



Bhlaraidh Wind Farm Enabling Works

(Project Ref. LN000062)

TRAFFIC MANAGEMENT PLAN

Rev No. :	Revision Description :	Date :
	For Approval	

Distribution Record :

Revision :	Issued to :	Date :
	As per Document Transmittal	

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1. INTRODUCTION

1.1 Scope of Document

1.1.1 This purpose of this document is to summarise the proposed Traffic Management activities (both temporary and permanent) required for works in connection with the construction of the Enabling Works for the consented Bhlaraidh Wind Farm in the Scottish Highlands. This document has been prepared to address the Traffic Management associated with the Enabling Works and will be updated during the refinement period and prior to the main construction works. The Traffic Management Plan (TMP) has been prepared specifically in accordance with the requirements of Planning Conditions, which state:

Condition	Document Section
20. (1) <i>No development shall commence until a Traffic Management Plan has been submitted and approved by the Planning Authority in consultation with Transport Scotland and TECS Roads.</i>	LN000062-Bhlaraidh WF Enabling Works Traffic Management Plan
(2) <i>The Traffic Management Plan must describe all measures to manage traffic during the construction periods. The Plan must ensure that any use of the public road networks, including access onto the public road, is upgraded to a suitable standard to the satisfaction of the relevant Roads Authority. This will require, as a minimum, the following measures to be addressed: -</i>	LN000062-Bhlaraidh WF Enabling Works Traffic Management Plan
(a). <i>A route assessment report for abnormal loads including swept path analysis and details on the movement of any street furniture and any traffic management measures.</i>	N/A Enabling Works Package. To be included in Turbine Delivery TMP (S3).
(b) <i>Drainage improvements to ensure water and debris are prevented from discharging from the site onto the public road.</i>	Detailed Junction Design Drawings to be approved by Transport Scotland.
(c) <i>An assessment of the capacity of existing bridges and other structures along the construction access route(s) to cater for all construction traffic, with upgrades and mitigation measures proposed as necessary.</i>	N/A Enabling Works Package. In development for Turbine Delivery TMP (S3).
(d) <i>A trial run to confirm the ability of the local road network to cater for turbine delivery. Three weeks notice of this trial run must be made to the Local Roads Authority who needs to be able to attend this trail run.</i>	N/A Enabling Works Package. To be included in Turbine Delivery TMP (S3).
(e) <i>A concluded Wear and Tear agreement in accordance with Section 96 of the Roads (Scotland) Act 1984 under which the Company is responsible for the repair of any damage to the local road network that can reasonably be attributed to construction related traffic. As part of this agreement, pre-start and post-construction road condition surveys will need to be carried out by the Company to the satisfaction of the Council's TEC Services.</i>	Appendix G - Pre-Start Road Condition Survey.
(3) <i>The approved Traffic Management Plan must be implemented.</i>	LN000062-Bhlaraidh WF Enabling Works Traffic Management Plan

<p>21. <i>The proposed means of access to the A887 trunk road shall be constructed to a layout, type and method of construction, approved in writing by Transport Scotland, prior to any other aspect of the development taking place.</i></p>	<p>Appendix C-Details of Proposed Roadworks, 1) Proposed Access Enabling Works 2) Access Upgrade Design (Stage 2 TMP)</p>
<p>22. <i>Wheel washing facilities shall be provided within the Site prior work concurrently with the trunk road junction and shall thereafter be maintained until the windfarm has been commissioned.</i> <i>Reason: To ensure that mud and debris is not discharged to the public road from vehicles existing the site.</i></p>	<p>LN000062-Bhlaraidh WF Enabling Works Traffic Management Plan Section 3.</p>
<p>23. <i>During the delivery period of wind turbine construction any additional signage or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised SQ traffic management consultant, to be approved by Transport Scotland before delivery commences.</i></p>	<p>N/A Enabling Works Package. In development for Turbine Delivery TMP (S3).</p>
<p>24. <i>A community liaison group shall be established by the Company prior to development commencing, in collaboration with the Planning Authority and local Community Councils. The purpose of the group is to act as a vehicle for the community to be kept informed of project progress and, in particular, should allow advanced dialogue on the provision of all transport-related mitigation measures and to keep under review the timing of the delivery of turbine components; this should also ensure that local events and tourist seasons are considered and appropriate measures to coordinate deliveries and work to ensure no conflict between construction traffic and the increased traffic generated by such events/seasons. The liaison group should, wherever possible, consider the impacts and timings of work undertaken at other large development sites in the Loch Ness area; to achieve this, it may, with the written approval of the Planning Authority, be combined with other liaison groups in the area serving similar purposes. The liaison group, or element of any combined liaison group relating to this development, shall be maintained until wind farm has been completed and is operational.</i></p>	<p>LN000062-Bhlaraidh WF Enabling Works Traffic Management Plan Section 1.4</p>

1.1.2 The proposed traffic management arrangements defined in this document shall be implemented and managed by the Civil Works Principal Contractor (PC) under supervision of SSE and will be applicable to all traffic involved in the project. This plan has been prepared specifically to address the traffic management arrangements for the Enabling Works stage and does not, therefore, include details associated with the delivery of turbine components.

Details of abnormal load deliveries (Conditions 20 (2a,c,d), 23 and 24) and the associated mitigation measures will be incorporated into this plan and resubmitted to the Statutory Consultees at least three months prior to the commencement of the Main Civil Works (March 2016).

1.1.3 This document has been developed for information and/or review by the following consultees:

- The Highland Council Planning Authority
- Traffic Scotland
- BEAR Scotland
- Transport Scotland
- Highland Council Roads (Local Network not impacted by Development)

1.1.4 This document provides information on the planned haulage routes to the construction site and the associated traffic management proposals required to ensure the existing public road infrastructure is maintained in an acceptable condition and that there is continued safe use of that public road network by the local community during the construction works.

1.1.5 This document is also intended to provide clear guidance to the Principal Contractor and all sub-contractors regarding access routes to the site, maintenance requirements for the existing public road, restrictions to vehicle access, speed limits imposed for the duration of the works and identification requirements for all vehicles involved in the project.

1.1.6 RJ MacLeod have been appointed as the Principal Contractor for the Enabling Works and have been involved in the development of this document.

1.2 Location Information

1.2.1 The Site is defined as Bhlaraidh Wind Farm, located near Invermoriston in the Scottish Highlands, as shown on the Site Location Figure in **Appendix A**.

1.2.2 Works required along public highways to facilitate the movement of construction traffic or Abnormal Indivisible Loads (AILs) are termed "Off-Site" Works and are outlined in Section **2.3**. Route modifications required to facilitate the delivery of AILs will be detailed in subsequent versions of this document.

1.3 Health and Safety

1.3.1 The Health and Safety of the local community and all personnel involved in the project is of the highest importance. All Traffic Management works involving work in the public highway are considered potentially dangerous activities, requiring rigorous health and safety processes to be in place at all times. Specific risk assessments and supplementary method statements shall be produced and developed by the Principal Contractor, as appropriate, prior to the onset of the works.

1.3.2 It is important that all Traffic Management works should be flexible and adaptable to take account of the general public / other road users, changing conditions, particularly in relation to weather, road and traffic conditions, ground conditions and any protected species that may be encountered during the works.

1.3.3 The Health and Safety requirements for the Site will be fully detailed in the Construction Phase Health & Safety Plan (CPHSP) in accordance with the Construction (Design & Management) Regulations 2015 (or as amended).

1.4 Community Liaison Group

- 1.4.1 As a responsible developer, SSE is keen to undertake ongoing engagement and consultation with the local community during the construction of Bhlaraidh Wind Farm. As such, and as per our planning conditions (24), SSE will establish a Community Liaison Group (CLG) throughout the construction of the development. The group aims to provide a forum for SSE and their contractors to present information on plans during construction, including traffic management, deliveries and construction of the grid route, and allow the local community councils, and other interested stakeholders, impacted by the development to feedback their views and any issues encountered. Concerns will be documented and acted upon by SSE accordingly.
- 1.4.2 Each meeting will be minuted and minutes will be publicly available to view on the Bhlaraidh project website once approved by the group: <http://www.sse.com/bhlaraidh>. A Terms of Reference document for the management of the CLG will be agreed by attendees at the first meeting, which will be held in advance of construction starting.
- 1.4.3 Members of the public will also be kept regularly updated on the latest project information through our mailing list and project website.

1.5 Plant and Equipment

- 1.5.1 The works will be undertaken in strict accordance with the Provision and Use of Work Equipment Regulations “PUWER” 1998 (or as amended) covering all types of plant and equipment found on construction sites.
- 1.5.2 All site operatives shall be appropriately trained, experienced and hold certification of training achievement issued by CITB or other construction industry approved schemes.

1.6 Definitions

Unless defined within the body of this document, capitalised terms used herein are defined as follows:

Access Track(s):	any new, or upgraded, track alignment within the site boundary for the construction of, and delivery to, the works. These shall typically be unbound consisting of a crushed rock construction, and may include geotextiles within their fabric. Earthworks (embankments or cuttings) may also be required to maintain levels and gradients. They do not include tarmacked roads for use by the general public (public highway) and consequently are not the subject of this Traffic Management Plan.
AIL:	Abnormal Indivisible Loads – these are those loads whose dimensions (either; length, width, height or weight) exceed normal Heavy Goods Vehicle (HGV) classifications. These may be the transformer, turbine components and heavy construction plant deliveries.
PC:	The Principal Contractor appointed to build the civil infrastructure for the project. They shall also be designated the “Principal Contractor” as defined by the CDM Regulations (2007).
Public Highway:	Any designated road route <i>outwith</i> the site boundary (as shown in Appendix A) that is not

privately owned. The relevant roads associated with this being principally the A82, A887 and A87 (as shown in **Appendix B**), and described in Section 2 (below) as the Construction Traffic Route.

2 Construction Traffic Route

The construction traffic route is defined as those parts of the Public Highway designated for access to, or egress from the Bhlaraidh Wind Farm site. Construction traffic heading to the site will follow three principal routes:

- **Route 1** – A82 (southbound from Inverness); turning right on to the A887 at Invermoriston and then on to the site entrance.
- **Route 2** – Invergarry / Localsh via A87 on to the A887 travelling south over Torgoyle Bridge to the site entrance.
- **Route 3** – A82 (northbound via Fort Augustus); turning left on to the A887 at Invermoriston and then on to the site entrance.
- Construction deliveries will not be permitted on the B851 / B862 (South Loch Ness Road Network).

It is anticipated the majority of construction traffic will follow Route 1. The Construction Traffic Routes are shown on the plans included in **Appendix B** to this plan.

2.1 Preliminary Assessments

- 2.1.1 Preliminary traffic surveys and assessments were undertaken by Halcrow as part of the Environmental Impact Assessment. This assessment identified priority routes (as stated above) and various mitigation measures, which are discussed herein.
- 2.1.2 The assessment identified the above noted routes are suitable for construction traffic without any modifications other than the construction of a new site access junction from the A887.

Pre-Condition Survey and Construction Period Wear and Tear.

- 2.1.3 In accordance with the requirements of Condition No 20 (2e) of the Section 36 Consent dated 14th January 2014. SSE is required to enter into a Section 96 Agreement under the Roads (Scotland) Act for any damage to the local road network that can be reasonably attributed to construction traffic. Construction traffic for Bhlaraidh Wind Farm will only use trunk roads and therefore any such agreements will be agreed with BEAR Scotland or Transport Scotland.
- 2.1.4 A condition survey of the A887 will be undertaken pre and post construction to ensure any damage attributed to the construction works can be reinstated to the condition recorded at the time of the initial survey. It is anticipated the inspection will be undertaken in conjunction with representatives from BEAR Scotland.
- 2.1.5 The Principal Contractor and SSE Site Manager will undertake weekly inspections of the A887 to determine any deterioration in road condition during construction of the Enabling Works. A record of these inspections will be maintained by the Principal Contractor, which confirms the date of the survey and the type and dimensions of defects observed. Proposals for corrective action will be agreed with BEAR in advance of any remedial works.
- 2.1.6 The requirements of the “Well Maintained Highways – Code of Practice for Highway Maintenance Management”, produced by the UK Roads Liaison Group, shall also be complied with and the road shall not be allowed to deteriorate to a point where it becomes uncomfortable to drive and ongoing repairs will be progressed as required to prevent this.
- 2.1.7 The Principal Contractor is responsible for maintaining the public roads for the duration of the Enabling Works and shall employ good practice to keep the road clean and keep dust down.

Abnormal Delivery Route Assessment.

- 2.1.8 Prior to the Main Works a route assessment report for abnormal loads including swept path analysis will be commissioned by SSE and appended to this document. The report will detail movement of any street furniture. Additionally an assessment of the bridges capacity and other structures along this route will be commissioned by SSE prior to the Main Works. This Traffic Management Plan will be updated accordingly to address Conditions 20 (2a and c).
- 2.1.9 Prior to turbine delivery a trial run will be commissioned by SSE to confirm the ability of the road network. (Condition 20 (2d))

2.2 Works Required

- 2.2.1 The access junction from the A877 will be improved as part of the Enabling Works package. The design of the new site access will be agreed and approved by BEAR and / or Transport Scotland including drainage improvements (Conditions 20 (b) and 21). This design will form Appendix C of the revised TMP.
- 2.2.2 No further off-site improvement works are required for the enabling works. The current access to the site Appendix C is deemed adequate for the initial enabling works traffic and the Principal Contractor will ensure measures are put in place to prevent the accumulation of debris on the public road.

3 TRAFFIC MANAGEMENT

3.1 Traffic Movements

- 3.1.1 The Enabling Works include the construction of the site substation platform, access junction with the A887, approximately 5km of new access track, borrow pit extraction and upgrading of existing tracks. An estimated breakdown of construction traffic movements for the Enabling Works is included in **Appendix D** to this plan. It is anticipated all aggregates will be sourced from on-site borrow pits and the associated impacts on the surrounding road networks would therefore be negligible.
- 3.1.2 The Principal Contractor will be tasked with investigating and actively pursuing methods of reducing the number of vehicle movements on the public road.

The Enabling Works will require the Contractor to mobilise the following to site:

- General and specialist construction plant, including :
 - Tracked and wheeled excavators
 - Dozers and compaction plant
 - Dumper trucks
 - Crushers
 - Graders
 - Low-bed transporters for delivery of office accommodation etc.
- 3.1.3 The Civil Contractor's site-plant will be required to be delivered to the site over two main mobilisation periods. Initially this would involve cabins and office accommodation in August 2015 followed by plant and equipment in September. On-going deliveries of fuel and other materials will occur throughout the period of the works as required. The site operatives travel to site in Company vans in groups in order to reduce the number of vehicle movements to site.
- 3.1.4 Prior to the commencement of the works, the Principal Contractor shall provide details of measures to be undertaken to reduce the levels of site worker traffic. This Traffic Management Plan, including **Appendix D** will be updated accordingly following appointment of the Principal Contractor.
- 3.1.5 The Principal Contractor will be responsible for ensuring that no debris or mud is discharged to the public road in accordance with Condition 22.

3.2 Transport Management (Mitigation Measures)

The following mitigation measures shall be employed to reduce the potential impact of construction traffic flows:

Speed Limits

- 3.2.1 A speed limit of 30mph for construction traffic shall be imposed on the A887 through Invermoriston and an advisory limit of 40mph on the section of the A887 between Invermoriston and the site access.
- 3.2.2 Any construction traffic travelling via Fort Augustus will be instructed to follow a limit of 30mph through the village.
- 3.2.3 Public highway speed limits for construction traffic are highlighted in **Appendix B** Construction Traffic Route.

Notices of Abnormal Loads

- 3.2.4 Prior to Turbine delivery this Traffic Management Plan will be revised to include details of additional signage and and/or temporary traffic details. (Condition 23)
- 3.2.5 The project Community Liaison Officer and Principle Contractor will be tasked establishing a community liaison group (Condition 24) to keep the community informed about the project as discussed in Section 1.4.
- 3.2.6 Prior to any abnormal load deliveries (construction plant and equipment only) being undertaken (should these prove necessary), SSE will prepare and post notices at key locations along the proposed haulage route for the information of the general public. The content and locations of these notices is to be agreed in advance with the Police and the Highland Council. A regular newsletter will also be prepared by SSE Community Relations Department for circulation via letter drop to the local community, which provides programme information on key construction activities and the timing and magnitude of construction traffic movements on a monthly look-ahead basis.
- 3.2.7 Notice of Abnormal loads (should these prove necessary will also be available on the SSE website and the project Community Liaison Officer shall co-ordinate a letter-drop to affected properties along the proposed route.

Road Signage

- 3.2.8 The Principal Contractor shall be responsible for providing and maintaining appropriate signage which defines the access route to the site, provides warnings to other road users and warns construction traffic regarding restrictions to access and speed limits.
- 3.2.9 Advisory speed restriction signs (subject to approval by BEAR Scotland) within or along the Site boundary will be managed and enforced by the Principal Contractor. All signage will be provided in accordance with No. 311, Road Traffic; The Traffic Signs Regulations and General Directions 2002.

Restrictions – Access

- 3.2.10 SSE and the Principal Contractor will ensure construction traffic will only be permitted to use the construction access routes defined in Section 2 above. The information will be provided to the site staff during the Induction Process, Site Rules and Delivery Information Notices.
- 3.2.11 In addition to the restrictions identified above, both SSE and the Principal Contractor are committed that construction traffic shall be limited on the A887 to;

April - September 7:00am – 7:00pm (weekdays); 7:00am – 2:00pm (Saturdays)
October – March 7:30am – 5:00pm (weekdays); 7:30am – 2:00pm (Saturdays).
- 3.2.12 There will be no Sunday construction traffic unless agreed in writing by the Planning and Authority. Additionally, HGV movements shall avoid the times 8:00am – 9:00am and 3:00pm – 4:00pm (Monday to Friday) during school term times to avoid drop off and collection of local school pupils.
- 3.2.13 SSE takes public safety very seriously. We shall not hesitate to have dismissed from Site any personnel who are observed to be flouting the agreed speed limits or route constraints for construction vehicles.

3.2.14 To aid in the policing of the traffic management proposals and to avoid confusion with other construction traffic using the public road all vehicles involved in construction of the Bhlaraidh WF Scheme will be given a unique identifier which shall confirm the following:

- The project name
- The contractor, sub-contractor or supplier to whom the vehicle belongs
- An individual numeric identifier unique to each vehicle.
- A contact number for addressing complaints about the driving of the vehicle

A card or plate displaying these details shall be fixed to the front and rear of each vehicle where it can be easily read.

4 Programme for the Works

- 4.1.1 The construction period for the Enabling Works is approximately 6 months. The Civil Contract works have been awarded to RJ Macleod (June 2015) and it is anticipated they will mobilise to site in August 2015, with completion of construction by March 2016 (subject to winter shutdown). An indicative programme for these works used during tender is shown in Appendix E. This programme will be reviewed following further refinement of the Principal Contractor.
- 4.1.2 The Main Civil Works will likely commence in March 2016 and this Traffic Management Plan will be updated at least three months prior to this date.
- 4.1.3 This Traffic Management Plan will be treated as a live document. Submitted revisions to the Planning Authority, in consultation with Transport Scotland, will include the following updates; Principal Contractor appointment, Transition to Main Works and Turbine Delivery.