SEI: TRANSPORT STATEMENT UPDATE TA9.1

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Making Sustainability Happen

Introduction

- 1.1 The transport sections of the Environmental Impact Assessment (EIA) Reports which accompanied the applications for the consented development (Ben Sca Wind Farm EIA Report 2020 Chapter 12 and Ben Sca Wind Farm Extension EIA Report 2021 Technical Appendix G) considered the potential significant effects on traffic and the transport network that could arise from the consented development. The transport assessments were based on estimates of the vehicle movements that could be generated during the construction of the consented development; potential impacts arising from the operation and decommissioning were scoped out of the assessments.
- 1.2 The planning application for the Proposed Development (24/01404/FUL) sought to redesign the consented development. An EIA Report was submitted with that application which, among other things, explains the reasons for the redesign. That EIA Report included **Technical Appendix (TA) 9.1: Transport Statement**, which considered the changes between that application layout and the consented development layout and presented updated estimates of construction vehicle movements.
- 1.3 As explained in **Chapter 1: Introduction and Description of Development** of this SEI Report, elements of the design of the layout have been revised since **EIA TA9.1** was produced, with a consequent change in material volumes and hence vehicle movements. This report presents updated estimates of vehicle movements based on the revised layout and considers whether those updated estimates alter any of the conclusions drawn in **EIA TA9.1**.

Consultee Responses to TA9.1

- 1.4 The Highland Council's (THC's) Transport Planning team's consultation response to the Proposed Development (dated 17 June 2024) stated that they had no objection subject to the following conditions prior to the commencement of the Proposed Development:
 - submission and approval of a Construction Traffic Management Plan (CTMP);
 - submission and approval of a 'Road Mitigation Schedule of Works and Transport Report'; and
 - notification and approval of significant HGV or abnormal load movement required during operation and decommissioning of the wind farm.
- 1.5 The CTMP and Road Mitigation Schedule of Works and Transport Report each include a requirement for an "assessment of cumulative traffic from other development under construction using the same proposed routes concurrently".
- 1.6 Transport Scotland (TS) is the road authority for the A87 trunk road, which would be used by some vehicles travelling to and from the Proposed Development. The TS consultation response of 30 April 2024 advised that they had no objection to the Proposed Development, subject to three conditions covering the following:
 - prior approval for abnormal load movements;
 - prior approval of any temporary traffic control measures; and
 - prior approval and subsequent implementation of any accommodation measures required for the movement of abnormal load vehicles related to the Proposed Development.



1.7 The Applicant is content that the conditions suggested by THC's Transport Planning team and TS can be attached to any forthcoming planning permission.

Design Revisions

Overview

1.8 The reduction in the number of turbines, foundations and associated crane hardstandings from nine to eight would reduce the amount of aggregate required for the revised layout compared to the application layout. The other elements of the Proposed Development that could affect material volumes (and hence vehicle movements) are the track lengths and turning heads, however these remain unaltered.

Aggregate

1.9 **Table 4-5** of **EIA TA9.1** presented estimates of the amount of aggregate required for the Proposed Development. The information from that table is reproduced in **Table 1** and compared to updated estimates based on the revised layout.

Component	Amount of Aggregate (t)									
Component	Application Layout	Revised Layout	Change							
Excavated Tracks	36,472	36,472	0							
Floated Tracks (>1m)	1,402	1,402	0							
Existing Track	4,996	4,996	0							
Turning Heads	2,798	2,798	0							
Turbine Bases – formation only	3,544	3,150	-394							
Fill above Turbine Bases	23,958	21,296	-2,662							
Crane Pads	50,014	44,457	-5,557							
Substation	2,100	2,100	0							
Construction Compound 1	5,000	5,000	0							
Construction Compound 2	3,000	3,000	0							
Total	133,284	124,671	-8,613							

Table 1: Comparison of Amount of Aggregat	e Between Application Layout and Revised
Layout	

1.10 **Table 1** shows that the revised layout would require around 6% less aggregate than the application layout.

Vehicle Movements

Heavy Goods Vehicles

1.11 Heavy Goods Vehicles (HGV) would be required to deliver the aggregate listed in **Table 1** to the Proposed Development site. **Table 4-5** of **EIA TA9.1** presented worst case estimates of the number of HGV loads for the delivery of aggregate to the site based on



the application layout and an assumption that all aggregate would be imported to the site from external sources. In reality a proportion of material will be won onsite from the proposed borrow pits, so predicted movements would be less.

1.12 The maximum number of HGV loads for the delivery of aggregate based on the revised layout of the Proposed Development have been estimated based on the quantities in Table 1. Those estimates are compared to the estimates from Table 4-5 of EIA TA9.1 reproduced below in Table 2.

Table 2: Comparison of Aggregate	HGV Loads Between	Application Layout and Revised
Layout		

Flowert	Maximum Number of HGV Loads (Assuming 20t per HGV)										
Element	Application Layout	Revised Layout	Change								
Excavated Tracks	1,824	1,824	0								
Floated Tracks (>1m)	70	70	0								
Existing Track	250	250	0								
Turning Heads	140	140	0								
Turbine Bases – formation only	177	158	-19								
Fill above Turbine Bases	1,198	1,065	-133								
Crane Pads	2,501	-278									
Substation	105	105	0								
Construction Compound 1	250	250	0								
Construction Compound 2	150	150	0								
Total	6,665	6,234	-431								

- 1.13 The data in **Table 2** shows that the revised layout would result in around 431 fewer HGV loads to deliver aggregate than the application layout, a reduction of around 6%.
- 1.14 The data in **Table 2** refers to HGV loads and each HGV load would result in two movements on the road network one as the HGV arrived at the Proposed Development site and one as it departed. **Table 4-6** in **EIA TA9.1** presented estimated daily HGV movements associated with the delivery of aggregate for each month of the 18-month construction programme of the Proposed Development, based on an estimate of there being four working weeks per month each of 5.5 working days.
- 1.15 **Table 3** presents a comparison of the total number of aggregate-related HGV movements per day during each month of the construction programme between the revised layout and the application layout.



Table 3: Comparison of Aggregate-Related HGV Movements Between Application Layout and Revised Layout

Lavout	Number of Daily Aggregate-Related HGV Movements per Month																	
Layout	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Application	18	18	30	30	30	32	32	32	32	2	2	70	70	70	70	70	-	-
Revised	17	17	28	28	28	30	30	30	30	2	2	65	65	65	65	65	-	-
Change	-1	-1	-2	-2	-2	-2	-2	-2	-2	0	0	-5	-5	-5	-5	-5	-	-

- 1.16 The data in **Table 3** shows that the revised layout is expected to result in fewer HGV aggregate-related movements per day than the application layout.
- 1.17 The busiest months for HGV aggregate-related movements to and from the Proposed Development would be months 12 to 16 of the construction programme, but the number of aggregate-related HGV movements in those months would be fewer than the corresponding number in the peak months based on the application layout.
- 1.18 The EIA Report submitted for the consented development (Ben Sca Wind Farm EIA Report 2020 **Chapter 12** and Ben Sca Wind Farm Extension EIA Report 2021 **Technical Appendix G**) included estimates of vehicle movements that would be generated by the delivery of non-aggregate materials required for the construction of the consented development which was also applicable to the application layout of the Proposed Development. The reduction in the number of turbines from nine to eight in the revised layout would have a proportionate reduction in the number of vehicle movements generated by the delivery of non-aggregate materials. Hence the overall reduction in HGV movements to and from the Proposed Development site would likely be greater than that shown in **Table 3**.

Abnormal Indivisible Load Vehicles

- 1.19 The delivery of the turbine components during construction would require Abnormal Indivisible Load Vehicle (AILV) movements as some of the vehicles carrying the components would have at least one dimension that does not comply with the maxima in The Road Vehicles (Construction and Use) Regulations 1986.
- 1.20 EIA **TA9.1** stated that there would be approximately eight AILV deliveries per turbine making an estimated total of 72 AILV movements for the Proposed Development. The reduction in the number of turbines in the revised layout would mean that there would be only 64 AILV movements expected.
- 1.21 To ensure a robust assessment, in accordance with the assessment presented in **EIA TA9.1**, it has been assumed that up to three abnormal load transport vehicles would deliver components on a day during the 'worst case' month, with an additional two HGV deliveries included for the crane and drilling rig; this gives a 'worst case' total of five HGV deliveries per day.

Cars and Vans

1.22 **Chapter 12** of the Ben Sca Wind Farm EIA Report (SLR, 2020) submitted for the consented development (and also applicable to the application layout of the Proposed Development) estimated that there would be 32 vehicle arrivals per day, associated with staff and deliveries of small items. The revised layout is not expected to alter that earlier estimate.



Revised Figures

1.23 No revisions to the figures which accompanied **EIA TA9.1** are required and they remain valid for this assessment.

Assessment of Design Amendment Effects

1.24 As shown in **Table 3**, the revised layout is expected to result in fewer HGV loads (and hence movements) than estimated for the application layout. There is no need therefore for an update to the assessment presented in **EIA TA9.1** and the conclusion that all effects resulting from the construction traffic would not be significant remain valid.

Cumulative Development Update

Cumulative Baseline

- 1.25 **Table 1-4** of **SEI Chapter 1** provides an updated list of other developments that could cause cumulative effects with the Proposed Development. The status of some wind developments has changed since **EIA TA9.1** was written so where information on construction traffic movements is available those developments are assessed here. Those developments which are at the scoping stage do not yet have information in the public domain on the number of vehicle movements that could be generated during the construction and the routes those vehicles could take. Those developments have therefore not been considered further.
- 1.26 The following developments are listed in **Table 1-4** of **SEI Chapter 1** as currently being at the application stage:
 - Balmeanach (revised layout)
 - Ben Aketil Repowering and Extension
 - Glen Ullinish II (Redesign) (revised layout).
 - Beinn Mheadhonach Redesign.
- 1.27 The Ben Aketil Repowering and Extension project was already assessed in **EIA TA9.1** and available details of predicted transport movements have not changed.
- 1.28 **EIA TA9.1** considered potential cumulative effects from the Glen Ullinish II Wind Farm project and concluded that no additional vehicle movements on roads within the study area were envisaged. This remains the case for the redesign proposals due to its access being taken from the south rather than from the A850 to the north of the Balmeanach site. The same conclusion would apply to the Beinn Mheadhonach Redesign project.

Cumulative Effects

- 1.29 The combined effects which would result should the Proposed Development be constructed alongside the proposed Balmeanach Wind Farm are discussed in full in **Volume 5** of this SEI Report.
- 1.30 Potential cumulative effects that could arise from the Proposed Development in combination with other proposed wind developments (such as those listed in **paragraph** 1.26) would be assessed in the Road Mitigation Schedule of Works and Transport Report, which was requested in one of THC Transport's suggested conditions.



- 1.31 **EIA TA9.1** confirmed that the A850 has enough spare capacity to cope with the predicted number of cumulative daily HGVs from the proposed Ben Aketil Repowering and Extension in combination with the Proposed Development and would not have a negative impact on the capacity of the A850. Neither Glen Ullinish II nor Beinn Mheadhonach Redesign would affect HGV movements on the A850.
- 1.32 The reduction in HGV movements arising from the revised layout compared to the application layout means that the conclusion in **EIA TA9.1** relating to cumulative effects remains valid:

"In terms of cumulative wind developments, no significant negative effects are identified on the A850 and the measures outlined in the CTMP will ensure that this is managed."

- 1.33 As noted in **EIA TA9.1**, in the event that construction of the Proposed Development and any of the identified cumulative wind farm schemes occur concurrently, this would not lead to any additional environmental effect in transportation terms, beyond that already assessed, provided that:
 - abnormal load movements are programmed in conjunction with Police Scotland and the Roads Authorities (THC and TS) so as not to occur on the same day simultaneously; and
 - days of specific high density vehicle movement (e.g. concrete pour days) are programmed so as not to occur on the same day simultaneously (to be enforced through inclusion as a factor within the CTMP, and to be agreed with Police Scotland and the Roads Authority accordingly).

Summary of Changes to the Significance of Effects

1.34 **EIA TA9.1** submitted with the Proposed Development concluded that no significant effects would arise. The revised layout would result in fewer vehicle movements throughout the overall balance of plant construction and turbine works programme than were estimated in **EIA TA9.1**. The revised layout does not change the significance of effects stated previously and no significant effects on transport or traffic would result.

Conclusions

1.35 The revised layout removing T1 would result in fewer vehicle movements than were estimated for the application layout. The consultation responses provided by both roads authorities to the Proposed Development remain valid and suitable traffic management and control measures would be implemented through planning conditions.

