



Chapter 10 Traffic and Transport

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10 Traffic and Transport

10.1 Executive Summary

10.1.1 The Proposed Development will be accessed from the exiting access junction for the Operational Turbine off the Gremista to Dale Voe Road, and the same delivery method that was used for the Operational Turbine will be used for the Proposed Development. In order to construct the Proposed Development, bulk materials such as concrete and rock will be imported to the Site from local sources. Both the turbine components and Battery Energy Storage System (BESS) will arrive at Greenhead port terminal, Shetland by sea and will be transported to the Site via Gremista Road for approximately 1 km.

10.1.2 The transport assessment for the 2011 Permitted Development (which assessed the potential effects of the three permitted turbines, only one of which has been built) remains relevant for the Proposed Development. It is assumed the levels of traffic associated with the Proposed Development would be less than those predicted within the 2011 previously Permitted Development Environmental Statement (ES). The 2011 ES found no significant effects as a result of the traffic associated with the 2011 Permitted Development. Therefore, no significant effects from traffic are anticipated from the Proposed Development.

10.2 Introduction

10.2.1 This chapter will utilise the transport assessment undertaken as part of the 2011 ES which assessed the traffic and transportation effects as a result of the three-turbine 2011 previously Permitted Development. As outlined in the Proposed Development chapter (**Chapter 4**) only one turbine of the three previously permitted turbines was constructed. As the Proposed Development consists of one turbine and BESS the impacts of the Proposed Development on traffic and transport will be less than those assessed within the 2011 ES.

10.3 Legislation, Policy and Guidance

10.3.1 The legislation, policy and guidance within the 2011 ES has been reviewed and despite updates occurring in legislation, policy and guidance, the findings remain relevant, and the conclusion remain the same since the predicted effects remain not significant.

10.4 Consultation

10.4.1 **Table 10.1** provides details of consultations undertaken with relevant regulatory bodies, together with action undertaken by the Applicant in response to consultation feedback.

Table 10.1 – Consultation Responses

Consultee	Response	Comment
Shetland Islands Council (SIC) - Roads Authority (12 th February 2021) Scoping Report	The Roads Authority has requested information in relation to the source points of construction materials being carried to Site and the route for any materials being taken off site alongside material volumes, tonnages, and associated vehicle movements to establish the	Noted. Please refer to section 10.7.1.

Consultee	Response	Comment
	<p>impacts on the road networks and any potential damage.</p> <p>Of particular interest is the condition of the public road between the junctions to the SBS Base at Greenhead and the SIC landfill site near Rova Head.</p> <p>It is requested pre and post construction road condition surveys are undertaken to fairly apportion any road maintenance costs.</p> <p>During construction a wheel wash facility is required to be provided on the Site to eliminate the transfer of materials from vehicles onto the public road.</p>	

10.5 Assessment Methodology and Significance Criteria

10.5.1 The 2011 ES assessed the traffic and transportation effects based on the construction of three turbines. The assessment concluded that the identified route is suitable for the delivery of abnormal loads, and the effects of construction traffic on the public road network would be not significant. Given the Proposed Development consists of one turbine and BESS and would utilise the same delivery route and methods as the 2011 Permitted Development, it is therefore considered appropriate to utilise the transport assessment undertaken as part of the 2011 ES. For this reason, the same scope of assessment has been adopted and outlined below.

Potential Effects Scoped Out of Assessment

10.5.2 The 2011 ES determined that only the construction phase of the Proposed Development where potential impacts was anticipated to occur, although not significant. SIC Roads Authority Scoping Response agreed that operational traffic movements are not considered to be significant and also noted that it is likely that the works required for decommissioning would be less than those required for construction. As such, both operational and decommissioning effects have been scoped out of the assessment.

10.5.3 The same approach was adopted for 2011 ES, which also scoped out operational and decommissioning effects. Therefore, it is considered that the traffic and transport assessment undertaken for the 2011 ES is representative of the potential impacts of the Proposed Development and that there will be no significant impacts during the operational or decommissioning phases.

10.6 Baseline Conditions

10.6.1 The operational Site entrance is located on the unclassified Gremista Road, approximately 500 m from the entrance to the Dales Voe port facility, where the road terminates. The total length of the Gremista Road is approximately 4 km, from its junction with the A970 to the Dales Voe port.

10.6.2 Gremista Road serves the Gremista Industrial Estate and the Dales Voe port with a few businesses directly fronting the road and no facilities for pedestrians.

- 10.6.3 Turbine components for the Operational Turbine were transported to Shetland by sea, then delivered from the Greenhead port terminal and transferred along the Gremista Road for approximately 1 km to Site.
- 10.6.4 The Proposed Development will use the same port of entry and access route to the Site as the 2011 Permitted Development.
- 10.6.5 The traffic flows, personal injuries and predicted trends discussed within the 2011 ES remain applicable to the Proposed Development. The predicted trends anticipated an increase in traffic flows due to growth in volumes of traffic. However, given the nature of the activities at Dales Voe port and the absence of receptors in this location, there is unlikely to be an increase in impacts despite the increase in traffic flows. The SIC Roads Authority Scoping Response noted that the impact of vehicle movements associated with the project would be not significant in respect to the general level of movements on most of the access route. SIC also notes that there were no concerns over the anticipated level of construction traffic for the quieter section of route nearest to the Proposed Development Site, since the road infrastructure in this area was designed for a much higher level of use than current use.
- 10.6.6 Therefore, the baseline conditions as assessed within the 2011 ES remain applicable.

10.7 Potential Effects

- 10.7.1 The Proposed Development will have the potential to affect the transport network during its construction phase.

Construction

- 10.7.2 As noted within the 2011 ES, the 2011 Permitted Development will generate traffic movements during construction due to the delivery of plant, materials and construction operatives (this is also the case for the Proposed Development).
- 10.7.3 It is considered that the same route and method of delivery for abnormal loads previously used remains appropriate, and the findings of the Route Access Report undertaken for the 2011 ES remain valid with no change to significance of effect.
- 10.7.4 The 2011 ES estimated the number of Heavy Goods Vehicles (HGV) movements (i.e., a vehicle arriving, unloading and departing would equate to two movements – one as it arrives and another as it departs) would be approximately 1,460 loads in total across the construction phase. As the 2011 Permitted Development was for three turbines the number of trips required for the Proposed Development would be less than those assessed.
- 10.7.5 As detailed in the 2011 ES, it is proposed aggregate for construction would be imported from elsewhere in Shetland, the location of which will be dependent on the availability at the point of construction.
- 10.7.6 It is considered that the impacts of the Proposed Development on traffic and transport will be less than those assessed within the 2011 ES and that the change in layout will not have a material difference on anticipated construction traffic. Any change in anticipated trips will result in a lower or negligible difference and therefore will not result in a significant impact.

10.8 Mitigation

- 10.8.1 The 2011 ES predicted negligible impacts arising from the 2011 Permitted Development, and as such negligible impacts are predicted for the Proposed Development. The following good practice measures will be adopted prior to and during the construction phase of the Proposed Development:
- wheel washing facilities will be installed on the access road if required;
 - abnormal load vehicle escorts and timing of deliveries would be within quiet periods;



- specific travel routes to and from the Site on the local road network will be defined for construction vehicles; and
- temporary construction action signage for the access of maintenance operations.

10.8.2 It is anticipated that these measures could be secured via a suitably worded condition of planning. If considered necessary, a Traffic Management Plan will be agreed with the local roads authority prior to commencement of construction.

10.9 Conclusion

10.9.1 As per the transport assessment in the 2011 ES, the main transportation impacts of the Proposed Development will be associated with the moments of commercial HGVs, generated by the project's construction. However, the impacts are anticipated to be less than those outlined in the 2011 ES due to the reduced number of turbines and the predicted effects remain non-significant.

Table 10.2 – Summary of Effects

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison in Residual Effect Significance from 2011 Permitted Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Severance	Negligible and not significant	Adverse	None	Negligible and not significant	Adverse	No change in significance.
Driver Delay	Negligible and not significant	Adverse		Negligible and not significant	Adverse	No change in significance.
Pedestrian Delay	Negligible and not significant	Adverse		Negligible and not significant	Adverse	No change in significance.
Pedestrian Amenity	Negligible and not significant	Adverse		Negligible and not significant	Adverse	No change in significance.
Fear and Intimidation	Negligible and not significant	Adverse		Negligible and not significant	Adverse	No change in significance.
Accidents and Safety	Low and not significant	Adverse		Low and not significant	Adverse	No change in significance.



10.10 References

Department for Community and Local Government and Department for Transport. (2007). Publication on Guidance on Transport Assessment.

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