

## **Technical Appendix 11.1: Transport Assessment**

P e l l F r i s c h m a n n

Harris to Stornoway 132 kV Overhead Line  
Replacement (LT000245)

Technical Appendix 11.1: Transport Assessment

October 2022

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Annex A Construction Traffic Profile

# 1 Introduction

## 1.1 Purpose of the Report

Pell Frischmann (PF) has been commissioned by Ramboll UK Ltd. to undertake a Transport Assessment (TA) for the proposed Harris-Stornoway 132 kV Overhead Line (OHL) Replacement, on behalf of Scottish and Southern Electricity Networks (SSEN) Transmission.

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The report identifies the key transport and access issues associated with the Proposed Development. The TA identifies where the Proposed Development may require mitigation works to accommodate the predicted traffic; however, the detailed design of these remedial works is beyond the agreed scope of this report.

## 1.2 Report Structure

Following this introduction, the TA report is structured as follows:

- Chapter Two describes the Proposed Development;
- Chapter Three reviews the relevant transport and planning policies;
- Chapter Four sets out the methodology used within this assessment;
- Chapter Five describes the baseline transport conditions;
- Chapter Six describes the trip generation and distribution of traffic in the Study Area;
- Chapter Seven summarises the traffic impact assessment;
- Chapter Eight considers mitigation proposals for development related traffic within the study network; and
- Chapter Nine summarises the findings of the TA and outlines the key conclusions.

## 2 Proposed Development

### 2.1 Site Location

The Proposed Development is to be located between Grose-Clett and Stornoway on Lewis and Harris, within the council area of Comhairle nan Eilean Siar (CnES). The location of the proposed alignment forming part of the Proposed Development is presented in Figure 1 below.

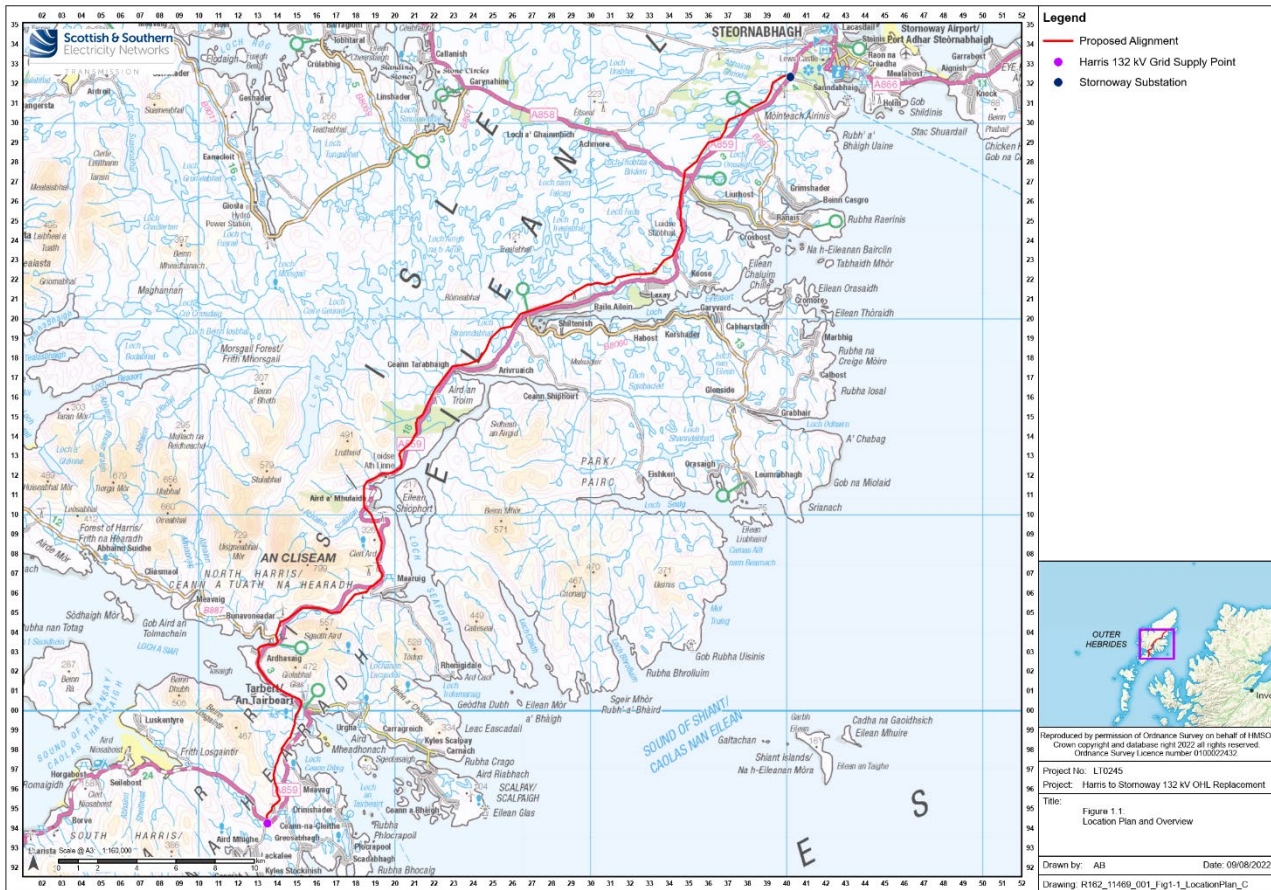


Figure 1 Location Plan (courtesy of SSEN Transmission)

### 2.2 Proposed Development

The Proposed Development would comprise the construction of approximately 58 km of new 132 kV OHL from the existing Harris grid supply point to the existing Stornoway substation, as shown on Figure 1.

The Proposed Development will replace the existing aged 132 kV OHL asset which will be dismantled and removed as part of the project works.

Temporary works and ancillary works would be required to facilitate construction and operation of the Proposed Development, which include the following:

- vegetation clearance along the OHL for the lifetime of the Proposed Development;
- upgrade existing or establishment of new junction bellmouths;
- establishment of temporary access points for the construction of the OHL;
- establishment of material drop off points, where materials can be dropped off by helicopters;
- installation of temporary measures to protect road crossings during construction (scaffolding etc.); and
- dismantling of the existing OHL.

The Proposed Development would not have a fixed operational life, however, it is assumed that the Proposed Development will be operational for 40 years or more.



## 3 Transport Policy Review

### 3.1 Introduction

This chapter of the report provides an overview of the relevant national and local transport planning policy and guidance.

### 3.2 National Policy

#### 3.2.1 Scottish Planning Policy (2014)

The purpose of the Scottish Planning Policy (SPP) is to set out national planning policies which reflect Scottish Ministers' priorities for operation of the planning system and for the development and use of land. The SPP promotes consistency in the application of policy across Scotland whilst allowing sufficient flexibility to reflect local circumstances. It directly relates to:

- the preparation of development plans;
- the design of development, from initial concept through to delivery; and
- the determination of planning applications and appeals.

The SPP was developed to set out the national planning policies which demonstrates the priorities of Scottish Ministers' for the operation of the planning system as well as for the development and use of land. The document notes that:

*“Where a new development or a change of use is likely to generate a significant increase in the number of trips, a transport assessment should be carried out. This should identify any potential cumulative effects which need to be addressed.”*

In relation to the construction of new developments, the SPP notes:

*“Consideration should be given to appropriate planning restrictions on construction and operation related transport modes when granting planning permission, especially where bulk material movements are expected, for example freight from extraction operations.”*

### 3.3 Local Policy

#### 3.3.1 Outer Hebrides Local Development Plan (2018)

The Outer Hebrides Local Development Plan (LPD) was adopted in November 2018, which sets out the planning policies of CnES to facilitate growth on the Islands.

Policy EI 8: Energy and Heat Resources states that:

*“Proposals for all other renewable energy projects and oil and gas operations (including land based infrastructure associated with offshore projects) will be required to demonstrate all the following:*

- a) appropriate location, siting and design including the technical rationale for the choice of site;*
- b) no significant adverse impact (including cumulative) on: landscape, townscape and visual aspects; natural, built and cultural heritage resources; the water environment; peatlands; aviation, defence and telecommunications transmitting and receiving systems, e.g., broadband; public health and safety, and amenity (including noise); neighbouring land uses, transport management and core paths;*
- c) appropriate decommissioning and site reinstatement arrangements;*
- d) phasing arrangements, where appropriate;*
- e) the contribution towards meeting national energy supply targets and local economic impact.”*

*“The type, scale and size of the proposed development will have a significant effect on the way the Comhairle will consider an application and the level of accompanying information that will be required. Conditions and, where necessary, a planning agreement may be used to control the detail of the development. Non-permanent elements of a development will be granted permission consistent with their lifespan and/or projected period of use.”*

## 3.4 Guidance

### 3.4.1 Planning Advice Note 75 (2005)

Planning Advice Note (PAN) 75: Planning for Transport provides advice on the requirements for Transport Assessments. The document notes that:

*“... transport assessment to be produced for significant travel generating developments. Transport Assessment is a tool that enables delivery of policy aiming to integrate transport and land use planning.”*

*“All planning applications that involve the generation of person trips should provide information which covers the transport implications of the development. The level of detail will be proportionate to the complexity and scale of the impact of the proposal...For smaller developments the information on transport implications will enable local authorities to monitor potential cumulative impact and for larger developments it will form part of a scoping exercise for a full transport assessment. Development applications will therefore be assessed by relevant parties at levels of detail corresponding to their potential impact.”*

### 3.4.2 Transport Assessment Guidance (2012)

Transport Scotland's (TS) Transport Assessment Guidance was published in 2012. It aims to assist in the preparation of Transport Assessments (TA) for development proposals in Scotland such that the likely transport impacts can be identified and dealt with as early as possible in the planning process. The document sets out requirements according to the scale of development being proposed.

The document notes that a TA will be required where a development is likely to have significant transport impacts but that the specific scope and contents of a TA will vary for developments, depending on location, scale and type of development.

## 3.5 Policy Summary

The Proposed Development can align with the stated policy objectives and the design of the Site and proposed mitigation measures will ensure compliance with national and local objectives.

## 4 Study Methodology

### 4.1 Introduction

There are three phases of the life of the Proposed Development. All three phases have been considered in this assessment and are as follows:

- the construction phase;
- the operational phase; and
- the decommissioning phase.

### 4.2 Project Phases – Transport Overview

Of the three aforementioned phases, the construction phase is considered to have the greatest impact in terms of transport. Construction plant and materials will be transported to Site, potentially having a significant increase in traffic on the study network.

Once operational, it is envisaged that the level of traffic associated with the Proposed Development would be minimal. Regular maintenance visits would be made using 4x4 vehicles. It is considered that the effects of operational traffic would be negligible.

The traffic generation levels associated with the decommissioning phase will be less than those associated with the development phase as some elements, such as access roads, would be left in place on the Site. As such, the construction phase is considered the worst case assessment to review the impact on the Study Area.

It should be noted however that the construction effects are short lived and transitory in nature.

### 4.3 Scoping Discussion

The Applicant submitted a request for a Scoping Opinion to the Scottish Ministers in respect of the Environmental Impact Assessment (EIA) which included a section considering traffic and transport. A full review of that Scoping Opinion and other correspondence relating to the scope of the study is provided in the Traffic and Transport Chapter of the EIA Report (EIAR Volume 2: Chapter 11).

## 5 Baseline Conditions

### 5.1 Access Arrangements

Access to the construction works will be taken from locations along the A859. The locations of proposed new bellmouth junctions and access tracks are shown in EIAR Volume 3a, Figure 2.3: Access Strategy. It should be noted that in some situations, helicopters may be used to deliver poles to the point of installation.

The access points will be designed in accordance with CnES standards and will feature compliant visibility plays in both directions. Applications for the junctions will be made to CnES through the technical approval process and applications for Road Opening Permits would be made following technical approval.

### 5.2 Study Area Determination

Consultation was undertaken during the scoping with CnES officers in order to establish a suitable study network for the assessment. The Study Area includes local roads that are likely to experience increased traffic flows associated with the Proposed Development. The geographic scope was determined through a review of Ordnance Survey (OS) plans and an assessment of the potential origin locations of construction staff and supply locations for construction materials.

The Study Area for this assessment includes the A859, between Grose-Clett and to the south of Stornoway. The Study Area network is illustrated in Figure 2.



Figure 2 Study Area

### 5.3 Pedestrian and Cyclist Networks

A review of the Core Paths Plan on the CnES website (<https://www.cne-siar.gov.uk/leisure-sport-and-culture/community-life-and-leisure/countryside-access/core-paths-planning-in-the-hebrides/>) indicates that the following Core Paths detailed in Table 1 are located within the vicinity of the Proposed Development.

**Table 1: Core Paths in the vicinity of the Proposed Development**

Path No.	Path Name	Selection Criteria	Surface Type	Length (km)
10	Miabhaig - Bhiogiadail Route	Landscape, cultural, natural	Rough track, rough surfaced path, unsurfaced path	16.90
11	Urgha - Maraig PROW	Public Right of Way, landscape, cultural, natural	Rough surfaced track	6.13
13	Direcleit Circular Route	Circular, landscape, cultural, natural	Metalled road, rough track, unsurfaced path	2.37
14	Seilebost - Aird Mhighe Circular PROW	Public Right of Way, landscape, cultural, natural	Rough surfaced track, unsurfaced path	14.62

A review of the National Cycle Network map (<https://www.sustrans.org.uk/national-cycle-network>) indicates that there are no National Cycle Routes along the A859 within the Study Area, however, the A859 is listed as an “on-road route not on the National Cycle Network”.

## 5.4 Road Access

The A859 is the main road which connects Stornoway, in the north-east, to Rodel, in the south. The A859 is a single carriageway which is generally subject to the national speed limit, however, this reduces going through towns and villages and is maintained by the CnES. There are no trunk roads on the islands.

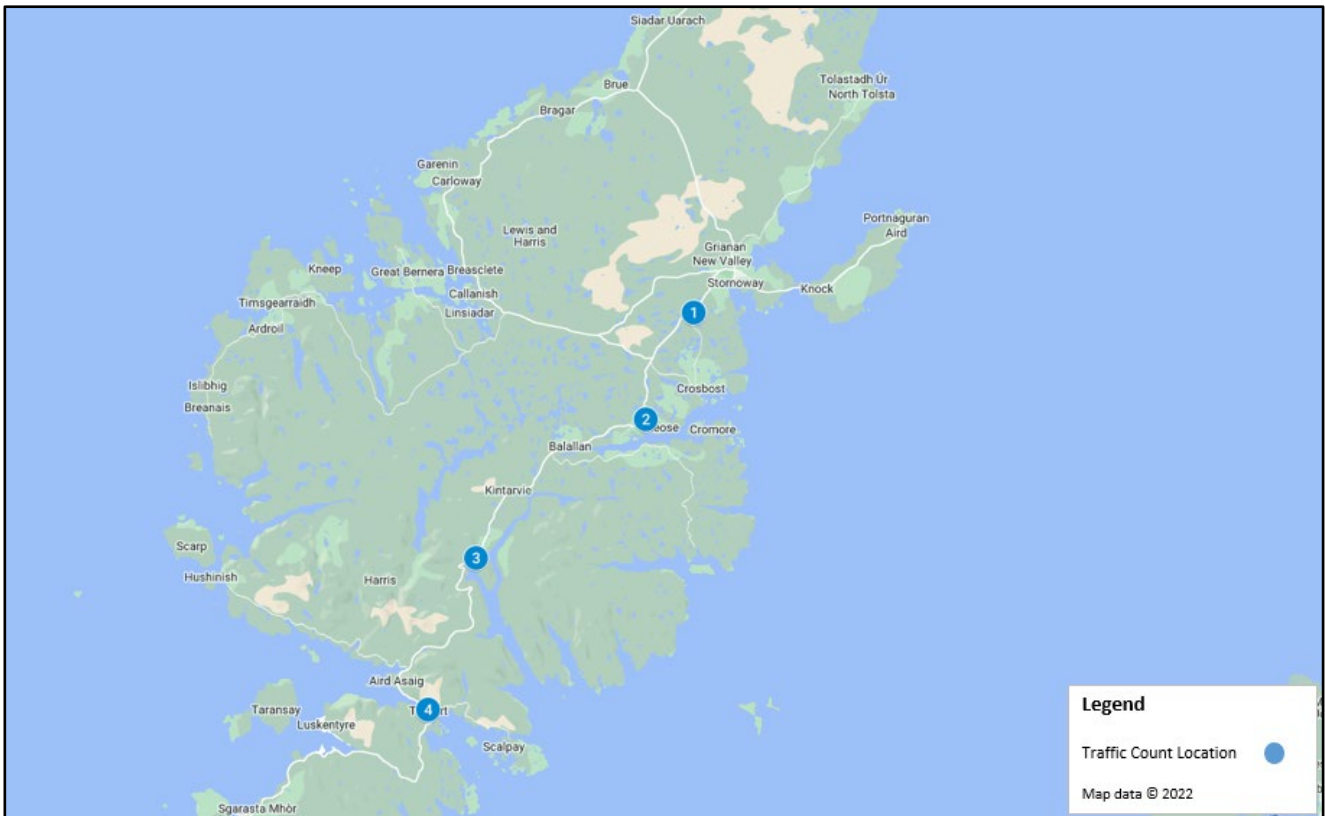
## 5.5 Existing Traffic Conditions

In order to assess the impact of development traffic on the Study Area, traffic data was obtained from existing traffic sources from the UK Department for Transport (DfT) database. The locations for the DfT traffic survey sites are as follows:

1. A859, South of Stornoway (Count Site Reference 91285);
2. A859, East of Kinloch (Count Site Reference 80413);
3. A859, South of Kintarvie (Count Site Reference 30948); and
4. A859, Tarbert (Count Site Reference 10948).

The locations of the traffic survey sites are shown in Figure 3.





**Figure 3 Traffic Count Locations**

These sites were identified as being areas where sensitive receptors on the access route would be located. A full receptor sensitivity and effect review is prepared in EIAR Volume 2: Chapter 11.

The traffic counters allowed the traffic flows to be split into vehicle classes and the data has been summarised into cars / light good vehicles (LGVs) and heavy goods vehicles (HGVs) (goods vehicles >3.5 tonnes gross maximum weight, as well as buses for the purpose of this assessment).

Traffic count data for 2019 was obtained from the count site information, as this traffic data remains unaffected by the travel restrictions associated with the COVID-19 pandemic. A National Road Traffic Forecast (NRTF) low growth factor of 1.022 was applied to the 2019 flows to forecast 2022 flows.

Table 2 summarises the 24-hour average daily traffic data forecast at the count sites.

**Table 2: 24-hour Average Daily Traffic Data (2022)**

Ref. No.	Survey Location	Cars & LGV	HGV	Total
1	A859, South of Stornoway	3,604	162	3,766
2	A859, East of Kinloch	1,842	346	2,188
3	A859, South of Kintarvie	806	68	875
4	A859, Tarbert	980	406	1,386

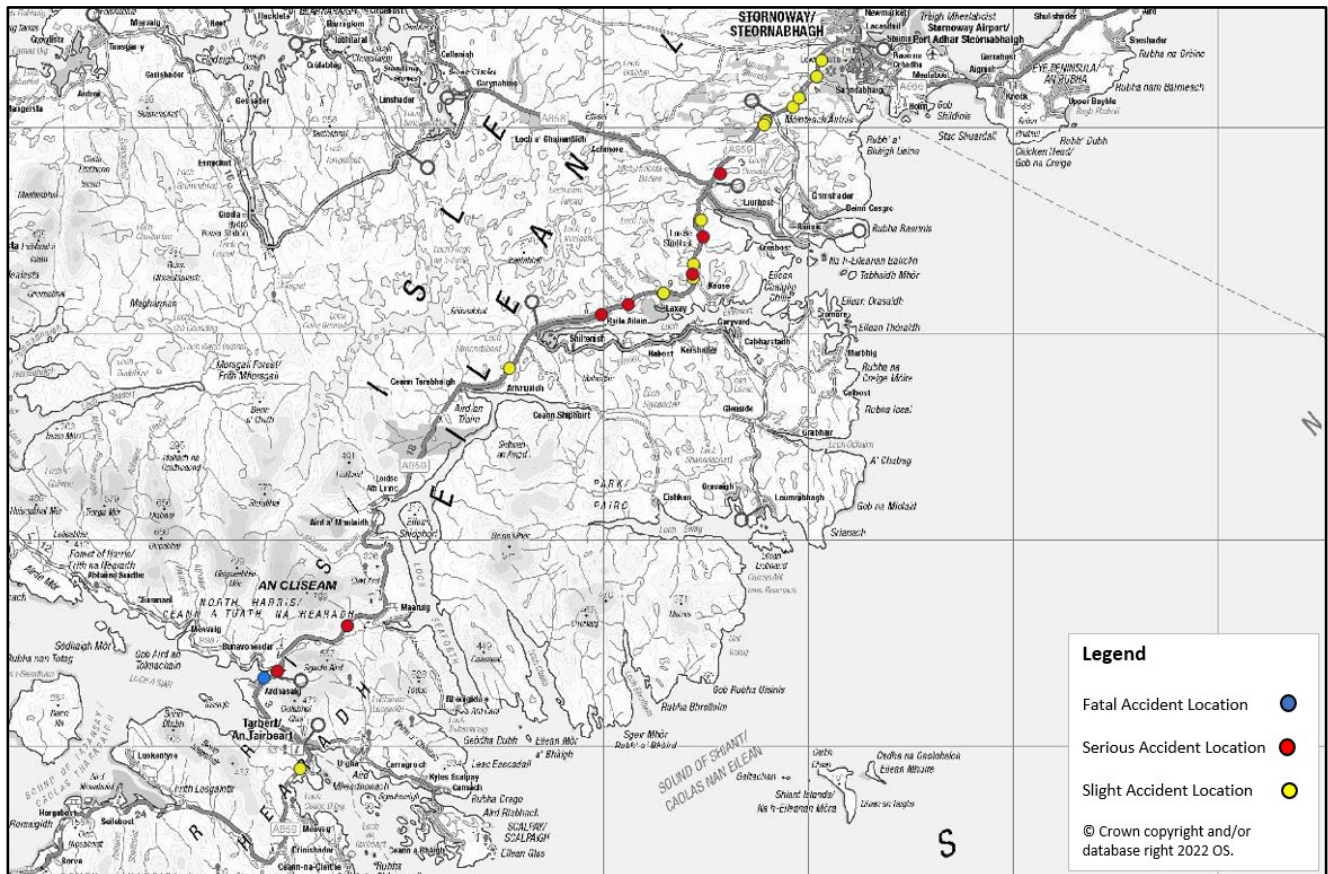
Variations may occur due to rounding

## 5.6 Accident Review

Road traffic accident traffic for the period commencing 01 January 2016 to 30 June 2021 was obtained from the online resource crashmap.co.uk which uses data collected by the police about road traffic crashes occurring on British roads where someone is injured (it should be noted that there is only provisional data currently available for 2021 from January through to June).

The statistics are categorised into three categories, namely “Slight” for damage only incidents, “Serious” for injury accidents and “Fatal” for accidents that result in a death.

The locations and severity of the recorded accidents along the A859, within the Study Area, are shown in Figure 4.



**Figure 4 Accident Locations**

A summary analysis of the incidents indicates that:

- A total of 22 accidents were recorded within the Study Area over the surveyed period, of which 14 incidents were recorded as slight, seven as serious and one fatal accident was recorded;
- The fatal accident was recorded as a single-vehicle accident involving a HGV and occurred approximately 275 m to the west of B887;
- Another accident involving a HGV was recorded within the survey period. The accident was recorded as a multi-vehicle accident also involving cars and was classified as slight;
- A total of three accidents involving motorcycles were recorded, of which two were recorded as slight and one was recorded as serious;
- Two accidents were recorded near a bend in close proximity to each other along the A859, to the south of Loch Ulapuill. Both of the accidents were classified as slight and involved cars;
- Three accidents were recorded within approximately 250 m of each other to the north-west of Loch Breugach. All of the accidents were classified as slight and involved cars. One of the accidents also included a motorcycle; and
- No accidents involving pedestrians or cycles were recorded.

## 5.7 Baseline Traffic Conditions

Construction of the Proposed Development could commence in 2024 if consent is granted and is anticipated to take up to 30 months depending on weather conditions and ecological decisions. Energisation is scheduled for 2026.

To assess the likely effects during the construction and typical operational phase, base year traffic flows were determined by applying a NRTF low growth factor to the surveyed traffic flows.

The NRTF low growth factor for 2022 to 2024 is 1.011. These factors were applied to the 2022 traffic data in Table 2 to estimate the 2024 Baseline traffic flows shown in Table 3.

**Table 3: 24-hour Average Daily Traffic Data (2024)**

No.	Survey Location	Cars & LGV	HGV	Total
1	A859, South of Stornoway	3,643	164	3,807
2	A859, East of Kinloch	1,862	350	2,212
3	A859, South of Kintarvie	815	69	884
4	A859, Tarbert	991	410	1,401

Variances may occur due to rounding



## 6 Trip Generation

### 6.1 Construction Phase

#### 6.1.1 Trip Derivations

During the construction period, the following traffic will require access to the to the Proposed Development and associated development sites:

- Staff transport, in either cars or staff minibuses; and
- Construction equipment and materials, including towers parts and OHL equipment, deliveries of machinery and supplies such as concrete, cabling and crushed rock.

The Applicant has undertaken a preliminary design of the Proposed Development and has advised on likely traffic movements based upon their recent experience of similar developments and on bulk materials needed to be imported. It should be noted that as the assessment is based upon an indicative construction programme for the Proposed Development, alterations in this programme may increase or decrease traffic flows per month.

Daily construction traffic estimates have been developed and are detailed in Annex A. The peak of construction activity occurs in Month 25 of the programme and results in 50 daily movements (25 inbound and 25 outbound movements per day). Of these, 30 movements are associated with HGV moving equipment to mobilise sections of the works as well as the import of track building materials from local quarries. The remaining 20 movements are associated with construction staff arriving at and departing from the Site.

Materials for the construction of the access tracks will come from local quarries, the closest of which are located near Aird Asaig, to the northwest of Tarbert, and to the west of Stornoway, via the A859.

The construction supply contracts have not yet been let and the Applicant will confirm exact sources of material with the Council prior to construction works commencing.

Equipment and materials to mobilise the site will be transported to the Site via the A859. Construction staff will be based locally to the Site.

As a worst-case scenario, the peak construction traffic flows have not been distributed based on assumed origins of materials and staff, but instead the maximum development trips have been applied to each of the count locations. The resulting development trips are summarised in Table 4.

**Table 4: Peak Construction Traffic Flows**

No.	Survey Location	Cars & LGV	HGV	Total
1	A859, South of Stornoway	20	30	50
2	A859, East of Kinloch	20	30	50
3	A859, South of Kintarvie	20	30	50
4	A859, Tarbert	20	30	50

Variances may occur due to rounding

### 6.2 Committed Development

A review of surrounding developments has been undertaken and noted several consented (i.e. committed developments) proposals in the surrounding area. These are noted in Table 5.

**Table 5: Committed Development Traffic Flows**

Development	Included as Committed Development	Cars & Lights	HGV	Total
Muaitheabhal Wind Farm, including Main Site, the Eastern Extension and the Southern Extension (details taken from Muaitheabhal Wind Farm EIA report)	Yes	132	25	153
Stornoway Deep Water Port Development	No – minor traffic generating development. Traffic accounted for in the use of Low NRTF growth factors.			
Ardvourlie Mountain Bike Trails, Scaladale, Isle of Harris	No – no traffic information details in the public planning record.			

In June 2021, an application for a Certificate of Lawfulness of Proposed Use or Development was submitted to CnES with regard to the construction and operation of Muaitheabhal Wind Farm, including the Main Site, the Eastern Extension and the Southern Extension (21/00350/CLP). The application was certified as lawful in July 2021.

The Certificate of Lawfulness notes that proposal comprises a total of 45 turbines (33 wind turbines at the Main Site, six turbines at the Eastern Extension and six turbines at the South Extension), as well as ancillary works. A review of online planning application documents for the Muaitheabhal Wind Farm South Extension (13/00301/CONSG) reveals that a total of 153 trips (132 Cars / LGVs and 25 HGVs) which are associated with the provision of 51 turbines (Muaitheabhal Wind Farm and Muaitheabhal Windfarm South Extension application) will impact the A859.

For the purpose of this assessment, it is assumed that the trips estimates presented in the EIAR Traffic and Transport chapter for the Muaitheabhal Wind Farm South Extension (13/00301/CONSG) application will represent the consented 45 turbines noted above. These are considered as committed developments in the assessment.

The revised baseline traffic flows are presented in Table 6. These will be used in the Construction Peak Traffic Impact Assessment.

**Table 6: 2024 Baseline & Committed Development Traffic Flows**

No.	Survey Location	Cars & LGV	HGV	Total
1	A859, South of Stornoway	3,775	189	3,964
2	A859, East of Kinloch	1,994	375	2,369
3	A859, South of Kintarvie	947	94	1,041
4	A859, Tarbert	1,123	435	1,558

Beinn Thulabaigh Wind Farm was consented for one turbine with a tip height of up to 150 m. A review of the online planning application documents note that a total of 106 deliveries are expected, of which 100 deliveries are associated with concrete deliveries. The nearest concrete plant to the Beinn Thulabaigh Wind Farm site is Breedon Marybank Quarry, which is located to the southwest of Stornoway. It is therefore considered that delivery vehicles will not significantly impact on the study area to the south of Breedon Marybank Quarry, as such Beinn Thulabaigh Wind Farm is not included as committed development in the study area.

Stornoway Wind Farm is to comprise 33 wind turbines with a maximum tip height of 180 m. A review of the planning application documents indicates that the concrete will be likely be delivered from Breedon Marybank Quarry and stone will be delivered from existing quarries on Lewis. From a review of local quarries in the area, Breedon Marybank is the nearest quarry to provide aggregate material. As such, it is not expected that the construction traffic vehicles will impact on the Proposed Development's study area to the south of Breedon Marybank Quarry, and as such Stornoway Wind Farm is not included as committed development within the study area.

It should be noted that it is unlikely that peak periods of the consented developments described above will coincide with peak periods of the Proposed Development due to demand on construction materials and supplies.

Projects in scoping or not yet determined cannot be included in cumulative assessments as they have yet to be determined. As traffic impacts are short lived for construction projects, the potential traffic impact is highly speculative and as such, cannot be included in the assessment.

### 6.3 Decommissioning Phase

Prior to decommissioning of the Proposed Development, a traffic assessment would be undertaken and appropriate traffic management procedures followed.

The decommissioning phase would result in fewer trips on the road network than the construction or operational phases as it is considered likely that elements of infrastructure such as access tracks would be left in place and structures may be broken up onsite to allow transport by a reduced number of HGV.

## 7 Traffic Impact Assessment

### 7.1 Construction Impact

The peak month traffic data was combined with the future year (2024) traffic data to allow a comparison between the baseline results to be made. The increase in traffic volumes is shown as percentage increases for each class of vehicle in Table 7.

**Table 7: 2024 Peak Month Daily Traffic Data**

No.	Survey Location	Cars & LGV	HGV	Total	Cars & LGV % Increase	HGV % Increase	Total % Increase
1	A859, South of Stornoway	3,795	219	4,014	0.5%	15.8%	1.3%
2	A859, East of Kinloch	2,014	405	2,419	1.0%	8.0%	2.1%
3	A859, South of Kintarvie	967	124	1,091	2.1%	31.8%	4.8%
4	A859, Tarbert	1,143	465	1,608	1.8%	6.9%	3.2%

Please note minor variances due to rounding may occur.

The total traffic movements are not anticipated to increase by more than 30% along the Study Area. It is anticipated that HGVs will increase by 31.8% along the A859, to the south of Kintarvie, however it should be noted that whilst this increase is statistically significant, it is generally caused by the relatively low baseline traffic flows and will see an additional 30 HGV journeys per day (15 inbound trips and 15 outbound trips). This represents an average of approximately three journeys every hour during construction activities, which is not considered significant in overall traffic terms.

It should also be noted the construction phase is transitory in nature and the peak of construction activities is short-lived.

A review of existing road capacity has been undertaken using the Design Manual for Roads and Bridges, Volume 15, Part 5 "The NESAs Manual". The theoretical road capacity has been estimated for each of the road links for a 12-hour period that makes up the Study Area. The results are summarised in Table 8.

**Table 8: 2024 Daily Traffic Data (12 hr)**

No.	Survey Location	2024 Baseline Flow	Theoretical Road Capacity	2024 Base + Development Flows	Spare Road Capacity %
1	A859, South of Stornoway	3,964	21,600	4,014	81%
2	A859, East of Kinloch	2,369	19,200	2,419	87%
3	A859, South of Kintarvie	1,041	19,200	1,091	94%
4	A859, Tarbert	1,558	19,200	1,608	92%

Please note minor variances due to rounding may occur.

The results indicate there are no road capacity issues with the combined development and ample spare capacity exists within the trunk and local road network to accommodate construction phase traffic.

## 8 Framework Traffic Management Measures

### 8.1 Construction Phase

The following measures would be implemented through a Construction Traffic Management Plan (CTMP) during the construction phase. The CTMP would be agreed with CnES prior to construction works commencing:

- Deliveries to Site shall be scheduled to the working times of the Site. Any deliveries to be made out with these working times will be reviewed on a case by case basis taking into account a number of factors including, time and impact on local community, noise and traffic disruption;
- Preparation of a Path Management Plan to minimise potential conflicts between path users and construction activities. This would include appropriate signage, diversions routes (if required), cross facilities and warning signs;
- Tool box talks to assist construction staff in how to avoid conflicts with walkers and equestrians, including instructions on how to pass horses in safety;
- Use of scaffolds over the A859 to allow cable stringing to occur in safety and to minimise traffic delays;
- Adoption of a voluntary speed limit of 20 mph for all construction vehicles through Leurbost, Balallan, Kinloch and Tarbert villages;
- Specific training and disciplinary measures would be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Unless otherwise agreed with CnES, construction activities would in general be undertaken during daytime periods only. For weekdays, this would involve work between approximately 07:00 to 19:00 in the summer and 07:30 to 17:00 (or as daylight allows) in the winter. On Saturday the working hours would be approximately 07:00 to 17:00 in Summer and 0730 – 1700 in Winter. No construction will be allowed on Sunday;
- All reversing operations and the movement of plant/deliveries which will take place on-site will be supervised and controlled;
- Appropriate traffic management measures would be put in place on A859 in the vicinity of the access junctions to the Site in order to avoid conflict with general traffic, subject to the agreement of the roads authority. Typical measures would include HGV turning and crossing signs and / or banksmen at the site access and warning signs;
- The arrangements for Traffic Management (TM) will be communicated to the public and local community directly affected by construction traffic via the SSEN public liaison officer. Other methods of communication which may be implemented by the project team include letter drops to landowners in the immediate vicinity to planned TM works, online update notices communicated via SSEN website and local press releases; and
- All visitors and new staff must undertake a Site induction. During the induction, personnel will be made aware of the Traffic Management Plan and Site rules.
- All drivers would be required to attend an induction to include:
  - A tool box talk safety briefing;
  - The need for appropriate care and speed control;
  - A briefing on driver speed reduction agreements (to slow site traffic at sensitive locations through the villages); and
  - Identification of the required access routes and the controls to ensure no departure from these routes.

CnES may require an agreement to cover the cost of abnormal wear and tear on the A859.

Video footage of the pre-construction phase condition of the A859 would be recorded to provide a baseline of the state of the road prior to any construction work commencing. This baseline would inform any change in the road condition during the construction stage of the proposed development. Any necessary repairs would be coordinated with the Roads Authority. Any damage caused by traffic associated with the proposed

development, during the construction period that would be hazardous to public traffic, would be repaired immediately.

Any damage to road infrastructure caused directly by construction traffic would be made good, and street furniture that is removed on a temporary basis would be fully reinstated.

There would be a regular road edge review and any debris and mud would be removed from the public carriageway to keep the road clean and safe during the initial months of construction activity, until the construction junction and immediate access track works are complete.

## 8.2 Public Information

Information on the site deliveries would be provided to local media outlets such as local papers and local radio to help assist the public.

Information would relate to expected vehicle movements from the port of entry through to the site access junction. This will assist residents becoming aware of the convoy movements and may help reduce any potential conflicts.

The Applicant would also ensure information was distributed through its communication team via the project website, local newsletters and social media.

## 8.3 Operational Phase Mitigation

Permanent site access junctions on the A859 will be well maintained and monitored during the operational life of the development. Regular maintenance will be undertaken to keep the access junction drainage systems fully operation and to ensure there are no run-off issues onto the public road network.

## 9 Summary & Conclusions

This report was commissioned by Ramboll UK Limited, on behalf of SSEN Transmission to provide a Transport Assessment for the Proposed Development.

Existing traffic data established a base point for determining the impact during the construction phase and was factored to future levels to help determine the effect of construction traffic on the local road network.

The construction traffic would result in a temporary increase in traffic flows on the road network surrounding the Proposed Development. The maximum traffic effect associated with construction of the Proposed Development is an additional 20 car and LGV movements and 30 HGV movements per day.

A series of mitigation measures and management plans have been proposed and a draft CTMP has been provided to help mitigate and offset the impacts of both the construction and operational phase traffic flows.

No link capacity issues are expected on any of the roads assessed due to the additional movements associated with the Proposed Development. The effects of construction traffic are temporary in nature and are transitory.

## Annex A Construction Traffic Profile



		Month														
	Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Forestry Removal	HGV	220	220	220	220											
Site Mobilisation	HGV			10	50	10										
Compound Works	HGV			275	275											
Bellmouth Works	HGV					17		17			17			17		
Pole & Line Installation	HGV					18	18	18	18	18	18	18	18	18	18	18
Pole & Line Plant	HGV					308	308	308	308	308	308	308	308	308	308	308
Connection Works	HGV									44				44		
Site Reinstatement	HGV															
Existing Line Removal	HGV															
Existing Line Plant	HGV															
General Deliveries	HGV			44	44	44	44	44	44	44	44	44	44	44	44	44
Staff	LGV	88	88	264	264	440	440	440	440	440	440	440	440	440	440	440

Total Vehicles		308	308	813	853	837	810	827	810	854	827	810	810	871	810	810
Total LGV		88	88	264	264	440	440	440	440	440	440	440	440	440	440	440
Total HGV		220	220	549	589	397	370	387	370	414	387	370	370	431	370	370
Total LGV / Day		4	4	12	12	20	20	20	20	20	20	20	20	20	20	20
Total HGV / Day		10	10	25	27	18	17	18	17	19	18	17	17	20	17	17
Total		14	14	37	39	38	37	38	37	39	38	37	37	40	37	37

Assumed 22 working days per month. Please note that rounding errors may occur.

	Class	Month														
		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Forestry Removal	HGV															
Site Mobilisation	HGV													10	10	50
Compound Works	HGV													138	138	
Bellmouth Works	HGV	17			17			17			17					
Pole & Line Installation	HGV	18	18	18	18	18	18	18	18	18	18	18	18			
Pole & Line Plant	HGV	308	308	308	308	308	308	308	308	308	308	308	308			
Connection Works	HGV				44				44				44			
Site Reinstatement	HGV				17	17	17		17		17		17		17	17
Existing Line Removal	HGV									26	26	26	26	26	26	26
Existing Line Plant	HGV									220	220	220	220	220	220	220
General Deliveries	HGV	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Staff	LGV	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440

Total Vehicles		827	810	810	887	827	827	827	871	1056	1089	1056	1116	877	894	796
Total LGV		440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
Total HGV		387	370	370	447	387	387	387	431	616	649	616	676	437	454	356
Total LGV / Day		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Total HGV / Day		18	17	17	20	18	18	18	20	28	30	28	31	20	21	16
Total		38	37	37	40	38	38	38	40	48	50	48	51	40	41	36

Assumed 22 working days per month. Please note that rounding errors may occur.