Technical Appendix 8.11 Applicant Response to SEPA

2 July 2025

Attention: Jessica Taylor

Senior Planning Officer
SEPA
By Email

SLR Project No.: 405.VT1685.00001

SEPA Reference No.: PCS-20005383

RE: Peat Management - Hagshaw Energy Cluster Western Expansion - ECU00004623

Dear Jessica,

Thank you for your email of 5th June 2025, providing SEPA's initial comments and seeking clarification prior to providing a formal consultation response to the above application. We appreciate the opportunity to provide a preliminary response, and would be happy to discuss further as appropriate.

Please see below our responses to the points and queries raised.

SEPA Comment	Applicant Response
Peat	
1. The proposal to create 2.5m x 0.8m verges beside the cut tracks, floating roads, turbine foundations and hardstandings. These verges seem excessive in height and appear more like a way of disposing of waste peat rather than a means to repair valuable wetland sensitively. Please provide justification for the size of these verges. We would refer you to Section 16.3 of Good Practice During Windfarm Construction, (NatureScot 2024) which points out that excess peat should not be spread on land adjacent to tracks, and towards Section 6.7 of https://www.roadex.org/wp-content/uploads/2014/01/FCE-SNH-Floating-Roads-on-Peat-report.pdf which describes why such high verges can create problems beside floating roads.	The intention was not to dispose of waste peat through verging, rather to tie into the existing peatland. However, it is accepted that lower gradients may achieve better results and so it is proposed to reduce the average verge heights to 0.5m. It is considered that this can effectively and appropriately be used to infill collector drains within the forestry, as part of proposed forest to bog peatland restoration works. Such collector drains have been identified as being present, with an approximate width and depth of 1m x 1m, and a drainage density of c.250m of drain/ha. This therefore represents an opportunity for suitable and beneficial re-use of 14,000 m^3 of catotelmic and acrotelmic peat for infill. This is detailed in an updated version of the calculations as appended.

SEPA Comment	Applicant Response
2. We have a query regarding the calculations used to determine the amount of peat required for the 'forest to bog' restoration proposal (Last row of Table 8.4 OPMP). Usually when land is furrowed ready for forest planting, the excavated peat is ridged beside the furrow. When restoring such areas, it is usual to return this ridged peat to the furrow such that little extra peat for ditch blocking is required. The proposed Total Re-use Volume for this category may therefore be an overestimate. Please confirm/clarify.	The remnant excavated peat used for forest to bog restoration is generally sub-aerially exposed and used for creating ridging to promote tree growth and naturally drainage. As a result, the exposed catotelmic peat is oxidised, bioturbated and hydrophobic, producing a peat that is crumbly and sub-optimal for furrow blocking. In most forest to bog sites however this is the only material available for reprofiling without recourse for borrow pitting to gain more plastic peat. As a result, restoration measures on such 'peat poor' sites do not have a ready supply of peat to infill furrows and as such, use this material as the best available option. However, reflecting SEPA's concerns we have reduced the volumes predicted to reflect infilling of a furrow to approximately 30cm x 30cm. In the case of the Proposed Development, plastic catotelmic peat is readily available within proximity to the furrows that require blocking (i.e. peat excavated to construct the Proposed Development). It is considered that this material is superior to that offered by the ridged catotelmic peat and is therefore likely to have better drain blocking characteristics as well as retain the chemical and microbial communities required to seed full peatland functionality within restored furrows. Further, the remaining ridged peats can then be used in subsequent ground smoothing as a base for peatland species recolonisation within a thicker peat profile than otherwise might have been achieved. Combined with blocking by feeder drains and collector drains off site, this approach is likely to achieve at least comparable outcomes with current best practice whilst also ensuring peat storage is kept to a minimum and excavated catotelmic peat is prioritised for restoration purposes where it can be most effectively used to mitigate any development related impacts. Whilst it is accepted that this is somewhat novel in its approach, we consider that this proposal presents a valid form of peatland restoration. Peatland Action in its training and communication emphasises the importance of a site and condition specific approach to peatland restoration and that guidance documents such as the Peatland Restoration Technical Compendium and upcoming Scottish Peatland Standard are not static documents but represent a pooling of shared knowledge and should not stifle innovative new approaches. The Applicant and its technical advisors would be happy to discuss these proposals further as appropriate.

SEPA Comment	Applicant Response
Borrow Pits	
1. It is not clear why the total excavated volume for the three pits is given as 5,932m^3 in Table 5.1 of the OPMP. From Table 8.4 it seems more like it should be 9,304m^3. Please confirm the calculations. (BP1: 120x65x0.18 =1404, BP2: 100x100x0.27 = 2700, BP3: 100x80x0.65 = 5200)	Only locations comprising peat (>0.5m) were included within excavation volumes. As indicated in Annex 3 of the Outline Peat Management Plan, borrow pits 1 and 2 were recorded as comprising mineral/organic rich soils rather than peat. Please note that in checking the calculations to respond to this query, it has been identified that there is an error in the formula relating to the 'Total Volume Acrotelm Excavated' column in Annex 3 of the Outline Peat Management Plan. The formula incorrectly multiplies the area of each component by the total average peat depth, rather than the average depth of acrotelm. The total volume of excavated acrotelm is therefore over-stated, and as a result the total volume of excavated peat is overstated (given it is calculated as acrotelm volume + catotelm volume). As a result, the total estimated peat excavation volume has been overestimated in the calculations and reporting presented in the Outline Peat Management Plan. Correction of this error has resulted in a total estimated excavation volume of 74,232 m^3, comprising 48,718 m^3 acrotelm and 25,514 m^3 catotelmic peat. Application of the reuse measures indicated within this document would result in a negative net balance of peat of –3,475m^3, comprising –1,400 m^3 acrotelm and –2,074 m^3 catotelm. This is detailed in an updated version of the calculations as appended.

SEPA Comment	Applicant Response
2. Where peat is being placed into a hole which did not previously contain peat, a clear intention to create a peatland ecosystem is required. There is a statement to this effect in Table 5.1, but further consideration as to how successful this can actually be at these precise locations, and a commitment to follow good practice guidelines is required. There appears to be no mention of restored borrow pits being hydraulically linked to the area, instead relying on rainwater to keep the peat wet. Please provide further details on these proposals.	Borrow pit 3 constitutes an area already characterised by peat formation and therefore will be an expansion of the current peat body. This will be supplemented by cell bunded compartments to ensure water residence times are sufficient to retain water and promote peatland ecosystem creation. All three borrow pits are located at the base of slope, this will be enhanced by excavation making a naturally wetter area and discharge point. This is demonstrated by the distribution of peat depth within existing peats in that deeper peat is concentrated at the break in slope between steeper ground and the slope base. By excavating, this will artificially create a discharge point within the landscape and therefore by developing peatland habitat on this area it will 1) be tied into the local hydrology and 2) accelerate the natural process of recolonisation by peatland habitat. As with Borrow pit 3, best practice will be applied including cell bunding within the restored area as well as ensuring that a peat profile with catotelmic peat at the base and acrotelm and turves at the surface is maintained to simulate natural peatland structures. We propose that this can be expanded on further within the detailed Peat Management Plan to be prepared and submitted post-determination (assuming this will be required as part of a standard planning condition), however if SEPA considers that further discussion is required at this stage, the Applicant would be happy to engage further.
HMEP	
1. Although we will not comment in detail on the HMEP, we would request confirmation that the parcels of land designated for restoration in this Hagshaw Western Expansion application are not the same parcels designated as off-set in the original Hagshaw Application. The same restoration effort cannot offset both developments.	The original Hagshaw Hill Wind Farm application (both the Repowering and Extension sites) did not include any commitment to peatland restoration within any area being proposed for peatland restoration as part of the Proposed Development HMEP.

Closure

We trust the above clarifications are helpful and, as noted, would be happy to discuss further. Subject to SEPA's feedback on the above response in principle, we append an updated version of the peat excavation and re-use calculations to take the above comments into account.

Regards,

SLR Consulting Limited

[redacted]

Dr Chris Marshall PhD MSc BSc(hons)
Principal Consultant

Office phone +44 3300 886631
Email [redacted]

cc. [redacted]

Attachments Amended Peat Excavation and Reuse Calculations.

		Excavated										Reuse Opportunities										
	Infrastructure	Length (m)	Width (m)	Number	Area (m2)	Average Peat Depth (m)*	Average Depth Acrotelm (m)	Average Depth Catotelm (m)	Total Volume Excavated (m3)	Total Volume Acrotelm Excavated (m3)	Total Volume Catotelm Excavated (m3)	Length (m)	Width (m)	Area (m2)	Average Depth (m)	Number	Depth of Acrotelmic (m)	Max Depth of Catotelm (m)	Total Re-use Volume (m3)	Acrotelm Reuse Volume (m3)	Catotelm Reuse Volume (m3)	Notes
Access Tracks	Cut Track on Peat (>0.5m)	6411.00	5.00	1	32055.00	0.74	0.50	0.24	23720.70	16027.50	7693.20	6411.00	2.5	16027.5	0.50	2	0.50	0.00	16027.50	16027.50	0.00	Assumes verge reinstatement, up to 2.5m wide, on both sides of track with an average height of 0.5m.
	Floated Track (no excavation)	2730.00	5.00	0	0.00	1.39	0.50	0.89	0.00	0.00	0.00	2730.00	2.5	6825	0.50	2	0.50	0.00	6825.00	6825.00	0.00	Assumes verge reinstatement, up to 2.5m wide, on both sides of track with an average height of 0.5m.
	Turning Circle to T1	-	-	1	433.00	0.60	0.50	0.10	259.80	216.50	43.30	90.00	2.5	225	0.50	1	0.50	0.00	112.50	112.50	0.00	Perimeter (3 sides) of 90m
	Turning Circle to T6	-	-	0	445.00	0.20	0.20	0.00	0.00	0.00	0.00	90.00	2.5	225	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	Turning Circle to T7	-	-	1	203.00	0.50	0.50	0.00	101.50	101.50	0.00	65.00	2.5	162.5	0.50	1	0.50	0.00	81.25	81.25	0.00	Perimeter (3 sides) of 65m
	Turning Circle to T12	-	-	0	443.00	0.25	0.25	0.00	0.00	0.00	0.00	90.00	2.5	225	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	Turning Circle to T15	-	-	0	433.00	0.46	0.46	0.00	0.00	0.00	0.00	90.00	2.5	225	0.50	0	0.50	0.00	0.00	0.00	0.00	-
Turbine Foundations	T1	30.00	30.00	1	706.50	0.76	0.50	0.26	536.94	353.25	183.69	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T2	30.00	30.00	1	706.50	0.66	0.50	0.16	466.29	353.25	113.04	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T3	30.00	30.00	0	0.00	0.16	0.16	0.00	0.00	0.00	0.00	94.38	2.5	235.9425	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T4	30.00	30.00	0	0.00	0.35	0.35	0.00	0.00	0.00	0.00	94.38	2.5	235.9425	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T5	30.00	30.00	0	0.00	0.40	0.40	0.00	0.00	0.00	0.00	94.38	2.5	235.9425	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T6	30.00	30.00	1	706.50	0.91	0.50	0.41	642.92	353.25	289.67	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T7	30.00	30.00	1	706.50	0.70	0.50	0.20	494.55	353.25	141.30	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T8	30.00	30.00	0	0.00	0.18	0.18	0.00	0.00	0.00	0.00	94.38	2.5	235.9425	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T9	30.00	30.00	1	706.50	0.68	0.50	0.18	480.42	353.25	127.17	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T10	30.00	30.00	0	0.00	0.39	0.39	0.00	0.00	0.00	0.00	94.38	2.5	235.9425	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T11	30.00	30.00	1	706.50	0.70	0.50	0.20	494.55	353.25	141.30	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T12	30.00	30.00	1	706.50	1.14	0.50	0.64	805.41	353.25	452.16	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T13	30.00	30.00	1	706.50	1.02	0.50	0.52	720.63	353.25	367.38	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T14	30.00	30.00	1	706.50	0.72	0.50	0.22	508.68	353.25	155.43	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T15	30.00	30.00	1	706.50	0.75	0.50	0.25	529.88	353.25	176.63	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T16	30.00	30.00	1	706.50	0.68	0.50	0.18	480.42	353.25	127.17	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T17	30.00	30.00	1	706.50	1.52	0.50	1.02	1073.88	353.25	720.63	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.

		Excavated										Reuse Opportunities										
	Infrastructure	Length (m)	Width (m)	Number	Area (m2)	Average Peat Depth (m)*	Average Depth Acrotelm (m)	Average Depth Catotelm (m)	Total Volume Excavated (m3)	Total Volume Acrotelm Excavated (m3)	Total Volume Catotelm Excavated (m3)	Length (m)	Width (m)	Area (m2)	Average Depth (m)	Number	Depth of Acrotelmic (m)	Max Depth of Catotelm (m)	Total Re-use Volume (m3)	Acrotelm Reuse Volume (m3)	Catotelm Reuse Volume (m3)	Notes
	T18	30.00	30.00	1	706.50	1.06	0.50	0.56	748.89	353.25	395.64	94.38	2.5	235.9425	0.50	1	0.50	0.00	117.97	117.97	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
Hardstandings (Permanent)	T1 Hardstanding	78.00	31.00	1	2409.40	0.58	0.50	0.08	1397.45	1204.70	192.75	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T2 Hardstanding	78.00	31.00	1	2409.40	0.78	0.50	0.28	1879.33	1204.70	674.63	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T3 Hardstanding	78.00	31.00	0	2409.40	0.15	0.15	0.00	0.00	0.00	0.00	109.00	2.5	272.5	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T4 Hardstanding	78.00	31.00	0	2409.40	0.30	0.30	0.00	0.00	0.00	0.00	109.00	2.5	272.5	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T5 Hardstanding	78.00	31.00	1	2409.40	0.55	0.50	0.05	1325.17	1204.70	120.47	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T6 Hardstanding	78.00	31.00	1	2409.40	0.87	0.50	0.37	2096.18	1204.70	891.48	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T7 Hardstanding	78.00	31.00	1	2409.40	0.83	0.50	0.33	1999.80	1204.70	795.10	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T8 Hardstanding	78.00	31.00	1	2409.40	0.75	0.50	0.25	1807.05	1204.70	602.35	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T9 Hardstanding	78.00	31.00	1	2409.40	0.72	0.50	0.22	1734.77	1204.70	530.07	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T10 Hardstanding	78.00	31.00	0	2409.40	0.41	0.41	0.00	0.00	0.00	0.00	109.00	2.5	272.5	0.50	0	0.50	0.00	0.00	0.00	0.00	-
	T11 Hardstanding	78.00	31.00	1	2409.40	0.78	0.50	0.28	1879.33	1204.70	674.63	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T12 Hardstanding	78.00	31.00	1	2409.40	0.68	0.50	0.18	1638.39	1204.70	433.69	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T13 Hardstanding	78.00	31.00	1	2409.40	1.14	0.50	0.64	2746.72	1204.70	1542.02	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T14 Hardstanding	78.00	31.00	1	2409.40	0.68	0.50	0.18	1638.39	1204.70	433.69	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T15 Hardstanding	78.00	31.00	1	2409.40	0.62	0.50	0.12	1493.83	1204.70	289.13	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T16 Hardstanding	78.00	31.00	0	2409.40	0.39	0.39	0.00	0.00	0.00	0.00	109.00	2.5	272.5	0.50	0	0.50	0.00	0.00	0.00	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
	T17 Hardstanding	78.00	31.00	1	2409.40	1.10	0.50	0.60	2650.34	1204.70	1445.64	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.

		Excavated										Reuse Opportunities										
	Infrastructure	Length (m)	Width (m)	Number	Area (m2)	Average Peat Depth (m)*	Average Depth Acrotelm (m)	Average Depth Catotelm (m)	Total Volume Excavated (m3)	Total Volume Acrotelm Excavated (m3)	Total Volume Catotelm Excavated (m3)	Length (m)	Width (m)	Area (m2)	Average Depth (m)	Number	Depth of Acrotelmic (m)	Max Depth of Catotelm (m)	Total Re-use Volume (m3)	Acrotelm Reuse Volume (m3)	Catotelm Reuse Volume (m3)	Notes
	T18 Hardstanding	78.00	31.00	1	2409.40	0.83	0.50	0.33	1999.80	1204.70	795.10	109.00	2.5	272.5	0.50	1	0.50	0.00	136.25	136.25	0.00	Assumes landscaping and edging around base circumference of 94.38 x 0.5 high (average) x 2.5m wide. Utilising predominately fibrous acrotelm and catotelm. No amorphous catotelm will be used.
Hardstandings and Laydown (Temporary)	T1 Hardstanding	-	-	1	960.90	0.51	0.50	0.01	490.06	480.45	9.61	-	-	-	-	1	-	-	490.06	480.45	9.61	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T2 Hardstanding	-	-	1	960.90	0.83	0.50	0.33	797.55	480.45	317.10	-	-	-	-	1	-	-	797.55	480.45	317.10	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T3 Hardstanding	-	-	0	960.90	0.36	0.36	0.00	0.00	0.00	0.00	-	-	-	-	0	-	-	0.00	0.00	0.00	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T4 Hardstanding	-	-	1	960.90	0.52	0.50	0.02	499.67	480.45	19.22	-	-	-	-	1	-	-	499.67	480.45	19.22	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T5 Hardstanding	-	-	0	960.90	0.37	0.37	0.00	0.00	0.00	0.00	-	-	-	-	0	-	-	0.00	0.00	0.00	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T6 Hardstanding	-	-	1	960.90	0.74	0.50	0.24	711.07	480.45	230.62	-	-	-	-	1	-	-	711.07	480.45	230.62	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T7 Hardstanding	-	-	1	960.90	0.89	0.50	0.39	855.20	480.45	374.75	-	-	-	-	1	-	-	855.20	480.45	374.75	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T8 Hardstanding	-	-	1	960.90	0.65	0.50	0.15	624.59	480.45	144.14	-	-	-	-	1	-	-	624.59	480.45	144.14	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T9 Hardstanding	-	-	1	960.90	0.71	0.50	0.21	682.24	480.45	201.79	-	-	-	-	1	-	-	682.24	480.45	201.79	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T10 Hardstanding	-	-	0	960.90	0.35	0.35	0.00	0.00	0.00	0.00	-	-	-	-	0	-	-	0.00	0.00	0.00	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T11 Hardstanding	-	-	1	960.90	0.93	0.50	0.43	893.64	480.45	413.19	-	-	-	-	1	-	-	893.64	480.45	413.19	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T12 Hardstanding	-	-	1	960.90	0.55	0.50	0.05	528.50	480.45	48.05	-	-	-	-	1	-	-	528.50	480.45	48.05	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T13 Hardstanding	-	-	1	960.90	1.00	0.50	0.50	960.90	480.45	480.45	-	-	-	-	1	-	-	960.90	480.45	480.45	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T14 Hardstanding	-	-	1	960.90	1.07	0.50	0.57	1028.16	480.45	547.71	-	-	-	-	1	-	-	1028.16	480.45	547.71	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T15 Hardstanding	-	-	1	960.90	0.62	0.50	0.12	595.76	480.45	115.31	-	-	-	-	1	-	-	595.76	480.45	115.31	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T16 Hardstanding	-	-	1	960.90	0.53	0.50	0.03	509.28	480.45	28.83	-	-	-	-	1	-	-	509.28	480.45	28.83	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T17 Hardstanding	-	-	1	960.90	1.09	0.50	0.59	1047.38	480.45	566.93	-	-	-	-	1	-	-	1047.38	480.45	566.93	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	T18 Hardstanding	-	-	1	960.90	0.87	0.50	0.37	835.98	480.45	355.53	-	-	-	-	1	-	-	835.98	480.45	355.53	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
Substations	SPEN Substation	70.00	50.00	0	0.00	0.45	0.45	0.00	0.00	0.00	0.00	170		0		0			0.00	0.00	0.00	-
	Development Substation	100.00	70.00	0	0.00	0.42	0.42	0.00	0.00	0.00	0.00	270		0		0			0.00	0.00	0.00	-
Construction Compounds	SPEN Temporary Construction Compound and BESS	100.00	50.00	0	0.00	0.42	0.42	0.00	0.00	0.00	0.00	-	-	-	-	1	-	-	0.00	0.00	0.00	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	Temporary Construction Compound (Site Entrance)	80.00	30.00	0	0.00	0.10	0.10	0.00	0.00	0.00	0.00	-	-	-	-	1	-	-	0.00	0.00	0.00	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.
	Temporary Construction Compound (West of BP)	100.00	100.00	0	0.00	0.28	0.28	0.00	0.00	0.00	0.00	-	-	-	-	1	-	-	0.00	0.00	0.00	All materials excavated will be temporarily restorated and reinstated at the earliest opportunity.

		Excavated										Reuse Opportunities										
	Infrastructure	Length (m)	Width (m)	Number	Area (m2)	Average Peat Depth (m)*	Average Depth Acrotelm (m)	Average Depth Catotelm (m)	Total Volume Excavated (m3)	Total Volume Acrotelm Excavated (m3)	Total Volume Catotelm Excavated (m3)	Length (m)	Width (m)	Area (m2)	Average Depth (m)	Number	Depth of Acrotelmic (m)	Max Depth of Catotelm (m)	Total Re-use Volume (m3)	Acrotelm Reuse Volume (m3)	Catotelm Reuse Volume (m3)	Notes
Borrow Pits	Borrow Pit 1	120.00	65.00	0	7870.00	0.18	0.18	0.00	0.00	0.00	0.00	120.00	65.00	7870	0.60	1	0.50	0.10	4722.00	3935.00	787.00	Excavated peat, including catotelmic peat and acrotelmic turves, will be used to appropriately restore the borrow pits. The design of borrow pit floor levels and restoration profiles shall be depending on the depth of superficial deposits and the quality of rock recorded across the proposed borrow pit. The natural sequence of glacial deposits and peat shall be maintained throughout restoration.
	Borrow Pit 2	100.00	100.00	0	7680.00	0.27	0.27	0.00	0.00	0.00	0.00	100.00	100.00	7680	0.60	1	0.50	0.10	4608.00	3840.00	768.00	Excavated peat, including catotelmic peat and acrotelmic turves, will be used to appropriately restore the borrow pits. The design of borrow pit floor levels and restoration profiles shall be depending on the depth of superficial deposits and the quality of rock recorded across the proposed borrow pit. The natural sequence of glacial deposits and peat shall be maintained throughout restoration.
	Borrow Pit 3	100.00	80.00	1	7415.00	0.65	0.50	0.15	4819.75	3707.50	1112.25	100.00	80.00	7415	1.00	1	0.60	0.40	7415.00	4449.00	2966.00	Excavated peat, including catotelmic peat and acrotelmic turves, will be used to appropriately restore the borrow pits. The design of borrow pit floor levels and restoration profiles shall be depending on the depth of superficial deposits and the quality of rock recorded across the proposed borrow pit. The natural sequence of glacial deposits and peat shall be maintained throughout restoration.
Restoration	Forest to Bog Restoration	-	-	-	-	0.00	-	-	0.00	0.00	0.00	14000.00	1.00	14000	1.00	1	0.30	0.70	14000.00	4200.00	9800.00	Collector drains have been identified as being present, with an approximate width and depth of 1.0m x 1.0m, and a drainage density of c.250m of drain/ha over the 56Ha of Forest to Bog restoration. Utilising predominantly fibrous catotelm, capped by acrotelm.
Restoration	Forest to Bog Restoration	-	-	-	-	0.00	-	-	0.00	0.00	0.00	104600.00	0.30	31380	0.30	1	0.00	0.30	9414.00	0.00	9414.00	Assumes furrows infilled (0.3m x 0.3m), with furrows every 3m within forest-to-bog restoration area.

	Total	Acrotelm	Catotelm
Total Excavated Volume (m3)	74231.71	48717.80	25513.91
Total Re-use Volume (m3)	77706.34	50118.13	27588.21
Net Balance (m3)	-3475	-1400	-2074

*Only locations comprising peat (>0.5m) have been included in the excavation volumes.