Chapter 13: Site Access, Traffic and Transport

Contents

13 Site Access, Traffic and Transport

13.1 Executive Summary

13.1.1 This chapter of the EIA Report considers the potential effects of the Proposed Development on traffic and transport. The nature of the Proposed Development is such that it would generate a reasonable number of vehicle movements only while it was being built. During operation, the Proposed Development would generate only the occasional maintenance and inspection vehicle movements. The decommissioning of the Proposed Development would be too far into the future for a meaningful assessment to be made at this stage.

13.1.2 The site would be accessed from an access track leading from the A835. General construction traffic (including Heavy Goods Vehicles (HGVs)) would use the A835 to access the Proposed Development. Some Abnormal Indivisible Load Vehicles (AILVs) would be needed to deliver the turbine components to the site. It is envisaged that these components would be delivered to Port of Cromarty Firth at Invergordon or Port of Nigg and use the A9 and A835 to access the Proposed Development. An off-site turning circle at Inchbae is proposed for these vehicles, to allow them to turn around and access the Proposed Development from the A835 to the west.

13.1.3 The number of vehicles currently on the roads around the Proposed Development has been counted. The number of vehicle movements that would be generated by the construction of the Proposed Development has been estimated, based on calculations of the amount of materials and number of other items that would be needed for the construction of the Proposed Development.

13.1.4 The additional traffic that would be generated by the Proposed Development has been compared to the number of vehicles recorded in the surveys. The effects of that additional traffic have been assessed in accordance with the guidance in the Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (2023).

13.1.5 The guidance states that the effects of traffic generated by a proposed development should be assessed by applying the following two rules of thumb:

"Rule 1 Include highway links where traffic flows will increase by more than 30% or the number of heavy goods vehicles will increase by more than 30%

Rule 2 Include highway links of high sensitivity where traffic flows have increased by 10% or more"

13.1.6 If the increase in traffic arising from a proposed development breaches either of these rules then the effects of that traffic should be assessed on the issues of severance, road vehicle driver and passenger delay, non-motorised user delay, non-motorised user amenity, fear and intimidation of and by road users, road user and pedestrian safety and hazardous / large loads.

13.1.7 The increase in traffic that would arise from the Proposed Development breaches the relevant rule on the A835 west of its junction with the A832 at Garve. The effects of the traffic estimated to be generated during the construction of the Proposed Development on the considerations listed above were assessed and it was concluded that the additional traffic would have a not significant effect on the surrounding transport network, subject to appropriate measures in a Construction Traffic Management Plan (CTMP).

13.1.8 The effects of the increase in traffic that would arise from the Proposed Development have also been considered in combination with other developments that have planning consent but are unbuilt at the time of writing. This assessment also concluded that the additional traffic would have a not significant effect on the surrounding transport network, again subject to appropriate measures in a CTMP.

13.1.9 A CTMP would be prepared for the Proposed Development. The CTMP would describe measures to manage the vehicles travelling to and from the site and would be updated through the planning and construction of the Proposed Development. The CTMP should include comment on the status of any works proposed at the junction of the A835 and the A832 and provide details of the position regarding cumulative developments at the time the CTMP is being prepared.

13.2 Introduction

13.2.1 This Chapter considers the potential effects on traffic and the transport network that could arise from the Proposed Development during construction, operation and decommissioning. The objectives of the chapter are to:

- Describe the current baseline, established from desk studies, site-specific surveys and feedback obtained during technical engagement with stakeholders.
- Describe the assessment methodology and significance criteria used in completing the impact assessment.

- Describe the potential effects, including direct, indirect and cumulative effects.
- Describe the mitigation measures proposed to address any likely significant effects.
- Assess the residual effects remaining following the implementation of mitigation measures.
- Reach a conclusion on the likely significant effects based on the information gathered and the analysis and assessments undertaken.
- Highlight any necessary monitoring and/or mitigation measures recommended to prevent, minimise, reduce or offset any likely significant adverse environmental effects.

13.2.2 The assessment has been carried out by Iain Lamb (B.Eng Hons Civil and Transportation Engineering) of SLR Consulting Ltd. Iain has almost 30 years of experience in transport planning working on a range of development planning projects across the UK and overseas. He has written EIA transport chapters and transport reports for energy projects such as wind farms, cable routes, quarries and other mineral extraction sites, recycling plants, solar farms, energy from waste plants and battery energy storage systems. He has also overseen abnormal load route assessments for turbine component deliveries and written Construction Traffic Management Plans (CTMPs).

13.2.3 The chapter is supported by Appendix 13.1, which contains a Route Survey Report which considers the feasibility of delivering the turbine components to the Proposed Development.

13.3 Legislation, Policy and Guidelines

Legislation

13.3.1 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 are relevant to the preparation of this chapter. The Road Vehicles (Construction and Use) Regulations (1986) and The Road Vehicles (Authorisation of Special Types) (General) Order 2003 are relevant to the consideration of the movement of Abnormal Indivisible Load Vehicles (AILVs) to the Proposed Development.

Planning Policy

13.3.2 Planning policies relevant to this chapter are detailed within Chapter 4.

Guidance

13.3.3 The assessment in this Chapter has been based on the guidance in the document 'Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement' of July 2023. This document provides "*practitioners with good practice advice on how to carry out the assessment of traffic and movement of people as part of a statutory EIA or non-statutory environmental assessment*".

13.3.4 Transport Scotland's (TS's) document 'Transport Assessment Guidance' (2012) has as its main objective "t*o assist in the preparation of Transport Assessments for development proposals in Scotland*". The Guidance identifies the principle of a Transport Assessment as:

"*Transport Assessment (TA) will assist local planning authorities to appraise the operational implications of a development within the context of the Local Development Plan. The TA report will permit the transport implications of a proposed development to be considered and will identify any measures required to enable a more sustainable and environmentally efficient proposal. The TA will also assist the relevant Roads Authority or Scottish Government to consider any issues relating to transport and traffic operations on the network*."

13.3.5 Although this Chapter is not called a TA, it follows the principle quoted above as it allows the transport implications of the Proposed Development to be considered and identifies if any measures are required to enable a more 'sustainable and environmentally efficient proposal'.

13.3.6 The Scottish Government's document 'Planning Advice Note: PAN 75 - Planning For Transport' states that it "*provides good practice guidance which planning authorities, developers and others should carry out in their policy development, proposal assessment and project delivery. The document aims to create greater awareness of how linkages between planning and transport can be managed*."

13.3.7 PAN 75 also states that "*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 impact of the proposal*".

13.3.8 The Scottish Government's document Circular 1/2017 The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 has also been referred to. Reference has also been

made to the Scottish Government's Energy Consents Unit's document Good Practice Guidance for Applications under Section 36 and 37 of the Electricity Act 1989.

13.3.9 The Highland Council's (THC's) document 'Roads and Transport Guidelines For New Developments' (2013) has been referred to. The document "*sets out the guidance and standards for the provision of transport infrastructure, including the design and construction of all new roads, associated with development proposals, within The Highland Council area*". The document also states that "*Transportation matters for new developments should satisfy the relevant Roads Authority, being either the Highland Council for local roads or the Scottish Government's Transport Scotland Agency for Trunk Roads and, in certain situations, both*".

13.3.10 The document also states "*For wind farm proposals, a developer should be aware that the Council will require a Transportation Assessment (TA) to be submitted that must consider the existing road network, transportation constraints and potentially sensitive routes or communities. Abnormal load routes are to be part of the TA, which may require structural assessments*." As mentioned in paragraph 13.3.5, this chapter assesses the transport effects of the Proposed Development and information on AILVs is provided in Appendix 13.1.

13.3.11 THC's document 'Guidance On The Preparation Of Transport Assessments' (2014) has also been referred to. The purpose of that document is to *"provide additional guidance on particular aspects of the preparation of Transport Assessments".* The document states that *"In the case of renewable energy projects the major impacts are during construction and full consideration should be given to the impact of construction traffic".*

13.3.12 Regarding collecting traffic data, the document states that "*The existing traffic conditions on the adjacent road network should be established by obtaining appropriate traffic data. This may include data which is available from existing sources such as permanent traffic counters or alternatively data obtained specifically for the project. Existing data which should not be more than 3 years old should be factored to reflect traffic growth since the data was collected*." The document also states that "*In order to ensure that traffic conditions are broadly representative of year round conditions surveys should be carried out during a neutral month avoiding public and local holidays, school holidays and other abnormal traffic periods*".

13.3.13 Regarding cumulative developments, the document states that "*Committed development in the vicinity of the site may have a traffic impact over and above that taken into account by traffic growth. Committed development is classed as development which has an extant planning consent or has been granted planning consent subject to legal agreement but which has not yet been occupied*."

13.4 Consultation

13.4.1 Details of the transport-related responses to the scoping report are provided in Table 13.1 along with the applicant's response.

Table 13.1 – Consultee Responses and Applicant Responses

Consultee and Date	Consultation Response	Applicant Response
THC transport	*"Highland Council's Transport Planning Teams interests will relate largely to the impact of development traffic on the Council maintained road network and its users during the construction phase of the project. Transport Scotland's interest will relate to the impact of development on the trunk road network.*	As mentioned in Chapter 3, the Proposed Development will be accessed from the A835, which is a trunk road and under the control of TS.
	Recommend that reference is made to the following documents: • *Roads and Transport Guidelines for New Developments* • *Guidance on the Preparation of Transport Assessments*	These documents have been referred to.
	Recommend that the route assessment process includes early consultation with the Highland Council Structures Team for implications to structures along Council maintained roads. The assessment process should also consider the implications to vulnerable road users that could be impacted by the proposed works.	The assessment of the route for the AILVs will include consultation with THC's Structures Team at the appropriate time. Vulnerable road users have been considered as appropriate in Section 13.9.
	For the construction stage, any submission should provide a breakdown of the anticipated vehicle movement profiles through the predicted 12-month construction programme. This should again be broken down by at least AIL's, standard large commercial goods vehicles (HGV's) and other construction-related traffic.	Vehicle movements for each month during the construction programme are provided in Table 13.10.
	When compiling data on predicted traffic movements serving this development, the assessment should set out and justify all assumptions made in support of the trip levels used. This includes for example any assumptions made about the amounts of material that could be obtained from borrow pits within or close to the site. However, if insufficient information has been gathered to determine the	The number of vehicles has been estimated based on estimates of material quantities and assumes all necessary material is imported to the site.

Consultee and Date	Consultation Response	Applicant Response
	appropriateness of any material within the site for use in the works, we'll expect the assessment process to have reviewed the worst-case scenario of no such suitable materials being found within the site.	
	We note and welcome that the submitted report refers to identifying and determining the implications of other committed developments in the area. This should include other committed developments that have the potential to influence traffic levels on the proposed construction access route(s), including other energy generation and distribution schemes proposed in the area. Highland Council Planning Service should be able to review and comment on any committed developments that the assessment may need to take account of. It is important to recognise that the public roads serving this site are heavily influenced by tourist traffic during the busier summer season. Any submission should recognise this and clearly set out how this has been recognised in the assessment process. Also, the predicted traffic generated by any timber extraction required in connection with this development should be recognised in the assessment	Cumulative effects are considered in Section 13.12. The construction of the Proposed Development is expected to last 23 months. Hence some construction related vehicles will be present on the road network during the busier summer season but will also be present during quieter periods. Baseline traffic data has been averaged over a year where available which reflects the fact that the construction related vehicles would not be confined to any one season. Traffic expected to be generated by timber extraction has been included.
	A Construction Traffic Management Plan (CTMP) may need to be provided as a form of mitigation for the predicted impacts of construction traffic.	A CTMP is proposed to be prepared for the Proposed Development, the satisfactory submission of which could be a matter covered by a condition of any consent. The matters that could be covered in a CTMP are listed in paragraph 13.7.1.
	Expect any submission to clarify the willingness to enter into a formal 'Wear & Tear' Agreement (Section 96 of the Roads (Scotland) Act 1984) with Highland Council. This is to protect The Council from any extraordinary expenses in having to repair the local public roads from any damage inflicted by the construction traffic activities of this development.	The Proposed Development will be accessed from the A835 trunk road, which is under the control of TS. A 'Wear and Tear' agreement with THC would therefore likely be limited to the roads under THC's control which would be used by AILVs.
	Any submission should set out the intended arrangements for surveying and recording the existing condition of the local public roads impacted by the proposed construction access route(s) prior to any works commencing at this site. It should then clarify how the condition of those roads will be reviewed during and at the end of the proposed development, along with how any repairs deemed necessary will be undertaken.	The Proposed Development will be accessed from the A835 trunk road, which is under the control of TS. The matters referred to in this comment would therefore likely be limited to the roads under THC's control which would be used by AILVs.
	Depending on the construction routes settled on, The Council is likely to require some form of financial security / road bond that they'd be able to call on in the event of the Developer not being able to repair damage inflicted to the roads by their construction activities to the satisfaction of The Council as the Local Roads Authority. Again, any submission should clarify the Promoters willingness to consider some form of road bond or other financial security linked to a 'Wear and Tear' agreement.	The Proposed Development will be accessed from the A835 trunk road, which is under the control of TS. The matters referred to in this comment would therefore likely be limited to the roads under THC's control which would be used by AILVs.
	When undertaking pre-works condition surveys, the Promoter may want to use that data to consider whether any works are required to repair or stabilise the existing roads forming the proposed construction access route(s) before their construction traffic starts to make use of them. It could be of benefit to the Promoter to work with Highland Council on such up-front repairs, as this could limit or remove the need for temporary restrictions to their proposed construction access arrangements during their works whilst emergency road repairs are undertaken.	The Proposed Development will be accessed from the A835 trunk road, which is under the control of TS. The matters referred to in this comment would therefore likely be limited to the roads under THC's control which would be used by AILVs.
	Transport Assessment Methodology: *1. Identify all public roads affected by the development, including routes from any ports used to receive and/or store turbine component parts. It is expected that the developer will submit preferred access route(s) for the development, both for abnormal loads and for general construction traffic, staff and suppliers. All other possible access route options should be identified, having been investigated in order to establish their feasibility. This should clearly identify the pros*	The route proposed to be used by AILVs delivering the turbine components is identified and assessed in Appendix 13.1. General construction traffic will use the A835 trunk road, which is under the control of TS.

Consultee and Date	Consultation Response	Applicant Response
	and cons of all the route options and therefore provide a logical selection process for arriving at the preferred route(s). The size of the proposed turbines may require an assessment for getting out of the preferred port, when chosen, as ports in the area may not have accommodated such large components before.	
	2. Set out the existing nature and condition of the public roads, including: • *The road name and number, where applicable.* • *Road widths, including any pinch points.* • *The nature of their horizontal and vertical alignments, including any known steep gradients.* • *An appraisal of the carriageway strength including, where necessary, construction depths and road formation where there is likely to be significant impacts.* • *The location of any structures either spanning or supporting the roads, including a description of their nature (eg bridge, culvert etc), any width, and height or weight restrictions and where necessary, an assessment of their load carrying capability. This work should be undertaken by a suitably capable and qualified consulting engineer acceptable to The Council.* • *The nature and quantum of properties and other development types serviced by the roads. In addition to the quantum of residential properties, specific recognition should be made of any sensitive facilities such as schools, businesses or other community facilities along the roads.* • *The nature and quantum of existing traffic flows on these roads. This should include reference to how often the roads are used by school or commercial bus services and whether the routes are used by pedestrians, cyclists and equestrians. Our Public Transport Team may be able to assist with info on school and scheduled bus services (public.transport@highland.gov.uk)* • *The historic pattern of road safety collision data (minimum 5-years worth of data) along the access route(s), identifying any locations where clusters of incidents could warrant specific road safety mitigation to safely manage the impacts of development-related traffic.*	The Proposed Development will be accessed from the A835 trunk road, which is under the control of TS. Nonetheless, the nature and pertinent characteristics of the A835 trunk road in the vicinity of the Proposed Development has been described in Section 13.6. The load carrying capacity of any structures on THC's network will be a matter considered closer to the movement of any AILVs to the Proposed Development.

	3. Identify the anticipated impacts from the proposed development, including any cumulative impacts from other developments that have the potential to be happening at the same time. These impacts should include:
	• *The quantum of new traffic impacting on these roads throughout the construction, operation and decommissioning periods of this development. This should cover:*
	  • *numbers of light and heavy vehicles (differentiated)*
	  • *numbers of abnormal loads*
	  • *profiles of anticipated new traffic movements throughout the duration of the works*
	• *Any impacts to existing carriageways, structures, verges or other aspects of these public roads. This should include information on swept paths and gradient analysis where it is envisaged that the passage of traffic could be problematic.*
	• *Trial Runs for abnormal loads to be carried out in order to prove the route is achievable and/or to establish the extent of works required to facilitate transportation.*
	• *The location of any new or changes to existing accesses off these public roads to be used for accessing this development. This should include the extent of existing visibility from each of the accesses onto the public roads.*
	• *Any impacts or restrictions needing to be imposed on existing road users.*
	• *Any impacts or restrictions needing to be imposed on adjacent properties or local communities serviced by these public roads.*
		The Proposed Development will be accessed from the A835 trunk road, which is under the control of TS. Nonetheless, the impacts of the traffic estimated to be generated by the Proposed Development are considered in Section 13.9.
		
		Swept path assessments for the AILVs delivering the turbine components are contained in the report in Appendix 13.1.
		
		The requirement for a trial run of the AILVs delivering the turbine components to the Proposed Development could be a matter covered by a condition of any planning consent.
		
		Access to the Proposed Development will be from the A835 trunk road, which is under the control of TS. Details of the access to the Proposed Development are provided in Chapter 3.

	4. Set out the proposed mitigation measures needed to tackle the anticipated impacts set out above. This should include: • *The location and nature of any carriageway widening or strengthening.* • *Works to improve the visibility at proposed access points with public roads and at junctions along the proposed access routes.* • *The location and nature of any strengthening or widening needed to existing structures.*	Mitigation measures are described in section 13.10.

Consultee and Date	Consultation Response	Applicant Response
	• *The provision of new or enhanced passing places on single track roads.* • *Road safety measures deemed necessary to effectively manage the impacts of any identified road safety issues.* • *Traffic management proposals deemed necessary to enhance compliance with the traffic management plan associated with the construction and ongoing operation of this development.* *It should be noted that any such mitigation may need to be specifically considered within the wider considerations of the EIA, depending on the form, scale and location of the works proposed and their potential impacts to any existing environmentally sensitive sites.*	
	5. Details of any residual effects on the road network and its users following the implementation of the proposed mitigation outlined above and any actions proposed associated with those residual effects."	Residual effects are considered in Section 13.11.
Transport Scotland	Traffic and Transport *The design of any new/modified access junction must be compliant with the DMRB and supported by a Stage 1 Road Safety Audit in accordance with DMRB GG119. An RSA Brief should be submitted to TS. Changes to trunk road network must be approved by the Area Manager for the A835(T), Marco Bardelli.* *TS is satisfied with scope of study area and approach, but add that baseline traffic flows would be subject to Low National Road Traffic Growth factors to determine the future year baseline.* *A threshold assessment should be undertaken for the A9(T) and A835. The RSR, should be included in the application, and will require to identify any pinch points on the trunk road network. Swept path analysis should be undertaken. Details are required pertaining to changes to street furniture/structures along the route.*	The proposed study area is agreed. New or modified access will be compliant with relevant standards and an RSA brief will be submitted to TS when approval for any new access is sought. Baseline traffic flows have been subject to NRTF 'low' growth factors and a threshold assessment has been undertaken for the A9 and A835. Appendix 13.1 provides details of the route proposed to be used for AILVs delivering turbine components to the Proposed Development and identifies key pinch points and swept path analyses. Street furniture that requires to be removed will be identified in due course.

13.5 Assessment Methodology and Significance Criteria

Scope of Assessment

13.5.1 The Proposed Development would generate demand for transport during its construction and this demand would have the potential to impact on users of the transport network and potentially have an effect on those users. Transport demand would be generated during construction by staff traveling to and from the Proposed Development and plant, components, materials and supplies being delivered or removed from the Proposed Development. This transport demand would lead to additional cars, vans, Light Goods Vehicles (LGVs) and Heavy Goods Vehicles (HGVs) on the road network.

13.5.2 The delivery of the turbine components during construction would require movements by AILVs as some of the vehicles carrying the turbine components would have at least one dimension that exceeds the maxima in The Road Vehicles (Construction and Use) Regulations 1986. A report was prepared for the Applicant which reviewed the feasibility of delivering the turbine components to the Proposed Development from Port of Cromarty Firth at Invergordon or Port of Nigg via the A9 and A835. This report is included as Appendix 13.1.

13.5.3 Transport demand during operation would be much lower than during construction, since during operation there would be only occasional visits from maintenance or inspection vehicles. These would be unlikely to amount to more than a handful of trips per day and therefore would not be significant. The transport impacts of the Proposed Development during operation have therefore been scoped out of this assessment.

13.5.4 The operational period of the Proposed Development is intended to be 50 years after which it would be decommissioned. The number of vehicle movements generated during decommissioning would likely be lower than the number generated during construction. Mitigation measures which may need to be implemented during decommissioning would be agreed with the key stakeholders in line with best practice measures at that time.

13.5.5 However, decommissioning would take place too far into the future for any meaningful assessment to be made at the time of writing (baseline traffic flows, for example, would be hard to predict that far into the future). The transport impacts of the Proposed Development during decommissioning have therefore been

scoped out of this assessment.

Study Area

13.5.6 As described in Chapter 3, the Proposed Development would be accessed from a new access constructed on the A835, around 2.6km to the north of the junction of the A835 and A832. The A835 is a trunk road and under the control of TS. All construction traffic – including AILVs – would use this new access. The Study Area is shown in Figure 13.1.

13.5.7 The Proposed Development also includes an off-site turning circle accessed from the A835 at Inchbae Lodge around 6km to the north of the access to the Proposed Development. This turning circle would be used only by AILVs and any associated vehicles (such as escort vehicles) allowing them to approach the access to the Proposed Development from the north. The study area for the assessment of the traffic and transport impacts arising from the Proposed Development comprises the section of the A835 from Inchbae Lodge south-eastwards to the junction of the A835 and the A9 (the latter also a trunk road and under the control of TS).

13.5.8 A threshold assessment has been undertaken for the sections of the A9 immediately to the north and south of its junction with the A835, as requested by TS (see Table 13.1).

Desk Study

13.5.9 Online mapping has been consulted to understand aspects of the road network in the study area. The 'Crashmap' website has been consulted for information on accidents on the roads within the study area.

13.5.10 Traffic data for roads within the study area has been extracted from TS's online database of permanent Automatic Traffic Counters (ATCs). Data was also extracted from the database for the sections of the A9 immediately to the north and south of its junction with the A835, in order to comply with TS's request for a threshold assessment to be undertaken on that road (as per Table 13.1). Data from that database has been extracted for the locations and periods listed in Table 13.2. Data which was marked on the database as 'Holidays' or 'QC failure' have been excluded.

Table 13.2 – Details of TS ATC Locations from Which Data Extracted

ATC Reference	Description	Date Range Over Which Data Extracted
000000180100	A835 Garbatt	19 April 2024 to 03 October 2024
0000ATC01100	A835 Contin to Garve (A832)	04 October 2023 to 03 October 2024
0000ATC01099	A835 Moy Bridge (A832) to Contin	04 October 2023 to 03 October 2024
0000JTC00142	A835 Maryburgh RB to Moy Bridge (A832)	04 October 2023 to 03 October 2024
0000ATC01097	A835 Corntown (B9163) to Maryburgh RB	04 October 2023 to 03 October 2024
0000ATC01096	A835 Tore to Leanig (B9169)	04 October 2023 to 03 October 2024
0000ATC01011	A9 North of Tore Roundabout	04 October 2023 to 03 October 2024
0000ATC01010	A9 Artafallie (B9161) to Tore Roundabout	01 June 2024 to 15 November 2024

13.5.11 As can be seen from the data in Table 13.2, data have been extracted for a year for all but two of the ATC locations (all data available for 2024 was extracted for those two locations). Extracting the data over a year was done to ensure the data was "*broadly representative of year round conditions"* as mentioned in the extract from THC's 'Guidance On The Preparation Of Transport Assessments' document provided in paragraph 13.3.12.

Site Visit

13.5.12 The road network around the Proposed Development was visited by members of the project team on 08 June 2023. Video recordings were made of the roads around the Proposed Development. These videos have been used to understand aspects of the roads within the study area, such as their configuration, presence of footways, speed limits, any restrictions on the passage of vehicles, and to identify any sensitive receptors.

Assessment of Potential Effect Significance

Method

13.5.13 The potential effects of the Proposed Development on traffic and the transport network have been assessed following the IEMA Guidelines referred to in paragraph 13.3.3. Estimates have been made of the number of typical daily construction-related vehicles that would be generated during each month of the construction programme of the Proposed Development. A working day during construction has been assumed to be the period 0700 – 1900 Monday to Friday. Some construction activities may take place on Saturday mornings, but assuming all the construction-related traffic is concentrated during only the period 0700-1900 Monday to Friday provides a more robust assessment than assuming it occurs over a longer period.

13.5.14 The vehicle estimates have been based on material volumes informed by the design of the Proposed Development and professional judgement. The number of staff likely to be present at the site during each working day in each month of the construction programme has been estimated based on professional

judgement. Judgment has also been used to estimate the routes that construction-related vehicles would take to and from the site.

13.5.15 The additional traffic that could be expected to be generated by the Proposed Development has been compared to the baseline traffic flows and the percentage increase calculated for all vehicles and for HGVs only. These percentage increases for each section of road within the study area have been reviewed against the IEMA Guidelines, which state:

"Following the determination of a study area, it is recommended that the competent traffic and movement expert applies two broad rules of thumb as criteria to assist in delimiting the scale and extent of the environmental assessment:

Rule 1 Include highway links where traffic flows will increase by more than 30% or the number of heavy goods vehicles will increase by more than 30%

Rule 2 Include highway links of high sensitivity where traffic flows have increased by 10% or more"

13.5.16 The IEMA Guidelines also state "*It should also be noted that the day-to-day variation of traffic on a road is frequently at least + or -10%. At a basic level, it should therefore be assumed that projected changes in traffic of less than 10% create no discernible environmental impact*."

13.5.17 All sections of road within the study area have been assessed against Rule 1. Some sections of road have been identified as potentially being of 'high sensitivity' and have been subject to an additional assessment against Rule 2. These sections have been identified based on the IEMA Guidelines which state that the "*following list identifies special interests that should be considered when defining sensitive receptor geographic locations*".

- *"people at home*
- *people at work*
- *sensitive and/or vulnerable groups (including young age, older age, income, health status, social disadvantage and access and geographic factors)*
- *locations with concentrations of vulnerable users (e.g. hospitals, places of worship, schools)*
- *retail areas*
- *recreational areas*
- *tourist attractions*
- *collision clusters and routes with road safety concerns*
- *junctions and highway links at (or over) capacity*"

13.5.18 Where the estimated increase in vehicle movements arising from the Proposed Development does not breach the relevant threshold for any section of road, the significance of any effects has been considered to be not significant in EIA terms. No further assessment work has been undertaken on such sections.

13.5.19 Where the estimated increase in vehicle movements arising from the Proposed Development breaches the relevant threshold for any section of road, assessment of the potential effects has been undertaken on the topics described below. However, there may be instances where, for example, a relatively low increase in vehicles results in a relatively large percentage increase simply because the baseline traffic flows are low. Such a relative increase in vehicle movements may breach one of the thresholds in Rule 1 or Rule 2 above, but in absolute terms may not give rise to any significant effects. Professional judgment has therefore been applied to the application of the thresholds in Rule 1 and Rule 2.

Potential Effects

Severance

13.5.20 Severance is the perceived division that can occur within a community when it becomes separated by major transport infrastructure and the separation of people from places and other people. The IEMA Guidelines say, "*Changes in traffic flow of 30%, 60% and 90% are regarded as producing 'slight', 'moderate' and 'substantial' changes in severance respectively"* and *"caution needs to be observed when applying these thresholds as very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic*."

Road Vehicle Driver and Passenger Delay

13.5.21 The IEMA Guidelines say, "*Traffic delays to non-development traffic can occur at several points on the network surrounding a development site*". Regarding the significance of effects, the Guidelines say, "*These*

delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system".

Non-Motorised User Delay

13.5.22 The IEMA Guidelines say, "*Pedestrian delay and severance are closely related effects and can be grouped together. Changes in the volume, composition or speed of traffic may affect the ability of people to cross roads. In general, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend on the general level of pedestrian activity, visibility and general physical conditions of the development site*."

13.5.23 Regarding the significance of effects, the Guidelines say "*Given the range of local factors and conditions that can influence pedestrian delay (e.g. a discrete delay may have a lesser impact in an urban environment than a rural setting), it is not considered wise to set down definitive thresholds. Instead it is recommended that the competent traffic and movement expert use their judgement to determine whether pedestrian delay constitutes a significant effect.*"

Non-Motorised User Amenity

13.5.24 The IEMA Guidelines define this as "*the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic*." The IEMA Guidelines also states that "*a tentative threshold for judging the significance of changes in pedestrian amenity would be where the traffic flow (or HGV component) is halved or doubled*" and "*Thresholds are expressed as a starting point for any assessment and typically have been derived from studies of major changes in traffic flow and therefore should be used cautiously in any assessment. The assessment of amenity should pay full regard to specific local conditions*."

Fear and Intimidation of and by Road Users

13.5.25 This considers the effects that moving vehicles have on people. It considers matters such as the volume of traffic, the proportion of heavy vehicles, the speed of vehicles and the proximity of traffic to people. The IEMA Guidelines set out a means to calculate a 'Degree of hazard score' based on the amount, composition and speed of traffic. That score is then used to identify which one of four levels of fear and intimidation is applicable. The magnitude of impact is based on the degree of change in that level compared to the baseline.

Road User and Pedestrian Safety

13.5.26 The assessment of accidents relates to the potential for the traffic generated by a development to change accident rates on the road network. The IEMA Guidelines discuss a 'Safe System' approach but also state "*It is recommended that the traffic and movement expert engages with the relevant authorities to determine the best approach for determining the significance of road safety effects*."

13.5.27 BEAR Scotland, who manage the A835 on behalf of TS, have been consulted to understand if there are any locations within the study area where there are atypically high accident rates, information which has been used as the basis for determining the significance of road safety effects.

Hazardous / Large Loads

13.5.28 The Proposed Development would require some AILV movements to deliver some turbine components and a report on the feasibility of delivering those components is included as Appendix 13.1. The number of such movements has been determined, and their potential significance considered based on the extent of works, if any, required to accommodate the vehicles, their number and the sections of road that they would use. There are, however, established procedures in place to manage such movements as described in The Road Vehicles (Authorisation of Special Types) (General) Order 2003. A risk or catastrophe analysis as described in paragraph 3.50 of the IEMA Guidelines is not considered to be required.

<u>Impact Magnitude</u>

13.5.29 Thresholds for the magnitude of impacts have been identified by reference to the IEMA Guidelines and professional judgement. These thresholds are summarised in Table 13.3.

Table 13.3 – Suggested Categorisation of Impact Magnitude by Potential Effect

Effect	Impact Magnitude			
	High	**Medium**	**Low**	**Negligible**
Severance	Change in road link traffic flow of over 60%	Change in road link traffic flow of 30% to less than 60%	Change in road link traffic flow of 10% to less than 30%	Change in road link traffic flow of less than 10%
Road Vehicle Driver and Passenger Delay	Judgement based on the individual characteristics of sections of road			Change in road link traffic flow of less than 10%

Effect	Impact Magnitude			
	High	**Medium**	**Low**	**Negligible**
Non-Motorised User Delay	Judgement based on the individual characteristics of sections of road			Change in road link traffic flow of less than 10%
Non-Motorised User Amenity	Judgement based on the individual characteristics of sections of road subject to a change in total traffic flows or HGV flows of more than 100%			Change in total traffic flows or HGV flows of less than 100%
Fear and Intimidation of and by Road Users	Two changes in 'Level of fear and intimidation'	One change in Level of fear and intimidation with >400 vehicle increase in average 18 hour (hr) vehicle flow or >500 Heavy Vehicle (HV) increase in total 18hr HV flows	One change in Level of fear and intimidation with <400 vehicle increase in average 18hr vehicle flow or <500 HV increase in total 18hr HV flows	No change in Level of fear and intimidation
Road User and Pedestrian Safety	Judgement based on accident data and individual characteristics of sections of road.			Change in road link traffic flow of less than 10%
Hazardous / Large Loads	Judgement based on number of such movements and nature of affected road network			

Sensitivity of Receptors

13.5.30 Definitions of receptor sensitivity have been developed and are shown in Table 13.4.

Table 13.4 – Receptor Sensitivity Definitions

Sensitivity	Description
High	Receptors of greatest sensitivity to traffic flows such as schools, colleges, playgrounds and urban roads without footways that are used by pedestrians
Medium	Traffic flow sensitive receptors such as: congested junctions, doctors' surgeries, hospitals, shopping areas with roadside frontage, roads with narrow footways, unsegregated cycleways, community centres, parks and recreation facilities.
Low	Receptors with some sensitivity to traffic flow such as places of worship, public open space, nature conservation areas, listed buildings, tourist attractions and residential areas with adequate footways.
Negligible	Receptors with low sensitivity to traffic flows and those sufficiently distant from affected roads/ junctions.

13.5.31 Professional judgement has been used in the application of the definitions shown in Table 13.4. For example, users of sections of road with receptors of medium or high sensitivity may be less sensitive to severance effects if there are measures to aid pedestrians crossing the road. This is acknowledged in paragraph 1.31 of the IEMA Guidelines which states "*For example, pedestrians are less sensitive to changes in traffic if there are adequate footways and crossing facilities*".

Significance Criteria

13.5.32 An effect significance matrix based on the impact magnitude and receptor sensitivity is set out in Table 13.5.

Table 13.5 – Effect Significance

Impact Magnitude	Sensitivity of Receptor			
	High	**Medium**	**Low**	**Negligible**
High	Major	Major	Moderate	Negligible
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

13.5.33 Effects of 'Major' or 'Moderate' significance are considered to be 'significant' in terms of the EIA Regulations. Effects of 'Minor' or 'Negligible' significance are considered to be 'not significant' in terms of the EIA Regulations.

Requirements for Mitigation

13.5.34 The Proposed Development has been designed to include a range of measures to mitigate potential effects and general good practice would be deployed. A detailed site-specific CTMP would be provided prior to the commencement of development which could be secured by a condition attached to any grant of consent for the Proposed Development.

Assessment of Residual Effect Significance

13.5.35 Following consideration of mitigation measures, an assessment of the residual effects has been made. Residual impacts are those likely to occur after mitigation measures have been incorporated into the

scheme.

Cumulative Assessment

13.5.36 The potential for cumulative effects to arise from the Proposed Development in combination with other developments has been considered. Schedule 4, Paragraph 5 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 states that EIA Reports should provide "*A description of the likely significant effects of the development on the environment resulting from, inter alia:"* […] "*(e)the cumulation of effects with other existing and/or approved development, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources*;"

13.5.37 The Scottish Government's document Circular 1/2017 The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 states regarding this issue:

"*Generally, it would not be feasible to consider the cumulative effects with other applications which have not yet been determined, since there can be no certainty that they will receive planning permission. However, there could be circumstances where 2 or more applications for development should be considered together. Such circumstances are likely to be where the applications in question are not directly in competition with one another so that both or all of them might be approved, and where the overall combined environmental impact of the proposals might be greater or have different effects than the sum of the separate parts*."

13.5.38 Any cumulative assessment of other developments and the Proposed Development would be based on the sum of the traffic generation of the individual developments. It is unlikely that they would, when considered together, have effects that were different or greater than the sum of the separate parts.

13.5.39 The traffic generated by any potential cumulative developments which were under construction or operational during the period for which traffic data has been collected would be included in the baseline traffic flows. Hence the cumulative assessment has considered only those developments which have planning consent (i.e. can be considered 'approved' as per the above extract from the 2017 regulations and 'determined' as per the extract from Circular 1/2017) but were not under construction or operational during the period for which traffic data has been collected. This approach is consistent with the extract from THC's document 'Guidance on Transport Assessments' shown in paragraph 13.3.13.

Limitations to Assessment

13.5.40 As noted in paragraph 13.5.16 traffic flows on the same section of road vary continuously. However, there is no reason to believe that the traffic data that has been collected for the roads within the study area represent atypical conditions.

13.6 Baseline Conditions

Current Baseline

13.6.1 The current baseline conditions are described below for the sections of the A835 within the study area, as shown on Figure 13.1. The baseline conditions have been described following the 'sustainable travel hierarchy' in National Planning Framework 4 (NPF4) namely: walking, wheeling, cycling, public transport and shared transport options and private cars.

A835 in General

13.6.2 The section of the A835 within the study area is a single carriageway road with one lane in each direction, albeit with occasional widening at some junctions. Except where noted below, it is subject to a 60mph speed limit for cars, 50mph for buses, coaches and minibuses and goods vehicles below 7.5 tonnes and 40mph for goods vehicles heavier than 7.5 tonnes[1].

A835: Inchbae Farm to A832 Junction

13.6.3 This section passes through predominantly grassland and wooded areas, with occasional developments (such as farms and homes) taking direct access onto it. There are no footways along this section and little to generate pedestrian demand along and across this section. Core Path RC20.01 crosses the A835 at two points in the vicinity of where the A835 passes over Black Water. The western crossing passes underneath the A835, while the eastern crossing crosses the A835 at grade. This section does not form part of the National Cycle Network (NCN).

13.6.4 At the time of writing, this section is served by the following bus and coach services:

- D&E Coaches' 61 service, which links Inverness with Ullapool and operates two return journeys in each

[1] Speed limits - GOV.UK (www.gov.uk)

direction on weekdays

- Scottish Citylink's 961 service, which links Inverness with Ullapool and operates two return journeys in each direction on weekdays and on Saturdays and one on a Sunday (two during the summer months).
- Westerbuses' 700 bus service linking Gairloch with Inverness and Dingwall and operating one service in each direction on Mondays and Fridays.
- Westerbuses' 700A service linking Laide with Inverness via Gairloch and Dingwall and operating one service in each direction on Saturdays and Tuesdays.
- Locharron Garage's 704 service linking Applecross with Inverness via Dingwall and operating one journey in each direction on Saturdays and Mondays.
- Westerbuses' 711 service linking Poolewe and Dingwall via Gairloch which operates one service in each direction on Wednesdays.

13.6.5 Although the above services pass along this section, there are no bus stops within this section.

13.6.6 Data from the Crashmap website shows that three injury-causing accidents occurred on this section during the three years to the end of 2023 (the last full year for which data is available at the time of writing). All of these accidents occurred at the junction of the A835 and A832 and their details were:

- An accident on 15 May 2022 which involved two vehicles and caused fatal injuries.
- An accident on 21 November 2022 which involved two vehicles and caused injuries categorised as slight.
- An accident on 15 June 2023 which involved two vehicles and caused injuries categorised as slight.

13.6.7 BEAR Scotland advised that the junction of the A835 and A832 has been identified as an accident cluster site. It also advised that there are no remedial measures planned at the time of writing but that the junction will be assessed in 2025 to identify if any accident reduction measures are required.

A835: A832 Junction to A834 Junction at Contin

13.6.8 This section passes through predominantly grassland and wooded areas with occasional developments (such as farms and homes) taking direct access onto it. The section also passes through the villages of Garve and Contin and several properties in these villages directly access the A835. The section has a speed limit of 60mph along most of its length, reducing to 40mph through Garve and 30mph through Contin.

13.6.9 There is a footway on the eastern side of the A835 for around 650m as it passes through Garve. The buildings within Garve are all on the eastern side of the A835 except for one house. The homes within Garve and Strathgarve Primary School are all accessed from Stirling Drive (which becomes Matheson Road) which leads to the A835. Thus, the most direct route for pedestrians walking between those homes and the primary school, for example, does not use the A835.

13.6.10 A shared foot and cycleway start on the western side of the A835 at its junction with Craigdaorrch Drive and continues southwards for around 650m to the access road to Loch Achilty. A footway starts on the eastern side of the A835 at Achilty and then continues for around 1.2km to the junction with the A834 at the southern edge of Contin. There is a footway on the western side of the A835 in Contin from its junction with Tor View southwards for around 850m southwards to the southern edge of Contin. These footways link with footways on the various side roads that meet the A835 through Contin.

13.6.11 Core Path RC10.03 Mains of Coul meets the eastern side of the A835 via an unnamed road around 70m south of the A835's junction with Woodland Park. Core Path RC10.05 Contin Island meets the western side of the A835 around 170m south of where Core Path RC10.03 meets the A835. This section does not form part of the NCN.

13.6.12 There are bus stops within Contin and these are served by the services listed in paragraph 13.6.4. They are also served by Stagecoach's 27 service which links Contin with Strathpeffer, Dingwall, Inverness and Inverness airport and operates approximately hourly Monday to Saturday.

13.6.13 Data from the Crashmap website shows that the following injury-causing accidents occurred on this section during the three years to the end of 2023:

- An accident on 14 September 2023 alongside Loch Garve which involved one vehicle and caused injures categorised as serious.
- An accident on 15 April 2023 alongside Loch Garve which involved two vehicles and caused fatal injuries.
- An accident on 18 July 2021 at the southern end of Loch Garve which involved one vehicle and caused injuries categorised as serious.
- An accident to 17 May 2023 north of Craigdaorrch Drive which involved two vehicles and caused injuries categorised as serious.

13.6.14 BEAR Scotland advised that there are no locations along this section where there are atypically high accident rates.

A835: A834 Junction at Contin to A832 Junction at Moy Bridge

13.6.15 This section passes through predominantly grassland and wooded areas, with occasional developments (such as farms and homes) taking direct access onto it. There are no footways along this section and little to generate pedestrian demand along and across this section. This section does not form part of a Core Path nor do any cross it and it does not form part of the NCN. The bus services listed in paragraph 13.6.4 run along this section although there are no bus stops along it.

13.6.16 Data from the Crashmap website shows no injury-causing accidents on it during the three years to the end of 2023 and BEAR Scotland advised that there are no locations along this section where there are atypically high accident rates.

A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout

13.6.17 This section passes through predominantly grassland and wooded areas, with occasional developments (such as farms and homes) taking direct access onto it. There are no footways along much of the section and little to generate pedestrian demand along and across this section. Core Paths RC31.03 Brahan -Loch Ussie track, RC31.04 Brahan North Lodge to Balnain and RC31.05 Birch Drive to Ussie Road meet this section.

13.6.18 There are sections of footway each around 20m long on each side of the A835 where Core Path RC31.05 meets it. There are further sections of footway of a similar length on each side of the A835 where it meets the A862 at the Maryburgh roundabout. Core Path RC13.08 Dingwall-Maryburgh cycleway (a shared foot and cycle path) crosses the A835 at the Maryburgh roundabout. This section does not form part of the NCN. The bus services listed in paragraph 13.6.4 run along this section (as well as a Wednesday-only 44B service linking Kilmorack with Dingwall) although there are no bus stops along it.

13.6.19 Data from the Crashmap website shows that the following injury-causing accidents occurred on this section during the three years to the end of 2023:

- An accident on 23 October 2023 around three kilometres east of the A832 junction which involved one vehicle and caused injuries categorised as slight.
- An accident on 8 December 2022 at Birch Drive which involved three vehicles and caused injuries categorised as slight.
- An accident on 29 August 2022 on the approach to the Maryburgh roundabout which involved one vehicle and caused injuries categorised as serious.

13.6.20 BEAR Scotland advised that there are no locations along this section where there are atypically high accident rates.

A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig

13.6.21 This section passes through predominantly grassland and wooded areas, with occasional developments (such as farms and homes) taking direct access onto it. There is a shared foot and cycleway along the eastern side of the part of this section between the junction with the A862 and the B9163 and this forms part of NCN Route 1. No Core Paths meet this section.

13.6.22 The bus services listed in paragraph 13.6.4 run along this section as well as Stagecoach's 25A service (which links Inverness with Dingwall, Alness, Invergordon and Tain and operates approximately hourly during the evenings Monday to Saturday and all day Sunday) and THC's 21F service (which links Cromarty with Dingwall and operates two journeys each day on Tuesdays and Thursdays). There are no bus stops on this section.

13.6.23 Data from the Crashmap website shows that the following injury-causing accidents occurred on this section during the three years to the end of 2023:

- An accident on 16 August 2023 in the vicinity of the bridge over the River Conon which involved two vehicles and caused injuries categorised as serious.
- An accident on 25 November 2023 at the B9163 junction which caused injuries categorised as slight and involved three vehicles.
- An accident on 23 June 2023 at the B9163 junction which caused injuries categorised as serious and involved two vehicles.
- An accident on 3 February 2022 at the B9163 junction which caused injuries categorised as slight and involved two vehicles.
- An accident on 31 March 2022 at the western B9169 junction which caused injuries categorised as slight and involved two vehicles.

- An accident on 20 December 2023 at the western B9169 junction which caused injuries categorised as serious and involved two vehicles.
- An accident on 24 November 2023 at the eastern B9169 junction which caused injuries categorised as serious and involved two vehicles.

13.6.24 BEAR Scotland advised that there are no locations along this section where there are atypically high accident rates

A835: B9169 Junction at Leanaig to A9 Junction at Tore

13.6.25 This section passes through predominantly grassland and wooded areas, with occasional developments (such as farms and homes) taking direct access onto it. There is a shared foot and cycleway along the eastern side of this section which forms part of NCN Route 1. Core Path RC24.01 meets this section at Mullans Wood. The bus services listed in paragraph 13.6.22 run along this section and there are three pairs of bus stops along it.

13.6.26 Data from the Crashmap website shows that the following injury-causing accidents occurred on this section during the three years to the end of 2023:

- An accident on 3 October 2022 at the B9169 junction which caused injuries categorised as slight and involved one vehicle.
- An accident on 3 May 2021 at Newton of Ferintosh which caused injuries categorised as slight and involved four vehicles.
- An accident on 13 July 2023 at Newton of Ferintosh which caused injuries categorised as slight and involved three vehicles.
- An accident on 21 April 2022 at Muckerinch which caused injuries categorised as serious and involved two vehicles.
- An accident on 13 February 2022 on the A835 approach to the Tore roundabout which caused injuries categorised as serious and involved one vehicle.

13.6.27 BEAR Scotland advised that there are no locations along this section where there are atypically high accident rates.

Summary of Traffic Data

13.6.28 The average weekday traffic flows during the period 0700 – 1900 for the sections of the A835 referred to above (and the sections of the A9 requested by TS) are summarised in Table 13.6.

Table 13.6 – Observed A835 and A9 Traffic Flows

ATC Reference	Description	Average 0700 – 1900 Weekday Traffic Flow	
		All Vehicles	HGVs only
000000180100	A835: Inchbae Farm to A832 Junction	2,218	191
0000ATC01100	A835: A832 Junction to A834 Junction at Contin	3,759	662
0000ATC01099	A835: A834 Junction at Contin to A832 Junction at Moy Bridge	4,798	557
0000JTC00142	A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	4,865	956
0000ATC01097	A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	10,859	1,613
0000ATC01096	A835: B9169 Junction at Leanaig to A9 Junction at Tore	9,853	949
0000ATC01011	A9 North of Tore Roundabout	10,817	4,169
0000ATC01010	A9 Artafallie (B9161) to Tore Roundabout	24,195	4,521

13.6.29 The data for 0000ATC01097 would appear to be overestimating the number of HGVs, when compared to the number of HGVs on the two adjacent sections. The number of HGVs for that section of road was therefore adjusted and taken to be 953, the average of the 949 and 956 HGVs recorded in the adjacent sections.

Future Baseline in Absence of Proposed Development

13.6.30 No changes to the future baseline transport network in the study area have been identified. It may be the case, however, that remedial measures are implemented at the junction of the A835 and A832 as referred to in paragraph 13.6.7 which may reduce the accident rate at that junction.

13.6.31 It would be reasonable to consider that traffic flows on the road network would increase as a result of traffic growth. Hence a traffic growth factor has been applied to the traffic flows observed in 2024 to make them representative of 2028, the year when construction of the Proposed Development would be expected to start. A traffic growth factor of 1.021 was therefore applied, which is a 'low' growth factor from the National Road Traffic Forecasts (NRTF) dataset. The resulting future baseline traffic flows are shown in Table 13.7.

Table 13.7 – Estimated 2028 A835 and A9 Traffic Flows

Reference	Description	Average 0700 – 1900 Weekday Traffic Flow	
		All Vehicles	HGVs only
000000180100	A835: Inchbae Farm to A832 Junction	2,265	195
0000ATC01100	A835: A832 Junction to A834 Junction at Contin	3,841	676
0000ATC01099	A835: A834 Junction at Contin to A832 Junction at Moy Bridge	4,899	569
0000JTC00142	A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	4,967	976
0000ATC01097	A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	11,087	973
0000ATC01096	A835: B9169 Junction at Leanaig to A9 Junction at Tore	10,060	969
0000ATC01011	A9 North of Tore Roundabout	11,044	4,257
0000ATC01010	A9 Artafallie (B9161) to Tore Roundabout	24,703	4,616

Receptor Sensitivity

13.6.32 Based on the baseline situation as described above, the sensitivity of receptors of each type of effect has been estimated and is shown in Table 13.8.

Table 13.8 – Sensitivity of Receptors by Potential Effect

Receptors on Section of A835	Receptor Sensitivity by Potential Effect							
	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Rule to be assessed against
Inchbae Farm to A832 Junction	Low since there is little frontage development and little demand to cross the road	Medium since the nature of the traffic to and from the Proposed Development is such that it would be spread out during a working day and not concentrated at peak times and road network generally not experiencing congestion at peak times.	Low since there is little frontage development and little demand to cross the road			Medium since there is an accident cluster site at the A835 / A832 junction.	Low as there are established procedures for the movement of abnormal loads such as turbine components.	Rule 1: to be assessed if traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%). Specific comment to be made on the issue of accidents at the A835 / A832 junction irrespective of increase in vehicle movements.
A832 Junction to A834 Junction at Contin	Medium since there is frontage development along this section.	Medium since the nature of the traffic to and from the Proposed Development is such that it would be spread out during a working day and not concentrated at peak times and road network generally not experiencing congestion at peak times.	Medium since there will be some pedestrian activity through Garve and Contin			Low as there are no accident cluster sites on this section.	Low as there are established procedures for the movement of abnormal loads such as turbine components.	Rule 1 and Rule 2: to be assessed if traffic flows will increase by 10% or more or HGVs will increase by more than 30%.
A834 Junction at Contin to A832 Junction at Moy Bridge	Low since there is little frontage development and little demand to cross the road	Medium since the nature of the traffic to and from the Proposed Development is such that it would be spread out during a working day and not concentrated at peak times and road network generally not experiencing congestion at peak times.	Low since there is little frontage development and little demand to cross the road			Low as there are no accident cluster sites on this section.	Low as there are established procedures for the movement of abnormal loads such as turbine components.	Rule 1: to be assessed if traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	Low since there is little frontage development and little demand to cross the road	Medium since the nature of the traffic to and from the Proposed Development is such that it would be spread out during a working day and not concentrated at peak times and road network generally not experiencing congestion at peak times.	Low since there is little frontage development and little demand to cross the road			Low as there are no accident cluster sites on this section.	Low as there are established procedures for the movement of abnormal loads such as turbine components.	Rule 1: to be assessed if traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).

Receptors on Section of A835	Receptor Sensitivity by Potential Effect							
	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Rule to be assessed against
A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	Low since there is little frontage development and little demand to cross the road	Medium since the nature of the traffic to and from the Proposed Development is such that it would be spread out during a working day and not concentrated at peak times and road network generally not experiencing congestion at peak times.	Low since there is little frontage development and little demand to cross the road			Low as there are no accident cluster sites on this section.	Low as there are established procedures for the movement of abnormal loads such as turbine components.	Rule 1: to be assessed if traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
B9169 Junction at Leanaig to A9 Junction at Tore	Low since there is little frontage development and little demand to cross the road	Medium since the nature of the traffic to and from the Proposed Development is such that it would be spread out during a working day and not concentrated at peak times and road network generally not experiencing congestion at peak times.	Low since there is little frontage development and little demand to cross the road			Low as there are no accident cluster sites on this section.	Low as there are established procedures for the movement of abnormal loads such as turbine components.	Rule 1: to be assessed if traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).

13.7 Standard Mitigation

13.7.1 A CTMP would be prepared for the Proposed Development. This document would describe measures that would be implemented to control construction-related traffic travelling to and from the Proposed Development. The submission of a CTMP could be made a condition of any consent granted for the Proposed Development. The types of matters that could be included in a CTMP include:

- Details of the type and number of vehicle movements expected to and from the Proposed Development.
- Details of the routes expected to be taken by HGVs travelling to and from the Proposed Development.
- Measures to encourage compliance with the identified routes.
- Timing of deliveries to avoid any sensitive times (e.g. school start and finish times).
- Code of conduct for HGV drivers.
- A requirement that all HGVs operated by the Principal Contractor will have Global Positioning System (GPS) trackers, allowing their speed and routeing to be recorded.
- Liaison with road authority regarding winter maintenance.
- Arrangements for cleaning any sections of public road affected by material deposited from vehicles related to the construction of the Proposed Development.
- Arrangements for before and after road condition surveys.
- Arrangements for temporary traffic signs.
- Contingencies for unobstructed access for emergency services.
- Measures to discourage single use car access to the Proposed Development.
- Arrangements for the monitoring, reviewing and reporting on the implementation of the CTMP.
- Procedures for dealing with non-compliance with the CTMP.

13.7.2 Best practice measures would also be implemented to manage impacts arising from construction traffic. These would include sheeting of HGVs (where applicable) to prevent dust and requiring all HGVs leaving the site to go through a wheel wash to reduce the risk of dust, mud or other debris being deposited on the public road.

13.7.3 A trial run would be undertaken of the AILVs transporting the turbine components, which would identify any accommodation works needed.

13.8 Receptors Brought Forward for Assessment

13.8.1 Receptors on the sections of the A835 listed in Table 13.8 have been brought forward for assessment.

13.9 Potential Effects

13.9.1 This section describes the potential impacts and effects during the construction of the Proposed Development on the traffic and transport network during cons, operation and decommissioning.

Construction

Traffic Generation and Comparison Against Future Baseline

13.9.2 An indicative programme for the construction of the Proposed Development is provided in Chapter 3: Description of the Development and shows that construction is expected to last for 23 months. The amount of materials required to be delivered to the site has been calculated for each of the tasks shown in the programme. The number of HGV movements (including AILVs) for each task in the construction programme is shown in Table 13.9. The number of car and light van movements has also been calculated

and is shown in Table 13.9. These have been based on an assumed average of 1.5 staff members per vehicle.

Table 13.9 – Vehicle Movements by Construction Programme Task

Construction Activity	Starts in month	Duration (months)	Total HGV movements[2]	Total Car and Light Van Movements[2]
Mobilisation & Compounds	1	2	1,602	480
Access & Site Tracks	1	13	10,993	3,120
Crane Hardstanding	2	13	15,085	1,733
Turbine Foundations	5	12	6,603	1,600
On Site Cabling	5	11	1,570	1,173
Substation Civils Work	2	8	3,010	1,067
Substation Construction	5	14	52	373
Turbine Delivery	12	6	164	480
Turbine Erection	14	7	6	1,307
Commissioning and Testing	16	3	0	160
Site Reinstatement	18	6	40	960

13.9.3 The data in Table 13.9 shows that construction of the crane hardstandings is the activity which would be expected to generate the most HGV movements.

13.9.4 The peak number of HGV movements during each month of the construction of the Proposed Development depends on the overlap of construction activities. Hence the HGV movements shown in Table 13.9 have been allocated to the construction programme shown in Chapter 3 and the resultant number of HGVs during each month of the construction programme is shown in Table 13.10.

2 A movement is an arrival or a departure. For example a laden vehicle arriving, unloading and departing would represent two movements.

Table 13.10 – Number of Vehicle Movements Per Month in Construction Programme

Construction Activity	Vehicle type	Number of Vehicle Movements[2] Per Month in Construction Programme																					
		Month																					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mobilisation & compounds	HGV	801	801																					
Access & Site Tracks	HGV	846	846	846	846	846	846	846	846	846	846	846	846	846										
Crane Hardstanding	HGV		1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160									
Turbine Foundations	HGV					550	550	550	550	550	550	550	550	550	550	550	550							
On-site Cabling	HGV					143	143	143	143	143	143	143	143	143	143	143								
Substation civils work	HGV		376	376	376	376	376	376	376	376														
Substation construction	HGV					4	4	4	4	4	4	4	4	4	4	4	4	4	4					
Turbine Delivery	HGV												27	27	27	27	27	27						
Turbine Erection	HGV														1	1	1	1	1	1	1			
Commissioning & Testing	HGV																0	0	0					
Site Reinstatement	HGV																		7	7	7	7	7	7
Staff	Cars	480	747	507	507	773	773	773	773	773	640	640	720	720	667	533	480	347	427	347	347	160	160	160
Total Vehicle Movements	All	2,127	**3,930**	2,889	2,889	3,852	3,852	3,852	3,852	3,852	3,343	3,343	3,450	3,450	2,552	1,258	1,062	379	438	354	354	167	167	167
Total HGV Movements	HGV	1,647	**3,183**	2,382	2,382	3,079	3,079	3,079	3,079	3,079	2,703	2,703	2,730	2,730	1,885	725	582	32	11	8	8	7	7	7
Total Car Movements	Cars	480	**747**	507	507	773	773	773	773	773	640	640	720	720	667	533	480	347	427	347	347	160	160	160
Total Vehicle Movements per day	All	106	**196**	144	144	193	193	193	193	193	167	167	172	172	128	63	53	19	22	18	18	8	8	8
Total HGV Movements per day	HGV	82	**159**	119	119	154	154	154	154	154	135	135	137	137	94	36	29	2	1	0	0	0	0	0
Total Car Movements per day	Cars	24	**37**	25	25	39	39	39	39	39	32	32	36	36	33	27	24	17	21	17	17	8	8	8

13.9.5 The data in Table 13.10 also shows the estimated daily number of vehicle movements and that calculation is based on 20 working days (i.e. Monday to Friday) per month. Some activities may take place on Saturdays and hence the vehicle movements may be spread over more days per month than has been assumed. Basing the calculation on only 20 working days therefore produces a conservative assessment.

13.9.6 The data in Table 13.10 shows that month two of the construction programme would be the busiest month for vehicle movements. It is estimated that during that month, there would be an average of 196 vehicle movements each working day, of which on average 159 would be HGVs. There is estimated to be an average of 112 vehicle movements each working day over the entire construction programme, of which 85 would be HGVs.

13.9.7 The Proposed Development includes a search area for three borrow pits. The estimates of the traffic generation during the construction of the Proposed Development assume that all stone required during the construction of the Proposed Development is delivered from off-site. However, should the investigation of those borrow pits show that they can provide stone suitable for use in the construction of the Proposed Development, then the amount of stone required to be delivered from offsite (and hence vehicle movements) would be less than estimated in this assessment.

13.9.8 Any stone that is required to be delivered to the Proposed Development would be sourced from existing operational quarries. Vehicle movements to and from these quarries may already be on the A835 within the study area delivering stone to other customers and may have been captured in the baseline traffic surveys. Hence deliveries of stone to the Proposed Development may not necessarily result in all the relevant HGV movements shown in Table 13.10 being additional movements on the road network.

13.9.9 The 'Turbine Delivery' task in Table 13.10 includes AILVs delivering the turbine components. There would be nine AILV movements per turbine, totalling 81 movements. These movements would deliver the turbine blades (three movements per turbine), turbine tower sections (four per turbine), transformer and nacelle (each one per turbine).

13.9.10 Note these vehicles would be classed as AILVs only on their journey carrying the components to the site and they would not be classed as AILVs for their journey unladen from the site to the port where the turbine components arrive. There would therefore be 81 movements of the unladen turbine component vehicles returning to the port from the site.

13.9.11 The report in Appendix 13.1 has identified a route for the delivery of the turbine components from Port of Cromarty Firth at Invergordon or Port of Nigg to the Proposed Development. That route is shown in Figure 13.1 and the report in Appendix 13.1 states that accommodation works involving trimming vegetation, removing street furniture and road widening to create load-bearing surfaces are required at several locations as well as the creation of the off-site turning circle at Inchbae.

13.9.12 It is common that AILVs travel in convoys of up to three vehicles. The exact timing of the movement of these convoys would be a matter to be agreed with THC, TS and the police. Paragraph 6 of Schedule 5 of The Road Vehicles (Authorisation of Special Types) (General) Order 2003 gives the police the power to vary the time, date or route of a proposed AILV movement and halt the AILV in place on, or adjacent to, the road on which the AILV is travelling in the interests of road safety or to avoid undue traffic congestion.

13.9.13 All vehicle movements to or from the Proposed Development would use the A835. The proportion of vehicle movements using the A835 to the east and to the west of the Proposed Development would depend on the locations of suppliers and staff and those locations would be uncertain until much later in the construction process. However, given the main locations of population and businesses in the vicinity of the Proposed Development are to the east (such as Inverness, Dingwall and Invergordon), it has been assumed for the purposes of this assessment that all vehicle movements to and from the Proposed Development would use the A835 to the east.

13.9.14 It has also been assumed that, for the purposes of the threshold assessment on the A9 requested by TS, all vehicle movements to and from the Proposed Development would split equally between the sections of the A9 to the north and south of the junction of the A9 and A835.

13.9.15 The additional vehicle movements arising from the Proposed Development on each section of road within the study area are shown in Table 13.11. These additional movements would be expected to occur over the period 0700 – 1900 on a weekday and represent the number of movements per working day during the busiest month (month two) of the construction programme. Outwith that month, the increase in vehicle movements arising from the Proposed Development would be lower than shown in Table 13.11.

Table 13.11 – Additional Vehicle Movements per Working Day Arising from the Proposed Development During Busiest Month

Section of Road	Additional Vehicle Movements[2] per Working Day Arising from the Proposed Development During Busiest Month	
	All Vehicles	HGVs only
A835: Inchbae Farm to A832 Junction	196	159
A835: A832 Junction to A834 Junction at Contin	196	159

Section of Road	Additional Vehicle Movements[2] per Working Day Arising from the Proposed Development During Busiest Month	
	All Vehicles	HGVs only
A835: A834 Junction at Contin to A832 Junction at Moy Bridge	196	159
A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	196	159
A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	196	159
A835: B9169 Junction at Leanaig to A9 Junction at Tore	196	159
A9: North of Tore Roundabout	98	80
A9: Artafallie (B9161) to Tore Roundabout	98	80

13.9.16 The additional vehicle movements arising from the Proposed Development during the busiest month shown in Table 13.11 were compared to the future baseline traffic (shown in Table 13.7) and the percentage increase in vehicle movements on each section of road within the study area calculated. That comparison and calculation is shown in Table 13.12 along with the relevant 'Rule 1' or 'Rule 2' threshold (as described in paragraph 13.5.16). Table 13.12 also identifies which sections of road are estimated to experience an increase in vehicle movements arising from the Proposed Development above the appropriate threshold and hence be subject to further assessment.

Table 13.12 – Comparison of Additional Vehicle Movements Arising from the Proposed Development Against Future Baseline

Section of Road	2028 Future baseline average 0700 – 1900 weekday traffic flow		Additional vehicle movements arising from the Proposed Development		Increase in vehicle movements arising from the Proposed Development		Rule 1 breached?	Rule 2 breached? (if applicable)	Subject to further assessment?
	All vehicles	HGVs only	All vehicles	HGVs only	All vehicles	HGVs only			
A835: Inchbae Farm to A832 Junction	2,265	195	196	159	9%	82%	Yes (HGVS only)	Not applicable	Yes
A835: A832 Junction to A834 Junction at Contin	3,841	676	196	159	5%	24%	No	No	No
A835: A834 Junction at Contin to A832 Junction at Moy Bridge	4,899	569	196	159	4%	28%	No	Not applicable	No
A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	4,967	976	196	159	4%	16%	No	Not applicable	No
A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	11,087	973	196	159	2%	16%	No	Not applicable	No
A835: B9169 Junction at Leanaig to A9 Junction at Tore	10,060	969	196	159	2%	16%	No	Not applicable	No
A9 North of Tore Roundabout	11,044	4,257	98	80	1%	2%	No	Not applicable	No
A9 Artafallie (B9161) to Tore Roundabout	24,703	4,616	98	80	0%	2%	No	Not applicable	No

13.9.17 The data in Table 13.12 shows that the A835 from Inchbae Lodge to the junction with the A832 west of Garve is estimated to experience an increase in vehicle movements arising from the construction of the Proposed Development sufficiently large to warrant further assessment. However, the scale of increases shown in Table 13.12 apply only to the busiest month during the construction of the Proposed Development and the increases during the other months would be lower than those shown in that table.

13.9.18 The threshold assessment of the A9, requested by TS, shows that the estimated increase in vehicle movements arising from the construction of the Proposed Development would be too small to warrant further assessment of the sections of the A9 immediately to the north and south of its junction with the A835.

13.9.19 The assessment of the effects of the increase in vehicle movements on the relevant section of the A835 is presented in Table 13.13.

Table 13.13 – Assessment of Effects of Additional Vehicle Movements Arising from Proposed Development on Section of A835 from Inchbae Lodge to Junction with A832 West of Garve

Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
• Increase in vehicle movements is 9%, which is an impact of negligible magnitude as per Table 13.3. • This section has a low sensitivity to severance as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.8. • An impact of negligible magnitude on a receptor of medium sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • This section has a low sensitivity to non-motorised user delay as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • This section has a low sensitivity to non-motorised user amenity as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Table 13.14 shows an impact of negligible magnitude. • This section has a low sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a medium sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of negligible magnitude on a receptor of medium sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• The 81 AILV movements over six months are considered to represent a low magnitude of impact. • This section has a low sensitivity to hazardous / large loads as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	Not significant

Table 13.14 – Calculation of Level of Fear and Intimidation

Future Baseline								Future Baseline and Proposed Development								Impact Magnitude
Average 18-hour traffic flow (all vehicles per hour) (a)	Total 18-hour HGVs (b)	Average vehicle speed (mph) (c)	Degree of Hazard Score				Level of fear and intimidation	Average 18-hour traffic flow (all vehicles per hour) (a)	Total 18-hour HGVs (b)	Average vehicle speed (mph) (c)	Degree of Hazard Score				Level of fear and intimidation	
			a	b	c	Total					a	b	c	Total		
139	224	57	0	0	30	30	Moderate	150	383	57	0	0	30	30	Moderate	Negligible

13.9.20 The traffic estimated to be generated during the busiest month of construction of the Proposed Development has been assessed as having a not significant effect on the surrounding transport network.

Operation

13.9.21 As stated in paragraph 13.5.3, the transport effects of the Proposed Development during operation have been considered to be negligible and hence scoped out of this assessment.

Decommissioning

13.9.22 As stated in paragraph 13.5.5 the transport effects of the Proposed Development during decommissioning have been scoped out of this assessment.

13.10 Additional Mitigation and Enhancement

13.10.1 It was concluded in paragraph 13.1.1 that the Proposed Development has been assessed as having a not significant effect on the surrounding transport network. Notwithstanding that conclusion, TS should be consulted during the production of the CTMP for the Proposed Development (discussed in 13.7.1) to establish the position at that time of the accident rate at the junction of the A835 and A832 and the status of any proposals to address safety at that junction. Depending on the outcome of that consultation, the CTMP could include measures to, for example, highlight this junction during 'toolbox talks' for site operatives.

13.11 Residual Effects

Construction

13.11.1 No significant residual effects on transport during construction are expected.

Operation

13.11.2 As stated in paragraph 13.5.3, the transport effects of the Proposed Development during operation have been considered to be negligible and hence scoped out of this assessment.

Decommissioning

13.11.3 As stated in paragraph 13.5.5 the transport effects of the Proposed Development during decommissioning have been scoped out of this assessment.

13.12 Cumulative Assessment

13.12.1 The list of developments that may have the potential to generate cumulative effects in combination with the Proposed Development (listed in Chapter 5) was interrogated to identify only those that have planning consent (as per the approach described in paragraphs 13.5.36 to 13.5.39) but were unbuilt as of 14 November 2024 (the cut-off date agreed with THC). Those developments are listed in Table 13.15. Those developments were then interrogated further to identify those which:

- were not operational or under construction at the time of the baseline surveys, as the surveys would have captured traffic from such developments; and
- would add vehicle movements to the section of the A835 within the study area.

13.12.2 Table 13.15 lists those cumulative developments that, by 14 November 2024, had planning consent but were not operational or under construction at the time of the baseline surveys and whether they would add vehicle movements to the section of the A835 in the study area.

Table 13.15 – Potential Cumulative Developments

Development	THC Reference	Included in Cumulative Assessment?	Reason for Exclusion or Inclusion
Achany extension	21/03695/S36	No	Would not affect A835 in study area
Bhlaraidh extension	21/04080/S36	No	Would not affect A835 in study area
Kirkan	19/01861/S36	Yes	Would affect A835 in study area
Lairg II	21/00849/FUL	No	Would not affect A835 in study area
Lochluichart Extension II	21/02985/FUL	Yes	Would affect A835 in study area
Meall Buidhe	20/02659/FUL	No	Would not affect A835 in study area
Strathrory	22/02442/FUL	No	Would not affect A835 in study area

13.12.3 The information in Table 13.15 shows that only the Kirkan and Lochluichart Extension II developments are consented, but unbuilt, not under construction at the time of the baseline surveys and would affect the

section of the A835 in the study area. The documents submitted with those developments were consulted to identify the estimated traffic generation during construction.

13.12.4 The information submitted with the Kirkan application envisaged an 18-month long construction programme. 'Realistic' and 'worst case' traffic vehicle movement estimates were presented, with the latter assuming that all stone required would be imported, while the former assumed that only stone needed to construct the access tracks to the first borrow pit would be imported. These estimates were presented for the busiest months within the construction programme (months two and three for the 'realistic' estimates and months six to eight for the 'worst case' estimates).

13.12.5 The Lochluichart Extension II development envisaged a 14-month construction phase and presented vehicle movement estimates for month eight, which was estimated as being the busiest month in the construction programme.

13.12.6 The estimated traffic generation for the peak months of the Kirkan and Lochluichart Extension II projects is shown in Table 13.16.

Table 13.16 – Additional Vehicle Movements Arising from Kirkan and Lochluichart Extension II Projects

Section of Road	Kirkan		Lochluichart Extension II		Total	
	Additional Vehicle Movements Arising During Peak Month		Additional Vehicle Movements Arising During Peak Month		Additional Vehicle Movements Arising During Peak Month	
	All Vehicles	HGVs Only	All Vehicles	HGVs Only	All Vehicles	HGVs Only
A835: Inchbae Farm to A832 Junction	568	408	60	14	628	422
A835: A832 Junction to A834 Junction at Contin	568	408	60	14	628	422
A835: A834 Junction at Contin to A832 Junction at Moy Bridge	568	408	60	14	628	422
A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	568	408	60	14	628	422
A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	568	408	60	14	628	422
A835: B9169 Junction at Leanaig to A9 Junction at Tore	568	408	60	14	628	422
A9 North of Tore Roundabout	33	33	60	14	93	47
A9 Artafallie (B9161) to Tore Roundabout	535	375	60	14	595	389

13.12.7 Cumulative effects would arise only if the construction phase of the Proposed Development overlapped with that of the Kirkan or Lochluichart Extension II projects (or both). Construction of the Proposed Development is expected to start in 2028. The information submitted with the Kirkan and Lochluichart Extension II projects envisaged construction in 2020 and 2021 respectively.

13.12.8 At the time of writing, National Energy System Operator's (NESO) Transmission Energy Capacity (TEC) register shows no connection dates for the Kirkan project. (The register is described by NESO as "*A list of projects that hold contracts for Transmission Entry Capacity (TEC) with us. These include existing and future connection projects and projects that can be directly connected to the National Electricity Transmission System (NETS)*"). The register shows a connection date for the Lochluichart Extension II of 31 October 2024, although that date has passed without construction commencing.

13.12.9 There is no certainty that the construction of the Kirkan and Lochluichart Extension II projects would coincide with the construction of the Proposed Development. Even if they did, there is no certainty that the peak months for traffic generation of the three projects would coincide. Nonetheless, the increases in vehicle movements arising from the Kirkan and Lochluichart Extension II developments (shown in Table 13.16) in combination with the increase in vehicle movements from the Proposed Development have been calculated and are shown in Table 13.17. That table also identifies which sections of road could experience an increase in vehicle movements arising from the three developments above the appropriate threshold and hence be subject to further assessment.

Table 13.17 – Comparison of Additional Vehicle Movements Arising from the Proposed Development, Kirkan and Lochluichart Extension II Developments Against Future Baseline

Section of Road	2028 Future baseline average 0700 – 1900 weekday traffic flow		Additional vehicle movements arising from the Proposed Development		Additional vehicle movements arising from the Kirkan and Lochluichart Extension II Developments		Increase in vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II Developments		Rule 1 breached?	Rule 2 breached? (if applicable)	Subject to further assessment?
	All vehicles	HGVs only	All vehicles	HGVs only	All vehicles	HGVs only	All vehicles	HGVs only			
A835: Inchbae Farm to A832 Junction	2,265	195	196	159	628	422	36%	298%	Yes	Not applicable	Yes
A835: A832 Junction to A834 Junction at Contin	3,841	676	196	159	628	422	21%	86%	Yes	Yes	Yes
A835: A834 Junction at Contin to A832 Junction at Moy Bridge	4,899	569	196	159	628	422	17%	102%	Yes	Not applicable	Yes
A835: A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	4,967	976	196	159	628	422	17%	60%	Yes	Not applicable	Yes
A835: A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	11,087	973	196	159	628	422	7%	60%	Yes	Not applicable	Yes
A835: B9169 Junction at Leanaig to A9 Junction at Tore	10,060	969	196	159	628	422	8%	60%	Yes	No	Yes
A9 North of Tore Roundabout	11,044	4,257	98	80	93	47	2%	3%	No	Not applicable	No
A9 Artafallie (B9161) to Tore Roundabout	24,703	4,616	98	80	595	389	3%	10%	No	Not applicable	No

13.12.10 The data in Table 13.17 shows that all sections of the A835 in the study area would warrant further assessment based on the potential increases in vehicle movements should the peak months for vehicle movements during the construction of the Proposed Development, the Kirkan and Lochluichart Extension II developments coincide. The threshold assessment of the A9, requested by TS, shows that the estimated increase in vehicle movements arising from the construction of the Proposed Development, the Kirkan and Lochluichart Extension II developments would be too small to warrant further assessment of the sections of the A9 immediately to the north and south of its junction with the A835.

13.12.11 The assessment of the effects of this increase in vehicle movements is presented in Table 13.18.

Table 13.18 – Assessment of Effects of Additional Vehicle Movements Arising from Proposed Development, Kirkan and Lochluichart Extension II Developments

Section of A835	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
Inchbae Farm to A832 Junction	• Increase in vehicle movements would be 36%, which is an impact of medium magnitude as per Table 13.3. • This section has a low sensitivity to severance as per Table 13.8. • An impact of medium magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.6.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a low sensitivity to non-motorised user delay as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Increase in HGV movements is 298%, which is considered to be a medium magnitude of impact as per Table 13.3. • This section has a low sensitivity to non-motorised user amenity as per Table 13.8. • An impact of medium magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Table 13.19 shows an impact of negligible magnitude. • This section has a low sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Increase in vehicle movements is 36%, which is considered to be a low magnitude of impact as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development, the Kirkan or Lochluichart Extension II developments would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a medium sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.5.	• The relevant roads authorities and the Police would have control over the timing of the AILV movements. • It would therefore be reasonable to expect that those authorities would take steps to prevent any unacceptable cumulative effects arising from the AILV movements to the three developments.	Not Significant

Section of A835	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
A832 Junction to A834 Junction at Contin	• Increase in vehicle movements would be 21%, which is an impact of low magnitude as per Table 13.3. • This section has a medium sensitivity to severance as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.5.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.6.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a medium sensitivity to non-motorised user delay as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Increase in HGV movements is 86%, which is considered to be a negligible magnitude of impact as per Table 13.3. • This section has a medium sensitivity to non-motorised user amenity as per Table 13.8. • An impact of negligible magnitude on a receptor of medium sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Table 13.19 shows an impact of medium magnitude. • This section has a medium sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of medium magnitude on a receptor of medium sensitivity can be classed as an effect of moderate significance as per Table 13.5.	• Increase in vehicle movements is 21%, which is an impact of low magnitude as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development, the Kirkan or Lochluichart Extension II developments would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a low sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• The relevant roads authorities and the Police would have control over the timing of the AILV movements. • It would therefore be reasonable to expect that those authorities would take steps to prevent any unacceptable cumulative effects arising from the AILV movements to the three developments.	Significant for fear and intimidation of and by road users. Not significant for all others.

Section of A835	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
A834 Junction at Contin to A832 Junction at Moy Bridge	• Increase in vehicle movements is 17%, which is an impact of low magnitude as per Table 13.3. • This section has a low sensitivity to severance as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.5.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a low sensitivity to non-motorised user delay as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Increase in HGV movements is 102%, which is considered to be a low magnitude of impact as per Table 13.3. • This section has a low sensitivity to non-motorised user amenity as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Table 13.19 shows an impact of negligible magnitude. • This section has a low sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Increase in vehicle movements is 17%, which is considered to be an impact of low magnitude as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development, the Kirkan or Lochluichart Extension II developments would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a low sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• The relevant roads authorities and the Police would have control over the timing of the AILV movements. • It would therefore be reasonable to expect that those authorities would take steps to prevent any unacceptable cumulative effects arising from the AILV movements to the three developments.	Not Significant

Section of A835	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	• Increase in vehicle movements is 17%, which is an impact of low magnitude as per Table 13.3. • This section has a low sensitivity to severance as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Magnitude of impact considered to be low as per Table 13.3. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.8. • An impact of low magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.5.	• On average over the working day there would be around 52 seconds between additional vehicle movements arising from the Proposed Development, Kirkan and Lochluichart Extension II developments. • Little demand for pedestrians to cross this section. • Magnitude of impact considered to be low as per Table 13.3. • This section has a low sensitivity to non-motorised user delay as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Increase in HGV movements is 60%, which is considered to be a negligible magnitude of impact as per Table 13.3. • This section has a low sensitivity to non-motorised user amenity as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Table 13.19 shows an impact of negligible magnitude. • This section has a low sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Increase in vehicle movements is 17%, which is considered to be an impact of low magnitude as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development, the Kirkan or Lochluichart Extension II developments would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a low sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• The relevant roads authorities and the Police would have control over the timing of the AILV movements. • It would therefore be reasonable to expect that those authorities would take steps to prevent any unacceptable cumulative effects arising from the AILV movements to the three developments.	Not Significant

Section of A835	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	• Increase in vehicle movements is 7%, which is an impact of negligible magnitude as per Table 13.3. • This section has a low sensitivity to severance as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.9. • An impact of negligible magnitude on a receptor of medium sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • This section has a low sensitivity to non-motorised user delay as per Table 13.8. • An impact of low magnitude on a receptor of low sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Increase in HGV movements is 60%, which is considered to be a negligible magnitude of impact as per Table 13.3. • This section has a low sensitivity to non-motorised user amenity as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Table 13.19 shows an impact of negligible magnitude. • This section has a low sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development, the Kirkan or Lochluichart Extension II developments would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a low sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• The relevant roads authorities and the Police would have control over the timing of the AILV movements. • It would therefore be reasonable to expect that those authorities would take steps to prevent any unacceptable cumulative effects arising from the AILV movements to the three developments.	Not Significant

Section of A835	Severance	Road Vehicle Driver and Passenger Delay	Non-Motorised User Delay	Non-Motorised User Amenity	Fear and Intimidation of and by Road Users	Road User and Pedestrian Safety	Hazardous / Large Loads	Overall Significance
B9169 Junction at Leanaig to A9 Junction at Tore	• Increase in vehicle movements is 8%, which is an impact of negligible magnitude as per Table 13.3. • This section has a low sensitivity to severance as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.5. • This section has a medium sensitivity to road vehicle driver and passenger delay as per Table 13.8. • An impact of negligible magnitude on a receptor of medium sensitivity can be classed as an effect of minor significance as per Table 13.5.	• Magnitude of impact considered to be negligible as per Table 13.5. • This section has a low sensitivity to non-motorised user delay as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Increase in HGV movements is 60%, which is considered to be a negligible magnitude of impact as per Table 13.3. • This section has a low sensitivity to non-motorised user amenity as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Table 13.19 shows an impact of negligible magnitude. • This section has a low sensitivity to fear and intimidation of and by road users as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• Increase in vehicle movements is 8%, which is an impact of negligible magnitude as per Table 13.3. • There is no reason to believe that drivers of vehicles travelling to or from the Proposed Development, the Kirkan or Lochluichart Extension II developments would be any more likely to have an accident than drivers of other vehicles on this section. • This section has a low sensitivity to road user and pedestrian safety as per Table 13.8. • An impact of negligible magnitude on a receptor of low sensitivity can be classed as an effect of negligible significance as per Table 13.5.	• The relevant roads authorities and the Police would have control over the timing of the AILV movements. • It would therefore be reasonable to expect that those authorities would take steps to prevent any unacceptable cumulative effects arising from the AILV movements to the three developments.	Not Significant

Table 13.19 – Calculation of Level of Fear and Intimidation

Section of A835	Future Baseline								Future Baseline, Proposed Development, Kirkan and Lochluichart Extension II Developments								Impact Magnitude
	Average 18-hour traffic flow (all vehicles per hour) (a)	Total 18-hour HGVs (b)	Average vehicle speed (mph) (c)	Degree of Hazard Score				Level of fear and intimidation	Average 18-hour traffic flow (all vehicles per hour) (a)	Total 18-hour HGVs (b)	Average vehicle speed (mph) (c)	Degree of Hazard Score				Level of fear and intimidation	
				a	b	c	Total					a	b	c	Total		
Inchbae Farm to A832 Junction	139	224	57	0	0	30	30	Moderate	185	805	57	0	0	30	30	Moderate	Negligible
A832 Junction to A834 Junction at Contin	238	773	39	0	0	20	20	Small	284	1,354	39	0	10	20	30	Moderate	Medium
A834 Junction at Contin to A832 Junction at Moy Bridge	309	657	49	0	0	30	30	Moderate	354	1,238	49	0	10	30	40	Moderate	Negligible
A832 Junction at Moy Bridge to A862 Junction at Maryburgh Roundabout	315	1,119	53	0	10	30	40	Moderate	361	1,700	53	0	10	30	40	Moderate	Negligible
A862 Junction at Maryburgh Roundabout to B9169 Junction at Leanaig	708	1,880	55	10	10	30	50	Great	754	1,692	55	10	10	30	50	Great	Negligible
B9169 Junction at Leanaig to A9 Junction at Tore	644	1,103	47	10	10	30	50	Great	690	1,684	47	10	10	30	50	Great	Negligible

13.12.12 The assessment presented in Table 13.18 shows the effects expected from the traffic estimated to be generated by the Proposed Development in combination with the Kirkan and Lochluichart Extension II developments, should the peak months for traffic generation of all three developments overlap (and should all stone for the Proposed Development and the Kirkan developments be imported to the sites). Were that to occur, the assessment shows that the only significant effect would be on fear and intimidation on the section of the A835 between its junctions with the A832 and A834. The effects on other sections of the A835 would be not significant.

13.12.13 It is possible that the construction phases for all three developments do not overlap or that the peak months for their construction do not coincide. It is also possible that some stone could be won on-site for either the Proposed Development or the Kirkan development. Should either happen, then the resulting increases in traffic would be lower than those shown in Table 13.17.

13.12.14 Given this uncertainty, it would be reasonable for the CTMP for the Proposed Development (discussed in 13.7.1) to include an up-to-date assessment of the position regarding potential cumulative developments. Should that assessment reach the same conclusions as that in Table 13.18 then the CTMP would suggest specific measures to address those effects (such as an agreement to schedule activities to avoid any overlap of peak vehicle-generating activities). Implementation of such a CTMP would be sufficient to allow the resulting effects to be considered as not significant.

13.13 Summary

13.13.1 This Chapter has considered the potential effects of the Proposed Development on traffic and transport. The nature of the Proposed Development is such that it would generate a reasonable number of vehicle movements only while it was being built. During operation, the Proposed Development would generate only the occasional maintenance and inspection vehicle movements. The decommissioning of the Proposed Development would be too far into the future for a meaningful assessment to be made at this stage.

13.13.2 The site would be accessed from an access track leading to the A835. General construction traffic (including HGVs) would use the A835 to access the Proposed Development. Some AILVs would be needed to deliver the turbine components to the site. It is envisaged that these components would be delivered to Port of Cromarty Firth at Invergordon of Port of Nigg and use the A9 and A835 to access the Proposed Development. An off-site turning circle at Inchbae is proposed for these vehicles, to allow them to turn around and access the Proposed Development from the A835 to the north.

13.13.3 The number of vehicles currently on the roads around the Proposed Development has been counted. The number of vehicle movements that would be generated by the construction of the Proposed Development has been estimated, based on calculations of the amount of materials and number of other items that would be needed for the construction of the Proposed Development.

13.13.4 The additional traffic that would be generated by the Proposed Development has been compared to the number of vehicles recorded in the surveys. The effects of that additional traffic have been assessed in accordance with the guidance in the IEMA Guidelines: Environmental Assessment of Traffic and Movement (2023).

13.13.5 The guidance states that the effects of traffic generated by a proposed development should be assessed by applying the following two rules of thumb:

"Rule 1 Include highway links where traffic flows will increase by more than 30% or the number of heavy goods vehicles will increase by more than 30%

Rule 2 Include highway links of high sensitivity where traffic flows have increased by 10% or more"

13.13.6 If the increase in traffic arising from a proposed development breaches either of these rules then the effects of that traffic should be assessed on the issues of severance, road vehicle driver and passenger delay, non-motorised user delay, non-motorised user amenity, fear and intimidation of and by road users, road user and pedestrian safety and hazardous / large loads.

13.13.7 The increase in traffic that would arise from the Proposed Development exceeds the relevant rule threshold on the A835 west of its junction with the A832 at Garve. The effects of the traffic estimated to be generated during the construction of the Proposed Development on the considerations listed above were assessed and it was concluded that the additional traffic would have a not significant effect on the surrounding transport network, subject to appropriate measures in the CTMP.

13.13.8 The effects of the increase in traffic that would arise from the Proposed Development have also been considered in combination with other developments that have planning consent but are unbuilt at the time of writing. This assessment also concluded that the additional traffic would have a not significant effect on the surrounding transport network, again subject to appropriate measures in the CTMP.

13.13.9 A CTMP would be prepared for the Proposed Development. The CTMP would outline measures to manage the vehicles travelling to and from the site and would be updated through the planning and construction of

the Proposed Development. The CTMP should include comment on the status of any works proposed at the junction of the A835 and the A832 and provide details of the position regarding cumulative developments at the time the CTMP is being prepared.

Table 13.20 – Summary of Residual Effects

Likely Significant Effect	Mitigation	How Implemented	Residual Effect
Fear and Intimidation of and by Road Users on section of A835 from A832 Junction to A834 Junction at Contin (only if peak months of traffic generation for proposed development, Kirkan and Lochluichart Extension II developments coincide and all stone required is imported).	CTMP to include update on position and suggest appropriate measures.	CTMP secured by condition on any consent	Not significant

13.14 References

Guidelines

Davis, S., Hoare, D., Howard, R., Ross, A. (2023) Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Road Traffic and Movement. London: IEMA

Transport Scotland (2012). Transport Assessment Guidance. Glasgow: Transport Scotland.

Scottish Government (2005) Planning Advice Note: Pan 75 - Planning For Transport. Edinburgh: The Scottish Government.

Scottish Government (2017). Circular 1/2017 The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Edinburgh: The Scottish Government.

Scottish Government (2022). Energy Consents Unit Good Practice Guidance for Applications under Section 36 and 37 of the Electricity Act 1989. Edinburgh: The Scottish Government.

Roads and Transport Guidelines For New Developments, The Highland Council, 2013

Guidance on Transport Assessments, The Highland Council, 2014

Legislation

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. 2017 No. 101. HMSO: London.

The Road Vehicles (Construction and Use) Regulations (1986). 1986 No. 1078. HMSO: London.

The Road Vehicles (Authorisation of Special Types) (General) Order 2003. 2003 No. 1998. HMSO: London.

Data

Crashmap Data. Available online from: https://www.crashmap.co.uk/ [Accessed October 2024]

Planning Policy

Scottish Government (2023). National Planning Framework 4. Edinburgh: The Scottish Government.