1 (blades and loads over 5.2 m) – Via Golden Highway, Denman Road, Bengalla Road, Wybong Road, Kyuga Road, Invermein Street, Stair Street, Dartbrook Road to New England Highway; ▪ Route 2 (loads up to 5.2 m) – Via New England Highway, Bell Street, Victoria Street, New England Highway; ▪ Route 3 (loads over 5.2 m) – Via Golden Highway, Denman Road, Thomas Mitchell Drive, New England Highway, Bell Street, Victoria Street, New England Highway; and ▪ Route 4 (standard loads) – New England Highway. ■ The Project is considering three options for route selection: ▪ All OSOM loads via Route 1 with standard loads using Route 4 the New England Highway; ▪ 100% of loads (other than blades) on Route 2 and 3 with blades using Route 1 and standard loads on Route 4; and ▪ Splitting the loads 50/50 between Route 1 and Route 2 and 3, with all blades using Route 1 and standard loads using Route 4. ■ Consultation has been undertaken with Muswellbrook Shire Council and updates to the proposed traffic routes and volumes proposed routes and impact assessment has been carried out. ■ In addition to this, commitments are made to assessing structure integrity and undertaking upgrades were required along with voluntary commitment to pay a road usage fee. A voluntary contribution offer to MSC is provided in Appendix F of the Traffic and Transport Addendum report (refer Appendix H of the Amendment Report).
	Dust impacts to Crawney	Transport through Crawney Road causing dust impacts to property.	■ Crawney Road has not been designated as transport route for oversize overmass vehicles to access the Project. Forecasts have been based on construction worker traffic and the potential for quarry material to travel to site along Crawney Road. The assessed transport volumes for Crawney Road are provided in the updated Traffic and Transport assessment, provided in Appendix H of the Amendment Report.
	Devil's elbow upgrades	Viability of the Devil's elbow upgrade design and its impact on the Black Snack Gold Mine.	■ The EIS incorporated a Historic Heritage Impact Assessment and Statement of Heritage Impact (SoHI) (ERM, 2020) (Appendix N of the EIS). The SoHI confirmed that the Devil's Elbow proposed upgrades as detailed in the EIS would have a negligible impact on the setting of the LEP listed Black Snake Gold Mine, but would have the potential to impact archaeological features, such as potential mine shaft entries and tunnels. The assessment recommended a geophysical and / or geotechnical assessment be undertaken to determine if there are any subsurface voids beneath the proposed upgrade or other anomalies that may be indicators of archaeological features. ■ In line with this recommendation, the *Devil's Elbow Bypass Road – Geophysical Interpretative Report* (Coffey, 2021) (provided in Appendix O of the Amendment Report) used electrical resistivity testing in March 2021 to assess potential for subsurface voids relating to abandoned mine workings, and other possible anomalies that may indicate the presence of archaeological features. .

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			■ The investigation identified three resistivity anomalies (referred to as Areas 1, 2 & 3). While it is possible that these areas are the result of natural geological processes unrelated to the Black Snake Gold Mine, it is considered they are likely to be associated with abandoned (historic) mine workings such as tunnels. Based on Coffey's extensive tunnel design experience it is expected that these potential tunnel areas would be very unlikely to be structurally impacted by road excavation so as to cause any subsidence or collapse provided that they have at least 5 m of sound rock cover and span less than 4 m and measures such as heavy blasting are avoided. ■ Based on the outcomes of the geophysical assessment (Coffey, 2021) Catcon and WGA (Wallbridge Gilbert Aztec) redesigned and realigned the road such that the potential void locations identified are limited to within areas of fill so as to avoid the risk of removing earth support. The realigned and redesigned bypass road is identified in Figure 3-1c of the Amendment Report. A number of structural engineering solutions have been recommended by Coffey to ensure structural integrity of any subsurface voids in proximity to the works, and these will be confirmed during detailed design where necessary. ■ A Revised Statement of Heritage Impact (SOHI) (Appendix Q of the Amendment Report) was completed to address the indirect impacts of the Project on the Black Snake Gold Mine LEP historic environment. The revised SOHI concludes that construction of the 'Devil's Elbow' proposed transport route upgrade will have no adverse indirect impacts through removal of secondary growth vegetation and minor cut and fill activities on the listed item. ■ Impacts associated with the exhibited project footprint in the EIS at Devil's Elbow comprised approximately 17 ha of native vegetation generally in high condition. Selection of a proposed route (from the larger potential area identified in the 17 ha) and substantial design revisions have reduced this impact to 2.5 ha of native vegetation removal, leading to direct and indirect benefits to previously impacted vegetation and habitats in this area. This includes avoidance of Box Gum Woodland Critically Endangered
	Traffic and Transport timetable	Lack of information on traffic and transport and consultation timetable and consultation with impacted residents.	■ Residents who have either a physical impact on their property, or a blade overhang have already been consulted and notified of the proposed transport route. An update of the status of consultation with affected Transport Landowners is provided in Appendix B – Community Consultation. ■ The Traffic and Transport Assessment produced for the EIS provides worst case traffic impacts and expected timeframes for each phase. As the Project progresses to construction the specific movements of components and the timetable will be included in a Traffic Management Plan to continue engagement with community stakeholders. The Traffic Management Plan will incorporate close consultation with the community and relevant agencies, building on what has already been undertaken for the Environmental Impact Statement. Residents who have noise, dust, or traffic impacts will be closely consulted with during the creation of the Traffic Management Plan.
	Vegetation removal	Assessment of vegetation removal required to transport components is not adequately covered in the assessment	■ Appendix A of the BDAR (Appendix D of the EIS and Amendment Report) present a study of the vegetation on the transport route. The assessment provides information on the vegetation species and recommends surveys prior to any required vegetation removal and upon the selection of turbine blades and final design of the impact. With the removal of the Head of the Peel Road as an access route to site, additional tree clearing will be avoided. Surveys of the Morrisons Gap Road corridor has been carried out by Land Surveys clarifying the exact road corridor and existing as built road and shoulders. Turnbull Engineering has undertaken design of required road upgrades along Morrisons Gap Road to determine whether any private land encroachment is required. The assessments conclude that all required upgrades will remain inside the existing road corridor (refer Appendix P of the Amendment Report). ■ Project changes and refinements have resulted in a significant development footprint reduction for the transport route upgrades from 56 ha (EIS) down to 9 ha. ■ Up to 50% of the transport route upgrades will be rehabilitated with native species.
	Parking zones	Concerns over the proposal for no parking zones in Nundle during transportation of heavy machinery and oversized components.	■ A small area on Oakenville St is proposed to become a temporary no-parking zone during the transport of oversize and over mass loads. There remains parking opportunities prior the Nundle Road/Oakenville St intersection on 3 sides of the intersection. There also remains parking opportunities on Jenkins St on both sides prior to and after the Nundle Rd/Oakenville St intersection.
	Impact on tourism	Construction traffic will impact on the attractiveness of the area to tourists and result in lower tourist numbers	■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). ■ A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road.

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			■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C. ■ Peak traffic is only expected to occur during morning and evening peak hours which are unlikely to affect most tourists. Following these morning and evening peaks and peak periods of construction (estimated at 13 months) the road will operate at similar levels of traffic that are currently observed. ■ Tourism operators providing accommodation, entertainment, food and services are likely to benefit from increased demand from temporary workforces frequenting the area and surrounding towns.
	Alternate routes	Use of the Head of Peel Route and other alternative transport routes within Nundle.	■ The Traffic and Transport assessment initially evaluated several different transport routes to provide flexibility and ensure that the most suited route was selected. The Head of the Peel route to site, where a proposed 20% of Project traffic was proposed, was eliminated through due process and consideration of feedback from the community around Nundle and on this route. ■ The designated route has been confirmed by way of independent transport assessments to be the most suitable and viable route. The updated Traffic and Transport Assessment (Appendix G of the Amendment Report) Further information on route justification is provided in the Response to DPIE_10 in the Submissions Report.
	Traffic and transport assessment	Specific concerns with the traffic and transport assessment	■ Q24**:** Please provide calculation method for level A? Does it exist in the RTA document? ▪ A24: Levels of Service for rural roads are calculated using the TRARR method. It is a traffic simulation model for bi-directional rural roads and uses a number of inputs to determine level of service. The method for calculating Service Level is included in Section 5.2.2 in the AustRoads Guide to Traffic Management, Part 3.Q25: Please provide traffic peak hour flow for rolling & mountainous terrain for level A? ■ Q26**:** Please provide traffic peak hour flow for rolling & mountainous terrain for level A for percent of heavy vehicle greater than 15%? ■ Q27**:** The data table presented by the RTA assumes rolling terrain with 40% no overtaking and 3.7m traffic lane width with side clearance of at least 2m, this rolling terrain represents Lindsay's Gap road, does the proponent accept this does not represent the road and its assumed criteria? What % does the proponent accept as the Lindsey Gap Road overtaking capacity? ■ Q28**:** The data table presented by the RTA assumes mountainous terrain with 60% no overtaking and 3.7m traffic lane width with side clearance of at least 2m, this rolling terrain represents Barry road from Nundle to Hanging Rock, does the proponent accept this does not represent the road and its assumed criteria? What % does the proponent accept as the Barry road Nundle to Hanging Rock overtaking capacity? ■ Q29**:** If the data table is not adopted for peak hour flow and level of service, what would be the percentage of increased traffic movements acceptable to rural communities? 100%? 200%? 500%? ▪ A25 – A29: A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report; ▪ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road; and ▪ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C. ■ Q30: Due to massive increase in traffic movements I request an immediate independent assessment based upon the traffic capabilities and capacities of the actual roads within the project area and Nundle village not based upon a RTA table which sets a guideline. The study should also include percentage increases in traffic flow not only travel movement numbers? ▪ A30: The TIA (including TIA Addendum) have been undertaken in accordance with relevant guidelines and requirements. TTPP has made an independent assessment and have studied the roads with relevant and up to date data on existing traffic around Nundle that will be used by the Project.
	Internal roads	Transporting components movements not assessed on the internal roads through the project.	■ Transport movement assessments on the internal roads throughout the Project is not required as these roads are on private land. Dust control measures will be in place to ensure that dust is not generated as a result of onsite component transportation.

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	Dust	Concern regarding increased dust from project traffic.	■ Dust generated by traffic will be controlled by way of mitigation plans on and off the proposed site. Onsite, water-based dust control methods will be employed. ■ Off site, a commitment has been made to use dust suppression techniques on Morrisons Gap Road during the construction of the project. Techniques include using water trucks as well as polymer material, which is absorbed by the road and helps with dust suppression. The Project will commit to tarring Morrisons Gap road after the construction of the project is complete. In addition, as part of the Amended Project Report a commitment is made to investigate the benefits of installing a rumble grid to remove dust from traffic leaving the site with the option for Forestry Corporation trucks to also use and remove dust generated from their traffic.
Noise and Vibration	Effects of noise and vibration on health and Wellbeing	Lack of information regarding noise and vibration impacts the project will have on the surrounding area during its operational stage. Specific areas of concern included but were not limited to – ■ The impact low frequency noise would have on individuals wellbeing ■ The impact low frequency noise would have on cattle and wildlife	■ Consideration for the impacts of noise and vibration has been addressed in section 10 and Appendix E of the EIS. in accordance with the SEAR's . ■ Page 11 of the Wind Energy Noise Assessment Bulletin (DPE 2016c) states "in 2015, the [National Health and Medical Research Council] concluded that there is not direct evidence that exposure to wind farm noise affects physical or mental health", more specifically, they state that "while exposure to environmental noise is associated with health effects , these effects occur at much higher levels of noise than are likely to be perceived by people living in close proximity to wind farms in Australia". ■ Dwellings have been assessed for the impact of noise from the proposed wind farm in accordance with the Wind Energy Noise Assessment Bulletin. Noise considerations relating to Project amendments are detailed in Appendix F of the Amendment Report.
	Noise surveys on specific properties	Why has a noise survey not been carried out on their specific property	■ The background noise monitoring locations as chosen by Sonus were selected to provide noise data indicative of the noise levels at sensitive receivers within the vicinity of the proposed wind farm. The monitoring was conducted with respect to the requirements of the New South Wales Planning and Environment Wind Energy: Noise Assessment Bulletin. The background noise monitoring locations were selected by Sonus based on a review of the Project Layout and nearby dwellings, previous experience with similar projects and access to the locations being granted. Three locations, (NAD33, NAD12 and Nundle Township) were also specifically requested for monitoring by members of the community during consultation and as such were also included. ■ Additional assessments have been carried out on a number of DA approved dwellings, further details of which can be found in response to DPIE_8 of the Submissions Report.
	Noise impact in surrounding area	Potential for misrepresentation of actual noise impact in valleys surrounding project	■ All monitoring and modelling has been conducted with respect to the requirements of the New South Wales Planning and Environment Wind Energy: Noise Assessment Bulletin.
	Impacts of Noise and Vibration during Construction and operational phases	Further information on what noise and vibration impacts can be expected during the project's construction and operational phases through the impacts of both direct works and works traffic and transport	■ A noise and vibration impact assessment was completed as part of the EIS (Appendix E). Further consideration of noise impact associated with Project amendments are provided in Appendix F, and chapter 6.2 of the Amendment Report. The assessment was completed in accordance with the requirements of the SEARs, *NSW Noise Policy for Industry* (EPA 2017), *Interim Construction Noise Guideline* (DECC, 2009), *NSW Road Traffic Noise Policy* (DECCW, 2011) and *Assessing Vibration: A Technical Guideline* (DEC, 2 006). This included consideration of construction and operational noise impacts, including traffic and transport noise.
	Noise Assessment methodology	Further information requested on the Noise Assessment and its methodology	■ All noise assessment and monitoring was carried out in accordance with the Wind Energy: Noise Bulletin and SA Noise Guidelines. The predictions of environmental noise from the Project utilise the CONCAWE noise propagation model and SoundPLAN noise modelling software as detailed in Section 4 of the Noise and Vibration Impact Assessment (Appendix E of the EIS). This includes consideration of: The sound propagation model considers the following influences: ▪ sound power levels of each individual noise source; ▪ the locations of noise sources; ▪ separation distances between noise sources and dwellings; ▪ local topography; ▪ influence of the ground; ▪ air absorption; and ▪ meteorological conditions. ■ The assessment has been based on the following input conditions, which have been widely accepted for the assessment of wind turbine noise: ▪ weather category 6 (representing a temperature inversion and wind conditions that assist with the propagation of noise); ▪ atmospheric conditions at 10°C and 80% relative humidity (representing conditions that result in low levels of noise absorption from the atmosphere);

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			▪ wind direction from all noise sources to the particular dwelling under consideration, even in circumstances where sources are located in opposite directions from the dwelling (representing the absolute worst-case noise propagation from the wind); ▪ acoustically soft ground (representing the pastoral nature of the land); and ▪ maximum barrier attenuation from topography of 2 dB(A) (representing a conservative assessment of any shielding provided by topography). ■ Table 6 of the Noise and Vibration Assessment, provided in Appendix E of the EIS, details the wind farm noise predictions at each dwelling.
	Potential damage to Heritage buildings	Damage may be caused to heritage listed buildings by vibrations created by the Project during its construction and operational phases	■ The Project acknowledges the Nundle Heritage Walk with 31 as a key tourist attraction within the town. The Project also recognises the historic significance of buildings in Nundle and Hanging Rock and has carried out diligent assessments to both inform and mitigate against any potential impacts the Project may have on heritage buildings and buildings of significance in the surrounding area. These assessments help ensure that works are carried out within the required noise and vibration criteria and in accordance with the relevant guidelines. ■ The St Peters Catholic Church and the Nundle Shire Officers were recognised as impacts on the transport route using Head of the Peel Road, however all alternative routes have been withdrawn and hence the insignificant impact has now been avoided. ■ Table 10.7 of the EIS details both the preferred, and maximum levels of vibration required to meet compliance with the British Standard BS 6472-1992 “Evaluation of Human exposure to vibration in buildings” Technical Guidelines. Typically, the distances required to achieve compliance with the construction vibration criteria provided in the Technical Guidelines are in the order of 20m. ■ Based on the separation distances between the construction activities and the nearest dwellings being well in excess of 100 m, vibration activates are unlikely to be detectable at the nearest dwelling and are predicted to easily achieve the required criteria.
Soils and Water	Project impacts on soils and water	That there is a lack of detail on the soil and hydrological impact assessments carried out. A number of responses questioned whether the correct soil type was present to support the project infrastructure	■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. ■ The additional assessment includes site specific analysis of the NSW Land and Soil Capability Scheme, noting the Land and Soil Capability (LSC) mapping is for use in the context of broad-scale agricultural purposes. Consideration of the LSC class descriptions, including photographic examples, site-based investigations, current land use and geotechnical assessments confirms that the overall Development Footprint for the wind farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use. ■ Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report. ■ Additional consideration of soil and erosion potential and erosion and sediment control measures has been included in a Soil and Water Addendum Report, including an updated Erosion Hazard Assessment in Appendix A of the report. The Soil and Water Addendum Report is provided in Appendix N of the Amendment Report.
	Inaccurate rainfall and temperature data	The rainfall and temperature data provided is not a true representation of the likely project conditions as the assessment locations were taken from Quirindi Post Office and Tamworth Airport rather than within the project area.	■ Additional consideration of soil and erosion potential and erosion and sediment control measures has been included in a Soil and Water Addendum Report, including an updated Erosion Hazard Assessment in Appendix A of the report. The Soil and Water Addendum Report is provided in Appendix N of the Amendment Report.
	Effect that project infrastructure will have on water runoff	The presence of large turbine foundations and access tracks will severely restrict water runoff from the ridgeline, reducing water volumes and affecting local rivers such as the Barnard, Isis and Peel, as well as the Chaffey and Sheba dams	■ Section 16.3.3 and Appendix O of the EIS provide details of the Soil and Water Assessment carried out. The assessment identifies all the water courses within the area and examines the impact the Project and its infrastructure will have on them. This is also summarised in Table 16-5 -Potential construction impacts on soils and water. ■ Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum report provided in Appendix N of the Amendment Report. Further geotechnical assessments and site surveys will be undertaken as needed during the detailed design phase to inform the civil and structural engineering designs ■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides further analysis of the area of disturbed footprint within the Peel River sub catchments. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km^2 subcatchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches from 46 km from Chaffey Dam. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls. ■ Relevant agencies with an interest in water and water catchments including WaterNSW, DPIE Water / NRAR and Tamworth Regional Council have all undertaken assessments of the Project and provided their comments.

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	Water supplies and project consumption	Concerns the project will require significant amounts of water taken from local boreholes and dams	■ Water will be obtained from sources licenced under the Water Management Act and / or under harvestable rights purchased through existing state-based allocations, and will be subject to assessment and approval by relevant regulators / referral agencies. ■ There are feasible options for the supply of water for the 24-month Project construction period. The four viable options available to source the estimated 55 ML of water required for construction include: ▪ council water supply, with agreement with the relevant Council(s); ▪ extraction from an existing nearby landowner bore, with agreement from the landowner; ▪ extraction from a new groundwater bore; and ▪ extraction from a surface water source (e.g. Chaffey Dam or the Peel River). ■ If water is assessed to be best sourced through extraction of a new groundwater bore, a Water Access Licence will be applied for and the appropriate environmental assessment will be undertaken including on neighbouring properties.
Social and Economic	Stakeholder Benefits	Concerns over the benefits to the stakeholders involved in the project. Additional information requested on the various agreements made for this project.	■ The need to share the economic benefits of the project with the community is recognised as an important factor for any project in regional Australia. ■ The benefits for stakeholders involved range through the following types of agreements: ▪ Landowner Agreements – those hosting wind turbines, transmission infrastructure, substations, biodiversity stewardship sites; ▪ Neighbour Agreements – those located within 5km of a proposed wind turbine; and ▪ Community Enhancement Fund – designed as a community fund providing benefits to neighbouring local communities to the project. ■ When developing these agreements three main references were used: ▪ Clean Energy Council – A guide to Community Benefit Sharing Options for Renewable Energy Projects (2019); ▪ Australian Wind Alliance – Building Stronger Communities (2019); and ▪ National Wind Farm Commissioner – Neighbour Consultation and Agreements sections on its website. ■ Best practice has been achieved by incorporating the recommendations where possible into the agreements. ■ Section 7.6 of the EIS outlines the community benefits and enhancements of these funds.
	Expenditure and procurement	Project expenditure and procurement is not happening domestically, which will not benefit the economy.	■ The Project is committed to ensuring that the local economy will benefit from the construction and operation of the wind farm. There will be an increase in demand for materials, skills, services and other local products and services as a result of construction and operation of the project expected to stimulate the towns of Hanging Rock and Nundle as well as the wider areas of Tamworth and the Upper Hunter. ■ Currently in Australia there are no turbine manufacturers available for procurement and therefore turbine components are to be sourced from overseas. There is potential for an Australian tower section manufacturer to be utilized and this will be reviewed as a potential option for the project. ■ The projected jobs created from the construction of the project are 615 (i.e., 211 direct jobs and 404 on-flow jobs created during construction) and around 76 jobs during its operational life (i.e., 28 direct jobs and 48 on-flow jobs). The stimulus provided by the increase in jobs will contribute greatly to the local economy. Examples for how the project will benefit the communities of Nundle and Hanging Rock: ▪ use of local workforce / contractors (where possible) in construction of the wind farm; ▪ use of local services (for example food and accommodation, fuel etc.) during the construction period; ▪ ongoing use of these local services during the operation of the wind farm; ▪ lease and neighbour benefits payments to local landholders; and ▪ provision of ongoing local jobs in operating and maintaining the wind farm. ■ The Project itself is expected to have a capital expenditure of $683M of which $332M will be within the local economies. This provides a substantial boost to the local economy that saw both the devastating fires and an extended drought. ■ The full economic benefits to the local community can be found in the update Socio-Economic Assessment within Appendix R of the Amendment Report.

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	Community Objections	Doubts over the level of community support	■ The Project has received a considerable number of submissions from the public covering a diverse range of subjects. ■ The Proponent acknowledges that some community members do have concerns about the Project and there has been a concerted effort to consult with these individuals on their issues. Over the 3 years of continuous community consultation there has been a base of support for the Project from residents within Nundle and Hanging Rock as well as business in Nundle and Hanging Rock. The formation of the "Friend of the Wind Farm" group is an example of this support. ■ Consultation has continued with members of the community both in support and objection to the project. . The full extent of community engagement can be found in Chapter 7 of the EIS as well as the Stakeholder Engagement section of this report. ■ Further commitments to provide an information hub within Nundle to help with ongoing engagement with the community are also being considered and proposed to Council. In the suggested location of Nundle library, the hub would act as a platform for community members to obtain key updates on the Project such as notifications on major component deliveries, a complaints register and community trips to the wind farm during operation.
	Stakeholder identification and engagement	More information requested on how community engagement was conducted and who was deemed an eligible stakeholder	■ As part of the Preliminary Environment Assessment (PEA) and prior to the commencement of the EIS, a Stakeholder Engagement Strategy (Inclusive Engagement, 2018, Appendix C.1 of the EIS) was prepared to guide ongoing consultation during EIS preparation and following EIS lodgement. ■ Stakeholders were selected as persons or groups who are directly or indirectly affected by the project as well as those who have interests and/or the ability to influence its outcomes either positively or negatively. These stakeholders were separated into three groups, Government, Community/Special interest groups and Industry. A summary of the key stakeholders can be found in section 7.3.2 of the EIS. ■ Community engagement throughout the development of the project utilized a variety of strategies to ensure that as many members of the community were consulted and provided with information on the project. The main tools used were: Face to face meetings ▪ Presentations; ▪ site visits; ▪ newsletters; ▪ community drop-in sessions; ▪ public forums; ▪ project website updates; ▪ community surveys; ▪ technical specialist engagement; ▪ emails; ▪ phone calls; ▪ video calls; ▪ direct enquiries; and ▪ media engagement. ■ Overall, in the lead up to the submission of the final EIS over 842 direct engagement activities were undertaken with 365 individuals and 63 organisations. ■ Furthermore, the Community Consultative Committee (CCC) was formed in line with the NSW Department of Planning Industry and Environment requirements. CCC meetings involved a variety of community members from a range of groups to ensure that all questions from the community were answered. All meeting minutes from the CCC can be found on the Hills of Gold website. From these meetings the project scope was able to be re-designed in-line with community members' recommendations. ■ Full extent of stakeholder identification and engagement strategy is outlined in chapter 7 of the EIS.
	Job creation	Job creation estimates are inaccurate or overestimated. What are the assumed jobs that will be created?	■ A Socio-Economic Assessment was completed by SGS (Appendix P of the EIS). This assessment included construction and operational job estimates. An updated Socio-Economic Assessment has been completed to account for Project Amendments (Appendix R of the Amendment Report).

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			■ SGS used an Input/Output modelling approach. It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs. ■ Examples of jobs created on a wind farm include: ▪ Civil work surrounding public road upgrades; ▪ Civil works for onsite roads, hardstands, temporary construction areas, drainage, operations and maintenance building; ▪ Electrical works; ▪ Project Managers; ▪ Labourers; ▪ Electricians for onsite reticulation and works within the substation and turbines; ▪ Mechanical engineers for the installation and operation of the turbines; ▪ Health, Safety and Environmental officers; ▪ Riggers; ▪ Crane Operators; ▪ Dozer operators; ▪ Landscapers; and ▪ Suppliers of aggregate, sand, mobile site offices, fencing, building materials.
	Health and wellbeing	The project will have a negative impact on the community's health and wellbeing	■ The National Health and Medical Research Council conducted a study in 2015 on the impacts to human health from living near a wind farm. To quote this study *"After careful consideration and deliberation of the body of evidence, NHMRC concludes that there is currently no consistent evidence that wind farms cause adverse health effects in humans."* (National Health and Medical Research Council, 2015). ■ The National Wind Farm Commissioners 2019 Annual Report that proposed wind farms receive 9 times the number of complaints compared to operating wind farms. This signifies that once wind farms begin full time operation the negative effects are significantly less impactful than originally perceived. ■ The Community Enhancement Fund (CEF) has been introduced as a way to benefit the community and enhance wellbeing by funding projects that benefit the community directly. This fund is voluntary and is set up by the proponents to share the economic benefits of the project and is a commitment to the community to better the community.
	Land and property Value	The project has the potential to decrease land and property values in the surrounding villages	■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500 m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected.

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	Tourism	The presence of a wind farm will decrease the appeal of Nundle as a tourist destination. Eco-tourism is not a viable replacement for the towns existing tourism.	■ The Socio-Economic Assessment (Appendix P of the EIS) completed by SGS considers tourism. Further, Section 4.3 of the Updated Socio-Economic Assessment also considers tourism (Appendix R of the Amendment report). This included consideration of various studies completed in Australia and overseas, including consideration of tourism and visitor generation. ■ Renewable energy is widely welcomed by Australians and is becoming an opportunity for eco-tourism and educational visits, with wind farms such as Crookwell even being listed as a tourist attraction on the Visit NSW website (Crookwell Wind Farm - Crookwell | VisitNSW.com). Current research suggests Wind Farms can act as a tourist attraction if they are correctly managed, encouraging people to come to one off events such as open days would allow an opportunity for people to experience the wind farm as a tourism destination. A number of wind farms across Australia have successfully established popular initiatives and public events that support this research. One example is Woolnorth Tours, set up by Woolnorth wind farm to run educational bus tours through the site Woolnorth and Cape Grim Tours - Tour Options (woolnorthtours.com.au). This also includes a stop at a meteorology station. Snowtown wind farm in South Australia hosts a high profile cycling event each year, and also states that 200 local jobs, from a population of 2000 have been created as a result of the wind farm. Bangui wind farm in the Philippines also states that a number of local residents, taking note of increasing tourist arrivals, have set up shop and selling snacks, souvenir t-shirts and even miniature windmills made of bamboo to tourists. ■ The Project is currently looking into a number of similar initiatives to help maximise the opportunities to both local businesses and tourism that the wind farm presents and continue to engage with local Councils and residents on this subject.
	Costing calculations	How is the total cost Per MWh calculated	■ The Project will be able to sell electricity at a cost viable to compete unsubsidised.
	Project development and revision	How has the project been revised and redesigned to accommodate community and logistical constraints and feedback	■ The layout of the Project and siting of WTGs and other key infrastructure components has been subject to an ongoing iterative design and siting process. This process has taken into account environmental, civil engineering and wind generation constraints and opportunities, as well as consideration of issues raised during ongoing community engagement. ■ In May of 2020, a multidisciplinary 'freeze design' workshop was held with ecologists, community consultants, civil engineers and wind engineering specialists. The purpose of the workshop was to capture all participants' feedback and combine all areas of expertise together to select the best possible location for each WTG where biodiversity impacts were avoided and/or mitigated without negatively impacting feasibility from the civil engineering, planning and wind modelling perspectives. ■ The outcome of this workshop resulted in: ▪ the reduction from 78 WTG to 70 WTG; ▪ removal of turbine locations located within 100 m of identified microbat roosting habitat on rocky outcrops; ▪ relocation of 19 turbines including adjusting the orientation of hardstand areas and roads connecting WTGs; ▪ relocating temporary blade storage areas to reduce the adjacent hardstand and impact on surrounding PCTs; ▪ realigning roads, hardstands and ancillary infrastructure around the site to minimise earth works, take advantage of existing topographic features and avoid direct impact to high quality condition PCTs and suitable habitat; and ▪ relocating a site road to avoid a sensitive heritage area identified. ■ The design and location of the Development Footprint within the Project Area has undergone a number of significant revisions in response to environmental values, engineering assessments and social considerations. ■ Ongoing consultation with landowners, community bodies and Councils have also led the Project to further refine the existing layout resulting in the removal of a total of five turbines (ie now 65 WTG). This has resulted in further reduction to both visual and biodiversity impacts. These changes are detailed in the Amendment Report.
	Community Enhancement Fund	More information on the community enhancement fund. Primarily information on: ■ How the fund was workshopped ■ How it has been calculated ■ How it will be distributed	■ The Community Enhancement Fund (CEF) was introduced in lieu of a voluntary planning agreement and designed to share the economic benefits with wider community around the project. The CEF was first proposed in line with these guidelines: ▪ Clean Energy Council – A guide to Community Benefit Sharing Options for Renewable Energy Projects (2019); ▪ Australian Wind Alliance – Building Stronger Communities (2019); and ▪ National Wind Farm Commissioner – Community engagement section on its website. ■ The fund was also based on a market standard rate per turbine that other wind farms were also offering. It was further refined in workshops with CCC members and representatives from Liverpool Plains Shire Council, Upper Hunter Shire Council and Tamworth Regional Council. The Project has increased its commitment to each

Theme	Subtheme	Comment	Response
			Council area community enhancement fund from $2,500 per turbine to $3,000 per turbine. Despite the reduction in turbine numbers from 70 to 65, the project has committed to fix in its contributions based on the original 70 turbine layout. This equates to an annual fund size of $165,000 per year in TRC LGA and $30,000 per year in the UHSC LGA. ■ Subsequent consultation with both Tamworth Regional Council, Upper Hunter Shire Council and Muswellbrook Shire Council have resulted in Letters of Offer being issued which are still subject to final agreement with the local councils and community. Copies of the Offer Letters as issued to respective Councils can be found in Appendix G of the Submission Report. ■ More information on the CEF can be found in section 6.2.4.5 and 7.6.2 in the EIS.
	Engagement with CCC members	Engagement with CCC members not sufficient	■ Community consultation was integral during the development of the EIS. In line with recommendations from the Department of Planning, Industry and Environment a Community Consultation Committee (CCC) was formed. Meetings with the CCC are held quarterly to ensure that members of the CCC and broader community had transparency and provided feedback in the lead up to submission of the EIS documents. ■ Overall, there have been 8 CCC meetings to date, the first of which was held in June of 2019. These meetings have provided valuable feedback to the development team and allowed for revisions based on community feedback. ■ Furthermore, there was direct interactions with 23 of the recognised 24 CCC members or alternates throughout the process.
	Accommodation	Where would workers live during the construction and lifetime of the Project	■ With an expected 615 jobs introduced throughout the construction period (i.e., 211 direct jobs and 404 on flow) and 76 jobs during the operational life of the project, (i.e., 28 direct and 48 on flow) it is recognised that some workers who are not from the local region will need accommodation. This poses another opportunity for economic stimulus within the Nundle, Hanging Rock and broader communities. It should be noted that of the direct operational jobs, 16 will be site based. ■ There is also the regional hub of Tamworth approximately one hour drive to the north west which has many accommodation options. Having a large number of accommodations and being within commuting distance of the Project, it has the ability to take the strain off of local tourist accommodation.
	Community Enhancement Fund eligibility	Is the CEF only applicable when the WTG's were in operation	■ The community will be eligible for the Community Enhancement Fund as soon as construction of the WTG's is complete and will continue to be so regardless of whether the WTG's are physically operating or not.
	Inaccurate job creation and numbers modelling	The modelling used to create job numbers to be inaccurate and inflated	■ A Socio-Economic Assessment was completed by SGS (Appendix P of the EIS). This assessment included construction and operational job estimates. An updated assessment has been completed to account for Project amendments, provided in Appendix R of the Amendment Report. ■ SGS used an Input/Output modelling approach. It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs.
	Fossil fuel generators have a higher employment multiplier	Fossil Fuel generators have a higher employment multiplier than wind farms and therefore there will be a net loss of jobs when fossil fuel plants close	■ The basis for this study was to consider how the local economy would respond if a wind farm were to be developed. The study was not a comparison between a fossil fuel project and a wind farm project. The multipliers in the Input/Out model were related to jobs specifically for industries of this nature (construction). ■ As identified in the policy review section of the Socio-Economic Assessment report, developing the renewable energy industry in regional NSW (particularly in NENW region of NSW) is a priority for the NSW Government and local council. State and local government policies and strategies support this (see Section 3 of report, updated assessment in Appendix R of the Amendment Report). ■ The proximity of the Hills of Gold site to the Hunter Valley may create opportunities for job transition.
	Operational jobs being carried out remotely	Operational jobs will be done remotely and turbine manufacturers and local employees will not be on site	■ An updated Socio-Economic Assessment is provided in Appendix R of the Amendment Report, taking into account Project amendments. ■ The operational jobs presented in the report are based on operating expenditure into the domestic economy. Jobs may be created away from site, but also on-site. Sensitivity testing indicates operational employment (onflow, FTE) are likely to be between 12 and 48. The report states that about 10-20% would be in Nundle, 30-40% would be in surrounding LGAs, and the balance in the rest of NSW (page 75). For example, they could be accounting jobs elsewhere. It is expected that there will be permanent on-site jobs required to maintain safe operation of the Project, for example technicians, administrators, health and safety staff.
	Negative impact on non-renewable jobs	Negative Impact on Non-renewable jobs not assessed	■ This is not required as part of the SEARs, and the base case for this study is not a fossil fuel case.

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	Impact of wind farms on lifestyles and Land Valuations	Concerns over the Impact of Wind Farms on lifestylers and land valuation	■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected.
	Volume of additional flow on jobs	Operational jobs creating 1.77 additional flow on new time jobs is a concern	■ An updated Socio-Economic Assessment is provided in Appendix R of the Amendment Report, taking into account Project amendments. ■ SGS has used an Input/Output modelling approach (see Section 6 of report). It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs. The model uses construction industry multipliers to inform outputs. ■ As described on page 71, on-flow jobs can include the person that prepares a meal for a wind farm worker, or even the butcher or grocer who has provided the produce that goes into making the meal for the wind farm worker. Therefore, on-flow jobs can be geographically widespread. As stated in the report, 80-85% of the economic benefits are expected to flow to Tamworth LGA or Newcastle City LGA. Therefore, it can be assumed that many of the projected 404 construction on-flow jobs and 48 operational on-flow will be based in the wider economy and will not put pressure on Nundle alone.
Hazards and Risks	Increased likelihood of bushfires	The presence of wind turbines and the Balance Of Plant will lead to an increased bushfire risk due to significant works traffic and the presence of oils and chemicals being stored on site	■ In accordance with the SEAR's, a Bushfire Risk Assessment was carried out (see section 13.4.1 of the EIS) with the aim of demonstrating that the proposed wind farm could be designed, constructed and operated to minimise ignition risks and provide asset protection consistent with relevant RFS guidelines and Planning for Bushfire Protection standards. The assessment included consultation with NSW RFS and NPWS. An updated assessment incorporating Project amendments is provided in Appendix K of the Amendment Report. ■ The risk that the wind farm itself will cause a fire is minimal (AFAC 2018) although it is recognised that the proposed development is located within a bushfire prone landscape, and that despite the mitigation measures and treatments that are put in place, bushfire risk will always remain. It is also recognised that some of the proposed wind farm infrastructure including the main access road will be located within the flame zone and as a result a Bushfire Emergency Management and Operations Plan will be prepared in conjunction with relevant stakeholders such as NSW RFS, NSW Fire and Rescue, NPWS, FCNSW and adjoining property owners and employers. It is also noted that the improved access and additional water sources will be an advantage to both the local RFS and NPWS for back burning down the slopes in advance of the fire front as was undertaken in 2019, which successfully stopped the Page Creek Rd Fire along its ridgeline. ■ Hazards and risks associated with the storage of hazardous chemicals has been further addressed in the SEPP 33 Assessment (Appendix L of the EIS) and the Preliminary Hazard Analysis (Appendix L of the Amendment Report).
	Restricted access to fire-fighting services	The presence of turbines will restrict aerial firefighting capabilities and create a significant obstacle to water access to and from the Chaffey and other local dams in the event of bushfire	■ Aerial firefighting was considered in Section 3.15 of the Aviation Impact Assessment (AIA) (Appendix H of the EIS). Further analysis has been provided in an Aviation Impact Assessment Response to Submission and Amendment Report Advice Letter (Aviation Projects, 2021) provided in Appendix J of the Amendment Report. ■ NSW Rural Fire Service was consulted during the preparation of the AIA and advised as follows: "We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations." ■ Table 2.2 of the Bushfire Risk Assessment has been updated to confirm that in the event that the Nycooma dam is not accessible, further consultation will be undertaken with NSW NPWS and NSW RFS to ensure that appropriate mitigation methods are in place and that a suitable alternative is available in the event of a bushfire in the area. This is to be reported to Liverpool Range and Tamworth BFMC prior to each bushfire season. ■ The Project has a commitment to work with NPWS in ensuring that alternative water supplies are made available during construction. This will also be built into the Construction Management Plan. ■ Final turbine layout maps will be issued to NSW RFS ahead of construction for their internal response planning.

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	Fire mitigation measures	A lack of information exists on adequate turbine and Balance Of Plant fire mitigation measures. Further information on a fire management plan is required	■ It is noted that the bushfire risk assessment was not designed to assess the individual design or engineering components of the turbines (or other infrastructure). It is confirmed by ENGIE that all Balance of Plant and turbines have a minimum standard for fire mitigation measures allowed for in their technical specifications through both the construction and operational phases of the Project. These mitigation strategies include, but are not limited to: ▪ All associated building structures to be fitted with Fire Services, including Fire Detection and suppression Systems (both gaseous and fire extinguisher) as well as Fire indicator panels; ▪ Fire rated doors, walls, floor and ceiling including materials certificates of compliance with Australian Standards; ▪ Fire proof insulation with a minimum rating of in accordance with the NCC; ▪ A supply of water for firefighting purposes to be provided. Consultation with the Fire Authority in order to prepare the Fire and Emergency Management Plan; and ▪ Fire risk evaluation to be completed by Contractor in accordance with the requirements of the NFPA codes, and any outcomes impacting the design of the Facility for which the Contractor shall have to rectify. ■ Further consultation with the RFS has also confirmed that the turbine towers are made from non-combustible material and do not present a significant fire risk. ■ Efforts would be concentrated on defending those assets that could contribute to widespread fire. All key assets such as the switching station, substation, BESS and O&M buildings will be located outside of the flame zone and have adequate defendable space on all sides in accordance with the requirements of Planning for Bushfire Projection 2019. Minimum asset protection zones for key infrastructure as defined in Planning for Bushfire Projection 2019 is provided in the Updated Bushfire Risk Assessment Report, Appendix K of the Amendment Report including: ▪ the switching station will have a minimum 33m APZ to east and 20m in all other directions; ▪ the BESS will have a 23m APZ to the west and 20m in all other directions; ▪ O&M Option 1 will require a minimum 20m wide APZ in all directions; ▪ Compound/O&M option 2 will have minimum 21m wide APZ to the south and 20m in all other directions; ▪ a minimum 10 m APZ is to be established around each wind monitoring masts; and ▪ each WTG will be mounted on a concrete foundation (approximately 25 m in diameter) located on a cleared hardstand area. ■ A Bushfire Emergency Management and Operations Plan will prepared in conjunction with relevant stakeholders, including local fire services, adjoining property owners and employees. The minimum level of detail to be included within the management plan is identified within Section 6.4 of the updated Bushfire Risk Assessment.
	Radio Interference	Is there the potential for turbines to cause radio interference, namely for users like the emergency services	■ An Electromagnetic Interference Assessment was completed as part of the EIS (Lawrence Derrick and Associates 2020, Appendix I of the EIS) which concluded that communications are not expected to be affected by the presence of the turbines and their Balance of Plant. ■ A commitment has been made to conduct a pre-construction assessment to establish a baseline reception strength for comparison with any complaints relating to post-construction reception strength. It also notes that in the event of reception being impacted by the presence of the Project, the Proponent will implement reasonable measures to reduce impacts as soon as possible.
	Lightning strikes	The presence of wind turbines will likely lead to an increased chance of lightning strike	■ In accordance with the SEAR's, a Bushfire Risk Assessment was carried out (see section 13.4 and Appendix J of the EIS) with the aim of demonstrating that the proposed wind farm could be designed, constructed and operated to minimise ignition risks and provide asset protection consistent with relevant RFS guidelines and Planning for Bushfire Protection standards. The assessment included consultation with NSW RFS and NPWS. An updated assessment incorporating Project amendments is provided in Appendix K of the Amendment Report. ■ Section 13.4.4 of the EIS – Existing Environment notes that the existing risk of fire starting as a result of a lightning strike, which is reported to be common in the region, may actually be reduced by the presence of wind turbines, particularly if they are located along a ridgeline (AFAC, 2018). A built-in Lightening protection system, to be included in the turbine design, is reported to attract lightning and safely dissipate the electricity from the blades, or the nacelle into earthing mats underground and assist to reduce the existing hazard in the project area. All turbines and project associated buildings will also be required to meet minimum Australian Standards AS2067 and IEC61400 on lighting protection. ■ A review of the NSW RFS Fire History Mapping available via SEED maps shows that the most significant recent fire in the area, the 2019 Pages Creek Rd Fire was caused by lightning strike. NSW RFS and NPWS successfully used the ridgeline that the Project is proposed to be located on as a containment line, and were able to

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			back burn in advance of the fire front. This action reinforces that this ridgeline is strategically important in terms of ongoing bushfire mitigation and coordinated access arrangements. The Project aims to increase water supply along the ridgeline available to support both vehicle and aerial firefighting capabilities within the local area.
	Blade Throw	Concern over the hazards of blade throw and the dangers this poses to nearby dwellings.	■ In accordance with the requirements of the SEAR's, a Blade Throw Risk Assessment was carried out to assess the risks of blade throw in the vicinity of the Project Area (Appendix K of the EIS). Since the exhibition of the EIS, a detailed Preliminary Hazard Analysis has also been prepared which identifies the key hazards associated with the Project, including the risk of blade throw, with consideration to measures and protocols to mitigate these risks. The final report can be found in Appendix L of the Amendment Report. ■ The factors included in the assessment methodology were: ▪ Likelihood of the occurrence of a blade throw event; ▪ Theoretical distance radii for a blade fragment throw; ▪ Review of distances between turbines and nearby dwellings; ▪ Review of historical blade throw occurrences; and ▪ Provision of relevant mitigation measures of the Project. ■ Section 5.1.1.1 of the Preliminary Hazard Analysis states that there is a <10% chance of a blade throw at greater than approximately 380 to 390 m. The length and width of the potential impact area is assumed to be equivalent to twice the fragment length (ie up to 2 x 83.5 m for a full blade) and the direction of blade throw is assumed to be perpendicular to the wind direction. The PHA also considers the likelihood of blade throw by an analysis of frequency (per turbine per year) of blade throw from various sources. The frequency data from the Handboek Windturbines (2019) was assumed to apply for the risk analysis as it is the most recent complete data set, with a frequency (per turbine per year) of blade throw at 6.2E-04 (ie 0.00062). ■ The closest dwelling to a WTG is AD_5 which is located 765 m from WTG 65. To minimise blade throw impacts WTG 65 is predominantly positioned such that the blades would be heading away from the dwelling in the unlikely event of any failure. ■ Further mitigation measures are achieved through ensuring that a high quality, comprehensive and robust operations and maintenance programme is implemented to prevent and detect faults quickly.
Environmental Impact	Mitigation of pollutants	What mitigation procedures are in place to prevent oil, chemical spills and pollutants in general such as fiberglass feeding into water courses resulting from the construction of the Project?	■ An Environmental Management Strategy will be prepared that will include appropriate safe work procedures which will be implemented for the handling of all chemicals, including transfer, storage and spill prevention and clean up requirements. ■ Chemicals brought onsite will be stored in accordance with the relevant Australian Standards which dictate requirements for handling, use, storage and disposal of chemicals. Safety Data Sheets (SDS) will be kept onsite for the purpose of reference and use, and in the event that emergency services require access to the register of chemicals onsite. A regular inspection and maintenance schedule will be developed and implemented for chemical store areas. ■ Additional consideration of soil and erosion potential and erosion and sediment control measures has been included in a Soil and Water Addendum Report provided in Appendix N of the Amendment Report.
	Land clearing	Is the Proponent aware of the extensive land clearing that has taken place to date and if this is related to the Project	■ No clearing has been undertaken by the Proponent on the Project Area and no clearing will be undertaken by the Proponent in the future until all relevant approvals have been obtained. The Proponent is aware of past and ongoing investigations into the unauthorised land clearing within the Project Land which have confirmed that the Proponent has not been involved in any unauthorised land clearing
	Mitigation of Land Clearing	What mitigation measures are in place to minimise land clearing, what impacts will there be to the land that is cleared and how will it be offset	■ The Development Footprint has been optimised to minimise bulk earthworks and associated disturbance to soils and biodiversity demonstrated by the reduction in development footprint. By locating the Development Footprint along the ridgetop the Project has primarily avoided steep upper slopes to the ridgeline. Many other constructed NSW wind farms incorporate some similar narrow ridgelines in their development. ■ Removal of the Head of the Peel Road as a transport route option avoids significant road construction up complex steep terrain. ■ Water quality management will be achieved using specific erosion and sediment controls based on The Blue Book (Landcom, 2004) and developed by an experienced Certified Practitioner in Erosions and Sediment Control (CPESC) to further reduce the risk of runoff. This will address any requirements for the management of pollutants or contaminated lands during construction so as to minimise impacts to terrestrial and aquatic habitats. ■ The Development Footprint has been optimised to minimise bulk earthworks and associated disturbance to soils and biodiversity demonstrated by the reduction in development footprint. By locating the Development Footprint along the ridgetop the Project has primarily avoided steep upper slopes to the ridgeline. Many other constructed NSW wind farms incorporate some similar narrow ridgelines in their development.

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			■ Removal of the Head of the Peel Road as a transport route option avoids significant road construction up complex steep terrain. ■ Water quality management will be achieved using specific erosion and sediment controls based on The Blue Book (Landcom, 2004) and developed by an experienced Certified Practitioner in Erosions and Sediment Control (CPESC) to further reduce the risk of runoff. This will address any requirements for the management of pollutants or contaminated lands during construction so as to minimise impacts to terrestrial and aquatic habitats. ■ The Soil and Water Addendum Report (Appendix N of the Amendment Report) provides updated design and construction methodology commitments which are expected to be recommended as part of the CPESC Soil and Water Management Plan ■ The Soil and Water Addendum Report (Appendix N of the Amendment Report) provides updated design and construction methodology commitments which are expected to be recommended as part of the CPESC Soil and Water Management Plan Further refinement of the Project layout has resulted in the removal of WTG's 1, 19, 23, 27 and 31. Their removal has also contributed considerably to an overall reduction in both biodiversity and visual impacts as these turbines were located in areas of significant vegetative covering. ■ In section 9.5 of the EIS the Proponent commits to prepare a Biodiversity Offset Strategy to offset any impact which can't be avoided. It is also expected this will be a condition of approval. The Biodiversity Offset Strategy has now been completed and is attached in Appendix E of the Amendment Report. ■ Rehabilitation is committed in the EIS around areas of the Project that are only temporarily required (refer Section 3.6 of the EIS) and the updated BDAR in Appendix D of the Amendment Report on temporary vs permeant impact.
	Rehabilitation and decommissioning	What rehabilitation and decommissioning plans are in the place and who will carry out the works at the end of the Project's lifecycle. What bonds/guarantees are in the place to ensure the works are carried out?	■ The land agreements the Hills of Gold Wind Farm has entered into have make express provision for the Proponent's decommissioning obligations. ■ It is expected that decommissioning conditions of consent be included in any project determination. In addition to this the Project has included an obligation to provide landowners with a bank guarantee to cover the cost of removing turbines in the event the project owner at the time is unable to pay. It should be noted that companies that own wind farm are large stable long term infrastructure businesses and have the capability to meet their obligations. An example of this is the current project Proponent, ENGIE, at the time of this report undertaking the decommissioning and rehabilitation of the Hazelwood Power Station in Victoria. ■ Decommissioning is discussed in section 3.6 of the EIS. The Project will be decommissioned in accordance with the Project's Environmental Management Strategy, and in accordance with conditions of approval.
	Waste management	What waste management plans are in place and where will waste be taken to	■ Section 18 of the EIS discusses types, sources, indicative quantities, classification and proposed management strategies of waste likely to be generated by the Project. ■ A Waste Management Plan (WMP) will be prepared prior to construction that will detail measures to manage, reuse, recycle and safely dispose of waste.
	Recycling and replacement	How are the turbines and BOP recycled at the end of their life? Is there a process in place for the removal of defunct components throughout the Project's lifecycle	■ WTG manufacturers are ensuring that turbines remain as sustainable as possible. This means that turbines in general are currently 85-90% recyclable (Mazengarb, 2020). With improvements in not only turbine but also recycling technologies, this figure, along with Australian recycling capacity will improve over the lifetime of the Project. ■ The recycling of the turbines will be carried out by the Proponent after decommissioning and will be transferred off site to a recycling plant for processing. This will be included in the Waste Management Plan for the Project. ■ Circumstances may arise where unplanned equipment failure occurs due to environmental events or other factors. The majority of repairs can be undertaken during routine maintenance; however, WTG components requiring replacement would need to be undertaken using a crane in a similar manner to their installation. In addition, replacement of WTGs may occur throughout the operational life of the Project as improved technologies become available.
	Electromagnetic Interference (EMI)	Have any assessments have been carried out on the effects of electromagnetic interference	■ An Electromagnetic Interference Assessment was completed as part of the EIS (Lawrence Derrick and Associates 2020, Appendix I of the EIS) which concluded that communications are not expected to be affected by the presence of the turbines and their Balance of Plant. ■ A commitment has been made to conduct a pre-construction assessment to establish a baseline reception strength for comparison with any complaints relating to post-construction reception strength. It also notes that in the event of reception being impacted by the presence of the Project, the Proponent will implement reasonable measures to reduce impacts as soon as possible.
Project Justification	Site suitability	*Doubt surrounding the suitability of the ridgeline where the Hills of Gold wind farm is proposed*	■ Site suitability is addressed in full in section E2 of the executive summary of the EIS and also section 4.4 of the EIS. ■ The Hills of Gold wind farm siting was selected based on a set of factors that determine the viability of a wind farm to produce clean energy, limit the impact to the environment, provide benefits to the community surrounding it, complement the existing energy infrastructure and support government policy. ■ From these factors it was determined that the Hills of Gold Wind Farm:

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			▪ Aligns with the NSW Government Electricity Strategy, Transmission Infrastructure Strategy and the New England North West Regional Plan; ▪ Has shown it exhibits a high wind resource from detailed 10-year site studies; ▪ Sits predominantly on existing agricultural land; ▪ The Project is isolated and is in an area of low population density with limited residents within 4 km of the Development Footprint; ▪ The Project is located 13.5 km from the Liddell to Tamworth 330 kV transmission line with capacity to accept the generation capacity from the project, along with the ability for the Project to take advantage of the committed and in construction Queensland to NSW interconnector upgrades in Tamworth and along this line; and ▪ The proximity of the Project to provide economic benefit to the communities of Hanging Rock, Nundle and surrounds by providing not only jobs but also an injection of stimulus under the Community Enhancement Fund, Neighbour Benefit Sharing Scheme and diversified income for host landowners. The Project will also provide other benefits to these communities with road upgrades and possibilities for eco-tourism.
	Renewable energy concerns	Doubts over the economic and environmental viability of renewable energy technology including: ▪ Does not reduce Carbon emissions and release more than they save ▪ Needs more energy to run then they can produce ▪ Wind turbines are inefficient at producing energy ▪ Only feasible because of subsidies ▪ Wind turbines do not provide baseload power and are inconsistent	▪ The strategic justification for the Project is summarised in section 2 of the EIS. ▪ Australia has one of the highest per capita emissions of Carbon Dioxide in the world contributing 5% of total emissions. This has led the energy sector in Australia to undergo a clean energy transition from a centralised system of large fossil fuel generation towards a decentralised system of widely dispersed renewable energy generators. This project will aid in offsetting this carbon footprint by saving 654,500 tonnes of carbon emission per year, which is the equivalent of removing 290,000 passenger vehicles off the road. ▪ A study done by Vestas (a turbine manufacturing company) stated that the 'carbon payback' time of a turbine ranges from 5-12 months. This was backed up by an independent US research team which stated that a turbine with a life span of 20 years will have a net benefit on energy and carbon within 5 to 8 months. ▪ With the ongoing plans of decommissioning many of NSW's coal fired power plants, AEMO, has stated that a further 26-50 GW of varied Large-scaled Renewable Energy is required to maintain energy demand and meet baseload requirement. With variation in generation and good storage a Renewable energy-based market can satisfy baseload requirements. This Project will add an additional 420 MW of generating capacity and 100MW/400MWh battery storage to the existing renewable energy projects aiding in energy security and providing storage for the grid.

RESPONSES TO INDIVIDUAL COMMUNITY SUBMISSIONS WITHIN 5KM OF THE PROJECT

RESPONSES TO INDIVIDUAL COMMUNITY SUBMISSIONS WITHIN 5KM OF THE PROJECT

Submission ID	Comment	Response
SE-13590672 (NAD_12) SE-13735773 (NAD_67) SE-13525810 (NAD_19) SE-12635767 (NAD_16) SE-13702634 (NAD_24) SE-13748544 (NAD_24) SE-13553566 (NAD_4 A) SE-13977034 SE-13977042 (NAD_1)	The viability of Morrisons Gap Road as a main project transport route ■ Impacts of Increased traffic volumes ■ Required upgrades and encroachment onto private property ■ Implications on road safety	■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). ■ A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service. ■ Physical surveys of the intersection of Barry Road and Morrisons Gap Road and along Morrisons Gap Road have been completed to determine the exact location of the road reserve and geometry of the existing road. The physical surveys were undertaken by a licensed surveyor and the civil design has been updated which confirms that all earthworks can be maintained within the road corridor and identified footprint. The updated design with cadastre are presented in Appendix P of the Amendment Report. ■ Traffic impacts during the construction phase will be of limited duration and temporary in nature. ■ The upgrades are intended to allow transport of the wind farm components and upgrade the road for safe passage of construction and operational staff. The project has committed to sealing and widening the road which will provide residents along Morrisons Gap Road safer and smoother access to their properties. ■ Where road upgrades are expected to require the removal of vegetation close to or on private property, the relevant landowners will be offered suitable landscape screening to offset any increased visual exposure. ■ Additional project commitments have been made to enhance safety during construction of the Project. A detailed Traffic Management Plan (TMP) will be prepared in consultation with local residents, Council and TfNSW to the satisfaction of the DPIE Secretary. The TMP will incorporate management and mitigation measures to ensure safety to users of Morrisons Gap Road and may include: ▪ The preparation of an Emergency Response Plan in consultation with local emergency services and residents to ensure safe ingress and engress for residents along Shearers Road and Morrisons Gap Road; ▪ Project vehicle speed limits and In Vehicle Monitoring system (IVMS) of Project OSOM vehicles traveling to and from site to monitor speed; ▪ Vehicle escorts for heavy loads along MGR, including pilot escorts for larger OSOM loads to ensure safe passage for residents; ▪ The introduction of a layby along Morrisons Gap Road to further facilitate safe traffic egress for all users; ▪ Provision of UFH radios (given mobile phone reception can be intermittent) to residents along MGR to communicate emergency or travel plans to site staff along with a protocol for reaching the site manager; and ▪ Regular updates of transports schedules and construction phases including expected component types, days and time of the day will be provided to residents along MGR and Shearers Road.
SE-13590672 (NAD_12)	■ Removal of Trees and vegetation on landowners property for Morrisons Gap Road Upgrades ■ The long term effectiveness of vegetative screening ■ Adequacy of the neighbour agreement currently being offered ■ Health impacts of Solastalgia not mentioned in the EIS	<u>Removal of Trees and vegetation on landowners property</u> ■ Physical surveys of the intersection of Barry Road and Morrisons Gap Road and along Morrisons Gap Road have been completed to determine the exact location of the road reserve and geometry of the existing road. The physical surveys were undertaken by a licensed surveyor and the civil design has been updated which confirms that all earthworks can be maintained within the road corridor and identified footprint. The updated design with cadastre are presented in Appendix P of the Amendment Report. ■ The Updated BDAR makes commitments to manage residual impacts to biodiversity such as tree and vegetation removal through a number of strategies including but not limited to: ▪ Rehabilitation, revegetation, reuse of soils and other habitat management actions in all temporary development footprint areas; ▪ Pre clearing surveys to confirm the presence/absence of any threatened flora; ▪ Protocols for the salvage and relocation of woody debris, tree hollows and bushrock; ▪ Requirements for temporary fencing to minimise the risk of Fauna injury due to vehicle strike; ▪ Vegetative screening and supplementary planting; and

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		▪ The Project has committed to offsetting the unavoidable impact to vegetation in the Biodiversity Offset Strategy (refer Appendix E of the Amendment Report). The long term effectiveness of vegetative screening ■ Following a visual assessment of the landowners dwelling, existing vegetation was found only to provide limited screening towards the project. A combination of supplementary vegetation planting, rehabilitation of existing vegetation and additional screen planting is therefore proposed which would provide an opportunity to significantly reduce potential visual impact from the project. ■ The LVIA (Appendix F of the EIS) incorporated screen planting recommendations. Further consideration of the effectiveness of screen planting has been incorporated into Section 4 of the Addendum to the LVIA, provided in Appendix G of the Amendment Report. The assessment included preparation of a wire frame image to illustrate the extent of potentially visible turbines (based on topography alone and not taking into account vegetation or buildings). The wireframe was then overlaid onto the panorama of an existing view to create a photomontage. Locations of indicative proposed trees were overlaid onto the wireframe image as indicative posts to determine the height required to adequately screen the Project. A photomontage was then prepared with the addition of vegetation at the minimum required height to screen views to turbines associated with the Project. Recommendations were made relating to tree stock size, planting and maintenance, and tree trunk prevention. Adequacy of the neighbour agreement currently being offered ■ The Neighbour Program is for neighbours with residences located within 5 km of the Project and is additional to the Community Enhancement Fund, which provides a financial benefit for the broader community. ■ The Neighbour Program aims to share the financial benefits of the wind farm with neighbours whose land is not hosting wind turbines and is based on recommendations made by the Office of the National Wind Farm Commissioner, Clean Energy Council and Australian Wind Alliance. ■ The Neighbour Program provides annual payments ranging from $1,500 to $6,000, with individual agreements for residences where unique circumstances require it. Although all neighbours within 5 km are eligible for the voluntary program, neighbours can elect not to be involved. Landholders who will have turbines constructed on their property are not eligible. As part of participation in the program, neighbours are not restricted from raising concerns or objecting to the Project's design once lodged in the development application. Health impacts of Solastalgia not mentioned in the EIS ■ Electromagnetic fields and human health are assessed in Section 13.3 of the EIS. The National Health and Medical Research Council conducted a study in 2015 on the impacts to human health from living near a wind farm. To quote this study "*After careful consideration and deliberation of the body of evidence, NHMRC concludes that there is currently no consistent evidence that wind farms cause adverse health effects in humans.*" (National Health and Medical Research Council, 2015).
SE-12988909 (DAD_3)	■ Potential impacts to aerial agricultural practises ■ Adequacy of the Neighbour Agreement ■ Adequacy of the Aboriginal Heritage assessment ■ Existing land use and clearing by the majority land owner ■ Water flow interference to Nundle Creek ■ Constructability on Class 8 Soils ■ Impacts to access in the event of Emergency	Potential impacts to aerial agricultural practises ■ Consultation with nearby primary producers who carry out aerial application operations in the area was conducted as part of the Aviation Impact Assessment (AIA) prepared by Aviation Projects and attached at Appendix H of the EIS. This landowner was consulted. The assessment noted that based on previous studies undertaken by Aviation Projects, and subject to the results of consultation with Aerial Application Association of Australia (AAAA) and any further consultation with local aerial application operators, that it is reasonable to conclude that safe aerial application operations would still be possible on properties within the Project site and neighbouring the project site by implementation the recommendations of Aviation Projects, which include: ▪ Notification and Reporting: To facilitate the flight planning of aerial application operators, details of the Project, including location and height information of wind turbines, wind monitoring towers and overhead powerlines should be provided to landowners so that, when asked for hazard information on their property, the landowner may provide the aerial application pilot with all relevant information; ▪ Marking of turbines: The rotor blades, nacelle and the supporting mast of the wind turbines should be painted white, typical of most wind turbines operational in Australia. No additional marking measures are required for WTGs; ▪ Marking of turbines: Overhead transmission lines and/or supporting poles that are located where they could adversely affect aerial application operations should be identified in consultation with local aerial agriculture operators and marked in accordance with MOS 139 Chapter 8 Division 10 section 8.110 (7) and section 8.110 (8); and ▪ The use of helicopters over fixed wing aircraft should be considered as their greater manoeuvrability allows for operations to be conducted in closer proximity to obstacles such as wind turbines. Adequacy of the Neighbour Agreement ■ Subsequent engagement has occurred with this landowner and an increase in offer is being negotiated; ■ The Neighbour Program is for neighbours with residences located within 5 km of the project and is additional to the Community Enhancement Fund, which provides a financial benefit for the broader community; ■ The Neighbour Program aims to share the financial benefits of the windfarm with neighbours whose land is not hosting wind turbines and is based on recommendations made by the Office of the National Wind Farm Commissioner, Clean Energy Council and Australian Wind Alliance; and ■ As part of participation in the program, neighbours are not restricted from raising concerns or objecting to the projects design once lodged in the development application.

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		Adequacy of the Aboriginal Heritage assessment ■ An Aboriginal Cultural Heritage Assessment Report (CHAR) was prepared (Appendix M of the EIS). The CHAR was prepared in accordance with the SEARs, Heritage NSW (formerly Office of Environment and Heritage) *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales, Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 and Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW*. ■ Changes to the project use of Head of the Peel Road only for an emergency reduces potential impacts to Aboriginal archaeological sites/PAD within these parts of the study area. Further details of the reduced impacts can be found in table 5-12 of the Amendment Report. Existing land use and clearing by the majority land owner ■ No clearing has been undertaken by the Proponent on the Project Area and no clearing will be undertaken by the Proponent in the future until all relevant approvals have been obtained. The Proponent is aware of past and ongoing investigations into the unauthorised land clearing within the Project Land which have confirmed that the Proponent has not been involved in any unauthorised land clearing Water flow interference to Nundle Creek ■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report. The extent of the total Development Footprint within the Peel River catchment (of which Nundle Creek is a tributary) upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km2 subcatchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km from Chaffey Dam. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls. ■ A standard suite of erosion and sediment controls, along with Progressive Erosion and Sediment Control Plans and detailed Soil and Water Management Plans will be prepared to provide suitable runoff mitigation and management measures. Constructability on Class 8 Soils ■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report. Additional consideration of soil and erosion potential and erosion and sediment control measures has also been included in the Soil and Water Addendum Report, including an updated Erosion Hazard Assessment in Appendix A of the report. ■ The additional assessment includes site specific analysis of the NSW Land and Soil Capability Scheme, noting the Land and Soil Capability (LSC) mapping is for use in the context of broad-scale agricultural purposes. Consideration of the LSC class descriptions, including photographic examples, site based investigations, current land use and geotechnical assessments confirms that the overall Development Footprint for the wind farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use. Impacts to access in the event of Emergency ■ Additional Project commitments have been made to enhance traffic safety during construction of the Project. This includes commitments to ensure access protocols are in place in the event of emergency. A detailed Traffic Management Plan (TMP) will be prepared in consultation with local residents, Council and TfNSW to the satisfaction of the DPIE Secretary. The TMP will incorporate management and mitigation measures to ensure safety to users of Morrisons Gap Road, including but not limited to: ▪ The preparation of an Emergency Response Plan in consultation with local emergency services and residents to ensure safe ingress and egress for residents along Shearers Road and Morrisons Gap Road; ▪ Project vehicle speed limits and In Vehicle Monitoring system (IVMS) of project vehicles traveling to and from site to monitor speed; ▪ Vehicle escorts for heavy loads along MGR, including pilot escorts for larger OSOM loads to ensure safe passage for residents; ▪ The introduction of a layby along Morrisons Gap Road to further facilitate safe traffic egress for all users; ▪ Provision of UHF radios (given mobile phone reception can be intermittent) to residents along MGR to communicate emergency or travel plans to site staff along with a protocol for reaching the site manager; and ▪ Regular updates of transports schedules and construction phases including expected component types, days and time of the day will be provided to residents along MGR and Shearers Road.
SE-13142241 (NAD_77)	■ Visual assessments not carried out on site of new DA	■ The landowner lodged a DA on 11 October 2020. The application for a single story rural workers dwelling with cost of $96,000 was approved by Tamworth Regional Council on 24 November 2021, after lodgement of the EIS. There is no structure on Lot 2 DP 1139717 at the time of writing this. ■ The Proponent has assessed visual impact on the property and the results are provided in Appendix G of the Amendment Report.. The impact has been assessed as moderate with mitigation proposed to include visual screening. The property will not receive any shadow flicker hours.

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		■ Noise assessment has been carried out and is provided in Appendix F of the Amendment Report. The proposed location of the dwelling is not expected to receive noise in exceedance of the guidelines. ■ The Proponent commits to implementing the visual screening mitigation measures recommended in the LVIA Addendum if the dwelling is constructed and, on that basis, does not consider that any additional measures are required to make the impacts of the project acceptable at the location of the proposed DAD 3.
SE-13553566 (NAD_4 B and C)	■ Risks posed by blade throw ■ Lack of information on soil compatibility ■ Risks posed by blade strike for birds and bats ■ Noise assessment not conducted at residents properties ■ Impacts of long term noise pollution	<u>Risks posed by blade throw</u> ■ In accordance with the requirements of the SEAR's, a Blade Throw Risk Assessment was carried out to assess the risks of blade throw in the vicinity of the Project Area (Appendix K of the EIS). Since the exhibition of the EIS, a detailed Preliminary Hazard Analysis has also been prepared which identifies the key hazards associated with the Project, including the risk of blade throw, with consideration to measures and protocols to mitigate these risks. The final report can be found in Appendix L of the Amendment Report. ■ The factors included in the assessment methodology were: ▪ Likelihood of the occurrence of a blade throw event; ▪ Theoretical distance radii for a blade fragment throw; ▪ Review of distances between turbines and nearby dwellings; ▪ Review of historical blade throw occurrences; and ▪ Provision of relevant mitigation measures of the Project. ■ Section 5.1.1.1 of the Preliminary Hazard Analysis states that there is a <10% chance of a blade throw at greater than approximately 380 to 390 m. The length and width of the potential impact area is assumed to be equivalent to twice the fragment length (ie up to 2 x 83.5 m for a full blade) and the direction of blade throw is assumed to be perpendicular to the wind direction. The PHA also considers the likelihood of blade throw by an analysis of frequency (per turbine per year) of blade throw from various sources. The frequency data from the Handboek Windturbines (2019) was assumed to apply for the risk analysis as it is the most recent complete data set, with a frequency (per turbine per year) of blade throw at 6.2E-04 (ie 0.00062). ■ The closest dwelling to a WTG is AD_5 which is located 765 m from WTG 65. To minimise blade throw impacts, WTG 65 is predominantly positioned such that the blades would be heading away from the dwelling in the unlikely event of any failure. ■ Further mitigation measures are achieved through ensuring that a high quality, comprehensive and robust operations and maintenance programme is implemented to prevent and detect faults quickly. <u>Lack of information on soil compatibility</u> ■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. Geotechnical investigations have been undertaken across the Project Area with the key findings of the assessment discussed in the Soil and Water Addendum Report. Additional consideration of soil and erosion potential and erosion and sediment control measures has also been included in the Soil and Water Addendum Report, including an updated Erosion Hazard Assessment in Appendix A of the report. ■ The additional assessment includes site specific analysis of the NSW Land and Soil Capability Scheme, noting the Land and Soil Capability (LSC) mapping is for use in the context of broad-scale agricultural purposes. Consideration of the LSC class descriptions, including photographic examples, site based investigations, current land use and geotechnical assessments confirms that the overall Development Footprint for the wind farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use. <u>Risks posed by blade strike for birds and bats</u> ■ Chapter 8.3.2 and 8.3.3 and 8.5 of the Updated BDAR (Appendix D of the Amendment Report) has been updated to include a qualitative risk assessment of turbine strike and to address impacts prescribed by the BAM (2017). ■ Further information on impacts to local fauna posed by collision risks as well as proposed management and mitigation measures can be found in response to TRC_13 of the Submission Report. <u>Noise assessment not conducted at residents properties</u> ■ A noise and vibration impact assessment was completed as part of the EIS (Appendix E). Further consideration of noise impact associated with Project amendments are provided in Appendix F of the Amendment Report. The assessment was completed in accordance with the requirements of the SEARs, NSW Noise Policy for Industry (DECCW, 2011. This included consideration of construction and operational noise impacts, including traffic and transport noise.

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		■ The background noise monitoring locations as chosen by Sonus were selected to provide noise data indicative of the noise levels at sensitive receivers within the vicinity of the proposed wind farm. The monitoring was conducted with respect to the requirements of the New South Wales Planning and Environment Wind Energy: Noise Assessment Bulletin. The background noise monitoring locations were selected by Sonus based on a review of the Project Layout and nearby dwellings, previous experience with similar projects and access to the locations being granted. Three locations, (NAD33, NAD12 and Nundle Township) were also specifically requested for monitoring by members of the community during consultation and as such were also included. <u>Impacts of long term noise pollution</u> ■ Based on the modelling provided in Table 10-5 from the Noise and vibration chapter of the EIS (and Appendix E of the EIS), the noise from the assessed 70 WTGs will achieve the operational noise criteria as specified by the Noise Assessment Bulletin at all dwellings in the vicinity of the wind farm, with the exception of dwellings NAD_5, NAD_8, NAD_11 and NAD_67, where there are modelled exceedances of up to 3 dB(A)for certain wind speeds only. ■ To ensure that these modelled exceedances do not arise: ▪ a curtailment regime based on operating specific WTG's in noise reduced modes is provided in Section 10.4, which will enable full compliance with the noise criteria at all locations; ▪ the noise from the final WTG selection and layout will be modelled prior to construction of the wind farm commencing. The modelling will confirm the need for a curtailment regime based on the final Project details; and ▪ operational noise monitoring will be carried out once a final turbine model has been selected and installed at the Project and following the commencement of operations.
SE-13129482 (NAD_4 A)	■ Suitability of Morrisons Gap Road for project traffic ■ Resident access and safety along Morrisons Gap Road ■ Accuracy of noise assessment as no background noise conducted at residents property ■ Concerns of representative viewport for dwelling and visual assessment methodology ■ Impacts of potential blade throw to residents of Morrisons Gap Road ■ Risk of soil contamination ■ Effects on the existing water table ■ Impacts to Biodiversity, namely: - Native vegetation clearing - Wedge tailed eagles - Wombat habitat ■ Turbine decommissioning methodology ■ Impacts to property value ■ Existing land use	<u>Suitability of Morrisons Gap Road for project traffic and resident access and safety along Morrisons Gap Road</u> ■ Following discussions with landowners along this route and concerns for traffic impacts, the Project has committed to a preferred route along Barry Road and Morrisons Gap Road. This is a significant mitigation measure, vastly reducing the number of residents traffic will pass and private landowners required to support road upgrades. There will be no movement of OSOM vehicles and no construction traffic forecast on Head of the Peel Road. There will be no movement of oversized over mass vehicles and significantly reduced construction related traffic on Crawney Road, Jenkins St, Gill St and Innes St. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report (Appendix H of the Amendment Report.) provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The decision to use the Devil's Elbow as the primary transport route has a positive safety influence for pedestrians in Nundle. Prior to this being the exclusive access route to site, it was proposed that 20% of vehicles accessing the site would use the Head of the Peel Road to access the south of the site. This meant vehicles using Herron Street North, Innes Street, Jenkins Street, and Gill Street. With the removal of these as transport routes, there will be no turning OSOM vehicles in Nundle and less construction traffic. Pedestrian safety will be ensured as all vehicles must adhere to speed limits, with a project vehicle speed limit being implemented along Morrisons Gap Road. ■ Additionally, the Project is committing to carry out a number of road and asset upgrades where necessary and in mutual agreement with Councils. Currently the proposed upgrades to the local road networks along Lindsays Gap, Morrisons Gap and Barry roads include but are not limited to: ▪ Laybys to allow traffic to pass along Barry Road; ▪ Tarring of Morrisons Gap Road following construction and improvements to the safety of its use, including speed limits, improvement visibility in some corners and increased reflective lights; and ▪ Upgrades to bridges along Lindsays Gap Road to increase width and load bearing capacity. ■ Further commitments to ensure carpooling protocols are in place as a condition of the traffic management plan have also been introduced to help reduce traffic volumes through Nundle and Hanging Rock. <u>Accuracy of noise assessment as no background noise conducted at residents property</u> ■ A noise and vibration impact assessment was completed as part of the EIS (Appendix E). Further consideration of noise impact associated with Project amendments are provided in Appendix F of the Amendment Report. The assessment was completed in accordance with the requirements of the SEARs, *NSW Noise Policy for Industry* (EPA 2017), *Interim Construction Noise Guideline* (DECC, 2009), *NSW Road Traffic Noise Policy* (DECCW, 2011) and *Assessing Vibration: A Technical Guideline* (DEC, 2 006). This included consideration of construction and operational noise impacts, including traffic and transport noise. ■ The background noise monitoring locations as chosen by Sonus were selected to provide noise data indicative of the noise levels at sensitive receivers within the vicinity of the proposed wind farm. The monitoring was conducted with respect to the requirements of the New South Wales Planning and Environment Wind Energy: Noise Assessment Bulletin. The background noise monitoring locations were selected by Sonus based on a review of the Project Layout and nearby dwellings, previous experience with similar projects and access to the locations being granted. Three locations, (NAD33, NAD12 and Nundle Township) were also specifically requested for monitoring by members of the community during consultation and as such were also included.

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		Concerns of representative viewport for dwelling and visual assessment methodology ■ Following an initial Visual Assessment review of the resident's property (NAD_4A) which included the capturing of several images from the location, the landscape and visual consultant, MOIR, chose the representative location of NAD_4B, concluding that Vegetation to the SW of the residents dwelling would likely screen the Project from the property. The subsequent Wireframe PM12 was therefore a representative dwelling assessment. The potential view is very similar and considered by MOIR to be an acceptable assessment as per the NSW Wind Energy Bulletin. ■ Section 14 of the LVIA notes that where effort was made to undertake detailed assessment on the Project Area from each dwelling identified through the Preliminary Assessment Tools, the NSW Wind Energy Bulletin states: *"where relatively close clustering of houses belonging to different landowners or occupants occur, representative viewpoints may be selected and assessed in lieu of every single dwelling in the following types of areas:* Impacts of potential blade throw to residents of Morrisons Gap Road ■ In accordance with the requirements of the SEAR's, a Blade Throw Risk Assessment was carried out to assess the risks of blade throw in the vicinity of the Project Area (Appendix K of the EIS). Since the exhibition of the EIS, a detailed Preliminary Hazard Analysis has also been prepared which identifies the key hazards associated with the Project, including the risk of blade throw, with consideration to measures and protocols to mitigate these risks. The final report can be found in Appendix L of the Amendment Report. ■ The closest dwelling to a WTG is AD_5 which is located 765 m from WTG 65. To minimise blade throw impacts WTG 65 is predominantly positioned such that the blades would be heading away from the dwelling in the unlikely event of any failure. ■ Further mitigation measures are achieved through ensuring that a high quality, comprehensive and robust operations and maintenance programme is implemented to prevent and detect faults quickly. Risk of soil contamination ■ Suitable measures to mitigate and manage soil contamination are considered in the Soil and Water Addendum Report attached at Appendix N of the Amendment report. Effects on the existing water table ■ During geotechnical investigations (summarised in the Soil and Water Addendum Report), site observations by Coffey confirmed there was no indication of shallow groundwater, however discussions with local landowners revealed that many onsite dams were fed by nearby springs. ■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides an analysis of the area of disturbed footprint within the Peel River sub catchments, including reference to potential springs. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km^2 subcatchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km from Chaffey Dam. Disturbance activities during construction of the Project will require management to ensure runoff is directed to down gradient watercourses through appropriate water quality controls. The report identifies options for rainfall runoff and springs to reach down gradient watercourses, including drainage rock blankets installed for seepage and culverts installed at key watercourse crossing options, to be confirmed during detailed design phase. Figure 5.3 of the Soil and Water Addendum report provides indicative locations for culverts along the Transverse Track to ensure surface flows pass safely down gradient. Impacts to Biodiversity, namely native vegetation, Wedge Tailed Eagles and Wombat habitat ■ The Proponent will implement best practice processes for minimising direct impacts to Wombats, Koala and other native fauna species by implementing vegetation clearing protocols including staged habitat removal, fauna handling and unexpected threatened species finds procedures for species and any specified seasonal limits on clearing activities. ■ Impacts to Wedge Tailed Eagles were assessed through surveys over 41 days across the same two years. They included bird utilisation surveys such as transects, nocturnal spotlighting, call playback and broadcast and habitat identification (hollows and stick nest surveys) Surrounding areas were also surveyed including Ben Halls Gap National park to identify species in the area. The Impact assessment considered worst case turbine parameters for collision risk. The impact to the local population of wedge-tailed eagles should not be dramatically impacted with the development of the project. The main impact to eagles is the risk of collision with a turbine and this has been assessed returning a likely range of 1-6 strikes per year (as detailed in the updated BDAR). The BDAR concludes that the impact to eagles as a result of the Project is likely to be insignificant on the local population of eagles. ■ Table 72 "Proposed Mitigation Measures" in Section 8.9 of the Updated BDAR has been updated to list additional proposed mitigation measures for inclusion in the Biodiversity Management Plan. Further details can be found in the response to TRC_15 in the Submissions Report. ■ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist. ■ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations. ■ Pre-clearing protocols, including pre-clearing inspections, establishment of exclusion zones and on-ground identification of specific habitat features to be retained and/ or relocated. For example, occupation surveys for wombat burrows, application of exclusion measures / deterrents prior to vegetation clearing / earthworks, works undertaken in presence of spotter / catcher.

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		Turbine decommissioning methodology ■ The land agreements the Hills of Gold Wind Farm has entered into have make express provision for the Proponent's decommissioning obligations. ■ Decommissioning is discussed in section 3.6 of the EIS. The Project will be decommissioned in accordance with the Project's Environmental Management Strategy, and in accordance with conditions of approval. Impacts to property value ■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected. Existing land use ■ Existing land use, including site analysis is provided in Chapter 4 of the EIS.
SE-13618297 SE-13577884 (NAD_5)	■ The Project is not required as the planned REZ will meet all energy needs ■ Expected 19 min of Shadow flicker per day not acceptable ■ Visual assessments still suggest unacceptable levels of impact ■ Unsuitability of existing Class 8 soils	The Project is not required as the planned REZ will meet all energy needs ■ The NSW Governments planned Renewable Energy Zones are still in the planning stages and the zone boundaries are yet to be finalised. The NSW Electricity Infrastructure Roadmap targets 12 GW of new renewable energy of which the REZ zones will play an important role. Projects such as the Hills of Gold Wind Farm are expected to contribute to this target in a meaningful way. The proposed Project site is situated on land predominantly used for agricultural purposes with low population densities within 4 km. It is located 13.5 km from the Liddell to Tamworth 330kv transmission line, making it extremely well positioned to provide clean energy to the region following the decommissioning of the Liddell Power Station in 2023. Expected 19 min of Shadow flicker per day not acceptable ■ The shadow flicker assessment conducted on NAD_5 recorded there to be 27 hours and 55 minutes of shadow hours per year. The NSW Visual Bulletin indicates that up to 30-hour shadow hours per year at a Non-Associated Dwelling is considered an acceptable limit under the guidelines. When considering the worst-case assumptions in the assessment it is expected that the shadow hours per year provided to be conservative. Visual assessments still suggest unacceptable levels of impact ■ A dwelling assessment conducted at the landowners' property in June of 2020, and attached in Appendix G of the EIS noted that the dwelling is located in an isolated location off Nundle Creek Road. Views from the property are expansive across the valley associated with Nundle Creek to the north. Topography rises to the south of the dwelling. Views to the Project are largely screened by topography. Up to 10 proposed turbines are likely to be visible (based on topography alone) to the east of the dwelling. ■ The LVIA Addendum, attached at Appendix G of the Amendment Report also includes additional assessment of the visual impact rating applied to NAD_05. Further information can be found in section 6.3.2 of the Amendment Report. ■ In order to aid in the reduction of visual impact posed by the 10 turbines, the assessment concluded that screen planting close to the eastern side of the dwelling was seen as an acceptable form of mitigation. Desirable views to the north would be maintained. An example of the effectiveness of screen planting to the dwelling can be found in Figure 6-11, Section 6.3.2 of the Amendment Report) ■ Screen planting is considered in MOIR's Addendum to Landscape and Visual Impact Assessment, attached at Appendix G of the Amendment Report. Unsuitability of existing Class 8 soils ■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. ■ The additional assessment includes site specific analysis of the NSW Land and Soil Capability Scheme, noting the Land and Soil Capability (LSC) mapping is for use in the context of broad-scale agricultural purposes. Consideration of the LSC class descriptions, including photographic examples, site based investigations, current land use and geotechnical assessments confirms that the overall Development Footprint for the wind farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use.

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SE-13364178 (NAD_18)	■ Visual and noise impacts not clear or adequately explained ■ Impacts of aviation lighting ■ Impacts of increased traffic volumes on Morrisons Gap Road	<u>Visual and noise impacts not clear or adequately explained</u> ■ A representative location at AD_23 was chosen for inclusion in the visual assessment as it was deemed to represent similar views being a neighbouring property. The resulting Photomontage (19) can be found in the Landscape and Visual Impact Assessment attached at Appendix F of the EIS. ■ Background noise logger locations were selected by the Noise and vibration Consultant, Sonus, based on a review of the Project Layout and nearby dwellings, the requirements specified in the SEARs, relative elevations and foliage in the vicinity of the residences and access to the locations being granted. ■ The criteria for the assessment are contained in the Bulletin and the SA Noise Guidelines. These require that operational noise impacts from wind farms at non-associated dwellings should not exceed an outdoor noise level of 35 dB(A) or the background noise (LA90, 10 minute) by more than 5 dB(A), whichever is the greater. ■ The landowners dwelling was assessed as not exceeding the threshold of 35 dB(A) as per the guidelines, and therefore is not expected to experience noise impact above the guidelines from the Project. <u>Impact of Aviation Lighting</u> ■ Section 2.1 of The Civil Aviation Safety Authoritys (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: "CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking". For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. CASA's Advisory Circular AC 139.E-05v1.0 '*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*' Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states "*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installation*". In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and ▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings. ■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape. <u>Impacts of increased traffic volumes on Morrisons Gap Road</u> ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service. ■ The majority of traffic movements associated with the Project will occur during the construction and the future decommissioning phases. Traffic impacts during these phases will be of limited duration and temporary in nature. There will be limited traffic associated with the operational aspects of the Project. ■ OSOM vehicle movements through small rural towns associated with wind farm development has successfully occurred in other townships with effective mitigation and management in place to limit and manage impacts. This includes the construction of the White Rock Wind Farm Stage 1 (70 WTGs) and the Sapphire Wind Farm (75 WTGs), both of which involved OSOM and construction traffic accessing the projects through the rural township of Glen Innes. ■ The Project is committing to carry out a number of road and asset upgrades where necessary and in mutual agreement with Councils. Currently the proposed upgrades to the local road networks along Lindsays Gap, Morrisons Gap and Barry roads include but are not limited to: ▪ laybys to allow traffic to pass along Barry Road;

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		▪ tarring of Morrisons Gap Road following construction and improvements to the safety of its use, including speed limits, improvement visibility in some corners and increased reflective lights; and ▪ upgrades to bridges along Lindsays Gap Road to increase width and load bearing capacity. ■ Further commitments to ensure carpooling protocols are in place as a condition of the traffic management plan have also been introduced to help reduce traffic volumes through Nundle and Hanging Rock. ■ A detailed Traffic Management Plan (TMP) will be prepared prior to construction in consultation with Transport for NSW, TRC, and other relevant roads authorities associated with the Project, to the satisfaction of the Secretary.
SE-12635767 (NAD_16)	■ Project justification and site suitability ■ Impact to Heritage areas around the Devil's Elbow ■ Suitability of Morrisons Gap Road for project traffic	Project justification and site suitability ■ Site suitability is addressed in full in section E2 of the executive summary of the EIS and also section 4.4 of the EIS. ■ The Hills of Gold wind farm siting was selected based on a set of factors that determine the viability of a wind farm to produce clean energy, limit the impact to the environment, provide benefits to the community surrounding it, complement the existing energy infrastructure and support government policy. ■ From these factors it was determined that the Hills of Gold Wind Farm: ▪ Aligns with the NSW Government Electricity Strategy, Transmission Infrastructure Strategy and the New England North West Regional Plan; ▪ Has shown it exhibits a high wind resource from detailed 10-year site studies; ▪ Sits predominantly on existing agricultural land; ▪ The Project is isolated and is in an area of low population density with limited residents within 4 km of the Development Footprint; ▪ The Project is located 13.5 km from the Liddell to Tamworth 330 kV transmission line with capacity to accept the generation capacity from the project, along with the ability for the Project to take advantage of the committed and in construction Queensland to NSW interconnector upgrades in Tamworth and along this line; and ▪ The proximity of the Project to provide economic benefit to the communities of Hanging Rock, Nundle and surrounds by providing not only jobs but also an injection of stimulus under the Community Enhancement Fund, Neighbour Benefit Sharing Scheme and diversified income for host landowners. The Project will also provide other benefits to these communities with road upgrades and possibilities for eco-tourism. Impact to Heritage areas around the Devil's Elbow ■ The Project has been rated to have a major direct impact to the Black Snake Gold Mine, a Tamworth LEP listed heritage item (Item I43). ■ A Devil's Elbow Proposed Upgrade – Geophysical Interpretative Report' was completed in March 2021 (provided in Appendix O) of the Amendment Report). The investigation identified three resistivity anomalies (Areas 1, 2 & 3). While it is possible that the anomalies identified at Areas 1, 2, and 3, likely associated with abandoned (historic) mine workings. ■ Based on the outcomes of the geophysical assessment, CATCON and WGA redesigned and realigned the road such that the expected void locations are in areas of fill, reducing the risk of removing earth support (refer Appendix P). The realignment is subject to ongoing discussion with Tamworth Regional Council. ■ The additional geotechnical investigation for the refined road location, irrespective of the sound engineering solution design, will be the basis for further mitigation measures. Heritage controls, such as possible archaeological monitoring during earthworks in potential anomaly areas, will be contingent on the results of this analysis. Heritage controls and/or mitigation measures will be detailed in the Project's EMS and Heritage Management Plan. Suitability of Morrisons Gap Road for project traffic ■ Following discussions with landowners along this route and concerns for traffic impacts, the Project has committed to a preferred route along Barry Road and Morrisons Gap Road. This is a significant mitigation measure, vastly reducing the number of residents traffic will pass and private landowners required to support road upgrades. There will be no movement of OSOM vehicles and no construction traffic forecast on Head of the Peel Road. There will be no movement of oversized over mass vehicles and significantly reduced construction related traffic on Crawney Road, Jenkins St, Gill St and Innes St. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report (Appendix H of the Amendment Report.) provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The decision to use the Devil's Elbow as the primary transport route has a positive safety influence for pedestrians in Nundle. Prior to this being the exclusive access route to site, it was proposed that 20% of vehicles accessing the site would use the Head of the Peel Road to access the south of the site. This meant vehicles using Herron Street North, Innes Street, Jenkins Street, and Gill Street. With the removal of these as transport routes, there will be no turning OSOM vehicles in Nundle and less construction traffic. Pedestrian safety will be ensured as all vehicles must adhere to speed limits, with a project vehicle speed limit being implemented along Morrisons Gap Road.

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		■ Additionally, the Project is committing to carry out a number of road and asset upgrades where necessary and in mutual agreement with Councils. Currently the proposed upgrades to the local road networks along Lindsays Gap, Morrisons Gap and Barry roads include but are not limited to: ▪ laybys to allow traffic to pass along Barry Road; ▪ tarring of Morrisons Gap Road following construction and improvements to the safety of its use, including speed limits, improvement visibility in some corners and increased reflective lights; and ▪ upgrades to bridges along Lindsays Gap Road to increase width and load bearing capacity. ■ Further commitments to ensure carpooling protocols are in place as a condition of the traffic management plan have also been introduced to help reduce traffic volumes through Nundle and Hanging Rock.
SE-13019226 (NAD_73)	■ No consultation on the visual Impacts to the property ■ Impacts to property value ■ Inadequate compensation ■ Constant nature of noise impacts ■ Inadequacy of Crawney Road as a transport route ■ Increased risks of bushfire and impact on aerial firefighting capabilities ■ Concerns over land clearing ■ Impacts of Shadow flicker ■ Impact of Aviation Lighting ■ Decommissioning and Rehabilitation	<u>No consultation on the visual impacts to the property</u> ■ During the period of public exhibition, the landowner approached the Project to address what he believed to be an inaccurate representation of his views referenced in the Landscape and Visual Dwelling Assessment Tables. Representatives from the Project subsequently organised an in-person meeting with the landowner to discuss their key concerns. The statement was subsequently updated to reflect the landowners' views more accurately. ■ Following the submission of the EIS, the Project attempted to conduct a Visual Impact Assessment of NAD_73, however access was denied due to proposed timings not aligning. <u>Impacts to property value</u> ■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity (Urbis, 2016). ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected. <u>Inadequate compensation in Neighbour Agreement</u> ■ The Neighbour Program is for neighbours with residences located within 5 km of the Project and is additional to the Community Enhancement Fund, which provides a financial benefit for the broader community. ■ The Neighbour Program aims to share the financial benefits of the windfarm with neighbours whose land is not hosting wind turbines and is based on recommendations made by the Office of the National Wind Farm Commissioner, Clean Energy Council and Australian Wind Alliance. ■ As part of participation in the program, neighbours are not restricted from raising concerns or objecting to the projects design once lodged in the development application. <u>Constant nature of noise impacts</u> ■ The Interim Construction Noise guideline (ICNG) has been used to base the project approach to all construction works, including that of works traffic and transport. The ICNG requires that that all feasible and reasonable mitigation measures be taken to reduce noise and vibration impact, and that residents should always be notified as and when such impacting actives will take place. A number of mitigation strategies have been included to minimise impacts and ensure compliance with the ICNG. These can be found in section 10.4.3 of the EIS. <u>Inadequacy of Crawney Road as a transport route</u> ■ The traffic and transport impacts in the EIS considered that an option for an alternate route be considered for 20% of OSOM and construction traffic, namely on Gill Street, Innes Street, Jenkins Street, Happy Valley Road, Head of Peel Road, and Crawney Road (on the Nundle side of the range). This has been removed to avoid impacts to residents on this route. <u>Increased risks of bushfire and impact on aerial firefighting capabilities</u> ■ Aerial firefighting was considered in Section 3.15 of the Aviation Impact Assessment (AIA) (Appendix H of the EIS). Further analysis has been provided in an Aviation Impact Assessment Response to Submission and Amendment Report Advice Letter (Aviation Projects, 2021) provided in Appendix J of the Amendment Report.

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		■ NSW Rural Fire Service was consulted during the preparation of the AIA and advised as follows: “We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations. ■ Further consultation with NSW RFS, Civil Aviation Safety Authority (CASA), NPWS and Airservices Australia has also been conducted, and subsequent responses received to ensure appropriate mitigation methods are in place in the event of bushfire. The responses are as follows: ▪ Airservices Australia did not see the wind farm posing any increased risk or “have an impact on the safety, efficiency or regularity of existing or future air transport operations”; ▪ Following further consultation with CASA, confirmation of the acceptability of steady low intensity light instillations on nominated turbines to reduce visual severity. A draft lighting plan has been prepared and submitted to CASA, who has endorsed the plan. They have also requested that Airservices Australia publish a NOTAM to advise all pilots of the imminent construction of tall structures; ▪ NSW RFS believed that the bush fire risk management strategies as outlines in table 13.11 of the EIS were acceptable and shall be incorporated into any consent granted. Further they stated the requirement for a detailed site plan with GPS coordinates of all turbine locations, to be issued and stored at the NSW RFS Liverpool Range District Office; and ▪ Final turbine layout maps are also to be issued to NSW RFS ahead of construction for their internal response planning. It is also noted that in the unlikely event of a fire spreading from the wind farm to the surrounding area, the turbines would not limit aerial firefighting capabilities on associated properties. ■ A number of learnings for emergency management procedures and protocols in relation to wind farms and bushfires have been reported by AFAC (2018) and Clean Energy Council (2017) and will be implemented at the Hills of Gold Wind Farm. These include (with specific reference to aerial firefighting): ▪ the wind farm's turbines did not present a hazard to aerial firefighting and the turbines were clearly visible to the pilots involved in operations; ▪ to maximise air space for firefighting between the turbines, turbines should be locked in the 'Y' position; ▪ communication protocols need to be in place between wind farm operators and fire and land management agencies to direct turbine shut-down procedures in an emergency situation and initiate emergency response plans; and ▪ precautionary measures should be considered to allow for aerial identification of meteorological masts (measurement towers), guy wires and other infrastructure such as transmission lines that are not easily visible from air. ■ The Bushfire Emergency Management and Operations Plan will detail appropriate risk control measures that would need to be implemented to safely mitigate potential risks to the health and safety of the firefighters and first responders. In accordance with the Hills of Gold Wind Farm Aviation Impact Assessment (Aviation Projects, 2020), further consultation will be held with RFS and the Proponent to ensure that appropriate mitigation methods are in place, so that in the event of a bushfire in the area, pilots are aware of the turbine locations and can respond appropriately. <u>Concerns over land clearing</u> ■ No clearing has been undertaken by the Proponent on the Project Area and no clearing will be undertaken by the Proponent in the future until all relevant approvals have been obtained. The Proponent is aware of past and ongoing investigations into the unauthorised land clearing within the Project Land which have confirmed that the Proponent has not been involved in any unauthorised land clearing <u>Impacts of Shadow flicker and Impact of Aviation Lighting</u> ■ A total of nine dwellings were identified to experience potential shadow flicker based on a worst case scenario considering topography alone and not considering the screening impacts of vegetation or cloud cover which will reduce shadow flicker. The Landowners property (NAD_73) was not identified as being one of these. ■ Section 2.1 of The Civil Aviation Safety Authority’s (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: “CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking”. For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. ■ CASA’s Advisory Circular AC 139.E-05v1.0 ‘*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*’ Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states “*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installatio*n”. In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and

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		▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings. ■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape. <u>Decommissioning and Rehabilitation</u> ■ The land agreements the Hills of Gold Wind Farm has entered into have make express provision for the Proponent's decommissioning obligations. ■ Decommissioning is discussed in section 3.6 of the EIS. The Project will be decommissioned in accordance with the Project's Environmental Management Strategy, and in accordance with conditions of approval.
SE-13702634 SE-13748544 (NAD_24)	■ More information on Bird and Bat collision assessments and mitigation required ■ Morrisons Gap Road upgrades will alter the visual amenity and landscape character ■ The sealing of Morrisons Gap Road will impact road safety and increase the risk of fauna collision due to increased vehicle speeds ■ Head of Peel access route more suitable than Morrisons Gap Road ■ Neighbour Agreement is inadequate ■ Methodology used to calculate anticipated job creation is inaccurate ■ Existing land use and clearing ■ Visual impacts of Aviation lighting ■ Visual assessments not carried out at residents dwelling. Representative location not accurate	More <u>information on Bird and Bat collision assessments and mitigation required</u> ■ Consultation was carried out with the BCD of DPIE and NPWS on this amended BDAR on the 3 February 2021 and 27 May 2021 in response to their submissions which included comments on the adequacy of existing Collision Risk Assessment and surveys. As a result of this consultation additional targeted field surveys, desktop assessment and detailed analysis was completed as part of updating and amending the Collision Risk for Bats and Birds . Further information is provided in the response to TRC_13, found in the Submissions Report. ■ Chapter 8.3.2 and 8.3.3 and 8.5 of the Updated BDAR (Appendix D of the Amendment Report) has been updated to include a qualitative risk assessment of turbine strike and to address impacts prescribed by the BAM (2017). <u>Morrisons Gap Road upgrades will alter the visual amenity and landscape character</u> ■ Physical surveys of the intersection of Barry Road and Morrisons Gap Road and along Morrisons Gap Road have been completed to determine the exact location of the road reserve and geometry of the existing road. The physical surveys were undertaken by a licensed surveyor and the civil design has been updated which confirms that all earthworks can be maintained within the road corridor and identified footprint, minimising vegetation clearing and biodiversity impacts. The updated design with cadastre are presented in Appendix P of the Amendment Report. Where road upgrades are expected to require the removal of vegetation close to private property, the relevant landowners will be offered suitable landscape screening to offset any increased visual exposure. ■ Updated photomontages have been completed to represent the changes proposed on Morrisons Gap Road through road upgrades. These include representations of retaining walls designed to use local materials consistent with the local context. These can be reviewed in Appendix G of the Amendment Report. <u>The sealing of Morrisons Gap Road will impact road safety and increase the risk of fauna collision due to increased vehicle speeds</u> ■ The Project has committed to sealing and widening Morrisons Gap Road following the completion of the construction phase. During the construction phase, when traffic volumes will be at their peak, the road will remain unsealed, with polymer and water suppression being used to mitigate against dust pollution. ■ The updated Traffic and Transport Addendum Report, attached at Appendix H of the Amendment report details the expected traffic volumes accessing MGR during both construction and operational phases. ■ Additionally, a detailed Traffic Management Plan (TMP) will be prepared in consultation with local residents, Council and TfNSW to the satisfaction of the DPIE Secretary. The TMP will incorporate management and mitigation measures to ensure safety to both other road users. A Biodiversity Management Plan will be prepared as part of the Environmental Management Strategy and will consider construction management relating to biodiversity impacts. <u>Head of Peel access route more suitable than Morrisons Gap Road</u> ■ Six site access options were assessed during the preliminary assessment phase. These options are detailed below. Option 6 along Nundle Creek Road was removed early in the process due to lower quality existing public road, creek crossings, tight bends in the road, and significant new road modifications required. The five remaining access options were assessed by the turbine manufacturer's civil engineering team (Siemens-Gamesa) with a focus on minimising public road modifications required, optimising road geometry and minimising grade, and minimising total earthworks required.

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		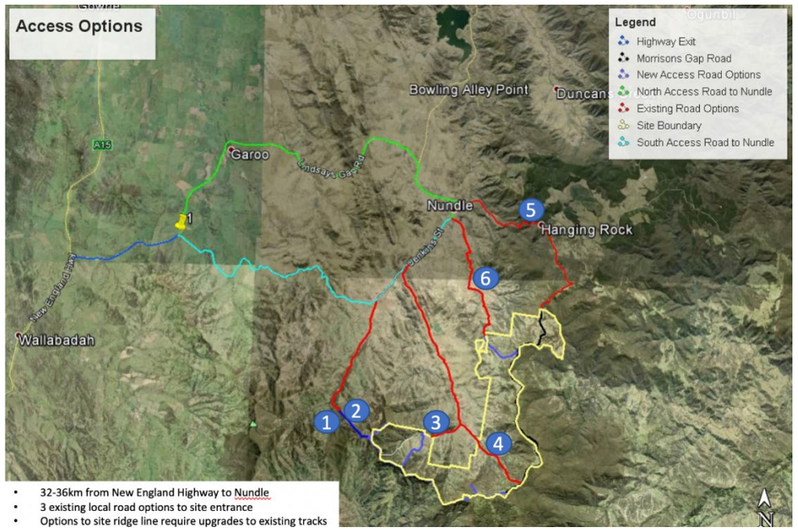 ■ Siemens-Gamesa carried out site visits and detailed design analysis to determine the viability and constructability of each route option to enable turbine component delivery. Their analysis showed that option 5 presented as the most practical route based on the following conclusions: ▪ Majority of access defined over existing public roads, with the smallest length of new access road required; ▪ Lowest existing natural ground slopes of all access options; ▪ Lowest designed max slope of all access options; and ▪ Second lowest total earthworks required of all options. ■ Additional assessment conducted by the project also found that: ▪ Head of Peel Road (Options 3 and 4) features a bridge and nine causeway creek crossings within a working cattle station that includes number of cattle grids meaning a significant amount of upgrade works would be required; ▪ Option 5 includes the use of Barry Road, which is also frequently used by forestry trucks travelling and from the Werris Creek intermodal; and ▪ Options 1-4 would require either a double pass through Nundle along the Oakenville Street, Old Hanging Rock Road, Happy Valley Road, River Road, Jenkins Street, Crawney Road loop, or passing through residential areas of Nundle including Herron Street, Innes Street, Gills Street, Jenkins Street, and Crawney Road. ■ In summary, avoiding the Head of the Peel Road removes a direct impact to 14 landowners along this route, reduces potential aboriginal cultural heritage impacts, reduces native vegetation impacts by approximately 4 ha, removes the need for nine causeway creek crossings, and reduces the number of OSOM movements through residential areas in Nundle. <u>Neighbour Agreement is inadequate</u> ■ The Neighbour Program is for neighbours with residences located within 5 km of the Project and is additional to the Community Enhancement Fund, which provides a financial benefit for the broader community. ■ The Neighbour Program aims to share the financial benefits of the windfarm with neighbours whose land is not hosting wind turbines and is based on recommendations made by the Office of the National Wind Farm Commissioner, Clean Energy Council and Australian Wind Alliance. ■ As part of participation in the program, neighbours are not restricted from raising concerns or objecting to the Project's design once lodged in the development application. <u>Methodology used to calculate anticipated job creation is inaccurate</u> ■ A Socio-Economic Assessment was completed by SGS (Appendix P of the EIS). This assessment included construction and operational job estimates. ■ SGS used an Input/Output modelling approach. It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs.

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		Existing Land Use and Clearing ■ No clearing has been undertaken by the Proponent on the Project Area and no clearing will be undertaken by the Proponent in the future until all relevant approvals have been obtained. The Proponent is aware of past and ongoing investigations into the unauthorised land clearing within the Project Land which have confirmed that the Proponent has not been involved in any unauthorised land clearing Visual impacts of Aviation lighting ■ Section 2.1 of The Civil Aviation Safety Authority's (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: "CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking". For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. ■ CASA's Advisory Circular AC 139.E-05v1.0 '*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*' Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states "*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installation*". In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and ▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings. ■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape.
SE-13159983 (NAD_20)	■ Inadequacy of vegetative screening ■ Site suitability	Inadequacy of vegetative screening ■ Section 16 of the LVIA (Appendix F of the EIS) details the mitigation methods proposed to help reduce the projects visual impact. One of these mitigation methods is vegetative screening. Of the 43 dwellings assessed, a total of 11 were identified as having the potential to benefit from screen planting, with a further six dwellings benefitting from supplementary planting. ■ Screen planting is recommended in circumstances where residences are subject to high levels of visual impact. As the viewing location of the Project would be generally fixed there is an opportunity to significantly reduce visual impact from such a proposal. Where road upgrades are expected to require the removal of vegetation close to or on private property, the relevant landowners will also be offered suitable landscape screening to offset any increased visual exposure. ■ Further consideration of the effectiveness of screen planting has been incorporated into Section 4 of the Addendum to the LVIA, provided in Appendix G of the Amendment Report. The assessment included preparation of a wire frame image to illustrate the extent of potentially visible turbines (based on topography alone and not taking into account vegetation or buildings). The wireframe was then overlaid onto the panorama of an existing view to create a photomontage. Locations of indicative proposed trees were overlaid onto the wireframe image as indicative posts to determine the height required to adequately screen the Project. A photomontage was then prepared with the addition of vegetation at the minimum required height to screen views to turbines associated with the Project. Recommendations were made relating to tree stock size, planting and maintenance, and tree trunk prevention. Site Suitability ■ Site suitability is addressed in full in section E2 of the executive summary of the EIS and also section 4.4 of the EIS. ■ The Hills of Gold wind farm siting was selected based on a set of factors that determine the viability of a wind farm to produce clean energy, limit the impact to the environment, provide benefits to the community surrounding it, complement the existing energy infrastructure and support government policy. ■ From these factors it was determined that the Hills of Gold Wind Farm: ▪ Aligns with the NSW Government Electricity Strategy, Transmission Infrastructure Strategy and the New England North West Regional Plan; ▪ Has shown it exhibits a high wind resource from detailed 10-year site studies; ▪ Sits predominantly on existing agricultural land;

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		▪ The Project is isolated and is in an area of low population density with limited residents within 4 km of the Development Footprint; ▪ The Project is located 13.5 km from the Liddell to Tamworth 330 kV transmission line with capacity to accept the generation capacity from the project, along with the ability for the Project to take advantage of the committed and in construction Queensland to NSW interconnector upgrades in Tamworth and along this line; and ▪ The proximity of the Project to provide economic benefit to the communities of Hanging Rock, Nundle and surrounds by providing not only jobs but also an injection of stimulus under the Community Enhancement Fund, Neighbour Benefit Sharing Scheme and diversified income for host landowners. The Project will also provide other benefits to these communities with road upgrades and possibilities for eco-tourism.
SE-13695496 NAD72	■ Significant impact to visual amenity ■ Impact on the value of the dwelling ■ Increased potential of fire from oils and lubricants ■ Health impacts from turbine noise ■ Pollution from oil spills into water catchments and Nature Reserve ■ Noise and dust pollution duration the construction period ■ Impact of increased traffic volumes ■ What mitigation measures are in place to prevent bird and bat collisions with turbines	<u>Significant impact to visual amenity</u> ■ The Proponent acknowledges the landowner to now hold a different view as initially indicated in the landscape and Visual Assessment report and has committed to making the required amendments. Since the publication of the EIS, a dwelling assessment for this property has been completed and can be found in Appendix G of the Amendment Report. The assessment identified up to 30 turbines being visible to the north east (based on an assessment of topography alone), however only 19 of the visible turbines are located within 8,000 m of the dwelling. The nearest proposed turbine would be 3.3 km away, with the assessment finding the visibility distance zone to be "Near Middleground." ■ Although turbines will be a noticeable element in the landscape from this dwelling, it is expected that the scenic integrity will remain intact. It is also likely that the vegetated range in the middle ground would remain the dominant landscape feature. ■ If deemed necessary, screening planting close to the dwelling would reduce the potential visual impact from the dwelling. Screen planting is also considered in MOIR's Addendum to Landscape and Visual Impact Assessment, attached at Appendix G of the Amendment Report. <u>Impact on the value of the dwelling</u> ■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected. <u>Increased potential of fire from oils and lubricants</u> ■ Hazards and risks associated with the storage of hazardous chemicals has been addressed in the SEPP 33 Assessment (Appendix L of the EIS) and the Preliminary Hazard Analysis (Appendix L of the Amendment Report). <u>Health impacts from turbine noise</u> ■ Electromagnetic fields and human health are assessed in Section 13.3 of the EIS. The National Health and Medical Research Council conducted a study in 2015 on the impacts to human health from living near a wind farm. To quote this study "*After careful consideration and deliberation of the body of evidence, NHMRC concludes that there is currently no consistent evidence that wind farms cause adverse health effects in humans.*" (National Health and Medical Research Council, 2015). <u>Pollution from oil spills into water catchments and Nature Reserve</u> ■ Suitable measures to mitigate and manage soil contamination are considered in the Soil and Water Report attached at Appendix O of the EIS. ■ Mitigation measures for sensitive areas such as the Ben Hills Gap Nature Reserve have also been given additional consideration to ensure activities associated with the Project do not impact on the integrity of the Reserve. <u>Noise and dust pollution duration the construction period</u> ■ Consideration for the impacts of noise and vibration has been addressed in section 10 of the EIS. A Noise and Vibration assessment was undertaken by Sonus for the construction and operation of the Project (refer Appendix E) and all SEAR's have also been adhered to. Mitigation measures are discussed in Section 10.4. ■ Consideration of air quality impacts has been considered in Section 17 of the EIS, with mitigation measures identified in Section 17.4.

Submission ID	Comment	Response
		Impact of increased traffic volumes ■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report. ■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C. What mitigation measures are in place to prevent bird and bat collisions with turbines ■ Consultation was carried out with the BCD of DPIE and NPWS on this amended BDAR on the 3 February 2021 and 27 May 2021 in response to their submissions which included comments on the adequacy of existing Collision Risk Assessment and surveys. As a result of this consultation additional targeted field surveys, desktop assessment and detailed analysis was completed as part of updating and amending the Collision Risk for Bats and Birds. Further information, including management and mitigation measures are provided in the response to TRC_13, found in the Submissions Report. ■ Chapter 8.3.2 and 8.3.3 and 8.5 of the Updated BDAR (Appendix D of the Amendment Report) has been updated to include a qualitative risk assessment of turbine strike and to address impacts prescribed by the BAM (2017).
SE-13736310 SE-13762558 NAD48	■ Lack of consultation ■ Job creation estimates in local community are inaccurate ■ No tourism benefits substantiated ■ Overall impacts on biodiversity ■ Proposed tree clearing on the Devil's elbow upgrade ■ Impacts to natural springs, aquifers, and water courses ■ Access concerns for residents of Morrisons Gap Road ■ Noise assessments are inaccurate	Lack of consultation ■ As the residents of Shearer's Road are known to be within the closest proximity to the Project, extensive consultation with the residents over the course of the Project's lifetime has been undertaken through emails, phone calls, visual assessment visits and in person meetings over the course of the development of the EIS. Little perceived benefit to the community ■ The Project is committed to ensuring that the local economy will benefit from the construction and operation of the wind farm. There will be an increase in demand for materials, skills, services and other local products and services as a result of construction and operation of the project expected to stimulate the towns of Hanging Rock and Nundle as well as the wider areas of Tamworth and the Upper Hunter. ■ Currently in Australia there are no turbine manufacturers available for procurement and therefore turbine components are to be sourced from overseas. There is potential for an Australian tower section manufacturer to be utilized and this will be reviewed as a potential option for the project. ■ The projected jobs created from the construction of the project are 615 (i.e., 211 direct jobs and 404 on-flow jobs created during construction) and around 76 jobs during its operational life (i.e., 28 direct jobs (16 on site) and 48 on-flow jobs). The stimulus provided by the increase in jobs will contribute greatly to the local economy. Examples for how the project will benefit the communities of Nundle and Hanging Rock: ▪ use of local workforce / contractors (where possible) in construction of the wind farm; ▪ use of local services (for example food and accommodation, fuel etc.) during the construction period; ▪ ongoing use of these local services during the operation of the wind farm; ▪ lease and neighbour benefits payments to local landholders; and ▪ provision of ongoing local jobs in operating and maintaining the wind farm. ■ The Project itself is expected to have a capital expenditure of $683M of which $332M will be within the local economies. This provides a substantial boost to the local economy that saw both the devastating fires and an extended drought. ■ The full economic benefits to the local community can be found in the update Socio-Economic Assessment within Appendix R of the Amendment Report. No tourism benefits substantiated ■ The Socio-Economic Assessment (Appendix P of the EIS) completed by SGS considers tourism. Further, Section 4.3 of the Updated Socio-Economic Assessment also considers tourism (Appendix R of the Amendment report). This included consideration of various studies completed in Australia and overseas, including consideration of tourism and visitor generation. ■ Renewable energy is widely welcomed by Australians and is becoming an opportunity for eco-tourism and educational visits, with wind farms such as Crookwell even being listed as a tourist attraction on the Visit NSW website (Crookwell Wind Farm - Crookwell | VisitNSW.com).

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		■ Current research suggests Wind Farms can act as a tourist attraction if they are correctly managed, encouraging people to come to one off events such as open days would allow an opportunity for people to experience the wind farm as a tourism destination. A number of wind farms across Australia have successfully established popular initiatives and public events that support this research. One example is Woolnorth Tours, set up by Woolnorth wind farm to run educational bus tours through the site Woolnorth and Cape Grim Tours - Tour Options (woolnorthtours.com.au). This also includes a stop at a meteorology station. Snowtown wind farm in South Australia hosts a high profile cycling event each year, and also states that 200 local jobs, from a population of 2000 have been created as a result of the wind farm. Bangui wind farm in the Philippines also states that a number of local residents, taking note of increasing tourist arrivals, have set up shop and selling snacks, souvenir t-shirts and even miniature windmills made of bamboo to tourists. Overall impacts on biodiversity ■ Assessment of biodiversity impacts is a key consideration for the Project. The Project has conducted biodiversity surveys for over two years, with the findings presented in section 9 of the EIS, Section 6.1 of the Amendment Report and in the Biodiversity Development Assessment Report (BDAR) (an updated BDAR is provided in Appendix D of the Amendment Report). The assessment has been prepared in accordance with the requirements of the Biodiversity Conservation Act 2016 and the Environmental Protection and Biodiversity Conservation Act 1999. ■ The impacts to biodiversity as a result of the Project have been avoided and minimised as much as practicable through design phase refinements, as discussed Section 5.5 of the EIS. Further targeted layout changes have also occurred since the publication of the EIS to avoid habitat associated with species with the greatest risk of potential impacts. These changes are addressed in Chapter 3 and Appendix A of the Amendment Report. ■ The assessment outcomes of the BDAR confirm that there are no serious and irreversible biodiversity impacts from the Project as: ▪ there is sufficient habitat availability in the wider landscape and study area to continue to support threatened species known to occur within the Development Footprint; ▪ the Project design has been refined so that the majority of vegetation impacts occur on areas that contain exotic grassland; ▪ the Project design avoids areas of breeding habitat for threatened microbats, by locating all infrastructure outside of the mapped cliffs and steep areas; and ▪ impacts to high quality vegetation communities, containing higher quality fauna habitat have been minimised through the location of infrastructure. ■ A range of mitigation measures are outlined and proposed to be adopted to minimise biodiversity impacts during the construction and operational phases and include the provisions of biodiversity offsets, management measures and monitoring and adaptive management measures. Residual impacts associated with the Project will be offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. Once these offsets are applied, no net loss to biodiversity should be achieved. ■ A Pre-construction Biodiversity Management Plan is to be prepared and will include specific requirements to minimise and manage any risk of fauna injury mortality during construction. These have also been updated following the publication of the EIS and can be found in Table 72 “Proposed Mitigation Measures” in Section 8.9 of the Updated BDAR. They include: ▪ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist; ▪ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations; ▪ Pre-clearing protocols, including pre-clearing inspections, establishment of exclusion zones and on-ground identification of specific habitat features to be retained and/ or relocated. For example, occupation surveys for wombat burrows, application of exclusion measures / deterrents prior to vegetation clearing / earthworks, works undertaken in presence of spotter / catcher; and ▪ Protocols for fauna handling and management of adverse incidents. ■ Fauna monitoring and management protocol including identification and reporting of fauna mortalities to the relevant Biodiversity Conservation Division office. Impacts to natural springs, aquifers, and water courses ■ During geotechnical investigations (summarised in the Soil and Water Addendum Report), site observations by Coffey confirmed there was no indication of shallow groundwater, however discussions with local landowners revealed that many onsite dams were fed by nearby springs. ■ Section 5 of the Soil and Water Addendum Report (Appendix N of the Amendment Report) provides an analysis of the area of disturbed footprint within the Peel River sub catchments, including reference to potential springs. The extent of the total Development Footprint within the Peel River catchment upstream of Chaffey Dam is 216 ha, representing only 0.51% of its 420 km^2 subcatchment area. These small catchments are primarily located up-gradient of first order streams at the very upper reaches 46 km from Chaffey Dam. The report identifies options for rainfall runoff and springs to reach down gradient watercourses, including drainage rock blankets installed for seepage and culverts installed at key watercourse crossing options, to be confirmed during detailed design phase. Figure 5.3 of the Soil and Water Addendum report provides indicative locations for culverts along the Transverse Track to ensure surface flows pass safely down gradient. Access concerns for residents of Morrisons Gap Road ■ A Traffic and Transport Impact Assessment was completed as part of the EIS (Appendix G of the EIS). A Traffic and Transport Addendum has been completed to account for Project Amendments, and also to consider response to submissions. This is included in Appendix H of the Amendment Report.

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		■ Chapters 4 and 5 of the Traffic and Transport Addendum Report provides an updated assessment of construction and operational traffic generation and distribution, an intersection analysis of five intersections in the Tamworth LGA, and turn treatment analysis for the intersection of Barry Road and Morrisons Gap Road. ■ The assessments show that almost all the roads would operate at Level of Service A during the peak of construction. Considering Oakenville Street as mountainous (including Barry Road), then this would be revised to Level of Service B. In all cases the level of service is equal or better than the Level of Service B which is better than the recommended desirable Level of Service C. <u>Noise assessment are inaccurate</u> ■ A noise and vibration impact assessment was completed as part of the EIS (Appendix E). Further consideration of noise impact associated with Project amendments are provided in Appendix F of the Amendment Report. The assessment was completed in accordance with the requirements of the SEARs, *NSW Noise Policy for Industry* (EPA 2017), *Interim Construction Noise Guideline* (DECC, 2009), *NSW Road Traffic Noise Policy* (DECCW, 2011) and *Assessing Vibration: A Technical Guideline* (DEC, 2 006). This included consideration of construction and operational noise impacts, including traffic and transport noise.
SE-13577808 (NAD_69)	■ Lack of consultation ■ Visual assessment understates the level of impact ■ Impact of shadow flicker on the property ■ Impact to property value ■ Impact of Aviation lighting ■ Noise assessment methodology and inaccuracy of results ■ Impact to surrounding water courses including Perry's creek and Dead Eye Creek ■ Constructing on class 8 soils ■ The project will require significant vegetation clearance to accommodate project infrastructure ■ Impacts to a number of native species not included in the BDAR, including Wedge Tailed Eagles ■ Impact to aerial agricultural operations ■ Impact to aerial firefighting capabilities ■ Increased risk of bushfire caused by the presence of project infrastructure	<u>Lack on Consultation</u> ■ The Project has been consulting with the landowners throughout the development of the EIS, through in-person meetings, phone calls and emails. A background noise monitoring device was also going to be hosted at the landowner's dwelling, however it was not completed due to the consultant being asked to leave the property. A visual assessment site visit was conducted at the dwelling to produce a photomontage and wireframe for the landowner. The consultation register detailing consultation is provided in Appendix C of the EIS and Appendix C of the RtS Report. <u>Visual assessment understates the level of impact</u> ■ The Landscape and Visual Impact Assessment have been prepared in accordance with the requirements of the Wind Energy: Visual Assessment Bulletin. ■ As noted in the landowners submission, the findings of the visual assessment carried out in June 2020 were the that the dwelling is likely to experience a high level of visual impact due to its potential exposure to 31 proposed turbines along the ridge in a generally NW to ENE direction. Screen planting is proposed on the low rise to the north east of the dwelling to assist in reducing the extent of visibility of the project, however the Project acknowledges that due to the elevated position and orientation of the dwelling, opportunities to mitigate the visual impacts entirely are limited. ■ The Project has therefore undertaken further analyses of the project design and layout following ongoing consultation with both Councils and the Department of Planning and has committed to the removal of two turbines that sit closest to the dwelling, and within 3.1km, WTG 19 and 23. ■ The removal of turbines WTG 19 and WTG 23 has increased the separation distance from the nearest turbine to NAD_69 by 520 m, with the closest turbine now 3.62 km away from the dwelling, reducing the overall prominence of the Project. The removal of turbines WTG 1 and WTG 27 has also reduced the horizontal extent of visible turbines along the ridge. Two (2) photomontages have been prepared to illustrate the variation in the Project layout in proximity to NAD_69 (refer Figures 6-2 to 6-5 of the Amendment Report). These are described further in Appendix B.2 of the Addendum LVIA (refer Appendix G), ■ With the removal of WTG 19 and WTG 23 and the implementation of screen planting as suggested in Appendix B.2 of the Addendum LVIA, the visual impact rating of the Project on NAD_69 is considered to be reduced to a Moderate visual impact. <u>Impact of shadow flicker on the property</u> ■ A total of (9) dwellings were identified with potential shadow flicker hours, five of these are associated dwellings (AD_3, AD_5, AD_6, AD_8, AD_11) and four were associated dwellings (NAD_5, NAD_7, NAD_8 and NAD_67). NAD_69 was assessed as being outside of the Zone of Visual Influence likely to experience shadow flicker. <u>Impact to property value</u> ■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected.

Submission ID	Comment	Response
		Impact of aviation lighting ■ Section 2.1 of The Civil Aviation Safety Authority's (CASA) Advisory Circular AC 139.E-05 v1.0 (CASA, 2021) states: "CASA provides advice about lighting of wind farms and other tall structures in submissions to planning authorities who are considering a wind farm or tall structure proposal. Regardless of CASA advice, planning authorities make the final determination whether a wind farm or a tall structure not in the vicinity of a CASA regulated aerodrome will require lighting or marking". For this reason and for the avoidance of doubt, aviation lighting will not be implemented for the Project unless the Planning Authority requires this to be implemented. ■ Should they do so, further consultation has been undertaken with CASA confirming the acceptability of low intensity steady red lighting of no lower than 200 candela (cd) as a suitable aviation mitigator. On this basis a draft obstacle lighting plan was prepared and forwarded to CASA for review. CASA has accepted the lighting plan design. Correspondence with CASA is provided in Appendix J of the Amendment Report. ■ CASA's Advisory Circular AC 139.E-05v1.0 '*Obstacle (including wind farms) outside the vicinity of a CASA certified aerodrome*' Section 2.5 provides light visible distances based on differing candela. This indicates that obstacle lighting using candela of between 32 and 2000 (+/- 25%) cd is visible at distances between 2.2 and 4.9 km. ■ Section 2.6.5 of the CASA Advisory Circular also states "*Permanent light shielding is also an option to reduce impact on residences within six kilometres of the installation*". In accordance with the plan prepared by Aviation Projects, shielding of the downward component of obstacle lighting is permitted to ensure that: ▪ no more than 5% of the nominal light intensity is emitted at or below 5° below horizontal; and ▪ no light is emitted at or below 10° below horizontal. ■ The Addendum LVIA (MLA, 2021) confirms that shielding can effectively reduce the impact on dwellings within up to six (6) km of the Project and that the efficiency of shielding would be increased for the Project due to the elevation difference between turbines and dwellings. ■ The Addendum LVIA concludes that there are very limited opportunities to view the Project in its entirety and therefore very limited opportunities to view all proposed aviation lighting installed. Accordingly, the Addendum LVIA confirms that, in light of the mitigation measures proposed, including low intensity and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape. Noise assessment methodology and inaccuracy of results ■ A noise and vibration impact assessment was completed as part of the EIS (Appendix E). Further consideration of noise impact associated with Project amendments are provided in Appendix F of the Amendment Report. The assessment was completed in accordance with the requirements of the SEARs, *NSW Noise Policy for Industry* (EPA 2017), *Interim Construction Noise Guideline* (DECC, 2009), *NSW Road Traffic Noise Policy* (DECCW, 2011) and *Assessing Vibration: A Technical Guideline* (DEC, 2 006). This included consideration of construction and operational noise impacts, including traffic and transport noise. Impact to surrounding water courses including Perry's creek and Dead Eye Creek ■ Following geotechnical assessment, carried out after the publication of the EIS, a Soils and Water Addendum assessment, which includes additional details on catchment impacts based on site-specific investigations has been prepared and is attached at Appendix N of the Amendment Report. ■ A standard suite of erosion and sediment controls, along with Progressive ESPC's and detailed SWMP's will be prepared to provide suitable runoff mitigation and management measures. Constructing on Class 8 soils ■ A Soil and Water Addendum Report has been prepared and is provided in Appendix N of the Addendum Report. ■ The additional assessment includes site specific analysis of the NSW Land and Soil Capability Scheme, noting the Land and Soil Capability (LSC) mapping is for use in the context of broad-scale agricultural purposes. Consideration of the LSC class descriptions, including photographic examples, site based investigations, current land use and geotechnical assessments confirms that the overall Development Footprint for the wind farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use. The Project will require significant vegetation clearance to accommodate Project infrastructure ■ The Proponent has engaged experienced wind farm construction contractors and a transmission line designer to undertake a review of the layout to provide advice on reducing the development footprint including impact along the proposed transmission line. Biosis undertook an assessment with the Proponent to advise on areas generating the highest impact. This resulted in project layout amendments and associated revised biodiversity impact, the details of which can be found in the response to TRC_15 of the Submissions report. ■ As a result of the targeted field surveys, significant refinement have been achieved for previously assumed potential roosting / breeding habitat locations for cave dwelling bats including the threatened Eastern Cave Bat, Large Bent-winged Bat, Little Bent-winged Bat and Large-eared Pied Bat within and surrounding the development footprint. Based on this further assessment, including of the changes made to the Project, it has been concluded that the Project is unlikely to have a significant impact to Large-eared Pied Bat h. Further information is provided in Section 8.8 of the Updated BDAR. ■ Vegetation clearing protocols will be followed including staged habitat removal, fauna handling and unexpected threatened species finds procedures for species (including of wombats, Koala, and other fauna) and any specified seasonal limits on clearing activities.

Submission ID	Comment	Response
		■ A Biodiversity Management Plan is to include the following specific requirements to minimise and manage any risk of fauna injury mortality during construction: ▪ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist; ▪ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations; and ▪ Opportunities for the salvage and re-use of important habitat features, including tree-hollows and bush rock, are to be identified and detailed procedures for the implementation of these activities are to be adopted. ■ A Bird and Bat Adaptive Management Plan is to be developed and implemented for the monitoring of threatened or at risk species subject to adverse operational impacts. Operational turbine specific mitigation measures have been included in Section 8.9.1. ■ Any unavoidable impact will be offset in accordance with the Biodiversity Conservation Act and as explained in the Amendment Report. <u>Impacts to a number of native species not included in the BDAR, including Wedge Tailed Eagles</u> ■ Impacts to Wedge Tailed Eagles were assessed through surveys over 41 days across the same two years. They included bird utilisation surveys such as transects, nocturnal spotlighting, call playback and broadcast and habitat identification (hollows and stick nest surveys) Surrounding areas were also surveyed including Ben Halls Gap National park to identify species in the area. The Impact assessment considered worst case turbine parameters for collision risk. The impact to the local population of wedge-tailed eagles should not be dramatically impacted with the development of the project. The main impact to eagles is the risk of collision with a turbine and this has been assessed returning a likely range of 1-6 strikes per year (as detailed in the updated BDAR). The BDAR concludes that the impact to eagles as a result of the Project is likely to be insignificant on the local population of eagles. ■ Table 72 “Proposed Mitigation Measures” in Section 8.9 of the Updated BDAR has been updated to list additional proposed mitigation measures for inclusion in the Biodiversity Management Plan. Further details can be found in the response to TRC_15 in the Submissions Report. ■ Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist. ■ Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations. ■ Pre-clearing protocols, including pre-clearing inspections, establishment of exclusion zones and on-ground identification of specific habitat features to be retained and/ or relocated. For example, occupation surveys for wombat burrows, application of exclusion measures / deterrents prior to vegetation clearing / earthworks, works undertaken in presence of spotter / catcher. <u>Impact to aerial agricultural operations</u> ■ Consultation with nearby primary producers who carry out aerial application operations in the area was conducted as part of the Aviation Impact Assessment (AIA) prepared by Aviation Projects and attached at Appendix H of the EIS. This landowner was consulted. The assessment noted that based on previous studies undertaken by Aviation Projects, and subject to the results of consultation with Aerial Application Association of Australia (AAAA) and any further consultation with local aerial application operators, that it is reasonable to conclude that safe aerial application operations would still be possible on properties within the Project site and neighbouring the project site by implementation the recommendations of Aviation Projects, which include: ▪ Notification and Reporting: To facilitate the flight planning of aerial application operators, details of the Project, including location and height information of wind turbines, wind monitoring towers and overhead powerlines should be provided to landowners so that, when asked for hazard information on their property, the landowner may provide the aerial application pilot with all relevant information; ▪ Marking of turbines: The rotor blades, nacelle and the supporting mast of the wind turbines should be painted white, typical of most wind turbines operational in Australia. No additional marking measures are required for WTGs; ▪ Marking of turbines: Overhead transmission lines and/or supporting poles that are located where they could adversely affect aerial application operations should be identified in consultation with local aerial agriculture operators and marked in accordance with MOS 139 Chapter 8 Division 10 section 8.110 (7) and section 8.110 (8); and ▪ The use of helicopters over fixed wing aircraft should be considered as their greater manoeuvrability allows for operations to be conducted in closer proximity to obstacles such as wind turbines. <u>Impact to aerial firefighting capabilities</u> ■ Aerial firefighting was considered in Section 3.15 of the Aviation Impact Assessment (AIA) (Appendix H of the EIS). Further analysis has been provided in an Aviation Impact Assessment Response to Submission and Amendment Report Advice Letter (Aviation Projects, 2021) provided in Appendix J of the Amendment Report. ■ NSW Rural Fire Service was consulted during the preparation of the AIA and advised as follows: “We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations.

Submission ID	Comment	Response
		■ Further consultation with NSW RFS, Civil Aviation Safety Authority (CASA), NPWS and Airservices Australia has also been conducted, and subsequent responses received to ensure appropriate mitigation methods are in place in the event of bushfire. Increased risk of bushfire caused by the presence of Project infrastructure ■ In accordance with the SEAR's, a Bushfire Risk Assessment was carried out (see section 13.4.1 of the EIS) with the aim of demonstrating that the proposed wind farm could be designed, constructed and operated to minimise ignition risks and provide asset protection consistent with relevant RFS guidelines and Planning for Bushfire Protection standards. The assessment included consultation with NSW RFS and NPWS. An updated assessment incorporating Project Amendments is provided in Appendix K of the Amendment Report. ■ The risk that the wind farm itself will cause a fire is minimal (AFAC 2018) although it is recognised that the proposed development is located within a bushfire prone landscape, and that despite the mitigation measures and treatments that are put in place, bushfire risk will always remain. It is also recognised that some of the proposed wind farm infrastructure including the main access road will be located within the flame zone and as a result a Bushfire Emergency Management and Operations Plan will be prepared in conjunction with relevant stakeholders such as NSW RFS, NSW Fire and Rescue, NPWS, FCNSW and adjoining property owners and employers. It is also noted that the improved access and additional water sources will be an advantage to both the local RFS and NPWS for back burning down the slopes in advance of the fire front as was undertaken in 2019, which successfully stopped the Page Creek Rd Fire along its ridgeline.
SE – 13977034 SE - 13977042 (NAD_1)	■ Impact to surrounding water courses including Perry's creek ■ Lack of consultation ■ Risks posed by blade strike for birds and bats ■ Risk of soil contamination ■ Impacts of noise pollution to the amenity of the area ■ Impact to property value	Impact to surrounding water courses including Perry's creek ■ Following geotechnical assessment, carried out after the publication of the EIS, a Soils and Water Addendum assessment, which includes additional details on catchment impacts based on site-specific investigations has been prepared and is attached at Appendix N of the Amendment Report. ■ A standard suite of erosion and sediment controls, along with Progressive ESPC's and detailed SWMP's will be prepared to provide suitable runoff mitigation and management measures. Lack of consultation ■ The project began engagement with the resident in the first half of 2020, with subsequent attempts to continue engagement throughout the rest of that year proving unsuccessful. During the public exhibition period a face-to-face meeting occurred on the 19th of January where project representatives discussed questions the residents had regarding the project and the specific assessments relating to their property. There has been continued engagement through emails and phone calls with this neighbour and they attended the Timor Community BBQ held on the 17th of April 2021. ■ Additional visuals assessments were carried out by MOIR Landscape and Architecture, with a photomontage and wireframe prepared and comparison photomontage also included which displays the view with 70 turbines against the updated 65 turbine layout. Turbines 19 and 23 have now been removed and the neighbour has been consulted about this update over email and a phone call. Risks posed by blade strike for birds and bats ■ Chapter 8.3.2 and 8.3.3 and 8.5 of the Updated BDAR (Appendix D of the Amendment Report) has been updated to include a qualitative risk assessment of turbine strike and to address impacts prescribed by the BAM (2017). ■ Further information on impacts to local fauna posed by collision risks as well as proposed management and mitigation measures can be found in response to TRC_13 of the Submission Report. Risk of soil contamination ■ Suitable measures to mitigate and manage soil contamination are considered in the Soil and Water Addendum Report attached at Appendix N of the Amendment Report. Impacts of noise pollution to the amenity of the area ■ Based on the modelling provided in Table 10-5 from the Noise and vibration chapter of the EIS (and Appendix E of the EIS), the noise from the assessed 70 WTGs will achieve the operational noise criteria as specified by the Noise Assessment Bulletin at all dwellings in the vicinity of the wind farm, with the exception of dwellings NAD_5, NAD_8, NAD_11 and NAD_67, where there are modelled exceedances of up to 3 dB(A)for certain wind speeds only. ■ To ensure that these modelled exceedances do not arise: ▪ a curtailment regime based on operating specific WTG's in noise reduced modes is provided in Section 10.4, which will enable full compliance with the noise criteria at all locations; and ▪ the noise from the final WTG selection and layout will be modelled prior to construction of the wind farm commencing. The modelling will confirm the need for a curtailment regime based on the final Project details. ■ operational noise monitoring will be carried out once a final turbine model has been selected and installed at the Project and following the commencement of operations.

Submission ID	Comment	Response
		Impact on the value of the dwelling ■ The Socio-Economic Assessment (Appendix P of the EIS) discusses impact on property prices via literature review. The review considered four international studies. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general, some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. ■ Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community. ■ The Socio-Economic Assessment discusses two modern studies that have been conducted on the effects on property valuation from wind farm developments. The CSIRO (2012) quoted an initial study conducted in 2009 by the NSW Valuer-General which concluded at the time that the value of 45 different properties were not impacted, excluding one which was located 500 m from a Wind farm in Victoria. In 2016 a second study was conducted by Urbis; this was commissioned by the NSW Office of Environment and Heritage. Six case studies were selected across NSW and Victoria with analysis of sales data over 15 years to determine any impact by wind farms on the property sales market. The overall conclusions of this study were that wind farms may not significantly impact rural properties used for agricultural purposes as there is no direct loss of productivity. (Urbis, 2016) ■ SGS note that the effect the Project will have on the land value in the area is unclear as land valuation is dependent on a variety of factors, however from the studies done it may be concluded that land prices are unlikely to be negatively affected.

APPENDIX C STAKEHOLDER ENGAGEMENT REGISTER AND MATERIALS

APPENDIX C.1 ENGAGEMENT REGISTER

Method	Communication Date	Subject	Stakeholder
Face-to-face Meeting	1/12/2020	EIS Drop off to Upper Hunter Shire Council	Upper Hunter Shire Council
Face-to-face Meeting	1/12/2020	Photomontage drop off to Murrurundi Library	Upper Hunter Shire Council
Face-to-face Meeting	2/12/2020	EIS Drop off to Liverpool Plains Council	Liverpool Plains Shire Council
Face-to-face Meeting	2/12/2020	EIS Drop off to Nundle Library / Tamworth Council	Tamworth Regional Council
Face-to-face Meeting	7/12/2020	Nundle Community Information Hub	Morrisons Gap Road / Hanging Rock Neighbours
Face-to-face Meeting	8/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	8/12/2020	Transport Impacts along Morrisons Gap Road	Morrisons Gap Road Resident
Face-to-face Meeting	9/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	12/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	13/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	14/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	14/12/2020	Timor Resident House Visit	Timor Community Member
Face-to-face Meeting	15/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	16/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	18/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	18/12/2020	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	18/12/2020	Shadow Flicker with affected landowner at their house. MOIR and ERM involved.	Hanging Rock Resident
Print media	19/12/2020	Segment in Letter to the editor	Northern Daily Leader
Complaint	29/12/2020	Hills of Gold Wind Farm - Site Visit Access to Western side	Community Member
Face-to-face Meeting	11/01/2021	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	11/01/2021	Friends of the Wind Farm BBQ	Friends of the Wind Farm
Email	11/01/2021	Email thread between Neighbour and Someva Renewables	Timor Resident
Face-to-face Meeting	12/01/2021	Nundle Community Information Hub	Community Members / Tourists
Email	12/01/2021	Email Hills of Gold, Public exhibition Information	Hanging Rock Resident
Email	12/01/2021	Email Hills of Gold, Public exhibition Information	Hanging Rock Resident
Email	12/01/2021	Email "Landowner permission for encroachment"	Hanging Rock Resident
Face-to-face Meeting	12/01/2021	Neighbour agreement	Hanging Rock Resident
Email	12/01/2021	Email Hills of Gold, Public exhibition Information	Host Wind Farm Landowner
Email	12/01/2021	Email "Biodiversity Surveys"	Host Wind Farm Landowner
Email	12/01/2021	Email Hills of Gold, Public exhibition Information	Nundle Resident
Face-to-face Meeting	12/01/2021	Engagement at the community hub	Nundle Resident
Email	12/01/2021	Email Hills of Gold, Public exhibition Information	Timor Resident
Face-to-face Meeting	12/01/2021	Concerns over communication	Timor Resident
Face-to-face Meeting	13/01/2021	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	13/01/2021	Community Hub Drop in	Nundle Creek Road Resident
Phone call	13/01/2021	Phone call	Nundle Resident
Phone call	13/01/2021	Phone call with Someva representative	Timor Resident
Face-to-face Meeting	14/01/2021	Someva Meeting with Neighbour regarding Landscape and Visual Chapter in the EIS	Timor Resident
Phone call	15/01/2021	Nundle Resident call with Someva Representative	Nundle Resident
Face-to-face Meeting	15/01/2021	Community Information Door Knock	Nundle Resident
Face-to-face Meeting	18/01/2021	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	18/01/2021	Drop in to sign Neighbour agreement	Hanging Rock Resident
Face-to-face Meeting	18/01/2021	Community Information Door Knock	Hanging Rock Resident
Face-to-face Meeting	18/01/2021	Community Information Door Knock	Hanging Rock Resident
Face-to-face Meeting	18/01/2021	Community Information Door Knock	Hanging Rock Resident
Face-to-face Meeting	18/01/2021	Community Information Door Knock	Hanging Rock Resident
Email	18/01/2021	Email "Hills of Gold, Public exhibition submission"	Host Wind Farm Landowner
Face-to-face Meeting	19/01/2021	Nundle Community Information Hub	Community Members / Tourists
Email	19/01/2021	Email "Neighbour Agreement Payment Details"	Hanging Rock Resident
Email	19/01/2021	Email about Transport	Head of the Peel Resident
Email	19/01/2021	Email about Transport	Head of the Peel Resident
Email	19/01/2021	Email "Neighbour Benefit Sharing Program"	Nundle Resident
Email	19/01/2021	Email "Hills of Gold Wind Farm Information and Neighbour Benefit Sharing Program"	Timor Resident
Face-to-face Meeting	19/01/2021	Meeting with a group of Timor Residents	Timor Resident
Face-to-face Meeting	20/01/2021	Nundle Community Information Hub	Community Members / Tourists
Face-to-face Meeting	20/01/2021	Community Information Door Knock	Nundle Resident
Face-to-face Meeting	20/01/2021	Positive submission from Peel Inn Hotel	Nundle Resident
Face-to-face Meeting	20/01/2021	Neighbour Agreement signing	Nundle Resident
Email	21/01/2021	Email "Hills of Gold Wind Farm Submission Instructions"	Hanging Rock Resident

Method	Communication Date	Subject	Stakeholder
Email	21/01/2021	Email "Hills of Gold Wind Farm Information and Instructions for making submission"	Hanging Rock Resident
Email	21/01/2021	Email "Transport Assessment Further Information"	Hanging Rock Resident
Email	21/01/2021	Email chain "Night Lighting Images from EIS"	Head of the Peel Resident
Email	21/01/2021	Email "Neighbour Agreement Payment Details"	Nundle Resident
Email	21/01/2021	Email "Hills of Gold Wind Farm Information and Submission	Tamworth Resident
Face-to-face Meeting	22/01/2021	Community Information Door Knock	Nundle Resident
Face-to-face Meeting	27/01/2021	Community Information Door Knock	Gomeroi Applicant Member
Face-to-face Meeting	27/01/2021	Community Information Door Knock	Hanging Rock Resdent
Face-to-face Meeting	27/01/2021	Community Information Door Knock	Hanging Rock Resident
Face-to-face Meeting	27/01/2021	Community Information Door Knock	Hanging Rock Resident
Face-to-face Meeting	27/01/2021	Community Drop in	Nundle Resident
Phone call	27/01/2021	Concerns over wind farm blade throw call	Office of the National Wind Farm Commissioner
Email	28/01/2021	Email "Positive submissions posted"	DPIE Department of Planning, Industry and Environment (formerly DPE)
Face-to-face Meeting	28/01/2021	Community Information Door Knock	Hanging Rock Resident
Email	28/01/2021	Email "Hills of Gold Energy - visitor submits a form"	Karin Lawrence
Face-to-face Meeting	28/01/2021	Community Information Door Knock	Nundle Resident
Email	29/01/2021	Email "Positive submissions collected from"	DPIE Department of Planning, Industry and Environment (formerly DPE)
Face-to-face Meeting	29/01/2021	Community drop in	Hanging Rock Resident
Face-to-face Meeting	29/01/2021	Signed positive submission letter	Nundle Resident
Face-to-face Meeting	3/02/2021	Meeting with DPIE Biodiversity and Conservation Division to discuss BDAR;	DPIE Department of Planning, Industry and Environment (formerly DPE)
Phone call	04/02/2021	Consultation Call regarding Public Exhibition and Transport Consent	Hanging Rock Resident
Phone Call	04/02/2021	Transport informaiton with Hanging Rock Resident	Hanging Rock Resident
Email	04/02/2021	Email "Hills of Gold Wind Farm Information"	Timor Resident
Email	08/02/2021	Email "Counter Signed Neighbour Agreement"	Hanging Rock Resident
Email	08/02/2021	Countersigned Neighbour Agreement	Hanging Rock Resident
Email	08/02/2021	Email "Counter Signed Neighbour Agreement"	Nundle Resident
Email	08/02/2021	Countersigned Neighbour Agreement	Nundle Resident
Email	09/02/2021	Email "Renewable Energy Education Program"	Dungowan Public School
Email	09/02/2021	Email about Renewable Energy education program	Dungowan Public School
Email	09/02/2021	Email about Renewable Energy Education Program	Dungowan Public School
Email	09/02/2021	Email "Renewable Energy Education Program"	Niangala Public school
Email	09/02/2021	Transport consent emails	Port of Newcastle
Email	09/02/2021	Email "Renewable Energy Education Program"	Quirindi Public School
Email	09/02/2021	Email "Renewable Energy Education Program"	Woolomin Public School
Email	10/02/2021	Email "Renewable Energy Education Program"	Dungowan Public School
Email	11/02/2021	Email with New Hope Bengalla management	New Hope Bengalla Group
Phone call	15/02/2021	Someva Renewables call to DPIE	DPIE Department of Planning, Industry and Environment (formerly DPE)
Email	19/02/2021	Hills of Gold Wind Farm - Soil Conservation Service Crown Land	Soil Conservation Service
Email	23/02/2021	Email "Hills of Gold Wind Farm Transport Information"	Mach Energy
Email	23/02/2021	Email "Hills of Gold Wind Farm Transport Information"	New Hope Bengalla Group
Email	24/02/2021	Email received from DPIE commenting on EIS	DPIE Department of Planning, Industry and Environment
Email	24/02/2021	Email "Hills of Gold Wind Farm Transport Information"	Mach Energy
Phone call	01/03/2021	Hills of Gold Wind Farm - Soil Conservation Service Crown Land	Soil Conservation Service
Face-to-face Meeting	2/03/2021	Biodiversity Conservation Service BDAR Response to Submissions input.	Biodiversity Conservation Section (DPIE)
Face-to-face Meeting	2/03/2021	Port of Newcastle Transport discussion	Port of Newcastle
Phone call	3/03/2021	Phone discussion regarding Bushfire Risk Assessment	NSW RFS
Face-to-face Meeting	05/03/2021	Upper Hunter Shire Council Meeting	Upper Hunter Shire Council
Face-to-face Meeting	8/03/2021	Transport for NSW Submission Discussion	Transport for NSW and DPIE
Face-to-face Meeting	9/03/2021	DPIE - BESS Hazards Assessments Comments and Request for PHA	DPIE Department of Planning, Industry and Environment
Email	09/03/2021	Email "Hills of Gold Wind Farm Transport Information"	Mach Energy
Email	9/03/2021	Email follow up with Transport Landowner	Transport Landowner
Face-to-face Meeting	15/03/2021	Tamworth Regional Council - Submission Discussion with executive and plannign team	Tamworth Regional Council
Email	16/03/2021	Email "Flyer for meeting"	Timor Resident
Email	17/03/2021	Email "Neighbour Agreement Follow Up"	Timor Resident
Phone Call	17/03/2021	Discussion with Timor RFS to host community BBQ	Timor RFS
Face-to-face Meeting	18/03/2021	Engie meeting with DPIE	DPIE Department of Planning, Industry and Environment (formerly DPE)

Method	Communication Date	Subject	Stakeholder
Email	19/03/2021	Email "Hills of Gold Wind Farm Transport Information"	Dartbrook Mine
Phone Call	19/03/2021	Discussion with Timor RFS to host community BBQ	Timor RFS
Email	22/03/2021	Email "Hills of Gold Wind Farm transport information"	Dartbrook Mine
Phone call	22/03/2021	Consultation Call regarding Transpport	Hanging Rock Resident
Face-to-face Meeting	23/03/2021	Meeting with New Hope Bengalla Group	New Hope Bengalla Group
Email	24/03/2021	Follow up Information from Transport Meeting	New Hope Bengalla Group
Phone Call	26/03/2021	Discussion with Timor RFS to host community BBQ	Timor RFS
Face-to-face Meeting	29/03/2021	Upper Hunter Shire Council Meeting - VPA Discussion	Upper Hunter Shire Council
Face-to-face Meeting	31/03/2021	Muswelbrook Council Transport Submission Discussion	Muswellbrook Shire Council
Face-to-face Meeting	7/04/2021	Letter box drop to Timor Community	Timor Community
Face-to-face Meeting	7/04/2021	Meeting with RFS Volunteer Group Captain at Timor RFS Sheds	Timor Resident
Phone Call	7/04/2021	Phone call with Timor RFS Captain regarding Community BBQ	Timor RFS Captain
Email	9/04/2021	Email "Community BBQ"	Gomeroi Applicant Member
Phone call	12/04/2021	Call with Graham and Jenny regarding neighbour agreement	Timor Resident
Email	12/04/2021	Someva representative email to Neighbour regarding community	Timor Resident
Face-to-face Meeting	13/04/2021	Meeting held with DPIE to discuss status of Response to Submissions Report,	DPIE Department of Planning, Industry and Environment
Face-to-face Meeting	14/04/2021	Meeting with NTS Corp regarding native title claim in the project area	NTS Corp
Email	14/04/2021	ENGIE Meeting request with NBTMG	
Face-to-face Meeting	15/04/2021	ENGIE representatives meeting with community members in Nundle and Hanging Rock	Nundle and Hanging Rock Community Members
Face-to-face Meeting	16/04/2021	ENGIE representatives meeting with community members in Nundle and Hanging Rock	Nundle and Hanging Rock Community Members
Letter (Soft Copy)	16/04/2021	VPA letter issued to Council for review	Upper Hunter Shire Council
Face-to-face Meeting	17/04/2021	Someva and ENGIE representatives at Timor Community BBQ	Timor Community
Face-to-face Meeting	21/04/2021	Video conference call to discuss the Community Enhancement Fund	Tamworth Regional Council
Video conference	22/04/2021	Consultation to develop CEF approach.	Upper Hunter Shire Council
Phone call	23/04/2021	Phonecall with Dartbrook Management to discuss transport consent	Australian Pacific Coal - Dartbrook
Face-to-face Meeting	27/04/2021	Renewable Energy Education Workshop at Dungowan Public School	Dungowan Public School
Email	27/04/2021	Visit to Nundle - Seeking meeting with NBTMG	Nundle Business Tourism and Marketing Group (NBTMG)
Email	3/05/2021	Meeting request with Hills of Gold Preservation Group with ENGIE	Hills of Gold Preservation Inc
Face-to-face Meeting	4/05/2021	Nundle Business Tourism and Marketing Group (NBTMG) meeting with Engie and Someva representatives	Nundle Business Tourism and Marketing Group (NBTMG)
Face-to-face Meeting	4/05/2021	Hills of Gold Preservation Inc Meeting meeting with ENGIE and Someva representatives	Nundle Business Tourism and Marketing Group (NBTMG)
Face-to-face Meeting	4/05/2021	Meeting with Tamworth Mayor to discuss CEF and Councils Submission	Tamworth Regional Council
Face-to-face Meeting	5/05/2021	Friends of the Wind Farm Meeting at Nundle Recreation and Bowling	Friends of the Wind Farm
Face-to-face Meeting	5/05/2021	HOGPI hostility at Machina Coffee and Donuts	Nundle Resident
Face-to-face Meeting	5/05/2021	Roadside Interaction	Nundle Resident
Email	6/05/2021	HOGPI Motion to ENGIE CEO	HOGPI
Email	6/05/2021	Proposed Hills of Gold Wind Farm	
Phone call	7/05/2021	Phone call with Jamie	Nundle Business Owner
Email	7/05/2021	Email correspondence with NBTMG & ENGIE	
Town hall meeting	7/05/2021	Timor Community BBQ notes	
Email	14/05/2021	HOGPI President response to ENGIE	Nundle Resident
Phone call	18/05/2021	Meeting about New Hope Agreement	
Video conference	18/05/2021	Transport Upgrade meeting with Liverpool Range Wind Farm regarding Muswellbrook	Liverpool Range Wind Farm
Video conference	18/05/2021	Meeting held to discuss NPWS submission and review project commitments	NPWS
Letter (Soft Copy)	19/05/2021	Updated VPA offer letter sent to Council following council feedback	Upper Hunter Shire Council
Phone call	21/05/2021	Phone call with DPIE	DPIE Department of Planning, Industry and Environment
Email	21/05/2021	Email chain between Someva representatives and National Parks and Wildlife Services regarding RtS Submissions	NPWS
Phone call	25/05/2021	Interaction with Timor RFS	Timor RFS
Phone call	26/05/2021	Biodiversity Offset Sites	Nundle Resident
Letter (Soft Copy)	26/05/2021	ENGIE reply Letter to HOGPI President	Nundle Resident
Video conference	27/05/2021	Meeting held to discuss EES submission	DPIE Environment, Energy and Science (EES)– Biodiversity Conservation Division
Video conference	1/06/2021	Meeting to discuss impacts to council operated roads	City of Newcastle
Letter (Soft Copy)	2/06/2021	VPA offer sent to Council for review	Muswellbrook Shire Council
Face-to-face Meeting	4/06/2021	Meeting held with DPIE and their visual advisor O'Hanlon to discuss visual impacts following DPIE site visit	DPIE Department of Planning, Industry and Environment
Phone call	8/06/2021	Phone call with DPIE	DPIE Department of Planning, Industry and Environment
Phone call	10/06/2021	Phone call with Host Landowner	Hanging Rock Resident
Face-to-face Meeting	16/06/2021	Project representatives meeting with Tamworth Regional Council	Tamworth Regional Council
Phone call	29/06/2021	Biodiversity Stewardship Conversation with Landowner	Landowner
Video conference	30/06/2021	Meeting with Tamworth Council planning staff to discuss the response to councils' submission.	Tamworth Regional Council

Method	Communication Date	Subject	Stakeholder
Phone call	30/06/2021	Upper Hunter Shire Council Meeting to discuss VPA Offer Letter	Upper Hunter Shire Council
Email	1/07/2021	Upper Hunter Shire Council - VPA offer letter acceptance	Upper Hunter Shire Council
Phone call	2/07/2021	Consultation with Nundle business owners regarding improving heritage in the area	Nundle Business
Phone Call	2/07/2021	Someva Consultation with Nundle business owner	Nundle Business Owner
Phone Call	2/07/2021	Someva consultation with Gold Mining Heritage Museum of Nundle	Nundle Business Owner
Phone call	2/07/2021	Engagement with Tamworth Councillors	Tamworth Regional Council
Email	2/07/2021	C7EVEN Engagement with Tamworth Councillor	Tamworth Regional Council
Phone Call	2/07/2021	C7EVEN Engagement with Tamworth Councillor	Tamworth Regional Council
Email	5/07/2021	confirmation that Council agree with staff reccomendation to withdraw objection	Muswellbrook Shire Council
Phone call	5/07/2021	C7EVEN engagement with TRC Mayor Col Murray	Tamworth Regional Council
Phone call	5/07/2021	C7EVEN engagement with TRC Dep Mayor Phil Betts	Tamworth Regional Council
Phone call	5/07/2021	C7EVEN engagement with TRC Councillor Charles Impey	Tamworth Regional Council
Email	7/07/2021	C7EVEN engagement with TRC Counccillor Russell Webb	Tamworth Regional Council
Email	8/07/2021	Email Chain between Someva Renewables and Neighbour	Nundle Resident
Phone call	9/07/2021	Biodiversity Stewardship Conversation with Landowner	Landowner
Phone call	9/07/2021	Engagement with Tamworth Councillors	Tamworth Regional Council
Email	14/07/2021	Biodiversity Stewardship Conversation with Landowner	Nundle Resident
Email	15/07/2021	Email thread between Dungowan Public School and Someva	Dungowan Resident
Video conference	16/07/2021	Meeting to discuss road upgrades and usage arrangements	Muswellbrook Shire Council
Video conference	16/07/2021	Meeting held to discuss transport routes through Muswellbrook	Muswellbrook Shire Council
Phone call	19/07/2021	C7EVEN Engagement with Tamworth Councillor	Tamworth Regional Council
Email	19/07/2021	C7EVEN Engagement with Tamworth Councillors	Tamworth Regional Council
Email	19/07/2021	C7EVEN Engagement with Tamworth Councillors	Tamworth Regional Council
Phone call	20/07/2021	C&EVEN Engagement with Tamworth Councillor	Tamworth Regional Council
Phone Call	21/07/2021	Biodiversity Stewardship Conversation with Landowner	Landowner
Email	28/07/2021	Consultation Update - DPIE, NPWS and Landowner	Department of Planning, Industry and Environment | National Parks and Wildlife Services and
Email	28/07/2021	Correspondence with Landowner regaridng project update	Nundle Resident
Phone Call	29/07/2021	Phone call regarding Biodiversity Stewardship and Transport	Nundle Resident
Phone Call	29/07/2021	Phonecall with Transport landowner	Transport Landowner
Phone Call	30/07/2021	Biodiversity and Transport Call with Landowner	Hanging Rock Resident
Phone Call	30/07/2021	Biodiversity and Transport Call with Landowner	Hanging Rock Resident
Phone Call	30/07/2021	Biodiversity and Transport Call with Landowner	Hanging Rock Resident
Email	30/07/2021	C7EVEN - email to TRC	Tamworth Regional Council
Email	2/08/2021	C7EVEN - engagement with Gina Vereker re: councillor workshops	Muswellbrook Shire Council
Video conference	3/08/2021	Transport call with Mach Energy	Mach Energy
Email	10/08/2021	Business survey sent to local business in Nundle and Hanging Rock	Nundle and Hanging Rock Businesses
Website Update / Email Campaign	11/08/2021	Winter Newsletter Digitially sent to website subsribers	Hills of Gold Website subsribers
Print media	11/08/2021	C7EVEN - locking in dates for TRC wind farm tour	Tamworth Regional Council
Email	13/08/2021	C7EVEN - ALL TRC councillors - sending winter newsletter	Tamworth Regional Council
Email	16/08/2021	C7EVEN - All TRC councillors - sending HOGWF FAQs	Tamworth Regional Council
Email	16/08/2021	C7EVEN - Wind farm tour dates with TRC	Tamworth Regional Council
Phone call	18/08/2021	Neighbour Call	Hanging Rock Resident
Newsletter Mail out	18/08/2021	Project Newsletter sent through australia post to Nundle and Hanging	Nundle, Hanging Rock and Crawney
Email	18/08/2021	VPA - follow up with TRC	Tamworth Regional Council
Phone call	19/08/2021	Someva call with business owner	Nundle Business Owner
Phone call	19/08/2021	Someva call to transport landowner	Nundle Resident
Phone call	19/08/2021	Someva call to Neighbour	Nundle Resident
Email	20/08/2021	C7EVEN - engagement with Gina Vereker re: councillor workshops	Muswellbrook Shire Council
Phone call	20/08/2021	Morrisons Gap Road Transport Meeting	Nundle Resident
Video conference	23/08/2021	Meeting to present project update and address key issues	DPIE Department of Planning, Industry and Environment
Email	23/08/2021	C7EVEN - engagement with Gina Vereker re: councillor workshops	Muswellbrook Shire Council
Phone call	25/08/2021	Someva phone call with local business owner	Nundle Business Owner
Phone Call	26/08/2021	Someva call to project neighbour	Nundle Resident
Email Campaign	27/08/2020	Email to sensitive community members with an offer for a videoconference	Sensitive Nundle and Hanging Rock Community Members
Video conference	21/09/2021	Meeting to to discuss project updates	Tamworth Regional Council
Email Campaign	28/09/2021	Morrisons Gap Road and Shearers Road Transport Update email	Morrisons Gap Road and Shearers Road residents
Email	5/10/2021	Updated BDAR issued for review and comment	DPIE Environment, Energy and Science (EES)– Biodiversity Conservation Division
Email	5/10/2021	Updated BDAR issued for review and comment	Department of Planning, Industry and Environment | National Parks and Wildlife Services and
Email	12/10/2021	Updated project amendment letter and request for council support	Tamworth Regional Council.
Video conference	15/10.2021	Meeting with DPIE to discuss RtS update	DPIE Department of Planning, Industry and Environment

Method	Communication Date	Subject	Stakeholder
Email campaign	28/10/2021	Response to Submissions Update	Website subscribers / Community Members
Consultation Hub	8/11/2021	Nundle Community Information Hub	Nundle / Hanging Rock Community Members
Consultation Hub	9/11/2021	Nundle Community Information Hub	Nundle / Hanging Rock Community Members
Consultation Hub	10/11/2021	Nundle Community Information Hub	Nundle / Hanging Rock Community Members
Consultation Hub	11/11/2021	Timor Community Information Hub	Timor Community Members
Email campaign	11/11/2021	Spring Newsletter Email Campaign	Website subscribers / Community Members
Consultation Hub	15/11/2021	Nundle Community Information Hub	Nundle / Hanging Rock Community Members
Drop-in BBQ	15/11/2021	Hanging Rock Drop-In BBQ	Nundle / Hanging Rock Community Members
Consultation Hub	16/11/2021	Nundle Community Information Hub	Nundle / Hanging Rock Community Members
Consultation Hub	17/11/2021	Nundle Community Information Hub	Nundle / Hanging Rock Community Members
Letterbox Drop	15/11/2021	Project newsletter letterbox drop	Nundle, Hanging Rock and Timor Community Members
Face-to-face Meeting	15/11/2021	Engie meeting with Tamworth Regional Council	Tamworth Regional Council
Face-to-face Meeting	15/11/2021	Engie meeting with Upper Hunter Shire Council	Upper Hunter Shire Council
Video conference	25/11/2021	Engie and Someva meeting with Tamworth Regional Council regarding heritage	Tamworth Regional Council
Face-to-face Meeting	7/12/2021	Engie and Someva meeting with Upper Hunter Shire Council	Tamworth Regional Council
Face-to-face Meeting	8/12/2021	Engie and Someva meeting with Tamworth Regional Council	Upper Hunter Shire Council
Video conference	14/12/2021	Meeting with DPIE to discuss submission of the Rts	DPIE Department of Planning, Industry and Environment

APPENDIX C.2 COMMUNITY ENGAGEMENT MATERIALS

ENGIE

Community Information Hub

Hills of Gold Wind Farm

Do you want to know more about the recent changes to the proposed Hills of Gold Wind Farm?

ENGIE will be hosting an Information Hub to update the community on changes to the project following community feedback provided earlier this year.

Hanging Rock Drop-in BBQ

15 November 2021
4.30pm – 6pm

Join us for a BBQ and a chat to learn more about the project.

All community members are welcome.
For more information about the project visit
www.hillsofgoldenergy.com

ENGIE

Community Information Hub

Hills of Gold Wind Farm

Do you want to know more about the recent changes to the proposed Hills of Gold Wind Farm?

ENGIE will be hosting an Information Hub to update the community on changes to the project following community feedback provided earlier this year.

Timor Community Hall

Thursday,
11 November 2021
10am – 3pm

All community members are welcome.
For more information about the project visit
www.hillsofgoldenergy.com

ENGIE

Community Information Hub

Hills of Gold Wind Farm

Do you want to know more about the recent changes to the proposed Hills of Gold Wind Farm?

ENGIE will be hosting an Information Hub to update the community on changes to the project following community feedback provided earlier this year.

Nundle Information Hub

8-10 and
15-17 November 2021
9am-12pm and 3-6pm

Outside Machina Coffee Donuts, 80 Jenkins Street, Nundle.

Free coffee and donuts will be offered for those who drop in to learn more about the Project.

All community members are welcome.
For more information about the project visit
www.hillsofgoldenergy.com

ENGIE

Community Information Hub

Hills of Gold Wind Farm

Do you want to know more about the recent changes to the proposed Hills of Gold Wind Farm?

ENGIE will be hosting an Information Hub to update the community on changes to the project following community feedback provided earlier this year.

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www.hillsofgoldenergy.com

Hills of Gold Wind Farm Project

Frequently Asked Questions

19 OCTOBER 2021

ENGIE | SOMEVA RENEWABLES

Project Design and Development

Project Details

How many wind turbines are currently proposed for the project?

The Environmental Impact Statement (EIS) submitted was for 70 turbines, however during the Response to Submissions assessment process we have committed to removing five turbines, reducing the number to 65. The reduction of these five turbines addressed concerns relating to biodiversity and visual impacts. Removal of two of the turbines has directly resulted in removing impact to two threatened bat species.

How many landholders are directly involved in the project?

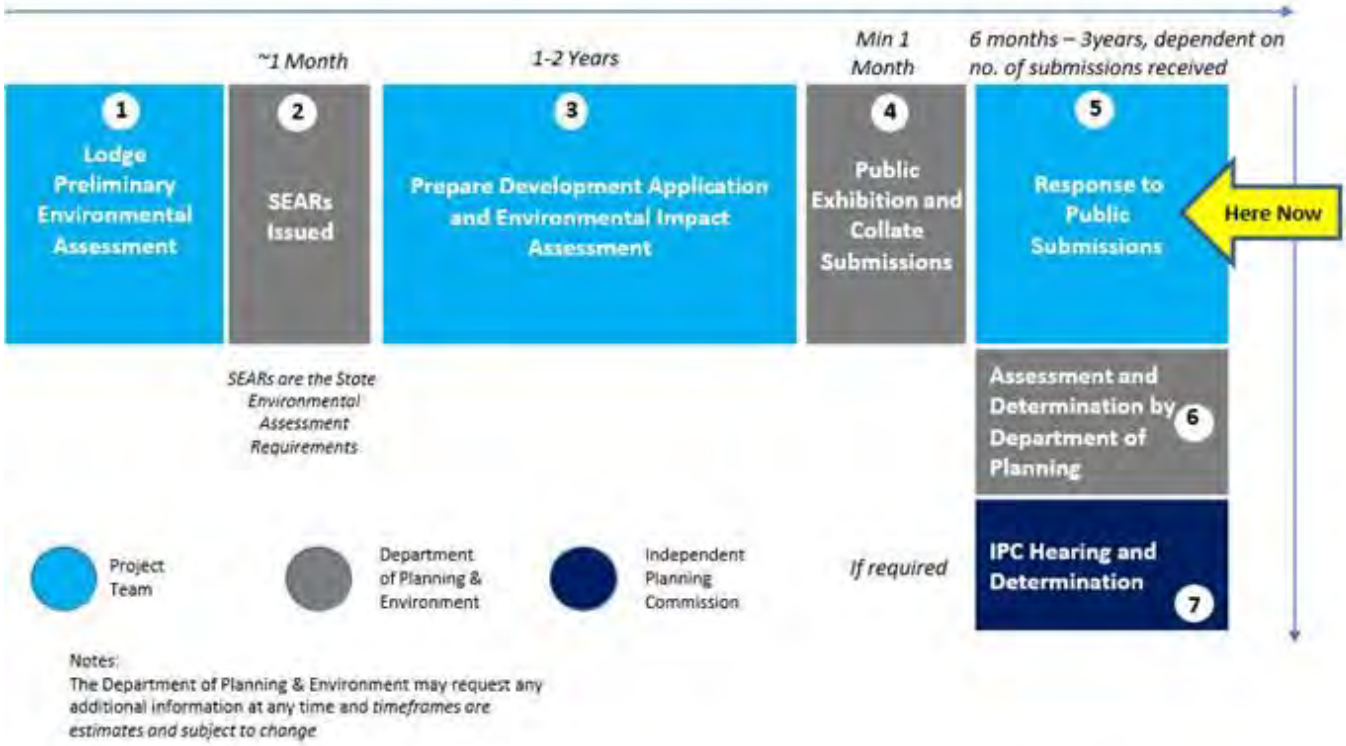
- 4 landholders with full turbines
- 4 neighbours that receive benefit from turbines
- 4 landholders along the transmission line
- 14 transport consents
- 8 landowners offered biodiversity stewardship sites

How many neighbouring landholders are involved in the project?

- 13 neighbour agreements

What are the next steps in the development approval process?

As shown in the diagram below, ENGIE and Someva are currently working through the public submissions received in response to our EIS. Further technical assessments and stakeholder engagement is being undertaken prior to the Response to Submissions being submitted to the Department of Planning, Industry and Environment (DPIE).



Why has Response to Submissions been delayed?

We understand the community is eager to see ENGIE's Response to Submissions, however we want to ensure all the right steps are taken to address the key community concerns highlighted during the public submissions phase.

While some in the community are concerned at the length of time it is taking, we want residents and the wider community to understand why this process is taking longer than expected.

As a result of discussions with key stakeholders, ENGIE is undertaking extra technical assessments, particularly in regards to the bypass design of Devil's Elbow. We have also reduced the number of wind turbines, which has resulted in further environmental and visual assessments.

When lodged, ENGIE's Response to Submissions will detail key project changes which will highlight reduced project impacts including traffic, visual and biodiversity.

Depending on number of public submissions the lodgement of Response to Submissions can take up to three years.

Will this project be sold again?

At the present time, ENGIE intends to build, own and operate all of its renewable energy assets.

Traffic and Transport

Heavy Vehicle Traffic

What is the preferred oversize, over mass (OSOM) transport route?

Our original EIS stated that 20% of OSOM and construction traffic would impact several streets in the Nundle area, including Gill Street, Innes Street, Jenkins Street, Happy Valley Road, Head of Peel Road and Crawney Road.

This route has been removed from the project. Morrisons Gap Road is the primary route option for all construction and OSOM traffic.

Will OSOM traffic impact Tamworth or Muswellbrook?

There will be no impact to Tamworth from OSOM movements. The original OSOM transport route through Tamworth has now been removed from the Development Application to avoid impacting communities and residents in this area.

We're currently working with Muswellbrook Shire Council on route options for OSOM movements through Muswellbrook to ensure the least disruption to residents. We have a commitment to ensure all OSOM transport movements avoid school bus hours through Muswellbrook.

Local Traffic

What are the likely impacts to traffic through Nundle during construction?

Through discussions with the local community, we understand that residents are concerned about increased traffic, particularly during the construction period. In responding to these concerns we've made key changes to our traffic management plan, ensuring a **38% reduction** in daily traffic movements through Nundle during the construction period, improving safety and convenience. Of these traffic movements, half will be construction staff in light vehicles such as utes, providing revenue into the local economy. Some of the key changes will look to utilise car-pooling schemes to reduce the number of vehicles driving to site each day, as well a proposed temporary project car park to reduce pressure on available parking within Nundle. We will also install an additional pedestrian crossing in Nundle (subject to TRC approval) and employ parking restrictions in the town for project vehicles. We also have a commitment to ensure all OSOM transport movements avoid school bus hours through the town.

Head of Peel Road has also been removed as a project site access route. This will mean there will be less OSOM movements through the residential areas of Nundle.

It is important to note that existing logging trucks create around 70 heavy vehicle movements one-way per day through Nundle, and the additional impact to traffic as a result of the HOGWF's OSOM movements from the New England Highway to the project site is not significant.

What are the likely impacts to residents on Barry Road and Morrisons Gap Road during construction?

ENGIE is committed to roads safety, particularly to residents directly affected along access routes. We are undertaking further civil design to the upgrades required on Barry Road and Morrisons Gap Road to provide increased certainty for property owners. Currently, upgrades to Morrisons Gap Road include widening to 5.5 metres and adding laybys. The road will also be sealed once the construction phase is complete. Ongoing surveys are being undertaken for OSOM transport movements and the refinement of swept path.

During project construction we will be utilising vehicle escorts, call-up protocols to residents along Morrisons Gap Road, and installing in-vehicle monitoring systems for regular vehicles accessing the project site.

We will also ensure there are no OSOM transport movements during school bus hours.

Project design and Biodiversity impact

Native Vegetation

How will native vegetation (including Koala and Wombat habitat) around the project site be impacted?

We share the community's concern about impacts to native vegetation and habitats of native wildlife and have engaged industry leading consultants to conduct biodiversity studies. Studies conducted over two years confirmed there will be no serious or irreversible biodiversity impacts from the Project.

Given concerns raised in public submissions, we've undertaken further biodiversity studies in 2021 and subsequently made key changes to our development application, such as removing the Head of Peel Road as an access route and realigning transmission lines. These changes have reduced the total development footprint by **40%**, prevented nine waterway crossings from being impacted, and reduced the removal of high-condition native vegetation by 45%. There will

also be a 17% reduction in the removal of threatened native species habitat, which will result in a **29% reduction** in the removal of koala habitat to 36ha.

It is worth noting that only two koalas were spotted during the extensive surveys carried out between 2018 and 2020, and that despite significant loss of habitat during the 2019/20 bushfires, there remains suitable habitat in neighbouring properties and over 3000ha in nearby nature reserves.

We have committed to a spotting and handling program to ensure any animals found prior to and during construction are relocated to high condition habitat in adjoining properties.

In addition, we are progressing with developing biodiversity stewardship sites, which will create wildlife corridors between existing National Parks.

All mitigation measures to protect biodiversity and native animals will be governed by environmental management plans that must be prepared and implemented by specialists, and approved by DPIE, should the project receive development approval.

What impact will the development have on native bats and their habitat?

Following further surveys and assessment of bat-roosting habitat, we have an increased understanding of the presence of bats on site. Through additional design work and the removal of wind turbines 19 and 23 we have reduced the number of wind turbines within bat-roosting habitat buffers from nine to two. We have also been undertaking further geomorphological assessment of caves and karsts to confirm their location in relation to the project site. We have also further increased bat habitat mapping, which has resulted in refined identification of roosting habitat.

We are progressing with developing biodiversity stewardship sites, which will create wildlife corridors between existing National Parks.

All mitigation measures to protect biodiversity and native animals will be governed by environmental management plans that must be prepared and implemented by specialists, and approved by DPIE, should the project receive development approval.

Water

How will the Peel catchment and Tamworth's water supply be impacted?

We assessed the project's impact on Peel Valley Catchment in our original Soils and Water Assessment, as part of our EIS. However, we are now currently undertaking further investigations. The details of our latest study of impacts on the Peel Valley Catchment will be available in an updated Soils and Water Assessment Report in our Response to Submissions,

however it is important to note Water NSW's response to the EIS raised no concerns about impact to the catchment.

Will the wind farm impact on local springs in the area?

It is likely that springs will be intersected during the construction period, as this is common in infrastructure projects. Suitable mitigation measures will be implemented if and when this occurs.

To ensure that flows from the up-gradient catchment, including rainfall runoff or any identified springs, reach down-gradient watercourses and the Peel River, options including drainage rock blankets installed for seepage and culverts installed at key watercourse crossing points will be confirmed at the detailed design phase.

What water supply will be used during construction of the wind farm?

It is estimated that around 55ML of water will be required during the two-year construction phase of the wind farm. This water will be used to facilitate the construction of access tracks, concrete foundations, dust suppression and cleaning of the wind turbine components before erection.

There currently are four viable options available to source that water, including:

- Council water supply, with agreement from Council
- Extraction from a nearby existing landowner bore, with agreement from landowner
- Extraction from a new groundwater bore (once approval is sought)
- Extraction from a surface water source (Peel River)

The options will be reviewed by DPIE, with the project contractor then determining the best source based on the approved options.

Community and Heritage

Community Enhancement Fund

How will the community be compensated?

ENGIE is committed to supporting the local communities that host our projects. In response to feedback received by the local councils, we are committed to allocating $3,000 per wind turbine per year during operations to the Community Enhancement Fund (CEF) for Tamworth Regional Council and Upper Hunter Shire Council (funding shared between councils based on which Local Government Area wind turbines are located).

While there has been a reduction in the number of wind turbines, from 70 to 65, at this point in time, the annual fund contribution will be based on 70 turbines. If further changes are made to the project layout or total number of turbines, then ENGIE will re-assess its annual contribution to the CEF.

In addition, we are also committing a one-off sponsorship fund of $150,000 to support community initiatives during construction, which will be administered by the Project. The Project will also be making additional commitments, including pedestrian crossings within Nundle (subject to TRC approval), traffic reduction schemes, implementation of voluntary speed limits and the provision of an Information Hub within Nundle for Project updates.

How can the community be involved in the decision making of the Community Enhancement Fund?

A CEF Committee will be formulated that will have local Council representation, voluntary community members and an independent Chair. The way the funds will be disseminated within the community will be established once the committee has been formulated.

How will ENGIE ensure the construction sponsorship fund of $150,000 goes to the local community?

ENGIE is committed to working within the local townships of Nundle and Hanging Rock during construction to ensure that impact is minimised as much as possible. The purpose of the construction sponsorship fund is to provide benefit to the local community that would be advantageous to both individuals and groups within the area. This may include sports sponsorships, community gardens, enhancement to local areas, scholarships, and local community events. We would welcome any suggestions that the community may have to assist with identifying opportunities.

Local Heritage

What impact will the proposed bypass of Devil's Elbow have on surrounding heritage sites?

We understand that the mining heritage of the town is important to residents. Following community input, we are currently working to ensure our proposed bypass to Devil's Elbow will have minimal impact on nearby heritage sites, like the Black Snake Mine. We have recently undertaken geo-physical investigations to gain a greater understanding on the potential mine shafts in the area and are engaging a construction contractor to undertake a 50% concept design. These investigations and civil design works will assist us to avoid heritage values in the area.

Local Economy, Business and Tourism

What are the economic benefits of the project?

ENGIE's Hills of Gold project will bring a number of economic benefits to the region. During the construction phase there will be 211 direct jobs and 404 indirect jobs. Once operational, the wind farm will provide 16 local jobs, as well as opportunities to develop new skills in the region within the growing renewable energy industry.

The construction and operation of the wind farm will require a range of skills including engineering, trades (electrical, mechanical, construction), transport, building material providers, equipment operators, consultants and administrative staff. ENGIE will encourage all contractors to employ local people where possible. Through the upgrade of local roads and waterway crossings, during the construction and operational life of the project, there will be investment and financial contributions of $104 million, through wages and profit to local communities and services.

Will the wind farm reduce the value of the land in Nundle?

A number of studies have been undertaken both within Australia and overseas, into the impact of wind farms on nearby property values.

In 2016, the NSW Office of Environment and Heritage commissioned a report into the impact of wind farms on property values. The report concluded that across the case studies reviewed in NSW and VIC, there was no evidence of negative impacts on property values. Furthermore, the resale values of all the properties examined in the report experienced capital growth in line with the property market trends. A full copy of the report is available here.

In another study completed in 2013, national property consultants Preston Rowe Paterson conducted an assessment of the impact of wind farms on surrounding land values in Australia, and similarly concluded that there was no 'quantifiable effect on land values'. The full report can be found here.

It is important to note many factors influence land and property prices. Supply and demand, proximity to amenities and infrastructure, housing affordability and the desirability of the location can all have an impact.

What benefits will there be for local businesses?

During the construction phase of the project, it is envisaged that a number of local businesses will experience an increase in sales as the onsite workforce purchase everyday items such as food, drinks, petrol and other groceries. There will also be a demand for increased

accommodation in the area. This will include long term accommodation requirements particularly during the two-year construction period.

Once the transition to operation occurs, the onsite workforce of up to 28 people may provide a modest boost to ongoing sales of these grocery items.

Local community benefits can include:

- Boost to the local and regional economy and local businesses
- Jobs during construction and operation
- Training, skills development and education programs
- Community Enhancement Fund

What sort of workers or suppliers will be needed and how can I register my business?

We expect a number of skills and suppliers to be required by our main contractor during the construction phase of the project which include:

Skills

- Earthworks plant operator
- Labourers
- Mechanical and electrical engineers/fitters
- Cementers and grouters
- Building contractors
- Heavy vehicle truck drivers
- Heavy machinery operators
- Pipelayers
- Welding and engineering

Suppliers

- Mechanics and maintenance
- Cleaners
- Accommodation
- Catering services
- Equipment hire
- Fencers
- Freight
- Waste management
- Administration

We will be opening Expressions of Interest for contractors and suppliers soon.

How was the business survey conducted and what were the key results?

ENGIE undertook a survey in August 2021 to gauge project sentiment amongst business owners who will have a direct impact from traffic movements associated with the project. The survey was sent to known businesses with a shopfront or that are home-based in both Nundle and Hanging Rock. The survey was also used to gain feedback on a number of proposed traffic management strategies.

A total of 55 responses were received showing that 67% of local business owners with a shopfront are in favour of the Project. Of those that support the project, more than 90 per cent believe the Project will bring economic benefits to their business, with majority citing increased revenue and increased customers as the biggest benefits.

In addition, 75 per cent of the supportive business owners believe ENGIE's project will strengthen the region's existing tourism market.

Will Nundle tourism be impacted by the project?

The Nundle region is already a popular tourist destination, reliant on the area's rich gold mining history and natural beauty. Our aim is to ensure that the HOGWF can co-exist with and complement the existing heritage and natural elements of the Nundle region.

We believe the HOGWF will boost local tourism and bring additional visitors to the area by appealing to different markets. There are several examples of wind farm tourism in Australia and around the world, with many wind farms listed as tourist destinations in their own right.

There are many benefits to businesses located near windfarms, including using turbines in advertising and imagery. There are also several wind farms that host bus tours for visitors and school groups, which is something that will be considered for the HOGWF.

Hills of Gold Wind Farm

Project Fact Sheet

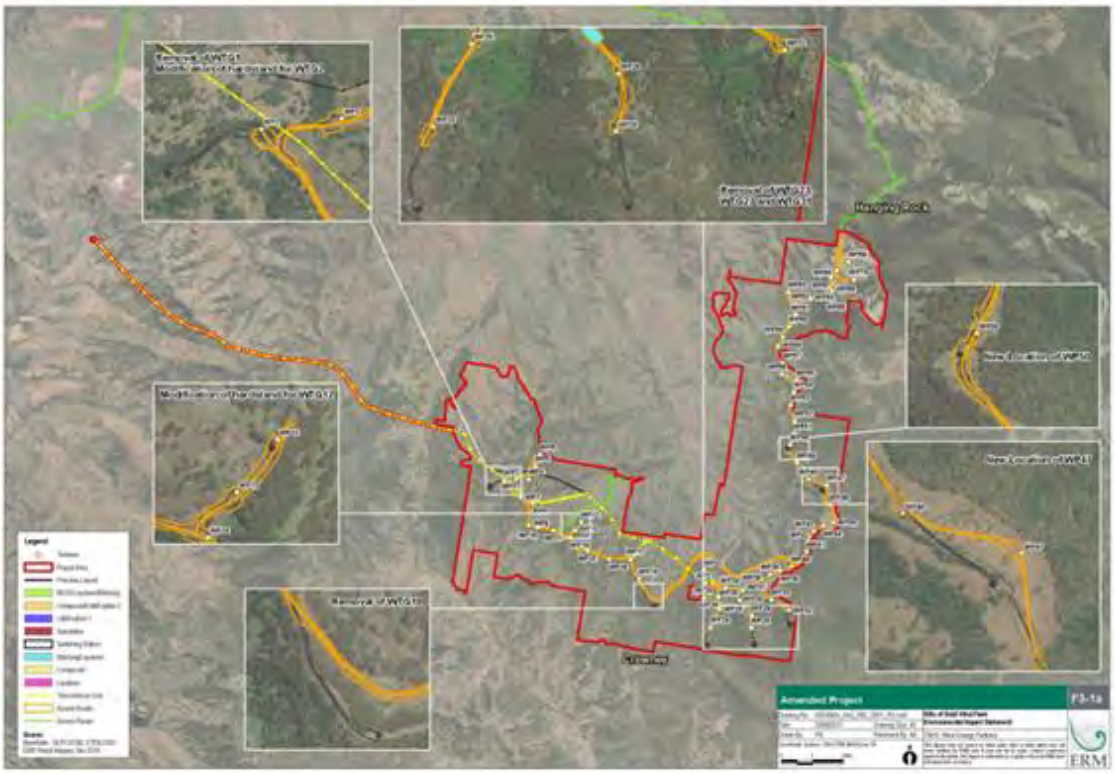
November 2021

The proposed Hills of Gold Wind Farm is located about 5km south of Hanging Rock and 8km south-east of Nundle and is contained within three Local Government Areas: Tamworth Regional Council, Upper Hunter Shire Council, and Liverpool Plains Shire Council. The project involves the construction, operation and commissioning of a wind farm with up to 65 wind turbine generators and associated ancillary infrastructure to support a generating capacity of up to 390 megawatts. Once constructed, with the backing of ENGIE's local and global expertise in renewable energy, the Hills of Gold Wind Farm will supply up to 1,000 gigawatt hours per annum, the equivalent energy to power 182,000 average Australian homes.

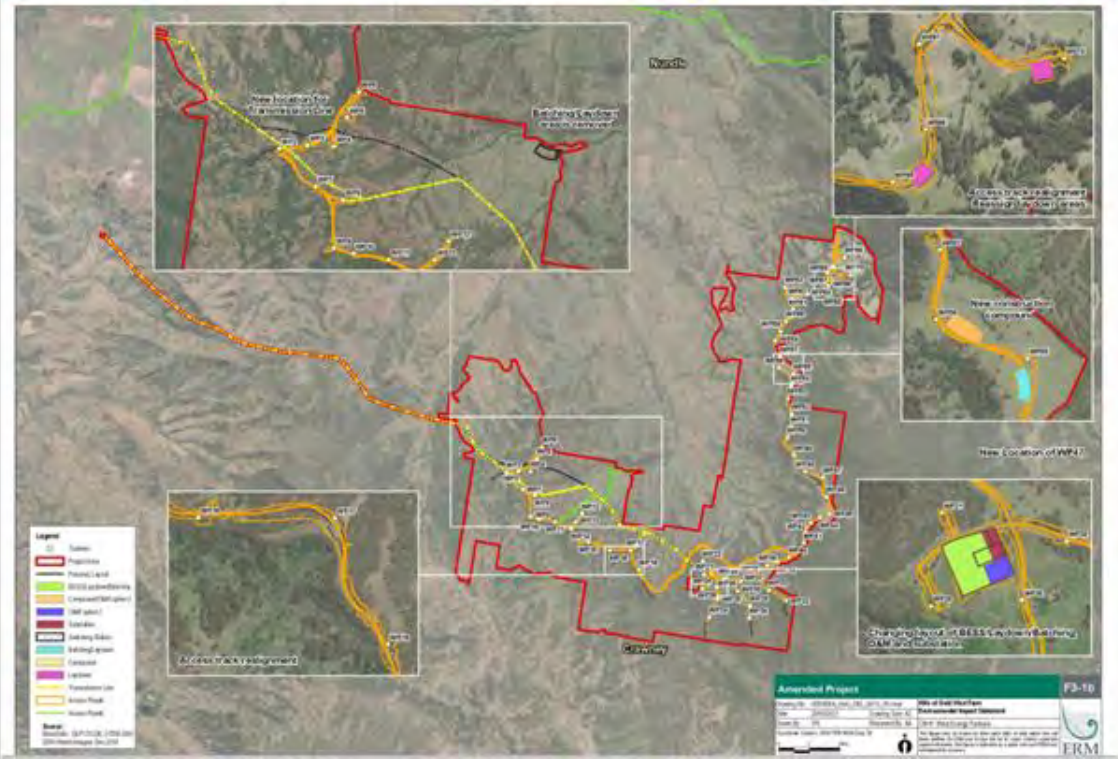
Project Highlights

- Over 211 direct jobs and about 404 indirect jobs expected during construction phase.
- Hills of Gold Community Enhancement Fund to be established, with a commitment of $3,000 per turbine per year installed and operating, expected over a period of at least 25 years.
- A 33kV/330kV on-site substation connecting to the existing 330kV TransGrid Liddell to Tamworth overhead transmission line network.
- 28 permanent jobs and 48 indirect jobs when operational, including 16 local jobs, as well as opportunities to develop new skills in the region within the growing renewable energy industry.
- Up to 65 turbines, each with a maximum height of 230 metres to the top of the blade tip and a generating capacity of up to 6MW per unit.

Turbine Location Removal and Changes



Ancillary Infrastructure Changes



Want more information? Contact Aref Taleb P: [redacted] E: info@hillsofgoldenergy.com

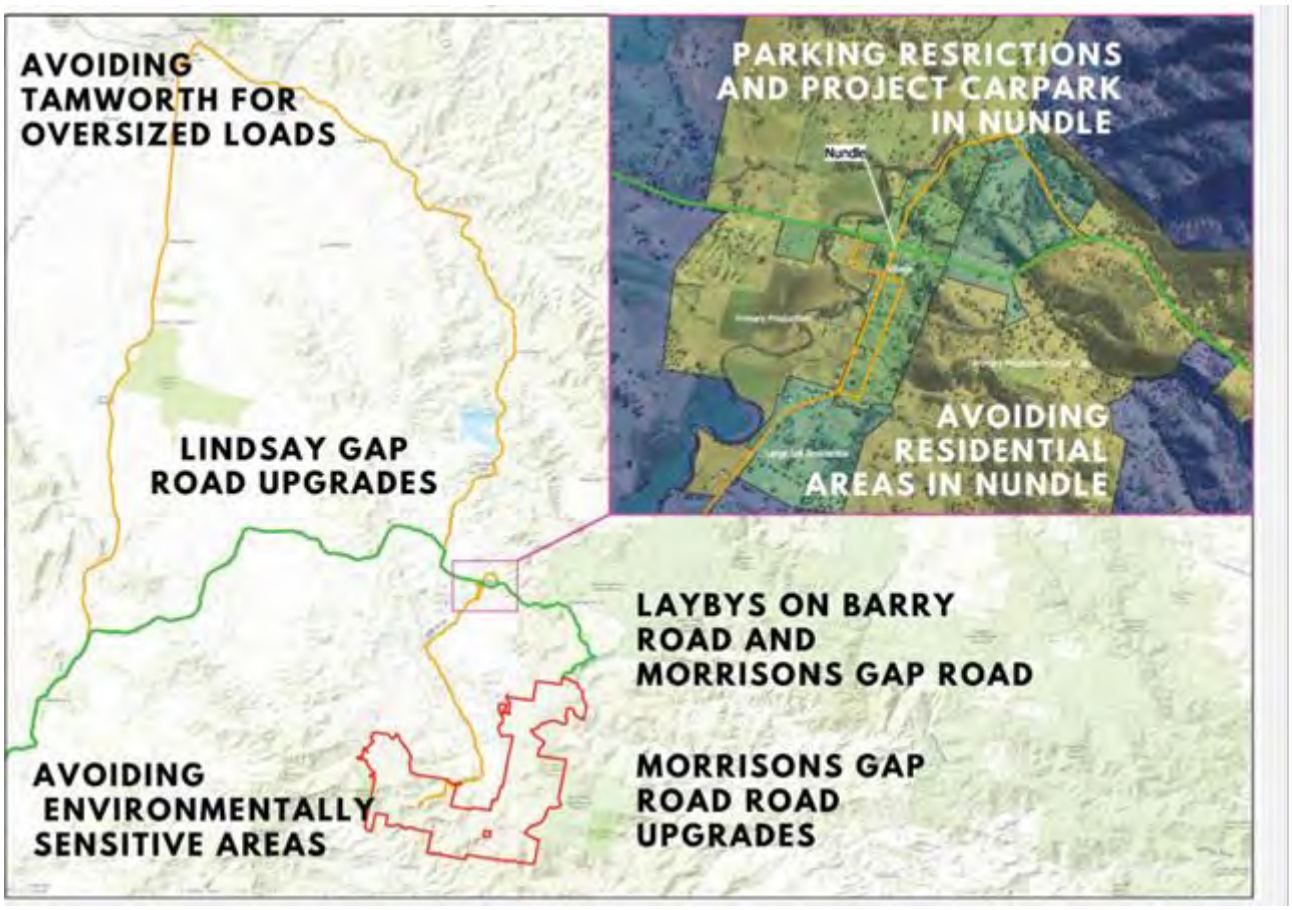
Project Location Fact Sheet

November 2021

Hills of Gold Wind Farm

The Project location has been assessed as suitable for a wind farm based on the following key aspects:

1. The location of the proposed wind farm provides a significantly stronger wind resource than most other wind farms in operation or under development in NSW.
2. There is a relatively low number of existing residential dwellings within 5km of the proposed development:
   - There are 56 dwellings within 5km
   - High impacted dwellings have been reassessed as moderate following removal of turbines, and if vegetation screening can be implemented
   - There remain 10 existing dwellings that have been assessed as moderate impact with potential for effective visual screening
   - All existing dwellings meet noise and shadow flicker guidelines
3. The proposed project is located predominantly on existing agricultural land and will not impact the productive capacity of the land.
4. The proposed project has avoided sensitive conservation soils.
5. The proposed project can be connected into the existing and recently upgraded Transgrid transmission line feeding Tamworth.
6. There will be clean, timely renewable energy from the proposed project, to help replace electricity generation removed from the national network as a result of the closure of AGL's Liddell power station (which is expected to close by 2023).
7. The Project is located within commutable distance to Tamworth improving direct local benefits to businesses in the region.



Want more information?
Contact Aref Taleb
Phone: [redacted]
Email: info@hillsofgoldenergy.com

Biodiversity Fact Sheet

November 2021

Hills of Gold Wind Farm

A wind farm has the potential to affect local ecology through environmental change and habitat loss. ENGIE shares the community's concerns about impacts to native vegetation and the habitats of native wildlife such as koalas and wombats.

Leading industry consultants Biosis were engaged to conduct biodiversity studies, which were conducted over the course of two years in which no serious or irreversible biodiversity impacts from the project were found.

What mitigation measures have been implemented?

Land Development Footprint

As a result of the 2021 biodiversity study, ENGIE made key changes to our development application, such as removing the Head of Peel Road as an access route and realigning transmission lines. These changes have reduced the total development footprint by 40%, prevented nine waterway crossings from being impacted, and reduced the removal of high-condition native vegetation by 45%.

Project Component	Summary of Exhibited Project	Summary of Amended Project	Change from Exhibited to Amended Project
Development Footprint	Permanent Development Footprint: **approx. 242 ha**	Revised Permanent Development Footprint: **approx. 100 ha**	**Decrease by 142 ha**
	Temporary Development Footprint: **approx. 271 ha**	Revised Temporary Development Footprint: **approx. 200 ha**	**Decrease by 71 ha**
	Total development footprint **approx. 513 ha**	Revised Total development footprint **approx. 300 ha**	**Decrease by 213 ha**

Protection of Native Flora and Fauna

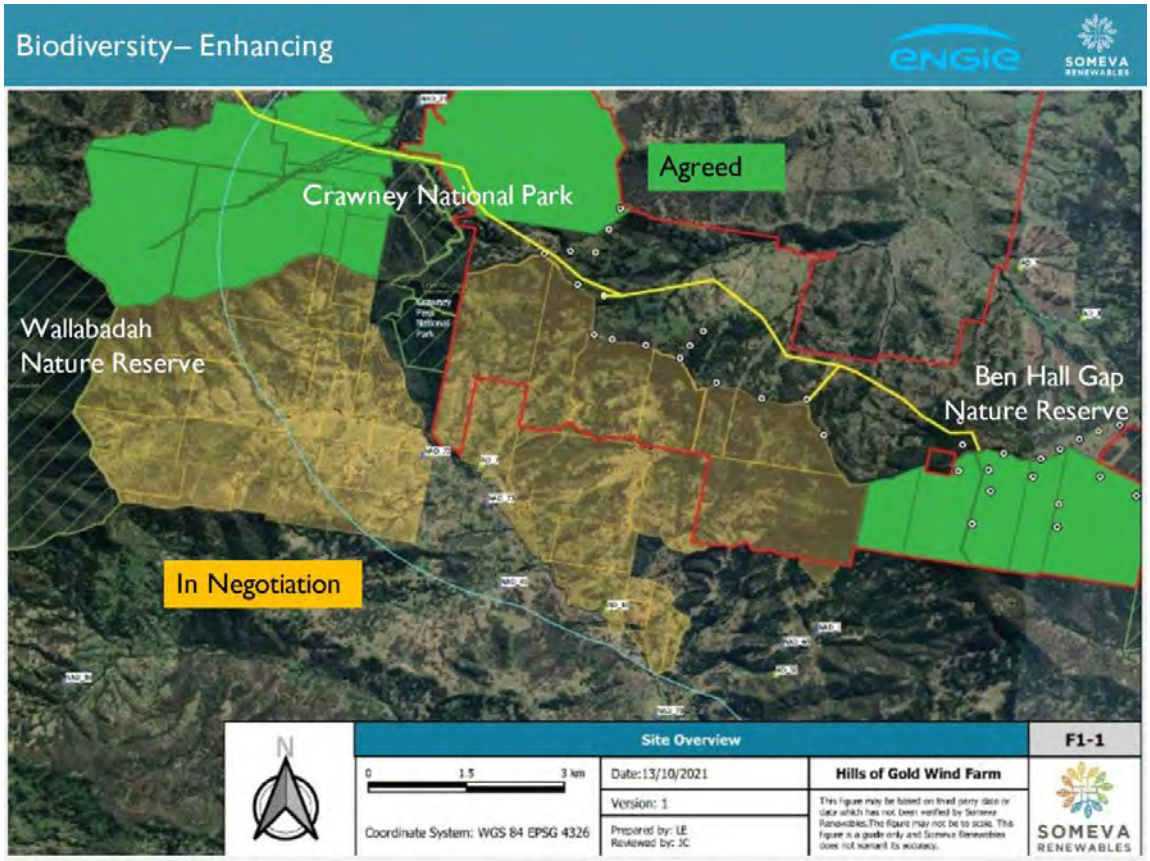
ENGIE have amended the footprint to create a 17% reduction in the removal of threatened native species habitat, which will result in a 29% (14ha) reduction in the removal of koala habitat to 36ha. We have also committed to a spotting and handling program to ensure any animals found prior and during construction are relocated to high condition habitat in adjoining properties, or the 3000ha in nearby nature reserves.

Environmental management plans

All mitigation measures to protect biodiversity and native animals will be governed by environmental management plans that must be prepared and implemented by specialists, and approved by DPIE, should the project receive development approval.

Biodiversity Fast Facts

- The development footprint has reduced from 513ha to 300ha
- Development Footprint avoids sensitive Class 7 and Class 8 soil types
- Avoided 75ha of Native Vegetation impacts (42% reduction in high condition)
- AECOM completed an assessment on a preliminary design of the required vegetation removal within the transmission line route
- 3 out of 4 turbines considered high risk to threatened bat species have been removed from the layout and fourth has been relocated to reduce impacts to moderate
- Avoided 158ha of threatened species habitat – 100% reduction in all threatened bat species roosting habitat
- Removal of turbines was also targeted to reduce impact to other native species including the Greater Glider, Spotted Tail Quoll, Koala and Owls
- Avoided 34ha of threatened Box Gum Woodland – no longer significant impact
- Biodiversity Stewardships Option - Achieved agreement with 3 neighbouring landowners for 1,426ha of biodiversity sites
- Targeting Wildlife Corridor between Wallabadah Nature Reserve, Crawney National Park and Ben Halls Gap Nature Reserve



Want more information?

Contact Aref Taleb
Phone: [redacted]
Email: info@hillsofgoldenergy.com

Hills of Gold Wind Farm

Land Clearing Fact Sheet

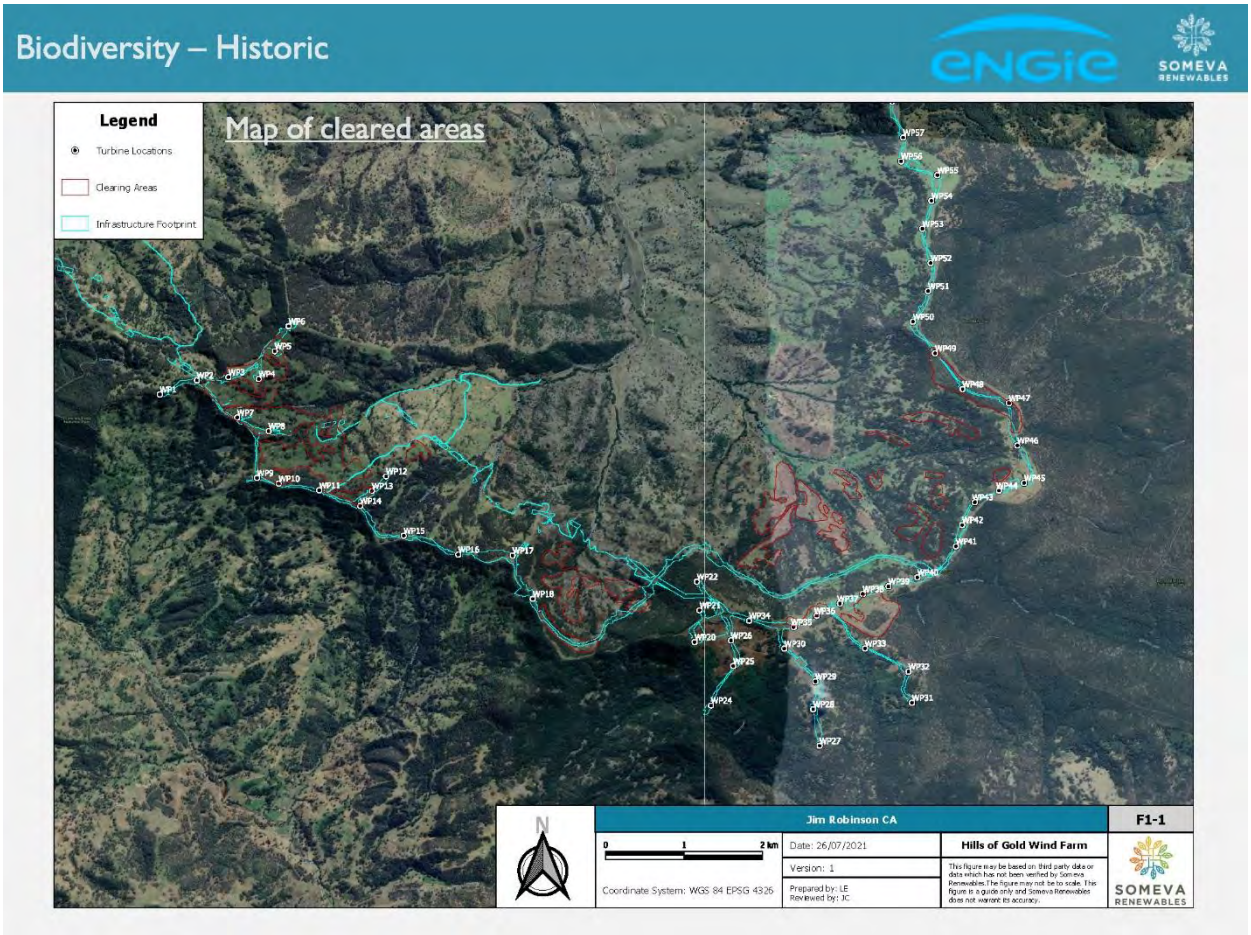
November 2021

What land clearing has been undertaken by ENGIE for the Hills of Gold Wind Farm?

No clearing has been undertaken by ENGIE within the proposed development footprint of the Hills of Gold Wind Farm near Nundle. ENGIE is aware of investigations, past and ongoing, into the unauthorised land clearing within the proposed project footprint. Investigations have concluded that the ENGIE or previous proponents have not been involved in any unauthorised land clearing, which has been determined by the DPIE to be consistent with pasture expansion and weed control. ENGIE or Wind Energy Partners were not aware of the land clearing undertaken on the property prior to it being undertaken and did not request, nor authorise any land clearing.

ENGIE has been supporting authorities in their investigations into land clearing around the project area. It is understood that a conservation agreement has been reached with a wind farm host landowner. This requires the conservation of 620 hectares of their land being established to protect and preserve areas of high-quality habitat. ENGIE has had discussions with the investigating officer who advised that no further action will be undertaken by the Department.

As shown below, clearing by the landowner took place within the indicated red zone. The blue zone indicates the Wind Farm project area.



Want more information? Contact Aref Taleb P: [redacted] E: info@hillsofgoldenergy.com

Visual Impact Fact Sheet

November 2021

Hills of Gold Wind Farm

The Project has removed 5 turbines from the proposal in response to reducing impacts on biodiversity and in order to reduce the visibility to the Project from private residences in the area.

In addition, the transmission line alignment has been modified to reduce visibility to residents along Crawney Road.

Turbine Lighting Requirements

Through consultation with the community, ENGIE understand that many residents are concerned about the red aviation lighting required on wind turbines. Under guidelines imposed by the Civil Aviation Safety Authority (CASA), objects that exceed 150m in height require aviation lighting, with CASA commenting the Hills of Gold Wind Farm should be lit with “medium intensity red light”.

ENGIE has engaged with CASA who agreed to a night lighting plan requiring 28 of the 65 turbines be lit. Lower intensity lighting of 200 candela from 2,000 candela has been accepted and with one steady light (as oppose to two flashing lights) on those turbines required to be lit. A 200 candela light has been assessed as difficult to discern in excess of 3km.

ENGIE is also committing to a number of measures to ensure minimal visual disturbance to nearby residents. These measures include using the lowest intensity lighting allowed under the requirements, aviation shielding to minimise visibility of lights in areas near the project and operating the lights only at night or during times of reduced visibility.

What is Visual Screening?

Landscape and visual consultants have been engaged in relation to screen planting for landholders who will have a visual impact of the wind farm if the project is approved.

Visual screening:

- Planting to be undertaken post construction of the Wind Farm.
- 50 / 75 Litre tree stock to be utilised to ensure plants become established.
- Recommended evergreen tree species that reach a minimum height required to sufficiently screen turbines.
- Tree trunk protection to be installed to prevent damage to tree trunks due to animal movements.
- Targeting Wildlife Corridor between Wallabadah Nature Reserve, Crawney National Park and Ben Halls Gap Nature Reserve

Figure 16. Photomontage of Proposed View without mitigation measures

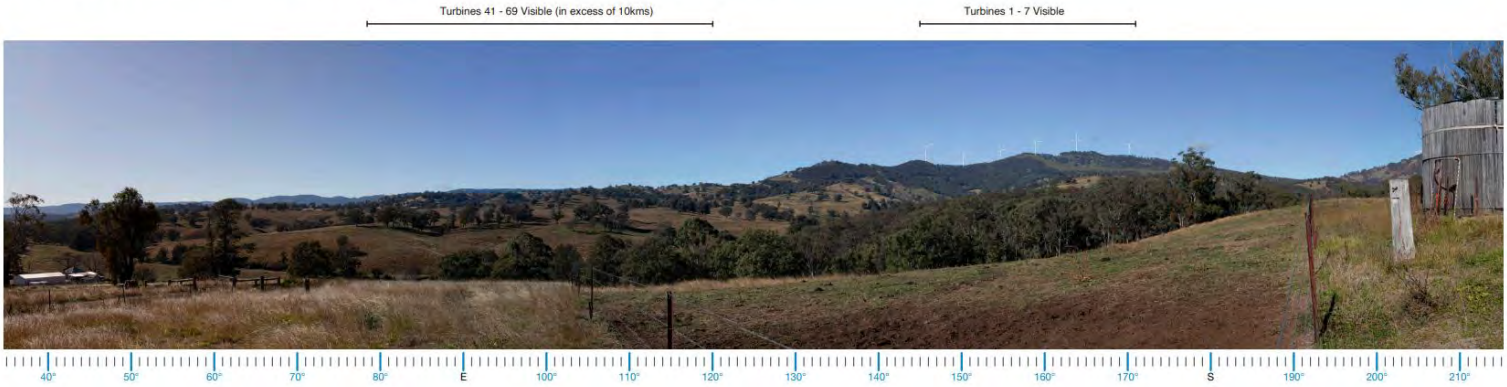
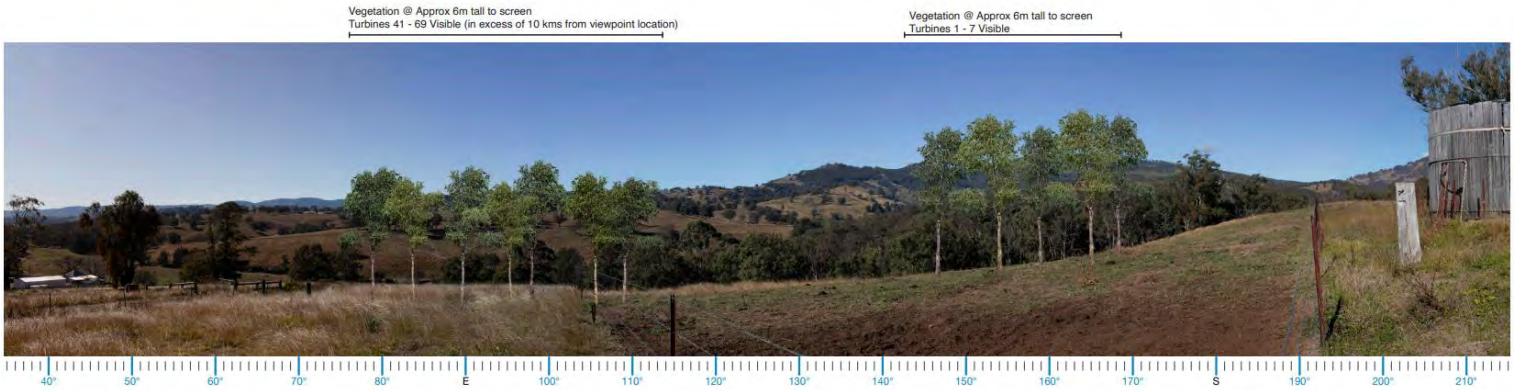


Figure 18. Photomontage of Proposed View with Indicative Screen Planting

based on 70 Turbine Layout as assessed in the LVIA (2020).



Want more information?
Contact Aref Taleb
Phone: [redacted]
Email: info@hillsofgoldenergy.com

Noise Impact Fact Sheet

November 2021

Construction equipment and wind turbines have the potential to generate noise not typically experienced in the region. We understand the concerns raised by the community and subsequently arranged for acoustic specialists, Sonus, to conduct a Noise and Vibration Assessment which was undertaken in October 2020. Sonus is a member of 'The Association of Australian Acoustical Consultants' (AAAC), a not-for-profit peak body representing professionals with acoustic expertise that offer unbiased and practical advice and assessments.

What mitigation measures have been implemented?

In accordance with the New South Wales Department of Environment and Conservation *Assessing Vibration: a technical guideline* (2006), the Secretary's Environmental Assessment Requirements (SEARS) and the EPA's *Environmental Assessment Requirements* (EARS), Sonus evaluated the tonality and low frequency noise as a result of:

- Construction
- Traffic
- Vibration
- Blasting

Sonus found that noise generated from the indicative wind turbines is predicted to fall within the operational noise criteria at all dwellings in the vicinity of the project, with the exception of four dwellings which were outside the specified guidelines during weather and wind conditions that assist with the propagation of noise. By adjusting the modes of the relevant turbines, all dwellings will achieve the required criteria.

Mitigation measures to reduce noise around construction works include adjustments to scheduling, construction methods, locations and equipment. Construction works, including heavy vehicle movements into and out of the site, will be restricted to the hours between 7am and 6pm Monday to Friday, and between 8am and 1pm on Saturdays.

Vibration levels under wind turbines have been measured and are considered acceptable for highly sensitive uses such as a hospital operating theatre. The level of ground vibration from a wind turbine is often less than below a large tree which moves with the wind. This is because the turbines are designed to transfer energy into electrical power, rather than transferring it into the ground. Based on the separation distances between the construction activities and the nearest dwellings being well in excess of 100m, vibration levels are predicted to fall well within acceptable levels.

Want more information?

Contact Aref Taleb
Phone: [redacted]
Email: info@hillsofgoldenergy.com

Traffic and Transport Fact Sheet

November 2021

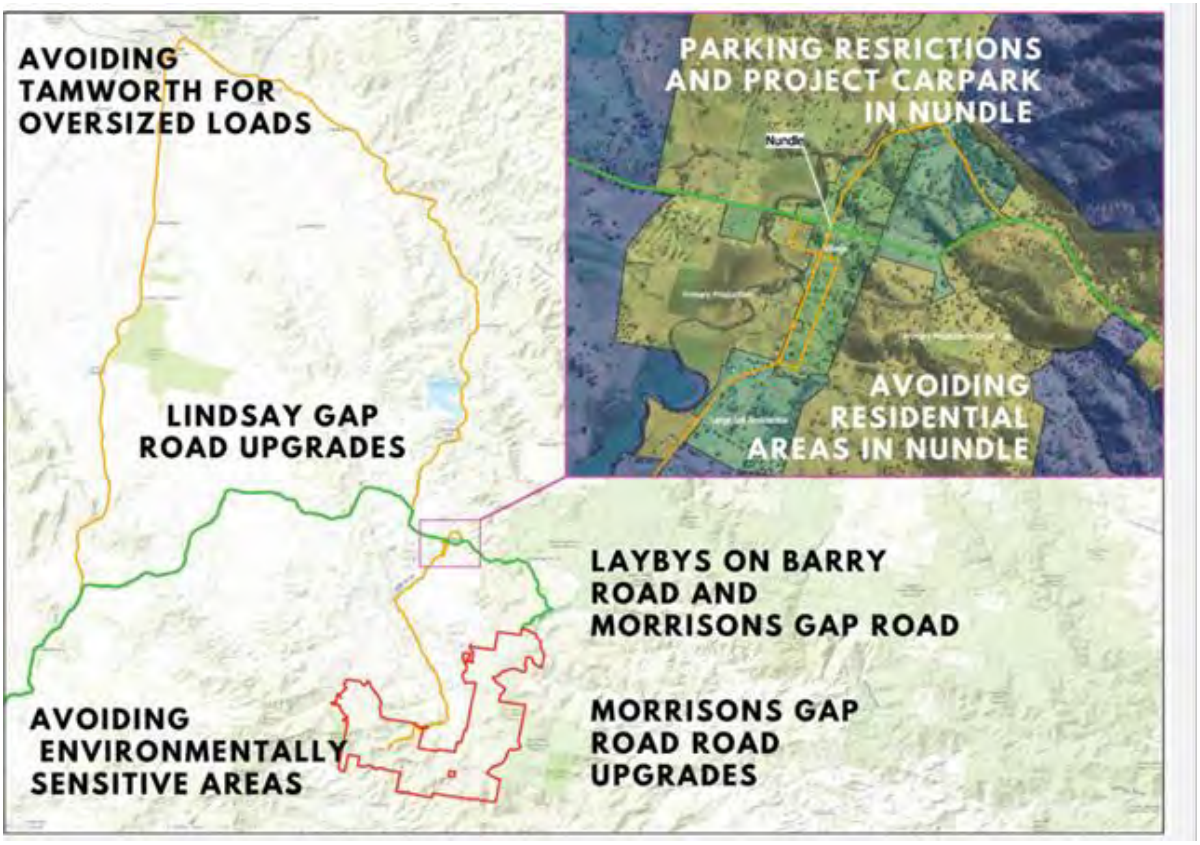
Hills of Gold Wind Farm

Local Traffic

- Traffic and transport consultant TTPP was engaged to undertake an in-depth analysis of traffic impacts to Nundle and Hanging Rock.
- During peak construction, which will last about 13-months, there will be total of 311 daily traffic movements through Nundle, this compares to the existing 845 daily traffic movements.
- We've committed to a **38% reduction** in daily traffic movements through Nundle during the construction phase.
- We will employ a number of traffic management strategies, for example car-pooling and creating a dedicated project car park in Nundle to alleviate impacts to the community and minimise the number of project vehicles on local roads.
- Head of Peel Road has been removed as a project site access route.

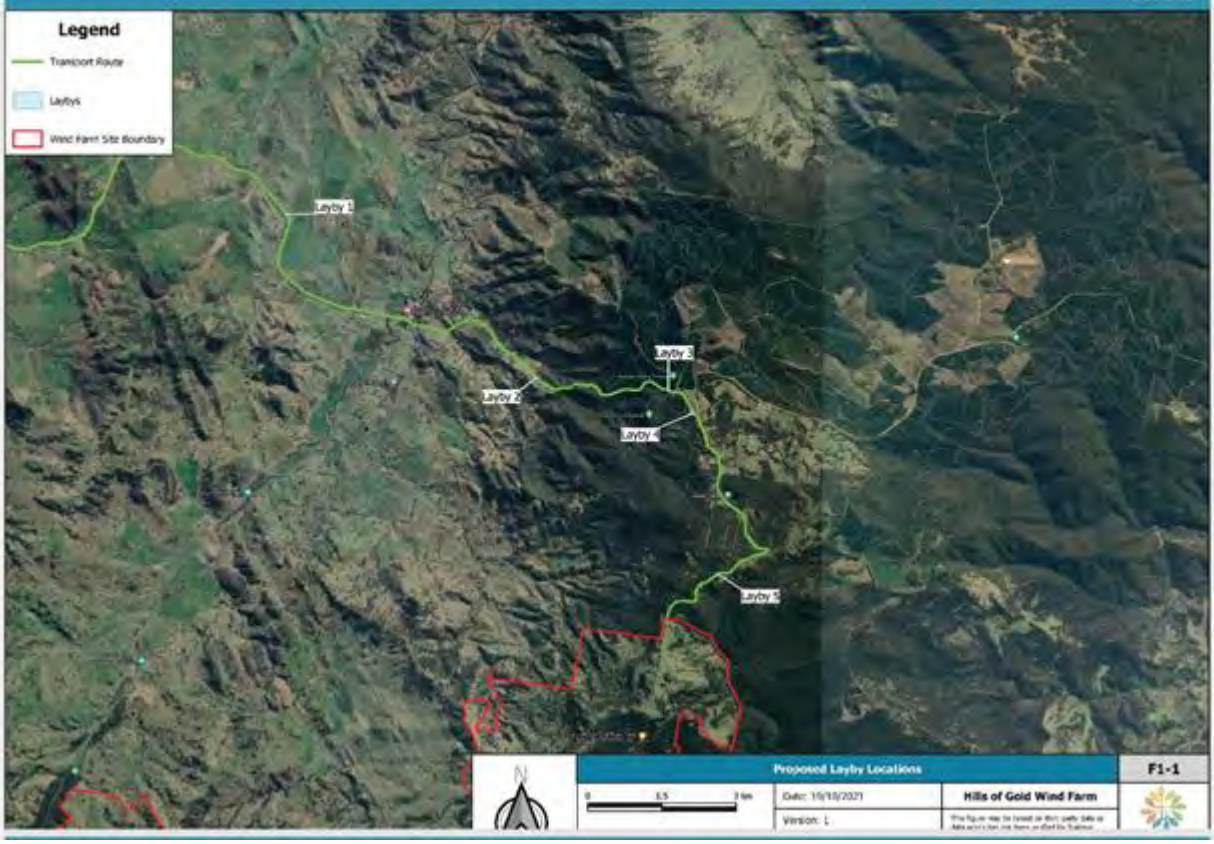
Heavy Vehicle

- Wind turbine components and electrical equipment will be transported to site via the New England Highway, Lindsays Gap Road, Nundle Road and onto Barry and Morrisons Gap Road up to the project site.
- Barry Road and Morrisons Gap Road are now the primary access route options for all construction and oversize over mass (OSOM) traffic.
- Civil upgrades, including widening Morrisons Gap Road to 5.5 metres and adding laybys, will be undertaken to ensure the safety of the community and transport of turbine components.
- We have worked with consultants to design a bypass of Devil's Elbow on Barry Road to ensure the safe transport of turbine components.
- There will be no impact to Tamworth from OSOM movements, as the original OSOM transport route through Tamworth has now been removed from the Development Application.
- All OSOM movements will avoid school bus hours.

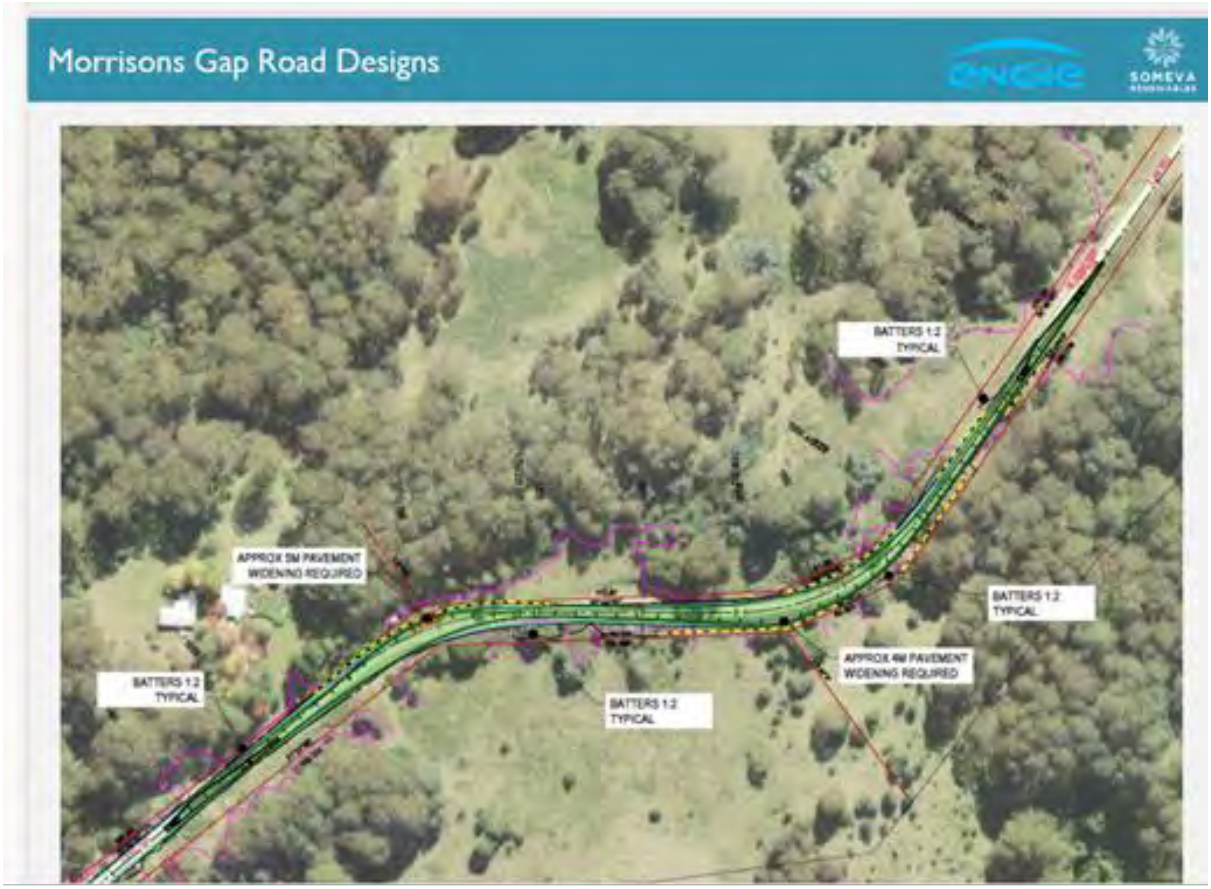

AVOIDING TAMWORTH FOR OVERSIZED LOADS
PARKING RESRICTIONS AND PROJECT CARPARK IN NUNDLE
Nundle
AVOIDING RESIDENTIAL AREAS IN NUNDLE
LINDSAY GAP ROAD UPGRADES
LAYBYS ON BARRY ROAD AND MORRISONS GAP ROAD
AVOIDING ENVIRONMENTALLY SENSITIVE AREAS
MORRISONS GAP ROAD ROAD UPGRADES


Transport route – Laybys
Legend
Transport Route
Laybys
Wind Farm Site Boundary
Layby 1
Layby 2
Layby 3
Layby 4
Layby 5
Proposed Layby Locations
F1-1
Date: 19/10/2021
Hills of Gold Wind Farm
Version: 1

Transport route – Laybys



Barry Road Devils Elbow AECOM 3D Visualisation



Want more information?
Contact Aref Taleb
Phone: [redacted]
Email: info@hillsofgoldenergy.com

Soil and Water Fact Sheet

November 2021

Hills of Gold Wind Farm

Soil Impacts

Since the lodgement of the original Environmental Impact Statement, consultants Coffey International were engaged to complete additional geotechnical investigations across the proposed wind farm site and transmission line corridor, while environmental consultants ERM undertook a new site soil assessment.

- Wind farms are commonly located on ridgelines and in terrain similar to the proposed Hills of Gold Wind Farm site near Nundle.
- The majority of the project is located across agricultural land on flatter parts of the ridgeline and not on the steep terrain (see image over page).
- The location of this wind farm was chosen because of its high natural wind resources and access to existing electricity transmission infrastructure.
- A number of project changes have been made in order to avoid sensitive soil areas within the development footprint, including:
- Removal of 5 turbines
- Relocation of certain wind turbines
- Relocation of construction areas and roads
- A set of standard and specialist soil erosion techniques have been developed to manage soil erosion and potential land slide risk.

Weather conditions and suitable construction activities will be introduced in the Construction Management Plan and undertaken in accordance with Environmental Permit Licenses and Soil and Erosion Management Plan endorsed by an independent Certified Professional in Erosion and Sediment Control.

Water Impacts

Since the lodgement of original Environmental Impact Statement, we have engaged environmental specialists, ERM to undertake further investigations on the project's potential impact on the Peel Valley Catchment, as there was significant community concern raised during the Public Submissions Phase.

- An estimated 55ML of water will be needed during the two-year construction period
- This water will be used to construct access tracks, concrete foundations, dust suppression and cleaning of the wind turbine components before erection.

- There are four options available for sourcing the water needed during construction:
    - Council water supply, with agreement from Council
    - Extraction from a nearby existing landowner bore, with agreement from landowner
    - Extraction from a new groundwater bore (once approval is sought)
    - Extraction from a surface water source (Peel River)
- The options will be reviewed by DPIE, with the project contractor then determining the best source based on the approved options.
- Suitable mitigations measure have also been developed if and when a natural spring or waterway should be impacted during the construction period, including:
    - Drainage rock blankets to allow seepage
    - Culverts at key watercourse crossing points

It is important to note Water NSW's response to the EIS raised no concerns about impact to the catchment.

Want more information?
Contact Aref Taleb
Phone: [redacted]
Email: info@hillsofgoldenergy.com

Join us at the

Hills of Gold Wind Farm Community Barbecue

We would like to invite residents of the Timor and Crawney areas to a Hills of Gold Wind Farm Community Barbecue.

WHEN	WHERE	TIME
Saturday, April 17	Sports Recreation Ground, Timor Road	4pm to 6pm

The BBQ will be an opportunity to hear from Hills of Gold project representatives for updates on the following:

- ✓ The Environmental Impact Statement and studies from the last 2 years.
- ✓ Upcoming project milestones and timelines for 2021.
- ✓ The Community Engagement Plan for the remainder of 2021.
- ✓ Addressing community concerns relating to project transport.
- ✓ How the Community Enhancement Fund will operate.

We look forward to meeting with you, and to ensuring that the Timor and Crawney communities have had the opportunity to be part of project consultation and to raise any questions and concerns.

If you'd like to get in touch, please feel free to reach out to Aref Taleb at **info@hillsofgoldenergy.com**[redacted]

ENGIE

TRANSPORT CONSULTATION TABLE - MUSWELLBROOK

Landowner	Landowner Status	Landowner Comments
Maxwell Underground Mine (Malabar Resources)	Consulted	• Phone call conversation had, which was positive and consultation email sent. • The mine is starting construction end of 2021 and wanted to be included in traffic and transport management plan
Mt Arthur Mine (BHP)	Consulted	• Phone call conversation had, which was positive • Notification letter sent that the project had submitted a DA
Bengalla Mine (New Hope Group and Taipower)	Consulted (Consent being sought)	• Phone calls with Ross Bennett from New Hope Group over a period of months • Video call was organised for further discussion on the transport route • No in principal objection to the project and were happy to work with us for a consent letter. • They have a pastoral business as well as a mine that have transport movements, that should be included in traffic and transport management plan. • There was mention that a school bus route uses the roads proposed for transport • Mention of mine entrance on the existing route for transport for consideration • Follow up emails sent and working towards a consent letter
Kim Leonie Brown (Jerry's Plains Resident)	Consulted (signed consent)	• Door knock of residence, which led to consultation on the project • Landowners were happy to sign consent as a required transport landowner • Plans to discuss a commercial agreement in the coming months
Mt Pleasant Mine Mach Energy Australia Pty Ltd	Consulted (Consent being sought)	• Call had with General manager of Mach Energy • There were concerns over a rail link to be constructed over Wybong road and that the height may constrain the transport • The land we propose to pass over is a high-quality irrigated flood plain and is currently leased out to Rosebrook Stud • Follow up emails sent with further information and a desire to have further discussions if council position on the project changes
Mangoola Mine (Glencore Australia)	Consulted	• Phone call conversation had, which was positive and consultation email was sent. • There was discussion regarding commencement of transport if the Hills of Gold Wind Farm was to be approved

TRANSPORT CONSULTATION TABLE - MUSWELLBROOK

Landowner	Landowner Status	Landowner Comments
Dartbrook Underground Mine (Aqc)	Consulted (Consent being sought)	• Phone call conversations occurred over several months with site manager to organise meeting • Consulted with Dartbrook on site team over video call, where feedback from the team was taken into an updated assessment • For example, during the call the Dartbrook management team requested we avoid the 66kV transmission pole, however this will impact drainage. • Spoken to David Conry CEO and Director of Australian Pacific Coal, indication that he is happy to sign a consent letter as a required transport landowner
Coolmore Stud	Consulted	• Phone call conversation had, which was positive and consultation email sent. • Still waiting for email reply to further discuss feedback the Coolmore stud may have
Darley Woodlands Stud	Consulted	• Phone call conversation had, which was positive and consultation email sent. • There is also a stud in Aberdeen, which will receive the email and be consulted • Expecting an email reply with feedback from the Darley Woodlands Stud
Antje Mitchell (Jerry's plains resident)	Consulted (signed consent)	• Door knock of residence, happy with the proposed transport and signed a consent letter.
Ryan Turner (Jerry's plains resident)	Consulted (signed consent)	• Door knock of residence, letter left under door and call received later in the day. • The landowner was fine with the proposed transport route and signed a consent letter.
Tony Paul Mitch (Jerry's plains resident)	Consulted (signed consent)	• Door knock of residence, landowner was happy with the proposed transport route and signed a consent letter.
Edenglassie Stud	Consulted	• Phone call conversation had, which was positive and consultation email sent. • It was noted on the call the stud was not in objection to the wind farm
Balmoral Stud	Consulted	• Message left and still attempting to make contact

Hills of Gold Community BBQ – Meeting Minutes

Date: Saturday April 17 2021
Time: 4pm to 6pm
Location: Timor RFS, Sports Recreation Ground, Timor Road, Timor

Attendees

ENGIE Representatives	Title
Meredith Anderson	Development Manager, Asset Development
Ricardo Alvarez	Assistant Project Manager
Jody Doran	Community & Stakeholder Manager
Someva Representatives	**Title**
Aref Taleb	Community Development Manager
Timor RFS	**Title**
[redacted]	Timor RFS Captain
[redacted]	Timor Brigade – Volunteer
Timor Community Members	

Meeting minutes

Item	Meeting Notes	Action
1	**Consultation with the Timor Community**	
	Why wasn't the Timor community consulted in the 3 years prior to submitting the EIS?	Someva acknowledged that they primarily focused on landholders whose properties were within 5kms of a proposed wind turbine. Someva also apologised for not consulting with the wider Timor community during this period and prior to submitting the EIS. ENGIE also advised that we had executed the option to develop the project in September 2020 and due to COVID-19 restrictions have not been able to travel to meet with the community until now.

Item	Meeting Notes	Action
	Will there continue to be an opportunity for the Timor community to raise concerns and 'have a say' in the outcome of the project design before approval	It was advised that following the Response to Submissions (RtS) to the department and prior to determination, DPIE will consult with the community when making an assessment and forming a recommendation to the IPC.
	When will the community see if their comments and submissions will be responded to and taken into consideration for the final design submitted to the department?	We are in the process of responding to submissions and will continue to inform the community on issues raised via community events. The RtS will be publicly available in the NSW Planning website once submitted.
	The EIS focuses on the support for the windfarm from the community but does not acknowledge or refer to the objections or petitions against the project from community groups, there is misrepresentation in the EIS as to the view the community has on the project, and omission of objections.	To provide a more transparent view of community sentiment relating to the proposed wind farm our response will include acknowledgement of the opposition to the project from landholders and community groups, such as Hills of Gold Preservation Group, along with the commentary around support of the project.
2	**Landscape and Visual Concerns**	
	How can you rely on a desktop visual impact assessment if you have not been to the properties that will have visual impacts to corroborate?	To ensure landholders have a representative view of turbines from their dwellings further visual assessments will be completed. The completed assessments will be provided to the landowners and included in the Landscape and Visual Section of the RtS.
3	**Project design changes**	
	Is there an obligation for the developer to remove certain WTGs from the design layout if an agreement is not reached with a landowner whose property is within 3.1 kms of the proposed location for the turbine.	It was advised that any potential removal of turbines will depend on specific impacts such as visual, noise and shadow flicker. There is not necessarily an obligation to remove turbines as a result of a dwelling being within 3.1km of a proposed turbine.
4	**Soil and Water**	
	There is a lot of Grade 8 soil (circa 70% as per the EIS) which should not be cleared on the ridge. How is the developer proposing to build on Grade 8 soil.	Geotechnical investigations have recently been completed and will be assessed, addressed, and included in the RtS.

Item	Meeting Notes	Action
	The terrain is very narrow between WTGs 06-20 and there are concerns that tracks and hardstands built will cause erosion and damage to the waterways feeding into the Isis river.	A summary of the geotechnical results will be available for public viewing, which will include the construction corridor considered in the design based on the existing landscape.
	How deep will the foundations of the turbines be and will the wider community have access to the engineering studies and geotechnical surveys to assess the risk of excessive clearing or the integrity of the proposed turbines.	A detailed design will be completed as part of the tendering process and will be compliant with the Development Approval for the project, if approved.
5	**Decommissioning**	
	What assurances can the developer give in regard to the decommissioning of the wind farm at the end of its operating life and that the owner will not walk away without decommissioning the turbines, leaving them there.	A more detailed decommissioning plan will be formulated as part of the secondary consents process if DA is approved.
	Community Enhancement Fund: 1. Is the Community Enhancement Fund a substitute for Section 94 contributions? 2. Is the $3k per WTG proposed by the fund CPI indexed? 3. If funding is not spent in a particular year, does it roll over to the following year or is it forfeited?	1. It was advised that the Community Enhancement Fund is not a substitute for Section 94 contributions. 2. It was confirmed that contributions are CPI indexed. 3. The Community Enhancement Fund Charter will be included in the RtS which will provide further detail on how the fund will operate.
6	**National Park and Wildlife Services (NPWS)**	
	How do the Upper Hunter Shire Council recommendations of limits of 460m from a natural reserve be taken into consideration given that this is a State Significant Development (SSD)?	Upper Hunter Shire Council have been consulted regarding their submission including further information sought by the Project on the setback recommendations. Upper Hunter have noted that the project is not bound by the Upper Hunter Development Control Plan 2015. Consideration for these Development Control Plans will be given in the amended project plan.
7	**Aviation Lighting**	
	Will the developer follow CASA's determination regarding the aviation lights? There is concern that all turbines will have 2 blinking aviation lights which will cause significant visual impact.	Subject to Project Approval, a lighting plan based on CASA's recommendations will be submitted to CASA for approval. It is confirmed that if lights are installed, there will not be two (2) blinking aviation lights on each turbine.

Item	Meeting Notes	Action
	Has an assessment of the impact the aviation lights will have on local wildlife been carried out and what were the findings? No mention of this in the EIS.	There is no requirement under NSW legislation that an assessment is carried out to determine the impact of lighting on the local wildlife.
8	**Government Subsidies**	
	Government subsidies – notion that this is a government subsidised project	Refer to the below commentary regarding RECs

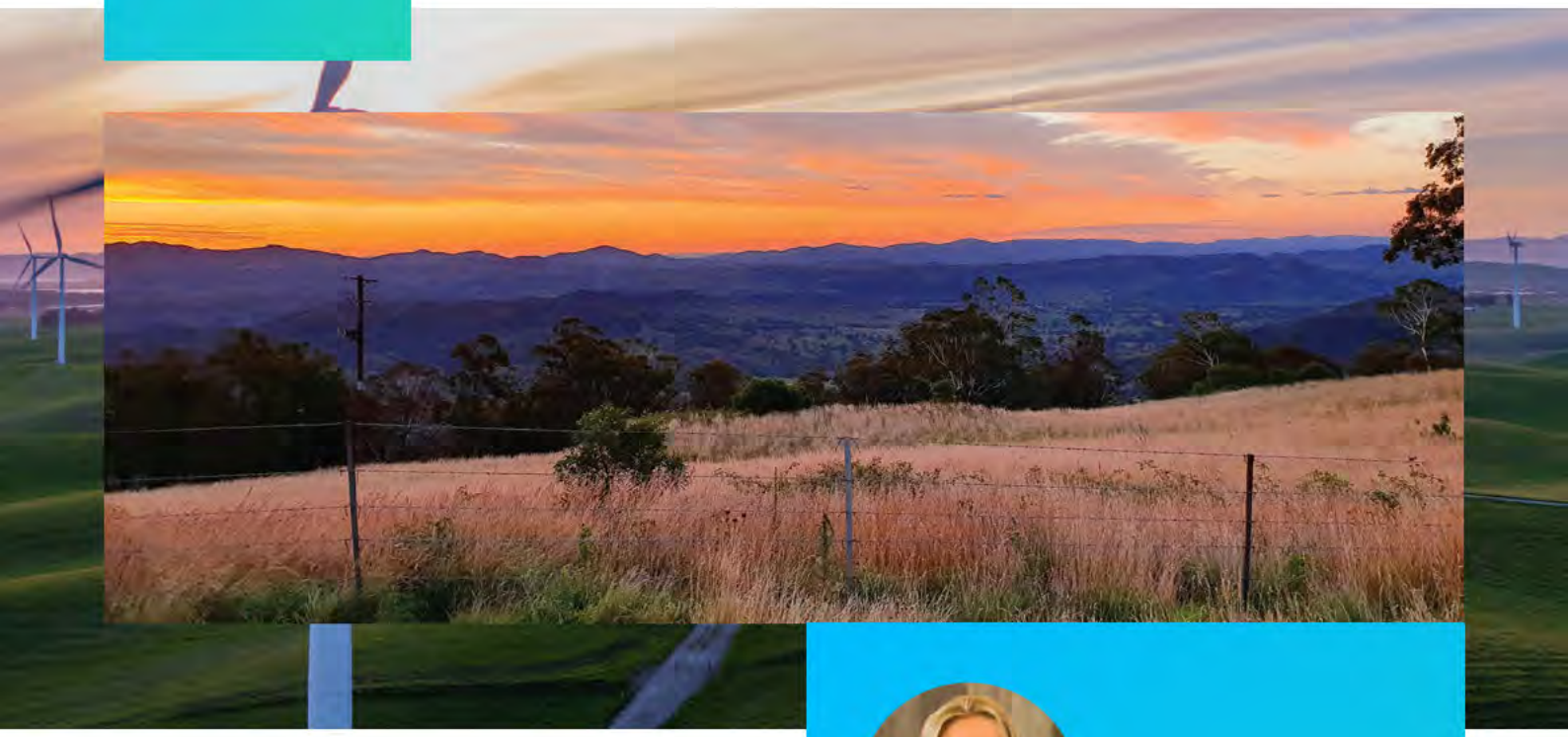
Questions raised via email post the BBQ event

1	Ian Vaughan apologises for not being able to be here but is required elsewhere. However, in your belated meeting with him and Graeme and Jenny Ware, on 19 January, Mr Vaughan put several questions to you which you were not able to answer at the time. However, you said you would email the information as soon as you were back in the office. However, you did not reply with the required information until 4th February - More than two weeks later, and four days after the closing of objections to the Project. Can you tell Mr Vaughan why it took more than two weeks to send the information, and after the closing date of submissions for objections had closed?	**Response from Someva** - Following the meeting with Ian Vaughn, Graeme and Jenny Ware follow up emails were prepared for both Graeme and Jenny as well as for Ian. A follow up email was sent to Graeme and Jenny shortly after the meeting with one prepared for Ian as well. It was an oversight on my behalf that it took two weeks to send the follow up email as it was prepared and ready to be sent but was left in the draft folder. I apologise for the delay in sending across the information to Ian.
2	At your meeting with Mr Vaughan and Graeme and Jenny Ware on 19 January, you were asked if the Hills of Gold Wind Farm was a viable project or relied on government subsidies (Renewable Energy Certificates). Your answer was that government subsidies (RECs) were worthless, almost zero, and your company would probably not be claiming them. You said the project would be self-financed. However, investigation by Mr Vaughan showed that RECs were worth $41.50 per Megawatt hour, which calculates, at an efficiency of	During the meeting on the 19th of January Mr Vaughan asked if the project economics were supported by Government subsidies. I responded to this question by explaining the creation of the Large-scale Renewable Energy Target (LRET) and how this was a market-based scheme, which essentially requires energy users to buy a certain amount of renewable energy certificates. Renewable energy projects were able to register to be involved in the Renewable Energy Certificate market and sell certificates. The LRET has now been achieved with Australia's share of renewable energy generation in 2020 being 27.7%. The REC/LGC price that has been assumed in the above calculation is the calendar year 2021 price. The estimated prices from 2025-2030 are somewhere between $0-$5 depending on which energy consultant you ask. And the only

	50%, that the project would earn nearly $210,000 PER DAY. This equates to $76 MILLION per year. (FYI 6MW per turbine x $41.50/Megawatt.hr x 70 turbines x 12 hours/day (50% efficiency)) = $209,160 per day. Do you still call that, as you did at that meeting, insignificant??	thing driving value for LGCs past this date will be corporate companies applying value to them to show their green credential, as required amount to meet the LRET will already be created by operational assets. It is also worth noting that from the end of 2030 the LGC legislation finishes. So, of the ~35-year asset life HOGWF can only create LGCs for roughly 7-years (20% of the assets full life).
3	My questions to the developers would have been regarding the provision of the concrete (will it be produced on site or trucked in) and what provision is to be made for the management of the waste resulting from the construction process and how are the turbines to be transported to the site given the existing road.	Concrete will be produced on site by use of two mobile batching plants. Depending on geotechnical surveys, components for the concrete such as gravel, aggregate, and sand, may need to be trucked in from local quarries (additional info can be found in sections 3.3.7 and 3.3.8 of the EIS). Chapter 18 in the EIS provides information on all the waste streams that will be generated during construction. For example, concrete will be *"Source separated and stored in separate receptacles / storage areas. Reused onsite where feasible; reused offsite in accordance with the Recovered Aggregate Resource Recovery Order and Exemption; or transported off site for recycling"* (Table 18-12, page 330 of the Hills of Gold Wind Farm EIS). Turbines will be transported from the Port of Newcastle to the project site. Rex J Andrews Transport Logistics Pty Ltd (http://www.rja.com.au/index.php/equipment/159-windfarms), one of the leading wind turbine component transport companies in Australia has assessed the route and determined where road upgrades are required. There is also a map attached, which displays the transport route from Port of Newcastle to the project site. For more detailed information please see Appendix G of the Hills of Gold Wind Farm Development Application – link to documentation below:
(https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9679%2120201118T031620.771%20GMT)		

Hills of Gold Wind Farm Newsletter

Autumn • April 2021



Engaging with the Nundle and Hanging Rock communities

From December 2, 2020 to January 29, 2021, the Hills of Gold Wind Farm development was on public exhibition at the War Memorial Hall in Nundle.

The information hub provided the community with an opportunity to engage further with the project, via a series of posters which summarised key points of the Environmental Impact Statement (EIS). The hub also provided the community with the opportunity to register submissions relating to the project.

In the Nundle and Hanging Rock area, door-knocks were also conducted to share additional information face-to-face, and as an opportunity to answer any questions residents had.

Both the community information hub and the door-knocks were a great way to engage with the local community in person and ensure that everyone had easy access to information on the project.

Thank you for your submissions throughout this process – they're currently being collated for review.

A message from the Project Manager

Welcome to the latest edition of the Hills of Gold Wind Farm Newsletter and the first since ENGIE purchased the project in 2020.

These updates are just one part of ENGIE's commitment to keep you informed of what's happening at the project, particularly as we go through the Development Assessment (DA) process. While our immediate focus is on reviewing the submissions received during the DA's public exhibition period, we'll continue to be open and available to you.

We're progressively meeting with local community members to share our vision for the Hills of Gold Wind Farm and to respond to issues as they are raised.

ENGIE is very much looking forward to the opportunity of developing the Hills of Gold Wind Farm and to making a positive contribution to the New England and Hunter regions, as we have done in many other parts of the world.

I hope to see you soon.

Meredith Anderson

Supporting local education with our Schools Program

We're committed to supporting local education and are excited to begin our Schools Program.

As part of the program, we've been in contact with local schools who will participate in workshops designed to educate students on renewable energy (with a focus on wind energy) and the Hills of Gold Wind Farm project.

The proposed sessions will include the opportunity to watch a short film which explains the basics of wind and other renewable energies, along with an overview of the Hills of Gold Wind Farm.

A map, challenges, quizzes, and other engaging resources will also be part of the program, encouraging students to learn more about their local wind farm.

Hills of Gold Wind Farm Community Barbecue

We'll be hosting a series of community barbecues throughout the Nundle, Hanging Rock, Crawney and Timor areas soon.

The barbecues will an opportunity to hear from Hills of Gold Wind Farm project representatives for updates on timelines and key milestones, as well as an opportunity to be part of project consultation and to raise any questions and concerns.

Our first community barbecue will be at the Sports Recreation Ground on Timor Road on April 17, from 4pm to 6pm – we look forward to meeting you there!

Friends of the Wind Farm meetings

The Friends of the Wind Farm group hosted a dinner at the Nundle Bowling Club on January 11. Operating under COVID safe restrictions, around 50 community members attended where they had the opportunity to ask questions, gain a better understanding of the project timeline and to write submissions.

Update on the Project Timeline

With the end of public exhibition, the Hills of Gold Wind Farm is now responding to submissions. Following this, we will be submitting a report to the Department of Planning, Industry and Environment (DPIE) for assessment.

1. **OCTOBER 15, 2018** – Lodge Preliminary Environmental Assessment
2. **NOVEMBER 22, 2018** – SEARS Issued
3. **NOVEMBER 20, 2020** – Prepare Developmental Application & Environmental Impact Assessment
4. **JANUARY 29, 2021** – Public Exhibition & Collation of Submissions
5. **ANTICIPATING WITHIN QTR 2 2021** – Response to Public Submissions
6. **ANTICIPATING WITHIN QTR 3 2021** – Assessment

Getting to know ENGIE

180+ YEARS OF INNOVATION

At ENGIE, we've been driving innovation for over 180 years. Since arriving in Australia in 1996, we've been setting the standard in lower carbon energy generation, renewables, energy efficiency and technology-based solutions.

To learn more about ENGIE, visit engie.com.au

Get in touch with us.

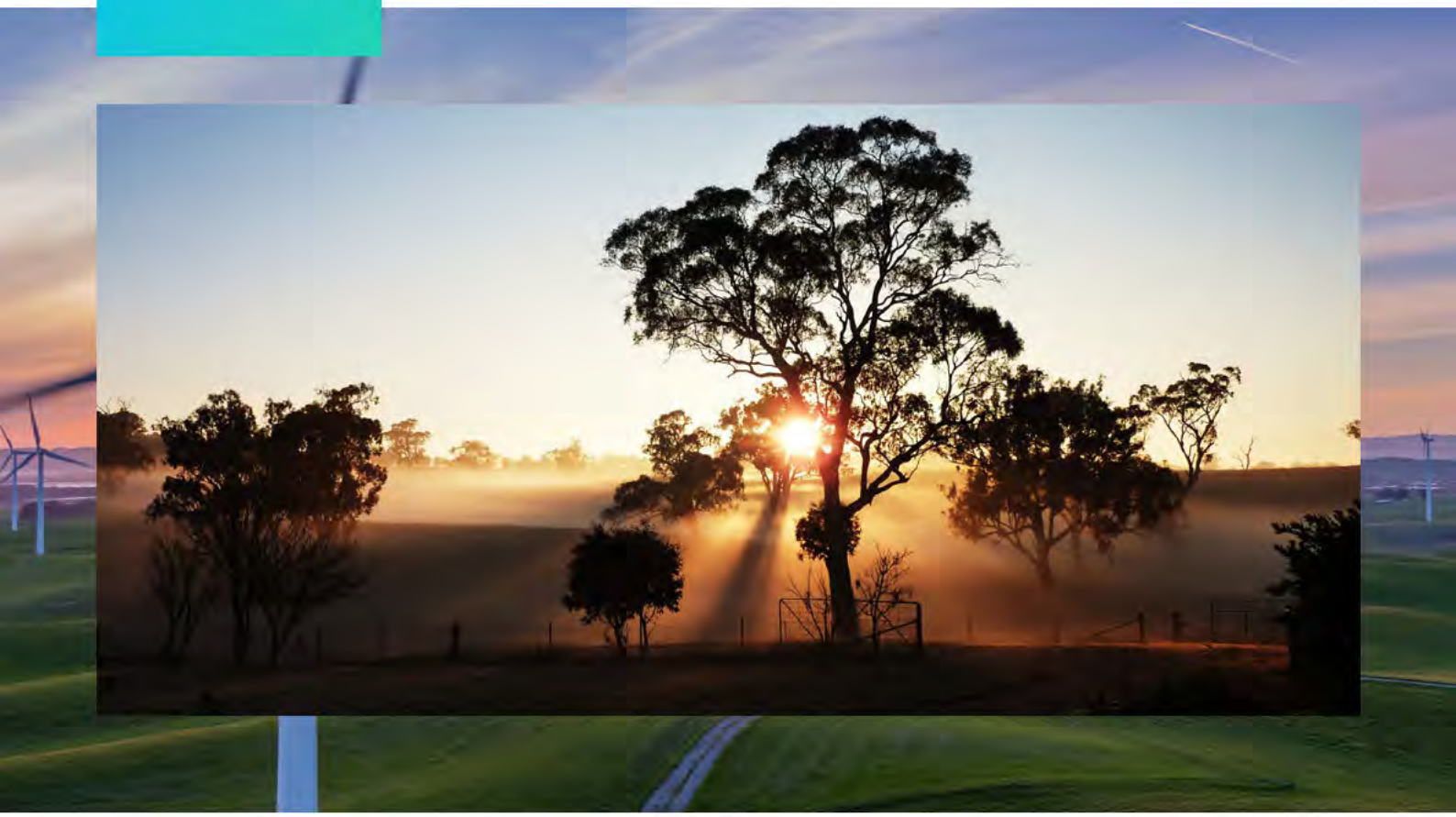
Website hillsofgoldenergy.com

Email info@hillsofgoldenergy.com

[redacted]

Hills of Gold Wind Farm Newsletter

Winter • August 2021



"We have been engaging with local councils, as well as the community to ensure we understand and address all issues surrounding the project."

A message from the Development Manager

There has been a lot happening with the project as we work through the Development Application (DA) process. We would like to thank the many business owners and community members who have taken the time and effort to provide a submission, during the public exhibition period of the Hills of Gold Wind Farm (HOGWF) Project.

We have been engaging with local councils, as well as the community to ensure we understand and address all issues surrounding the project. ENGIE is committed to working with residents and business operators long-term to ensure we make a positive impact in the region.

We recognise that the local community has not been consulted as well as it should, that's why we will be actively engaging with residents and businesses as much as possible in the coming months to ensure everyone has had their say.

While discussions with Tamworth Regional Council are ongoing, the councillors in the Upper Hunter Shire recently voted to support the proposed Hills of Gold Wind Farm Community Enhancement Fund. It is great to have the Upper Hunter Shire Council on board, as we work to ensure the communities benefit from the development.

Thank you for your feedback so far, and we look forward to continuing our work with the communities of the HOGWF.

Regards,

Meredith Anderson

Increase in Contribution to Community Enhancement Fund

$3,000	$210,000	$5 million	$42,000
INCREASED COMMITMENT ANNUALLY PER TURBINE	CONTRIBUTED ANNUALLY FOR AT LEAST 25 YEARS	CONTRIBUTED OVER THE LIFE OF THE WIND FARM	ALLOCATED TO THE UPPER HUNTER SHIRE COMMUNITIES

We have increased our commitment to $3,000 per turbine per year, which will see up to $210,000 contributed annually (CPI indexed per annum) to the fund for at least 25 years. This will see an estimated $5m contributed to the fund over the operational life of the wind farm.

ENGIE General Manager, Asset Development, Andrew Kerley says the Community Enhancement Fund (CEF) will be used to support community projects and events in the local government areas hosting wind turbines.

If the project is approved, funds from the CEF will be split between the regional communities, depending on how many wind turbines are placed in their local government area.

Based on the wind turbine layout lodged as part of ENGIE's Environmental Impact Statement in December 2020, up to $42,000 will be allocated to the Upper Hunter Shire communities annually, while the Tamworth local government area will see up to $168,000 annually.

Following feedback from council submissions, ENGIE has increased its per turbine commitment to the fund to $3,000 annually, up from its 2020 commitment of $2,500.

While discussions with Tamworth Regional Council are ongoing, the Upper Hunter Shire Council recently voted to support the proposed Hills of Gold Wind Farm CEF.

We are very happy to have the Upper Hunter Shire Council on board. If the project is approved, the CEF will be administered by each council, but managed by a community committee.

A dedicated Community Committee, made up of residents, council members and an independent chair, will be created in each local government area to determine how the money is spent.

To find out more about the Community Enhancement Fund, please email **info@hillsofgoldenergy.com**

Turbine Lighting Requirements for Hills of Gold Wind Farm

Through our consultation with the community, we understand that many residents are concerned about the red aviation lighting likely to be required on some of the wind turbines. Under guidelines imposed by the Civil Aviation Safety Authority (CASA), objects that exceed 150m in height require aviation lighting.

In July, CASA confirmed that it would accept low intensity steady red lighting of no lower than 200 candela, which is the equivalent of a 24W LED light bulb or 150W incandescent bulb.

This is a 90% reduction on CASA's previous statement that the HOGWF would require 2000 candela medium lighting.

This is a significant improvement and when combined with the use of shielding is expected to significantly reduce impact to residents located at elevations below the turbines by focusing the lower intensity light at the elevation of aircraft.

It is expected that not every turbine will be lit and we are using aviation and visual experts to develop a lighting plan for the project that lessens impact, while meeting aviation safety requirements.

Thank You to Dungowan Public School

We had the pleasure of meeting the students and teachers of Dungowan Public School in April for a special renewable energy education workshop.

We demonstrated how a wind farm operates with a special lego wind turbine and YouTube information video. The students made their own pin wheels in a craft workshop, which they really enjoyed. Unfortunately, some community members did not agree that ENGIE should be providing these educational sessions. As such, further school programs have been postponed.

If the project is approved, we will be undertaking further engagement with the community to find out if school and tertiary educational engagement programs are supported or not. If you would like to express interest in ENGIE hosting educational sessions relating to Renewable Energy, Wind Energy or Engineering, please email us at **info@hillsofgoldenergy.com**

Community catch-ups

It was great to catch up with members of the community in Nundle in May. Representatives from ENGIE and Someva met with the Friends of the Wind Farm, Nundle Business Tourism and Marketing Association and the Hills of Gold Preservation Inc to discuss the project.

These meetings were held to engage with the community and to ensure our Response to Submissions addresses all the views of the local community and provides workable solutions to all key issues.

We will be organising more community meetings soon. Residents will be notified as soon as dates are secured.

We'd like to thank the community for your patience as we try to remain COVID safe and minimise travel where possible.

We encourage and welcome the community to contact us at any stage to discuss any questions about the project.

Businesses Have Your Say

To ensure we fully understand the views of the business community, we have developed a survey for business owners in Nundle and Hanging Rock.

We want to know how business owners feel about the project, what the potential impacts may be to your business and how any negative impacts can be mitigated.

We also want to know how we might be able to support the business community by utilising local services and purchasing local products and goods during the construction and operational phases of the project.

WE'D LOVE TO HEAR YOUR FEEDBACK.

This feedback will help us to further refine our project plans and reduce any negative impacts to businesses, particularly during the construction of the project.

If you're a small business owner in the Nundle and Hanging Rock area and want to ensure you get the opportunity to complete the survey please provide your business email address to **info@hillsofgoldenergy.com**

Proposed Traffic Management Strategies

We have received a range of submissions, during the public exhibition period of the Hills of Gold Wind Farm Project. Some stakeholders have expressed their concerns about increased traffic and transport in Nundle, particularly during the construction phase.

We understand these are important issues for residents and we have developed a number of proposed strategies to minimise these concerns. Through a number of proposed changes we are aiming to reduce daily traffic movements through Nundle by 38%.

Our proposed management strategies during construction of the project include:

1. A dedicated transport route through Oakenville Street and onto Barry Road, avoiding residential areas in Nundle and impacts to private property.

2. Updates to the Traffic Management Plan, including:
   - A new pedestrian crossing in Nundle, at the intersection of Oakenville and Jenkins Streets.
   - Laybys for oversize and over mass vehicles on Morrisons Gap Road and Lindsays Gap Road.
   - Nundle parking restrictions for project vehicles based on opening times for businesses, to reduce congestion for existing residents and tourists.
   - A temporary car park in Nundle for project vehicles to access shops and services.

If you have other suggestions on ways to mitigate traffic, please email info@hillsofgoldenergy.com

Getting to know ENGIE

PROTECTING THE ENVIRONMENT

At ENGIE, we have more than halved our CO_2 footprint in six years. In that time, we have also grown our renewable energy portfolio to 27GW globally, including 1.2GW in Australia.

To learn more about ENGIE, visit engie.com.au

Update on Response to Submissions

Submissions to the project have been received from across Australia. The project team is in the process of responding to all aspects of the project raised through these submissions, irrespective of where they come from. In total 593 unique public submissions were received as well as those from government agencies and organisations. Of the public submissions 56% were from council areas hosting the wind farm. It was positive to see that there were similar levels of support to concerns from those writing submissions from within these communities, with many objections coming from out of area. Those supporting cited opportunities the project will bring to the region, upgrades to local infrastructure, alignment with environmental views and future energy visions of many residents. Concerns raised focused on visual impact, concerns with wind energy as an alternate source, traffic during construction, biodiversity impacts and site suitability justification.

The project team has prioritised further studies to address local resident concerns such as traffic generation (and is described in this newsletter), further site suitability studies including soil and water assessment and construction company site visits to ground truth feasible designs and confirm constructibility. ENGIE has developed more information to construct the project while maintaining compliance with expected strict environmental compliance, such as through best practise soil erosion and sediment control protocols.

In addition to local consultation, the project team has been consulting with agencies (such as the Department of Planning Biodiversity Conservation Division and the Civil Aviation Authority amongst others) and has resulted in additional survey work and technical assessment required to demonstrate the project can meet acceptable environmental and safety requirements. This has led to further definition of bat caves, karsts and foraging habitat and positive outcomes in project design, construction and operation to avoid impact to identified species, and agreement to use lower intensity aviation lighting (see update below) to reduce visual impact at night.

NSW has a robust planning process which requires specialists to assess how better planning outcomes can be achieved for local communities hosting projects such as the Hills of Gold Wind Farm. ENGIE is committed to developing the highest quality renewable energy projects, that deliver lower cost, cleaner and diversified electricity across Australia while working with local communities. This has led the project team to ensure all concerns are technically addressed, communicated to stakeholders and can be assessed to confirm the broader benefits of the project are acceptable with the strategies committed to minimise local environmental impact and result in no net loss of biodiversity from the project. ENGIE intend to submit the Response to Submissions in September 2021.

Update on the Project Timeline

With the end of public exhibition, the Hills of Gold Wind Farm is now responding to submissions. Following this, we will be submitting a report to the Department of Planning, Industry and Environment (DPIE) for assessment.

1. **OCTOBER 15, 2018** — Lodge Preliminary Environmental Assessment
2. **NOVEMBER 22, 2018** — SEARS Issued
3. **NOVEMBER 20, 2020** — Lodge Developmental Application & Environmental Impact Assessment
4. **JANUARY 29, 2021** — Public Exhibition & Collation of Submissions
5. **AUGUST 2021** — Update on Responses to Submissions
6. **ANTICIPATING SEPTEMBER 2021** — Response to Public Submissions
7. **ANTICIPATING EARLY 2022** — Assessment & Determination

Get in touch with us or learn more about the project by visiting our FAQs.

FAQs hillsofgoldenergy.com/faqs
Website hillsofgoldenergy.com
Email info@hillsofgoldenergy.com
[redacted]

Hills of Gold Wind Farm Newsletter

Spring 2021

Message from the Project Manager

Welcome to the latest edition of the Hills of Gold Wind Farm newsletter.

Over the last few months, ENGIE has continued to review the 660 submissions made during the Public Exhibition period earlier this year. We now have a better understanding of both the opportunities and concerns with the project. Subsequently, ENGIE has been conducting additional technical assessments and engaging with key stakeholders to assess how we can modify the project to reduce impacts in these areas.

While we understand members of the community are eager to see ENGIE's Response to Submissions (RTS), these additional assessments have caused a delay to the original schedule.

We announced in late October that we were likely to be submitting the RTS toward the end of 2021. Since that announcement however, we have received feedback from a number of residents raising concerns about the RTS being submitted right before the Christmas period. Given those concerns, we now expect to submit the RTS in the second week of January 2022.

To ensure the community understands what changes have been made to the proposed project, ENGIE and Someva are currently undertaking two weeks of community consultation in the Nundle region from November 8. We're encouraging all community members to come along and learn more about the project.

I'd like to thank everyone who took part in our Nundle business survey. More than 50 business owners from across the region responded and all provided valuable feedback on the project and our proposed traffic management strategies. The results of the survey are used to finalise our RTS.

It was also great to see a number of Nundle business owners in the local media in recent months, sharing their views on the project and highlighting the benefits it will bring. ENGIE is always willing and ready to talk directly with local business owners and the wider community, so if you have any questions about the project, please get in touch.

While we wait for the DPIE's assessment of the project, ENGIE will continue to engage with community members and key stakeholders of the project. Our discussions with Tamworth Regional Council have been ongoing throughout the development phase to ensure we make a positive impact in the local community.

As 2021 quickly comes to a close, I'd once again like to thank the local communities for their willingness and support, and from the wider ENGIE team wish you and your family a happy holiday season.

Regards,

Meredith Anderson
Development Manager

We respect and honour Aboriginal and Torres Strait Islander Elders past, present and future. We acknowledge the stories, traditions and living cultures of Aboriginal and Torres Strait Islander peoples on the lands on which our sites are located and commit to building a brighter future together.

Response to Submissions

Why the delay?

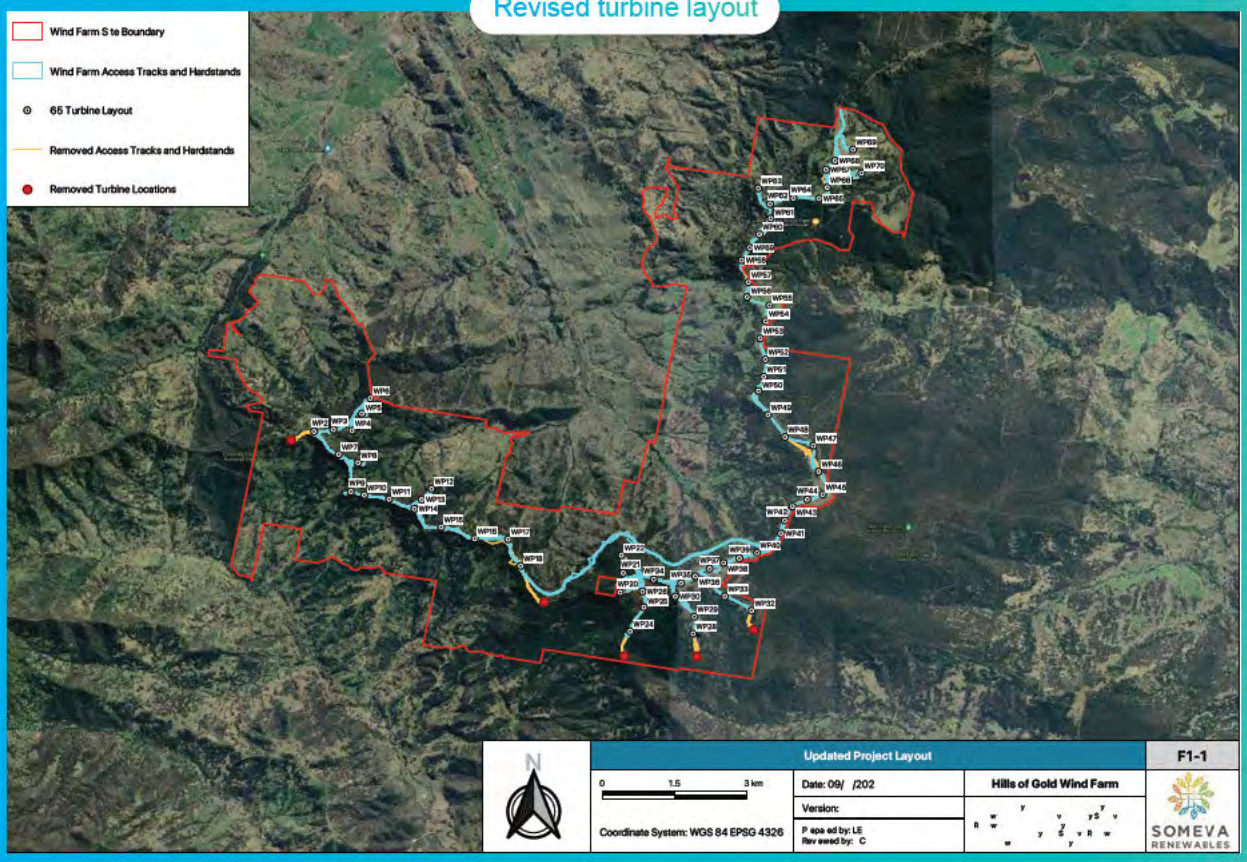
During the Public Exhibition phase of the Hills of Gold Wind Farm project there were more than 660 submissions received, including 630 from individuals and members of the public, 11 from organisations and 22 from public authorities. The ENGIE team spent the last several months reviewing every single submission to ensure all of the community and stakeholder feedback was captured. The review process has highlighted a number of key impact areas that are a priority for the local community and other stakeholders. These include biodiversity, traffic, visual, social, heritage and economic impacts. As a result, ENGIE has undertaken several additional technical assessments to identify where these impacts could be further mitigated.

This has resulted in:

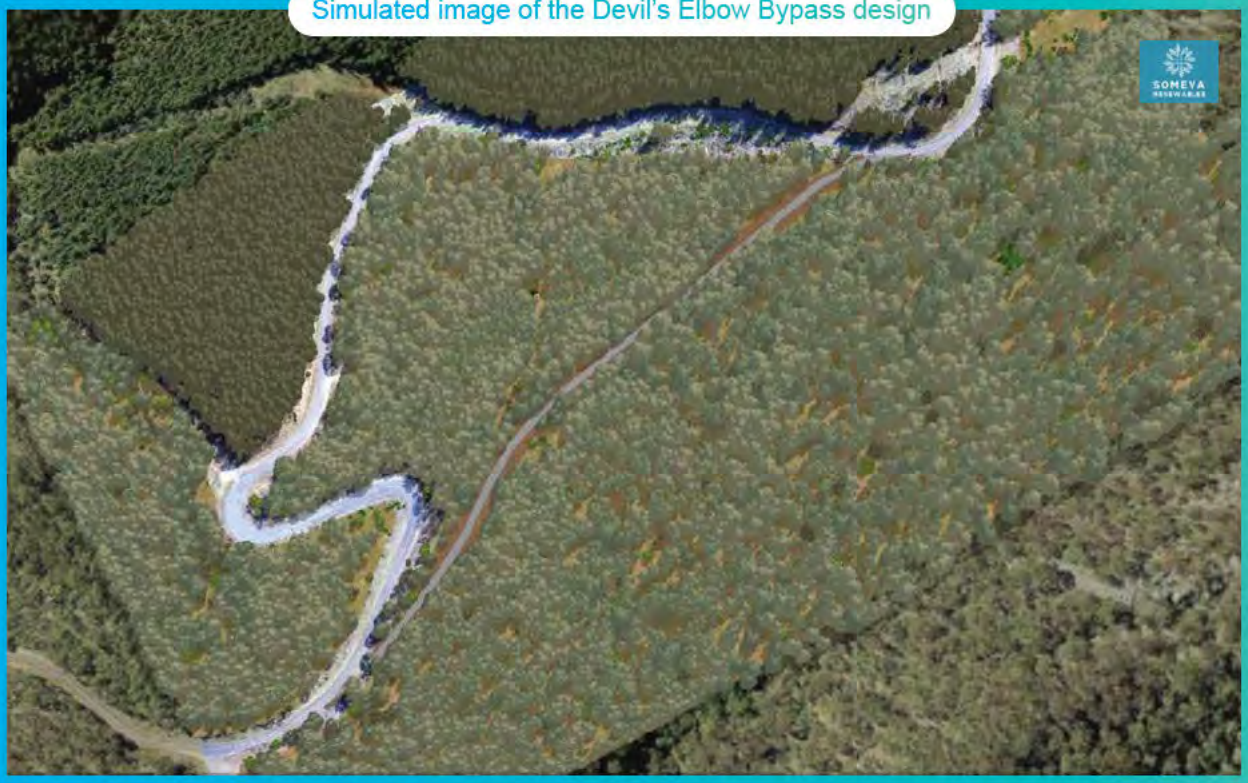
- Revising the number of wind turbines from 70 to 65
- Further soil and water studies
- Surveys and design of road upgrades along access routes
- The design of the Devil's Elbow Bypass
- Reduction of the development footprint and associated avoided biodiversity impacts
- Development of Traffic Management strategies
- Statement of Heritage Impact Study
- Reduced Aviation night lighting requirements
- Flora and Fauna surveys
- Turbine construction and design life suitability

These additional studies have resulted in a delay to lodging our Response to Submissions. We announced in late October that we were likely to be submitting the RTS toward the end of 2021. Since that announcement however, we have received feedback from a number of residents raising concerns about the RTS being submitted right before the Christmas period. Given those concerns, we now expect to submit the RTS in the second week of January 2022. Once lodged it will detail key project changes, which have significantly reduced traffic, visual, heritage and biodiversity impacts..

Revised turbine layout



Simulated image of the Devil's Elbow Bypass design



Community Consultation

To provide more detail on some of the key changes made to the project as a result of public submissions, ENGIE and Someva will be hosting Community Information Hubs in Nundle, Timor and Hanging Rock in November.

Nundle
November 8-10 & 15-17
9am-12pm & 3pm-6pm each day
Behind Machina Coffee & Donuts

Timor
November 11
10am-3pm
Timor Community Hall

Hanging Rock
November 15
4:30pm-6pm
Hanging Rock Hall

Night Lighting Plan

In response to community and agency concerns regarding visual impacts from aviation night lighting, additional consultation with the Civil Aviation Safety Authority (CASA) has been undertaken and an Aviation Lighting Plan approved by CASA. The plan nominates the lighting of 28 out of the 65 turbines, installed at hub height.

CASA has also confirmed a reduction in the requirement for lighting intensity, from 2000 candela to 200 candela. A 2000 candela light is visible at 4.9km and a 200 candela light would be difficult to discern in excess of 3km.

In addition, ENGIE has committed to night light shielding which can reduce the impact on dwellings within up to 6 km of the project for higher intensity lights. The efficiency of shielding would be increased for the project due to the elevation difference between turbines and dwellings and lower intensity lights used.

It is anticipated that with fewer turbines lit, low intensity lighting and shielding, aviation lighting could be implemented with a low visual impact on the surrounding landscape.

Business Survey Results

ENGIE's Community Engagement team undertook an online survey in August 2021, to gauge project sentiment among business owners who will have a direct impact from traffic movements associated with the project.

The survey was sent to known businesses with a shopfront or that are home-based in both Nundle and Hanging Rock.

There was a great uptake of the survey, with 55 responses received. While the majority of these were Nundle or Hanging Rock-based businesses, we also received responses from business owners in Timor and Crawney.

Some key results from the survey included:

- 67 per cent of local business owners with a shopfront in Nundle or Hanging Rock support the Hills of Gold Wind Farm project
- Of those that support the project, more than 90 per cent believe the project will bring economic benefits to their business, with majority citing increased revenue and increased customers as the biggest benefits
- 75 per cent of the supportive business owners believe ENGIE's project will strengthen the region's existing tourism market.

The survey was also used to gain feedback on a number of proposed traffic management strategies.

ENGIE's proposed traffic management strategies include:

- A dedicated transport route through Oakenville Street and onto Barry Road
- An additional pedestrian crossing in Nundle (subject to Council approval)
- Laybys for oversize and overmass vehicles on Morrisons Gap and Lindsays Gap Road
- Parking restrictions in Nundle for project vehicles
- A temporary car park in Nundle for project vehicles to access shops and services.
- 49 per cent of survey respondents said a dedicated transport route through Oakenville Street is the best proposed traffic management strategy.

Nundle Business owners, Rob Schofield, Megan Carberry and Russell Sydenham, chatting with Prime7 News and the Northern Daily Leader about the project

IMAGE: Northern Daily Leader

Local Energy Offer

To help support the local community, ENGIE's energy retailer is developing an exclusive electricity offer for residents of Nundle, Hanging Rock and Crawney.

While it is still being developed, the offer will enable participating local residents to receive and an additional discount off their electricity bill once the Hills of Gold Wind Farm is constructed.

We will continue to update the community as the offer is developed.

Wind Farms & Land Values

ENGIE understands there are community members who feel that the project may have a negative impact on land and property values. A number of studies have been undertaken both within Australia and overseas, into the impact of wind farms on nearby property values.

In 2016, the NSW Office of Environment and Heritage commissioned a report into the impact of wind farms on property values. The report concluded that across the case studies reviewed in NSW and Victoria, there was no evidence of negative impacts on property values. Furthermore, the re-sale values of all the properties examined in the report experienced capital growth in line with the property market trends.

In another study completed in 2013, national property consultants Preston Rowe Paterson conducted an assessment of the impact of wind farms on surrounding land values in Australia, and similarly concluded that there was no 'quantifiable effect on land values.

Copies of these reports are available on our website at **www.hillsofgoldenergy.com**

It is important to note many factors influence land and property prices. Supply and demand, proximity to amenities and infrastructure, housing affordability and the desirability of the location can all have an impact.

Get in touch with us or learn more about the Hills of Gold Wind Farm project by visiting our FAQs.

hillsofgoldenergy.com/faqs
info@hillsofgoldenergy.com
[redacted]

DEVELOPMENT APPLICATION - HILLS OF GOLD WIND FARM - ANNOUNCEMENT OF DESIGNATION

ENGIE Australia & New Zealand is pleased to announce the lodgement of the Hills of Gold Wind Farm Development Application and recent designation as a State Significant Development on land with multiple landowners by the Department of Planning Industry & Environment.

The Project is proposed to include:

- Up to 70 wind turbines, each with a generating capacity of about 6MW per unit and ancillary infrastructure such as roads, transmission line, operations and maintenance buildings and a substation
- Over 215 direct jobs and about 430 indirect jobs expected during the construction phase
- An estimated 30 permanent jobs and 50 indirect jobs when operational
- A Community Enhancement Fund to be established, with a commitment of $2,500 per turbine per year installed and operating, expected over a period of at least 25 years.

The Environmental Impact Statement for the project will be on public exhibition from December 2, and a community information hub will be established in the Nundle War Memorial Hall from December 7.

For further information please contact **info@hillsofgoldenergy.com**
or visit **www.hillsofgoldenergy.com**

AWa27665 17

Project Description

70 WTGs, each with:

A maximum height of 230 m AGL (to the blade tip) with a generating capacity of approximately 6 MW.

An estimated output of 420MW enough for 185,000 homes.

A 330 kV single circuit twin conductor overhead transmission line to connect the onsite substation to the existing 330 kV TransGrid Liddell to Tamworth overhead transmission line network, located approximately 18.8 km west of the substation, or approximately 13.5 km from the Project Area.

A central 33 kV/330 kV electrical substation, including transformers, insulators, switchyard and other ancillary equipment.

An operations and maintenance facility.

Earthworks for access roads, WTG platforms and foundations, including potential controlled blasting in certain areas.

An internal private access road network (combined total length of approximately 48 km) connecting the WTGs and other Project infrastructure to the public road network.

A battery energy storage system (BESS) of 100MW/400 MWh (4 hours of storage).

Two temporary concrete batching plants to supply concrete for WTG footings and substation construction works.

Upgrades to local roads and waterway crossings, as required for the delivery, installation and maintenance of WTG components and other associated materials and structures.

Decommissioning of three current monitoring masts and installation of up to five additional monitoring masts for power testing.

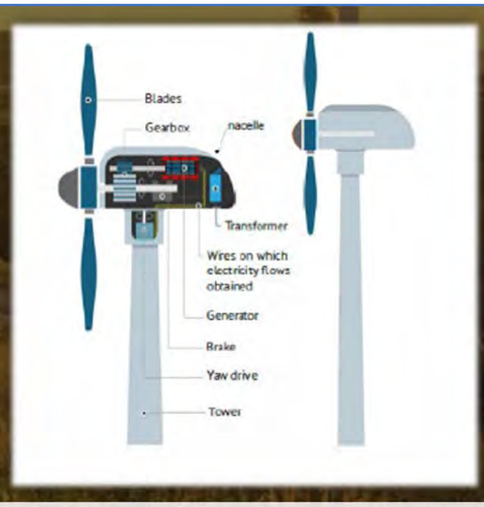
Typical gravity foundation for a wind farm.

Aboveground and underground 33 kV electrical reticulation and fibre optic cabling connecting the WTGs to the onsite substation (following site access tracks where possible).

Temporary elements required during construction of project

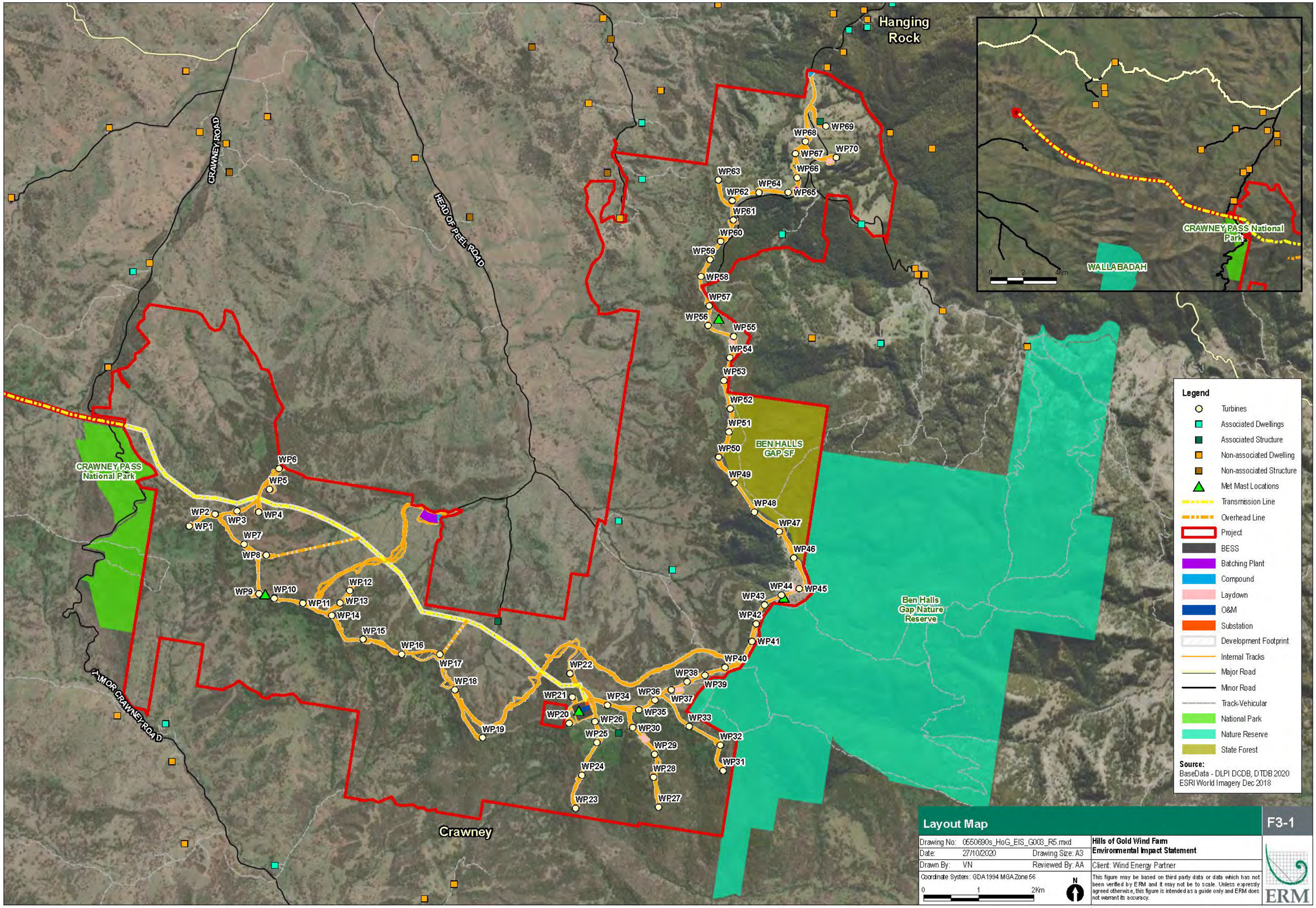
- Temporary site buildings and facilities for construction contractors / equipment, including site offices, car parking and amenities;
- Potentially rock crushing facilities;
- Up to seven hardstand areas for the temporary storage of construction materials, plant, and equipment construction;
- Borrow pits for the removal of material for use in roads, hardstands and foundation material;
- Water supply for concrete batching and construction activities; and
- The transport, storage and handling of fuels, oils and other hazardous materials for construction and operation of wind farm infrastructure.

Wind Turbine Specifications



- A WTG with a rotor diameter of up to 170 m (blade length of up to 83 m);
- Each WTG consists of a tower, nacelle, rotor hub, and blades.;
- The WTGs will have a matt white finish;
- Uniformity in the colour, design, rotation speed, height and rotor diameter; and
- Use simple muted colours and non-reflective materials to reduce visibility and avoid drawing the eye.

Site Layout


Hanging Rock
CRAWNEY ROAD
HEAD OF PEEL ROAD
AMOR CRAWNEY ROAD
CRAWNEY PASS National Park
BEN HALLS GAP SF
Ben Halls Gap Nature Reserve
WALLABADAH
Crawney
WP1
WP2
WP3
WP4
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Legend
Turbines
Associated Dwellings
Associated Structure
Non-associated Dwelling
Non-associated Structure
Met Mast Locations
Transmission Line
Overhead Line
Project
BESS
Batching Plant
Compound
Laydown
O&M
Substation
Development Footprint
Internal Tracks
Major Road
Minor Road
Track-Vehicular
National Park
Nature Reserve
State Forest
Source:
BaseData - DLPI DCDB, DTDB 2020
ESRI World Imagery Dec 2018
Layout Map
F3-1
Drawing No: 0550690s_HoG_EIS_G003_R5.mxd
Date: 27/10/2020
Drawing Size: A3
Drawn By: VN
Reviewed By: AA
Coordinate System: GDA1994 MGA Zone 56
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Hills of Gold Wind Farm
Environmental Impact Statement
Client: Wind Energy Partner
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
ERM

Biodiversity Assessments – Surveys and identified Species

ARUP

Biodiversity was led by Arup, a multinational professional services firm which provides engineering, architecture, design, planning, project management and consulting services for all aspects of the built environment. Arup has extensive experience in navigating projects through the NSW planning system including projects in the Australian Renewable Energy Sector.

- 380 Person Hours of Surveys were undertaken over winter, spring, summer and autumn between 2018 and 2020.
- Targeting surveys were carried out during optimal seasonable conditions and weather conditions.
- 0.8% of native vegetation in the study area estimated to be impacted on a worst case development footprint.
- This includes an estimated 271 hectares expected to be rehabilitated.
- Further design commitments are included to further reduce in detailed design and reassess prior to construction to present improvements.

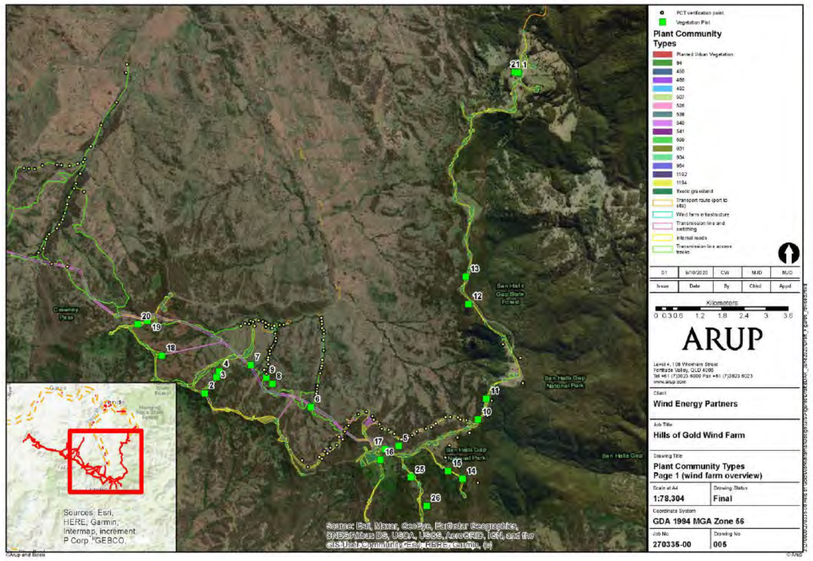
Terrestrial Fauna and Arboreal Fauna Surveys

- 19 Motion Detecting Infrared Hyperfire Cameras (bait and unbaited.
- 2548 Trap Nights Captured.
- A total of 10 associated species credit species in the study area were determined to be present, including 8 mammals, 1 amphibian and 1 reptile.

Bat Surveys

- Ultrasonic bat detectors were deployed across 24 locations including nearby caves.
- 1268 camera trap nights.
- Transacts 1km by 100m were undertaken.
- Song meters were installed on 3 met masts at heights 2, 30 and 60m masts to determine foraging height up to 160m.
- Listed species discovered in the development footprint includes:
  - Large Pied Ear Bat
  - Eastern Cave Bat
  - Little Bent Winged Bat
- The project layout has modified to avoid roosting habitat. In addition a 100m buffer was established and avoided as much as possible .

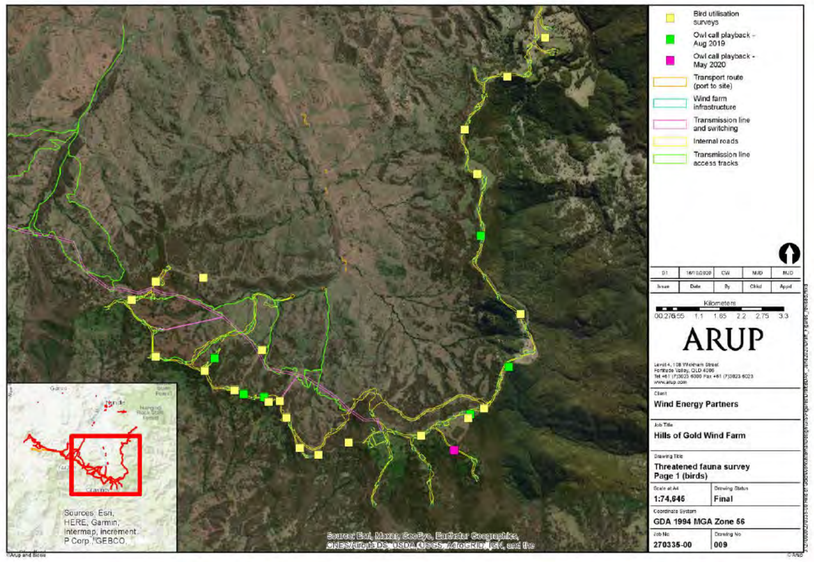
Plant Community Type Mapping



- A total of **22 Plant Community Types (PCTs)** were identified and mapped, varying condition from derived native grasslands (15%), low (18%), moderate (36%) and high (31%) value.
- A total **of 2 Threatened Ecological Communities (TECs)** listed under the NSW Biodiversity Conservation Act 2016 (BC Act) were identified:
  - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Ribbon Gum (also EPBC Act listed).
  - Mountain Gum-Snow Gum Grassy Woodland or open forest.

Bird Assessment

- 41 days of surveys across two years was completed.
- Surveys included bird utilisation surveys such as transects, nocturnal spotlighting, call playback and broadcast, targeted species (owls) and habitat identification (hollows and stick nest surveys).
- Surrounding areas were surveyed including Ben Halls Gap National park to identify species in the area.
- Impact assessment considered worst case turbine parameters for collision risk.
- Of 51 Bird Species identified 18 were recorded to fly at the rotor height. Low populations of bird species were observed.
- No listed bird species or migratory species were recorded on site.
- The configuration of Hills of Gold turbines is such that a bird is likely to encounter multiple turbines only in the rare event that it flies directly along the row of turbines reducing collision risk.



Frog Surveys:

- Spring and Autumn targeted.
- 6 nights watercourse spotlight / call-playback / active search transect, including 300m, 250m, 500m transects.
- 4 nights spotlight / call-playback / active search dam surveys.
- 6 nights spotlight / call-playback / active search pool surveys.

Biodiversity Assessments – Avoid, Minimise, Offset hierarchy

The BDAR confirms that there are no serious and irreversible impacts from the project and this is because:

- there is sufficient habitat availability in the wider landscape and study area to continue to support threatened species known to occur within the development footprint;
- the Project design has been refined so that the majority (58%) of vegetation impacts occur on areas that contain exotic grassland;
- the Project design avoids areas of breeding habitat for threatened microbats, by locating all infrastructure outside of the mapped cliffs and steep areas;
- Impacts to high quality vegetation communities, containing higher quality fauna habitat have been minimised through the location of infrastructure.

Residual impacts associated with the project will be offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. Once these offsets are applied, no net loss to biodiversity should be achieved.

Avoid:

- Design workshops to locate infrastructure.
- Buffers to protected area estate.
- Buffers to bat roost sites and foraging habitat.
- Site rehabilitation and restoration for temporary impacts.
- Impact assessment adopted maximum footprint for conservative assessment.
- Commitment to further reduce impacts in detailed design and reassess impact.

Minimise with A Biodiversity Management Plan prepared and implemented:

- Mapping and protection of habitat features during detailed design
- Monitoring and management requirements for construction and operation.
- A Bird and Bat Management Plan will be prepared and implemented.

Offset with Offset credits calculated using NSW Biodiversity Assessment Method.

- Biodiversity Offset Strategy to be prepared to investigate options to deliver local, land-based offsets.

Rehabilitation of Underground Cable Runs

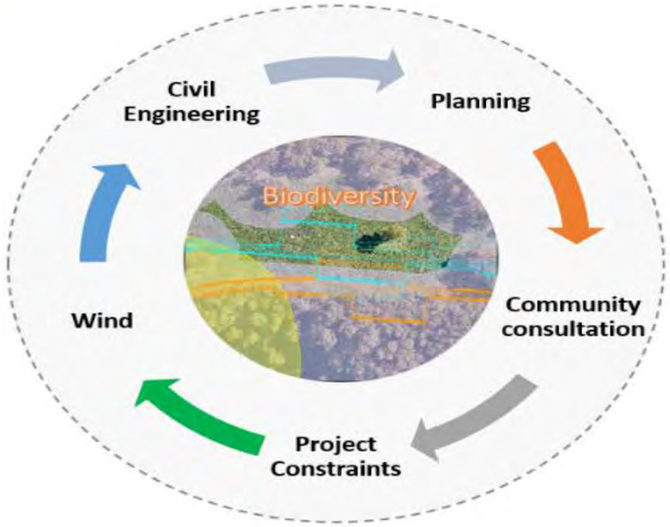
Courtesy of BJCE Australia

Example NSW Wind Farm Avoiding Vegetation

Courtesy of BJCE Australia

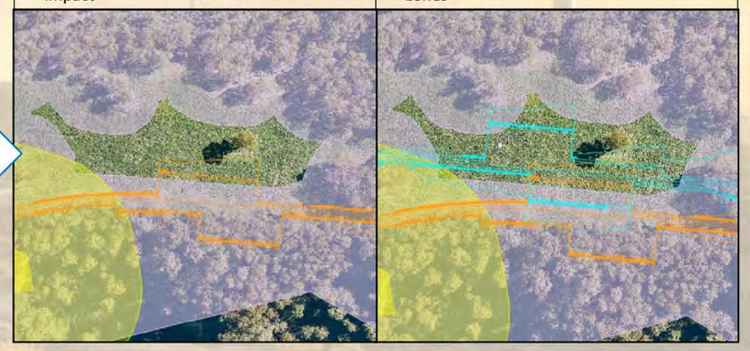
Multidisciplinary Workshop Methodology

- A multidisciplinary 'freeze design' workshop was undertaken in May 2020 with the Project ecologists, community consultants, civil engineers and wind modellers after most surveys had been completed.
- The project was redesigned to ***avoid impacts to significant biodiversity features such as fauna habitat and microbat breeding areas.***



Example of Avoidance

Pre-Workshop	Post-Workshop
• Wanted to move pad out of PCT Habitat • Realigned road and pad to fit better into already cleared land, thereby minimising impact	• New layout in light blue • Pad and road have less impact on microbat 100m buffer zone and PCT Habitat mapping zones



Existing adjacent high quality native vegetation remains intact providing habitat

Landscape and Visual Assessment

MOIR Landscape and Architecture completed the landscape and visual assessment . MOIR have over 10 years' experience doing visual impact assessments for wind farms.

Photomontage Development Process

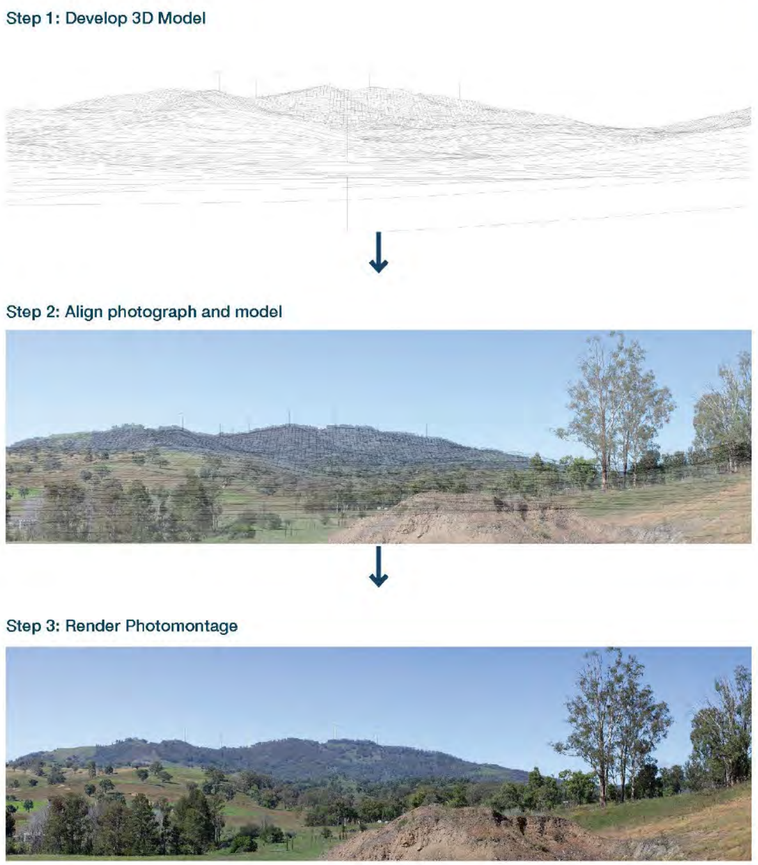


Figure 14 Photomontage Development Process

Step 1: Develop 3D Model
Detailed 3D model of the Site is developed in Wind Pro.

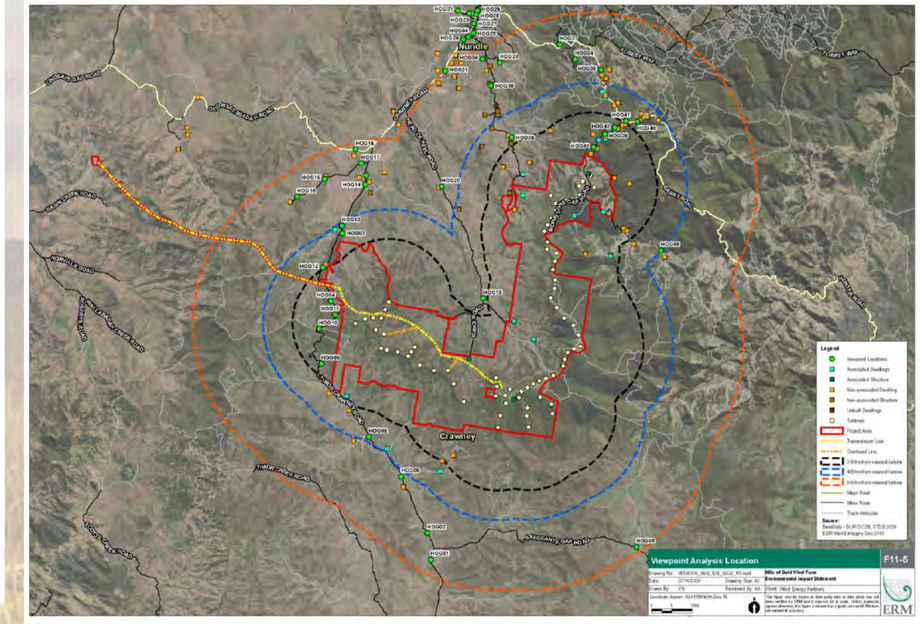
Step 2: Align Photograph and Model
The panorama is imported into Wind Pro and properties of the file are inserted automatically defining all relevant visualization information.

Step 3: Render Photomontage
The software calculates the position of the sun based on the time and date of the photograph and renders the wind turbines.

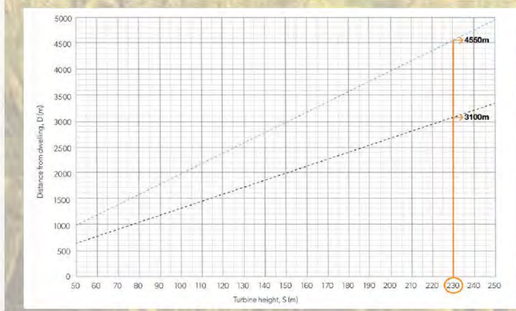
Photomontage and Wireframe Locations

Public Photomontage Locations
A total of 11 public viewpoint locations were selected for the preparation of visual photomontages based on feedback received from the community and with reference to the NSW Wind Energy: Visual Assessment Bulletin.

Private Photomontage Locations
15 photomontages were prepared from private properties. The photomontages selected were based on those within close proximity to the Project. In some cases, wireframe diagrams have been utilised to illustrate potential visual impacts from dwellings with no access or vegetation screening as recommended by the NSW Wind Energy: Visual Assessment Bulletin.



Visual Magnitude Tool



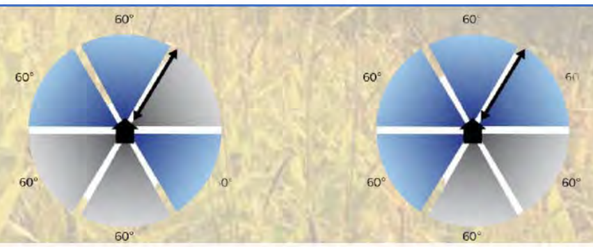
The visual magnitude threshold is based on the height of the proposed wind turbines to the top of the blade and distance from dwellings or key public viewpoints. The proposed wind turbines are based on a worst case of 230m. The 'black line' intersects at 3100m and the 'blue line' at 4550m.

Landscape Character Unit (LCU) Descriptions

The landscape Character Units (LCU) are classified by slight variations in the landscapes geology, topography, land use and vegetation which create distinct character areas within the study area.

LCU	Overview	Scenic Quality Rating
LCU 01 Nundle Village	Gently undulating land making up the village of Nundle.	**Low – Moderate**
LCU 02 Wallabadah	Mostly cleared grazing land bounded to the north and west by Lindsays Gap Road and to the south and east by foothills associated with the Liverpool Range.	**Moderate**
LCU 03 Nundle Valley Pastures	Grazing land to the north of the Project Site, which is generally associated with the valley of the Liverpool/Mount Royal Ranges.	**Moderate**
LCU 04 Nundle Rolling Foothills	Undulating land form associated with the transition topography of the elevated ridge lines and crests of the Liverpool Range and Nundle Valley.	**Moderate**
LCU 05 Forested Mountain Ranges	Densely vegetated land to the eastern slopes of the Dividing Range, north to the Hanging Rock area, wrapping to the south Ben Halls Gap National Park.	**Moderate – High**
LCU 06 Crawney	Cleared grazing land to the south-southwest of the ridge line.	**Moderate**
LCU 07 Nundle Creek	Undulating, cleared grazing land to the north west of the Project area.	**Moderate**

Multiple Wind Turbine Tool



This Multiple Wind Turbine Tool provides a 2D assessment, which looks at the amount of 60-degree sectors turbines can be seen from a public viewpoint or private residence.

Landscape and Visual Assessment

Overview of dwelling assessment

Dwellings within 3100 metres

A total of 22 non-associated dwellings were identified and assessed within 3100m of a proposed turbine.

Morrisons Gap Road → As a result of the 14-dwellings assessed, three are likely to have uninterrupted views to parts of the Project Area.

Nundle Creek Road → Four dwellings on Nundle creek road, are likely to have views to the project.

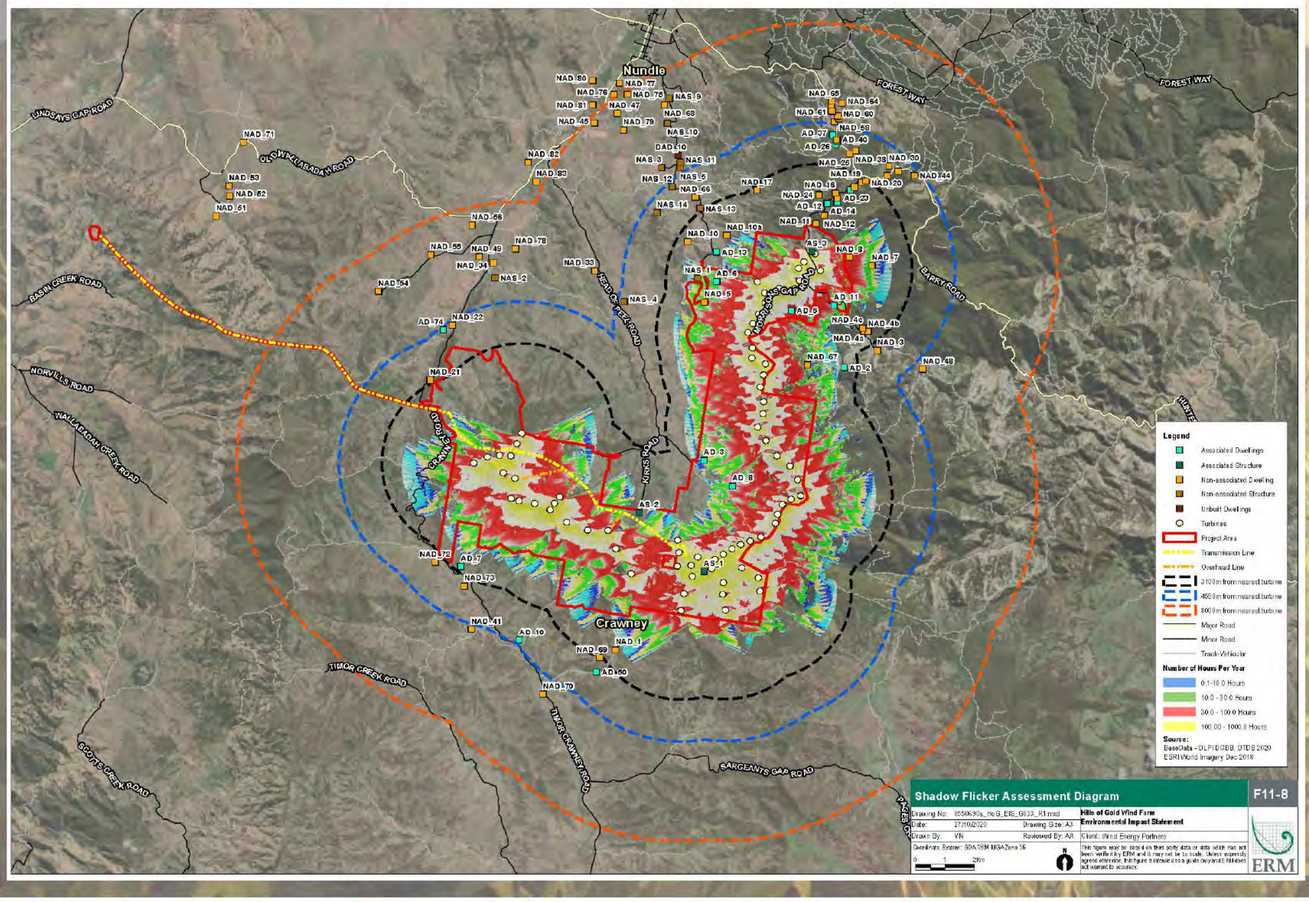
Shearers Road → Three dwellings assessed identified limited opportunities to view the project due to topography and existing screening.

Mountain View Road → Two dwellings assessed, with a large portion of the project viewed from one dwelling and limited views from the other.

Dwellings within 3100 - 4550 metres

- A total of 20 non-associated dwellings were identified and assessed between 3,100 to 4,550 m of a proposed turbine.
- Views to the Project will be screened by topography from seven of the dwellings and existing vegetation is likely to screen or fragment views from an additional seven dwellings.
- Mitigation measures in the form of supplementary or screen planning have been outlined for the remaining six dwellings with potential views to the Project.

Shadow Flicker Assessment Diagram



Shadow Flicker Worst Case Assumptions

The sun is shining all day, from sunrise to sunset.

The rotor plane is always perpendicular to the line from the Wind Turbine Generator to the Sun.

The Wind Turbine Generator is always operating.

Assumes no vegetation covering.

Mitigation Measures

Screen Planting

- A total of 17 residences were identified through the visual assessment as having the potential to benefit from the application of mitigation methods.
- Screen planting was identified as a potential mitigation measure for 11 dwellings and supplementary planting has been identified for six dwellings.
- Due to the vegetated character of areas surrounding the Project Area (particularly to the north along Morrisons Gap Road) the Project is likely to be screened by vegetation from a number of dwellings.

Night Lighting

- If used, air navigation lights will be required to be spaced over the array, particularly at the extremities. Where possible, careful consideration will be given to turbines upon which aviation lighting is installed to avoid unnecessary impact upon residences.
- Treatment of the rear of blades with a non-reflective coating to reduce reflection off the rotating blade at night.
- Use of the lowest candela intensity allowed by CASA.
- According to the CASA requirements, shielding may be provided to restrict the downward spill of light to the ground plane by ensuring that no more than 5 % of the nominal light intensity should be emitted at or below 5° below horizontal.

Conclusion

- The overall visual impact of the wind farm will vary depending on the individual viewer's sensitivity to and acceptance of change. The sensitivity towards change varies depending on the user's connection with the landscape.
- The visual impact of the wind turbines are lessened as the distance of the vantage point from the Project Area is lengthened.
- When implemented with appropriate environmental management, the development of the wind farm can be undertaken with low impact on the surrounding environment whilst providing positive local, regional and national benefits.

Noise and Vibration Assessment

sonus.

Sonus has been engaged to do the Noise and Vibration assessment. They are experts in Wind Farm noise assessments, working in the sector since 2002.

Scope of Assessment

- Background Noise Assessment – 7 loggers recorded data over 6 weeks.
- Loggers used were Class 1 instruments allowing noise as low as 20DBA to be recorded.
- Noise and Vibration Assessment of:
  - Construction Activities
  - Wind Turbine Operation
  - Traffic
  - Ancillary Infrastructure including batteries, substation and the switching station.
- Mitigation measures and recommendations.

Noise Assessment Information

- The predictions of environmental noise from the Project have been based on the CONCAWE noise propagation model and SoundPLAN noise modelling software. The model considers the following:
  - sound power levels of each noise source
  - the locations of noise sources
  - the distance from sources to receivers
  - local topography
  - influence of the ground
  - air absorption
  - worst case weather category.

Decibel Explanation

20-35DBA
- Quite Rural Area
- Rustling leaves
- Whisper

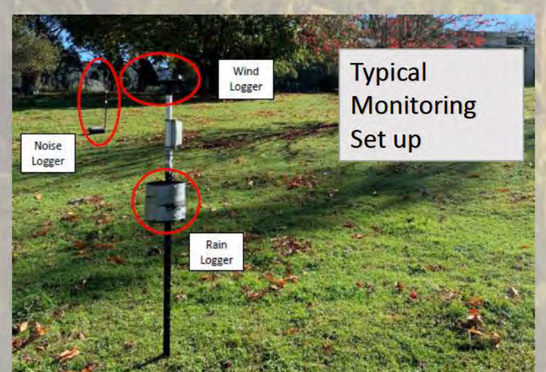
40DBA
- Library
- Distant Bird Calls
- Refrigerator

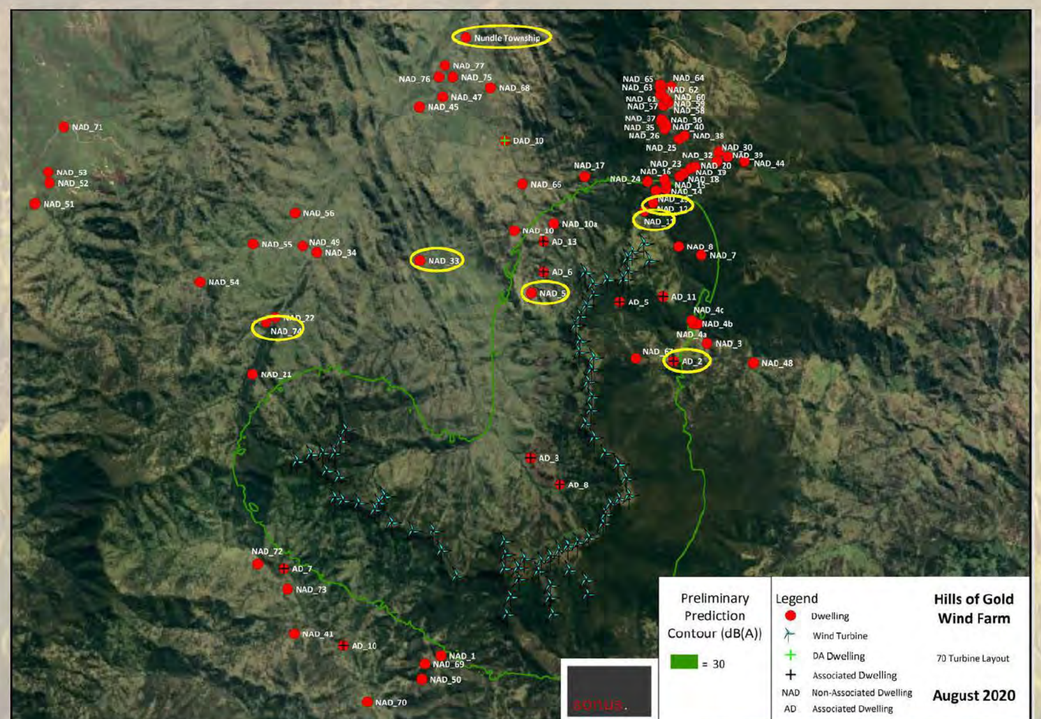
50DBA
- Insects overhead
- Quiet suburb
- Rainfall

60DBA
- Normal conversation
- Electric Shaver
- Quiet Office

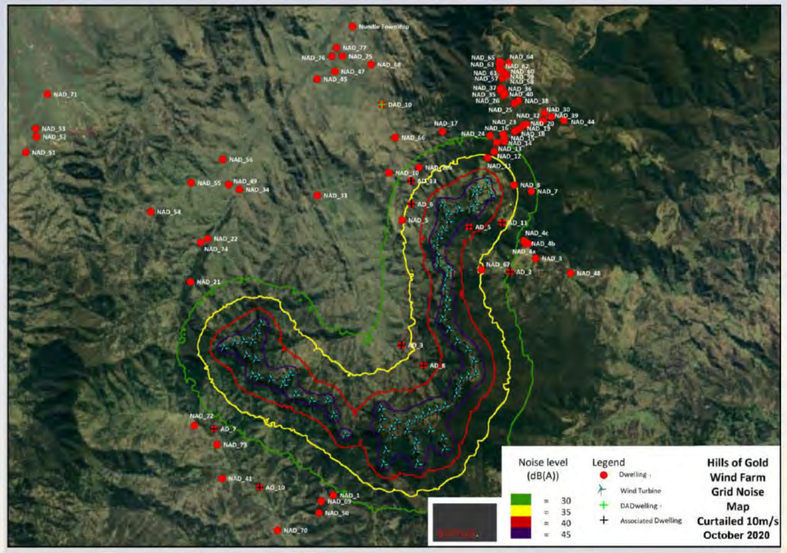
Background Noise Monitoring

- Recorded in 10 min intervals.
- Calibrated at the beginning and end of monitoring period.
- Recording device established about 1.5m from ground level with wind shield of 150mm thick.
- Correlated wind speeds to met masts recording wind data across the site.





Noise Assessment Map Curtailed at 10m/s



Mitigation Measures

Wind Turbine Operation

- With the curtailment strategy implemented for wind speeds of 8 m/s and above, the noise level from the wind farm is predicted to achieve the noise criteria at all dwellings in the vicinity.

Construction Activity

- Scheduling of noise generating activities;
- Locating fixed noise sources away from dwellings;
- Providing acoustic screens around fixed noise sources;
- Site management to minimise noise;
- Equipment and vehicle management; and
- Community consultation and notification of construction works.

Traffic

- Communicate with the affected community;
- Establish and maintain a route into the Project Area so that heavy vehicles do not enter noise sensitive areas for access where practicable;
- Incorporate information regarding the route to all drivers prior to accessing the Project Area and the need to minimise impacts through driver operation at certain locations;
- Schedule construction traffic deliveries such that it is as evenly dispersed as practicable and where possible outside the morning and afternoon peak hours.

Conclusion

Based on the predictions, the relevant noise and vibration criteria established under the SEARs will be achieved under conditions most conducive to noise propagation at all dwellings where turbines are operated in accordance with an operating strategy and construction activities are managed in accordance with the recommendations.

Aboriginal Assessment

Kelleher Nightingale Consulting Pty Ltd

KNC is an Archaeological and Heritage Management Consultant that conducts both Aboriginal cultural heritage work and European cultural heritage work. KNC has worked on multiple projects in NSW and across Australia including renewable energy developments for wind and solar projects.

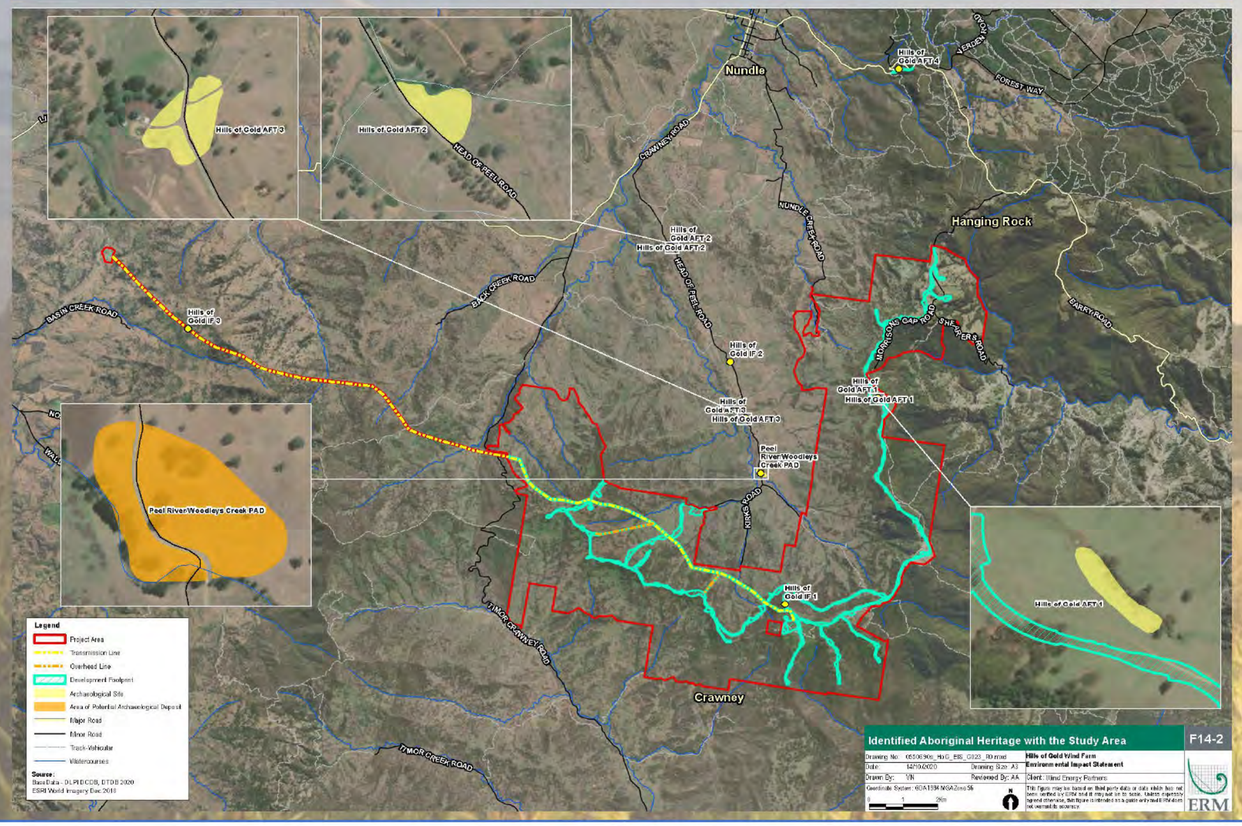
Scope of Assessment

1. Aboriginal Community Consultation
2. Aboriginal heritage field survey
3. Cultural heritage assessment report

Results of Survey

The archaeological surveys resulted in the identification of seven Aboriginal archaeological sites and one area of Potential Archaeological Deposit (PAD) within the Development Footprint for the Project:
(3) were of moderate significance, and
(5) five were of low significance.

Identifying Aboriginal Artefacts in the Study Area



Conclusion

- The CHAR has identified that there are no existing Aboriginal Heritage Information Management System (AHIMS) sites within, or near, the Project Area.
- The seven newly recorded sites and one PAD present were identified during the comprehensive field inspection of the Study Area. The project layout was updated to avoid such impacts.
- If impact is unavoidable, salvage excavation would be required for two archaeological sites and one PAD. Surface artefact collection is recommended for low significance Aboriginal archaeological sites where surface artefacts were identified during the assessment. Anything found will be recorded and added to the known aboriginal history of the area.

Historic Heritage Assessment

ERM

ERM completed a Historic Heritage Assessment (HHA) prepared to examine and understand any historic heritage values within the Project Area and transport route.

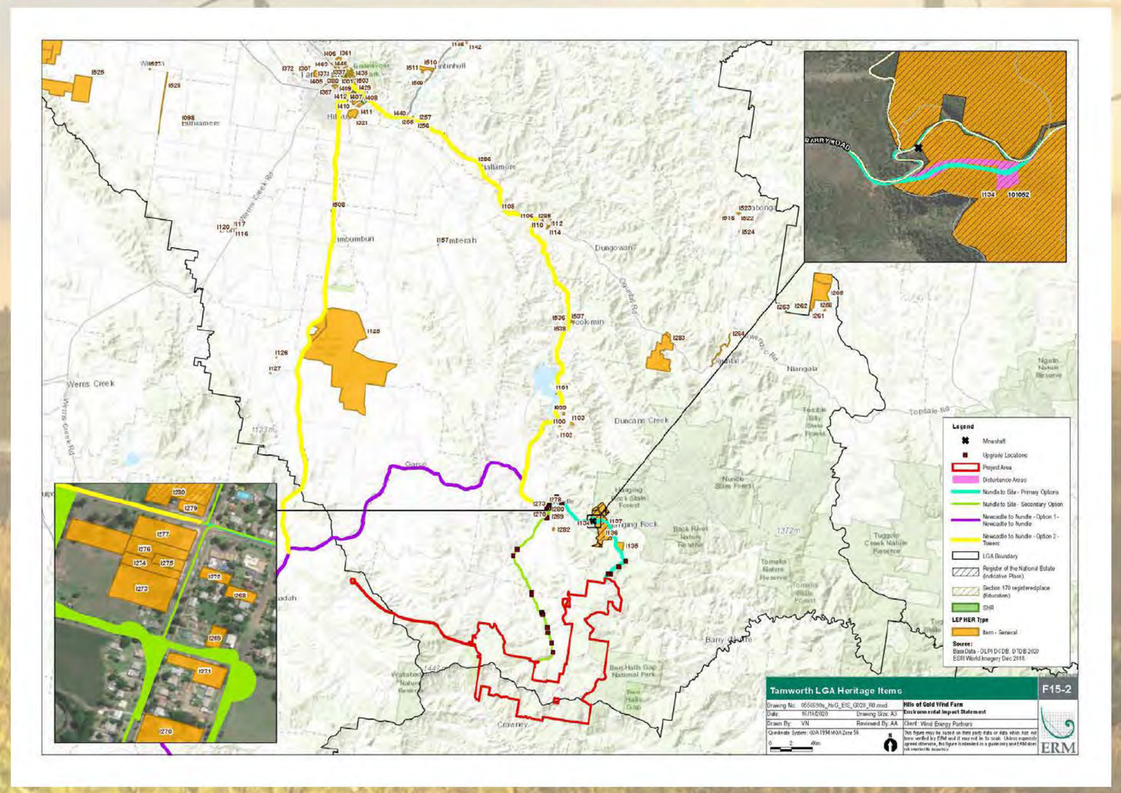
Major Find - Black Snake Gold Mine

The hairpin corners at the Devil's Elbow (Barry Road) are too tight to accommodate the transport of large components, it is proposed to build a new portion of road through the LEP listed Black Snake Mine.

Minor Find - Kayuga Cemetery

The transport route to the Project site involves passing an existing corner of Kayuga cemetery, which will require a hardstand to be added and signs made removable.

Tamworth LGA Heritage Items



Conclusion

- In summary, the proposal will have negligible adverse impacts to the historic setting of Black Snake Gold Mine by implementing proposed mitigation.
- No historic heritage sites have been identified within the Project Area.
- Works associated with the Devils Elbow should result in no impact to local historic heritage.
- The proposed small components transportation route will result in no impacts to identified historic heritage items.

Aviation Assessment

AVIATION PROJECTS

Aviation Projects were engaged to undertake the Aviation Impact Assessment (AIA). They have a comprehensive understanding of how wind farms, wind turbines and wind monitoring towers pose potential aviation impacts and how to mitigate these.

Consultation

- Airservices Australia;
- aircraft operators;
- aerodrome operators;
- Department of Defence;
- Liverpool Plains Shire Council;
- NSW National Parks and Wildlife Service;
- NSW Rural Fire Service;
- Royal Flying Doctor Service;
- Tamworth Regional Council;
- Upper Hunter Shire Council;
- Westpac Life Saver Rescue Helicopter Service; and
- Residents consulted.

The draft Aviation Impact Assessment was sent to CASA, Air Services Australia (ASA), DoD and other relevant aerodromes and aircraft operators' comments and were incorporated into the final assessment.

SEARS Requirements

Civil Aviation Safety Regulations 1998.

NASF Guideline D Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation.

Proximity to nearby certified aerodromes

Aviation Impact Statement Key Findings

IMPACT 1

- **The project will penetrate PAN-OPS surfaces to Scone Airport**
  - PAN-OPS stands for Procedures for Air Navigation Services - Aircraft Operations. They are procedures that allow aircraft to land and take off safely when only instruments can be used, i.e. in low visibility weather conditions.

Mitigation

- Scone Airport (YSCO) will require an increase in the minimum sector altitude from 6300ft above mean sea level (AMSL) to 6400ft AMSL
- Quirindi Airport and Tamworth requires no change to PAN-OPS surface.
- Upper Hunter Shire Council and the Scone airfield operators have been consulted and have no objections.

IMPACT 2

- The project will have an impact on nearby designated air routes.

Mitigation

- Two air routes, H99 LSALT and W130 LSALT, are recommended to be increased by 300ft and 200ft respectively, to a total of 6400ft AMSL.

POTENTIAL IMPACT

- Dependent on the wind direction and wind speed at the time, if wind turbines are operating when ALA.
  1 and ALA 2 are used, the potential extent of downstream wake turbulence could be noticeable.

NO IMPACT

- will not penetrate any Obstacle Limitation Surfaces (OLS);
- will not have an impact on the grid LSALT;
- will not have an impact on prescribed airspace;
- will not affect aerial agriculture;
- is wholly contained within Class G airspace; and
- is outside the clearance zones associated with aviation navigation aids and communication facilities.

Aviation Assessment

AVIATION PROJECTS

Risk Assessment Results

Based on an extensive review of accident statistics data and input from stakeholders, five (5) identified risk events associated with wind turbines and WMTs relate to aviation safety, and are listed as follows:

1. potential for an aircraft to collide with a wind turbine;
2. potential for an aircraft to collide with a wind monitoring tower;
3. potential for a pilot to initiate maneuvering in order to avoid colliding with a wind turbine or monitoring tower resulting in collision with terrain;
4. potential for the hazards associated with the Project to invoke operational limitations or procedures on operating crew of aircraft; and
5. effect of obstacle lighting on neighbours.

Hazard Lighting and Marking

Aviation Projects has assessed that the Project will not require obstacle lighting to maintain an acceptable level of safety to aircraft.

However CASA is likely to request that this be installed.

Aerial application of fertilisers, pesticides and aerial baiting

- Safe aerial application operations would be possible on properties within the Project Area and neighbouring the Project Area.
- The use of helicopters enables aerial application operations to be conducted in closer proximity to obstacles than would be possible with fixed wing aircraft due to their greater maneuverability.

Aerial firefighting

- An existing Dam located adjacent to WTG 26 has been historically used for firefighting efforts by NSW National Parks and Wildlife Service (NSW NPWS), and NSW Rural Fire Service.
- Most aerial firefighting organisations have formal risk management programs to assess the risks associated with their operations and implement applicable treatments to ensure an acceptable level of safety can be maintained.

Aerial Firebombing. Courtesy of NW FireBlog

Summary of Key Recommendations

1. 25 nm MSA at Scone Airport in the sector bounded by bearings 070º and 290º should be increased by 100 ft to 6400 ft AMSL.
2. The initial approach altitude for RNAV GNSS approach procedures for runway 29 at Scone Airport should be amended to 6400 ft AMSL to safeguard the approach procedure.
3. Air route H99 LSALT should be increased by 300 ft from 6100 ft to 6400 ft AMSL.
4. WEP should consult with the operator of the ALA 1 and ALA 2 to agree on a mitigation plan.
5. Overhead transmission lines and/or supporting poles that are located where they could adversely affect aerial application operations should be identified in consultation with local aerial agriculture operators.
6. Department of Defence should be consulted for the proposed Project development.
7. To facilitate the flight planning of aerial application operators, the location and height of wind turbines and wind monitoring towers should be provided to landowners so that, when asked for hazard information on their property, the landowner may provide the aerial application pilot with all relevant information.
8. 'As constructed' details of wind turbine and wind monitoring tower coordinates and elevations should be provided to Airservices Australia.
9. WEP should consider engaging with local aerial agricultural operators and aerial firefighting operators in developing procedures for such aircraft operations in the vicinity of the Project, noting that there is no statutory requirement to do so.
10. Details of the final wind farm layout should be provided to local and regional aircraft operators prior to construction in order for them to consider the wind farm for their operations.
11. The rotor blades, nacelles and towers of the wind turbines should be painted in white, typical of most wind turbines operational in Australia.

Soil and Water Assessment

ERM is a leading global provider of environmental, health, safety, risk, social consulting services and sustainability related services.
It has extensive experience in navigating projects through the NSW planning system including project in evolving industries such as the Australia Renewable Energy Sector.

Consultation

During the preparation of the EIS, consultation is required with relevant local, State and Commonwealth Government authorities, service providers, community groups and affected landowners:

- NSW department of industries (Agriculture and fisheries).
- NSW office of water.
- NSW Natural Resource Access Regulator.
- NSW Division of Resources and Geoscience.
- Local Land Services (North West and Hunter Regions).
- Tamworth Regional Council.
- Upper Hunter Shire Council.
- Liverpool Plains Shire Council.
- Environment Protection Authority.

Water Demand

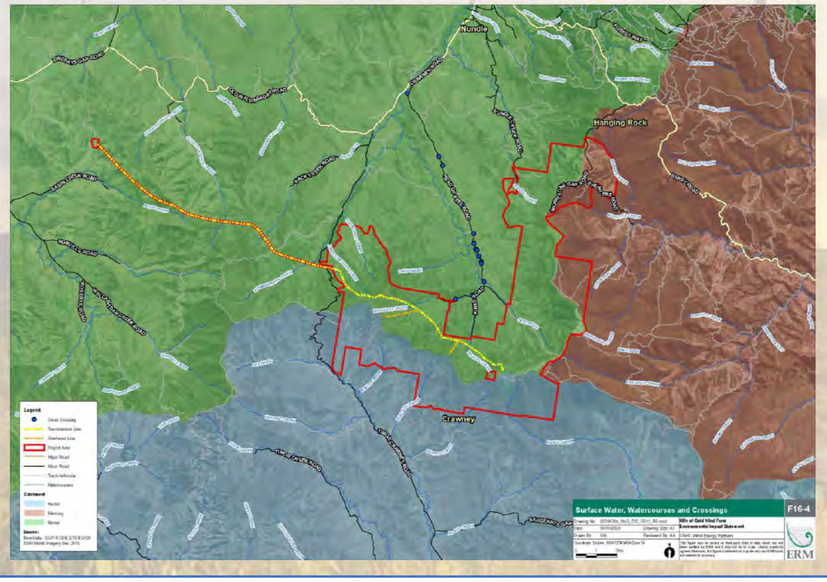
Activity	Water Requirement
Concrete production (batching plant);	3.5 ML
Dust control and washdown	41 ML
General use including earthworks compaction	10.5 ML
Total	**55 ML**

Given the total requirement for all Project activities is limited to the 24-month construction period is approximately 55 ML, **it could be possible to permit water abstraction for the Project without impacting environmental flows.**

Water Sourcing

The Project has four viable options available to source water, being:

- Council water supply, in agreement with the relevant Council(s);
- Extraction from an existing nearby landowner bore, in agreement to use their allocation;
- Extraction from a new groundwater bore, which will require a license in consultation with WaterNSW;
- Extraction from a surface water source (e.g. Chaffey Dam), which will require a license in consultation with Water NSW; and
- Confirmation of the proposed source will be determined following detailed design.



Existing Landscape and Key Features

A qualitative risk assessment suggests that **overall potential risks to water and soils are relatively minor.**

- For the most part, pad sites and access road construction occur on relatively low-moderate gradient lands high up in the respective drainage catchments.
- construction sites within the Project Area present a **low erosion** hazard considering factors such as climate, soils and landform (RUSLE equation, Erosion hazard assessment based on five factors: rainfall erosivity; soil erodibility; slope length and gradient; soil cover and management practices).
- vegetated buffers lie between work areas and watercourses.
- **sustainable water supply** options will be pursued through consultation with landowners and relevant Government agencies. Licenses would be obtained as required.
- water flows are not anticipated to be affected during the construction of the Project, given the localised impacts are located upstream on the top of the ridgeline. Any potential impact downstream will be effectively managed at the source of works (i.e. velocity controls in areas with steep slopes) through the implementation of a progressive Erosion and Sediment Control Plan (ESCP).

Water Identification Results

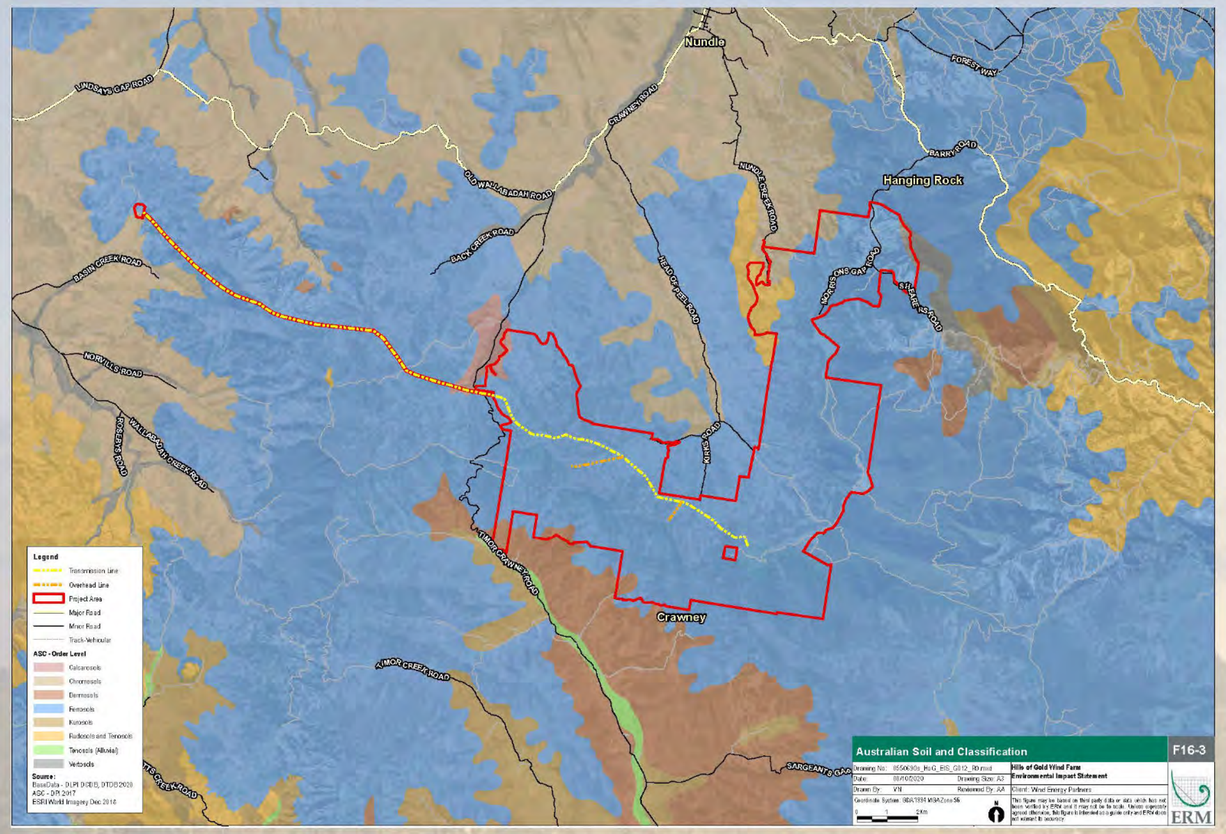
There are fourteen named tributaries within the Project Area

- Back Creek
- Dead Eye Creek
- Goonoo Goonoo Creek
- Limestone Oaky Creek
- McDivitts Creek
- Nundle Creek
- Pages Creek
- Peel River
- Perrys Creek
- Ryan's Oaky Creek
- Talbots Creek
- Whites Creek
- Wombramurra Creek
- Woodleys Creek

Catchment	Project Area within Catchment (ha)	Project Area as % of Catchment Area
Namoi	5180.9	0.00123 %
Hunter	2254.6	0.00105 %
Manning	880.0	0.00105 %

Soil and Water Assessment

Soil Assessment



Risk Assessment Results

A qualitative risk assessment suggests that **overall potential risks to water and soils are relatively minor.**

- For the most part, pad sites and access road construction occur on relatively low-moderate gradient lands high up in the respective drainage catchments.
- construction sites within the Project Area present a **low to moderate erosion** hazard considering factors such as climate, soils and landform (RUSLE equation, Erosion hazard assessment based on five factors: rainfall erosivity; soil erodibility; slope length and gradient; soil cover and management practices).
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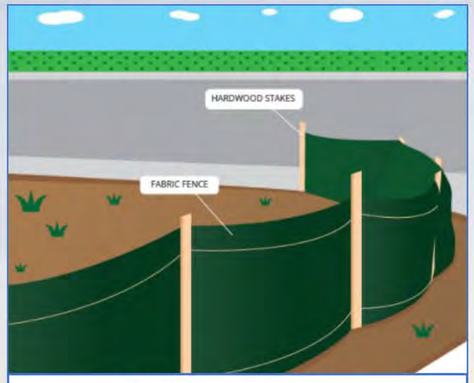
Mitigation Technologies



Sediment Fencing

Sediment Trap and Basins

Mitigation Measures

Staging of work

- Staging of works is one of the simplest and most effective forms of erosion and sediment control.
- By limiting the exposed area to the minimum possible at any one time, reduces the risk of soil loss.

Pad sites

- Refer to areas that may be cleared, levelled and then stabilised.
- Pad sites will be built in accordance to Erosion Sediment Control Plan (ESCP).

Unsealed Internal Access Roads

- Maintaining good stormwater drainage.
- Limit the clearing width to the minimum that is practicable.
- Strip and stockpile topsoil separately for use in rehabilitation.

Trenching

- Land disturbance minimization.
- Avoid trenching in locations concentrating water flow.
- Monitoring weather to avoid opening trenches prior to forecast rainfall.
- Topsoil and subsoil separation, topsoil is replaced on the surface.

Concrete batching plant

- Implementation of separate stormwater collection and drainage systems.
- Suitable washout locations.
- Monitoring stormwater discharges (pH and SS).

Dewatering

- Collecting of water stored in trenches, sediment traps and low-lying depressions.
- Reuse it on site for dust suppression on unsealed access roads and watering of rehabilitated areas.

Site Monitoring and Maintenance

- Effective system of sediment control devices (inspection, maintenance and cleaning program).

Traffic and Transport Assessment

ttpp transport planning

The Transport Planning Partnership (TTPP) was formed as a specialist traffic engineering and transport planning consultancy with the aim of providing high level specialist advice to government agencies and the private sector.

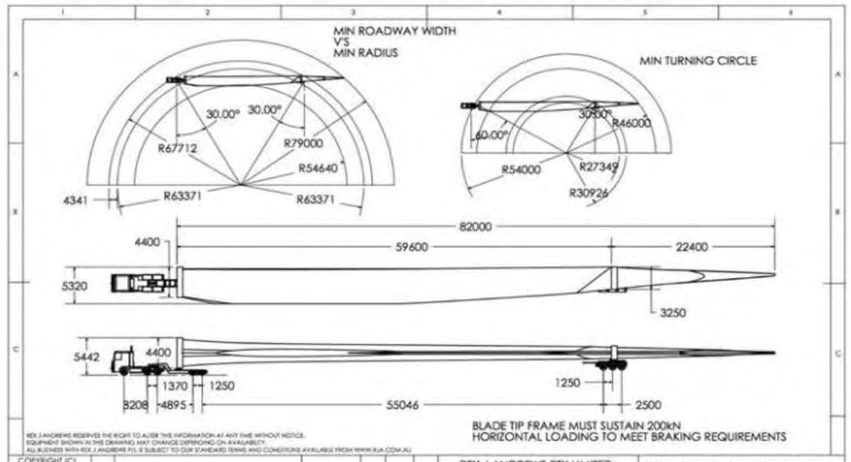
Scope of Assessment

1. Assessment of Existing Conditions
2. Assessment of Traffic Impacts
3. Mitigation Measures
4. Conclusions and Findings

Oversize and Overload Transport

- Detailed transport impact mapping was undertaken and used a "worst case scenario" analysis to determine maximum possible impact.
- The below specifications show dimensions of an example oversize turbine component.
- This allows for a detailed impact assessment.

Blade diagram (170 rotor):



Traffic Impacts

- Calculations of Project related traffic generation were undertaken.
- During the peak construction period, the peak number of vehicles to be generated would be as shown in the table below.
- This would occur over a period of about 13 months.
- The evening peak period would be the inverse of the morning peak.

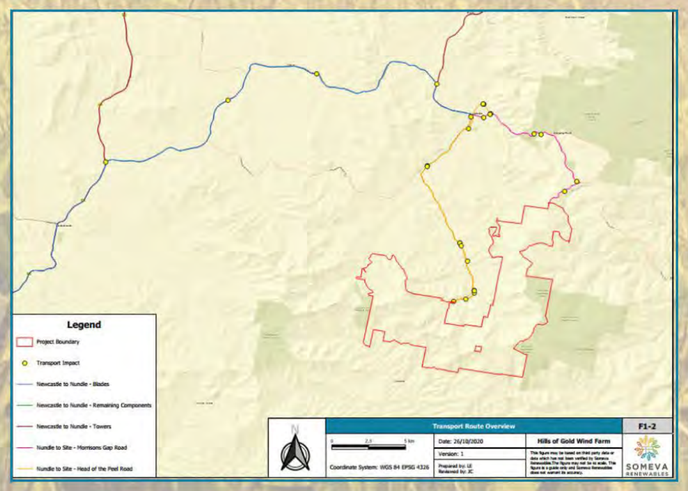
Vehicle type	Units	Morning Construction Peak (7:00am – 8:00am) (Vehicles per hour)			Daily (trips)
		To Site	From Site	Total	
Light vehicles	150 workers	150	15	165	300
Buses	169 workers	7	5	6	12
Water trucks	15 per day	3	3	4	30
Trucks	63 per day	7	7	14	120

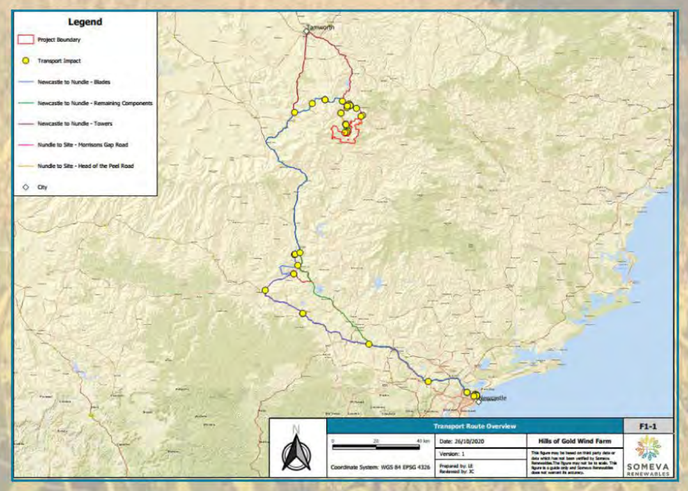
Vehicle type	Units	Morning Peak (7:00am – 8:00am) (Vehicles per hour)			Daily (trips)
		To Site	From Site	Total	
Light vehicles	33 workers	33	0	33	66
Heavy Vehicles	4 per day	2	1	-	8

- Analysis shows that when these traffic volumes are added to the existing traffic volumes that there would be adequate capacity in the road network.
- During the operational period, there would only be a maximum of a 9% increase in traffic volume in relation to the capacity of the roads.
- The forecast traffic volumes are also expected to be less than the environmental capacity goals during the peak of construction.

Transport Route from Nundle to Site

- The main route would be via Barry Road and Morrisons Gap Road.
- This route will require the construction of new sections of road for the transporting of the blades.
- An alternate route would use Head of the Peel Road to access the site from below the ridge.
- This is to reduce traffic impacts if necessary.





Traffic and Transport Assessment

Oversized Loads

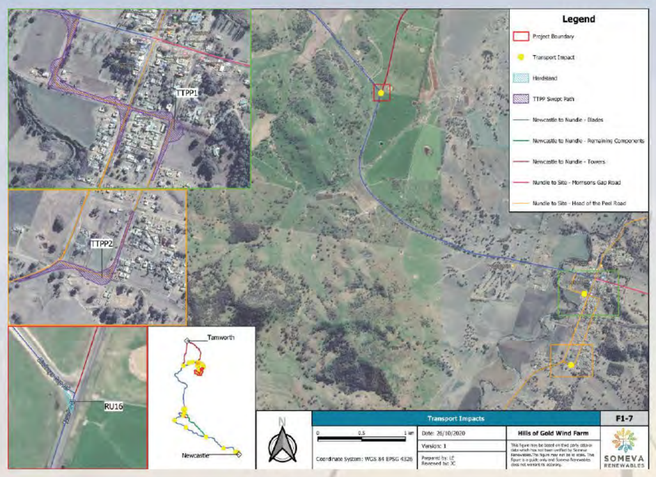
- There will be delivery to site of the components of the wind turbines and electrical equipment.
- A summary of the oversized and over mass trucks is shown in the table below.
- A detailed traffic management plan will be created for these loads.

Component Type	No. of Trips to Site
Blades (root section)	210
Blades (tip section)	70
Nacelles	70
Drivetrain	70
Hubs	70
Tower Sections	490 (7 section tower)
Other (2 x 40ft Shipping Container per WTG)	140 (2 per WTG)
Sub station	20
Switching Station	20
Overhead cabling	120
Underground cabling	20
Battery System	158

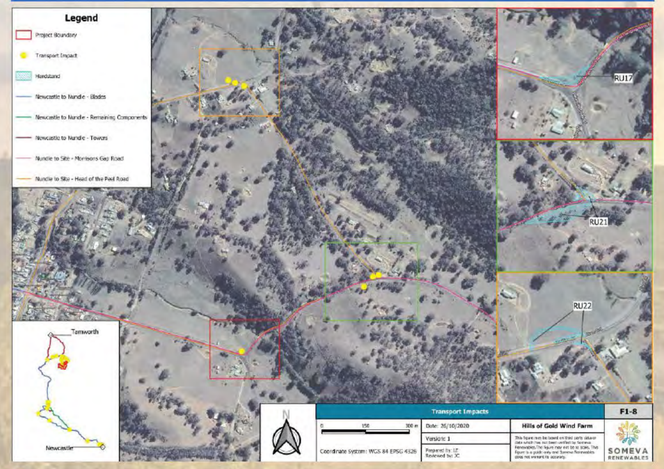
Example Transportation of a Turbine

Image courtesy www.examiner.com.au

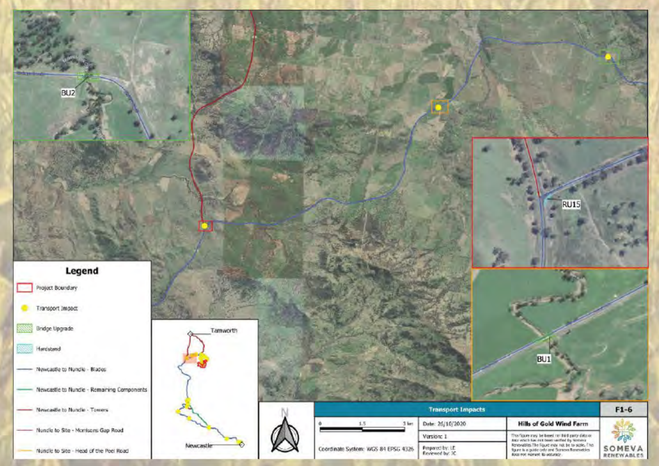
Nundle West



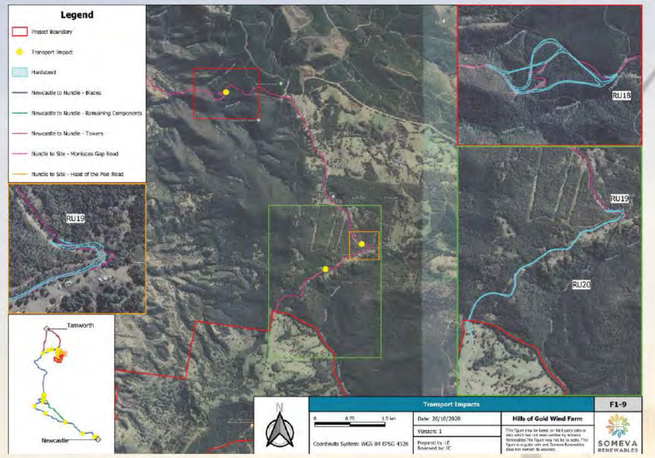
Nundle East



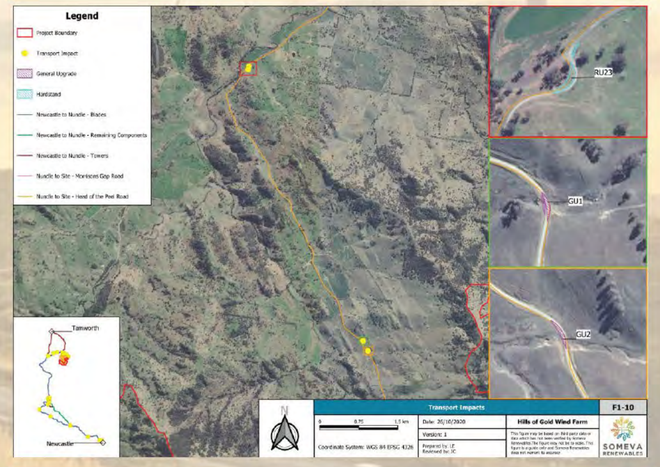
Lindsays Gap Road



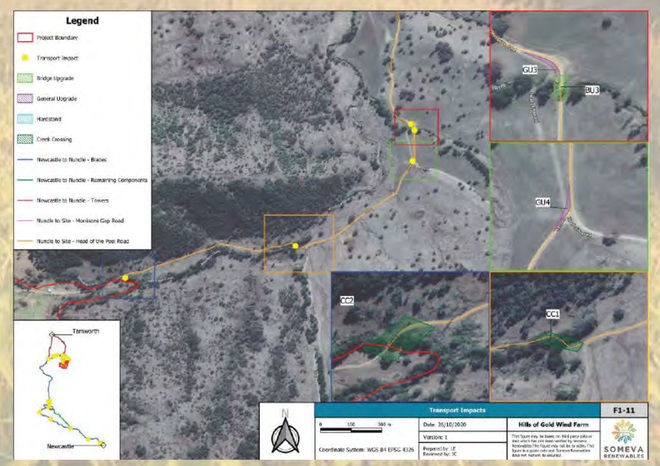
Hanging Rock



Head of the Peel 1



Head of the Peel 2



Social and Economic Assessment

SGS Economics and Planning has been engaged to do the social and economic assessment. They have extensive expertise in assessing, quantifying and explaining the social and economic impacts of a range of projects including renewables.

Scope of Assessment

1. Socioeconomic profile
2. Policy context
3. Literature Review
4. Community Engagement
5. Social Impact Assessment
6. Economic Impact Assessment
7. Net Community Benefit Assessment

Socio-economic profile

- There has been a decline of the regional NSW economy in recent decades.
- Consistent periods of drought and climate change are impacting on the agricultural industry and regional communities.
- As a result it is pertinent to explore and consider other industries (such as wind energy) that could contribute to regional economies and provide employment.

- The New England North region experienced low population growth compared to the neighboring Hunter Valley region (Excluding Newcastle and Between 2006 and 2016).
- Large regional development projects can be one way of attracting more people, and a younger workforce, to live and work in a region.

- All three LGAs have a significant proportion of resident population working in Industrial related jobs (this includes jobs types such as manufacturing, transport and utilities employment).
- The skillsets of these residents may be beneficial for the construction of a renewable energy development in the region.
- Local job opportunities may be welcomed by residents.
- Both Tamworth LGA and the Upper Hunter Shire LGA had more visitors to the region for the purpose of a 'holiday' over 'visiting friends and relatives'.
- Tourist attractions to cater to these visitors may be of value to the region.

Hallett South Australia Case Study

The Hallett Wind Farms consist of four closely located wind farms in the mid-north region of South Australia (167 turbines). The wind farms are located within 20km of the small townships of Hallett and Mount Bryan

- The development included the establishment of a community benefit fund.
- One study of the Hallett wind farms indicated that an average of ***98 construction workers had been employed at any given time from 2005 to 2010.*** It was estimated that the wind farms created up to **2400 full time 'job years'** throughout construction and operation (as of 2010).
- Indirect benefits accrued to service providers and providers of accommodation in neighboring towns of Burra, Jamestown and Clare.

Courtesy of aussie renewables

Economic Assessment

- Based on SGS assessment , the Hills of Gold Wind Farm in the short-term (construction phase), would have a significant positive economic impact with guaranteed financial gains.
- In the longer-term (operation phase), the project would continue to have a positive economic impact on the local economy.
- The project is expected to include capital expenditure in the local regional economy of $370 million with ongoing operational expenditure of around $18.5 million not including financing costs.
- The project is expected to produce nearly $154m ($104M discounted) in value-add (e.g. wages and profit) during the construction phase.

Employment

	Construction Phase			Operation Phase		
Industry Type	**Direct Jobs**	**On-flow jobs**	**Total**	**Direct Jobs**	**On-flow jobs**	**Total**
Construction	120	256	376			
Professional, Scientific & Technical Services	96	174	270	31	53	84
TOTAL	216	430	646	31	53	84

APPENDIX C.3 AGENCY ENGAGEMENT MATERIALS

Amanda Antcliff

From: Samantha Wynn [redacted]@environment.nsw.gov.au>
Sent: Tuesday, 19 October 2021 10:31 AM
To: Jamie Chivers
Cc: David Geering; Liz Mazzer
Subject: RE: Hills of Gold Wind Farm

Hi Jamie

Thank you for your email with attached response and supporting BDAR.

We have reviewed the response document and note that several high risk turbines have either been removed or re-sited. BCS supports any changes that avoid / reduce impacts on biodiversity.

Please note that we have not conducted a review of the BDAR as we don't do adequacy reviews; however, we do note that the response mentions a commitment to do an intensive monitoring period for the first six months of operation which will be outlined in the BBAMP. This will be followed by regular monitoring / mortality surveys for the life of the windfarm at frequencies based on findings of each survey. BCS will be looking for clear trigger, action and responses in relation to monitoring results and finds.

On a side note, there has been some work happening on the use of sniffer dogs to increase carcass detectability at wind farms, especially the detection of small carcasses. Such methods may offer the opportunity to collect more robust data, and hence give greater confidence on certain assumptions. Not sure if you have considered / investigated this already, but thought worth mentioning.

We look forward to conducting a full review of the proposal once formally referred to us for advice from the Planning and Assessment Group.

Regards
Sam

Samantha Wynn
Senior Team Leader Planning North West
Biodiversity, Conservation & Science Directorate | Department of Planning, Industry and Environment
[redacted]
48-52 Wingewarra St (PO Box 2111), Dubbo NSW 2830
www.dpie.nsw.gov.au

Our Vision: Together, we create thriving environments, communities and economies.

The *Winter edition* of the DPIE NW Environment quarterly newsletter. Please *subscribe here* to receive future editions.

From: Jamie Chivers [redacted] @someva.com.au>
Sent: Tuesday, 5 October 2021 10:25 AM
To: Samantha Wynn [redacted]
Cc: ANDERSON Meredith (ENGIE in Australia) [redacted] Tim Mead [redacted]
Alex Henderson [redacted] David Geering [redacted] Liz Mazzer
[redacted]
Subject: Hills of Gold Wind Farm

Hi Samantha

Based on feedback from your team earlier this year we are pleased to attach our responses to your submission and a link below to an "Updated BDAR" in relation to project amendments and updated assessment of the Hills of Gold Wind Farm (SSD 9679).

Shared BDAR - BCD 5 Oct 2021

We are providing this in "Final Draft" in the event you would like to provide feedback ahead of our intended formal submission of the Response to Submission Report and associated technical annexures to the Department of Planning on the 29th of October.

We are available as suits your team should you wish to provide feedback.

Thanks for your time and consideration of the Hills of Gold Wind Farm.

Regards,

Jamie

Jamie Chivers
Managing Director

[redacted]

Someva Pty Limited
38 Young St
Sydney NSW 2000

Someva Renewables proudly acknowledges that our office is located on the country of the Gadigal People of the Dharug Nation as well as th
work. We pay our respects to Elders past, present and emerging and value working with First Nation groups on renewable energy projects th

Amanda Antcliff

From: Keith Tonkin [redacted]@aviationprojects.com.au>
Sent: Wednesday, 22 September 2021 3:01 PM
To: Tim Mead
Cc: Murray Curtis; Amanda Antcliff; Jamie Chivers; Liam Edgeworth; Craig Abela
Subject: FW: F18/7778-2 - 100505-03_Hills_of_Gold_WF-Obstacle_lighting_intensity_v1.0_210629 [SEC=OFFICIAL]

Hi Tim

Please see CASA's response below, accepting the proposed obstacle lighting plan.

Regards

Keith Tonkin MBA (Aviation Management), CPRM
Managing Director

[redacted]
Post *PO Box 116 Toowong DC QLD 4066*
Street *19/200 Moggill Rd Taringa QLD 4068*
Web *www.aviationprojects.com.au*

OFFICES IN BRISBANE, MELBOURNE AND PERTH

AVIATION PROJECTS

AVIATION. FROM THE GROUND UP.

*AVIATION PROJECTS Pty Ltd / **ABN** 88 127 760 267*

From: Airspace Protection[redacted]
Sent: Wednesday, 22 September 2021 1:26 PM
To: Keith Tonkin [redacted]
Subject: F18/7778-2 - 100505-03_Hills_of_Gold_WF-Obstacle_lighting_intensity_v1.0_210629 [SEC=OFFICIAL]

OFFICIAL

Good afternoon Keith,

After review, CASA accepts the lighting design and presented. I acknowledge that the spacings have been stretched marginally beyond those recommended in the NASF guidelines but agree that the final design will meet the intended outcome.

Regards

Matt

Matthew Windebank
Aerodrome Engineer | Aerodrome Developments and Airspace Protection
Air Navigation, Airspace & Aerodromes Branch
CASA\ Aviation Group
[redacted]

From: Keith Tonkin [redacted]
Sent: Thursday, 16 September 2021 4:43 PM
To: Windebank, Matthew [redacted]
Cc: Murray Curtis [redacted] Amanda Antcliff [redacted] Tim Mead [redacted] Jamie Chivers [redacted] Liam Edgeworth [redacted]
Subject: [WARNING: UNSCANNABLE EXTRACTION FAILED]RE: 100505-03_Hills_of_Gold_WF-Obstacle_lighting_intensity_v1.0_210629 [SEC=OFFICIAL]

Dear Matthew

Further to our previous correspondence, I am writing on behalf of the project proponent (Someva) to take up CASA's offer to review a lighting plan that indicates which turbines are proposed to be lit (should they be required by NSW Department of Planning, Industry and Environment).

The attached indicative lighting layout has been prepared generally in accordance with NASF Guideline D and MOS 139 s9.31(8).

Please note the following considerations:

- 5 turbines have now been removed from the 70 turbine layout presented in the EIS.
- Visual impact of night time aviation obstruction lighting on the surrounding community is an important consideration for wind farms and is required to be assessed by NSW DPIE. The proposed lighting plan has sought to reduce these impacts as much as practicable whilst still providing an acceptable level of project lighting to the aviation industry. Turbines in the northern part of the project (T50 -> T70) have the highest potential for night lighting impact and thus the obstruction lights are fewer and have slightly greater spacing on these turbines.
- Despite the generally linear nature of the project, turbines on the extremities have been lit where possible.
- The lighting fixtures are nominated as low intensity with a minimum 200 cd intensity as per your earlier correspondence.

For the purposes of informing your consideration, I have also attached kmz files of the proposed lighting plan and an analysis of wind turbine hub visibility from the surrounding residences.

We would appreciate CASA's consideration and feedback regarding whether the proposed lighting plan in terms of those wind turbines identified for the installation of obstacle lighting would be acceptable.

Kind regards

Keith Tonkin MBA (Aviation Management), CPRM
Managing Director

[redacted]
Post *PO Box 116 Toowong DC QLD 4066*
Street *19/200 Moggill Rd Taringa QLD 4068*
Web *www.aviationprojects.com.au*

OFFICES IN BRISBANE, MELBOURNE AND PERTH

AVIATION PROJECTS

AVIATION. FROM THE GROUND UP.

*AVIATION PROJECTS Pty Ltd / **ABN** 88 127 760 267*

From: Windebank, Matthew [redacted]
Sent: Monday, 19 July 2021 10:06 AM
To: Keith Tonkin [redacted]
Cc: Murray Curtis [redacted] Amanda Antcliff [redacted]
Subject: RE: 100505-03_Hills_of_Gold_WF-Obstacle_lighting_intensity_v1.0_210629 [SEC=OFFICIAL]

OFFICIAL

Good morning Keith,

On the basis of the information supplied in the Request for Review as supplied by yourself and after reviewing the general environment around the site of the proposed Hills of Gold Wind Farm, CASA would accept low intensity steady red lighting of no lower than 200cd as a suitable aviation mitigator.

Regards

Matthew Windebank
Aerodrome Engineer | Airport Development and Airspace Protection
Air Navigation, Airspace & Aerodromes Branch
CASA\ Aviation Group
[redacted]

Australian Government
Civil Aviation Safety Authority

From: Keith Tonkin [redacted]
Sent: Tuesday, 29 June 2021 1:39 PM
To: Windebank, Matthew [redacted]
Cc: Murray Curtis [redacted] Amanda Antcliff [redacted]
Subject: 100505-03_Hills_of_Gold_WF-Obstacle_lighting_intensity_v1.0_210629

Hi Matthew

Please see attached some correspondence for your attention.

We'd appreciate your thoughts please on whether 200 cd low intensity steady red lighting would be acceptable to CASA, if lighting was required, for the Hills of Gold Wind Farm.

Best regards

Keith Tonkin MBA (Aviation Management), CPRM
Managing Director

[redacted]
Post *PO Box 116 Toowong DC QLD 4066*
Street *19/200 Moggill Rd Taringa QLD 4068*
Web *www.aviationprojects.com.au*

OFFICES IN BRISBANE, MELBOURNE AND PERTH

AVIATION PROJECTS

AVIATION. FROM THE GROUND UP.

*AVIATION PROJECTS Pty Ltd / **ABN** 88 127 760 267*

Nicole Brewer
Director – Energy Assessments
Planning and Assessment
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta, NSW 2124

8 October 2021

Dear Nicole,

Hills of Gold Wind Farm (SSD 9679) – Project Amendments since Exhibition of the Environmental Impact Statement

Thank you for your time on the 23rd of August and opportunity to update you on the amendments made to the Hills of Gold Wind Farm in response to submissions following exhibition of the Environmental Impact Statement.

Following your advice, we are notifying the Department of the design amendments and subsequent assessments that has been undertaken since the public exhibition of the Environmental Impact Statement. These changes have been made in response to government agency, organisation and community submissions and subsequent engagement.

Feedback and consultation resulted in a reduction of the proposed project from 70 to 65 wind turbines. This has reduced visual impact to previously assessed high impact dwellings and contributed to a reduced development footprint that is now 300ha, from the proposed 513ha. Native vegetation of 75hectares has been further avoided in this project amendment and reduced impacts to previously assessed native species habitat including Koala and all assessed bat species.

Traffic route refinements and further engagement has resulted in a 38% reduction in daily traffic movements through Nundle during construction while avoiding residential and heritage areas completely, addressing a key concern for the community. Additional surveys and detailed designs along the proposed Devils Elbow upgrade have also confirmed that impacts to heritage assets such as the Black Snake Gold Mine entrance will be avoided.

ENGIE is also committed to building a project that benefits the local community, with increased commitments to the Community Enhancement fund resulting in an annual contribution of $3,000 per turbine (up from $2,500) and a Construction Community Grants Fund of $150,000 during construction.

Attached are associated maps to illustrate amendments as summarised below.

Project Component	Summary of Exhibited Project (EIS)	Summary of Amended Project
Project Layout and Components		
WTG dimensions (maximums)	■ Hub Height of 150 m ■ Tip Height of 230 m	No change
Project Area	As shown in **Error! Reference source not found.Error! Reference source not found.**. 8,315 ha (inclusive of TL and Switching station)	No change
Development Footprint	■ Permanent Development Footprint: approximately 242 ha ■ Temporary Development Footprint: approximately 271 ha ■ Total development footprint approximately 513 ha Refer Table 3-2 of the EIS.	Changes to the development footprint as a result of the Project amendments. ■ Revised Permanent Development Footprint: approximately 100 ha ■ Revised Temporary Development Footprint: approximately 200 ha ■ Revised Total development footprint approximately 300 ha
Internal Road Network	Refer to Figures 3-1 to 3-5 of EIS	Internal road from the Project Area near the top of Head of Peel Road into the Project Area no longer to be used by construction or operational traffic. Emergency vehicle access only. Changes in internal road alignments to reduce clearing and service amended location of three WTGs. Removal of internal roads servicing five removed WTGs. Refer to Figure 3-1a and Figure 3-1b for updates to internal road network.
WTG Layout	WTG coordinates as detailed in Table 3-1 and presented in Figures 3-1 to 3-5 of EIS of the EIS. WTG 47 located at: ■ Easting (m): 326,890.07 ■ Northing (m): 6,502,553.69	Removal of five turbines, WTG 1, WTG 19, WTG 23, WTG 27 and WTG 31 and associated hardstand areas. Amended WTG 47 location: ■ Easting (m): 327,034.8232 ■ Northing (m): 6,502,705.0191 Amended WTG 50 location: ■ Easting (m): 325,872.1500 ■ Northing (m): 6,504,011.0169 Amended WTG 12 location: ■ Easting (m): 319,126.2648

Project Component	Summary of Exhibited Project (EIS)	Summary of Amended Project
		■ Northing (m): 6,501,524.1736 No change to all other WTG locations Refer to Figure 3-1a for updated WTG locations.
Monitoring Masts	Decommissioning of three current monitoring masts and installation of up to five additional temporary monitoring masts for power testing.	Decommissioning of three current monitoring masts and installation of up to 10 additional monitoring masts for power testing (five previously proposed in the EIS, and five additional as part of this Amendment Report). The five additional monitoring masts proposed as part of this Amendment Report will be located close to a WTG location. The monitoring masts will be placed prior to but removed shortly before the WTG installation for power curve verification.
Access and Road Upgrades	In the original EIS, Head of Peel Road was proposed as the alternate route from Nundle (20% traffic), requiring various road upgrades.	Morrisons Gap Road will be the only access point to Project Area (100%) as amended in **Error! Reference source not found.**c. Use of Head of Peel Road as emergency vehicle access only. No construction or operational traffic to us this route. No road upgrades will occur on the Head of Peel Road or Kirks Road.
Transport Route	The transport route from the Port of Newcastle to the Project Area included options for towers via Tamworth. The heavy vehicle transport route was detailed in Section 12.4 and Appendix G of the EIS.	Introduction of optionality for the transport of various project components through Muswellbrook. Removal of the tower option via Tamworth. Removal of the Head of Peel Road route ('Southern Route') and associated alternate routes through Nundle including Happy Valley Road, Jenkins St, Gill St, Innes St. Removal of private land previously proposed along Morrisons Gap Road Two additional laybys for OSOM traffic on Lindsay Gap Road and Morrisons Gap Road to allow existing road users to pass slower moving Project traffic. Addition of a pedestrian crossing in Nundle subject to Tamworth Regional Council approval. Revised transport route is shown in Figure 3.1c.
Devils Elbow	Alignment of Devil's Elbow detailed in Appendix G of the EIS	Realignment of the Devils's Elbow bypass road to account for further design consideration and the results of the geophysical survey results.

Project Component	Summary of Exhibited Project (EIS)	Summary of Amended Project
Transmission Line	Refer to Figures 3-1 to 3-5 of EIS	Minor realignment of the TL in proximity to WTG12 and WTG 2. Refer to Figure 3-1a for updated TL alignment.
Temporary Concrete Batching Plants	Two temporary concrete batching plants located at specific locations	All construction laydown areas having optionality as housing concrete batching plant with the exception of any laydown areas along Morrisons Gap Road. No change to the number of concrete batching plants (i.e. two).
BESS, Substation and O&M Facility Layout	Refer to Figures 3-1 to 3-5 of EIS Total area approximately 6.32 ha	Minor adjustment to the configuration of operational elements (substation, O&M and BESS). Optionality for O&M location, with second siting option at new compound area between WTGs 55 and 56. No change to total area.
Construction Compound	Construction compound at the start of the Project Area from Head of Peel Road. Refer to Figures 3-1 to 3-5 of EIS	Removal of construction compound at the start of the Project Area from Head of Peel Road. Inclusion of compound adjacent to WTG 56. Refer to Figure 3-1b.
Project Construction		
Duration and Staging	Construction activities will be progressive across the Project Area over a period of approximately 18 – 24 months	No change
Construction Hours	As defined in Section 3.3.2 of the EIS: ■ Monday to Friday: 7.00am-6.00pm; ■ Saturday: 8.00am-1.00pm; and ■ no works on Sunday or public holidays. Some out of hours work may be required.	No change
Construction Workforce	Up to 216 full time equivalent (FTE) as outlined in Section 3.3.3 of the EIS	Up to 203 full time equivalent (FTE)
Project Operation and Decommissioning		
Operational and Maintenance Workforce	Operational workforce of up to 31 FTE	Operational workforce of up to 28 FTE Clarity provided that 28 FTEs is based on direct jobs created from Technical, Scientific and Professional areas.
Decommissioning and Rehabilitation	As outlined in Section 3.6 of the EIS, including preparation of an Environmental Management Strategy inclusive of Decommissioning and Rehabilitation.	No change

The amendments have reduced impacts which is demonstrated in the updated technical assessments to be provided in a proposed Project Amendment Report. The Amendment Report will update Table 21-1 (Environmental Management and Mitigation – Statement of Commitments) as well as provide an update of stakeholder and community consultation that has been undertaken to date.

We look forward to continuing to work with the Department through the assessment process.

Yours sincerely,

Andrew Kerley
General Manager – Asset Development

muswellbrook shire council

Enquiries
Please ask for Peter Chambers
Direct [redacted]
Our reference
Your reference

29 August 2021

Alex Henderson
Team Leader Energy Assessments
Hills of Gold

Dear Mr Henderson,

Hills of Gold Windfarm Project – Muswellbrook Shire Council Route requirements

Further to our recent discussions I confirm that the preferred route for all proposed OSOM loads is via **Thomas Mitchell Drive, Bengalla Link Road, Wybong Road East and Kayuga Road**.

Given Wybong Road East and Kayuga Road were not constructed to contemplate these types of loads and vehicles Council will require the applicant for the Hills of Gold wind farm to complete the following:

1. Route Assessment

A portion of the requested proposed route along Wybong Road East is currently load limited to 12 tonnes and is not currently part of the Shire's Mine Affected Road Network. A Detailed Route Analysis considering road furniture, geometry, load limits, safe sight distance, private property and Council road impacts, turning circles by a suitably experienced and practicing consultant is to be provided to Council, including:

- Written consent of the private property owners along the route in the case where their land will be impacted, including any written correspondence between parties and contact information;
- A joint dilapidation survey with Council is to be conducted in accordance with the requirements detailed on Annexure A (below) and submitted for Council's acceptance, for the route including inspection of all drainage structures and road surfaces; and
- Structural assessment of all drainage structures along the proposed route that has not had a recent condition assessment with proposed design loads exceeding existing load compliant traffic along the proposed road route.

2. Transport Management Plan

In order to assess the proposal, Council requires further details relating to the timing, frequency and proposed size and loading of vehicles, and the overall time frame for completion of movements. Council also requires the proposed starting date for transport movements through the Shire.

A Transport Management Plan is to be submitted to Council for the route by a suitably experienced and practicing consultant showing:

i. Distribution and number of loads, including frequency per week, expected time of travel, standard axle design loads, total vehicle widths and lengths, proposed route;
ii. Traffic Management Plan for the route, including use of wide swept paths across private property, movement and replacement of identified road

furniture to prevent short-cuts by the community, pull-over bays for road furniture interchanging;

iii. Proposals for any details of any intersection upgrades through private property;
iv. Consider and determine any impacts to existing school bus routes;
v. The current plans for replacement of Rosebrook Bridge and how timing of this re-construction may coincide with the wind farm, and the ability of OSOM vehicles to utilize the intended side-track that will be in place during construction;
vi. Vertical geometry for clearances of long loads to be considered, including any side-track;
vii. Details of the pilots to be provided as part of the S138 permit stage; and
viii. Applicant to fund the cost of hiring a Council Traffic Observer for the duration of the project to follow OSOM transport through Council's municipality during operations.

3. Road Improvements

Wybong Road East from the intersection of Overton Rd to the intersection with Kayuga Rd is currently unsuitable for OSOM loads and requires upgrades to the road and structures along the route to support the proposed movements. This portion of road is to be upgraded to the below standard:

i. Road widths – RS2M Standard requirement, which means 2 x 3.5m lanes, 2 x 1.0m sealed shoulder and 2 x 2.0m unsealed shoulder (3.12km length), pavement design to be provided and accepted to Council's satisfaction.
ii. Under the S138, road pavement design to be provided based on 22.32 x 10^6 axle, CBR min 4%

Any works or maintenance on Council Public Roads is subject to application for an S138 of the Roads Act permit and will be required to be prepared and delivered in accordance with the conditions of the S138 permit.

Any works or maintenance on State or Federal Public Roads to be prepared and delivered in accordance with an ROL permit with TfNSW.

4. Road Maintenance

The applicant will need to enter a formal maintenance management plan as part of the S138 permit for Council roads along the route for the entire duration of the project, to Council's written satisfaction including:

1. The maintenance management plan will be based on TfNSW M3 Maintenance Plan (see proforma example attached);
2. Maintenance work will be coordinated to Council's satisfaction including timing and day/night work;
3. Dilapidation survey of the route to be undertaken every twelve weeks of the project and provided to Council;
4. A Bank Guarantee will be required for the period of the project plus six months to cover any damage determined by Council's reasonable opinion, and dilapidation surveys, to have occurred as a result of the OSOM transported loads for the project; and
5. An Indemnity Deed Poll to be provided for emergency works to any assets that may suffer damage during the project.

5. *Communication*

The applicant will need to enter a formal community consultation management plan for the entire duration of the project, to Council's written satisfaction including:

The community consultation management plan is to be developed in consultation with Council including but not limited to:

i. Monthly meetings with Council staff to discuss progress, issues and community feedback;
ii. Complaints and incident handling procedure including contact details of the applicant;
Identifying residents, businesses, emergency services, school bus and mines (shift change times) and key contacts in these operations and necessary liaising with these road users;
iii. Details of the Transport Management Plan and progress to be included and updated on both the applicant's website as well as Council's website;
iv. Applicant to provide updates to Council with regards to any planned maintenance works and/or upgrades and replacements.

Council staff would be pleased to provide additional information if requested.

I also advise that staff have recently held a meeting with another wind farm proponent who wishes to use the same route for their OSOM vehicles, and that there be further projects in the period up to the opening of the Muswellbrook Bypass. Council staff consider that there would be benefits in a more strategic approach to managing this construction traffic. You may be contacted by another wind farm proponent soon to compile information that Council would put before a number of State Government agencies to initiate discussion this strategic approach.

Yours faithfully

Sharon Pope
Executive Manager Environment and Planning.

Annexure A

Road Dilapidation Survey Requirements

Liaison is to occur with MSC Staff as to what is to be included in the dilapidation survey. This will require a s.138 *Roads Act 1993* approval through MSC. The following matters (at a minimum) need to be addressed in the pre dilapidation survey:
Minimum requirement

1. Visual Condition Assessment (Automated Road Analyser – ARAN) - The visual pavement assessment is to be undertaken by an experienced pavement engineer who will:
   a) Record video of the relevant road section using a GPS camera to document the condition of the existing pavement;
   b) Use the footage to record the location, type and extent of pavement defects and other environmental factors (e.g. drainage) that may be impacting the existing pavement.

The results of the visual assessment will be provided in a section of the pavement assessment report and summarised in table format and to include the following factors:

- Roughness
- Rutting
- Structural Cracking
- Environmental Cracking
- Pot holes
- Pot Patch
- Heavy Patching
- Ravelling
- California Bearing Ratio (CBR)
- Deflection
- Curvature
- AC overlay (mm)
- Granular Overlay (mm)
- Structural Deficiency (mm)
- Pavement Condition Index (PCI)
- Surface Curvature Index (SCI)

The assessment of the existing pavement is to be conducted in accordance with the following design standards and guidelines:

- Austroad Guide to Pavement Technology (AGPT)- Part 2: Pavement Structural Design (2017)
- Austroad Guide to Pavement Technology (AGPT) -Part 5 Pavement Evaluation and Treatment Design (2011)
- Applicable AUSPEC and TfNSW specifications
- Other applicable design standards.

2. Falling Weight Deflectometer (FWD) – Specifically loading 40kN and 70kN need to be applied to the existing pavement at 20m intervals in alternating wheel paths. Subsurface investigations -sufficient number of 300mm (at a minimum) diameter pavement holes would be required to sufficiently assess the pavement and underlying subgrade. Dynamic cone penetrometer (DCP) testing to be performed at each test pit location to assess in-situ density or consistency of subsurface material. The test locations are to be recorded by a GPS unit with typical accuracy

of +/- 10m) in MGA format, together with description of locations relative to the pavement.

Samples of pavement and subgrade are to be tested at a NATA registered laboratory for the following geotechnical testing:

- Subgrade
  i) 3 No. Standard compaction and CBR
- 3 No. moisture content pavement
  i) 6 No. Modified compaction and CBR
  ii) 6 No. PSD
  iii) 6 No. moisture content
  iv) 6 No. Atterberg Limits

The above 2 methods are standard investigations to determine the current surface and pavement condition prior to use of the road by construction traffic.

Fiona Plesman
General Manager
Muswellbrook Shire Council
Via email

2 June 2021

Dear Fiona,

Voluntary Contribution from Hills of Gold Wind Farm Pty Ltd

Thank you for your and your team's time on 31 March 2021 to discuss Muswellbrook Shire Council's (MSC) concerns regarding the proposed use of council roads and assets by traffic associated with the Hills of Gold Wind Farm (the "Project") which is the subject of Development Application Number SSD-9679 (the "Development Application").

We appreciated the constructive suggestion of your team to progress an agreement with MSC to address those concerns, specifically those in respect of the proposed use of those council roads and council-owned assets set out in the subsequently provided list in Annexure A (Council Assets).

We confirm we have undertaken further assessment on the alternate route options available based on feedback from MSC. The Project, via its Response to Submission Report, will propose new route options for heavy, oversize / overmass (OSOM) vehicles which will reduce impacts on existing traffic volumes as compared to the initial route proposed. To provide some further detail in this respect, Annexure B provides a summary of estimated OSOM traffic type and volumes by route, as well as a map showing the additional route options. We will continue to engage with MSC as we progress final turbine selection, selection of a logistics contractor and assess the Council Assets to determine the most suitable route option(s).

In the meantime and further to our recent discussions, we confirm that the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("HOGWFPL"), is also willing to make the following offer to MSC in respect of the proposed use of any Council Assets as part of the final route selection (subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters on terms acceptable to each party and to the approval of the Development Application):

1. **Route Assessment and Upgrade Works:**

   (a) HOGWFPL will consult with MSC to determine those Council Assets which require a detailed structural assessment to be undertaken to assess their structural suitability for use by Project OSOM traffic and will engage a suitably qualified, independent expert acceptable to MSC to undertake that structural assessment. Such engagement would be at HOGWFPL's cost, however, we may require reasonable assistance from MSC to facilitate the assessment, in particular, the provision of any existing data on, or previously completed assessment of, those Council Assets.

   (b) If any Council Asset is found by the independent expert to be structurally inadequate for the transport of the expected equipment loads for the Project and that Council Asset is proposed to be used as part of the final transport route for the Project, HOGWFPL will, at its cost (1) upgrade each such Council Asset to the extent reasonably required to ensure it is structurally adequate and suitable for the expected Project loads and consult with MSC to incorporate any reasonable requirements of MSC in respect of such upgrade, and (2) provide, or have its contractor provide, a performance bond in favour of MSC in the form of a letter of credit or bank guarantee to secure its performance of such upgrade works, with such bond to be for a reasonable amount having regard to the cost of the upgrade works and to be provided prior to the commencement of the upgrade works. Any such performance bond would be released upon completion of the upgrade works.

2. **Road Usage Fee:** In addition, HOGWFPL will pay a one-off, road usage fee of $70,000 to MSC upon the commencement of construction of the Project to compensate MSC for any dilapidation which may be caused by the general use of roads within the MSC by traffic associated with the Project. Due to the volume of traffic which already uses roads within the MSC, it will likely be impractical to commission a dilapidation survey which can identify only that dilapidation attributable to Project traffic. Accordingly, the one-off, road usage fee is proposed as an alternative to a dilapidation survey to provide greater certainty to MSC.

If the above offer is acceptable to MSC, please sign where indicated below to confirm such acceptance. Once signed, a copy will be provided to the Department of Planning for inclusion of the relevant commitments by HOGWFPL in the Project's Statement of Commitments.

We look forward to hearing from you and would welcome any further discussion in respect of any remaining queries.

Yours sincerely,

DocuSigned by:

Andrew Kerley
General Manager – Asset Development

ACCEPTANCE BY MUSWELLBROOK SHIRE COUNCIL:

Subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters (and to the approval of the Development Application), Muswellbrook Shire Council hereby confirms its acceptance of the terms contained in this letter.

Signed for and on behalf of **Muswellbrook Shire Council** by:

Signature

Name (please print)

Position (please print)

APPENDIX A – List of Council Assets

Road	Chainage m	Pipe Info		Size mm	Comments
		Pipe/ RCBC	No		
Bengalla Road	350	RCBC	5	2100 x 400	Major Culvert
	695	Pipe	1	300	
	1470-1670	Keys Bridge			Bridge
	2340	RCBC	1	3400 x1800	
	3000	Pipe	1	400	
	3420	Pipe	1	400	
	3830	RCBC	5	3400x1800	Major Culvert
	4260	Rail Overpass			
	4820	Pipe	1	900	
	5131	RCBC	1	800 x 500	
	5440	RCBC	1	2100 x 500	
	5830	Pipe	2	500 x 500	
	6200	RCBC	1	1200 x 770	
	6410	Pipe	4	1650 x 1650	Major Culvert
	6650	Rail Bridge			Bridge - Mt Pleasant loop
	6770	Pipe	1	670	
	8550	Pipe	1	600	
	8900	Pipe	1	600	
	9421	Pipe	1	300	
					Intersection Bengalla Road and Wybong Road
Wybong Road East	9910	Pipe	1	450	
	10140	Pipe	1	450	
	11145	Pipe	1	450	
	11375	Pipe	1	900	
	11869	Pipe	1	450	
	12035	Pipe	1	450	
	12315	RCBC	2	600	
	12955	Pipe	1	1500	
	13120	Pipe	3	1500	
	13440	Pipe	1	450	
	13820	Pipe	1	450	
	14515	Pipe	1	450	
	15045	Pipe	1	600	
	15245	Pipe	1	600	
	15580	Pipe	1	450	

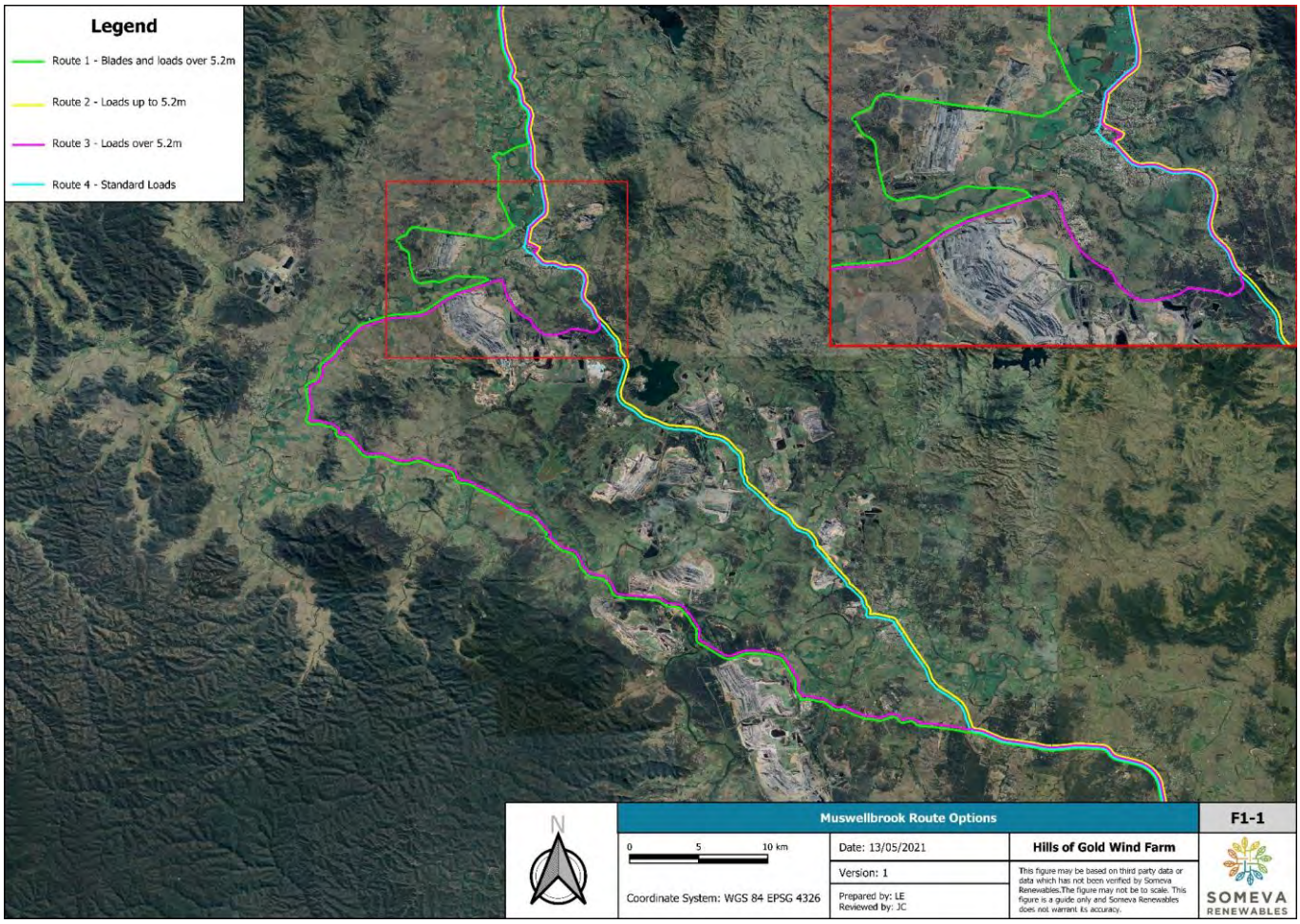
	15905	Pipe	1	450	
	16365	RCBC	3	2400 x 1200	Major Culvert
	16525	RCBC	1	1200 x 350	
	16683	RCBC	4	1200 x 350	
	16905				Rosebrook Bridge
	17090	RCBC	4	1200 x 350	
	17965				Floodway
	18570	Pipe	1	450	
					Intersection Wybong Road and Kayuga Road
Kayuga Road	19085	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system across intersection
	19085	Pipe	1	375	Gully pit system
	19145	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system
	19255	Pipe	1	450	pipe back flow valve - gully pit system
	19265	RCBC	8	300	Major Culvert
	19545	RCBC	2	300	
	20790	RCBC	2	300	
	20995	RCBC	3	1200 x 600	
	21005	RCBC	1	1200 x 600	
	21745	Pipe	1	450	
	21855	Pipe	2	1200	
	22460	Pipe	1	450	
	22950	Pipe	1	450	
	23135	RCBC	2	600	
	23475	Pipe	1	450	
	23655	Pipe	1	450	
	24395	RCBC	2	300	
	24710	RCBC	7	2400	Major Culvert
	25210	Pipe	1	450	
	25445	Pipe	1	450	
					Dartbrook Mine Entrance Road
	25565	Pipe	1	450	
	25700	Pipe	1	450	
	25815	Pipe	4	1200	
	26230	Pipe	1	450	
					end of shire

Road Name	Chainage m	Pipe Info		Size mm	Comments
		Pipe/ RCBC	No		
Bengalla Road	350	RCBC	5	2100 x 400	Major Culvert
	695	Pipe	1	300	
	1470-1670	Keys Bridge			Bridge
	2340	RCBC	1	3400 x1800	
	3000	Pipe	1	400	
	3420	Pipe	1	400	
	3830	RCBC	5	3400x1800	Major Culvert
	4260	Rail Overpass			
	4820	Pipe	1	900	
	5131	RCBC	1	800 x 500	
	5440	RCBC	1	2100 x 500	
	5830	Pipe	2	500 x 500	
	6200	RCBC	1	1200 x 770	
	6410	Pipe	4	1650 x 1650	Major Culvert
	6650	Rail Bridge			Bridge - Mt Pleasant loop
	6770	Pipe	1	670	
	8550	Pipe	1	600	
	8900	Pipe	1	600	
	9421	Pipe	1	300	
					Intersection Bengalla Road and Wybong Road
Wybong Road East	9910	Pipe	1	450	
	10140	Pipe	1	450	
	11145	Pipe	1	450	
	11375	Pipe	1	900	
	11869	Pipe	1	450	
	12035	Pipe	1	450	
	12315	RCBC	2	600	
	12955	Pipe	1	1500	
	13120	Pipe	3	1500	
	13440	Pipe	1	450	
	13820	Pipe	1	450	
	14515	Pipe	1	450	
	15045	Pipe	1	600	
	15245	Pipe	1	600	
	15580	Pipe	1	450	
	15905	Pipe	1	450	

	16365	RCBC	3	2400 x 1200	Major Culvert
	16525	RCBC	1	1200 x 350	
	16683	RCBC	4	1200 x 350	
	16905				Rosebrook Bridge
	17090	RCBC	4	1200 x 350	
	17965				Floodway
	18570	Pipe	1	450	
					Intersection Wybong Road and Kayuga Road
Kayuga Road	19085	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system across intersection
	19085	Pipe	1	375	Gully pit system
	19145	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system
	19255	Pipe	1	450	pipe back flow valve - gully pit system
	19265	RCBC	8	300	Major Culvert
	19545	RCBC	2	300	
	20790	RCBC	2	300	
	20995	RCBC	3	1200 x 600	
	21005	RCBC	1	1200 x 600	
	21745	Pipe	1	450	
	21855	Pipe	2	1200	
	22460	Pipe	1	450	
	22950	Pipe	1	450	
	23135	RCBC	2	600	
	23475	Pipe	1	450	
	23655	Pipe	1	450	
	24395	RCBC	2	300	
	24710	RCBC	7	2400	Major Culvert
	25210	Pipe	1	450	
	25445	Pipe	1	450	
					Dartbrook Mine Entrance Road
	25565	Pipe	1	450	
	25700	Pipe	1	450	
	25815	Pipe	4	1200	
	26230	Pipe	1	450	
					end of shire

APPENDIX B – Updated OSOM Route Through Muswellbrook Shire Council

Map of Updated Route Option



Traffic By Type and Total Volume to be Transported

	Turbine Blades	**Heavy Loads over 5.2m in height**	**2 Heavy Loads under 5.2m in height**	**Standard loads up to 3.5m wide and 5.2m in height**
Example of Equipment	• Blades (root section) • Blades (tip section)	• Hubs • Tower Sections • Transformers • Nacelles with Drivetrain in	• Nacelle with Drivetrain Out • Drivetrain	• Other (2 x 40ft Shipping Container per WTG) • Sub station • Switching Station • Overhead cabling • Underground cabling • Battery System • Mobile concrete Batch Plant
Total Trips	**280 (210)** [1]	**650 (580)**[2]	**140**[3]	**320**
Weekly Trips	**8 (6)**	**18 (16)**	**4**	**9**

The final traffic volumes generated on these routes will be subject to the structural load assessment of Council Assets and further consultation with MSC on required upgrades. This will be based on the final turbine equipment and the transport logistics operators' proposed vehicles and associated weights.

The estimated worst-case traffic predictions are presented based on a range of possible scenarios including a scenario which reduces impacts to Bell St/Victoria St and Market St by splitting the volumes between routes.

Comparison of Traffic Generated by Routes Options

Scenario (all blades always travel on route 1)	Route 1	Route 2 (includes Bell St)	Route 3 (includes Bell St)	Route 4	Totals
Previous EIS Scenario	280		1110	0	1390
Average Weekly	**8**	**0**	**32**	**0**	
Option 1 - All Heavy Loads on Route 1 with normal loads on Route 4	1070[1]			320	1390
Average Weekly	**31**	**0**	**0**	**9**	
Option 2 - 100% Heavy Loads on Route 2 and 3	280[1]	650[2]	140[3]	320	1390
Average Weekly	**8[1]**	**19[2]**	**4[3]**	**9**	
Example of Option 3 - 50% Heavy between Route 1 and Routes 2 and 3	605[1]	325[2]	140[3]	320	1390
Average Weekly	**17[1]**	**9[2]**	**4[3]**	**9**	

Notes:
1. Reduced numbers if blades are transported as a single unit.
2. This will be reduced if nacelles and drivetrains are transported separately as presented in the next column with both nacelle and drivetrains being under 5.2m and able to use Route 3.
3. This will not be required if nacelles and drivetrains are transported together

The transportation period for the turbine components has been forecast to occur over approximately a 9-month period, or 35 weeks.

All route options reduce traffic proposed on the Bells St Heavy Vehicle Alternate route (Route 2 and 3) by taking advantage of the updated Route 4 option for vehicles under 3.5m wide and 5.2m high and options to use Route 1 for some or all of the heavy vehicles. The range in reduced volume is between 11 and 32 movements per week from the previously submitted EIS.

Sharon Pope
Executive Manager Environment and Planning
Muswellbrook Shire Council
Via email

18 October 2021

Dear Sharon,

Hills of Gold Wind Farm Project – Revised Letter of Offer to Muswellbrook Shire Council

Thank you for your time in the meeting on 16 July 2021 to further discuss the Hills of Gold Wind Farm (the "Project"), and your subsequent letter of 29 August 2021 detailing the Council's route requirements. We appreciate the time taken by your team and the constructive discussions regarding the use of Council roads and assets for the Project.

We acknowledge the need to preserve the condition of Council's roads and assets through transport of turbine components to the Project site, and believe this can be achieved through a combination of best practise industry mechanisms outlined in this letter. On this basis the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("HOGWFPL"), makes the following revised counteroffer to Muswellbrook Shire Council (MSC) in respect of the use of proposed Council managed roads (subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters on terms acceptable to each party and to the approval of the Development Application SSD 9679).

This offer supersedes the previous offer to Council set out in the Letter of Offer dated 2 June 2021.

Council's letter 29 August 2021	Proponent response and revised offer
General Comment Further to our recent discussions I confirm that the preferred route for all proposed OSOM loads is via **Thomas Mitchell Drive, Bengalla Link Road, Wybong Road East and Kayuga Road.**	We note that this is Council's preferred route option for OSOM project traffic. HOGWFPL would like to retain flexibility in the proposed OSOM routes through Muswellbrook Shire, detailed in Annexure B of our 2 June 2021 letter, in order to select the most suitable route option for each load type subject to final turbine selection,

	engagement of final logistics contractor, and structural assessment of Council assets. HOGWFPL will continue to engage with MSC throughout this process and in preparation of the Project's traffic management plan.
1. Route Assessment Detailed Route Analysis considering road furniture, geometry, load limits, safe sight distance, private property and Council road impacts, turning circles by a suitably experienced and practicing consultant is to be provided to Council, including: • Written consent of the private property owners along the route in the case where their land will be impacted, including any written correspondence between parties and contact information; • A joint dilapidation survey with Council is to be conducted in accordance with the requirements detailed on Annexure A (below) and submitted for Council's acceptance, for the route including inspection of all drainage structures and road surfaces; and • Structural assessment of all drainage structures along the proposed route that has not had a recent condition assessment with proposed design loads exceeding existing load compliant traffic along the proposed road route.	A Route Survey has been completed by Rex Andrews for the Project and can be found in Annexure C. A Traffic and Transport Addendum has been prepared for the Project is available in Annexure D. Further route analysis will be completed for the final transport routes and be detailed in the Project's Traffic Management Plan, in consultation with MSC. Written consent will be provided from all private property owners along the Project transport routes whose private land requires modifications for the Project transport. This has been achieved with all landowners on the transport route in MSC LGA with the exception of Mach Energy. As discussed further below, a Road Usage Fee has been offered to MSC as an alternative to road dilapidation surveys and remains HOGWFPL's strong preference to provide both parties with greater certainty. However, should road dilapidation surveys ultimately be conditioned for the Project, an independent dilapidation survey will be undertaken in consultation with MSC to assess the existing condition of road pavement and drainage structures along the final transport routes within Muswellbrook Shire. Note the dilapidation survey would not include item 2 of Annexure A in Council's letter, *Falling Weight Deflectometer.* Suitable QA testing will be agreed in consultation with Council for any pavement modifications required on the transport route. We request that Council provide all recent condition assessments for drainage structures undertaken along the proposed Project transport routes. Following this, HOGWFPL will consult with MSC to determine those Council Assets (listed in Annexure A of our 2 June 2021 letter) which require a detailed structural assessment to be undertaken to assess their structural suitability for use by Project OSOM traffic. HOGWFPL will then engage a suitably qualified, independent expert acceptable to MSC to undertake that structural assessment. If any Council Asset is found by the independent expert to be structurally inadequate for the transport of the expected equipment loads for the Project and that Council Asset is

	proposed to be used as part of the final transport route for the Project, HOGWFPL will, at its cost, upgrade each Council Asset to the extent reasonably required to ensure it is structurally adequate and suitable for the expected Project loads and consult with MSC to incorporate any reasonable requirements of MSC in respect of such upgrade.
2. Transport Management Plan	A number of these items have been assessed in the *Traffic and Transport Addendum* or *Route Survey*. HOGWFPL will prepare a Traffic Management Plan post approval in consultation with MSC which will assess the requirements set out in Council's letter. All OSOM traffic will be transported in accordance with Heavy Vehicle National Law and Regulations, and will be permitted in consultation with local road authorities. These permits will include details for requirements of OSOM escort/pilot vehicles (including Police escorts) as applicable to each load to ensure safe transport. This approach is common for all wind farms of this scale in NSW. For this reason, HOGWFPL does not agree to funding the cost of hiring a Council Traffic Observer for the duration of the project to follow OSOM transport through Council's municipality during operations.
3. Road Improvements Wybong Road East from the intersection of Overton Rd to the intersection with Kayuga Rd is currently unsuitable for OSOM loads and requires upgrades to the road and structures along the route to support the proposed movements.	Rex Andrew's did not identify any required pavement upgrades along this section of road in the Route Survey. HOGWFPL is of the view that the existing condition of this section of road is suitable for the relatively low volume and duration of Project OSOM loads, subject to removal of some traffic signage, minor widening of intersections onto private land as described, and structural assessment of relevant Council Assets as discussed above. We understood from our meeting on 16 July 2021 that Council's view was also consistent with no road pavement upgrades being required within Muswellbrook Shire for the Project. Noting Council's comments that that this section of road is "*currently unsuitable for OSOM loads and requires upgrades*" we request any further technical details that Council may have on this road. If as-built drawings or pavement designs are available for this section of road that would be appreciated. HOGWFPL further notes that dilapidation of this section of road attributable to Project OSOM traffic will be protected by

Any works or maintenance on Council Public Roads is subject to application for an S138 of the Roads Act permit and will be required to be prepared and delivered in accordance with the conditions of the S138 permit. Any works or maintenance on State or Federal Public Roads to be prepared and delivered in accordance with an ROL permit with TfNSW.	either a Road Usage Fee or dilapidation surveys,, and a Bank Guarantee. Noted. HOGWFPL will consult with MSC to obtain S138 permits for any works or maintenance performed on Council roads. Noted. HOGWFPL will consult with TfNSW for any requirements when performing works or maintenance on State or Federal Public Roads.
4. Road Maintenance The applicant will need to enter a formal maintenance management plan as part of the S138 permit for Council roads along the route for the entire duration of the project, to Council's written satisfaction including: 1. The maintenance management plan will be based on TfNSW M3 Maintenance Plan (see proforma example attached); 2. Maintenance work will be coordinated to Council's satisfaction including timing and day/night work; 3. Dilapidation survey of the route to be undertaken every twelve weeks of the project and provided to Council; 4. A Bank Guarantee will be required for the period of the project plus six months to cover any damage determined by Council's reasonable opinion, and dilapidation surveys, to have occurred as a result of the OSOM transported loads for the project; and 5. An Indemnity Deed Poll to be provided for emergency works to any assets that may suffer damage during the project.	The Projects Traffic Management Plan will detail requirements for any emergency repair or maintenance on Council roads along the final transport routes. This plan will be prepared in consultation with MSC. If road dilapidation surveys are ultimately conditioned for the Project within Muswellbrook Shire, HOGWFPL will undertake a dilapidation survey along the final transport routes **prior to commencement** and **following the completion** of the OSOM delivery phase for construction. This survey will be provided to Council. If dilapidation surveys identify that any Council roads have been damaged during as a result of Project usage, HOGWFPL will repair this damage. However we note a one-off Road Usage Fee of $70,000 upon the commencement of construction was previously offered to MSC in our letter dated 2 June 2021 as an alternative to performing road dilapidation surveys and to provide greater certainty to MSC. The fee is proposed to compensate MSC for any dilapidation which may be caused by the general use of roads within the Muswellbrook Shire by traffic associated with the Project. Due to the volume of traffic which already uses roads within the Muswellbrook Shire, it will likely be impractical to commission a dilapidation survey which can identify only that dilapidation attributable to Project traffic, noting that OSOM loads for the Project are estimated to be less than 6 trips per day on average. To further support this, TTPP assessed the impact of estimated Project vehicles using Thomas Mitchell Drive and concluded that the Project impact is deemed negligible in comparison to other road users (Section 8.5.3 – Hills of Gold Wind Farm – Traffic and Transport Addendum). Accordingly, this proposed approach of a Road Usage Fee as an alternative to road dilapidation surveys remains HOGWFPL's strong

	preference to provide both parties with greater certainty, and we ask that MSC further considers this and reverts on the offer. This offer is not intended to avoid HOGWFPL's obligation for repair if damage was made to roads by the Project that is not consistent with standard wear and tear. HOGWFPL is accepting of providing a performance bond in favour of MSC in the form of a letter of credit or bank guarantee to secure its performance of any Council Asset upgrade works or general maintenance and repair of roads. HOGWFPL will negotiate these terms with MSC in good faith following selection of the final transport routes, with such bond to be for a reasonable amount having regard to the cost of any required modification works. The bond would be provided prior to the earlier of: (1) commencement of any modification works, or (2) commencement of OSOM deliveries. Any such performance bond would be released upon completion of Project OSOM deliveries plus 6 months. On the basis of HOGWFPL offering: • a performance bond throughout the duration of Project OSOM deliveries to protect MSC road assets; • a Road Usage Fee (in lieu of road dilapidation surveys); • a structural assessment of all drainage structures along the proposed route; and • emergency repair or maintenance commitments in the TMP, it is HOGWFPL's view that the risk to damage and repair of Council's assets during construction of the Project is well mitigated and therefore we do not agree to the request to also provide MSC an Indemnity Deed Poll.
5. Communication The applicant will need to enter a formal community consultation management plan for the entire duration of the project, to Council's written satisfaction including: The community consultation management plan is to be developed in consultation with Council including but not limited to: i. Monthly meetings with Council staff to discuss progress, issues and community feedback; ii. Complaints and incident handling procedure including contact details of the applicant;	HOGWFPL commits to consulting with MSC on all these requests.

iii. Identifying residents, businesses, emergency services, school bus and mines (shift change times) and key contacts in these operations and necessary liaising with these road users; iv. Details of the Transport Management Plan and progress to be included and updated on both the applicant's website as well as Council's website; v. Applicant to provide updates to Council with regards to any planned maintenance works and/or upgrades and replacements.	
I also advise that staff have recently held a meeting with another wind farm proponent who wishes to use the same route for their OSOM vehicles, and that there be further projects in the period up to the opening of the Muswellbrook Bypass. Council staff consider that there would be benefits in a more strategic approach to managing this construction traffic. You may be contacted by another wind farm proponent soon to compile information that Council would put before a number of State Government agencies to initiate discussion this strategic approach.	HOGWFPL acknowledges the benefits in taking a strategic approach to managing road impacts through Muswellbrook Shire as more wind farm projects enter development in the region. However we note that wind farm projects of this scale undergo a long and thorough planning assessment process prior to determination and are therefore all at various different stages of development maturity. For this reason and given HOGWF is at a late stage of planning assessment we are only able to consider reasonable commitments for this project alone rather than taking a broader industry approach. We have not yet been contacted by any other wind farm proponent to compile strategic transport route information within Muswellbrook Shire.

HOGWFPL welcomes any feedback or further discussions with Muswellbrook Shire Council on the revised offer above or any further matters relating to the Project. If the above revised offer is acceptable to Muswellbrook Shire Council, we would greatly appreciate written confirmation of this from Council. A copy of this letter will be provided to the Department of Planning for inclusion of the relevant commitments by HOGWFPL in the Project's Statement of Commitments.

We respectfully request Council withdraw their objection to the project and confirm in writing by 3 November 2021.

Yours sincerely,

Andrew Kerley
General Manager – Asset Development

APPENDIX A – Hills of Gold Windfarm Project – Muswellbrook Shire Council Route requirements – Letter 29 August 2021

APPENDIX B – Voluntary Contribution from Hills of Gold Wind Farm Pty Ltd – Letter 2 June 2021

APPENDIX C – Hills of Gold Wind Farm Route Survey v7 – Rex J Andrews

Amanda Antcliff

From: Tim Mead [redacted]
Sent: Wednesday, 15 December 2021 4:32 PM
To: Amanda Antcliff
Subject: FW: Road Requirements for Hills of Gold OSOM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

From: Sharon Pope [redacted]
Sent: Friday, 19 November 2021 10:28 AM
To: KERLEY Andrew (ENGIE in Australia) [redacted]
Subject: ⚠ Road Requirements for Hills of Gold OSOM

Hello Andrew

Unfortunately for your project, you are just one of ten wind farms that have recently made approaches to Council to use local roads to transit over dimensioned vehicles. Council staff are not satisfied with the way forward proposed in your second letter of offer.

The issue for Muswellbrook Shire is the unsustainable use of local roads and bridges, that are not fit for purpose, by numerous large-scale projects in the Central West-Orana REZ and the New England REZ.

The possible OSOM vehicle route using local roads would transit along roads that are maintained by mining companies (as terms of approval) or on roads that are prohibited to be used by local mining companies (as terms of approvals), that have poor alignment and weight limited structures. Now knowing how many wind farm proponents would be using the same roads over the same period of time it is difficult to see that there would be a legally acceptable way of being able to apportion liability for repairs/damage to any particular proponent.

Furthermore, there is no direct benefit to the ratepayers of Muswellbrook Shire from allowing these transport movements (e.g. no employment opportunities) and yet the ratepayers are at risk of:

- Funding the costs associated with accelerated deterioration of the local road network and staff time required to create legal agreements and monitor impacts. It is estimated that Council is averaging approx. $3000/week in staff time just responding to queries and requests from wind farm proponents;
- The inconvenience of temporary road closures;
- The safety issues of encountering large numbers of OSOM vehicles on local roads;
- The amenity impacts for residents of traffic noise, flashing lights and other unfavourable impacts as large numbers of OSOM vehicles transit the Shire, particularly at night.

Council is currently negotiating with DPIE, TfNSW and EnergyCo to find an acceptable, strategic solution to these transport issues.

Council's State Significant Development Committee has resolved*:*

The Committee:

1. ***Notes the Letter of Offer from Hills of Gold Wind Farm Pty Ltd and concerns of staff;***

2. ***Authorises staff to continue to negotiate with various State Significant Developments (SSD) that seek to transit components through the Shire via local roads; and***
3. ***Authorises staff to object to all SSD that nominates the use of local roads in the Shire for transport of components to another LGA, until EnergyCo, TfNSW and DPIE find a more strategic solution to managing transport issues that is acceptable to Council.***

It should be noted that MSC is not opposed to the development of renewable energy across NSW.

Council is very keen to be involved in a strategic plan/approach to how the various wind farms and other SSD will transport OSOM components to the Central West-Orana REZ and the New England REZ. If this was to occur the issues raised by Council staff previously would be adequately addressed and we remove our objection.

Council sent a letter to the Minister for Energy and Environment yesterday seeking his support for a strategic solution.

I will keep you informed of any responses that we receive.

Regards

Sharon Pope | Executive Manager Environment and Planning |
Muswellbrook Shire Council

Campbell's Corner 60-82 Bridge Street Muswellbrook NSW 2333

Amanda Antcliff

From: Jamie Chivers
Sent: Friday, 28 May 2021 9:24 AM
To: Anthony Signor; Alex Henderson
Cc: Catherine Watt
Subject: RE: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Thanks Anthony.

Jamie

From: Anthony Signor [redacted]
Sent: Friday, 28 May 2021 9:02 AM
To: Jamie Chivers [redacted] Alex Henderson [redacted]
Cc: Catherine Watt [redacted]
Subject: RE: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Thanks Jamie

Happy with those clarifications.

Regards,

Anthony Signor
Area Manager, Barrington Tops
Hunter Central Coast Branch
NSW National Parks & Wildlife Service

59 Church Street,
Gloucester NSW 2422
[redacted]
W nationalparks.nsw.gov.au

The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

From: Jamie Chivers [redacted]
Sent: Thursday, 27 May 2021 21:34
To: Anthony Signor [redacted] Alex Henderson [redacted]
Cc: Catherine Watt [redacted]
Subject: RE: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Hi Anthony

Thank you for your time last week and the opportunity to discuss some of the proposed responses to your submission. I mentioned we would be sharing the updated BDAR and Bushfire Assessment which I will do as soon as I have a final draft.

Thanks for your notes from our meeting. These are mostly as I recall with two minor clarifications below.

We look forward to continuing to work with you as good neighbours!

Regards,

Jamie

From: Anthony Signor [redacted]
Sent: Friday, 21 May 2021 4:58 PM
To: Alex Henderson [redacted]
Cc: Jamie Chivers [redacted] Catherine Watt [redacted]
Subject: RE: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Thanks Alex / Jamie

Appreciate your consideration of our concerns.
Key points discussed from our perspective also:

- In addition to confirmation of safe flight buffers, you indicated that protocols could be developed to minimise impacts on NPWS aerial operations. E.g. the windfarm operator would be able/willing to stop relevant turbines if required during fire and other operations to allow essential NPWS aircraft operations in the vicinity.

This is agreed for firefighting. With regard to other activities such as aerial dog baiting or surveys, we can commit to working with NPWS to find ways to ensure these activities can continue. This would require discussion and agreement with the wind farm operator for the best protocols that might include selecting days of low wind (which might suit the baiting program for drift) or other operational changes that everyone is accepting of to ensure the ongoing ability to survey and bait.

- You'll also provide us with info on exact location and height of turbines and monitoring masts.
- Regarding any impacts on aerial baiting operations for wild dogs: the proponent will consult further with NPWS and the Barnard River Wild Dog Association regarding potential impacts, mitigation/supplementation and potential contribution from the proponent.
- In relation to legal access on Morrisons Gap Road: easements benefiting adjoining landholders (NPWS & Forest Corp) are being considered via the related Crown road closure process. However no public access is envisaged aside from authorised worksite visitors.
- In the case that NPWS staff need essential access via Morrisons Gap Road during construction or later; access can be arranged via safety inductions and workable protocols for our staff.
- A soil and water management plan will be developed/amended to specifically make reference to protecting the sphagnum EEC's catchments.
- Signage will be provided along the boundary of Ben Halls Gap NR; which is awaiting survey, including the currently unfenced and partially cleared portion of the reserve.
- Fencing will be installed where it's not currently on the boundary after the survey, unless specifically agreed otherwise by NPWS.

This was not specifically agreed but I did mention we are undertaking boundary surveys along the NPWS boundary. We would need to work with the landowner and NPWS to address any issues on boundary changes and updated fencing.

- The usual vehicle/heavy plant hygiene and other protocols will apply to minimise risks of weed/pathogen spread during construction and operation.
- The updated bushfire risk assessment for the development will clearly articulate – consistent with planning guidelines for developments in bushfire prone lands -- that management of bushfire risks for the development is the proponent's responsibility, and any hazard reduction or APZs required will be confined to the proponents land. There will therefore be no future expectations for additional hazard reduction on NPWS estate, beyond that which is currently occurring under the park's Reserve Fire Management Strategy.

Kind regards,

Anthony Signor
Area Manager, Barrington Tops
Hunter Central Coast Branch
NSW National Parks & Wildlife Service

59 Church Street,
Gloucester NSW 2422
[redacted]
W nationalparks.nsw.gov.au

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From: Alex Henderson [redacted]
Sent: Tuesday, 18 May 2021 11:09
To: Anthony Signor [redacted]
Cc: Jamie Chivers [redacted] Catherine Watt [redacted]
Subject: Re: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Morning Anthony/Catherine,

Thanks again for your time earlier and I think it resulted in a productive call for all parties. As mentioned on the call, once we have finished our review of the updated BDAR we will issue to you along with the following:

- Confirmation on safe flight buffers for both fixed wing and helicopters
- Likelihood of VHF impacts and proposed mitigation measures
- Confirmation of when boundary surveys will be taking place
- Issue the updated bushfire risk assessment

Many thanks

Alex

Alex Henderson
Assistant Development Manager
[redacted]

SOMEVA RENEWABLES
www.somevarenewables.com
Someva Pty Limited
38 Young St
Sydney NSW 2000

From: Anthony Signor [redacted]
Date: Wednesday, 28 April 2021 at 11:18
To: Alex Henderson [redacted]
Cc: Jamie Chivers [redacted] Liam Edgeworth [redacted] Catherine Watt [redacted]
Subject: RE: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

No worries.
For me next week:
Wed 5th – no go
Thursday 6th: 10am-11am; 12:15 – 2pm, or after 3:30pm

Catherine not available, but if necessary, we can run with just me.

Regards,

Anthony Signor
Area Manager, Barrington Tops
Hunter Central Coast Branch
NSW National Parks & Wildlife Service

59 Church Street,
Gloucester NSW 2422
[redacted]
W nationalparks.nsw.gov.au

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From: Alex Henderson [redacted]
Sent: Wednesday, 28 April 2021 11:07
To: Anthony Signor [redacted]
Cc: Jamie Chivers [redacted] Liam Edgeworth [redacted] Catherine Watt [redacted]
Subject: Re: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Morning Anthony,

I trust all is well. As per my VM left with you a second ago, our apologies but unfortunately we are going to have to request that we postpone todays meeting at 2pm until next week. Jamie, who is currently on paternity leave, is not able to make any work commitments today.

Could I suggest any of the following alternatives next week? Please let me know if any of these might work –

Wed 5th May – 10-4pm
Thursday – Any time

Once again apologies but look forward to hearing from you on any of the alternatives.

Thanks again

Alex

Alex Henderson
Assistant Development Manager
[redacted]

SOMEVA RENEWABLES

www.somevarenewables.com
Someva Pty Limited
38 Young St
Sydney NSW 2000

From: Anthony Signor [redacted]
Date: Thursday, 15 April 2021 at 15:57
To: Alex Henderson [redacted]
Cc: Jamie Chivers [redacted] Liam Edgeworth [redacted], Catherine Watt [redacted]
Subject: RE: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Hi Alex

My availability that week is limited to Tuesday afternoon (27th) , and anytime Wednesday (28th).
Looking forward to discussing our issues further. Could you please include Catherine Watt in the Teams invite? Email cc'd here.

Regards,

NSW GOVERNMENT

Anthony Signor
Area Manager, Barrington Tops
Hunter Central Coast Branch
NSW National Parks & Wildlife Service

59 Church Street,
Gloucester NSW 2422
[redacted]
W nationalparks.nsw.gov.au

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From: Alex Henderson [redacted]
Sent: Thursday, 15 April 2021 12:46
To: Anthony Signor [redacted]
Cc: Jamie Chivers [redacted] Liam Edgeworth [redacted]
Subject: 12/04/21_Hills Of Gold Wind Farm - NPWS submission query

Morning Anthony,

I trust you are well. I wanted to reach out firstly to thank you for your responses to the Hills Of Gold Wind Farm EIS Submission but also to ask whether you might have time to jump on a call at some point W/c the 26th April to discuss your comments in more detail? We are keen to ensure we address them as comprehensively as possible,

Please let me know and I will set up a Teams meeting for the suggested date. For reference I have attached your submission here again.

Thanks again

Alex

Alex Henderson
Assistant Development Manager
[redacted]

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RENEWABLES

www.somevarenewables.com
Someva Pty Limited
38 Young St
Sydney NSW 2000

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

Amanda Antcliff

From: Alex Henderson
Sent: Tuesday, 5 October 2021 7:05 PM
To: Anthony Signor
Cc: Catherine Watt; Jamie Chivers; Tim Mead
Subject: Hills of Gold Wind Farm
Attachments: Response to NPWS Submission[2].pdf

Evening Anthony,

Based on feedback and subsequent meetings with your team earlier this year, we are pleased to attach our responses to your submission and a link below to an "Updated BDAR and Bushfire Report" in relation to project amendments and updated assessment of the Hills of Gold Wind Farm (SSD 9679).

Shared BDAR and Bushfire Report - NPWS 5 Oct 2021

We are providing these in "Final Draft" in the event you would like to provide feedback ahead of our intended formal submission of the Response to Submission Report and associated technical annexures to the Department of Planning on the 29th of October.

We are available as suits your team should you wish to provide feedback.

Thanks for your time and consideration of the Hills of Gold Wind Farm.

Regards,

Alex Henderson
Assistant Development Manager

[redacted]
www.somevarenewables.com
Someva Pty Limited
38 Young St
Sydney NSW 2000

Someva Renewables proudly acknowledges that our office is located on the country of the Gadigal People of the Dharug Nation as well as th
work. We pay our respects to Elders past, present and emerging and value working with First Nations groups on renewable energy projects t

Amanda Antcliff

From: andrew.kerley@engie.com
Sent: Wednesday, 30 June 2021 3:21 PM
To: [redacted]@tamworth.nsw.gov.au; [redacted]@tamworth.nsw.gov.au
Cc: Adam Arndell; Tim Mead; HADZI-NOKOLOV Dusan (ENGIE in Australia); [redacted] Alex Henderson; ANDERSON Meredith (ENGIE in Australia); Jamie Chivers; [redacted]
Subject: RE: Gina/Steve/Sam/Andrew/Someva and Engie - Hills of Gold (Community Fund and Transport Proposal)
Attachments: Appendix N.1 Historic Heritage Assessment.pdf; Appendix N.2 SoHI.pdf

Hi Gina, Steve, Andrew (and Mitch, although apologies I don't have your email),

Thank you again for the productive meeting this morning in relation to the Hills of Gold wind farm. We appreciate the feedback and commentary provided today on the project.

To follow up on a couple of our actions:

1. Heritage reports: Please find attached relevant heritage reports from the EIS. The Statement of Herigate Impact (SoHI) (N.2) is more relevant to Devils Elbow.
2. Subsequent meeting in relation to heritage: Given annual leave on ERM's side can we please propose a heritage meeting with Council on **Monday 12th July** (or any time in that week)? Hopefully this fits in with TRC annual leave and give you some time to review the SoHI.

We will revert separately on:

1. Updated VPA offer reflecting some of the items we discussed today (including in relation to external costs and the relevant framework that may govern the VPA)
2. Site visit to an operating wind farm – currently earmarked for 19th or 20th July but we will confirm these details.
3. Updated BDAR assessment

We look forward to an update from TRC on meeting/introduction to the Director Regional Services in relation to the road usage.

If there is anything I have missed, or any further questions from your side, please do not hesitate to contact myself or any member of our project team.

Regards
Andrew

Andrew Kerley
General Manager, Asset Development
[redacted]

Level 33, Rialto South Tower
525 Collins Street, Melbourne
Victoria 3000, Australia

-----Original Appointment-----
From: Rennie, Lisa [redacted]
Sent: Tuesday, 25 May 2021 10:15 AM
To: Rennie, Lisa; Lobsey, Sam; Brake, Steve; Vereker, Gina; Spicer, Andrew; Jamie Chivers; KERLEY Andrew (ENGIE in Australia); ANDERSON Meredith (ENGIE in Australia)
Cc: Adam Arndell; Tim Mead; HADZI-NOKOLOV Dusan (ENGIE in Australia); Amanda Antcliff; Murray Curtis; Alex Henderson
Subject: Gina/Steve/Sam/Andrew/Someva and Engie - Hills of Gold (Community Fund and Transport Proposal)
When: Wednesday, 30 June 2021 9:30 AM-10:30 AM (UTC+10:00) Canberra, Melbourne, Sydney.
Where: RWH 4 Committee Room

Good Morning

This meeting has been postponed due to lack of time to review material received late Friday evening and this being the next available date. I note this meeting is to occur via bluejeans (details below) for external attendees.

Gina is also away today unwell.

Kind Regards

Lisa

Hi All

This meeting has been arranged at the request of Someva/Engie to discuss the updated offer in relation to the community enhancement fund, some commentary on construction community funding and some road usage concepts (email from Andrew Kerley 19.05.2021).

Bluejeans details below:-

https://bluejeans.com/145425001

OR

Phone Dial-in
[redacted] (Melbourne, Australia)
[redacted] (Sydney, Australia)
[redacted] (New Zealand (Auckland))
[redacted]

Meeting ID: 145 425 001

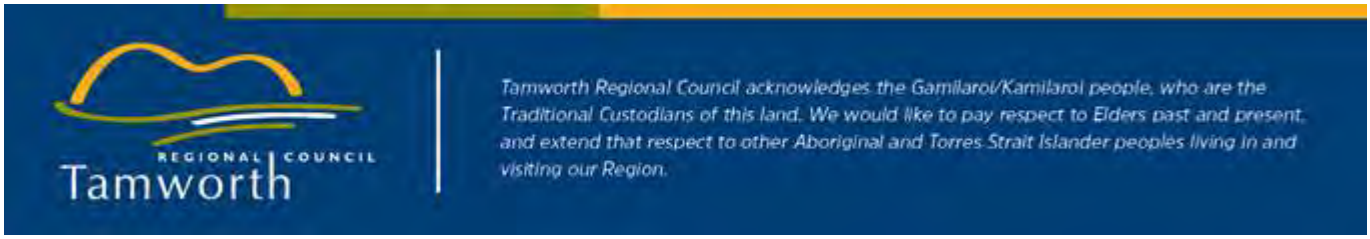
Kind Regards,

Lisa Rennie

Executive Assistant to Gina Vereker, Director
and Business Support Co-Ordinator
Planning and Compliance Directorate

[redacted]

437 Peel Street
PO Box 555 Tamworth NSW 2340
www.tamworth.nsw.gov.au



Gina Vereker
Tamworth Regional Council
Ray Walsh House, 437 Peel Street
Tamworth NSW 2340
Via email

14 July 2021

Dear Gina

Revised Offer – Voluntary Contributions from Hills of Gold Wind Farm Pty Ltd for Annual Community Enhancement Funds

Thank you to you and your colleagues for your time on 30 June 2021 to discuss our letter dated 19 May 2021 regarding a voluntary contribution to a proposed community enhancement fund in respect of the Hills of Gold Wind Farm (the "**Project**"), which is the subject of Development Application Number SSD-9679 (the "**Development Application**") .

Further to our discussions, we confirm that the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("**HOGWFPL**"), is willing to accept the suggested amendments to the community enhancement fund and to make the following revised offer to Tamworth Regional Council in respect of the Project (subject only to the execution of a voluntary planning agreement or similar agreement acceptable to the parties to formalise these matters, on terms acceptable to each party, and to the approval of the Development Application):

1. **Community Enhancement Fund:**
   (a) HOGWFPL will establish a dedicated community enhancement fund to be administered by the Tamworth Regional Council for the benefit of members of the community who may be impacted by the Project ("**Community Enhancement Fund**").

   (b) HOGWFPL will maintain its previous offer to increase the amount of funds per turbine to be provided to the Community Enhancement Fund administered by, and shared on a merit basis to applicants within, the Tamworth Regional Council by contributing AUD$3,000 per turbine, per annum, in respect of those Project turbines within the Tamworth Regional Council Local Government Area, with such amounts to be payable to the Community Enhancement Fund on an annual basis on and from the date on which

the first wind turbine commissioned on the Project site becomes commercially operational and continue each year thereafter for the life of the Project.

For indicative purposes only, the current list of proposed turbines is set forth in Annexure A and includes the coordinates and the LGA in respect of the location of each proposed turbine.

(c) Following consultation with the Tamworth Regional Council, the funds to be contributed to the Community Enhancement Fund by HOGWFPL will be administered in accordance with the following principles:

(i) Tamworth Regional Council will nominate a respected local person with neutral views on the Project to act as the independent chairperson of the Community Enhancement Fund for the first 5 years of the administration of the Community Enhancement Fund;

(ii) a suitable governance framework will be primarily adapted from existing Section 355 Community Committee guidelines and the operating manual (where relevant), or other appropriate guidelines as agreed between the parties. The framework will otherwise be consistent with the Tamworth Regional Council's Community Committee Operating Manual 2020 and will utilise its existing administrative and finance templates already in use in respect of other community committees;

(iii) HOGWFPL will provide all reasonable assistance to the Tamworth Regional Council in respect of the establishment and early operation of the Community Enhancement Fund to ensure committee roles and responsibilities, committee establishment and voting rules are customised to ensure the simple and effective operation of the Community Enhancement Fund;

(iv) a Community Enhancement Fund Committee will be established prior to the first wind turbine commissioned on the Project site becoming commercially operational to ensure a committee consisting of Tamworth Regional Council, HOGWFPL and volunteer community representatives can be formed that meets the Tamworth Regional Council's requirements for transparency, accountability and probity in respect of the use and dissemination of the funds;

(v) the community representatives of the Community Enhancement Fund will be elected volunteers from the community;

(vi) HOGWFPL will provide an additional, fixed contribution of (i) $10,000 for the first year upon establishing the Community Enhancement Fund, and thereafter (ii) $5,000 per annum, to cover the costs incurred in respect of the appointment of an independent chairperson, annual auditing and administration of the Community Engagement Fund (the "**Administrative Funds**"), with such Administrative Funds to be payable at the same time as the other HOGWFPL contributions to the Community Engagement Fund; and

(vii) the Community Enhancement Fund Committee will determine the finer details of project eligibility, community representation and other mechanics following the approval of the Development

Application, however, it will be acknowledged that consideration must be given to both the cost of any long-term obligations on Tamworth Regional Council and the opportunity to fund long-term strategic initiatives brought forward by the community.

(d) The amount of the contributions by HOGWFPL to the Community Enhancement Fund and the additional Administrative Funds will be adjusted on an annual basis to reflect any change in the Consumer Price Index from the Consumer Price Index in effect as at the date of approval of the Development Application.

2. **Construction Community Funding:** HOGWFPL commits to establishing a one-off fund of $150,000 upon the commencement of construction of the Project to provide funds to communities who may be impacted by the construction activities of the Project (including the Upper Hunter Shire Council and Tamworth Regional Council communities) to put towards HOGWFPL-initiated community projects, including support for sports and academic scholarships to local schools to support interstate trips and competitions and community engagement days associated with Project construction milestones (for example, upon delivery of the first turbine blade), with the application of such funds to be applied by HOGWFPL in its direction during the construction phase of the Project.

3. **External Legal Fees:** HOGWFPL will cover the cost of external legal fees that are incurred by Tamworth Regional Council in negotiating the voluntary planning or similar agreement (as contemplated by this letter of offer), up to a maximum of $10,000 (excluding GST).

We look forward to hearing from you and would welcome any further discussion in respect of any remaining queries.

Yours sincerely

DocuSigned by:

AF16F5455796434...

Andrew Kerley
General Manager – Asset Development

ACCEPTANCE BY TAMWORTH REGIONAL COUNCIL:

Subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters and to the approval of the Development Application, Tamworth Regional Council hereby confirms its acceptance of the terms contained in this letter.

Signed for and on behalf of **Tamworth Regional Council** by:

Signature

Name (please print)

Position (please print)

Hills of Gold Project

Update to Tamworth Regional Council

10 SEPTMBER 2021

ENGIE | SOMEVA RENEWABLES

Key Project Updates

1. General stakeholder acceptance of project commitment to reduce traffic impacts, with 67% of local businesses and 90% of businesses along the proposed transport route agreed in a recent survey that some or all the traffic and transport project commitments aimed at reducing construction traffic would be beneficial.
2. Confirmation through registered survey and updated design that existing Morrisons Gap Road council road and proposed road upgrades on Morrisons Gap Road stay within the public road corridor.
3. Further design work completed for Devil's Elbow Bypass by experienced design and construct contractor presents updated alignment, 3D designs including drainage, tie-in with walking trails, and safety considerations. Updated design avoids direct impacts to Black Snack Mine entrance and underground mines.
4. An assessment of the proposed Devil's Elbow Bypass confirms in the context of the surrounding land use, the visual impact is very low and existing vegetation will screen the bypass road within close proximity.
5. An Amended Statement of Heritage Impacts assesses the proposal will have negligible adverse indirect impacts to the historic environment of Black Snake Gold Mine and identifies an opportunity to enhance heritage interpretation through conservation and tourism.
6. Updated project designs, including the removal of 5 wind turbines, have targeted reducing biodiversity impact, particularly to Mountain Gum/Snow Gum, Bat and Koala habitat. The outcome of these updates designs includes:
    a. 60% reduction in removal of threatened ecological communities (Mountain Gum/Snow Gum and White Box/Yellow Box Blakely's Red Gum);
    b. 29% reduction in impacts to koala habitat;
    c. The removal of potentially serious and irreversible impacts and/or significant impacts to cave dwelling microbats; and
    d. 36 % reduction in removal of native vegetation and associated habitat.
7. Increased Project commitments to managing native species found during construction and operation, including detailed impact mitigation options in draft Adaptive Management Plans.
8. Additional on-site soil investigations and updating of soil categorisation to confirm the development footprint is not on sensitive conservation land nor high quality agricultural land.
9. Updated commitments to manage soil erosion and sediment control during both the detailed project design and construction phases.
10. Revised local economic stimulus and regional job forecasts to support Tamworth Regional Blueprint 100.

Hills of Gold Wind Farm:

This is an update to the Hills of Gold Wind Farm Project Changes Summary provided to Tamworth Regional Council on the 11th of June 2021. The changes summarised are a result of engagement with the Department of Planning Industry and Environment (DPIE), community members and other specialist agencies including the following meetings held with Tamworth Regional Council (TRC) representatives:

Date	Agenda	Attended from TRC	Key Feedback from TRC
16th June 2021	Devil's Elbow bypass	Sam Lobsey Steve Brake	• Alignment of proposed route not suitable due to crossing of gully. Recommended revising. • TRC confirmed grades unsuitable for public use as council road. • Adding to knowledge of tunnel locations was agreed to be a public risk and not to be pursued. • Direct impacts to tunnels might be avoided but indirect impacts to heritage curtilage including visual impacts need to be assessed. • Concerns about condition of Lindsay Gap Road from existing forestry haulage and impact of HOGWF Oversized Overmass loads.
30th June 2021	Community Enhancement Fund (CEF), TRC road usage, Project impacts	Gina Vereker Andrew Spicer Steve Brake Mitchell Gillogly	• Expect higher upfront costs to manage early year administration of CEF. • Seeking independently operated CEF from other councils with external facilitation by local person. • TRC assessing use of TRC roads and suitable project use conditions to ensure road usage fee is adequate for potential cumulative damage. • Greater detail in designs by experienced civil contractor on Devil's Elbow Bypass, and assessment of visual impact, requested. • Morrisons Gap Road surveys and impacts (if any) on private landowners requested. • Updated impacts to biodiversity, particularly threatened species requested. • Further information on operating adaptive management commitments in Bird and Bat Adaptive Management Plan (BBAMP) to be provided.

Project design and associated reduced impacts

Project Amendment	Description	Further Reference
Removal of 5 Wind Turbines	**Removal of Wind Turbine WP01 and associated access track** Reduced impacts to high quality condition Snow-Gum Mountain-Gum and Koala, Squirrel Glider, Eastern Pygmy Possum, Eastern Cave Bat, Large Bent-wing Bat and Large eared Pied Bat habitat. Reduced soil erosion risk given topography at this turbine and access track location.	Attached Map01 – Removal of 5 Wind Turbines
	Removal of Wind Turbine WP19 and associated access track Reduced impact to Koala, Eastern Cave Bat, Large-eared Pied Bat and Eastern Pygmy Possum habitat. Reduced soil erosion risk given topography at this turbine and access track location. Reduced visual impact to non-associated dwelling #69.	
	Removal of Wind Turbine WP23 and associated access track Reduced impact to Koala, Squirrel Glider, Eastern Cave Bat, Large-eared Pied Bat habitat and high-quality condition Snow-Gum Mountain-Gum. Reduced visual impact to non-associated dwelling #69.	
	Removal of Wind Turbine WP27 and associated access track Reduced impacts to high quality condition Snow-Gum Mountain-Gum and impacts to habitat of Koala, Squirrel Glider, Large-eared Pied Bat, Eastern Cave Bat and Little Bent-wing Bat. Avoid risk of high curtailment associated with bird and bat adaptive management during operational phase of the Project.	
	Removal of Wind Turbine WP31 and associated access track Reduced impact to Koala, Squirrel Glider, Eastern Pygmy Possum, Large-eared Pied Bat, Eastern Cave Bat, Powerful Owl, Sooty Owl and Barking Owl, and high condition Snow-Gum Mountain-Gum. Avoid risk of high curtailment associated with bird and bat adaptive management during operational phase of the Project. Reduced soil erosion risk given topography at this turbine and access track location.	

Project Amendment	Description	Further Reference
Turbine Relocations and Modification of Hardstand areas	**Minor Relocation of WP47** WP47 relocated by approximately 250 m to the north-east of the exhibited location to reduce impact to the Snow-Gum Mountain Gum and Koala and Squirrel Glider habitat. Reduced soil erosion risk given topography at this turbine and access track location.	Attached Map02 – Turbine Relocations
	Minor Relocation of WP50 WP50 relocated by approximately 137m to the north- east of the exhibited location to reduce impact within bat habitat buffer. Avoid risk of high curtailment associated with bird and bat adaptive management during operational phase of the Project.	
	Minor Relocation of WP12 WP12 has been relocated by approximately 50m based on feedback from construction contractors on improved location for reducing earthworks and cut to fill extents and reducing impacts to biodiversity.	
	Reorientation of hardstand for WP2 The hardstand orientation has been optimised to reduce impact to Koala and Pygmy Possum habitat and Snow Gum Mountain Gum community.	
Monitoring Masts at WTG Location prior to WTG Installation	Decommissioning of three current monitoring masts and installation of up to 10 additional monitoring masts for performance verification (five previously proposed in the EIS, and five additional) The new monitoring masts will be temporarily located at a WTG location with a maximum height equivalent to the hub height of the installed WTGs.	The exact number and location will be defined at the detailed design stage.
Ancillary Infrastructure Amendments	**Relocation of laydown and batching plant at top of Head of Peel Road** As a result of the removal of the Head of Peel access to the Project Area, the construction laydown area and batching plant at the top of the Head of Peel Road access route has been deleted. The laydown area / batch plant has been relocated to the footprint of the BESS / substation with no increase in footprint.	Attached Map03 - Ancillary Infrastructure Amendments

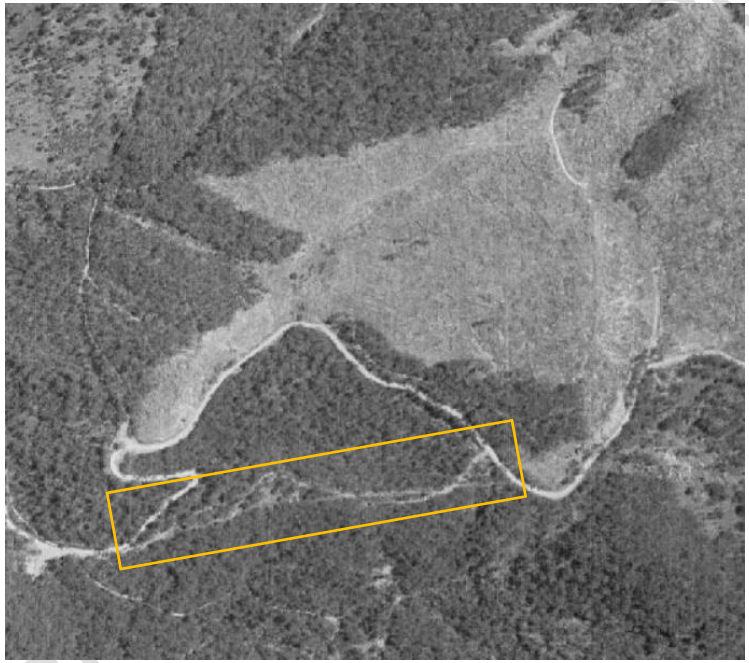
Project Amendment	Description	Further Reference
	Substation, BESS and O&M configuration Following further design works, the configuration of the substation has been slightly amended but remains within the existing footprint.	
	Option to relocate the O&M facility to between WTG 55 and 56 Based on feedback in an updated Hazards and Risk Report.	
	Laydown Area and Concrete Batching Plant Optionality Inclusion of optionality for all laydown areas with the exception of laydowns along Morrisons Gap Road to host concrete batching plants (total number of batching plants for the Project will remain as two).	
	Relocation of Temporary Construction Compound Relocation of temporary construction compound is proposed adjacent to near WTG 56.	
Minor Transmission Line Realignment	A portion of the transmission line within the Project Area (the portion north of WTG 12 and to the west of WTG 2) has been realigned to reduce impacts to Koala, Eastern Pygmy Possum and Squirrel Glider. The route also reduces the visibility of the transmission line to dwellings along Crawney Rd.	
Retention of transmission line route vegetation	The Project will now retain portions of vegetation along the transmission line route that were previously assessed to be removed. These changes, together with changes to the transmission line alignment reduce development footprint by 111ha (from 196ha to 85ha). There remains an identified ~45ha of further opportunity to reduce subject to detailed design. Residual impacted vegetation will be rehabilitated with low height native vegetation where practical.	Reduced Impacts assessed in Amended BDAR are summarised in the section below.

Project Amendment	Description	Further Reference
Internal Access Track Realignment and removal	Sections of access track have been optimised to reduce construction footprint, avoid biodiversity impact and reduce earthworks. These sections are located between: - WTG 16 to 17 - WTG 17 to 18 - WTG 46 to 47 - WTG 66 to 67 - Transverse Track These provide reduced impacts to Koala, Squirrel Glider and Eastern Pygmy Possum habitat and Mountain Gum Snow Gum communities.	Attached Map04 – Internal Road Changes
	The internal road from the Project Area near southern end of Head of Peel Road into western area of the Project Site has been modified for emergency access only which reduces impacts to Koala habitat and earthworks on steeper sections of the development footprint.	
Traffic Access to Project Area	All wind farm traffic will access the Project Area via Morrisons Gap Road only. The Head of Peel Road will not be used for Project-related construction and operational traffic and will be for emergency use only. As a result, road upgrades previously proposed along the Crawney Road / Head of Peel access route ('Southern Route') will not be undertaken reducing impacts to creek crossings, Booroolong Frog habitat and other flora and fauna.	Attached Map05 – Route Changes
Transport Route Updates	The transport route for OSOM from the Port of Newcastle to the Project Area has been amended by: • removal of the tower route option via Tamworth; • removal of the Head of Peel Road route ('Southern Route') (as stated above) and associated alternate routes through Nundle including Happy Valley Road, Jenkins St, Gill St, Innes St; • removal of private land previously proposed along Morrisons Gap Road; • two additional laybys for OSOM traffic on Lindsay Gap Road and Morrisons Gap Road to allow existing road users to pass slower moving Project traffic; • addition of a pedestrian crossing in Nundle subject to Tamworth Regional Council approval; • Nundle parking restrictions for project vehicles based on opening times for businesses to reduce congestion for existing residents and tourists;	Traffic and Transport Appendum shared with TRC on the 10th of June. Attached Map05 – Route Changes

Project Amendment	Description	Further Reference
	• a temporary car park in Nundle for project vehicles to access shops and services; and • communication protocols for businesses and community along the transport route including text message service, permanent office in Nundle during construction, VHF radio for residents along Morrisons Gap Road and Shearers Road.	
Devil's Elbow Bypass Road	*Background* The EIS incorporated a Historic Heritage Impact Assessment and Statement of Heritage Impact (SoHI) (ERM, 2020) (Appendix N of the EIS). The SoHI determined that the 'Devil's Elbow proposed upgrades as detailed in the EIS will have a negligible impact on the setting of the LEP listed Black Snake Gold Mine, however they have the potential to impact archaeological features, such as mine shaft entries and tunnels. The assessment recommended a geophysical and / or geotechnical assessment be undertaken to determine if there are any subsurface voids beneath the proposed upgrade or other anomalies that may be indicators of archaeological features. *Geophysical Investigation* A Devils Elbow Bypass Road Geophysical Interpretative Report was completed in March 2021 by Coffey International using the electrical resistivity testing methodology to assess potential for subsurface voids relating to abandoned mine workings, and to highlight other possible anomalies that may indicate the presence of archaeological features. The investigation identified three resistivity anomalies. While it is possible that the anomalies identified are the result of natural processes and unrelated to the Black Snake Gold Mine, the discrete nature of the anomalies, their very high resistivity values, and their proximity to known abandoned mine workings suggest that these are likely associated with abandoned (historic) mine workings. Coffey's expert opinion based on information available is that provided the potential voids have at least 5 m of sound rock cover and have span less than 4 m, then collapse of any potential void roof would be unlikely to be caused by road excavation (provided measure such as heavy blasting are avoided). *Updated Design by Experienced Design and Construct Firm*	Updated Statement of Heritage Impacts shared with Sam Lobsey on the 15th of August 2021 CATCON/WGA Devils Elbow Designs and Design Basis Report shared with Sam Lobsey and Steve Brake on 7 September 2021 Update to Landscape and Visual Assessment on Devils Elbow Bypass Road

Project Amendment	Description	Further Reference
	Based on the outcomes of the geophysical assessment (Coffey, 2021) CATCON and WGA (Wallbridge Gilbert Aztec) redesigned and realigned the road such that the expected void locations are in areas of fill, reducing the risk of removing earth support. A Civil Design Report has been shared with TRC covering the general design criteria, road geometry, earthworks and pavement design and drainage. Road safety at tie-ins to Barry Road through road safety barriers and design provision for maintaining existing pedestrian access at existing levels at the intersections of proposed bypass road is considered. The following image presents some of the design described above.  Figure 3-3: Existing pedestrian access track tie ins NPWS and RFS have been consulted and indicated desire in gaining access to this road and is open to considering access for other parties TRC deem appropriate.	available on request.

Project Amendment	Description	Further Reference
	Amended SOHI for Indirect Impacts An Amended SOHI was updated for the revised footprint and assessment of indirect impacts following a request from Tamworth Regional Council. This report concluded that the proposal will have negligible adverse indirect impacts to the historic environment of the Black Snake Gold Mine. This assessment has considered the transport alignment as an independent scope item. It is cautioned that the sentiment (or perceived sentiment) towards the larger project should not be conflated with this road works component. Black Snake Gold Mine's listing covers an extensive area and includes over 20 (but likely many more) locations of historical diggings. Evidence such as tunnels, shafts, landform works, and plant locations are distributed widely across the heritage item's curtilage area, and are by no means concentrated in the location of the 700 m length of proposed road. Removal of what is secondary growth eucalypt forest along the proposed alignment presents no indirect adverse impact to the heritage item's listed heritage values (Criterion a – historical significance). The road would only be visible from access points at Barry Road, and not from any other significant location or view shed (e.g. Hanging Rock lookout), as confirmed by the Landscape and Visual Impact Assessment addendum, Moir Landscape Architecture, 2021. The existing landscape has been (and continues to be) highly modified by forestry activity. When the visual impact is considered in the context of the surrounding land use, the visual impact is very low. Further, the visual nature of these works would have no impact on the listed values of the heritage item. The image below shows the clearing for forestry activities to the north of the road and tracks within the Assessment Area and the network to the south are visible.	

Project Amendment	Description	Further Reference
	 Approximately 35 – 40% of the Black Snake Gold Mine listed area is under logging forest/plantation which would have had (and continues to have) direct and indirect impacts to industrial archaeological remains and the historical setting of the heritage item. The footprint of the proposed Devils Elbow Bypass is very minor development in comparison to the continuing forestry activity. Select members of the local community have expressed their desire to see awareness of area's gold mining history raised through interpretation opportunities. The Amended SOHI identifies an opportunity to enhance heritage interpretation through conservation and tourism. As hiking down to the gullies is not currently advisable due to landslides the proposed transport route presents an opportunity to establish a safe area for	

Project Amendment	Description	Further Reference
	heritage interpretation signage (there is precedent for this in Hanging Rock but currently no signage at Black Snake Gold Mine) and integrate the road into a future fit-for-purpose walking track/heritage trail/mountain bike trail. For the avoidance of doubt, any future works in this area are not contemplated as part of the Project works. The project has designed the Devils Elbow Bypass Road to tie into existing access tracks/walking tracks to improve safe access across the area. *Updated Visual Assessment* An updated landscape and visual assessment was carried out of the proposed Bypass Road. Although the Site will require removal of vegetation to accommodate the works, the existing vegetation surrounding the site screens views to the upgrade. There are no dwellings within close proximity that will have views to the road upgrade. Views from the east (Barrys Road, Hanging Rock) will be screened by a combination of topography and vegetation. Views from Nundle are limited due to intervening elements in the foreground, ie. built form and vegetation. The existing landscape has been (and continues to be) highly modified by forestry activity. When the visual impact is considered in the context of the surrounding land use, the visual impact is very low.	
Morrisons Gap Road	The project appointed licensed surveyors Land Surveys to carry out a detailed boundary and geometric survey of the existing road alignment of Morrisons Gap Road. The survey confirmed the council built and maintained road is within the registered road corridor. Civil engineers Turnbull Engineering updated required roadworks to enable a candidate turbine to travel to site within the surveyed public road corridor. The designs confirm that all road upgrades including construction areas and vegetation removal remain within the surveyed public road corridor.	Available upon request.

Project Amendment	Description	Further Reference
	Where road upgrades are expected to be required and removal of vegetation close to private property, landowners will be offered landscape screening to reduce visual exposure to the road. No private land consent required along Morrisons Gap Road to access site (excluding layby and MGR and Barry Road intersection). Final design will include localised widening and safety furniture to enable safe 2-way access.	

Changes to Biodiversity Assessed Impacts and Updated Project Commitments

The following summary outlines the changes to impact assessed in the Amended Biodiversity Development Assessment Report:

- Targeted removal of turbines has resulted in the removal of potential Serious and Irreversible Impacts and/or significant impact to cave dwelling microbats.
- The Project has committed to robust adaptive management commitments including rigorous weekly monitoring of bird and bat strike and adaptive operating strategies should defined trigger increase risk to identified species (see section below).
- Targeted removal of turbines reduced impact to other native species including the Greater Glider, Spotted Tail Quoll, Koala and Owls by a combined 37ha. Further design and construction commitments have been added to further avoid impact (see section below).
- Direct impact to Koala habitat has been reduced from 51ha to 36ha.
- Native vegetation impact has reduced from 208ha to 132ha.
- Assumption of presence of four species of large forest owls due to inconclusive survey results, leading to increased assessment of impacts to the three species.
- In reducing the impacts to Koala habitat (by 15ha), there was a minor additional impact to Southern Myotis (by 1.8ha).

Relevant matter	Details	2020 BDAR Direct impacts	2021 Updated BDAR Direct impacts	Reduction
Native vegetation communities and ecosystem credit species habitats.	Direct loss of native vegetation communities associated with site clearing	207.7 ha	132.43 ha	75.27 ha
Threatened ecological communities	Direct loss of Ribbon Gum—Mountain Gum—Snow Gum Grassy Forest/Woodland of the New England Tableland Bioregion	57.43 ha	23.36 ha	34.07 ha
	Direct loss of White Box Yellow Box Blakely's Red Gum Woodland and derived native grassland	13.33 ha	6.07 ha	7.26 ha

Relevant matter	Details	2020 BDAR Direct impacts	2021 Updated BDAR Direct impacts	Reduction
Habitat for threatened fauna species – species credit species	Large-eared Pied Bat*	61.08 ha	19.68 ha foraging habitat No impacts (0 ha) breeding habitat	41.4 ha
	Eastern Cave Bat*	62.49 ha	19.68 ha foraging habitat No impacts (0 ha) breeding habitat	42.81 ha
	Large Bent-winged Bat*	23.12 ha	No impacts (0 ha) to breeding habitat	23.12 ha
	Little Bent-winged Bat*	23.12 ha	No impacts (0 ha) to breeding habitat	23.12 ha
	Southern Myotis	2.21 ha	3.97 ha	-1.76 ha
	Eastern Pygmy-possum	30.42 ha	18.14 ha	12.28 ha
	Koala	50.76 ha	36.44 ha	14.32 ha
	Squirrel Glider	26.20 ha	16.06 ha	10.14 ha
	Booroolong Frog	1.59 ha	0.64 ha	0.95 ha
	Border Thick-tailed Gecko	0.17 ha	0.17 ha	0 ha
	Powerful Owl	0 ha	1.99 ha	-1.99 ha
	Sooty Owl	0 ha	1.99 ha	-1.99 ha
	Barking Owl	0 ha	1.99 ha	-1.99 ha
	Masked Owl	0 ha	0.99 ha	-0.99ha

Additional Bird and Bat Adaptive Management Plan (BBAMP) Commitments

The following additional mitigation measures are committed for all turbines to ensure impacts associated with bird and bat blade strike are minimised:

- Development of a BBAMP in conjunction with Biodiversity, Conservation and Science Directorate (BCD) to be implemented throughout life of project.
- Intensive monitoring period for the first six months of operation to be outlined in the BBAMP, followed by regular bird and bat monitoring/mortality surveys for the life of the wind farm at frequencies based on the findings of each survey period and adaptive management strategy detailed in the BBAMP.
- Investigation into appropriate low wind speed curtailment strategies for high-risk turbines (further detailed below).
- Research into the bat and bird deterrent systems and associated reduction of impacts, to establish whether implementation at the Project would be effective and practicable with the goal of integrating into BBAMP for re-evaluating turbine risk levels if proven effective.
- Regular ongoing maintenance of rotor blades to improve ultrasonic bounce-back enabling microbat avoidance.
- Installation of lighting schemes that reduce insect attraction to turbines within rotor swept height.
- Commitment to provision of data from ongoing bird and bat monitoring surveys and effectiveness of BBAMP to specialist research entities who are prepared to enter into appropriate agreements with the project.

Frequency of bird and bat monitoring/mortality surveys will be developed in consultation with, and in accordance with, any relevant Biodiversity, Conservation and Science Directorate (BCD) requirements, as part of the preparation and development of the BBAMP. Ongoing and potential timing amendments to monitoring will include inspections and reporting continued for the life of the wind farm, at intervals determined by the results of previous monitoring and in accordance with the BBAMP.

The following additional mitigation measures are committed for high-risk turbines (WP50 only):

- Earthworks resulting in a level of ground vibration likely to disturb roosting microbats are not to occur during breeding season (November to February) or winter torpor season (May to September).
    - Suitable measure to prevent vibration impacts to confirmed potential roosting habitat near WP50 will be determined as part of the preparation of the BBAMP. This will include items such as determination of a suitable maximum vibration level to prevent disturbance to roosting microbats, what activities or plant may cause this maximum vibration level to be triggered, and at what distance (setbacks) unacceptable levels of vibration may be experience at the habitat location.
- Investigation of additional low wind speed seasonal curtailment strategy with increased night-time cut-in speeds will be implemented.
    - Strategy will be determined through measures such as analysis/comparison of microbat activity data with wind data collected during the EIS, or through undertaking a controlled experiment using (for example) a Before-After-Control-Impact (BACI) design, and implemented as part of the BBAMP.

- Increased frequencies of bird and bat monitoring/mortality surveys for at least months 7-30 of operation. Following which, the results will determine the frequency with which surveys will be ongoing and detailed in the BBAMP.

The following additional mitigation measures are committed for moderate risk turbines:

- Increased frequencies of bird and bat monitoring/mortality surveys for at least months 7-18 of operation. Following which the results will determine the frequency with which surveys will be ongoing, and the requirement of any adaptive management strategies.
- Potential implementation of seasonal low wind speed curtailment strategies dependent on the results of ongoing monitoring.

Project Commitments for Biodiversity Management Plan

The following is a summary of the updated commitments to further avoid impact through design, construction, and operation of the Project for species such as Koala, Eastern Pygmy Possum, Greater Glider and Spotted Tail Quoll.

Opportunities to further minimise impacts to native vegetation will continue to be explored. This may include measures to minimise the construction footprint and clearing requirements with a particular focus on the protection of hollow bearing trees and fauna movement corridors.

Upon final design and prior to construction, a Biodiversity Management Plan (BMP) will be prepared and implemented. The BMP is expected to address terrestrial and aquatic matters by including:

- Plans for the development footprint and adjoining area showing extents of native vegetation, flora and fauna habitat, threatened species and threatened ecological communities and measures to minimise impacts to these features. The following opportunities are to be fully explored as a part of the detailed design:
    - Opportunities to further minimise the disturbance footprint and clearing within important movement corridors for fauna.
    - Opportunities for post-works restoration of habitat connectivity within important movement corridors for fauna.
    - Areas subject to temporary disturbance will be rehabilitated using a native species planting schedule as much as practical considering any operational and safety constraints.
- Plans showing areas to be cleared and areas to be protected, including exclusion zones and protected habitat features, and areas for native vegetation rehabilitation or re-establishment.
- Mapping and identification of individual tree hollows and termite mounds and measures to minimise impacts to these features.
- Pre-clearing protocols, including pre-clearing inspections, establishment of exclusion zones and on-ground identification of specific habitat features to be retained and/ or relocated.
- Vegetation clearing protocols, including staged habitat removal (including of wombats, Koala, and other fauna) and any specified seasonal limits on clearing activities.
- Protocols for the salvage and relocation of woody debris, tree hollows and bush rock.
- Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations.
- Fauna handling and unexpected threatened species finds procedures.
- Rehabilitation, revegetation, reuse of soils and other habitat management actions.
- Weed, pest and pathogen management requirements.

- Monitoring during construction and post-construction.
- Adaptive management measures to be applied if monitoring indicates unexpected adverse impacts.
- Strategies for fauna management during construction including any identification roles, responsibilities and contingency measures such as temporary stop works and engagement of fauna specialist.
- Requirements for temporary fencing to minimise the risk of fauna injury / mortality due to vehicle strike or entrapment in deep excavations.

Prior to the commencement of commercial operations, the Project will prepare and implement an operational BMP detailing ongoing measures for the protection and management of flora and fauna during the operational phase of the Project. The plan is to identify at a minimum:

- Target species, important habitats and ecological features to be monitored and managed within the site.
- Specific management measures to be implemented during operations.
- Requirements for the monitoring of target species, important habitats and ecological features within the site and processes to be implemented to ensure an adaptive management approach.
- Performance objectives and proposed contingency measures.

Updates to Soil and Water Assessment

The Project is located along the upper ridgeline that is exposed to prevailing wind directions. These ridgelines and plateaus are flanked in most directions by very steep and rugged terrain. The majority of the Development Footprint is used for grazing operations. By their very nature, wind farms are typically located along ridgelines and hill tops. Several constructed NSW wind farms incorporate narrow ridgelines in their layout including Sapphire, White Rock, Crudine Ridge and Cullerin Range wind farms.

Comments were received following the exhibition of the EIS concerned with the appropriateness of available information regarding the site ground and hydrology conditions and the overall suitability of the proposed site for the location of a wind farm. In order to respond to these comments, Coffey (2021) undertook a geotechnical and geophysical investigation in February 2021 to obtain information on ground conditions across the Development Footprint.

Overall, it was found that the ridgeline of turbines and access tracks is characterised by highly variable soil depths which are typically silty or clayey, medium to high plasticity, with high to very high strength basaltic cobbles and corestones. The soils also display frequent cracking and rutting. Cuttings and excavation activities on the site indicate that the bedrock consists of a variable weathered zone, very low to low strength basalt with high strength bands. Distinct beds of siltstone and sandstone were also observed in the investigation.

In addition, site observations confirmed there was no indication of shallow groundwater. Additional detailed investigation and site assessment will be undertaken if it is deemed necessary that a sustained groundwater supply is required for the purposes of construction.

A slope analysis prepared using ArcGIS software confirms that the majority of the Development Footprint which follows the top of the cleared ridgeline generally has slopes from 0-20% with some sections with

longitudinal slopes to approximately 33 %. The Development Footprint avoids the steeper upper slopes to the ridgeline of 33% to >50%.

It should be noted that the NSW Land and Soil Capability (LSC) scheme provides guidance only on the physical capability of the land to support different agricultural land uses at a regional level. Nevertheless, the LSC class descriptions including photographic examples, site-based investigations, current land use, and geotechnical assessments confirms that the overall Development Footprint at the Wind Farm site does not meet the data requirements for LSC Class 7 or Class 8, which are generally land that is incapable for agricultural land use. The historical grazing land use on dense groundcover across the Development Footprint confirms the land is capable for land uses such as grazing and forestry. Further, the Development Footprint does not impact on prime agricultural land.

The Development Footprint is primarily located along the top of a ridgeline that is bounded by three major river catchments. The majority of the Development Footprint is within the headwaters of the Peel River catchment which flows to Chaffey Dam. The Development Footprint covers a small proportion of the total Chaffey Dam catchment and through detailed design of access track, hardstand and project infrastructure drainage there will be negligible change to received inflow volumes at Chaffey Dam.

Based on the Revised Universal Soil Loss Equation (RUSLE) assessment, the erosion hazard of the Development Footprint has been assessed as moderate. Localised areas of greater erosion hazard will exist, for example where steeper slopes occur and in areas of concentrated water flow. Consequently, a standard suite of erosion and sediment controls will be employed during construction. Specialised techniques using enhanced control measures will be required in high and very high hazard areas, such as steep slopes and areas of concentrated flow, if further refinement of the Development Footprint through detailed design cannot avoid these areas.

The slope analysis and RUSLE assessment confirm a range of erosion hazards exist across the Development Footprint; however, these fall within the guidance and recommended management measures in 'The Blue Book' (Landcom, 2004) which is referenced in NSW EPA Environment Protection Licences (EPL). The Hills of Gold Wind Farm will be subject to the requirements of an EPL.

An update to the Mitigations Measures in the design and construction stage have been provided in the updated Soil and Water report. The report is shared with this summary and will be submitted with the RTS.

Business Attitudes through Survey Results

Feedback was sought from the business community in Nundle and Hanging Rock on a range of impacts to opportunities the project would create.

There were 55 responses to the survey. While directed to Nundle and Hanging Rock business owners, responses were also received from Timor, Crawney and other areas. Over 60% of all survey respondents were supportive of the Project, 38% not supportive with 2% indifferent.

When considering businesses that have a shopfront in Nundle or Hanging Rock and have a registered ABN, 67% (12/18) expressed support for the project.

When considering businesses that have a shopfront or operate directly on the proposed transport route for the Project, 90% (9/10) expressed support for the project.

67% (37/55) of survey respondents selected that some or all the proposed traffic and transport project commitments aimed at reducing construction traffic would be beneficial. 21% of those not supporting the wind farm still agreed that some of the proposed transport mitigation measures would be beneficial.

Q12 Out of the proposed strategies listed below to reduce traffic through Nundle and Hanging Rock, which of these do you think will be most beneficial?

ANSWER CHOICES	RESPONSES	
Dedicated transport route through Oakenville Street and onto Barry Road, avoiding residential areas in Nundle	49.06%	26
Pedestrian crossing in Nundle at the intersection of Oakenville and Jenkins Street	33.96%	18
Laybys for Oversize and Over mass vehicles on Morrisons Gap Road and Lindsays Gap Road	47.17%	25
Nundle parking restrictions for project vehicles based on opening times for businesses to reduce congestion for existing residents and tourists	41.51%	22
Temporary car park in Nundle for project vehicles to access shops and services	49.06%	26
None of the above	33.96%	18

The consensus from extended responses to other suggestions to alleviate traffic impacts was that large vehicle and OSOM movements need to be consistently and clearly communicated within the community, particularly business owners along transport routes and at Hanging Rock, to ensure they are aware of

what is happening and can modify their daily operations accordingly. The project has included commitments to provide:

- SMS notification to registered businesses and community members
- A permanent community hub in Nundle during construction employing a person from within the community to assist in providing project information including transport delivery times
- Provision of major activity notices to residents along Morrisons Gap Road and Shearers Road one week in advance.
- Provision of UHF radios to residents along Morrisons Gap Road and Shearers Road for communications of any emergency or travel plans to the site manager in accordance with a communications protocol
- Community information boards within Nundle and Hanging Rock and regular website updates and mailing list distributions of traffic movements

The survey participants who do not support the wind farm cited negative environmental impacts, decreased revenue to their business and traffic disturbances as the biggest impacts to their business. The majority of those not supporting the project did not use the survey as a way of engaging to voice their concerns with all extended response questions either left blank or extremely negative responses.

- Over 90% of non-supporters said they were not interested in supporting wind farm tourism activities in the community
- 79% of non-supporters believed that none of the proposed traffic management strategies would work

Those supportive of the project cited increased revenue and increased customers as the biggest impacts to their business with:

- 94% of supporters believed the HOGWF would bring increased economic benefits to Nundle
- 82% of supporters believed the HOGWF would bring increased jobs and customers to Nundle
- 76% of supporters believed the HOGWF would bring increased tourism to Nundle

A viewing platform, educational tours and a photography competition were the top three most popular tourist activities supported by project supporters.

Alignment with Tamworth Blueprint 100 - Updated Economic Assessment and Job Forecasts

The forecast Project cost has been updated to reflect the change in project size from that exhibited in the EIS. The following summarises an expected range of direct and indirect jobs expected to be created during the construction and operational phases of the project. The economic opportunities summarised below provides the region with an opportunity to create jobs that support the Tamworth Regional Blueprint 100.

The total employment impact from the construction and operation of the wind farm is estimated to be:

- 607 Full Time Equivalent (FTE) jobs created across both years of construction phase.
    - 344 FTE jobs in the construction industry
    - 263 FTE jobs in professional, scientific and technical roles associated with the project.
- Ongoing employment is estimated to increase by 77 ongoing FTE jobs in the professional, scientific and technical industry sector.

The addition wages and profits ("Value-Add") produced by the project is presented in the table below:

Project Phase	Direct Value-Add	Onflow (Indirect Value-Add)	Total
Construction	$73.0m	$161.0m	$234.0m
Operation (annually)	$15.3m	$27.5m	$42.8m

To provide some context to the numbers, the broader regional economy is worth $5.2 billion.

Around 80-85% of the economic benefits (jobs, direct and indirect value-add) during construction and operation is expected to occur in either the Tamworth Regional and/or in Newcastle City LGAs.

The direct employment and indirect economic injection through spending demonstrates alignment with the Tamworth Blueprint 100.

The employment impacts are split by industry and are identified below:

	Construction Phase			Operation Phase		
Industry Type	**Direct jobs**	**On-flow jobs**	**Total**	**Direct jobs**	**On-flow jobs**	**Total**
Construction	109	234	344	-	-	-
Professional, Scientific & Technical Services	102	170	263	28	48	77
Total	**203**	**404**	**607**	**28**	**48**	**77**

A sensitivity analysis to these numbers has been carried out and is available upon request.

Gina Vereker
Tamworth Regional Council
Ray Walsh House, 437 Peel Street
Tamworth NSW 2340
Via email

21 October 2021

Dear Ms Vereker,

Hills of Gold Wind Farm – Request for TRC Feedback

Following our meeting yesterday, I would like to pass on my thanks to you and your teams for your ongoing input and engagement on the proposed Hills of Gold Wind and Battery Storage Project. I appreciate the time you have all taken throughout 2021 to review the information prepared for Tamworth Regional Council (TRC) in response to your submission in February.

As the long-term owner of the project, ENGIE is committed to working with TRC to resolve concerns and answer questions as they arise. I hope we have been able to demonstrate this commitment through the information prepared and shared with your team.

Our meeting this week showed the TRC team would like more time to review the information we have provided. To allow for this and to ensure any outstanding concerns have been addressed, we will be delaying our Response to Submissions (RTS).

We understand that delaying the RTS will be an issue for several residents of Nundle and Hanging Rock who are seeking greater clarity to their questions asked through the submission process.

To provide further clarity to the community while we continue to work through the RTS, ENGIE will be hosting an information hub in Nundle (8-10 and 15-17 November) and Timor (11 November). We are also sharing the attached Frequently Asked Questions with key stakeholders to demonstrate some of the key changes to the Project as a result of the submissions earlier this year.

To further assist with managing community expectations around the progress of the Project, we would appreciate your feedback on the information we have provided and our discussion this week as soon as possible, ideally before 5 November 2021.

Should you have any questions in relation to the above information, or wish to discuss in further detail, please do not hesitate to contact me on 0429 270 777 or email Andrew.kerley@engie.com

Yours sincerely,

Andrew Kerley
General Manager – Asset Development

D.06.2 ***HILLS OF GOLD WIND FARM - VOLUNTARY PLANNING AGREEMENT OFFER***

RESPONSIBLE OFFICER: Greg McDonald - General Manager

AUTHOR: Mathew Pringle - Director Environmental & Community Services

PURPOSE

The purpose of this report is to consider an offer from Hills of Gold Wind Farm Pty Ltd to enter into a Voluntary Planning Agreement in respect of the proposed Hills of Gold Wind Farm.

RECOMMENDATION

That Council accept the offer from Hills of Gold Wind Farm Pty Ltd to enter into a Voluntary Planning Agreement (VPA) based on an annual contribution of $3,000 per turbine (indexed to CPI) towards a Community Enhancement Fund and a fixed contribution of $5,000 per annum (indexed to CPI) to cover administrative costs.

BACKGROUND

Council has not considered this matter previously.

REPORT/PROPOSAL

In November 2020, Hills of Gold Wind Farm Pty Ltd lodged a state significant development application and Environmental Impact Statement (EIS) with the NSW Department of Planning, Industry and Environment for the Hills of Gold Wind Farm project.

The project involves the construction, operation and decommissioning of a wind farm with 70 wind turbine generators (WTG), together with associated and ancillary infrastructure. The proposed wind farm will have an approximate energy generating capacity of 420 megawatts (MW) and includes a 100MW/400MWh battery energy storage system (providing 4 hours of storage for 100MW).

The development site is located approximately 5 km south of Hanging Rock and 8 km south-east of Nundle and straddles the Local Government Areas (LGA) of Upper Hunter Shire, Tamworth Regional LGA and Liverpool Plains Shire.

The project is declared to be State Significant Development (SSD) under clause 20, Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*. The consent authority is the Minister for Planning and Public Spaces or the Independent Planning Commission.

The development application was placed on public exhibition from 2 December 2020 to 29 January 2021.

The EIS indicates the intention to establish a Community Enhancement Fund (CEF) (in lieu of a Voluntary Planning Agreement (VPA)) to which the project owner/operator would provide funding of $2,500 per turbine per year towards local environmental, social and community initiatives led by local residents residing within 20km of the project.

Council's submission to DPIE in respect of the project contended that the proposed contribution of $2,500 per turbine per year towards a CEF was insufficient and recommended a minimum contribution of $3,000 per turbine per annum calculated as follows: *Flat rate of $500/turbine/MW/annum indexed with CPI.*

In response to Council's submission, the applicant has made an offer to enter into a VPA, the terms of which would require the proponent to establish a dedicated CEF to be administered by Council for the benefit of members of the community who may be impacted by the project. The proponent would be required to contribute $3,000 per turbine per annum towards the CEF in respect of those turbines within the Upper Hunter Shire Council LGA. Payments will be made from the date on which the first wind turbine commissioned on the project site becomes commercially operational and continue each year thereafter for the life of the project.

In addition to the annual contribution towards a CEF, the proponent is offering to provide an additional, fixed contribution of $5,000 per annum (indexed to CPI) to cover the costs incurred in respect of the appointment of an independent chairperson, annual auditing and administration of the CEF.

A copy of the proponent's letter of offer is provided in Attachment 1.

The offer is considered reasonable and acceptable and the proposed contributions are consistent with the contributions payable by other recently approved wind farms including the Liverpool Range Wind Farm. Under the terms of the proposed VPA, a total annual contribution of $42,000 (in today's dollars, based on 14 installed turbines) would be payable by the proponent towards a CEF.

Should the development application be approved, the proponent and Council will prepare a draft VPA in accordance with Section 7.4 of the *Environmental Planning and Assessment Act 1979* (Act). The draft agreement will be the subject of a further report to Council and will need to be placed on public exhibition in accordance with Section 7.5 of the Act.

OPTIONS

1. accept the offer from Hills of Gold Wind Farm Pty Ltd to enter into a Voluntary Planning Agreement (VPA) based on an annual contribution of $3,000 per installed turbine.
2. decline the offer from Hills of Gold Wind Farm Pty Ltd and recommend an alternative contribution.

CONSULTATION

- Councillors
- General Manager

STRATEGIC LINKS

a. Community Strategic Plan 2027

This report links to the Community Strategic Plan 2027 as follows:

BUILT & NATURAL ENVIRONMENT
Goal 3 – Protect the natural environment

CS10 – Advocate for, facilitate and support programs that protect and sustain our diverse environment for future generations.

Goal 4 – Plan for a sustainable future

CS17 – Implement policies to ensure the protection of strategic agricultural lands, equine critical industry clusters, natural resources and heritage.

LEADERSHIP

Goal 9 – Advocate for the Community

CS42 – Provide timely and effective advocacy and leadership on key community issues and priorities.

We are working to achieve the following Community Priorities:

Rural lifestyle and Country feel are valued and protected and the Upper Hunter Shire remains quiet, safe, healthy and welcoming.

Well maintained, safe, reliable and additional infrastructure, including sporting fields, parks, family and cultural facilities.

Upper Hunter Shire Council to support and provide community services which promote health, wellbeing and the celebration of culture.

Upper Hunter Shire Council is an effective and efficient organisation, focusing on community engagement, action and response.

b. Delivery Program

- Facilitate and support programs that protect and sustain our environment.
- Support and encourage Community participation in the protection of the environment.

c. Other Plans

Sustainability Action Plan

IMPLICATIONS

a. Policy and Procedural Implications

Nil

b. Financial Implications

The proponent's offer of $3,000/turbine/year could potentially equate to a total annual contribution of $42,000 (in today's dollars, based on 14 installed turbines) towards a CEF.

c. Legislative Implications

Hills of Gold Wind Farm Pty Ltd has offered to enter into a Voluntary Planning Agreement with Council in accordance with Section 7.4 of the *Environmental Planning and Assessment Act 1979.*

d. Risk Implications

The offer to enter into a VPA is voluntary on the proponent's behalf, and if negotiations fail there is no legislated requirement for them to provide a contribution at all.

e. Sustainability Implications

The Community Enhancement Fund will provide funding for community projects that contribute to the social, economic and environmental sustainability of the Crawney / Timor area.

f. Other Implications

Nil

CONCLUSION

The offer of $3,000/turbine/annum is considered to be a reasonable offer that will provide beneficial funds for community projects in the Crawney/Timor area for the life of the Hills of Gold Wind Farm.

ATTACHMENTS

1 Hills of Gold Wind Farm - VPA Letter of Offer

Matthew Pringle
Upper Hunter Shire Council
135 Liverpool Street
Scone NSW 2337
Via email

19 May 2021

Dear Matt,

Revised Offer – Voluntary Contribution from Hills of Gold Wind Farm Pty Ltd for Annual Community Enhancement Funds

Thank you for your call on 22 April 2021 and the opportunity to discuss our letter dated 15 April 2021 regarding a voluntary contribution to a proposed community enhancement fund in respect of the Hills of Gold Wind Farm (the "Project"). We appreciated the opportunity to discuss Upper Hunter Shire Council's comments in respect of the proposed development of the Project which is the subject of Development Application Number SSD-9679 (the "Development Application").

Further to our discussions and further engagement with the Tamworth Regional Council, we confirm that the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("HOGWFPL"), is willing to address the comments received in recent engagement and make the following revised offer to Upper Hunter Shire Council in respect of the Project (subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters on terms acceptable to each party and to the approval of the Development Application):

1. **Community Enhancement Fund:**

   (a) HOGWFPL will establish a dedicated community enhancement fund to be administered by the Upper Hunter Shire Council for the benefit of members of the community who may be impacted by the Project ("Community Enhancement Fund").

   (b) HOGWFPL will maintain its previous offer to increase the amount of funds per turbine to be provided to the Community Enhancement Fund administered by, and shared on a merit basis to applicants situated within, the Upper Hunter Shire Council by contributing $3,000 per turbine, per annum in

respect of those Project turbines within the Upper Hunter Shire Council Local Government Area, with such amounts to be payable to the Community Enhancement Fund on an annual basis on and from the date on which the first wind turbine commissioned on the Project site becomes commercially operational and continue each year thereafter for the life of the Project.

For indicative purposes only, the current list of proposed turbines is set forth in Annexure A and includes the coordinates and the LGA in respect of the location of each proposed turbine.

(c) Following consultation with Upper Hunter Shire Council, the funds to be contributed to the Community Enhancement Fund by HOGWFPL will be administered in accordance with the following principles:

(i) a suitable governance framework proposed under the Section 355 Community Committee guidelines will be established prior to the first wind turbine commissioned on the Project site becoming commercially operational, to ensure a committee consisting of the Council, HOGWFPL and community representatives can be formed that meets the Councils' requirements for transparency, accountability and probity in respect of the use and dissemination of the funds;

(ii) it will be acknowledged that the funding will be dedicated within the first 5 years to projects or initiatives that are considered to enhance the communities which may be impacted by the Project, following which the funding guidelines will be reviewed by the relevant committee as may be required;

(iii) the committee will determine the finer details of project eligibility, community representation and other mechanics following the approval of the Development Application, however, it will be acknowledged that consideration must be given to both the cost of any long-term obligations on Upper Hunter Shire Council and the opportunity to fund long-term strategic initiatives brought forward by the community; and

(iv) HOGWFPL will provide an additional, fixed contribution of $5,000 per annum to cover the costs incurred in respect of the appointment of an independent chairperson, annual auditing and administration of the Community Engagement Fund (the "Administrative Funds"), with such Administrative Funds to be payable at the same time as the other HOGWFPL contributions to the Community Engagement Fund.

(d) The amount of the contributions by HOGWFPL to the Community Enhancement Fund and the additional Administrative Funds will be adjusted on an annual basis to reflect any change in the Consumer Price Index from the Consumer Price Index in effect as at the date of approval of the Development Application.

2. **Construction Community Funding:** HOGWFPL commits to establishing a one-off fund of $150,000 upon the commencement of construction of the Project to provide funds to communities who may be impacted by the

construction activities of the Project (including the Upper Hunter Shire Council and Tamworth Regional Council communities) to put towards HOGWFPL-initiated community projects, including support for sports and academic scholarships to local schools to support interstate trips and competitions and community engagement days associated with Project construction milestones (for example, upon delivery of the first turbine blade), with the application of such funds to be applied by HOGWFPL in its direction during the construction phase of the Project.

For the avoidance of doubt, the revised offer contained in this letter is reflective of, and not in addition to, the commitments made in respect of the establishment of a community enhancement fund in the Development Application and is made in replacement of any previous offer made to Upper Hunter Shire Council.

If the above offer is acceptable to Upper Hunter Shire Council, please sign where indicated below to confirm such acceptance. Once signed, a copy will be provided to the Department of Planning for inclusion of the relevant commitments by HOGWFPL in the Project's Statement of Commitments.

We look forward to hearing from you and would welcome any further discussion in respect of any remaining queries.

Yours sincerely,

DocuSigned by:

Andrew Kerley
General Manager – Asset Development

ACCEPTANCE BY UPPER HUNTER SHIRE COUNCIL:

Subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters (and to the approval of the Development Application), Upper Hunter Shire Council hereby confirms its acceptance of the terms contained in this letter.

Signed for and on behalf of **Upper Hunter Shire Council** by:

_____

Signature

_____

Name (please print)

_____

Position (please print)

APPENDIX A – Indicative Wind Turbine Layout

70 WTG	LGA	X-Coordinate (GDA94/MGA Zone 56)	Y-Coordinate (GDA94/MGA Zone 56)2
WP1	UHSC	316190.846	6502649.423
WP2	TRC	316660.033	6502869.954
WP3	TRC	317061.845	6502922.861
WP4	TRC	317449.239	6502903.104
WP5	TRC	317646.578	6503320.59
WP6	TRC	317817.553	6503696.303
WP7	TRC	317184.441	6502322.26
WP8	TRC	317588.545	6502126.598
WP9	UHSC	317453.026	6501426.236
WP10	TRC	317732.464	6501347.185
WP11	TRC	318250.898	6501255.867
WP12	TRC	319102.057	6501480.181
WP13	TRC	318924.1	6501258.676
WP14	TRC	318777.791	6501032.549
WP15	TRC	319341.128	6500599.035
WP16	TRC	320042.268	6500328.808
WP17	TRC	320736.01	6500326.421
WP18	TRC	321007.066	6499684.836
WP19	TRC	321513.273	6498815.938
WP20	UHSC	323082.517	6499076.731
WP21	TRC	323138.002	6499550.962
WP22	TRC	323095.633	6499977.322
WP23	UHSC	323198.929	6497537.828
WP24	UHSC	323308.03	6498134.149
WP25	UHSC	323580.758	6498725.926
WP26	UHSC	323545.962	6499107.037
WP27	UHSC	324703.502	6497555.803
WP28	UHSC	324612.564	6498100.249
WP29	UHSC	324632.3	6498514.803
WP30	UHSC	324229.061	6498998.423
WP31	UHSC	325872.662	6498217.873
WP32	UHSC	325818.826	6498681.887
WP33	UHSC	325257.989	6499019.076
WP34	TRC	323773.148	6499406.095
WP35	TRC	324341.665	6499321.566
WP36	TRC	324635.236	6499495.047

WP37	TRC	324927.945	6499682.672
WP38	TRC	325216.988	6499831.368
WP39	TRC	325542.572	6499948.689
WP40	TRC	325908.197	6500088.913
WP41	TRC	326393.749	6500561.993
WP42	TRC	326467.498	6500880.587
WP43	TRC	326624.181	6501222.002
WP44	TRC	326929.625	6501399.61
WP45	TRC	327248.683	6501519.799
WP46	TRC	327153.191	6502076.909
WP47	TRC	327034.8233	6502705.019
WP48	TRC	326439.481	6502905.657
WP49	TRC	326079.134	6503433.761
WP50	TRC	325789.146	6503901.545
WP51	TRC	325975.227	6504359.619
WP52	TRC	326001.772	6504778.277
WP53	TRC	325887.628	6505288.792
WP54	TRC	325995.059	6505707.101
WP55	TRC	326064	6506091.801
WP56	TRC	325597.428	6506290.322
WP57	TRC	325618.03	6506644.815
WP58	TRC	325468.553	6507176.882
WP59	TRC	325632.774	6507482.547
WP60	TRC	325827.066	6507813.573
WP61	TRC	326056.198	6508201.729
WP62	TRC	326035.871	6508550.506
WP63	TRC	325787.51	6508927.482
WP64	TRC	326518.5	6508699.386
WP65	TRC	327050.469	6508701.461
WP66	TRC	327215.065	6508969.014
WP67	TRC	327184.579	6509402.788
WP68	TRC	327366.554	6509622.758
WP69	TRC	327737.176	6509901.339
WP70	TRC	327921.575	6509330.633

Amanda Antcliff

From: Allyn Purkiss [redacted]
Sent: Friday, 3 September 2021 2:59 PM
To: Amanda Antcliff
Cc: Phillip Brunsdon; Steve Prior; Heath Stimson; Alan Bawden
Subject: RE: Hills of Gold Wind Farm - Devils Elbow transport route

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Amanda,

Thank you for the offer & yes we would be interested in being able to access.

Happy to chat a bit closer to the date & work out details of how to access, etc.

Thanks for the offer.

Regards,

Allyn

Superintendent Allyn Purkiss | Manager | Tamworth
NSW RURAL FIRE SERVICE

From: Amanda Antcliff [redacted]
Sent: Thursday, 2 September 2021 3:47 PM
To: Allyn Purkiss [redacted]
Cc: Heath Stimson [redacted] Alan Bawden [redacted] Jamie Chivers [redacted] Tim Mead [redacted] Murray Curtis [redacted] Joanne Woodhouse [redacted]
Subject: RE: Hills of Gold Wind Farm - Devils Elbow transport route

Hi Allyn,

Thanks for your email below.

To clarify, the proposed Devil's Elbow bypass track would be a private bypass with restricted vehicular access, however the Project is happy to provide RFS with ongoing access if this is of use to your organisation.

Can you please clarify if this would be useful to RFS if this were to occur?

Thanks
Amanda

Consultant Director

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PO Box 803, Newcastle NSW 2300 |
[redacted] | **W** www.erm.com

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From: Allyn Purkiss [redacted]
Sent: Wednesday, August 25, 2021 3:29 PM
To: Amanda Antcliff [redacted]
Cc: Heath Stimson [redacted] Alan Bawden [redacted]
Subject: FW: Hills of Gold Wind Farm - Devils Elbow transport route

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon Amanda,

The NSW Rural Fire Service Tamworth District, has no objections to the proposed straightening of Barry Road at the location known as 'Devils Elbow'.

Note: This is a public road so Tamworth Regional Council should be consulted, and the straightened section runs over Forestry Corporation of NSW land so they will need to be consulted as well.

Any construction work that causes the closure of Barry Road during the Bush Fire Danger period, (1st October - 31 March. Note these dates could change) should be closely consulted with the residents of Hanging Rock village and surrounding properties, as well as the Rural Fire Service. This road is one of the main escape routes if the Village was to come under a Bush Fire attack. The Hanging Rock residents will have to adjust their Bush Fire Survival plans if this road was to be closed during that period.

When a bushfire occurs in the Hanging Rock area, this road becomes a main supply route for reinforcements & logistics for the Rural Fire Service and other agencies.

Thank you for allowing us to give feedback on the proposal.

Regards,

Allyn

Superintendent Allyn Purkiss | **Manager** | **Tamworth**
NSW RURAL FIRE SERVICE
19-23 Lockheed St, Tamworth, NSW, 2340 | PO Box 7131, New England MSC, NSW, 2348
[redacted]
www.rfs.nsw.gov.au | www.facebook.com/nswrfs | www.twitter.com/nswrfs
PREPARE. ACT. SURVIVE.

From: Alan Bawden [redacted]
Sent: Monday, 23 August 2021 3:54 PM
To: Liverpool Range [redacted]
Cc: Margaret Kitchner [redacted] Paul McGrath [redacted]
Subject: FW: Hills of Gold Wind Farm - Devils Elbow transport route

Good afternoon

NSW RFS PES North has received the below email.

NSW RFS PES previously provided advice to the NSW Planning with respect to the proposed wind farm.

The below enquiry relates to proposed alignment of a public road, outside of the State Significant Development approvals process.

Can the FCC pls liaise and/or respond to the author with any comments.

Regards

Alan Bawden
Supervisor - Development Assessment and Planning
Planning and Environment Services (North)
NSW RURAL FIRE SERVICE
51 Moonee Street Coffs Harbour
Locked Bag 17 GRANVILLE NSW 2142
[redacted]
www.rfs.nsw.gov.au **www.facebook.com/nswrfs** **www.twitter.com/nswrfs**
PREPARE.ACT.SURVIVE

From: Planning & Environment Services [redacted]
Sent: Monday, 23 August 2021 2:47 PM
To: Alan Bawden [redacted]
Subject: FW: Hills of Gold Wind Farm - Devils Elbow transport route

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From: Amanda Antcliff [redacted]
Sent: Thursday, 5 August 2021 9:39 AM
To: Planning & Environment Services [redacted]
Cc: Murray Curtis [redacted] Jamie Chivers [redacted]; Tim Mead [redacted] Alex Henderson [redacted]
Subject: Hills of Gold Wind Farm - Devils Elbow transport route

Hi Alan,

I write in relation to the proposed Hills of Gold Wind Farm (the 'Project') near Hanging Rock, NSW. Environmental Resources Management Australia Pty Ltd (ERM), on behalf of Hills of Gold Wind Farm Pty Ltd seek to engage with NSW Rural Fire Service (RFS) relating to proposed road upgrade works associated with the 'Devil's Elbow', on Barry Road, Hanging Rock.

The Project is proposing to construct a new Devil's Elbow transport route that all Project related oversize-overmass traffic will utilise. The attached figure identifies the proposed alignment of the road. This alignment differs to that originally proposed in the EIS and is based on additional geotechnical, geophysical and further engineering design studies. However, we note that this alignment is still subject to detailed design following development approval. The EIS proposed that the new alignment would be for Project related traffic only.

The Project is currently considering the feasibility and benefits if the new road alignment section were to be available to other road users. The proposed road alignment would remove the existing 'hairpin' on Devil's Elbow, thus providing a safer transport route and improved access to the Ben Halls Gap Nature Reserve, adjacent rural areas and properties and for emergency access.

We are seeking feedback from RFS on whether your organisation would be supportive of the proposed alignment if the road were to be made available for your use.

Kind regards
Amanda

Amanda Antcliff

Consultant Director

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PO Box 803, Newcastle NSW 2300 |
[redacted] | **W** www.erm.com

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APPENDIX D SCHEDULE OF ROAD UPGRADES

Road/Intersection	Upgrade	Timing
Roads Authority: Tamworth Regional Council		
Lindsay's Gap Road over Goonoo Goonoo Creek	Bridge to be replaced or modified to provide access for OSOM vehicles. A trafficable width of 4.6 meters is required.	Prior to use by OSOM vehicles
Lindsay's Gap Road over Middlebrook Creek	Bridge to be replaced or modified to provide access for OSOM vehicles. A trafficable width of 4.6 meters is required.	Prior to use by OSOM vehicles
Barry Road (Devils Elbow Bypass)	Construction of a new private access track approximately 600m in length that bypasses the Devil's Elbow double hairpin to allow access for OSOM vehicles.	Prior to use by OSOM vehicles
Barry Road onto Morrisons Gap Road	Upgrades required to allow access for OSOM vehicles. Refer to [Figure X] for the two access options proposed.	Prior to use by OSOM or heavy vehicles
Morrisons Gap Road	Morrisons Gap Road from Barry Road intersection to site entrance will be widened for the majority of the road. Typically it will need to be widened to a width of 5.5m in all straight sections and wider on the corners with greater width in locations of low sighting distance for road users. Retaining walls to be constructed where required to reduce biodiversity impact. Pavement will be strengthened where necessary. After construction of the wind farm is complete the road will be sealed in consultation with Council.	Prior to use by OSOM or heavy vehicles Post construction

Notes:
1. Road modifications include the minor widenings and relocation of obstacles such as signposts as proposed in the RJA route study.
2. Structural assessments of Council road assets along the final transport route in Muswellbrook Shire will be undertaken prior to use by OSOM vehicles. Council drainage assets will be upgraded to the extent reasonably required to ensure it is structurally adequate and suitable for the expected Project loads

APPENDIX E CIV LETTERS

MULLER partnership
QUANTITY SURVEYORS

1 March 2021

Wind Energy Partners Pty Ltd
Level 33, 525 Collins Street
MELBOURNE VIC 3000

ATTENTION: JAMIE CHIVERS

Dear Jamie,

RE: HILLS OF GOLD WIND FARM
PROPOSED 70 No. 5.5MW WIND TURBINES
CAPITAL INVESTMENT VALUE COMMUNITY RESPONSES

As per your request dated 23rd February 2021 and subsequent video conference discussion (Dated 25th February 2021), Muller Partnership has prepared responses to Community queries based on Muller Partnership's Capital Investment Value Estimate (Dated 2nd November 2021) and enclose our responses for your review.

The attached report comprises the following:

- Disclaimer
- Executive Summary
- Schedule of information
- Capital Investment Value Community Responses

Please note the attached responses have been prepared based on the currently available high-level information and brief meeting with Jamie Chivers of Someva Renewables Pty Ltd. If additional queries / information becomes available Muller partnership recommends a detailed review.

Should you have any queries or require any further information please do not hesitate to contact *Lachlan Hanlon* or the undersigned.

Yours faithfully
MULLER PARTNERSHIP

GRANT MULLER – Chief Executive
GM:LH –20278 Hills of Gold Windfarm

Disclaimer

Muller Partnership have prepared this report in part on the basis of information supplied to it in the ordinary course of business by Mr. Jamie Chivers of Someva Renewables Pty Ltd.

Whilst all reasonable professional care and skill have been exercised to validate its accuracy and authenticity, Muller Partnership is unable to provide any Guarantee in that regard, and will not be liable to any party for any loss arising as a result of any such information subsequently being found to be inaccurate, lacking authenticity or having been withheld.

This report is only intended for use of Someva Renewables Pty Ltd and Muller Partnership accepts no responsibility to other parties who use opinions or information contained herein. They do so at their own risk.

In acting as Quantity Surveyor for Someva Renewables Pty Ltd, Muller Partnership's liability is limited to the scope of services and value limit, as defined in their Professional indemnity insurance cover. A copy is available on request.

This report covers only the items as contained in this report. Should Someva Renewables Pty Ltd require additional items or areas of assessment, these should be specifically requested and will be actioned as agreed between the parties.

The construction costs are current as at the date of this assessment only. The values assessed herein may change significantly and unexpectedly over a relatively short period (including as a result of general market movements or factors specific to the particular property). We do not accept liability for losses arising from such subsequent changes in values.

Document history & status

Revision	Date	Description	By	Review	Approved
0	1/03/2021	Capital Investment Value Estimate Responses	LH	GM	GM

1.0 EXECUTIVE SUMMARY

Project Description

Muller Partnership were engaged by Wind Energy Partners Pty Limited to prepare a Capital Investment Value Estimate for the proposed construction of the Hills of Gold Wind Farm and associated infrastructure approximately 60 km to the south east of Tamworth within the New England region of NSW.

Mr. Jamie Chivers of Someva Renewables Pty Ltd received community feedback from representatives of Hills of Gold Preservation Inc relating to Muller Partnership's Capital Investment Value Estimate (Dated 2nd November 2021).

Having reviewed the provided queries (Refer Schedule of Information) and video conference meeting with Jamie Chivers, Liam Edgeworth and Alex Henderson of Someva Renewables Pty Ltd dated 25th February 2021, Muller Partnership has prepared query responses to the requested items (Refer Appendix A).

2.0 SCHEDULE OF INFORMATION

Muller Partnership has used the following information in compiling our Capital Investment Value Estimate Community Responses:

1. Draft Environmental Impact Statement Chapter 3 provided by Mr. Jamie Chivers of Someva Renewables Pty Ltd and received 10 October 2020.

2. Email & telephone correspondence with Mr. Jamie Chivers and Mr. Liam Edgeworth of Someva Renewables Pty Ltd regarding scope of works (September & October 2020).

3. Hills of Gold Preservation Inc. Query register (Dated 23 February 2021) provided by Sandra Agudelo of Someva Renewables Pty Ltd.

4. Email & Phone correspondence with Mr. Jamie Chivers of Someva Renewables Pty Ltd regarding response feedback (1st March 2021).

5. Brief meeting with Jamie Chivers, Liam Edgeworth and Alex Henderson of Someva Renewables Pty Ltd and Grant Muller, Lachlan Hanlon of Muller Partnership to confirm query list and clarify responses (25th February 2021).

APPENDIX A – CAPITAL INVESTMENT VALUE ESTIMATE RESPONSES

PROJECT: Hills of Gold Windfarm

REVISION: 1

Date: 1.03.2021

MULLER PARTNERSHIP RESPONSES

ITEM	Submission ID	Organisation/ Individual	Submission Comment	Muller Response
43	SE-13746714	Hills of Gold Preservation Inc	Include installation cost for BESS to correctly reflect the total estimated value in the CIV and to comply with the recognition that installation of the BESS to help mitigate risks associated with unserved energy as recommended by AEMO, 2019.	The battery is not designed to take unserved energy as it is understood that the connection is sufficient for all energy from the wind farm. The battery is designed for a subsequent phase of construction hence its forecast cost and will provide stabiltiy to the grid at this point of connection if required. It may also provide smoothed output should that be required in the market. The cost of the battery includes supply and installation as noted in the original report.
44	SE-13746714	Hills of Gold Preservation Inc	Adjust the cost of all excavation works listed in 'Estimate Detail' must be adjusted to reflect rock material with on-site Geotechnical Data provided and amended in CIV.	The assessment was undertaken prior to any geotechnical investigations. The civil cost assumption is not based on detail design but based on average / benchmarked civil cost components as listed in the experience of Muller Partnerships. We believe this is consistent with projects of this nature and the stage of the project.
45	SE-13746714	Hills of Gold Preservation Inc	Update the Estimated cost must be updated upon completion of an onsite assessment of the crane hardstand areas.	The CIV is not intended to be produced upon detailed design which is typically after the DA determination. Provision has been included for hardstands typical of this nature. It should be noted that some hardstands have been included as "Just in Time" which reduces the area required.
46	SE-13746714	Hills of Gold Preservation Inc	Adjust cost to construct the turbine footing must be in line with concrete footing specifications described in the EIS.	The EIS is a worst case and assumes 25m width but will depend on turbine selected, foundation loads, geotechnical investigations amongst other things. It is not unreasonable that the foundation will be 20m dia with average 2m depth given the angular nature of the gravity foundation. The CIV nominated foundation meets the volume requirements of the EIS (500-900m3).
47	SE-13746714	Hills of Gold Preservation Inc	HOGPI members request that the applicant either adjust the Project Specification output to 385MW or adjust the cost 70 wind turbine generators to reflect a minimum output of 6MW per wind turbine generator in the CIV.	Turbine seletion has not been confirmed and there remains consideration of a turbine at 5.5MW with lower impacts than assessed in the development application, which represents a worst case in the EIS but doesn't reflect a decision to use larger turbines. Muller Partnership are comfortable this is a reasonable assumption around the turbine cost and that potential competitive tension may reduce further.
48	SE-13746714	Hills of Gold Preservation Inc	HOGPI members request the applicant to identify and individually itemise all construction costs to each intersection and widening upgrade, blade trespass areas including compensation cost to consented landholders affected by blade trespass to every proposed route in the village of Nundle and Hanging Rock.	Focus on the CIV is not a detailed design assessment of a bill of quantities but a reasonable estimate given the project is still in the planning stages. It should be noted that actual costs following detail design and a competitive tender reflect sensitive intellectual property of bidding tenders and will remain commercial in confidence. Muller have assessed the capital costs consistent with their expertise in similar projects and project components. Muller Partnership are of the view that the report reflects a reasonable overall capital value given the stage of the project and design level available.
49	SE-13746714	Hills of Gold Preservation Inc	HOGPI members request that the applicant must itemise the estimated value of the 48.64km Internal road access to clearly show the cost component (allocated to or otherwise to include) of the "transverse track" identified in the EIS (pg.49) in the CIV.	Item 23 page 8 includes the cost of 48km of roads. EIS states the Transverse Track is included in the 48km of estimated roads '*Internal access road calculation includes internal roads between hardstands, access track form Head of the Peel road to Project Area and transverse track*'. At this stage costing is estimated based on preliminary concept design and estimated requirements. Muller Partnership are satisified these costs are reasonable for the preliminary concept design received and that further optimisation and competitive tension may improve results.
50	SE-13746714	Hills of Gold Preservation Inc	As the "preferred and main access route" with 80% of traffic expected to travel through during the construction period, include the costs of construction to the Devil's Elbow bypass must be included to in estimated cost in the CIV.	The EIS report notes the main access stems from Morrisons Gap Rd and the head of Peel Rd with the requirement of a private access Rd (approx. 48km). The CIV includes all road upgrades, temporary widenings, transport route adjustments and access components for transportation support as per EIS requirements. Muller Partnership recognise the final RAV route will be dependent on further consultation and approval from Transport for NSW, Tamworth Regional Council and private property owners along the route. Muller understands that costs associated with Head of the Peel upgrades are no longer required which overrepresents some of the civil costs estimated.
51	SE-13746714	Hills of Gold Preservation Inc	HOGPI members insist that the above exclusions must be include above exclusions in the CIV in order to satisfy the requirement in Clause 3 of the Environmental Planning and Assessment Regulation 2000.	Muller Partnership notes the CIV satisfies the Environmental Planning and Assessment Regulation 2000 requirements (Clause 3 - Part 1 Preliminary) "Exclusion from definition of development" given the status of the currently available information.

APPENDIX F SOCIO ECONOMIC LETTER

10/09/2021

Hills of Gold Wind Farm Pty Limited
Attention: Hills of Gold Wind Farm Pty Limited
Level 33 525s Collins St
Melbourne, VIC 3000
Australia

Dear Jamie

Re: Hills of Gold Wind Farm – public exhibition comments and update for project size

SGS appreciates having the opportunity to clarify issues and respond to comments from the public exhibition of the Hills of Gold Wind Farm development proposal.

Following on from our discussions, SGS have provided a response to the relevant public exhibition comments for Socio-Economic Impact Assessment and an economic update to forecast jobs and increased direct and indirect economic activity based on the revised project size. Updated assessment has been carried out on the summary of economic impacts and mitigation measures based on updated project commitments and a recent independent local business survey. Based on recent business survey data, there appears to be improvement in sentiment towards the project in light of these project commitments and perhaps the economic consequences of COVID-19 to the tourism sector Nundle has relied upon.

Key points to note:

- SGS is a reputable firm that specialises in economic and urban planning analysis. SGS has significant experience in conducting economic analysis and modelling for both public and private sector clients. SGS approaches it work with a number of values at the forefront, including independence, quality, insight and the public interest.
- The basis for this study was to consider how the local economy would respond if a wind farm were to be developed. Analysis included qualitative (literature reviews and stakeholder consultation) and quantitative (Input/Output modelling) methods.
- SGS has presented a balanced view in relation to a number of areas
- The project has made a number of commitments to reduce traffic impact through Nundle, reduce congestion for existing clients on the Nundle main street, while providing an opportunity for construction workers to access goods and services. An independent survey by C7EVEN confirms majority support from the local business community and additional project commitments are seen as beneficial.
- The layout has changed from 70 turbines to 65 turbines changing the forecast economic outputs from the project. Outputs have been updated in the report.
- Further clarification on the composition of operational jobs splitting those jobs created directly remotely from those likely to be physically attending the project site regularly
- It is noted, in response to submissions received from agencies and key stakeholder groups, a number of transport route changes have been made on the project having an impact on previously assessed impact.

Please find attached our response to the table of comments.

If you have any further questions, please don't hesitate to contact us.

Kind regards,

Ellen Witte

Principal & Partner
SGS Economics & Planning Pty Ltd
Canberra, Hobart, Melbourne, Sydney

The following table summarises key issues raised during the public exhibition and associated responses. An updated report is provided annexed and provides a comprehensive update to the revised assessment.

Item	Submission ID	Public exhibition comment	Response

3	SE-13577884	Modelling that was used to create job numbers is inaccurate and has inflated the proposed job numbers	SGS is a reputable firm that specialises in economic and urban planning analysis. SGS has significant experience in conducting economic analysis, modelling and the development of strategies for both public and private sector clients. SGS approaches it work with a number of values at the forefront, including independence, quality, insight and the public interest.
			
			SGS has used an Input/Output modelling approach (see Chapter 6 of report). It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs.
			
			The job numbers have been updated based on a revised project size and are presented in Chapter 6 of the report in Annexure 2.
			
			The total employment impact from the construction and operation of the wind farm is estimated to be:
			
			▪ 615 Full Time Equivalent (FTE) jobs created *across both years of construction phase*.
			  ▪ 343 FTE jobs in the construction industry
			  ▪ 272 FTE jobs in professional, scientific and technical roles associated with the project.
			▪ Ongoing employment is estimated to increase by 76 ongoing FTE jobs in the professional, scientific and technical industry sector.

Around 80-85% of the economic benefits from will occur in either the Tamworth Regional or in Newcastle City LGAs.

The employment impacts are split by industry and are identified in the table below

EMPLOYMENT BY PHASE, INDUSTRY AND TYPE

	Construction Phase			Operation Phase		
Industry Type	**Direct jobs**	**On-flow jobs**	**Total**	**Direct jobs**	**On-flow jobs**	**Total**
Construction	109	234	343	-	-	-
Professional, Scientific & Technical Services	102	170	272	28	48	76
Total	211	404	615	28	48	76

Source: SGS

A sample of jobs per turbine for 4 other wind farms has been provided in Annexure 1 below. This shows that the construction jobs estimate for Hills of Gold is on par with other examples at about 3 jobs per turbine.

All projects estimate less than one job per turbine during the operational phase. The estimate of 0.43 jobs per turbine for Hills of Gold is based on 28 jobs which are located state-wide, including those located in Sydney. If Sydney jobs are removed, the FTE reduces to 16 (or 0.24 jobs per turbine, in line with comparator projects).

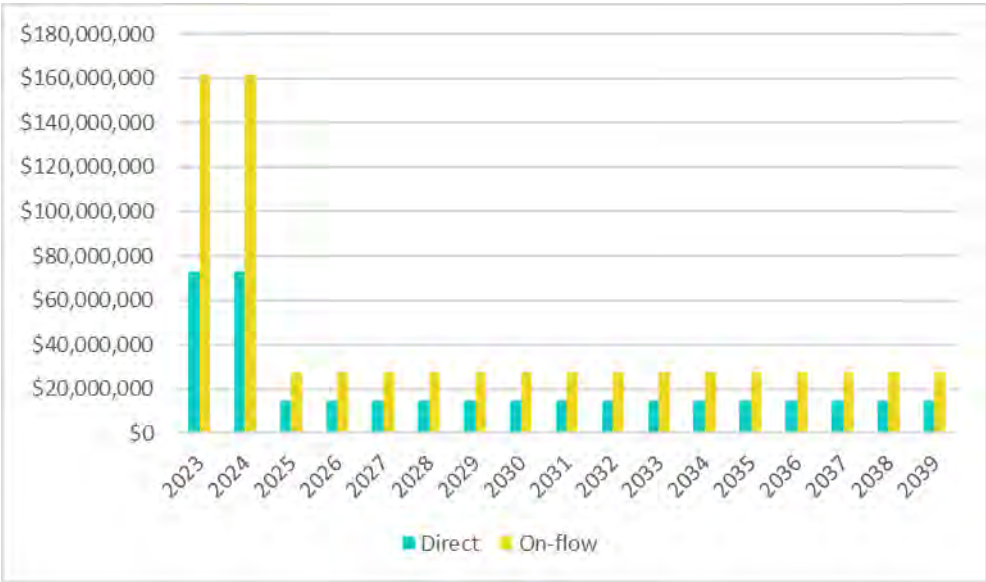
4	SE-13577884	Fossil Fuel generators have a higher employment multiplier than wind farms and therefore there will be a net loss of jobs when fossil fuel plants close	The basis for this study was to consider how the local economy would respond if a wind farm were to be developed. The study was not a comparison between a fossil fuel project and a wind farm project. The multipliers in the Input/Out model were related to jobs specifically for industries of this nature (construction).

			As identified in the policy review section of the report, developing the renewable energy industry in regional NSW (particularly in NENW region of NSW) is a priority for the NSW Government and local council. State and local government policies and strategies support this (see Chapter 3 of report). The proximity of the Hills of Gold site to the Hunter Valley may create opportunities for job transition.
5	SE-13577884	Operational jobs will be done remotely with turbine manufacturers and local employees will not be on site	The operational jobs presented in the report are based on operating expenditure into the domestic economy. Jobs may be created away from site, but also on-site. The report states that about 10-20% would be in Nundle, 30-40% would be in surrounding LGAs, and the balance in the rest of NSW (page 75). For example, jobs could be in finance and accounting located elsewhere in NSW. It is expected that there will be permanent on-site jobs required to maintain safe operation of the project, for example technicians, administrators, health and safety staff. Sensitivity testing indicates operational jobs are likely to be between 12 and 48 (more likely towards the lower estimate of 12 jobs due to the local Nundle area having an economy which would have many 'leakages', for example, the need to import good and skills).
6	SE-13577884	Negative Impact on Non-renewable jobs not assessed	This is not required as part of the SEARs, and the base case for this study is not a fossil fuel case.
7	SE-13577884	Impact of Wind Farms on life stylers and land valuation	As part of Chapter 4: Literature Review, the report discusses impact on property prices (see page 47). Four international studies were considered (UK, USA, and two English and Welsh studies), and references were made to the Centre for Sustainable Energy report and CSIRO report. The literature review suggests the impact on property prices is mixed. Impact is dependent on distance and angle of view to turbines from the property. In general,

			some of the studies indicate there is no direct relationship between turbine and housing prices. It was also identified that this area of work requires more research and investigation in general. Throughout the report, references are made to the Community Enhancement Fund and how it could benefit the local community.
10	SE-13579969	Operational jobs creating 1.77 additional flow on new time jobs is a concern	SGS has used an Input/Output modelling approach (see Chapter 6 of report). It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs. The model uses construction industry multipliers to inform outputs. The model has been updated for the revised project size. The addition value-add (e.g. wages and profits) produced by the project directly is shown in Figure 1. It can be seen from the data in this graph the project is expected to produce around $73M per year in direct value-add during the construction phase and $15.3M per year during operation. The on-flow value add is worth $161M per year in the construction phase and about $27.5M per year during operation. To provide some context to this number, the broader regional economy is worth $5.2 billion[1].

[1] Local Government Areas of Tamworth Regional, Gunnedah and Liverpool Plains.

FIGURE 1: VALUE-ADD DIRECT AND ON-FLOW BY YEAR



As described on page 71, on-flow jobs can include the person that prepares a meal for a wind farm worker, or the butcher or grocer who has provided the produce that goes into making the meal for the wind farm worker. Therefore, on-flow jobs can be geographically widespread. As stated in the report, 80-85% of the economic benefits are expected to flow to Tamworth LGA or Newcastle City LGA. Therefore, it can be assumed that many of the projected 404 construction on-flow jobs and 48 operational on-flow jobs will be based in the wider economy and will not put pressure on Nundle alone.

41	SE-13746714	Require the proponent to better assess the socio-economic impacts the project will have on the existing and future tourism market, focusing particularly on visual amenity and traffic/transport.	The Socio-Economic Assessment presents a balanced view on the impact to tourism. In Chapter 2, SGS has included tourism data for each of the three LGAs. The data establishes how many tourism associated businesses there are in each LGA; the main purpose of trips to the LGAs and describes the type of events and sights visitors may be viewing (noting available tourism data for Liverpool Plains Shire was minimal). It is stated in the report that the data shows there are more visitors coming to Tamworth LGA and Upper Hunter Shire LGA for 'holiday' purposes than 'visiting friends and family' (as a percentage). The conclusion is then drawn that there may be a tourism market that is coming to the region to view sights and have a holiday and that for this reason, additional tourism attractions (like a wind farm) may be of value to the region. It is noted in the text that the Tamworth Music Festival is the likely drawcard that is bringing visitors to the region. In the literature review (Chapter 4), a balanced position is presented in relation to the impact a wind farm can have on the local tourism market – ie: acknowledging that a wind farm development may result in both positive and negative impacts. Information from the Glen Innes Tourism Centre indicates that there is 'genuine interest' and that 'wind farms as a tourism product benefit and can engage local economies' based on their experience of travellers coming in and asking for information on the surrounding wind farms. This relies on a strong relationship with the wind farm operator and supportive tourism initiatives. References in the report demonstrate the mixed response domestic and international stakeholders have expressed when considering the impact of a wind farm on the local tourism market. Several references are used including the CSIRO report, a Czech, German, Portuguese and Scottish study.

			The potential for both positive outcomes (eg: the Czech study where more than ¾ of those interviewed felt the wind farm did not have a negative impact on their experience) and negative outcomes (eg: CSIRO report identifies there is potential for conflict with nature-based tourism; the Portuguese study identified that locals were critical of the resulting contrast in the landscape) were outlined literature review. Findings from the consultation, in relation to tourism, are also presented in the report (see page 62-3). The report suggests the local Nundle community also presented a mixed view on the potential impact of the wind farm on local tourism. The report included stakeholder comments where: - Two respondents felt the natural setting/view would be negatively impacted. - Two respondents felt the construction phase may lead to negative impacts on the tourism industry. Presenting both the potential for positive and negative impacts on the tourism market, it is felt that the Socio-Economic Assessment has presented a fair and realistic view on potential outcomes that could result from a wind farm development. The Traffic and Transport Report states that when '*V/C ratios approach 0.9, this is when traffic flow would become significantly interrupted*' (see p. 20). However, the findings from the study states that when '*traffic volumes are added to the existing traffic volume that there would be adequate capacity in the road network with V/C ratio of less than 0.20 and Level of Service of B or better on all roads in the peak of construction. During the operational period, the V/C ratios would be less than 0.09 on all roads' (*see p.92).

			This finding suggests it is likely tourism traffic would not be significantly impacted by construction/operational traffic for the wind farm. Like the Landscape & Visual Impact Assessment, the Socio-Economic Impact Assessment acknowledges that the landscape will visibly change with the development of a wind farm. The Landscape & Visual Impact Assessment concludes '*it is likely the character of areas which are valued for their high landscape quality and utilised for recreation and tourism will remain intact'* and that regionally significant landscape features would remain as the dominant features of the landscape (see p.66). This finding suggests the landscape is likely to retain value for tourism purposes and is likely to still attract visitors to the area.
42	SE-13746714	Require proponent to reassess the Visiting Friends and Relative (VFR) in their Socioeconomic analysis to correct misinterpretation. VFR is a strong market segment to Destination Tamworth and Country Outback NSW.	For Tamworth LGA, Upper Hunter Shire LGA, and Liverpool Plains LGA – tourism data was included in the socio-economic profiling section (see Chapter 2). Visit NSW and Tourism Research Australia datasets were used. For example, in the case of Tamworth LGA, the reference to Visiting Friends and Relatives (VFR) data was expressed as: '*Approximately 39% of trips to the LGA were attributed to holiday purposes, greater than the 30% for visiting friends and relatives. This indicates there is a small tourist market that is coming to the region to explore and see sites. Additional tourism attractions to cater to these visitors may be of value to the region'.* For Upper Hunter Shire, the data was expressed as: '*Approximately 55% of trips were estimated to be for holiday, while 45% was for visiting friends and relatives'*. The summary statements are simply indicating that both Tamworth LGA and Upper Hunter LGA have more visitors coming to the region for the purpose of 'holiday' than 'visiting friends and relatives'.

			The summary statements are not aiming to diminish the presence or value of the VFR segment to the region. It is simply describing, as per the data suggests, more people come to the region for 'holiday' purposes.
67	SE-13746714	Be transparent with the Nundle and Hanging Rock community regarding construction and ongoing jobs estimates.	SGS is a reputable firm that specialises in economic and urban planning analysis. SGS has significant experience in conducting economic analysis, modelling and development of strategies for both public and private sector clients. SGS approaches it work with a number of values at the forefront, including independence, quality, insight and the public interest. SGS has used an Input/Output modelling approach. It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs. Further clarity is provided that the updated Hills of Gold direct jobs created is based on 28 jobs which are located state-wide, including those located in Sydney. If Sydney jobs are removed, the FTE reduces to 16 expected to be working on the project site.
68	SE-13746714	Request a member of the Socio-Economic Impact Assessment team visit Nundle and Hanging Rock.	SGS's project submission (early 2020) included *Consultation with stakeholders (Task 3*). The task description stated SGS would: 'consult with the local stakeholders to better understand the current economic and social functioning of the area.' SGS provided for one trip to Nundle and Tamworth to meet stakeholders. Follow up phone calls were to be made to any stakeholder who might be unavailable during the visit.

			SGS had planned to travel to the region on the 25 and 26 March 2020. Stakeholders were contact and asked if they were comfortable to have an in-person interview given the status of COVID at the time. However, due to the rapid acceleration of COVID in Sydney, it was decided that it would be unsafe to travel to the regions at this time. This was discussed with the client. In addition, the Australian and NSW governments in general had also started placing restrictions on movement from this time. Therefore, stakeholders were contacted again, and it was explained that consultation would be undertaken by a Principal and Consultant Planner via video conference or phone. Eleven interviews were held between late March and early April with people from the local community. Follow up emails were provided to those interviewed. The email included a dot point summary to show how their comments had been captured, and to give stakeholders the opportunity to clarify their comments.
69	SE-13746714	Provide construction and ongoing jobs estimates based on wind industry precedence.	SGS has used an Input/Output modelling approach (see Chapter 6 of report). It is a statistical method that is based on the structure of the economy and relationships between industries. The model is used to understand the supply chain of different types of purchases and how money flows through the economy. The job number outputs from this model are inclusive of direct and indirect jobs. The model uses construction industry multipliers to inform outputs. A sample of jobs per turbine for 4 other wind farms has been provided in Annexure 1 below. This shows that the construction jobs estimate for Hills of Gold is on par with other examples at about 3 jobs per turbine. All projects estimate less than one job per turbine during the operational phase. The estimate of 0.43 jobs per turbine for Hills of Gold is based on 28 jobs which are located state-wide, including those

			located in Sydney. If Sydney jobs are removed, the FTE reduces to 16 (or 0.24 jobs per turbine, in line with comparator projects).

ANNEXURE 1: JOBS PER TURBINE COMPARISON

Project	Hills of Gold, NSW	Willogoleche, SA	Hallett, SA	Ararat, VIC	Mount Emerald, QLD
Number of turbines	65	32	167	75	53
Construction Phase FTE jobs (direct)	211 *Approx. 3.2 jobs per turbine*	94 *Approx. 2.9 jobs per turbine*	The website states 'During the development and construction of the wind farms peak employment was 433'. *Using 433 jobs as a basis – the project had approx 2.6 jobs per turbine*	The website states 'During the height of the construction period *more than* 350 FTE personnel were employed on the project'. *Using 350 jobs as a basis – the project had approx 4.7 jobs per turbine*	The website states during construction, the project resulted in *more than* 200 jobs. Using 200 jobs as a basis – the project had a*pprox 3.77 job per turbine*
Operation Phase FTE jobs (direct)	28 *Approx. 0.43 jobs per turbine**	6 *Approx. 0.19 jobs per turbine*	36 *Approx 0.22 jobs per turbine*	10 *Approx 0.13 jobs per turbine*	15 *Approx 0.28 jobs per turbine*

Sources: Willogoleche – email correspondence with Someva; Hallett - https://www.agl.com.au/about-agl/how-we-source-energy/hallett-wind-farms; Ararat – https://www.ararat-windfarm.com/benefits/; Mount Emerald - http://mtemeraldwindfarm.com.au/, http://mtemeraldwindfarm.com.au/Files/Mt%20Emerald%20Wind%20Farm%20posters/new/A4_3_MEWF_Jobs_no%20outlines.pdf

*Job numbers for the study were generated based on expenditure data provided by the client. Job/output ratios used were derived from the ABS (https://www.abs.gov.au/statistics/industry/industry-overview/australian-industry/latest-release). The comparison provided above for Operational Phase FTE jobs (direct) is higher than other projects at 0.43 jobs per turbine. The 28 FTE jobs are state-wide jobs, including those located in Sydney. If the Sydney jobs are removed, the direct FTE jobs per year of operation would fall to 16 (or 0.24) which is in line with other projects.

ANNEXURE 2: UPDATED REPORT

APPENDIX G COUNCIL LETTER OF OFFERS

Gina Vereker
Tamworth Regional Council
Ray Walsh House, 437 Peel Street
Tamworth NSW 2340
Via email

14 July 2021

Dear Gina

Revised Offer – Voluntary Contributions from Hills of Gold Wind Farm Pty Ltd for Annual Community Enhancement Funds

Thank you to you and your colleagues for your time on 30 June 2021 to discuss our letter dated 19 May 2021 regarding a voluntary contribution to a proposed community enhancement fund in respect of the Hills of Gold Wind Farm (the "**Project**"), which is the subject of Development Application Number SSD-9679 (the "**Development Application**") .

Further to our discussions, we confirm that the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("**HOGWFPL**"), is willing to accept the suggested amendments to the community enhancement fund and to make the following revised offer to Tamworth Regional Council in respect of the Project (subject only to the execution of a voluntary planning agreement or similar agreement acceptable to the parties to formalise these matters, on terms acceptable to each party, and to the approval of the Development Application):

1. **Community Enhancement Fund:**
   (a) HOGWFPL will establish a dedicated community enhancement fund to be administered by the Tamworth Regional Council for the benefit of members of the community who may be impacted by the Project ("**Community Enhancement Fund**").

   (b) HOGWFPL will maintain its previous offer to increase the amount of funds per turbine to be provided to the Community Enhancement Fund administered by, and shared on a merit basis to applicants within, the Tamworth Regional Council by contributing AUD$3,000 per turbine, per annum, in respect of those Project turbines within the Tamworth Regional Council Local Government Area, with such amounts to be payable to the Community Enhancement Fund on an annual basis on and from the date on which

the first wind turbine commissioned on the Project site becomes commercially operational and continue each year thereafter for the life of the Project.

For indicative purposes only, the current list of proposed turbines is set forth in Annexure A and includes the coordinates and the LGA in respect of the location of each proposed turbine.

(c) Following consultation with the Tamworth Regional Council, the funds to be contributed to the Community Enhancement Fund by HOGWFPL will be administered in accordance with the following principles:

(i) Tamworth Regional Council will nominate a respected local person with neutral views on the Project to act as the independent chairperson of the Community Enhancement Fund for the first 5 years of the administration of the Community Enhancement Fund;

(ii) a suitable governance framework will be primarily adapted from existing Section 355 Community Committee guidelines and the operating manual (where relevant), or other appropriate guidelines as agreed between the parties. The framework will otherwise be consistent with the Tamworth Regional Council's Community Committee Operating Manual 2020 and will utilise its existing administrative and finance templates already in use in respect of other community committees;

(iii) HOGWFPL will provide all reasonable assistance to the Tamworth Regional Council in respect of the establishment and early operation of the Community Enhancement Fund to ensure committee roles and responsibilities, committee establishment and voting rules are customised to ensure the simple and effective operation of the Community Enhancement Fund;

(iv) a Community Enhancement Fund Committee will be established prior to the first wind turbine commissioned on the Project site becoming commercially operational to ensure a committee consisting of Tamworth Regional Council, HOGWFPL and volunteer community representatives can be formed that meets the Tamworth Regional Council's requirements for transparency, accountability and probity in respect of the use and dissemination of the funds;

(v) the community representatives of the Community Enhancement Fund will be elected volunteers from the community;

(vi) HOGWFPL will provide an additional, fixed contribution of (i) $10,000 for the first year upon establishing the Community Enhancement Fund, and thereafter (ii) $5,000 per annum, to cover the costs incurred in respect of the appointment of an independent chairperson, annual auditing and administration of the Community Engagement Fund (the "**Administrative Funds**"), with such Administrative Funds to be payable at the same time as the other HOGWFPL contributions to the Community Engagement Fund; and

(vii) the Community Enhancement Fund Committee will determine the finer details of project eligibility, community representation and other mechanics following the approval of the Development

Application, however, it will be acknowledged that consideration must be given to both the cost of any long-term obligations on Tamworth Regional Council and the opportunity to fund long-term strategic initiatives brought forward by the community.

(d) The amount of the contributions by HOGWFPL to the Community Enhancement Fund and the additional Administrative Funds will be adjusted on an annual basis to reflect any change in the Consumer Price Index from the Consumer Price Index in effect as at the date of approval of the Development Application.

2. **Construction Community Funding:** HOGWFPL commits to establishing a one-off fund of $150,000 upon the commencement of construction of the Project to provide funds to communities who may be impacted by the construction activities of the Project (including the Upper Hunter Shire Council and Tamworth Regional Council communities) to put towards HOGWFPL-initiated community projects, including support for sports and academic scholarships to local schools to support interstate trips and competitions and community engagement days associated with Project construction milestones (for example, upon delivery of the first turbine blade), with the application of such funds to be applied by HOGWFPL in its direction during the construction phase of the Project.

3. **External Legal Fees:** HOGWFPL will cover the cost of external legal fees that are incurred by Tamworth Regional Council in negotiating the voluntary planning or similar agreement (as contemplated by this letter of offer), up to a maximum of $10,000 (excluding GST).

We look forward to hearing from you and would welcome any further discussion in respect of any remaining queries.

Yours sincerely

DocuSigned by:

AF16F5455796434...

Andrew Kerley
General Manager – Asset Development

ACCEPTANCE BY TAMWORTH REGIONAL COUNCIL:

Subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters and to the approval of the Development Application, Tamworth Regional Council hereby confirms its acceptance of the terms contained in this letter.

Signed for and on behalf of **Tamworth Regional Council** by:

Signature

Name (please print)

Position (please print)

Contact Name: [redacted]
Contact No:
Our Ref: OUT-3764/21

UPPER HUNTER SHIRE COUNCIL

1 July 2021

Engie
Level 33, Rialto South Tower
525 Collins Street
MELBOURNE VIC 3000

Attention: Andrew Kerley

Dear Andrew,

Hills of Gold Wind Farm – Offer to enter into Voluntary Planning Agreement

We refer to your letter dated 19 May 2021 regarding your revised offer to enter into a Voluntary Planning Agreement (VPA) with Upper Hunter Shire Council.

Council, at its meeting held on 28 June 2021, considered your revised offer and resolved the following:

That Council accept the offer from Hills of Gold Wind Farm Pty Ltd to enter into a Voluntary Planning Agreement (VPA) based on an annual contribution of $3,000 per turbine (indexed to CPI) towards a Community Enhancement Fund and a fixed contribution of $5,000 per annum (indexed to CPI) to cover administrative costs.

Please find attached, the signed acceptance of your offer.

Should you have any questions, or wish to discuss this matter further, please contact Council's Director Environmental & Community Services, Mathew Pringle, on [redacted]

Yours faithfully

Mathew Pringle
DIRECTOR ENVIRONMENTAL & COMMUNITY SERVICES

muswellbrook shire council

Enquiries
Please ask for [redacted]
Direct
Our reference
Your reference

29 August 2021

Alex Henderson
Team Leader Energy Assessments
Hills of Gold

Dear Mr Henderson,

Hills of Gold Windfarm Project – Muswellbrook Shire Council Route requirements

Further to our recent discussions I confirm that the preferred route for all proposed OSOM loads is via **Thomas Mitchell Drive, Bengalla Link Road, Wybong Road East and Kayuga Road**.

Given Wybong Road East and Kayuga Road were not constructed to contemplate these types of loads and vehicles Council will require the applicant for the Hills of Gold wind farm to complete the following:

1. Route Assessment

A portion of the requested proposed route along Wybong Road East is currently load limited to 12 tonnes and is not currently part of the Shire's Mine Affected Road Network. A Detailed Route Analysis considering road furniture, geometry, load limits, safe sight distance, private property and Council road impacts, turning circles by a suitably experienced and practicing consultant is to be provided to Council, including:

- Written consent of the private property owners along the route in the case where their land will be impacted, including any written correspondence between parties and contact information;
- A joint dilapidation survey with Council is to be conducted in accordance with the requirements detailed on Annexure A (below) and submitted for Council's acceptance, for the route including inspection of all drainage structures and road surfaces; and
- Structural assessment of all drainage structures along the proposed route that has not had a recent condition assessment with proposed design loads exceeding existing load compliant traffic along the proposed road route.

2. Transport Management Plan

In order to assess the proposal, Council requires further details relating to the timing, frequency and proposed size and loading of vehicles, and the overall time frame for completion of movements. Council also requires the proposed starting date for transport movements through the Shire.

A Transport Management Plan is to be submitted to Council for the route by a suitably experienced and practicing consultant showing:

i. Distribution and number of loads, including frequency per week, expected time of travel, standard axle design loads, total vehicle widths and lengths, proposed route;
ii. Traffic Management Plan for the route, including use of wide swept paths across private property, movement and replacement of identified road

furniture to prevent short-cuts by the community, pull-over bays for road furniture interchanging;

iii. Proposals for any details of any intersection upgrades through private property;
iv. Consider and determine any impacts to existing school bus routes;
v. The current plans for replacement of Rosebrook Bridge and how timing of this re-construction may coincide with the wind farm, and the ability of OSOM vehicles to utilize the intended side-track that will be in place during construction;
vi. Vertical geometry for clearances of long loads to be considered, including any side-track;
vii. Details of the pilots to be provided as part of the S138 permit stage; and
viii. Applicant to fund the cost of hiring a Council Traffic Observer for the duration of the project to follow OSOM transport through Council's municipality during operations.

3. Road Improvements

Wybong Road East from the intersection of Overton Rd to the intersection with Kayuga Rd is currently unsuitable for OSOM loads and requires upgrades to the road and structures along the route to support the proposed movements. This portion of road is to be upgraded to the below standard:

i. Road widths – RS2M Standard requirement, which means 2 x 3.5m lanes, 2 x 1.0m sealed shoulder and 2 x 2.0m unsealed shoulder (3.12km length), pavement design to be provided and accepted to Council's satisfaction.
ii. Under the S138, road pavement design to be provided based on 22.32 x 10^6 axle, CBR min 4%

Any works or maintenance on Council Public Roads is subject to application for an S138 of the Roads Act permit and will be required to be prepared and delivered in accordance with the conditions of the S138 permit.

Any works or maintenance on State or Federal Public Roads to be prepared and delivered in accordance with an ROL permit with TfNSW.

4. Road Maintenance

The applicant will need to enter a formal maintenance management plan as part of the S138 permit for Council roads along the route for the entire duration of the project, to Council's written satisfaction including:

1. The maintenance management plan will be based on TfNSW M3 Maintenance Plan (see proforma example attached);
2. Maintenance work will be coordinated to Council's satisfaction including timing and day/night work;
3. Dilapidation survey of the route to be undertaken every twelve weeks of the project and provided to Council;
4. A Bank Guarantee will be required for the period of the project plus six months to cover any damage determined by Council's reasonable opinion, and dilapidation surveys, to have occurred as a result of the OSOM transported loads for the project; and
5. An Indemnity Deed Poll to be provided for emergency works to any assets that may suffer damage during the project.

5. *Communication*

The applicant will need to enter a formal community consultation management plan for the entire duration of the project, to Council's written satisfaction including:

The community consultation management plan is to be developed in consultation with Council including but not limited to:

i. Monthly meetings with Council staff to discuss progress, issues and community feedback;
ii. Complaints and incident handling procedure including contact details of the applicant;
Identifying residents, businesses, emergency services, school bus and mines (shift change times) and key contacts in these operations and necessary liaising with these road users;
iii. Details of the Transport Management Plan and progress to be included and updated on both the applicant's website as well as Council's website;
iv. Applicant to provide updates to Council with regards to any planned maintenance works and/or upgrades and replacements.

Council staff would be pleased to provide additional information if requested.

I also advise that staff have recently held a meeting with another wind farm proponent who wishes to use the same route for their OSOM vehicles, and that there be further projects in the period up to the opening of the Muswellbrook Bypass. Council staff consider that there would be benefits in a more strategic approach to managing this construction traffic. You may be contacted by another wind farm proponent soon to compile information that Council would put before a number of State Government agencies to initiate discussion this strategic approach.

Yours faithfully

Sharon Pope
Executive Manager Environment and Planning.

Annexure A

Road Dilapidation Survey Requirements

Liaison is to occur with MSC Staff as to what is to be included in the dilapidation survey. This will require a s.138 *Roads Act 1993* approval through MSC. The following matters (at a minimum) need to be addressed in the pre dilapidation survey:
Minimum requirement

1. Visual Condition Assessment (Automated Road Analyser – ARAN) - The visual pavement assessment is to be undertaken by an experienced pavement engineer who will:
   a) Record video of the relevant road section using a GPS camera to document the condition of the existing pavement;
   b) Use the footage to record the location, type and extent of pavement defects and other environmental factors (e.g. drainage) that may be impacting the existing pavement.

The results of the visual assessment will be provided in a section of the pavement assessment report and summarised in table format and to include the following factors:

- Roughness
- Rutting
- Structural Cracking
- Environmental Cracking
- Pot holes
- Pot Patch
- Heavy Patching
- Ravelling
- California Bearing Ratio (CBR)
- Deflection
- Curvature
- AC overlay (mm)
- Granular Overlay (mm)
- Structural Deficiency (mm)
- Pavement Condition Index (PCI)
- Surface Curvature Index (SCI)

The assessment of the existing pavement is to be conducted in accordance with the following design standards and guidelines:

- Austroad Guide to Pavement Technology (AGPT)- Part 2: Pavement Structural Design (2017)
- Austroad Guide to Pavement Technology (AGPT) -Part 5 Pavement Evaluation and Treatment Design (2011)
- Applicable AUSPEC and TfNSW specifications
- Other applicable design standards.

2. Falling Weight Deflectometer (FWD) – Specifically loading 40kN and 70kN need to be applied to the existing pavement at 20m intervals in alternating wheel paths. Subsurface investigations -sufficient number of 300mm (at a minimum) diameter pavement holes would be required to sufficiently assess the pavement and underlying subgrade. Dynamic cone penetrometer (DCP) testing to be performed at each test pit location to assess in-situ density or consistency of subsurface material. The test locations are to be recorded by a GPS unit with typical accuracy

of +/- 10m) in MGA format, together with description of locations relative to the pavement.

Samples of pavement and subgrade are to be tested at a NATA registered laboratory for the following geotechnical testing:

- Subgrade
  i) 3 No. Standard compaction and CBR
- 3 No. moisture content pavement
  i) 6 No. Modified compaction and CBR
  ii) 6 No. PSD
  iii) 6 No. moisture content
  iv) 6 No. Atterberg Limits

The above 2 methods are standard investigations to determine the current surface and pavement condition prior to use of the road by construction traffic.

Fiona Plesman
General Manager
Muswellbrook Shire Council
Via email

2 June 2021

Dear Fiona,

Voluntary Contribution from Hills of Gold Wind Farm Pty Ltd

Thank you for your and your team's time on 31 March 2021 to discuss Muswellbrook Shire Council's (MSC) concerns regarding the proposed use of council roads and assets by traffic associated with the Hills of Gold Wind Farm (the "Project") which is the subject of Development Application Number SSD-9679 (the "Development Application").

We appreciated the constructive suggestion of your team to progress an agreement with MSC to address those concerns, specifically those in respect of the proposed use of those council roads and council-owned assets set out in the subsequently provided list in Annexure A (Council Assets).

We confirm we have undertaken further assessment on the alternate route options available based on feedback from MSC. The Project, via its Response to Submission Report, will propose new route options for heavy, oversize / overmass (OSOM) vehicles which will reduce impacts on existing traffic volumes as compared to the initial route proposed. To provide some further detail in this respect, Annexure B provides a summary of estimated OSOM traffic type and volumes by route, as well as a map showing the additional route options. We will continue to engage with MSC as we progress final turbine selection, selection of a logistics contractor and assess the Council Assets to determine the most suitable route option(s).

In the meantime and further to our recent discussions, we confirm that the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("HOGWFPL"), is also willing to make the following offer to MSC in respect of the proposed use of any Council Assets as part of the final route selection (subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters on terms acceptable to each party and to the approval of the Development Application):

1. **Route Assessment and Upgrade Works:**

   (a) HOGWFPL will consult with MSC to determine those Council Assets which require a detailed structural assessment to be undertaken to assess their structural suitability for use by Project OSOM traffic and will engage a suitably qualified, independent expert acceptable to MSC to undertake that structural assessment. Such engagement would be at HOGWFPL's cost, however, we may require reasonable assistance from MSC to facilitate the assessment, in particular, the provision of any existing data on, or previously completed assessment of, those Council Assets.

   (b) If any Council Asset is found by the independent expert to be structurally inadequate for the transport of the expected equipment loads for the Project and that Council Asset is proposed to be used as part of the final transport route for the Project, HOGWFPL will, at its cost (1) upgrade each such Council Asset to the extent reasonably required to ensure it is structurally adequate and suitable for the expected Project loads and consult with MSC to incorporate any reasonable requirements of MSC in respect of such upgrade, and (2) provide, or have its contractor provide, a performance bond in favour of MSC in the form of a letter of credit or bank guarantee to secure its performance of such upgrade works, with such bond to be for a reasonable amount having regard to the cost of the upgrade works and to be provided prior to the commencement of the upgrade works. Any such performance bond would be released upon completion of the upgrade works.

2. **Road Usage Fee:** In addition, HOGWFPL will pay a one-off, road usage fee of $70,000 to MSC upon the commencement of construction of the Project to compensate MSC for any dilapidation which may be caused by the general use of roads within the MSC by traffic associated with the Project. Due to the volume of traffic which already uses roads within the MSC, it will likely be impractical to commission a dilapidation survey which can identify only that dilapidation attributable to Project traffic. Accordingly, the one-off, road usage fee is proposed as an alternative to a dilapidation survey to provide greater certainty to MSC.

If the above offer is acceptable to MSC, please sign where indicated below to confirm such acceptance. Once signed, a copy will be provided to the Department of Planning for inclusion of the relevant commitments by HOGWFPL in the Project's Statement of Commitments.

We look forward to hearing from you and would welcome any further discussion in respect of any remaining queries.

Yours sincerely,

DocuSigned by:

Andrew Kerley
General Manager – Asset Development

ACCEPTANCE BY MUSWELLBROOK SHIRE COUNCIL:

Subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters (and to the approval of the Development Application), Muswellbrook Shire Council hereby confirms its acceptance of the terms contained in this letter.

Signed for and on behalf of **Muswellbrook Shire Council** by:

Signature

Name (please print)

Position (please print)

APPENDIX A – List of Council Assets

Road	Chainage m	Pipe Info		Size mm	Comments
		Pipe/ RCBC	No		
Bengalla Road	350	RCBC	5	2100 x 400	Major Culvert
	695	Pipe	1	300	
	1470-1670	Keys Bridge			Bridge
	2340	RCBC	1	3400 x1800	
	3000	Pipe	1	400	
	3420	Pipe	1	400	
	3830	RCBC	5	3400x1800	Major Culvert
	4260	Rail Overpass			
	4820	Pipe	1	900	
	5131	RCBC	1	800 x 500	
	5440	RCBC	1	2100 x 500	
	5830	Pipe	2	500 x 500	
	6200	RCBC	1	1200 x 770	
	6410	Pipe	4	1650 x 1650	Major Culvert
	6650	Rail Bridge			Bridge - Mt Pleasant loop
	6770	Pipe	1	670	
	8550	Pipe	1	600	
	8900	Pipe	1	600	
	9421	Pipe	1	300	
					Intersection Bengalla Road and Wybong Road
Wybong Road East	9910	Pipe	1	450	
	10140	Pipe	1	450	
	11145	Pipe	1	450	
	11375	Pipe	1	900	
	11869	Pipe	1	450	
	12035	Pipe	1	450	
	12315	RCBC	2	600	
	12955	Pipe	1	1500	
	13120	Pipe	3	1500	
	13440	Pipe	1	450	
	13820	Pipe	1	450	
	14515	Pipe	1	450	
	15045	Pipe	1	600	
	15245	Pipe	1	600	
	15580	Pipe	1	450	

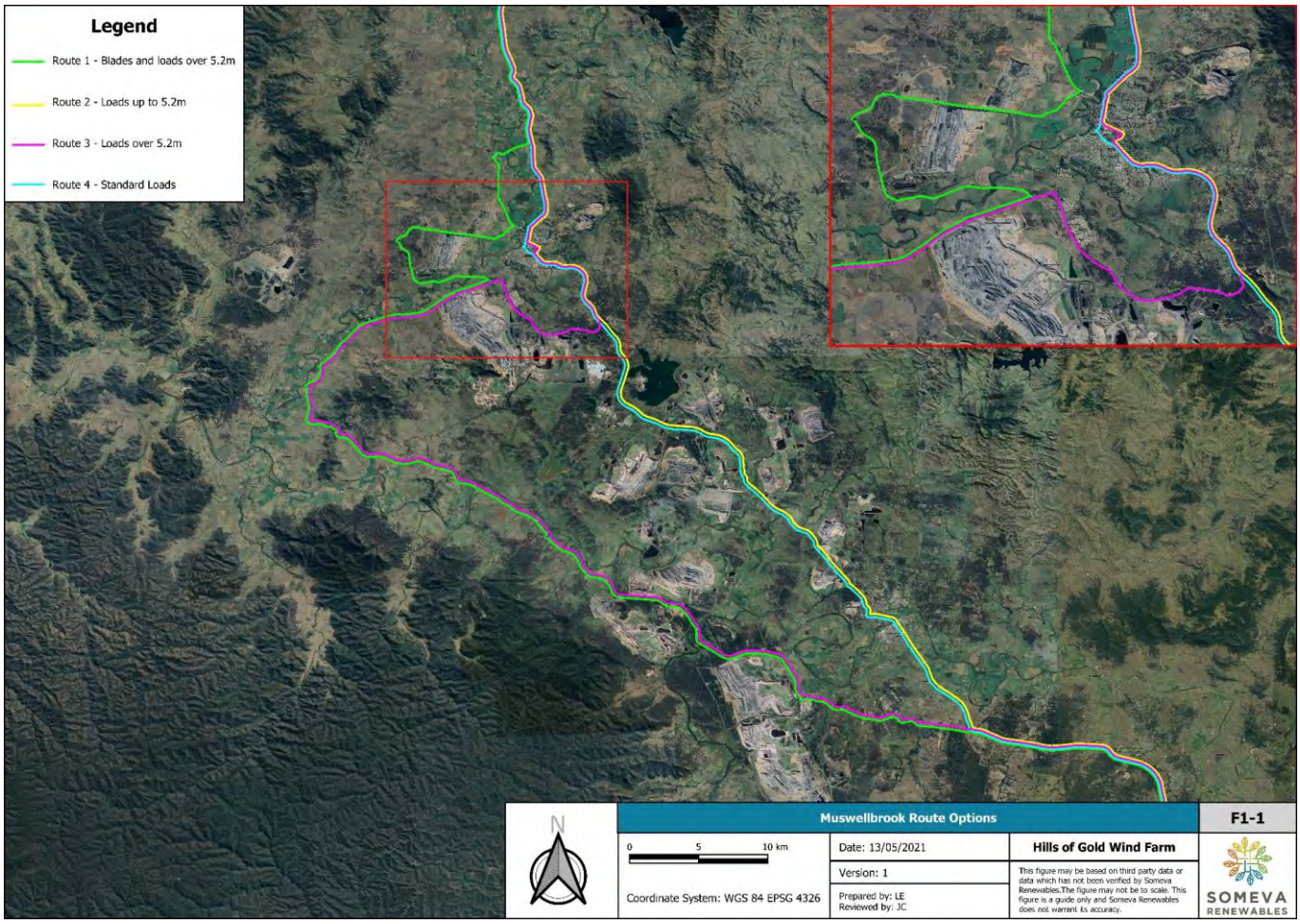
	15905	Pipe	1	450	
	16365	RCBC	3	2400 x 1200	Major Culvert
	16525	RCBC	1	1200 x 350	
	16683	RCBC	4	1200 x 350	
	16905				Rosebrook Bridge
	17090	RCBC	4	1200 x 350	
	17965				Floodway
	18570	Pipe	1	450	
					Intersection Wybong Road and Kayuga Road
Kayuga Road	19085	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system across intersection
	19085	Pipe	1	375	Gully pit system
	19145	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system
	19255	Pipe	1	450	pipe back flow valve - gully pit system
	19265	RCBC	8	300	Major Culvert
	19545	RCBC	2	300	
	20790	RCBC	2	300	
	20995	RCBC	3	1200 x 600	
	21005	RCBC	1	1200 x 600	
	21745	Pipe	1	450	
	21855	Pipe	2	1200	
	22460	Pipe	1	450	
	22950	Pipe	1	450	
	23135	RCBC	2	600	
	23475	Pipe	1	450	
	23655	Pipe	1	450	
	24395	RCBC	2	300	
	24710	RCBC	7	2400	Major Culvert
	25210	Pipe	1	450	
	25445	Pipe	1	450	
					Dartbrook Mine Entrance Road
	25565	Pipe	1	450	
	25700	Pipe	1	450	
	25815	Pipe	4	1200	
	26230	Pipe	1	450	
					end of shire

Road Name	Chainage m	Pipe Info		Size mm	Comments
		Pipe/ RCBC	No		
Bengalla Road	350	RCBC	5	2100 x 400	Major Culvert
	695	Pipe	1	300	
	1470-1670	Keys Bridge			Bridge
	2340	RCBC	1	3400 x1800	
	3000	Pipe	1	400	
	3420	Pipe	1	400	
	3830	RCBC	5	3400x1800	Major Culvert
	4260	Rail Overpass			
	4820	Pipe	1	900	
	5131	RCBC	1	800 x 500	
	5440	RCBC	1	2100 x 500	
	5830	Pipe	2	500 x 500	
	6200	RCBC	1	1200 x 770	
	6410	Pipe	4	1650 x 1650	Major Culvert
	6650	Rail Bridge			Bridge - Mt Pleasant loop
	6770	Pipe	1	670	
	8550	Pipe	1	600	
	8900	Pipe	1	600	
	9421	Pipe	1	300	
					Intersection Bengalla Road and Wybong Road
Wybong Road East	9910	Pipe	1	450	
	10140	Pipe	1	450	
	11145	Pipe	1	450	
	11375	Pipe	1	900	
	11869	Pipe	1	450	
	12035	Pipe	1	450	
	12315	RCBC	2	600	
	12955	Pipe	1	1500	
	13120	Pipe	3	1500	
	13440	Pipe	1	450	
	13820	Pipe	1	450	
	14515	Pipe	1	450	
	15045	Pipe	1	600	
	15245	Pipe	1	600	
	15580	Pipe	1	450	
	15905	Pipe	1	450	

	16365	RCBC	3	2400 x 1200	Major Culvert
	16525	RCBC	1	1200 x 350	
	16683	RCBC	4	1200 x 350	
	16905				Rosebrook Bridge
	17090	RCBC	4	1200 x 350	
	17965				Floodway
	18570	Pipe	1	450	
					Intersection Wybong Road and Kayuga Road
Kayuga Road	19085	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system across intersection
	19085	Pipe	1	375	Gully pit system
	19145	Pipe	1	450	Pipe (only) runs parallel to pavement - gully pit system
	19255	Pipe	1	450	pipe back flow valve - gully pit system
	19265	RCBC	8	300	Major Culvert
	19545	RCBC	2	300	
	20790	RCBC	2	300	
	20995	RCBC	3	1200 x 600	
	21005	RCBC	1	1200 x 600	
	21745	Pipe	1	450	
	21855	Pipe	2	1200	
	22460	Pipe	1	450	
	22950	Pipe	1	450	
	23135	RCBC	2	600	
	23475	Pipe	1	450	
	23655	Pipe	1	450	
	24395	RCBC	2	300	
	24710	RCBC	7	2400	Major Culvert
	25210	Pipe	1	450	
	25445	Pipe	1	450	
					Dartbrook Mine Entrance Road
	25565	Pipe	1	450	
	25700	Pipe	1	450	
	25815	Pipe	4	1200	
	26230	Pipe	1	450	
					end of shire

APPENDIX B – Updated OSOM Route Through Muswellbrook Shire Council

Map of Updated Route Option



Traffic By Type and Total Volume to be Transported

	Turbine Blades	**Heavy Loads over 5.2m in height**	**2 Heavy Loads under 5.2m in height**	**Standard loads up to 3.5m wide and 5.2m in height**
Example of Equipment	• Blades (root section) • Blades (tip section)	• Hubs • Tower Sections • Transformers • Nacelles with Drivetrain in	• Nacelle with Drivetrain Out • Drivetrain	• Other (2 x 40ft Shipping Container per WTG) • Sub station • Switching Station • Overhead cabling • Underground cabling • Battery System • Mobile concrete Batch Plant
Total Trips	**280 (210)** [1]	**650 (580)**[2]	**140**[3]	**320**
Weekly Trips	**8 (6)**	**18 (16)**	**4**	**9**

The final traffic volumes generated on these routes will be subject to the structural load assessment of Council Assets and further consultation with MSC on required upgrades. This will be based on the final turbine equipment and the transport logistics operators' proposed vehicles and associated weights.

The estimated worst-case traffic predictions are presented based on a range of possible scenarios including a scenario which reduces impacts to Bell St/Victoria St and Market St by splitting the volumes between routes.

Comparison of Traffic Generated by Routes Options

Scenario (all blades always travel on route 1)	Route 1	Route 2 (includes Bell St)	Route 3 (includes Bell St)	Route 4	Totals
Previous EIS Scenario	280		1110	0	1390
Average Weekly	**8**	**0**	**32**	**0**	
Option 1 - All Heavy Loads on Route 1 with normal loads on Route 4	1070[1]			320	1390
Average Weekly	**31**	**0**	**0**	**9**	
Option 2 - 100% Heavy Loads on Route 2 and 3	280[1]	650[2]	140[3]	320	1390
Average Weekly	**8[1]**	**19[2]**	**4[3]**	**9**	
Example of Option 3 - 50% Heavy between Route 1 and Routes 2 and 3	605[1]	325[2]	140[3]	320	1390
Average Weekly	**17[1]**	**9[2]**	**4[3]**	**9**	

Notes:
1. Reduced numbers if blades are transported as a single unit.
2. This will be reduced if nacelles and drivetrains are transported separately as presented in the next column with both nacelle and drivetrains being under 5.2m and able to use Route 3.
3. This will not be required if nacelles and drivetrains are transported together

The transportation period for the turbine components has been forecast to occur over approximately a 9-month period, or 35 weeks.

All route options reduce traffic proposed on the Bells St Heavy Vehicle Alternate route (Route 2 and 3) by taking advantage of the updated Route 4 option for vehicles under 3.5m wide and 5.2m high and options to use Route 1 for some or all of the heavy vehicles. The range in reduced volume is between 11 and 32 movements per week from the previously submitted EIS.

Sharon Pope
Executive Manager Environment and Planning
Muswellbrook Shire Council
Via email

18 October 2021

Dear Sharon,

Hills of Gold Wind Farm Project – Revised Letter of Offer to Muswellbrook Shire Council

Thank you for your time in the meeting on 16 July 2021 to further discuss the Hills of Gold Wind Farm (the "Project"), and your subsequent letter of 29 August 2021 detailing the Council's route requirements. We appreciate the time taken by your team and the constructive discussions regarding the use of Council roads and assets for the Project.

We acknowledge the need to preserve the condition of Council's roads and assets through transport of turbine components to the Project site, and believe this can be achieved through a combination of best practise industry mechanisms outlined in this letter. On this basis the Project proponent, Hills of Gold Wind Farm Pty Ltd (ACN 145 173 324) ("HOGWFPL"), makes the following revised counteroffer to Muswellbrook Shire Council (MSC) in respect of the use of proposed Council managed roads (subject only to the execution of a voluntary planning agreement or similar agreement by the parties to formalise these matters on terms acceptable to each party and to the approval of the Development Application SSD 9679).

This offer supersedes the previous offer to Council set out in the Letter of Offer dated 2 June 2021.

Council's letter 29 August 2021	Proponent response and revised offer
General Comment Further to our recent discussions I confirm that the preferred route for all proposed OSOM loads is via **Thomas Mitchell Drive, Bengalla Link Road, Wybong Road East and Kayuga Road.**	We note that this is Council's preferred route option for OSOM project traffic. HOGWFPL would like to retain flexibility in the proposed OSOM routes through Muswellbrook Shire, detailed in Annexure B of our 2 June 2021 letter, in order to select the most suitable route option for each load type subject to final turbine selection,

	engagement of final logistics contractor, and structural assessment of Council assets. HOGWFPL will continue to engage with MSC throughout this process and in preparation of the Project's traffic management plan.
1. Route Assessment Detailed Route Analysis considering road furniture, geometry, load limits, safe sight distance, private property and Council road impacts, turning circles by a suitably experienced and practicing consultant is to be provided to Council, including: • Written consent of the private property owners along the route in the case where their land will be impacted, including any written correspondence between parties and contact information; • A joint dilapidation survey with Council is to be conducted in accordance with the requirements detailed on Annexure A (below) and submitted for Council's acceptance, for the route including inspection of all drainage structures and road surfaces; and • Structural assessment of all drainage structures along the proposed route that has not had a recent condition assessment with proposed design loads exceeding existing load compliant traffic along the proposed road route.	A Route Survey has been completed by Rex Andrews for the Project and can be found in Annexure C. A Traffic and Transport Addendum has been prepared for the Project is available in Annexure D. Further route analysis will be completed for the final transport routes and be detailed in the Project's Traffic Management Plan, in consultation with MSC. Written consent will be provided from all private property owners along the Project transport routes whose private land requires modifications for the Project transport. This has been achieved with all landowners on the transport route in MSC LGA with the exception of Mach Energy. As discussed further below, a Road Usage Fee has been offered to MSC as an alternative to road dilapidation surveys and remains HOGWFPL's strong preference to provide both parties with greater certainty. However, should road dilapidation surveys ultimately be conditioned for the Project, an independent dilapidation survey will be undertaken in consultation with MSC to assess the existing condition of road pavement and drainage structures along the final transport routes within Muswellbrook Shire. Note the dilapidation survey would not include item 2 of Annexure A in Council's letter, *Falling Weight Deflectometer.* Suitable QA testing will be agreed in consultation with Council for any pavement modifications required on the transport route. We request that Council provide all recent condition assessments for drainage structures undertaken along the proposed Project transport routes. Following this, HOGWFPL will consult with MSC to determine those Council Assets (listed in Annexure A of our 2 June 2021 letter) which require a detailed structural assessment to be undertaken to assess their structural suitability for use by Project OSOM traffic. HOGWFPL will then engage a suitably qualified, independent expert acceptable to MSC to undertake that structural assessment. If any Council Asset is found by the independent expert to be structurally inadequate for the transport of the expected equipment loads for the Project and that Council Asset is

	proposed to be used as part of the final transport route for the Project, HOGWFPL will, at its cost, upgrade each Council Asset to the extent reasonably required to ensure it is structurally adequate and suitable for the expected Project loads and consult with MSC to incorporate any reasonable requirements of MSC in respect of such upgrade.
2. Transport Management Plan	A number of these items have been assessed in the *Traffic and Transport Addendum* or *Route Survey*. HOGWFPL will prepare a Traffic Management Plan post approval in consultation with MSC which will assess the requirements set out in Council's letter. All OSOM traffic will be transported in accordance with Heavy Vehicle National Law and Regulations, and will be permitted in consultation with local road authorities. These permits will include details for requirements of OSOM escort/pilot vehicles (including Police escorts) as applicable to each load to ensure safe transport. This approach is common for all wind farms of this scale in NSW. For this reason, HOGWFPL does not agree to funding the cost of hiring a Council Traffic Observer for the duration of the project to follow OSOM transport through Council's municipality during operations.
3. Road Improvements Wybong Road East from the intersection of Overton Rd to the intersection with Kayuga Rd is currently unsuitable for OSOM loads and requires upgrades to the road and structures along the route to support the proposed movements.	Rex Andrew's did not identify any required pavement upgrades along this section of road in the Route Survey. HOGWFPL is of the view that the existing condition of this section of road is suitable for the relatively low volume and duration of Project OSOM loads, subject to removal of some traffic signage, minor widening of intersections onto private land as described, and structural assessment of relevant Council Assets as discussed above. We understood from our meeting on 16 July 2021 that Council's view was also consistent with no road pavement upgrades being required within Muswellbrook Shire for the Project. Noting Council's comments that that this section of road is "*currently unsuitable for OSOM loads and requires upgrades*" we request any further technical details that Council may have on this road. If as-built drawings or pavement designs are available for this section of road that would be appreciated. HOGWFPL further notes that dilapidation of this section of road attributable to Project OSOM traffic will be protected by

Any works or maintenance on Council Public Roads is subject to application for an S138 of the Roads Act permit and will be required to be prepared and delivered in accordance with the conditions of the S138 permit. Any works or maintenance on State or Federal Public Roads to be prepared and delivered in accordance with an ROL permit with TfNSW.	either a Road Usage Fee or dilapidation surveys,, and a Bank Guarantee. Noted. HOGWFPL will consult with MSC to obtain S138 permits for any works or maintenance performed on Council roads. Noted. HOGWFPL will consult with TfNSW for any requirements when performing works or maintenance on State or Federal Public Roads.
4. Road Maintenance The applicant will need to enter a formal maintenance management plan as part of the S138 permit for Council roads along the route for the entire duration of the project, to Council's written satisfaction including: 1. The maintenance management plan will be based on TfNSW M3 Maintenance Plan (see proforma example attached); 2. Maintenance work will be coordinated to Council's satisfaction including timing and day/night work; 3. Dilapidation survey of the route to be undertaken every twelve weeks of the project and provided to Council; 4. A Bank Guarantee will be required for the period of the project plus six months to cover any damage determined by Council's reasonable opinion, and dilapidation surveys, to have occurred as a result of the OSOM transported loads for the project; and 5. An Indemnity Deed Poll to be provided for emergency works to any assets that may suffer damage during the project.	The Projects Traffic Management Plan will detail requirements for any emergency repair or maintenance on Council roads along the final transport routes. This plan will be prepared in consultation with MSC. If road dilapidation surveys are ultimately conditioned for the Project within Muswellbrook Shire, HOGWFPL will undertake a dilapidation survey along the final transport routes **prior to commencement** and **following the completion** of the OSOM delivery phase for construction. This survey will be provided to Council. If dilapidation surveys identify that any Council roads have been damaged during as a result of Project usage, HOGWFPL will repair this damage. However we note a one-off Road Usage Fee of $70,000 upon the commencement of construction was previously offered to MSC in our letter dated 2 June 2021 as an alternative to performing road dilapidation surveys and to provide greater certainty to MSC. The fee is proposed to compensate MSC for any dilapidation which may be caused by the general use of roads within the Muswellbrook Shire by traffic associated with the Project. Due to the volume of traffic which already uses roads within the Muswellbrook Shire, it will likely be impractical to commission a dilapidation survey which can identify only that dilapidation attributable to Project traffic, noting that OSOM loads for the Project are estimated to be less than 6 trips per day on average. To further support this, TTPP assessed the impact of estimated Project vehicles using Thomas Mitchell Drive and concluded that the Project impact is deemed negligible in comparison to other road users (Section 8.5.3 – Hills of Gold Wind Farm – Traffic and Transport Addendum). Accordingly, this proposed approach of a Road Usage Fee as an alternative to road dilapidation surveys remains HOGWFPL's strong

	preference to provide both parties with greater certainty, and we ask that MSC further considers this and reverts on the offer. This offer is not intended to avoid HOGWFPL's obligation for repair if damage was made to roads by the Project that is not consistent with standard wear and tear. HOGWFPL is accepting of providing a performance bond in favour of MSC in the form of a letter of credit or bank guarantee to secure its performance of any Council Asset upgrade works or general maintenance and repair of roads. HOGWFPL will negotiate these terms with MSC in good faith following selection of the final transport routes, with such bond to be for a reasonable amount having regard to the cost of any required modification works. The bond would be provided prior to the earlier of: (1) commencement of any modification works, or (2) commencement of OSOM deliveries. Any such performance bond would be released upon completion of Project OSOM deliveries plus 6 months. On the basis of HOGWFPL offering: • a performance bond throughout the duration of Project OSOM deliveries to protect MSC road assets; • a Road Usage Fee (in lieu of road dilapidation surveys); • a structural assessment of all drainage structures along the proposed route; and • emergency repair or maintenance commitments in the TMP, it is HOGWFPL's view that the risk to damage and repair of Council's assets during construction of the Project is well mitigated and therefore we do not agree to the request to also provide MSC an Indemnity Deed Poll.
5. Communication The applicant will need to enter a formal community consultation management plan for the entire duration of the project, to Council's written satisfaction including: The community consultation management plan is to be developed in consultation with Council including but not limited to: i. Monthly meetings with Council staff to discuss progress, issues and community feedback; ii. Complaints and incident handling procedure including contact details of the applicant;	HOGWFPL commits to consulting with MSC on all these requests.

iii. Identifying residents, businesses, emergency services, school bus and mines (shift change times) and key contacts in these operations and necessary liaising with these road users; iv. Details of the Transport Management Plan and progress to be included and updated on both the applicant's website as well as Council's website; v. Applicant to provide updates to Council with regards to any planned maintenance works and/or upgrades and replacements.	
I also advise that staff have recently held a meeting with another wind farm proponent who wishes to use the same route for their OSOM vehicles, and that there be further projects in the period up to the opening of the Muswellbrook Bypass. Council staff consider that there would be benefits in a more strategic approach to managing this construction traffic. You may be contacted by another wind farm proponent soon to compile information that Council would put before a number of State Government agencies to initiate discussion this strategic approach.	HOGWFPL acknowledges the benefits in taking a strategic approach to managing road impacts through Muswellbrook Shire as more wind farm projects enter development in the region. However we note that wind farm projects of this scale undergo a long and thorough planning assessment process prior to determination and are therefore all at various different stages of development maturity. For this reason and given HOGWF is at a late stage of planning assessment we are only able to consider reasonable commitments for this project alone rather than taking a broader industry approach. We have not yet been contacted by any other wind farm proponent to compile strategic transport route information within Muswellbrook Shire.

HOGWFPL welcomes any feedback or further discussions with Muswellbrook Shire Council on the revised offer above or any further matters relating to the Project. If the above revised offer is acceptable to Muswellbrook Shire Council, we would greatly appreciate written confirmation of this from Council. A copy of this letter will be provided to the Department of Planning for inclusion of the relevant commitments by HOGWFPL in the Project's Statement of Commitments.

We respectfully request Council withdraw their objection to the project and confirm in writing by 3 November 2021.

Yours sincerely,

Andrew Kerley
General Manager – Asset Development

APPENDIX A – Hills of Gold Windfarm Project – Muswellbrook Shire Council Route requirements – Letter 29 August 2021

APPENDIX B – Voluntary Contribution from Hills of Gold Wind Farm Pty Ltd – Letter 2 June 2021

APPENDIX C – Hills of Gold Wind Farm Route Survey v7 – Rex J Andrews

APPENDIX H TOURISM AND WIND FARM REPORT

Wind energy and tourism:
Industry impacts and opportunities for 'wind farm tourism'

Report compiled for C7EVEN Communications by:

Dr Barrie Shannon
School of Humanities and Social Science
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16 November 2021

This research report is the result of work commissioned by C7EVEN to conduct a desk top study on the benefits and opportunities of wind farm tourism.

The work has been conducted by Dr Barrie Shannon from the School of Humanities and Social Science at The University of Newcastle.

The report has been reviewed and approved by Dr Hedda Haugen Askland, Senior Lecturer and Social Researcher in the School of Humanities and Social Science, The University of Newcastle.

Dr Hedda Haugen Askland

Callaghan, 16 November 2021

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Key take-aways

- Studies of stakeholder attitudes toward wind farms in rural areas often cite a 'fear' of negative tourism impacts.
- There is very little academic evidence that the presence of wind farms has a significant negative economic impact on the tourism industry in rural localities, but stakeholder concerns about turbine placement, visibility and noise must be taken seriously.
- Adventure tourism, eco-tourism and educational tourism incorporating wind farm infrastructure are emerging globally as key opportunities for rural localities.

Executive summary

Wind energy and its associated infrastructure are subject to heated public debates. People who live or work in proximity to wind farms have expressed a number of concerns about wind farms having potentially negative impacts on their livelihood, particularly within communities that rely heavily on nature-based tourism to support their local economy. This brief report synthesises some of the global academic literature on the relationship between wind farm developments and the tourism industry in rural communities. The papers that have been compiled provide insight into various stakeholder attitudes toward wind farm projects, as well as studies on their (in)direct economic impacts. Broadly, while stakeholders in the tourism industry express fears of a downturn because of wind farms 'spoiling' their product – an untouched natural landscape clearly distinct from the lives of the urbanites they want to attract – these fears are not borne out in available empirical evidence. This review demonstrates that tourists are not deterred by the presence of wind turbines and wind farms, and in fact, are often drawn to them as points of interest. Opportunities for eco-tourism exist for communities in proximity to wind turbines, particularly if supporting infrastructure such as visitor centres, viewing platforms, hiking trails and other amenities are incorporated. There is informal evidence of the success of such activities already occurring in the Australian context.

Methods

A systematic literature search was conducted within four major academic databases: EBSCO, ProQuest, ScienceDirect and Google Scholar. Three terms related to wind farms ('wind farms', 'wind turbines', and 'wind power') were combined with 'tourism' to appraise the social science literature on this topic in each of these databases. There is a small but well-developed body of literature on community perceptions of wind farms and their potential impacts on the tourism industry, focussed largely on Europe and the United States. None of the papers specifically focused on the Australian context. Studies that specifically examine the opportunities for 'wind farm tourism' are much less prevalent; the phrase 'wind farm tourism' yielded very few results. These searches yielded **thirty** relevant peer-reviewed, academic journal articles on the topic area. Of these, **nineteen** of the most relevant papers were chosen for this review. Criteria for relevance were recent, high-quality, qualitative or quantitative analysis that *specifically* engaged with the impact of wind farms on local rural tourism industries. Papers that were eliminated were older than ten years, or only loosely dealt with either wind farms or tourism, but not both. The chosen sources are considered alongside some selected non-academic resources from Australia.

Impacts on tourism

A significant proportion of the available academic literature on wind farming and rural tourism identifies that stakeholders hold significant fears about potential negative impacts on their local tourism industry. These fears are significant predictors of non-support of wind farm projects (Fokaides, Miltiadous, Neophytou & Spyridou, 2014), and this phenomenon is particularly relevant in rural, agrarian localities where nature-based tourism constitutes a large part of the local economy (Sæþórsdóttir & Ólafsdóttir, 2020). Ólafsdóttir & Sæþórsdóttir (2019, 1) provide an explanation: their study on wind farms in the Icelandic Highlands note that tourism in this area is based on 'unspoilt nature and wilderness', and so the encroachment of wind turbines is seen as a negative among locals and tourists alike. These stakeholders have negative perceptions of wind farming because they see it as a threat to their core product; they are essentially selling a nostalgic, idyllic experience of untouched

natural landscapes to urbanites whose day-to-day environments are distinctly different (Sæþórsdóttir, Wendt & Tverijonaite, 2021; de Sousa & Kastenholz, 2015). Rudolph (2014) also discusses the tensions between tourism industry groups and wind farm development, but in the Scottish context. They find that fears of tourism impacts are most associated with tourism operators who fear a loss of income if natural sites are 'polluted' by industrial infrastructure such as turbines, buildings, fences, and powerlines.

Tourist attitude toward wind farms appears to be dependent on how those fears are managed, and how wind farms and wind power are perceived in a broader sense. Acceptance of wind turbines in areas of high tourism value depend on a range of factors. Stakeholders are perhaps concerned the most about the 'sensible' physical placement of wind turbines; they are more readily accepted when they are located away from areas of high aesthetic value, such as scenic lookouts (Sæþórsdóttir, Wendt & Tverijonaite, 2021; Sæþórsdóttir & Ólafsdóttir, 2020; Ólafsdóttir & Sæþórsdóttir, 2019; Beer, Rybár & Kaľavský, 2018; Silva & Delicado, 2017; Broekel & Alfken, 2015; Frantál & Kunc, 2011). Acceptance of wind turbines is also tied to local place attachment, where community identity and livelihoods are tied to the landscape. Mordue, Moss and Johnston (2020) analyse this sense of place attachment, explaining that 'place' is a social phenomenon that is created over time and mapped onto a geographic area, where the hobbies, livelihoods, memories, legacies, cultural meanings, and day-to-day activities of locals are figuratively etched into the landscape. To this end, those authors, and others including Warren and McFayden (2010), emphasise the importance of meaningful community involvement in the development of wind power projects. A sense of community ownership or control over what happens to their home can encourage locals to 'adopt' wind farms, accommodating it into the image or the character of their area. Stakeholder attitudes toward wind power and renewable energy more broadly also have an impact on acceptance of wind farms in areas of high tourism value. Brudermann, Zaman and Posch (2019) found that tourist support for wind farms in the Austrian Alps, a region prized for its pristine landscape, correlated with an understanding of the environmental benefits of wind farming, and faith its viability and reliability as a source of power. Importantly, those locals that are supportive of

wind farms are confident that they will *increase* tourism to their region, rather than to decrease it (Fokaides, Miltiadous, Neophytou & Spyridou, 2014).

An analysis of the academic literature did not find any evidence that the presence of wind farms has a measurable negative economic impact on the tourism industry in rural localities (Mordue, Moss & Johnston, 2020; de Sousa & Kastenholz, 2015; Rudolph, 2014; Frantál & Kunc, 2011; Warren & McFayden, 2010). In the Scottish context, Warren and McFayden (2010, 210) argue that the critics of wind farms frequently cite negative tourism impacts, but their study on local residents' feelings about wind farms 'lend no support to such claims', going so far as to say that, in their area of study, 'even in a worst-case scenario, wind farm development is likely to have minimal economic impacts on tourism.' De Sousa and Kastenholz (2015) conducted a study on the rural tourism experience in Portugal, a country notable for its many wind farm projects. Their appraisal of the literature on the relationship between wind farms and rural tourism revealed three important findings: that impacts on the tourism industry were 'small and localised' (de Sousa & Kastenholz, 2015, 1242), that most visitors have positive feelings about wind farms and wind energy, and that the presence of wind farms does not deter tourists. These findings are concurrent with Silva and Delicado's (2017) similar study, also on Portugal.

While much of the literature focuses on the *fear* of negative tourism impacts, the empirical evidence that does exist on these impacts suggests the opposite is occurring. Smith et al. (2018, 307) have argued that 'although there is a presumption that wind energy projects threaten tourism... in fact, they may act as a minor attraction'. Indeed, despite the concerns of tourism industry stakeholders, wind farms tend to generate some level of tourist interest *because of* their physical appearance rather than despite it. This has been attributed to their 'modern design', 'eco-image' and 'uniqueness' (Beer, Rybár & Kal'ayský, 2018). These claims are borne out in case studies of major wind farm developments elsewhere, including the Block Island offshore wind farm in Rhode Island, USA. On this project, Smythe et al. (2020) found that while some tourists reported negative feelings about its visual impact, and expressed concerns about noise, those perceptions were not shared widely among locals or tourists. With this evidence, they claim that the Block Island wind farm is seen as an 'attractant', drawing tourists

specifically to view the turbines. Carr-Harris and Lang (2019) examined the economic impact on the Block Island farm by comparing reservations, occupancy, and revenues in the local vacation rental market, revealing a small but significant increase in peak seasons post-construction. Regarding onshore wind farms, Mordue, Moss and Johnston (2020) attempted to examine the differences in tourism turnover in the Northumberland as a result of new wind farm developments. Despite qualitative claims by tourism operators that business was trending down, there was no significant economic evidence of this.

'Wind farm tourism'

There is evidence within the academic literature that renewable energy projects, including wind farms, can be actively incorporated into the rural tourism industry. Frantál and Urbánková (2017) discuss the phenomenon of 'energy tourism', the suite of tourist events and activities that are associated with power generation infrastructure. According to these authors, tourists that engage in energy tourism are attracted to renewable energy projects out of interest in industrial infrastructure ('industrial tourism'), adventure sports and physical experiences ('adventure tourism') and rural communities ('cultural/heritage tourism'). Similarly, Liu, Upchurch and Curtis (2016) identify a range of wind-farm-specific tourists, including those who are seeking educational experiences, those who are interested in industry and technology, those who are interested in environmentalism, and those who are interested in nature-based tourism generally. Frantál and Urbánková (2017) provide various examples of activities involving wind farms, including abseiling from turbines, parties, events and festivals in onshore facilities or boat tours to offshore facilities. What the insight from all of these authors suggests is that the active incorporation of tourist activities into renewable energy projects is potentially beneficial for rural tourist industries, and that tourists are attracted to wind farms for a wide range of reasons, beyond simply their visual aspects.

Research into the Chinese context provides valuable insight into the phenomenon of 'wind farm tourism', where there is a 'rising interest in wind farming as a leisure experience' (Liu & Upchurch, 2020, 241). Wind farm tourism in China is buoyed by government policies and marketing that caters to

the 'green', eco-friendly consumption desires of tourists (Liu, Upchurch & Curtis, 2016). Part of the story, according to Liu and Upchurch (2020) is the principle of *feng shui*, which is highly influential in China (Liu & Upchurch, 2020). As a result of government policy support, wind farms are perceived as environmentally friendly, signifying a healthier way of life. Therefore, for many people, visiting wind farms can bring good luck and influence future wellbeing. While the principles of *feng shui* may not be as widely applicable in Australia, these insights reveal that wind farm tourism is associated with people's personal views about environmentalism, ecology, and nature. If wind farms attract those who are interested in the environment, and who want to have a tourist experience that is eco-friendly and 'gives back' by supporting environmental initiatives, it stands to reason that these desires can be appealed to in Australia as well.

In general, however, the Australian context regarding wind farms and tourism impacts appears to be under researched; none of the academic literature compiled for this review focused specifically on Australian wind farms or Australian communities. However, evidence that wind farms draw tourist interest in the Australian context can be found in informal or non-academic sources. Indeed, a quick scan of the official websites for Australian wind farms suggests that they are offering the kinds of tourism experiences discussed above. A 2018 report by the Clean Energy Council states that Australian wind farms have an overall positive impact on local tourism, citing evidence that the Pacific Hydro Codrington Wind Farm in Victoria 'attracts 50,000 visitors each year' with an on-site tourism operator (Clean Energy Council. 2018, 25). An Iberdola Australia (n.d.) industry blog post claims that Australian wind farms are quite popular tourist attractions and provides a list of examples of active tourism opportunities at wind farms across the country. Typically, these include guided tours, viewing platforms, walking trails, visitor centres and organised events including Iberdola Australia's sponsored 'Run with the Wind' event, a fundraising run at the Woodlawn Wind Farm near Tarago NSW (Iberdola Australia, n.d.). In addition to these tourist experiences, it appears that a number of the wind farms listed on this website are attempting to fulfil their social license to operate by offering educational experiences onsite and partnering with schools and universities to attract visitors.

Conclusions and Implications

A review of the global academic literature on wind farm developments and tourism reveals that, while stakeholders have significant fears of negative impacts, there is little evidence that they come to be. These anxieties are rooted in the assumption that the visual impact of wind turbines will undermine what the rural tourism industry 'sells' to tourists; idyllic, nostalgic experiences of natural scenery untouched and unspoiled by industrialisation. However, when wind turbines and wind farms are placed 'sensibly', tourists and locals alike are not repelled by their presence. Acceptance of wind farms in areas of high rural tourism value are also tied to attitudes toward wind energy and renewables more broadly.

The only empirical evidence of impacts on the tourism industry appears to be positive; there are a range of studies that demonstrate tourists are not only *not* deterred from visiting areas with wind farms, but are drawn to them specifically, for a range of reasons. These include interest in technology, infrastructure design, pro-environmental causes, and curiosity. A small but developing body of academic literature on the concepts of 'energy tourism' and 'wind farm tourism' demonstrate that globally, wind farms attract significant tourism interest. Visits, tours, walking trails, and events can be offered to tourists to enhance the tourism value of a wind farm project. While Australian research in this area is under-developed, industry evidence suggests that currently operating wind farms employ similar methods to attract tourism. Wind farms can be embedded into rural communities offering high tourism value, and educational opportunities for schools and universities in their region.

References

Beer, M, Rybár, R & Kaľavský, M 2018, 'Renewable energy sources as an attractive element of industrial tourism', *Current Issues in Tourism,* vol. 21, no. 18, pp. 2139-2151.

Broekel, T & Alfken, C 2015, 'Gone with the wind? The impact of wind turbines on tourism demand', *Energy Policy,* vol. 86, pp. 506-519.

Brudermann, T, Zaman, R & Posch, A 2019, 'Not in my hiking trail? Acceptance of wind farms in the Austrian Alps', *Clean Technologies and Environmental Policy,* vol. 21, no. 8, pp. 1603-1616.

Carr-Harris, A & Lang, C 2019, 'Sustainability and tourism: the effect of the United States' first offshore wind farm on the vacation rental market', *Resource and Energy Economics,* vol. 57, pp. 51-67.

Clean Energy Council 2018, *Wind farms: A guide for communities*, Clean Energy Council, Melbourne, <https://assets.cleanenergycouncil.org.au/documents/resources/reports/community-engagment/wind-farms-a-guide-for-communities.pdf>.

de Sousa, AJG & Kastenholz, E 2015, 'Wind farms and the rural tourism experience–problem or possible productive integration? The views of visitors and residents of a Portuguese village', *Journal of Sustainable Tourism,* vol. 23, no. 8-9, pp. 1236-1256.

Fokaides, PA, Miltiadous, I-C, Neophytou, MK-A & Spyridou, L-P 2014, 'Promotion of wind energy in isolated energy systems: the case of the Orites wind farm', *Clean Technologies and Environmental Policy,* vol. 16, no. 3, pp. 477-488.

Frantál, B & Kunc, J 2011, 'Wind turbines in tourism landscapes: Czech Experience', *Annals of Tourism Research,* vol. 38, no. 2, pp. 499-519.

Frantál, B & Urbánková, R 2017, 'Energy tourism: An emerging field of study', *Current Issues in Tourism,* vol. 20, no. 13, pp. 1395-1412.

Iberdrola Australia n.d. *Tourists are big fans of wind energy*, Iberdrola Australia, viewed 10 November 2021, <https://www.infigenenergy.com/for-customers/knowledge-centre/blog/tourists-are-big-fans-of-wind-energy/>.

Liu, D & Upchurch, RS 2020, 'A glimpse into energy tourism via application of eye-tracking technology', *Journal of Leisure Research,* vol. 51, no. 2, pp. 230-244.

Liu, D, Upchurch, RS & Curtis, C 2016, 'Resident acceptance of wind farms–An emerging tourism market in China', *Journal of Hospitality and Tourism Management,* vol. 27, pp. 1-3.

Mordue, T, Moss, O & Johnston, L 2020, 'The impacts of onshore-windfarms on a UK rural tourism landscape: objective evidence, local opposition, and national politics', *Journal of Sustainable Tourism,* vol. 28, no. 11, pp. 1882-1904.

Ólafsdóttir, R & Sæþórsdóttir, AD 2019, 'Wind farms in the Icelandic highlands: Attitudes of local residents and tourism service providers', *Land Use Policy,* vol. 88, p. 104173.

Rudolph, D 2014, 'The Resurgent Conflict Between Offshore Wind Farms and Tourism: Underlying Storylines', Article, *Scottish Geographical Journal,* vol. 130, no. 3, pp. 168-187.

Sæþórsdóttir, AD & Ólafsdóttir, R 2020, 'Not in my back yard or not on my playground: Residents and tourists' attitudes towards wind turbines in Icelandic landscapes', *Energy for Sustainable Development,* vol. 54, pp. 127-138.

Sæþórsdóttir, AD, Wendt, M & Tverijonaite, E 2021, 'Wealth of Wind and Visitors: Tourist Industry Attitudes towards Wind Energy Development in Iceland', *Land,* vol. 10, no. 7, p. 693.

Silva, L & Delicado, A 2017, 'Wind farms and rural tourism: A Portuguese case study of residents' and visitors' perceptions and attitudes', Article, *Moravian Geographical Reports,* vol. 25, no. 4, pp. 248-256.

Smith, H, Smythe, T, Moore, A, Bidwell, D & McCann, J 2018, 'The social dynamics of turbine tourism and recreation: Introducing a mixed-method approach to the study of the first U.S. offshore wind farm', *Energy Research & Social Science,* vol. 45, pp. 307-317.

Smythe, T, Bidwell, D, Moore, A, Smith, H & McCann, J 2020, 'Beyond the beach: Tradeoffs in tourism and recreation at the first offshore wind farm in the United States', *Energy Research & Social Science,* vol. 70, p. 101726.

Warren, CR & McFadyen, M 2010, 'Does community ownership affect public attitudes to wind energy? A case study from south-west Scotland', *Land Use Policy,* vol. 27, no. 2, pp. 204-213.

Appendix: Annotated Bibliography

Beer, M, Rybár, R & Kaľavský, M 2018, 'Renewable energy sources as an attractive element of industrial tourism', *Current Issues in Tourism,* vol. 21, no. 18, pp. 2139-2151.

This paper deals with the overview of the interaction of tourism and renewable energy sources, and evaluates their potential regarding tourism industry as well as in terms of increasing of tourism attractiveness in the selected area. Renewable energy sources can be considered an attractive element within the industrial tourism and, in some cases, can increase the number of visitors to the area, mainly due to its modern design, proportions, eco-image and, in certain regions, due to its uniqueness. In analysis, interactions of renewable energy and tourism were classified into four categories. The analysis showed that the touristic subjects connected to the sensitively selected and located type of renewable energy source could have significant numbers of visitors in tens of thousands. According to results of the analysis, the highest number of visitors reached the visitor centres next to geothermal power plants and wind parks, which can be explained by their unique visual aspects. The paper also analysed the possible impact of the renewable energy infrastructure on tourists, when available studies indicate the minimal impact of installation if the power plants are sensibly placed in the country regarding location or distance from considered subject.

Broekel, T & Alfken, C 2015, 'Gone with the wind? The impact of wind turbines on tourism demand', *Energy Policy,* vol. 86, pp. 506-519.

While wind energy production is relatively free from environmental externalities such as air pollution, it is frequently considered to negatively impact landscapes' visual aesthetic values, thereby inducing negative effects on tourism demand. Existing evidence for Germany indeed points towards a negative relationship between tourism demand and wind turbine construction. However, the existing studies primarily rely on interview data and simple bivariate statistics. In contrast, we make use of secondary statistics on tourism and wind turbine locations at the level of German municipalities. Using spatial panel regression techniques, we confirm a negative relation between wind turbines around municipalities and tourism demand for municipalities not located near the coast. In the latter regions, the relation between wind turbines and tourism demand is more complex.

Brudermann, T, Zaman, R & Posch, A 2019, 'Not in my hiking trail? Acceptance of wind farms in the Austrian Alps', *Clean Technologies and Environmental Policy,* vol. 21, no. 8, pp. 1603-1616.

Large-scale wind power projects are one of the bearers of hope for a transition toward low-carbon electricity systems. The question of social acceptance of such projects near residential areas, or acceptance of the technology in general, has received significant attention in the scientific literature. Less attention has been placed on acceptability of wind farms in sparsely inhabited mountain areas; the focus of this paper therefore is on acceptance of wind farms in the Austrian Alps from the perspective of tourists and day trippers. We conducted a quantitative survey with visitors of alpine regions (n = 137) in proximity to recently constructed wind farms and identified drivers of (non-)acceptance by means of bivariate correlations and multiple linear regressions. Results indicate a high acceptance of wind technology in general and fairly high acceptance for the existing projects. Acceptance levels, however, are slightly, but significantly lower when respondents were asked to rate acceptability of wind farms in the Alps in general. Perceived benefits and reliability of wind power is the strongest predictor variable for higher acceptance levels, while annoyance through visual impact and noise is the strongest predictor variable for lower acceptance levels. Interestingly, factors like degree of information, concern regarding environmental impacts, trust in decision makers and climate change concern do not significantly affect acceptance levels. At the moment, no major opposition to wind power can be identified among tourists. Policy makers therefore should emphasize benefits of wind farms, as respective perceptions are a main predictor for acceptance. Operators should take annoyance concerns seriously, as this factor is predominant in predicting non-acceptance.

Carr-Harris, A & Lang, C 2019, 'Sustainability and tourism: the effect of the United States' first offshore wind farm on the vacation rental market', *Resource and Energy Economics,* vol. 57, pp. 51-67.

One concern with offshore wind energy development is a negative impact to tourism. In this paper we assess this concern by examining how the Block Island Wind Farm, the first of its kind in the United States, has impacted the vacation rental market. Using data from AirBnb, we estimate a difference-in-differences model that compares Block Island to three nearby tourist destinations in Southern New England before and after construction. Our results suggest that construction of the Block Island Wind Farm caused a significant increase in nightly reservations, occupancy rates, and monthly revenues for AirBnb properties in Block Island during the peak-tourism months of July and August, but had no effect in other months. The findings indicate that offshore wind farms can act as an attractive feature of a location, rather than a deterrent.

de Sousa, AJG & Kastenholz, E 2015, 'Wind farms and the rural tourism experience–problem or possible productive integration? The views of visitors and residents of a Portuguese village', *Journal of Sustainable Tourism,* vol. 23, no. 8-9, pp. 1236-1256.

Wind energy is recognized as a relevant alternative and renewable energy source, frequently exploited in rural areas, and potentially competing for land and resources with rural tourism. This study reviews the growing but limited research literature on the interactions between wind farms and rural tourism. Using results from a Portuguese village case study, it presents new and often complex insights regarding the potential impacts of these structures on the tourist experience, giving new understanding of the impact of wind farms on a rural tourism destination from the viewpoint of both visitors and residents who actively participate in experience co-creation and are directly affected by investment in both tourism and wind energy, with comparisons between national and international visitors, and between visitors and residents. Possible managerial actions of universal relevance are discussed, exploring the potential for integrating tourism with wind energy production, including tourism-research-related guidelines for wind farm planners, quality and market-targeted information and interpretation development, and efforts to include wind farms in tourist experience planning such as guided tours and event creation. More research is needed to promote wind farms as "green destinations", capable of attracting a growing number of environmentally concerned visitors.

Fokaides, PA, Miltiadous, I-C, Neophytou, MK-A & Spyridou, L-P 2014, 'Promotion of wind energy in isolated energy systems: the case of the Orites wind farm', *Clean Technologies and Environmental Policy,* vol. 16, no. 3, pp. 477-488.

With the establishment of the first wind farm on the island, Cyprus has made progress to satisfy the European Union's 2020 renewable energy targets. Operational since September 2010, the 174 M€ Orites wind farm is currently the largest wind project in the Mediterranean region. In this article, the main characteristics of the project with regard to Cyprus's national action plan for the promotion of renewable energy sources are presented. The socio-economic impacts of the project and its feasibility in the context of an isolated energy system are also examined. The results of a public survey to identify the attitudes of surrounding households and neighbouring cities towards the wind farm are presented. The assessment was based on face-to-face interviews conducted with 50 households from the surrounding communities and 100 interviewees from neighbouring cities. According to the survey, the public opinion on the wind farm was generally positive, and the majority of the respondents considered the wind farm to be acceptable as of no considerable environmental impact.

Frantál, B & Kunc, J 2011, 'Wind turbines in tourism landscapes: Czech Experience', *Annals of Tourism Research,* vol. 38, no. 2, pp. 499-519.

This study proposes to assess and empirically verify possible negative effects from the construction of wind turbines on the landscape image and tourism potential of affected areas, using the example of two comparative recreational localities in the Czech Republic: one with the construction of a wind farm planned and the other with an already existing farm. The empirical research consisted of two mutually linked parts: a questionnaire survey and focused, semi-structured interviews. Emphasis was placed on the subjective perception of the phenomenon by tourists and local business representatives from the sphere of tourism. The analysis focuses also on the social-geographical factors that shape tourists attitudes to the wind energy development dilemma.

Frantál, B & Urbánková, R 2017, 'Energy tourism: An emerging field of study', *Current Issues in Tourism,* vol. 20, no. 13, pp. 1395-1412.

After conceptualizing the interrelationships between energy and tourism, the authors provide a definition of energy tourism as a new niche of industrial tourism, theorize on how it overlaps with other types of special interest tourism, and discuss specifics concerning its forms, locales, and possible societal impacts. Potential directions, along with research questions, for future research in the field of energy tourism are proposed. Then, the results of an explorative pilot study of energy tourism in the Czech Republic are presented to give a first insight into the proposed questions. Questionnaire surveys completed by tourists and operators of three energy tourism attractions – so-called Coal Safaris (guided tours through surface coal mines, observing minescapes and mining machinery in full operation), a nuclear power plant information centre, and Dragon Kite Festivals under wind turbines – have focused on exploring the motivations and perceived benefits of energy tourism for organizations; tourists' motivations for, and experience from, visiting; and any changes in attitudes towards current energy development dilemmas by visitors afterwards.

Liu, D & Upchurch, RS 2020, 'A glimpse into energy tourism via application of eye-tracking technology', *Journal of Leisure Research,* vol. 51, no. 2, pp. 230-244.

Over the past decade, the Chinese government has strategically aligned its environment preservation and social enhancement policies encompassing energy tourism to provide residents with an economically viable, environmentally clean, and appealing leisure alternative. This study empirically tested previously noted consumer acceptance trends via the

application of eye-tracking technology. The results of this controlled test confirm the attractiveness of wind farms as associated with educational interest in wind energy technology, appreciation of natural surroundings, social affiliations, and engagement in recreational activities.

Liu, D, Upchurch, RS & Curtis, C 2016, 'Resident acceptance of wind farms–An emerging tourism market in China', *Journal of Hospitality and Tourism Management,* vol. 27, pp. 1-3.

The concept of analyzing images captured by tourists before, during, and after a tourism experience is not something new to the field of tourism. Now for over forty years, the power of images captured prior to, as well as formulated during and post-event, have been associated with an individual's destination selection process (Gartner, 1994). This study conducted in China reviewed tourist blog posts which included photos posted to Baidu.com. The content analysis of the posted photographs and corresponding statements yielded four type of tourists: educational tourists, holiday tourist, romantic tourist, and nature tourist. Given the presence of these preliminary findings it appears that governmental tourism marketing activities should include wind farming as part of their national campaign.

Mordue, T, Moss, O & Johnston, L 2020, 'The impacts of onshore-windfarms on a UK rural tourism landscape: objective evidence, local opposition, and national politics', *Journal of Sustainable Tourism,* vol. 28, no. 11, pp. 1882-1904.

Although the use of wind-turbines is widely accepted as generating clean and sustainable energy, when windfarms are sited in rural areas they are frequently opposed by locals because of their negative impacts, including on tourism. There is, however, little academic research on the role and significance of tourism in onshore-windfarm development disputes. The paper addresses this gap by way of a nuanced analysis of mixed-methods research undertaken on behalf of Northumberland County Council (NCC), UK, on the impacts of onshore-windfarms on tourism in Northumberland's rural hinterland. We also trace the influence the research has had on NCC's policy and land-use decision-making practices in the years since the research was completed in 2014, with particular focus on national policy changes enacted in 2016 that gave local communities more decision-making power on the siting of onshore-windfarms across the UK. From here we critique democratic decision-making on the development of onshore-windfarms more generally and consider political lessons learned from this case study that can have resonance anywhere wrestling with the same or similar issues.

Ólafsdóttir, R & Sæþórsdóttir, AD 2019, 'Wind farms in the Icelandic highlands: Attitudes of local residents and tourism service providers', *Land Use Policy,* vol. 88, p. 104173.

Over the last decades the harnessing of wind power has gained increasing popularity and is currently believed to be one of world's best environmental options in seeking to meet the international target of reducing greenhouse gas emissions by at least half by the year 2050. There is undeniably an abundance of wind resources in Iceland. But what impact would the harnessing of this power have on the country's growing tourism industry? This paper focuses on the dynamics existing between wind farming, residents and tourism. Its overall aim is to evaluate the attitudes of local residents and tourism service providers in Southern Iceland towards the country's first proposed wind farm, which is to be located at the edge of Iceland's Southern highlands, and to critically discuss the causal relationship between the landscape and these attitudes. An on-site questionnaire was distributed to residents in the municipalities adjacent to the proposed wind farm. Interviews were also conducted with residents and tourist service providers. The results indicate that the relationship between residents and the landscape of the proposed site is based on its use as highland pasture and the residents' romantic conception of the landscape, which for centuries has been characterized by wildness and remoteness. This conception seems to linger on despite gradually increasing hydropower production in the area. The associations made by tourist service providers with the area differ since they are selling a certain image, that of unspoilt nature and wilderness. Wind turbines would be a new and prominent presence in the Icelandic landscape likely to transform the area from its previous perceived wild and natural state. As such, social acceptance of the location of wind farms in the Icelandic highlands is more critical than in the case of more traditional ways of harnessing renewable energy.

Rudolph, D 2014, 'The Resurgent Conflict Between Offshore Wind Farms and Tourism: Underlying Storylines', Article, *Scottish Geographical Journal,* vol. 130, no. 3, pp. 168-187.

Efforts to put offshore wind farms in place have demonstrated that these are far from being conflict-free, evoking confrontations with a number of stakeholders' interests. One of the most persistent conflict lines refers to the feared adverse externalities on coastal tourism, although tourist surveys and initial empirical evidence seem to reflect the opposite. This paper explicitly addresses this gap and explores how and why certain stakeholders rationalise potential impacts on the tourism economy of coastal communities and, thus constitute the conflict between offshore wind farms and tourism. Based on two cases studies in Scotland and Germany, five storylines are identified that are invoked by local opponents to substantiate impacts on tourism. The paper will show that a particular meaningful construction of the coastal landscape is inherent in tourism and pen'ades all storylines. It is concluded that arguments of both opponents and decision-makers are embedded in epistemic uncertainty

which necessitates a thorough consideration of oppositional arguments in the planning process for offshore wind farms.

Sæþórsdóttir, AD & Ólafsdóttir, R 2020, 'Not in my back yard or not on my playground: Residents and tourists' attitudes towards wind turbines in Icelandic landscapes', *Energy for Sustainable Development,* vol. 54, pp. 127-138.

To counteract the threat of global warming, many nations have resorted to increasing their use of renewable energy sources, wind farms being among the most popular. The greatest obstacle when it comes to the acceptance of wind farms is their visual impact. Recently, tourism has become Iceland's largest export sector, the country's natural landscape being the main attraction for visitors. This paper attempts to compare the perception of residents and tourists towards wind energy production in general and towards Iceland's first proposed wind farm, to be located at the edge of the country's uninhabited interior Central Highlands. The study is based on a questionnaire survey conducted among residents living adjacent to the proposed wind farm and among tourists travelling through the proposed area. The results indicate that residents are more positive than tourists towards wind turbines and consider them less intrusive in the landscape. Hence, the location of Iceland's first wind farm at the main gateway into the country's Central Highlands is problematic and likely to disturb the experience of tourists passing through the area. Despite the wealth of wind in Iceland it might be challenging to utilize it for energy production due to the importance of nature-based tourism for the economy. If Iceland becomes a physical exporter of renewable energy, it may be expected that more pressure will be set on the construction of wind farms. Thereby nature-based tourism and wind energy would be in direct competition over land use.

Sæþórsdóttir, AD, Wendt, M & Tverijonaite, E 2021, 'Wealth of Wind and Visitors: Tourist Industry Attitudes towards Wind Energy Development in Iceland', *Land,* vol. 10, no. 7, p. 693.

The interest in harnessing wind energy keeps increasing globally. Iceland is considering building its first wind farms, but its landscape and nature are not only a resource for renewable energy production; they are also the main attraction for tourists. As wind turbines affect how the landscape is perceived and experienced, it is foreseeable that the construction of wind farms in Iceland will create land use conflicts between the energy sector and the tourism industry. This study sheds light on the impacts of wind farms on nature-based tourism as perceived by the tourism industry. Based on 47 semi-structured interviews with tourism service providers, it revealed that the impacts were perceived as mostly negative, since wind farms decrease the quality of the natural landscape. Furthermore, the study identified that the

tourism industry considered the following as key factors for selecting suitable wind farm sites: the visibility of wind turbines, the number of tourists and tourist attractions in the area, the area's degree of naturalness and the local need for energy. The research highlights the importance of analysing the various stakeholders' opinions with the aim of mitigating land use conflicts and socioeconomic issues related to wind energy development.

Silva, L & Delicado, A 2017, 'Wind farms and rural tourism: A Portuguese case study of residents' and visitors' perceptions and attitudes', Article, *Moravian Geographical Reports,* vol. 25, no. 4, pp. 248-256.

Residents' and visitors' perceptions of and attitudes towards existing wind farms, as well as the perceived impact of wind farms on tourism, are examined in this article with reference to a built heritage site in the Portuguese countryside. Based on a set of semi-structured interviews, the paper sheds light on the positive impact that the community's or local actors' involvement in the constitution, management and decision-making processes has on the residents' perceptions and attitudes regarding wind farms, and also on the trade-off with the perceived effect of wind farms on local tourism. Moreover, it shows that although most visitors criticised the proximity of wind turbines to medieval architecture, a clear majority of them accepted their presence and virtually all of them stated that these facilities had no impact on their choice of destination.

Smith, H, Smythe, T, Moore, A, Bidwell, D & McCann, J 2018, 'The social dynamics of turbine tourism and recreation: Introducing a mixed-method approach to the study of the first U.S. offshore wind farm', *Energy Research & Social Science,* vol. 45, pp. 307-317.

Understanding the complex dynamics that influence energy transitions requires mixed methods and collaborations among researchers, resource managers, and communities. This essay details how an interdisciplinary team of researchers used a mixed-method approach to study the social dimensions of tourism and recreation as they relate to the first offshore wind farm in the United States, the Block Island Wind Farm. Although impacts to tourism from wind energy systems are widely cited as a concern by communities and policymakers, little work has sought to define what constitutes tourism and recreation impacts or provided empirical evidence of impacts from operating projects. Researchers adopted an iterative approach to research that combined discrete studies using media content analysis, ethnographic participant observation, and stakeholder focus groups, to understand the social effects of the wind farm on the tourism and recreation experience and the quality of life in Block Island and coastal Rhode Island. We detail key insights from our experimentation with

an iterative mixed-method approach at Block Island and offer lessons for future studies using collaborative approaches to understand both the tangible and the intangible social dynamics of energy system transitions.

Smythe, T, Bidwell, D, Moore, A, Smith, H & McCann, J 2020, 'Beyond the beach: Tradeoffs in tourism and recreation at the first offshore wind farm in the United States', *Energy Research & Social Science,* vol. 70, p. 101726.

Despite the growth of offshore wind energy and concerns that projects will harm tourism and recreation, there is a lack of empirical research on the effects of operating wind farms on tourism and recreation. The existing literature tends to treat tourists and recreationists as a monolithic group, focused almost entirely on beachgoers. Further, research regarding offshore wind energy and tourism puts forth a narrow conception of tourists, concerned primarily with a natural seascape. The 30-MW Block Island Wind Farm, the first offshore wind farm in the United States, is located offshore an iconic tourism destination and provides a laboratory for understanding interactions between offshore wind energy and the tourism and recreation sectors. We conducted an exploratory qualitative study through which tourism and recreation professionals and participants met in focus groups to discuss experiences with and observations of this project. Analysis revealed diverse viewpoints and largely positive encounters; though, some negative impacts were identified, and participants weighed project costs and benefits. Perspectives were shaped, in part, by experiences with the planning process. Visual impacts were a major concern; however, most participants described the project's appearance in neutral or positive terms. Overall, the wind farm is functioning as an attractant, either as a novel sight or as a recreational fishing destination. Participants felt the wind farm should be promoted for tourism but cautioned that interest may be short-lived and there may be less support for larger offshore developments. Findings support tourism and recreation sector engagement throughout offshore wind project planning and operation.

Warren, CR & McFadyen, M 2010, 'Does community ownership affect public attitudes to wind energy? A case study from south-west Scotland', *Land Use Policy,* vol. 27, no. 2, pp. 204-213.

This paper presents the results of a study of public attitudes to onshore windfarm development in south-west Scotland. Specifically, it explores the influences of different development models on attitudes to windfarms by comparing public attitudes towards a community-owned windfarm on the Isle of Gigha with attitudes towards several developer-owned windfarms on the adjacent Kintyre peninsula. The study, conducted in 2006, used a questionnaire-based

survey (n = 106) to test the hypothesis that community ownership would lead to greater public acceptance of windfarms. It also examined the attitudes of both residents and tourists towards the impacts of onshore windfarms on landscapes and seascapes, including cumulative impacts. The data show that the Gigha respondents were consistently more positive about wind power than were the Kintyre residents. However, the differences were differences of degree rather than diametrically opposing viewpoints. The most significant concerns about windfarms were intermittent production and visual impact, but majorities in both areas nevertheless regarded their visual impact as positive. The data also indicate that local attitudes could become even more positive if future windfarms were owned by local communities. The fact that the residents of Gigha have affectionately dubbed their turbines 'the Three Dancing Ladies' is indicative of the positive psychological effects of community ownership. These results support the contention that a change of development model towards community ownership could have a positive effect on public attitudes towards windfarm developments in Scotland.