

SSE Tarbert Next Generation Power Station

Environmental Impact Assessment Report (EIAR)
Volume I
Chapter 14 Traffic and Transport

SSE Generation Ireland Limited

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14. Traffic and Transport

14.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) describes the transportation impacts of the construction, operational and decommissioning phases of the Proposed Development and their likely significant environmental effects on the environment.

The assessment is undertaken in accordance with the requirements of the Environmental Protection Agency (EPA) 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' (May 2022).

To assist in determining the impact of the Proposed Development on the surrounding road network, the following guidance has also been adhered to: Transport Infrastructure Ireland (TII) standard 'PE-PDV-02045, Traffic and Transport Assessment Guidelines' (May 2014).

This chapter also sets out measures and strategies to mitigate any significant effects.

Full details on the background and Site history are provided in Chapter 4 (Existing Site and Conditions) and details of the Proposed Development are presented in Chapter 5 (Description of the Proposed Development) and the Planning Statement submitted with this planning application.

14.2 Legislation, Policy, and Guidance

The following is a list of sources of information consulted for use, and the following guidance was adhered to, in this chapter:

- Kerry County Development Plan 2022 – 2028.
- Limerick County Development Plan 2022-2028
- Kerry County Zoning and Landscaping Maps, Map 12.1a, 2022 – 2028.
- Listowel Municipal District Local Area Plan 2020 – 2026.
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, May 2022).
- Traffic Signs Manual, (Department of Transport, Tourism and Sport, August 2019).
- PE-PDV-02045, Transport Assessment Guidelines, (TII, May 2014).
- PE-PAG-02016, Project Appraisal Guidelines for National Roads Unit 5.2 – Data Collection (Transport Infrastructure Ireland, October 2016).
- PE-PAG-02017, Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (Transport Infrastructure Ireland, May 2019).
- PE-PAG-02039, Project Appraisal Guidelines for National Roads Unit 16.1 – Expansion Factors for Short Period Traffic Counts (Transport Infrastructure Ireland, October 2016).

- DN-GEO-03031, Rural Road Link Design (Transport Infrastructure Ireland, June 2017).
- DN-GEO-03060, Geometric Design of Junctions (Priority junctions, direct accesses, roundabouts, grade separated, and compact grade separated junctions (Transport Infrastructure Ireland, June 2017).
- The Design Manual for Urban Roads and Streets, (Department of Transport, Tourism and Sport, May 2019); and
- National Development Plan (Department of Public Expenditure and Reform, February 2021-2030).

14.3 Methodology

14.3.1 Desktop and Site Audit Assessment

A desktop assessment was undertaken to identify the policy and best practice guidance that is relevant to traffic and transport, to describe the baseline traffic conditions, and to identify the potential impacts of the Proposed Development upon the surrounding road network.

To inform the baseline traffic conditions, traffic surveys were undertaken during the week beginning Monday 15 May 2023. These are discussed in detail in Section 14.4.2.

14.3.2 Significance of Impacts Methodology

In accordance with the EPA (2022) Guidelines, potential effects are characterised by considering parameters shown in Table 14.1.

Table 14.1: Potential Effect Parameters

Potential Effect Parameter	Description
'Quality' of Effects	<p>Positive Effects – A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).</p> <p>Neutral Effects – No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.</p> <p>Negative / Adverse Effects – A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).</p>
Significance of Effects	<p>Imperceptible – An effect capable of measurement but without significant consequences.</p> <p>Not significant – An effect which causes noticeable changes in the character of the environment but without significant consequences.</p> <p>Slight Effects – An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p> <p>Moderate Effects – An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p> <p>Significant Effects – An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.</p> <p>Very Significant – An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.</p> <p>Profound Effects – An effect which obliterates sensitive characteristics.</p>
Extent and Context of Effects	<p>Extent – Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.</p>

Potential Effect Description
Parameter

	Context – Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?).
Probability Only Likely (and Significant) effects are assessed in this chapter	<p>Likely Effects – The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p> <p>Unlikely Effects – The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
Frequency and Timing	<p>Momentary Effects – lasting from seconds to minutes.</p> <p>Brief Effects – lasting less than a day.</p> <p>Temporary Effects – lasting less than a year.</p> <p>Short-term Effects – lasting one to seven years.</p> <p>Medium-term Effects – lasting seven to fifteen years.</p> <p>Long-term Effects – lasting fifteen to sixty years.</p> <p>Permanent Effects – lasting over sixty years.</p> <p>Reversible Effects – that can be undone, for example through remediation or restoration.</p> <p>Frequency of Effects – Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly -or hourly, daily, weekly, monthly, annually).</p>

14.3.3 Significance of Effects

A qualitative approach was used in this evaluation, generally following the significance classification in Table 14.1 and through professional judgement. The significance of a predicted impact is based on a combination of the sensitivity or importance of the attribute and the predicted magnitude of any effect. The effects are identified as beneficial, adverse, or negligible, temporary, or permanent and their significance as major, moderate, minor or not significant (negligible).

As outlined in EIAR Chapter 1, once the description of the effect, including magnitude, character, duration etc. has been identified, this can be cross-referenced with the importance of the sensitivity of the receptor to derive the overall significance of effect as per the EPA Guidelines¹.

14.3.4 Study Area Description

The study area for this chapter was established based on the anticipated routing to the Proposed Development Site for construction and operational vehicles at points in which traffic is likely to be most intensive, e.g., in proximity to the Proposed Development Site. The N67 (north of Tarbert town) and its junction with the N69 therefore represents the study area for this assessment. Two existing access and egress points to the SSE Tarbert Site will be utilised for the Proposed Development which are both located off N67.

A full description of the Proposed Development Site is provided in EIAR Volume I Chapter 5 (Description of the Proposed Development).

¹ EPA (2022).

14.4 Baseline Environment

14.4.1 Existing Road Network

This section sets out transport characteristics of the study area environment. The receiving environment has been categorised under the following headings:

- Road Network.
- Road Safety.
- Walking Infrastructure.
- Cycling Infrastructure; and
- Bus and Ferry Transport.

14.4.1.1 Road Network

Plate 14.1 provides an overview of the road network within the study area.

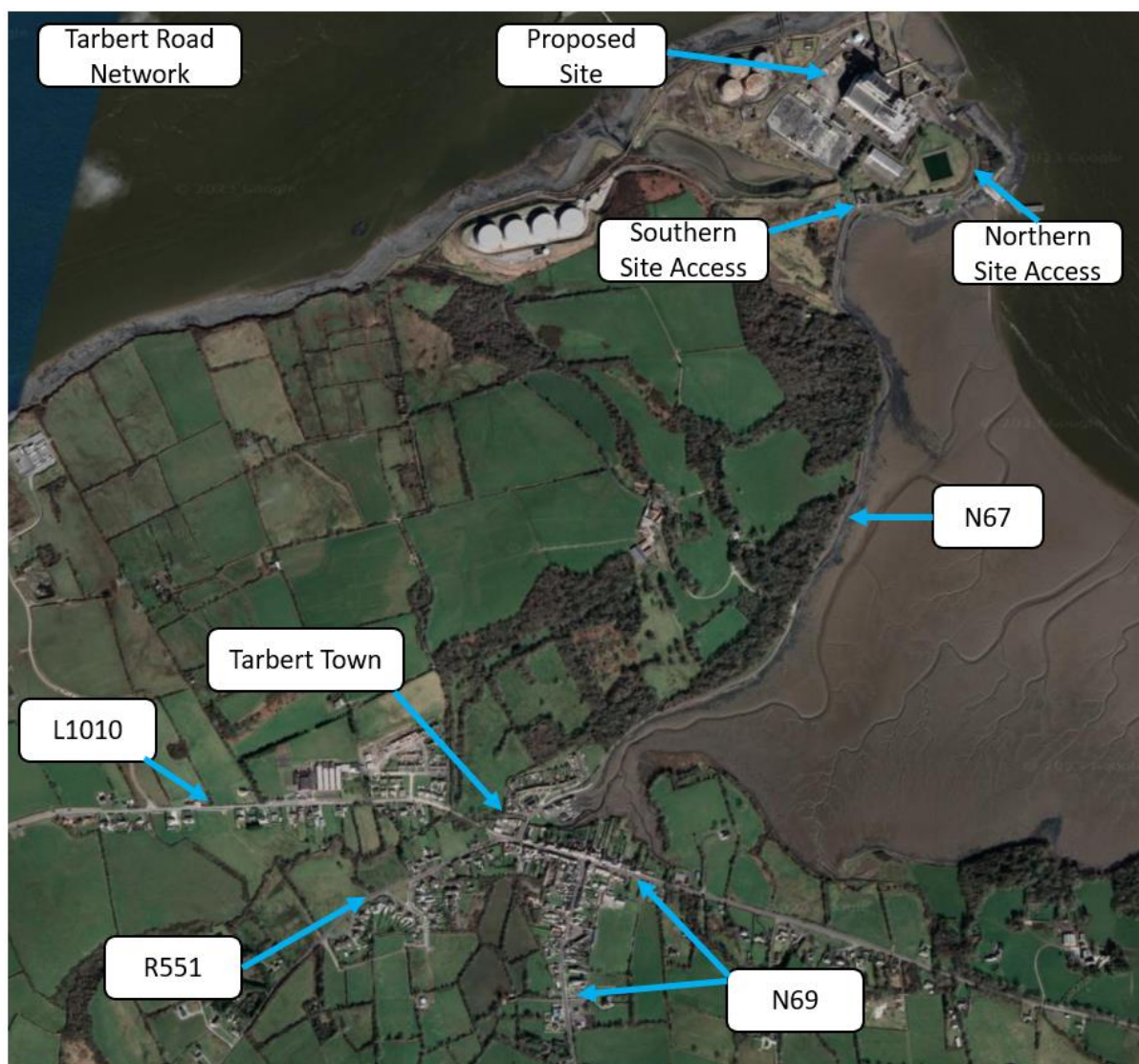


Plate 14.1: Road Network within the Study Area (Source: 2023)

L1010 (Coast Road)

The L1010 (Coast Road) is a local road which connects with the R551/ N67 in Tarbert and the R551/ R552 in Ballylongford Village. The L1010 is single lane carriageway and subject to a 50km/hr speed limit on the approaches to Tarbert and Ballylongford, increasing to 80km/hr outside of these areas.

A section of the L1010 is currently subject to a highway improvement scheme by Kerry County Council (KCC). This road improvement starts approximately 700m west of the R551/N67/ L1010 priority junction and travels west for approximately 3.5km. It is anticipated that these improvements (road widening) will be complete prior to the commencement of the Proposed Development main construction elements.

The existing L1010 is approximately 5.5m wide increasing to approximately 6m in the environs of Tarbert and Ballylongford. No designated footpaths or cycleways or public lighting are present along the rural section of the carriageway, but lighting and road markings are provided in Tarbert and Ballylongford. The L1010 facilitates access to a number of residential properties and farms. On approach to Tarbert there is also access to the Tarbert Comprehensive School and the Tullahennel Wind Farm Substation. The L1010 is not a bus route.



Plate 14.2: L1010 Coast Road

N67

The N67 (National Secondary Road) is approximately 6.2m wide and connects Co. Kerry with Co. Clare and Co. Galway via the Tarbert – Killimer ferry across the Shannon Estuary, in a north-west to south-east direction. As shown in Plate 14.1, the N67 allows for connection from Tarbert town to the Site, with the two access points to the Site (southern and northern) located off the N67.

Of the 2.4km stretch of N67 between Tarbert and the Site, approximately 1.5km has pedestrian footways. For the most part these are provided on only one side of the road and are unlit.

Approximately 900m of this stretch of the N67 has no footway provision. The majority of this 900m section is on approach to the Site accesses where advisory walkways are available as shown in Plate 14.3 (space beside the edge of road markings).



Plate 14.3: Advisory Walkways on N67

This route also provides connection to Tarbert Ferry Terminal for a ferry service across the Shannon Estuary.

N69

The N69 (National Secondary Road) connects Tralee in Co. Kerry with Limerick City running in a northerly direction from Tralee to Tarbert and an easterly direction towards Limerick. Within the study area the road is approximately 6m wide and is a bus route. Outside of the towns and villages, within the study area, no footpaths, cycle lanes or lighting columns are present.

14.4.1.2 Traffic Surveys

Traffic surveys were undertaken by an independent survey company (IDASO) under instruction from AECOM. The results from the traffic surveys have been used to inform the baseline conditions on the surrounding road network (refer to EIAR Volume II Appendix 14A).

Classified junction turning counts were undertaken on a neutral weekday (i.e., Monday-Thursday during a time outside of national, local and school holiday periods and also Bank Holiday weeks), Thursday 18 May 2023 between 07:00 and 19:00 hours. The survey recorded data in 15-minute intervals and was fully classified. The junction turning counts were undertaken at the following locations as shown in Figure 14.1, refer to EIAR Volume III.

- Junction 1 - N67/ Tarbert Power Station Northern Site Access – 3-arm priority junction.
- Junction 2 – N67/ Tarbert Power Station Southern Site Access – 3-arm priority junction; and
- Junction 3 – N67/ R551 – 3-arm priority junction.

The junction count data showed an AM peak hour of between 07:15-08:15 hours, and a PM peak hour of between 17:00 and 18:00 hours (Survey data shown in Appendix 14A, EIAR Volume II).

An Automatic Traffic Count (ATC) survey was undertaken on the N67 approximately 900m south of the southern SSE Tarbert Site entrance as shown in Figure 14.1 (refer to EIAR Volume III). The ATC survey was undertaken over seven days 18 May - 24 May 2023, collecting bi-directional hourly volumetric data.

The ATC recorded a seven-day average daily traffic flow of 1221 vehicles on N67 with 9% of vehicles being heavy duty vehicles (HDVs).

It should be noted that at the time of the traffic surveys, construction traffic associated with the development of the Temporary Energy Generation (TEG) on the SSE Tarbert site was on the highway network. However, due to being at the very beginning of the programme, the construction trips were nominal and have little impact on the baseline flows.

To confirm this, daily flows recorded on N69 by TII traffic counter reference TMU N69 045.0 W have been collated and compared for the survey day and the previous four Thursdays when construction of the TEG project had not commenced (Thursdays selected for consistency due to the survey date being on a Thursday). No data was collected before Thursday 20 April 2023 as traffic flows may have been impacted by Easter holidays in the weeks prior to this date. The data collected is shown in Table 14.2.

Table 14.2: TII Counter Data for weeks Prior to the Survey Day

Date	AADT	AM Peak	PM Peak
Thursday 18 May 2023 (survey day)	3560	305 (07:00)	357 (16:00)
Thursday 11 May 2023	3399	337 (07:00)	356 (16:00)
Thursday 04 May 2023	3378	306 (07:00)	336 (16:00)
Thursday 27 April 2023	3539	325 (07:00)	357 (17:00)
Thursday 20 April 2023	3712	293 (07:00)	390 (17:00)

As shown in Table 14.2, the flow recorded on the survey day is similar to that of the weeks prior and is therefore considered to be a typical Thursday flow that has not had significant traffic flows added. The recorded flows have therefore been considered appropriate to use as background flows.

The TEG construction is expected to be in the commissioning and operational phase in Q2 2024 when the Proposed Development construction commences. There is therefore potential for a short overlap in programmes. However, it is reminded that the traffic surveys captured a level of traffic on the network associated with TEG construction. The TEG commissioning traffic generation is expected to be lower than that on the network when traffic surveys were being undertaken. Therefore, this overlap doesn't need to be assessed as a cumulative impact as it would double count trips on the network. i.e., it would assess typical baseline traffic + TEG traffic on the network at the time of surveys + TEG commissioning traffic which are unlikely to be a realistic scenario.

14.4.2 Road Safety

As part of the road network analysis a review of the Road Safety Authority (RSA) traffic collision database was undertaken for the road network in the vicinity of the Proposed Development to identify

any collision trends. The purpose of this review was to identify any potential safety concerns in relation to the existing road network.

Traffic collision data has therefore been collected for the N67/N69 and L1010. The most recent publicly available traffic collision data for this area is available from 2005 – 2016. The incidents are shown in Plate 14.4 and are categorised into severity of minor, serious and fatal.

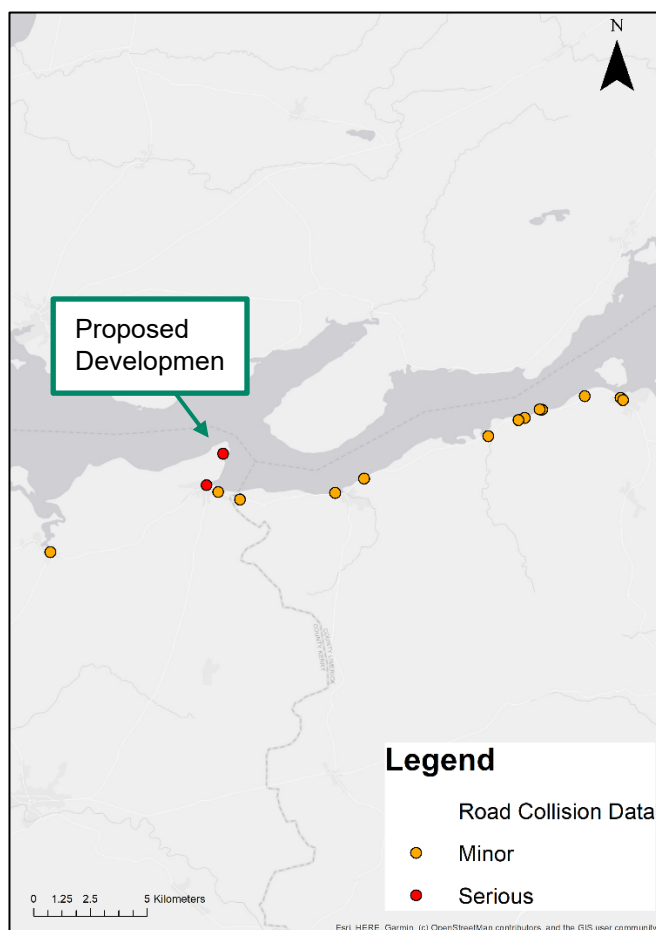


Plate 14.4: Road Collision Data (Source: Road Safety Authority)

The results of the analysis indicated that there have been 13 no. minor and 2 no. serious reported incidents within the local area.

The RSA website has been offline for some period due to GDPR issues, and (at the time of completion of this EIAR, October 2023) it is unclear when the website will be updated and functioning again to provide more up to date Road Collision Data.

14.4.3 Walking Infrastructure

As previously noted in Section 14.4.1.1, a pedestrian footway is provided along the western side of the N67 carriageway which becomes an advisory walkway (depicted by white road lines and not a footpath) approximately 750m from the Tarbert Ferry Terminal.

A short section of pedestrian footway is also provided on the eastern side of N67 on either side of the ferry terminal access. However, no pedestrian footways are available on the western side of N67 in close proximity to the Site accesses.

14.4.4 Cycling Infrastructure

There are no designated cycling facilities provided within the extent of the study area.

14.4.5 Bus/ Ferry Travel

There is a bus stop located on N69 in Tarbert approximately 2km from the Site which is operated by Bus Eireann (Stop number:357671). One service stops at this bus stop, travelling from Ballybunion to Limerick. The service runs four times per day.

There is a ferry crossing from Tarbert to Killimer in Co. Clare located at the Tarbert Ferry Terminal, north of Tarbert and adjacent to the east of the Proposed Development. This ferry crossing takes approximately 20 minutes and runs every hour from 07:00 to 21:30. This service allows people to transport car, coaches, bicycles, motorcycles, and large commercial vehicles from Killimer in Co. Clare to Tarbert in Co. Kerry and vice versa. This crossing reduces the need to drive around the Shannon Estuary (137km route).

14.5 Predicted Impacts

14.5.1 Do Nothing Scenario

The 'do nothing' scenario describes the circumstance where no development occurs. Should the Proposed Development not take place, the surrounding road network will remain in the current condition i.e., the SSE Tarbert Site will continue to generate the same vehicular traffic to the SSE Tarbert Site as it currently generates.

This 'existing' condition includes traffic associated with the construction of the TEG on the SSE Tarbert Site and therefore no additional traffic associated with TEG construction needs to be considered.

However, natural traffic growth is expected to occur. Based on predicted growth rates for the KCC area (TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel demand Projections, 2017), the background traffic is expected to increase by 1.0337% between 2023 and 2026 and by 1.1970% between 2023 and 2041.

14.5.2 Construction Phase

The construction phase is predicted to take a period of up to 29 months (including mobilisation and commissioning). The traffic assessment has been based on the period within the construction phase generating the peak or maximum amount of vehicular traffic i.e., the worst-case scenario, to provide a robust assessment. The peak traffic generation will be set out in the following sections.

14.5.2.1 Access

Construction traffic will access and egress the Proposed Development Site via the existing SSE Tarbert access and egress points off N67. These access and egress points are shown in Figure 14.2 (refer to EIAR Volume III).

14.5.2.2 Car Parking

Temporary car parking provision during the construction phase has been based on a first principles approach considering the volume of construction personnel. Areas shown in Figure 14.3 (EIAR Volume III) demonstrate the various areas within the Site which will be available for construction staff.

14.5.2.3 Haulage Routes

It is anticipated that most major equipment deliveries will travel to the Proposed Development Site from Foynes Port, which is located approximately 25km east, off the N69. Fuel deliveries and deliveries of other materials are expected to be transported from various locations across Ireland (exact locations to be confirmed once a Contractor is appointed).

As set out in the Construction Traffic Management Plan (CTMP) (refer to Appendix 14B, EIAR Volume II), AECOM have indicated that all construction traffic (HDVs) associated with the Proposed Development (heavy haul, general deliveries, and site operatives) will arrive via the N69 and the N67 and other National/ Regional Roads.

All abnormal loads associated with the Proposed Development will be delivered via the same routes. KCC and other affected local authorities will be informed of and approve any abnormal load movement (longest components up to 20m in length) before they take place as these may require road closures or other temporary measures. An abnormal loads report will be undertaken by the contractor to assess the suitability of each abnormal load route and the proposed timing of travel.

The appointed Contractor will be required to provide detail of any HDV routing in the full CTMP. As previously noted, these routes will follow National and Regional roads where possible. This will consider deliveries from any other locations.

14.5.2.4 Staff Distribution

It is considered that staff will likely travel from a range of locations. However, they will be encouraged to car share and travel along the National and Regional roads where possible to avoid impact on smaller local roads. As the study area being assessed does not extend further than R551/N67 T-junction, no further distribution is required at this stage.

It is reminded that the study area covers this junction due to being where the highest traffic impact is expected.

14.5.2.5 Construction Works Programme

An outline programme of works is presented below and will be finalised by the appointed Contractor. The construction phase of the Proposed Development will be up to 29 months (including mobilisation and commissioning). **Error! Reference source not found.** 14.3 provides the development phases planned during the construction process.

Table 14.3: Development Phases

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Activities	Mobilisation and Site Prep																													
		Demolition Works																												
		Construction Works																												
																										Fuelling and Commissioning				

14.5.2.6 Construction Traffic Management Plan (CTMP)

A CTMP has been prepared as part as this planning application, refer to Appendix 14B, EIAR Volume II.

Prior to commencement of construction works the appointed Contractor will draw up detailed Method Statements which will adhered to by this Construction Methodology, environmental protection measures included within the planning application, measures proposed within the CTMP, and the guidance documents and best practice measures to be implemented in full during the construction phase.

14.5.2.7 Construction Hours

The working hours that construction will take place on the Proposed Development Site consist of:

- Monday to Friday 07:00 to 19:00; and
- Saturdays 08:00 to 15:00.

No works shall take place on Sundays or Bank Holidays.

Construction work outside these hours will only take place in exceptional circumstances (i.e., for specific engineering works e.g., concrete pours etc.), and this will be agreed in advance with KCC. Specific engineering works may entail 24 hours working, for limited durations. In this case, KCC may permit works to proceed outside the above times / days.

Some abnormal loads may be delivered at off peak times due to the nature of the load and the space the load takes on the road network. In these exceptional cases, KCC may permit works to proceed outside the above times / days. This will be subject to agreement with KCC, prior to such works commencing. Work conducted outside of core hours, will comply with any restrictions agreed with the planning authorities, regarding the control of noise and traffic.

The majority of construction staff will arrive before 07:00 each working day (weekday) and before 08:00 on Saturdays. Due to the nature of the work and the various shifts that staff will be scheduled for, the departure times will vary on the length of shift that the personnel undertake on any given day. It is understood that most staff will undertake a 12-hour shift (departing at 19:00) and a small proportion will complete an 8-hour shift, departing from the Site at approximately 15:00. Staff on Saturday will undertake a 7-hour shift. The exact scheduling and staff shift numbers will be confirmed by the appointed Contractor.

During months 25-29 of the construction phase, there will be scheduled testing and commissioning of the Proposed Development. The Proposed Development will be required to run in an operational state during this period. It is understood that this may require the plant to operate on a 24-hour schedule including the need for overnight staff.

14.5.2.8 Traffic Generation - Construction Phase

Table 14.4 sets out the light duty vehicles (LDV) and HDV trip generations for each month of the construction period.

Table 14.4: Daily Traffic Generation Estimated at the Site (Arrivals)

Month	Personnel / Day	Staff LDV Arrivals	Other LDV Arrivals	HDV/ Arrivals	Total Arrivals	Total Two-Way Trips
1	5	3	0	0	3	6
2	10	7	0	0	7	14
3	30	20	2	4	26	52
4	30	20	3	4	27	54
5	30	20	3	4	27	54
6	50	33	3	4	40	80
7	50	33	3	8	44	88
8	50	33	3	8	44	88
9	100	67	5	8	80	160
10	100	67	5	8	80	160
11	150	100	5	8	113	226
12	200	133	6	15	154	308
13	200	133	6	15	154	308
14	200	133	6	15	154	308
15	200	133	6	15	154	308
16	200	133	6	15	154	308
17	200	133	6	15	154	308
18	200	133	6	15	154	308
19	200	133	6	15	154	308
20	200	133	6	15	154	308
21	200	133	6	15	154	308
22	200	133	6	15	154	308
23	150	100	6	15	121	242
24	150	100	3	15	118	236
25	100	67	2	8	77	154
26	100	67	2	4	73	146
27	100	67	1	4	72	144
28	50	33	1	22	56	112
29	20	13	1	22	36	72

As detailed in Table 14.4, the employment levels will vary throughout the construction phase of the Proposed Development. Months 12 to 22 will observe the highest number of staff vehicle arrivals on the Site with a maximum of 200 staff on Site at once.

Based on observations at other similar construction sites, there is a common car occupancy of two staff. For this development a car occupancy of 1.5 has been used to account for some site management movements which will require individual travel. When applying this to the peak employment period, it is calculated that there will be 133 staff vehicles (LDVs) arriving to the Site each day during the peak months (266 LDV two-way trips).

Other LDVs will also arrive to the site with peak arrivals also during the same Months 12 to 22. Therefore, during these months a total of 139 LDVs will arrive to the site (278 two-way trips – staff and other LDVS).

HDV movements are expected to peak in Months 28 -29 with a total of 22 HDV arrivals each day (44 two-way trips).

However, to allow for a worst-case assessment, the peak LDV trips during Months 12-22 (278 two-way trips) will be assessed alongside the peak HDV trips from Months 28-29 (44 two-way trips).

Staff vehicles and other LDVs/HDVs are not expected to arrive at the same time each day. It is forecast that construction phase HDVs will arrive in a relatively uniform pattern throughout the day e.g., 22 movements over 12-hours produces a maximum of two HDV arrivals per hour to the Site. The same applies to 'other' LDV movements, resulting in a maximum of one 'other' LDV arrival per hour. This results in a two-way flow of four HDVs and two LDVs per hour throughout normal 07:00 to 19:00 construction weekday working hours. Staff trips are expected to arrive and depart based on normal start / finish times i.e., before 07:00 and after 19:00.

14.5.2.8.1 Percentage Impacts of Peak Construction Traffic

The percentage impact of the predicted peak construction traffic on the local junctions is shown in Table 14.5. The peak construction phase traffic is predicted to be in 2025/ 2026. The impact calculations are based on 2026 background traffic flows as there is expected to be more traffic on the network during this time (2023 flows increased to forecast 2026 flows).

Table 14.5: Percentage Impact during the Construction Phase of Development

Location	2023 Surveyed Traffic (07:15-08:15 and 17:00 - 18:00)			2026 Forecast Background Traffic			Development Generated Traffic			2026 Forecast Background Traffic + Development Traffic	% Increase in Traffic	
	All Vehicles	LDVs	HDVs	All Vehicles	LDVs	HDVs	All Vehicles	LDVs	HDVs			
				Growth factor			1.033671					
	All Vehicles	LDVs	HDVs	All Vehicles	LDVs	HDVs	All Vehicles	LDVs	HDVs	All Vehicles	All Vehicles	
JTC 1	Am Peak	27	20	7	28	21	7	6	2	4	34	21%
	Pm Peak	23	22	1	24	23	1	6	2	4	30	25%
JTC 2	Am Peak	94	76	18	97	79	19	6	2	4	103	6%
	Pm Peak	27	26	1	28	27	1	6	2	4	34	21%
JTC 3	Am Peak	75	62	13	78	64	13	6	2	4	84	8%
	Pm Peak	111	100	11	115	103	11	6	2	4	121	5%

As shown in Table 14.5, the percentage impact at each junction during peak periods ranges from 5%-25%. This exceeds the TII 10% impact threshold on the Site access points. However, the combined traffic flow of background traffic + development traffic is very low and therefore the junctions will operate well within capacity. The impact of the Proposed Development construction traffic on the network is therefore considered to have slight effects that are temporary in nature.

To ensure this is correct, a daily road capacity assessment has been completed. This assessment considers the total maximum daily flow on both N67 and N69 and assumes all traffic travels on both links. This predicted traffic is set out in Table 14.6.

Table 14.6: AADT Road Capacity Assessment

Link	2023 AADT	2026 AADT	Total Development Flow	Total Traffic Flow (Existing and Proposed)
N67	1221	1262	308	1570
N69	3560	3680	308	3988

Based on guidance in 'NRA TD 9/07 Road Link Design' the AADT road capacity for both N67 and N69 is 8600 vehicles. The total proposed traffic flow is therefore comfortably within the maximum capacity of the roads.

Both links are part of the National Road Network for Ireland and are therefore designed to withstand large volumes of traffic including HDVs. The additional HDV movements on these links are therefore expected to also result in a negligible impact.

14.5.3 Operational Phase

The operational phase has been scoped out of the assessment as minimal operational traffic will be generated. A brief explanation of traffic generation is provided in the following section but not assessed.

14.5.3.1 Traffic Generation - Operational Phase

During the operational phase, the Proposed Development will run on Hydrotreated Vegetable Oil (HVO). The HVO will, as part of the Proposed Development, be delivered to Site by road in HDV tankers.

Therefore, deliveries of HVO will be by road and will be stored on Site in proposed tanks before being pumped to its operating destination within the Site. During standard operation there will only be 13no. staff arriving to the Site each day.

There will be a backup supply of HVO on-site. During times of emergency grid demand when the proposed OCGT is required to be operational, the Proposed Development will generate up to 18 HDV arrivals per day for HVO and other materials and up to 20 LDV arrivals per day for workers. This is unlikely to have a significant impact on the surrounding road network.

HVO fuel delivery by road will be limited to the hours of between 07:00 and 19:00, Monday to Saturday, and no deliveries will take place on Sundays or at night, except in the case of extended emergency operations.

In situations where outages take place, no more than 30-40 staff will be required on Site. Based on a car occupancy of 1.5, this will result in no more than 27 LDV arrivals each day. These works will generally take place during the summer months.

14.5.3.2 Car Parking

Parking is proposed to be provided within the Site boundary once operational. As there is no parking requirement guidance within the KCC Development Plan for this land use, the parking provision has been based on first principles i.e., predicted staff numbers.

14.5.4 Decommissioning

It is expected that the Proposed Development will be operational for 25 years from the date of commissioning. At the end of the operational phase, the Proposed Development will either be decommissioned, or the operational lifetime will be extended. Decommissioning or extension of the operational lifetime of the Proposed Development will therefore be expected to commence at some point after 2051.

At the end of the operational phase, all above-ground infrastructure associated with the Proposed Development will be decommissioned and removed from the Site. However, prior to the removal of infrastructure, all residues and operating chemicals will be cleaned out from the plant and disposed of at a suitably licenced facility.

A Decommissioning Plan (which will include a Decommissioning Environmental Management Plan (DEMP)) will be prepared and agreed with the EPA as part of the permit surrender process. The DEMP will consider the potential environmental risks at the Site and provide guidance and appropriate mitigation procedures as necessary, to minimise risk.

During the decommissioning phase there will be the need for a Site office and staff facilities, which will be located on-site. The DEMP will include an outline programme of works and ensure that decommissioning phase activities will be conducted in accordance with the appropriate guidance and legislation. It is expected that decommissioning will take up to one year.

Effects arising from the process of decommissioning of the Proposed Development are therefore considered to be of a similar nature and duration to those arising from the construction phase and have not been considered separately in this chapter. Where this assessment refers to potential construction effects of the Proposed Development, these are also representative of predicted decommissioning effects.

14.6 Mitigation Measures

A CTMP has been prepared as part of this planning application, refer to EIAR Volume II Appendix 14B. The detailed CTMP will be updated to incorporate planning conditions by the appointed Contractor in consultation with KCC. The detailed CTMP will be updated to include the following.

- The agreed route for construction traffic including any Abnormal Indivisible Loads (AIL).
- Warning signs / advanced warning signs will be installed at appropriate locations in advance of the construction access locations. For example, warnings advise other road users of times of slow-moving vehicles during abnormal load deliveries.

- Details of the advanced notification to the general public warning of any construction transport movements, specifically abnormal loads.
- The necessary agreements and timing restrictions for construction traffic, for example Monday-Saturday working only.
- Consideration will be given to reduce the volume of construction traffic accessing the Site through reduce – reuse and recycle methods. Delivery control will also be adopted to reduce potential heavy vehicle convoys.
- Material deliveries and collections from Site will be planned, scheduled, and staggered to avoid unnecessary build-up of demolition / construction works related traffic.
- HDV trips will be required to arrive and depart the Site at a uniform rate throughout the day to avoid pressure on the morning and evening peak hour periods.
- Appropriate vehicles will be used to minimise environmental impacts from transporting construction material, for example the use of dust covers on trucks carrying dust producing material.
- Speed limits of construction vehicles to be managed by appropriate signage, to promote low vehicular speeds within the Site.
- Parking of Site vehicles will be managed and will not be permitted on the public road, unless proposed within a designated area that is subject to traffic management measures and agreed with KCC.
- A road sweeper will be employed to clean the public roads adjacent to the Site of any residual debris that may be deposited on the public roads leading away from the construction works.
- All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. Spill kits will be available on Site. All scheduled maintenance carried out off-site will not be carried out on the public highway.
- Proposals for maintenance of the agreed routes for the duration of the construction phase.
- Proposals for monitoring routes
- The mechanism for managing and monitoring the CTMP manage all aspects of the plan.
- Route signage. Temporary signage designating permissible HDV routes.
- Maintaining access to commercial / business premises. For example, temporary accommodation works and additional information signage.
- Preparation of a Travel Plan for staff.
- Arrangements for regular road cleaning, e.g., road sweeping in the vicinity of the Site access point as necessary, wheel cleaning / dirt control arrangements.

- On Site wheel washing will be undertaken for construction trucks and vehicles to remove any debris prior to leaving the Site, to remove any potential debris on the local road.
- Contractor speed limits.
- Community and emergency services liaison details.
- Using Garda escorts for abnormal loads where required.

In addition to the preparation of a CTMP, other mitigation measures to reduce the traffic impact of the construction phase of the Proposed Development would also be considered subject to further investigation. For example, any mitigation measures noted in conditions will be included in the final CTMP.

14.7 Residual Impacts

The temporary increase in construction traffic is likely to result in a slight environmental effect in terms of temporary construction phase traffic. The management of these effects will be achieved through the implementation of the detailed CTMP.

- Once the identified mitigation and monitoring measures, appropriate design standards and operational management plans are adhered to, it is considered that any impacts from the Proposed Development will result in a Temporary Negative effect, Slight in significance, during the construction phase.

Table 14.7: Residual Impacts

Mode	Impact	Effect Significance	Mitigation	Residual Effect Significance	Quality of Effects	Duration of Effect
Construction Traffic						
Traffic	Increased construction traffic flows on the road network resulting in an increase in local traffic volumes.	Slight	The CTMP prepared as part of this application will be implemented in full by the Contractor and will be updated by the Contractor, where necessary, to comply with any planning conditions and in agreement with KCC.	Not Significant	Negative	Temporary

14.8 Cumulative Impacts

A search of planning applications within 5km of the Site is presented in Chapter 4 of the EIAR (Table 4.2). A summary of each development and the potential to increase traffic volumes either during construction or operation and date of granting are presented in Table 14.8.

Table 14.8: Development Considered for Cumulative Impacts

Ref. No.	Location	Grant / Due Date	Decision	Description	Traffic and Transport Context
23350	Tarbert 220kv substation, Tarbert Generating Station, Tarbert Island, (Townland)	24.05. 2023	Further Information	The proposed development will comprise of the following on a site measuring approximately 6.9 hectares: (1) Removal of existing cable joint, bay within Tarbert generating station, 220kv switchgear within the existing Tarbert substation compound and associated 220kv cabling; (2) two no. lengths of 220kv underground cabling measuring approximately 340m each, running between two no. new underground cable joint base in Tarbert generating station and the connection point at Tarbert Substation; (3). The new 220kv switchgear bay within the existing Tarbert substation compound comprising associated electrical equipment, including cable sealing ends, insulators, overhead conductors, surge arrestors, lighting masts and lighting poles; and (4) All ancillary site development works including temporary construction compound and layout areas, site preparation works, and ground levelling as required to facilitate the works. Tarbert generating station is licensed by the environment protection agency (EPA) under the industrial emissions (i.e.) license (Ref: P0607-02). The proposed development includes works located within the license boundary of Tarbert Generating station which is an upper tier establishment to which chemicals act (control of major accidents hazards involving dangerous substances) Regulation 2015 (The COMAH regulations) apply. This planning is accompanied by a Natura Impact Statement (NIS).	This application is still in the planning process. If it were to be granted planning, it would likely result in an increase in the traffic flow along the N69 and N67. Based on the 'Planning Environmental Considerations Report' submitted for the development, there would be a maximum of 147 traffic movements each day associated with construction. This traffic will therefore be assessed alongside the Proposed Development peak daily traffic later in this section.
20438	Meelcon Carhoona Farranawana Tarbert Doonard Upper and Lower Kilpadoge Ballyline west Ballymacasy Lislaughtin Glamculla South Gureteea	21.06. 2021	Conditional	Amend a previously granted permission (Kerry County council planning ref 19/381) (An bord Pleanála ref ABP -304807-19) which relates to a change in the grid connection route for the permitted wind farm. the revised route will entail the construction of approximately 12.1km of 38kv underground electric cable connecting the existing permitted windfarm (19/381) to the 38kva/110kva substation at Kilpadoge, Tarbert. The underground cables will be located along the public roads R551, R552 and L1010 and along 2 sections of private property. The cable will be installed in excavated trenches approximately 1.2km in depth and will include associated underground ducting joint bays, communication chamber bays,	This was consented in 2021, Due to the nature of this type of project is not anticipated to generate significant operational traffic.

Ref. No.	Location	Grant / Due Date	Decision	Description	Traffic and Transport Context
	vallig, Co. Kerry.			drill pits, sheath link boxes and inspection chamber, associated equipment and all ancillary site and ground works. The development will also consist of the connection of the permitted windfarm (19/381), via existing permitted underground electricity cables, to the proposed cable. the underground cable will be located in the townlands of Ballyline west, Ballymacasy, Lislaughtin, Glancullare south, Gurteenavallig, Meelcon Carhoona, Farranawana, Doonard Upper, Doonard Lower Tarbert and Kilpadoge 'The applicant is seeking a ten-year planning permission and operational period of 25 years. An appropriate assessment screening report and an environmental impact assessment screening report has been prepared and submitted as part of this application. A NIS has been submitted with this application.	
19115	Kilpaddoge, Tarbert, Co. Kerry	07.02.2020	Granted	For a 10-year permission for a grid stabilisation facility comprising of the construction up to 4 no. rotating stabilisers, 5 no. battery storage containers, 1 no. control room, 2 transformers and ancillary equipment within a site area of approximately 1.46 hectares.	This was consented in 2020. Due to the nature of this type of project, it is not anticipated to generate significant construction or operational traffic.
21549	Kilpaddoge, Tarbert, Co. Kerry	19.07.2021	Conditional	(a) A high inertia synchronous compensator (HISC) compound containing 1 no. HISC unit enclosed within a steel clad framed style structure (12.1m max height) and supported by 8 no. electrical equipment containers (containing ancillary power supply products including a static frequency converts, mv switchgear, exciters, lv distribution, control room, welfare and office), main auxiliary and start-up electrical transformers, generator circuit breaker, switchgear equipment, external cooler units and 1 no. back up diesel generator and associated diesel storage tank; (b) A 220kv high voltage gas insulated switchgear (GIS) substation compound containing a GIS substation building with all control and hv equipment within a single storey building (13.2m max height). The building will be surrounded by a compound road and contained within a 2.6m high galvanised steel palisade fence; (c) A battery storage compound containing 5 no. battery storage containers, enclosed in steel containers of dimensions approximately 13m by 2.5m by 3m, housing individual battery components with 2 no fitted external HVAC systems for each unit and supported by 13 no. inverter stations, 14 no. auxiliary transformers and control container; (d) 220kv underground cable to the existing adjoining EirGrid substation; (e) Associated elements comprising various underground cables and ducts, equipment plinths, boundary security	This was consented in 2021. Due to the nature of this type of project, it is not anticipated to generate significant construction or operational traffic.

Ref. No.	Location	Grant / Due Date	Decision	Description	Traffic and Transport Context
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fence, compound lighting and palisade gates and fencing, security lighting, CCTV, internal access roads, hardstanding areas and all necessary foundations works for the above compounds. the planning application is on lands where grid stabilisation facility was previously permitted under planning register no 19/115. Planning permission to construct the development is sought for a period of 10 years. a natura impact statement (NIS) has been prepared in respect of the proposed development and accompanies the application

14.8.1 Cumulative Assessment

As noted in Table 14.8, application 23350, if approved, could potentially have an overlapping construction period with the Proposed Development. Table 14.9 sets out the daily traffic flow during the overlap of these developments to ensure the road network has capacity for all vehicles movements at the same time. This assumes a worst case of all proposed 147 trips associated with application 23350 travelling on both N67 and N69.

Table 14.9: Cumulative Assessment

Link	2026 Baseline + Proposed Development Traffic	2026 Baseline + Proposed Development Traffic + Cumulative Traffic
N67	1570	1717
N69	3988	4135

As shown in Table 14.9, the two-way flow on each link remains below the daily 8600 vehicle threshold that the roads are designed for (See Section 14.5.2.8.1 for capacity details). It is therefore considered that this overlap in trips is not expected to result in a significant impact and that the roads will have capacity to deal with the additional traffic.

The contractors of each development will be required to communicate to co-ordinate movements efficiently. This will be addressed within the detailed CTMP.

14.9 Summary

The Proposed Development will utilise the existing National Road network, i.e., N67 and N69 for construction phase traffic. The implementation of an approved CTMP prior to construction will minimise the potential for traffic and transport impacts during construction activities and the residual impact will be **Not Significant** and **Temporary**.

During the operational phase, the traffic generation will be minimal. The operational phase assessment was therefore scoped out as it will not generate a significant traffic impact. The same conclusion is

reached for the decommissioning phase of the development when less traffic will be generated than assessed for the construction phase.

14.10 References

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