MWP

Chapter 16 Traffic and Transport

Brittas Wind Farm Project

Brittas Wind Farm Ltd

November 2024

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Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Status
23318	6001	A	18/11/2024	IA/MT	MT/EH	MT	ISSUE

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16. Traffic and Transportation

16.1 Introduction

This chapter considers the potential effects of the construction, operational and decommissioning traffic arising from the Proposed Development on the existing road network. A full description of the proposed development, development lands and all associated project elements is provided in Chapter 2 of this EIAR. The nature and probability of effects on the existing road network arising from the overall project has been assessed. The assessment comprises:

- A review of the existing receiving environment;
- Prediction and characterisation of likely impacts;
- Evaluation of significance of effects; and
- Consideration of mitigation measures, where appropriate.

16.1.1 Competency of Assessor

The assessment was completed by Ilyaas Adams, a senior traffic and transportation engineer for MWP. He holds a Bachelor of Science in Engineering (BSc Eng. Hons) and has completed multiple masters' courses (level 9) in the field of transport engineering and project assessment. He is a Chartered Engineer with Engineers Ireland for the field of traffic and transportation engineering. He is also a certified Professionally Registered Engineer (PrEng) in accordance with the Engineering Council of South Africa. Ilyaas has gained both contracting and consulting engineering experience in the construction, management and design of public transport networks, with a wide range of experience in planning, impact assessments and analysis of the operation of transport infrastructure.

16.1.2 Scope of Assessment

The assessment considers the entirety of the proposed development, including the wind turbine, and associated infrastructure, the on-site substation, and the grid connection to the existing Thurles 110kV substation. It considers the effects of the construction, operation and decommissioning of the proposed development in terms of how it could affect the existing and the expected future (projected) surrounding road network.

For developments of this nature, the construction phase holds the most significant influence on the surrounding road network. This involves short-term increases in traffic volume and specific requirements for the transportation of large turbine components. As such, this chapter will address the construction stage, operational phase and decommissioning stage traffic associated with the development.

16.2 Methodology

The method of impact assessment and prediction follows the EPA (2022) *Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR).* The methodology and approach outlined in the

EPA Guidelines was used to determine whether the proposed development had the potential to cause significant effects on material assets and is as set out in Chapter 1 Introduction.

The TII Publication PE-PDV-02045 sets out the methodology to be followed in any given Traffic and Transport Assessment. The methodology that will be used in this chapter follows the TII guidelines and can be outlined as follows:

- Existing baseline traffic volumes on the surrounding local road network have been established on the basis of on-site traffic surveys (Automatic Traffic Counts recording both vehicle numbers and speeds).
- The study included desk based research of published information and site visits to assemble the information on the receiving environment and the proposed development.
    - Tipperary County Development Plan 2022-2028;
    - The Transport Infrastructure Ireland (TII) Traffic and Transport Assessment (TTA) Guidelines PE-PDV-02045 May 2014;
    - TII's Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections PE-PAG-02017 October 2016;
    - Environmental Protection Agency (EPA) Guidelines on the Information to be contained in an Environmental Impact Assessment May 2022;
    - NRA Project Appraisal Guidelines Unit 16.2: Expansion Factors for Short Period Traffic Counts; and
    - TII's Rural Road Link Design DN-GEO-03031 June 2017;
    - TII Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated, and compact grade separated junctions) DN – GEO – 03060, April 2017;
    - Guidelines for Managing Operations in Public Roads (Second Edition, April 2017 DoTTS);
    - Road Safety Audit (TII GE – STY – 01024, December 2017);
    - Guidance on Minor Improvements to National Roads (including Erratum No.1 & No.2, 2013), TII DN–GEO-03030.
- TII growth factors applied to counts to determine future projected volumes to align with current and opening years.
- Determined predicted generated traffic from the proposed development based on staff and material delivery during the construction stage.
- Analysis of the site access junction and surrounding network.
- A separate Traffic Management Plan has been developed and included in Appendix 16.A.

16.2.1 Statement on Limitations and Difficulties Encountered

No limitations or difficulties were encountered in the production of this chapter.

16.3 Baseline Environment

The existing receiving environment (baseline environment) is described in Sections 16.3.1 below.

16.3.1 Wind Farm Site Roads

The proposed wind farm and substation site is located 3km north of Thurles town in the following townlands: Brittas, Rossestown, Clobanna, Brownstown, Killeenleigh and Kilkillahara in County Tipperary as shown in **Figure 16-1** below. The N62 is located west of the site, running north to south, connecting Templemore to Thurles. The N62 provides a link to the M6, M7 and M8 motorways. The L8017 local road traverses the centre of site from east to west, crossing the River Suir at a bridge point.

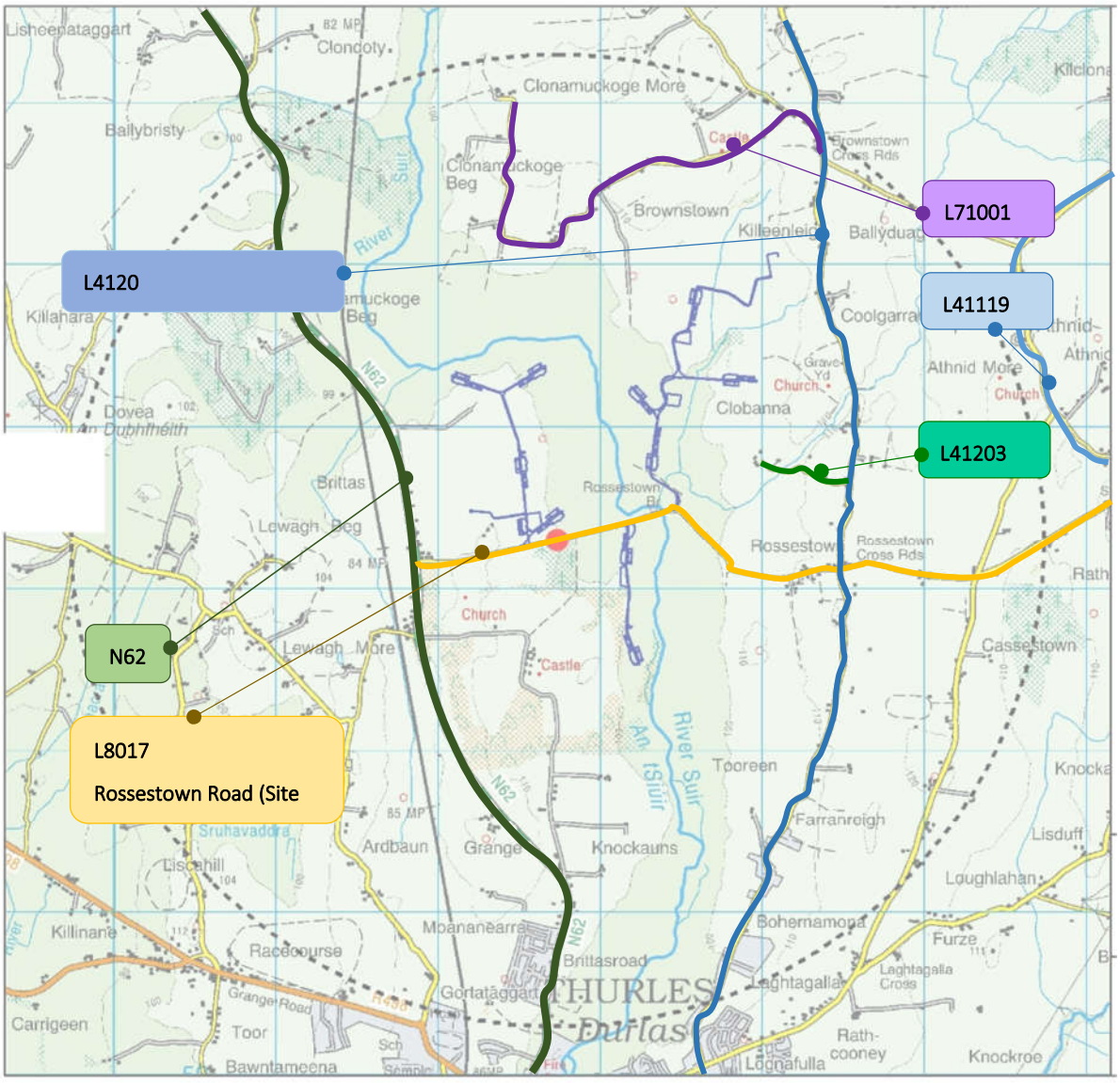

Figure 16-1: Site Location and Roads

The Rossestown road (L8017) has a typical road carriageway width of c. 5.5m wide with 4 private accesses with setback property boundaries west of the proposed development until it joins the N62 c. 4km north of Thurles. The L8017 local road (Rossestown Road) has a stop controlled junction with the N62. Within the proposed project site the L8017 extends eastwards until it forms a stop controlled junction with the L4120 Local secondary road. Both the L8017 and L4120 roads have no clear centreline or edge markings along the site frontage. The N62 has a width of c.6.6m (c.3.25m in each direction) with north/south alignment on the western boundary of the proposed

planning site boundary for the wind farm. It passes through Thurles approximately 3km south of the project site and extends northwards through the towns of Templemore, Roscrea, and Birr to Athlone.

16.3.2 Grid Route and Substation Connection Roads

The proposed grid route to Thurles 110kV substation is located within or along the boundaries of the townlands of Kileenleigh, Coolgarrane, Clobanna, Athnid More, Rossestown, Cassestown, Farranreigh, Laghtagalla. Furze, Loughlahan and Ballygammane. Starting from the onsite substation entrance the proposed grid route will follow the L-4120 road south to the L-8017 Rossestown road and turn east. At the next junction it will turn south along the L-4119 road to Thurles town. The L4-119 has a width of c.5m and a north/south, relatively straight horizontal alignment. At the T-junction with the L-8015 road the route will turn east until the fork in the road and will then follow the L-8014 (to the right) to existing Thurles substation. The L-8014, with a similar class road has a width of c. 5m with a gentle horizontal curve in a north-easterly direction connecting the L-4119 to the existing Thurles Substation.

The grid connection route and associated connection point to the National Grid is assessed in the EIAR as shown in Figure 16-2 and described below.

The proposed Grid Connection Route will consist of just under 7km of 110kV underground cable buried in the public roads. The Grid Connection Route will connect the Wind Farm Site to the nearby existing Thurles 110kV substation located in the townland of Ballygammane, south-east of the proposed wind farm site. From the proposed new substation on the wind farm site, the grid route passes through agricultural fields adjacent to the proposed new access tracks. The route then enters the public road at the Wind Farm Site boundary and heads outheast towards its destination at Thurles 110kV substation. There are two watercourse crossings at bridge points along the route.

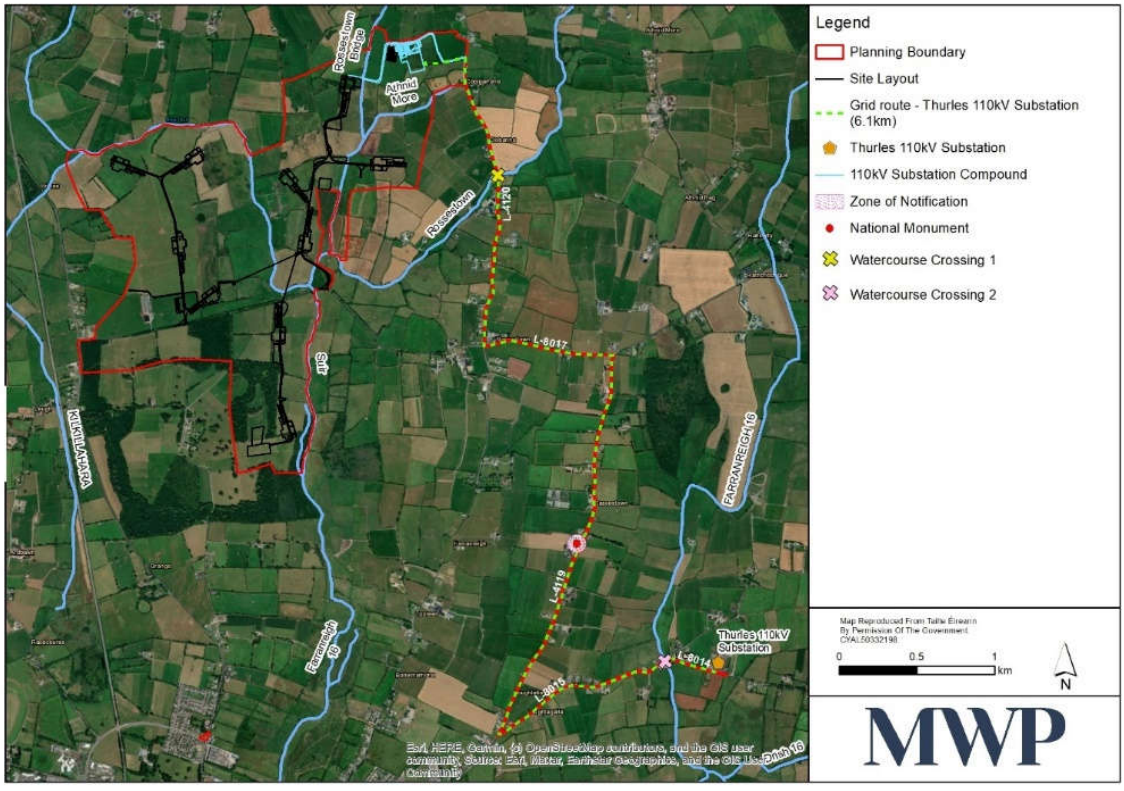

Figure 16-2: Grid Connection Route to Thurles Substation

16.3.3 Turbine Delivery Route Roads

The Turbine Delivery Route (TDR) runs from the Port of Foynes in County Limerick to the Wind Farm Site via the national, regional and local road network. Proposed temporary works associated with the Turbine Delivery Route are located in the Townlands of Brittas and Brittas Road, County Tipperary. Other less significant temporary works are located at various points along the TDR as detailed in the TDR Report in Appendix 2A.

The first section of the proposed route to the site will be along the N69 and M7 from the Port to Junction 25 (Nenagh Centre). A description of the rest of the turbine delivery route is provided below, and an overview of the proposed section is shown in Figure 16-8.

- Exit M7 at Junction 25
- M7/R498/ Roundabout, Exit travelling southeast
- Travelling southeast along R498 to Borrisoleigh
- Travelling southeast along R498 to Thurles
- R498/Jimmy Doyle Rd Roundabout, 1st Exit travelling northeast
- Turn left at Jimmy Doyle Rd/N62 (Brittas Rd) junction
- Travelling north along N62 (Brittas Rd) to Brittas
- Turn right at N62 (Brittas Rd)/L-8017 Rossestown Rd junction
- Travelling east along L-8017 Rossestown Rd
- Turn left at site entrance for wind turbines 1 - 8
- Turn right at site entrance for wind turbines 9 – 10

16.3.4 HGV Delivery Routes

All cement and fill materials delivered to the proposed project site will enter the wind farm site from the west at the junction of the N62 and the L-8017 Rossestown road. The HGV deliveries will all access the wind farm site at the three proposed access points on the L8017, including the substation site. There are a number of local quarries and cement suppliers located within 20km north, south and east of the proposed site which will likely be used to source materials for the proposed project.

16.3.5 Capacity Analysis

On-site classified road traffic volumes were commissioned by MWP on Thursday 28th September 2023, at the proposed entrance along the L8017, as well as a one week count along the northern aligned section of the L8017 as shown in Figure 16-3 below. The baseline peak hour volumes were determined to be between 08:15 – 09:15 in the AM period and 16:45 – 17:45 in the PM Peak period with volumes as shown in Figures 16-3 and 16-4 below.

The number of heavy good vehicles (HGV's) have also been noted navigating through the existing junction to determine a percentage of HGV's of the total traffic. The percentage of HGV's of the total volume of vehicles per link is noted in the Tables below.

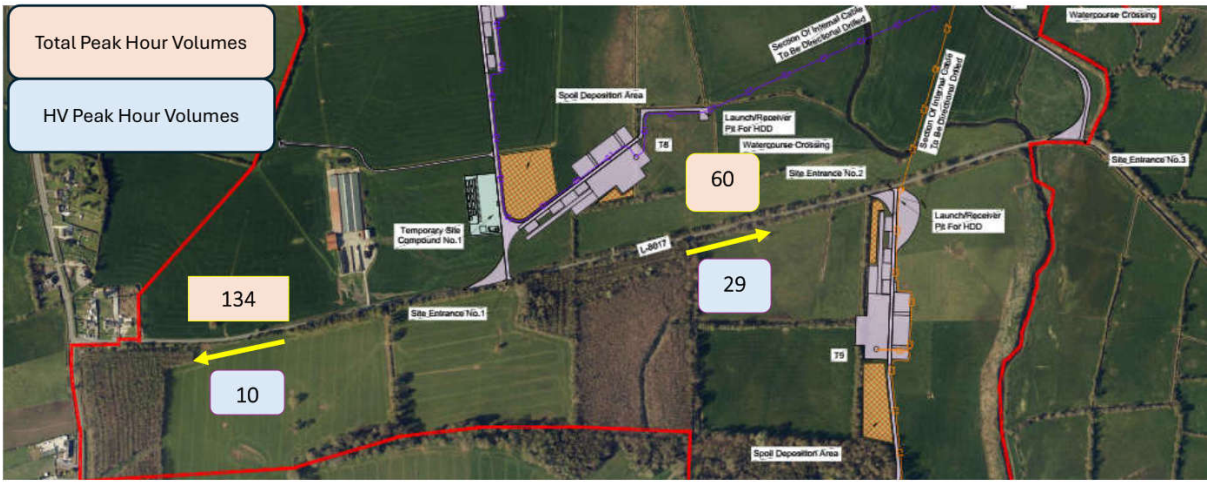

Figure 16-3: Peak Hour Volumes (L8017)

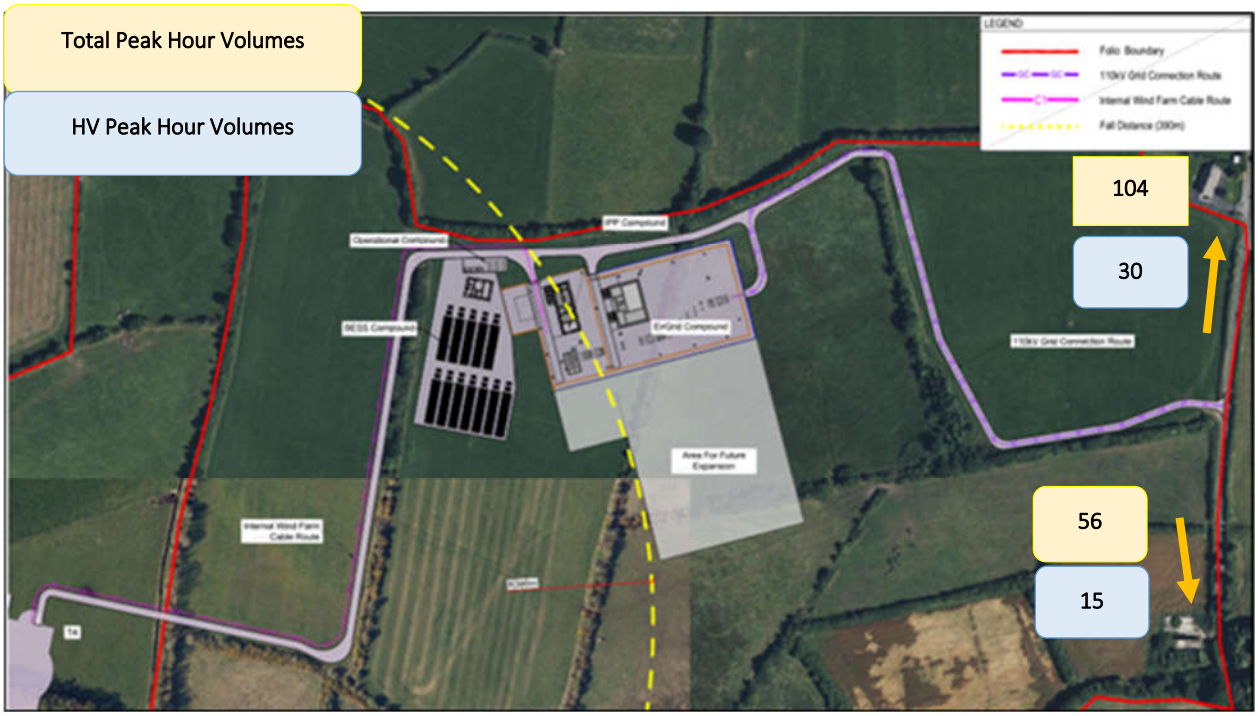

Figure 16-4: Peak Hour Volumes (L4120)

The total two-way vehicle volumes at the road locations identified were used to determine the baseline traffic in AADT (Annual Average Daily Traffic) values with percentage HGV content along each stretch of road. This was done in accordance with **NRA Project Appraisal guidelines**, Unit 16.2 as referenced below. **Table 16-1** and **16-2** below indicate the AADT vehicles per each approach accompanied by the percentage of HGV's as surveyed.

Table 16-1 AADT of L8017

Site Access (L8017)	
Two Way (Peak Hour) Link Vehicular Volume	194
Proportion Factor Proportion Factor – NRA Guidelines Annex A (08:15--09:15)	0.063
Equivalent 24-Hour Total	3067
Weekly ADT Factor Proportion Factor – NRA Guidelines Annex B for surveys conducted on Thursday	0.93
Weekly ADT	2852
AADT Factor Proportion Factor – NRA Guidelines Annex C for surveys conducted in September	0.96
AADT	**2738**
%HGV	**20.10%**

Table 16-1 above highlights the two-way link volume as well as the equivalent Weekly Average Daily Traffic (WADT) as well as the Annual Average Daily Traffic (AADT) for the approach of the site access, to be used by the construction traffic. Noting a carriageway width of approximately 5.5 m wide for the 2-lane L8017 (eastern/western aligned approach), the most conservative TII rural road link design and TII Capacity of Urban Roads is 750 vehicles per hour per direction. This TII road link capacity is based on a 60/40 directional split and accounts for vehicles per hour per direction (one-way). With a total of 134 vehicles travelling westbound and 60 vehicles eastbound, the road is estimated to operate with a reserve capacity of approximately 82% and 92% respectively (representing a road link per hour volume/capacity ratio of 18% and 8%).

Additionally, the same was analysed for the substation access which is outlined in Table 16-2 below.

Table 16-2 AADT L4120

Substation Operational Access and northern section of Grid Route (L4120)	
Two Way (Peak Hour) Link Vehicular Volume	160
Proportion Factor Proportion Factor – NRA Guidelines Annex A (08:15--09:15)	0.063
Equivalent 24-Hour Total	2530
Weekly ADT Factor Proportion Factor – NRA Guidelines Annex B for surveys conducted on Thursday	0.93
Weekly ADT	2353
AADT Factor Proportion Factor – NRA Guidelines Annex C for surveys conducted in October	0.99
AADT	**2329**
% HGV	**28.13%**

Table 16-2 above highlights the two-way link volume and the equivalent Weekly Average Daily Traffic (WADT) as well as the Annual Average Daily Traffic (AADT) for the approach of the L4120, to be used for the operations and maintenance of the substation (operational phase). Noting a carriageway width of approximately 5.5 m wide for

the 2-lane L4120 (north/south aligned approach), the most conservative TII rural road link design and TII Capacity of Urban Roads is 750 vehicles per hour per direction. This TII road link capacity is based on a 60/40 directional split and accounts for vehicles per hour per direction (one-way). With a total of 104 vehicles travelling northbound and 56 vehicles southbound, the road is estimated to operate with a reserve capacity of approximately 86% and 93% respectively (representing a road link per hour volume/capacity ratio of 14% and 7%).

Based on Table 16-1 and 16-2, and the surveyed existing vehicular traffic along the access routes, the existing local roads L8017 and L4120 currently operate with sufficient reserve capacity.

16.3.6 Do Nothing Scenario

The TII Traffic and Transport Assessment Guidelines recommend that the opening year of a development proposal and plan years, five and 15 years after the opening year, should be considered for assessing a development proposal. In this case, construction activities are expected to begin in Q4 of 2028 and the plan years are 2035 and 2045.

TII in their Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections October 2016 envisage that car and light vehicle volumes in Ireland South East roads, including Tipperary, would increase by an annual factor of 1.0118 during the period to 2030, and by a factor of 1.0242 for heavy vehicles, based on their high sensitivity growth scenario. The equivalent factors for the period 2030 to 2050 are 1.0038 and 1.0195, respectively.

The predicted peak hour and AADT traffic volumes on the R8017 (Site Access Road) and L4120 (Substation Access Road), with the foregoing TII predicted high sensitivity growth scenario are provided in Table 6.3 below.

Table 16-3 Predicted Traffic Volumes with TII Growth

Road Location	Year	Total Vehicles (HGV's)	
		Peak Hour	AADT (% HGV's)
L8017 Site Access	2030	208 (44)	2936 (21.15%)
	2035	219 (49)	3091 (22.37%)
	2045	236 (59)	3331 (25.00%)
L4120 Substation Access	2030	173 (51)	2442 (29.48%)
	2035	183 (56)	2583 (30.06%)
	2045	200 (68)	2823 (34.00%)

The estimated rural road link AADT volume/capacity ratios for the L8017 and L4120 in the vicinity of the proposed development site are provided in Table 16.4, on the basis of the TII Rural Road Link Design, for predicted 2030, 2035 and 2045 AADT volumes with the TII high growth scenario, without the proposed development.

The predicted 2030, 2035 and 2045 urban road link peak hour volume/capacity ratios for the roads are provided in Table 16.4 on the basis of the TII Traffic Capacity of Urban Roads TA 79/99, with the TII high growth scenario.

Table 16-4 Predicted Volumes with Volume/Capacity Ratios with TII Growth Rate

Road Location	Year	CAPACITY OF 5000 AADT	
		AADT	Volume Capacity Ratio
L8017 Site Access	2030	2936	59%
	2035	3091	62%
	2045	3331	67%
L4120 Substation Access	2030	2442	49%
	2035	2583	52%
	2045	2823	56%

Under the 'Do-Nothing' scenario, both the L8017 and the L4120 would continue to operate well within their estimated urban road link capacity, with the predicted 2030, 2035 and 2045 peak hour traffic volumes on the basis of the TII high growth scenario, with a highest volume/capacity ratio during the peak hour of 67%, for the site access road in 2045.

16.4 Assessment of Construction Impacts and Effects of Development

16.4.1 Wind Farm Site

A full description of the construction works for the project is provided in Chapter 2 and Chapter 3 of the EIAR. Some of the construction works relevant to the traffic impact assessment are described below to provide context for the assessment of the traffic effects.

16.4.1.1 Construction Period, Hours and Staff

Subject to planning permission, the proposed construction works will commence on site in Q4 of 2028. The construction phase is expected to last c. 18 months and will be completed by Q2 of 2030. Normal construction activities will be undertaken within the hours 07.00am – 7.00pm, Monday to Friday and 07.00am to 2.00pm on Saturdays. Due to the requirement for the concrete pours to be continuous, the working day during that activity may extend outside normal working hours in order to limit the traffic impact on other road users, particularly peak period school and work commuter traffic. Such activities are limited to the days of turbine foundation concrete pours, which are normally complete in a single day per turbine. Turbine and crane erections may also occasionally occur outside of these times in order to take advantage of low wind periods. Turbine component deliveries will also take place outside of typical working hours to avoid effects on peak traffic hours. Working hours will be confirmed at the outset of the project and any changes in hours will be agreed with the Local Authority.

During the construction phase, the number of on-site construction personnel will vary for each phase of the construction. Overall, it is envisaged that the construction of the wind farm will generate employment for up to 60 persons including site contractors, on-site vehicle and plant operators, engineers, materials delivery personnel, environmental personnel, health and safety personnel.

Two (2) no. temporary construction compounds will be set up on the wind farm site upon commencement of the construction phase. The location of these temporary compounds is shown in **Figure 16-5.** The main construction compound is located to the north of the western site entrance of the wind farm site adjacent T8, and the supplementary construction compound will be located north of T7. The compounds will be used as a secure storage area for construction materials and will also contain temporary site cabins to provide welfare facilities for site personnel. Facilities will include office space, meeting rooms, canteen area, mobile sanitary facilities and construction staff parking areas. These compounds will be accessed along the L-8017 road via the proposed site entrances as shown in Figure 16-6 below .

Main Construction Compound

Supplement Construction Compound

Figure 16-5:Construction Compound Locations

16.4.1.2 Access and Vehicle Routing

Primary access to the proposed wind farm site will be provided from the N62 on the west of the site and then via the local public L8017 where there will be three site entrances (see **Figure 16-6**). The western entrance will provide access to turbines 1, 2, 6 and 8, as well as the Lidar and the main construction site compound to the north of the public road. The middle entrance provides access to turbines 9 and 10 and the borrow pit to the south of the L8017. The third eastern entrance provides access to turbines 3, 4, 5 and 7 as well as another construction compound and the proposed on-site substation. A fourth entrance (see **Figure 16-7**) is to the substation only and will only be used for operational access to the Substation. This entrance is located along the section of the L-4120 that goes northward on the eastern side of the River Suir, as identified in Figure 16-1.

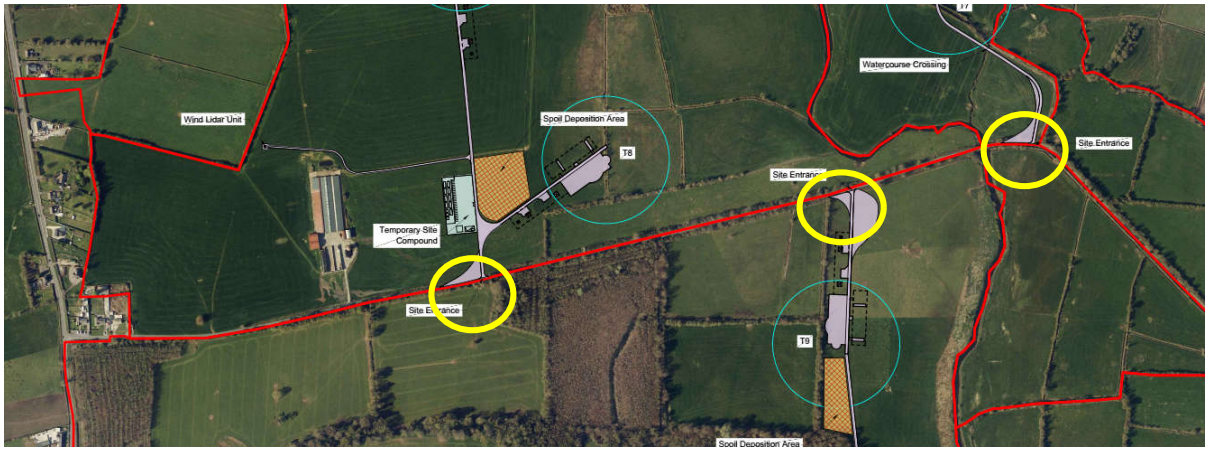

Figure 16-6: Proposed Site Access on L8017 (construction)

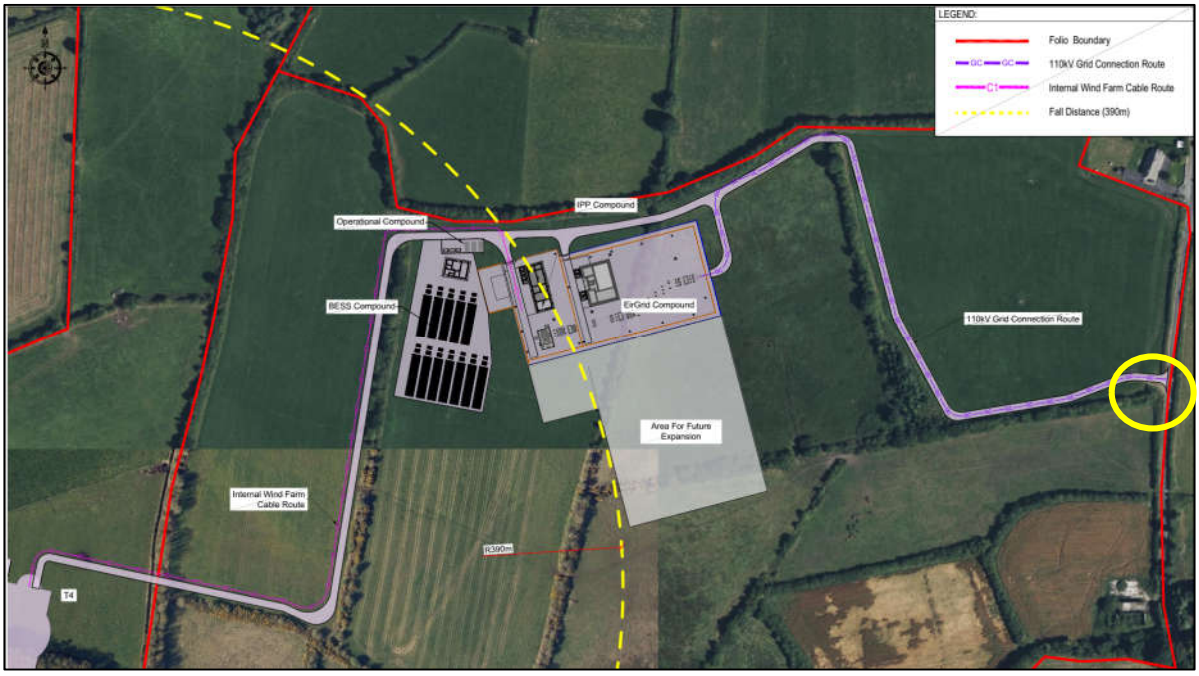

Figure 16-7: Substation Access on the L4120

The access junctions have been designed with sufficient sightlines and forward visibility as shown in drawings: 23318–MWP- 00-00-DR-C-5034 and 5035.

16.4.1.3 Heavy Goods Vehicles (HGV) Delivery Routes

Besides the turbine components, other construction materials such as stone, gravels and other fill and excavation materials as well as concrete will be transported to and from the project site via the L-8017 (Rossestown road) and other roads and regional roads in the locality such as the N62, R498, N75, and M8. All HGV deliveries will be made from the west of the site via the N62 road. Other roads used in the wider road network will depend on the location of the suppliers. There are six quarries located within 20km of the project site and 2 concrete suppliers within 12 and 20km of the site (see details of potential quarries in Table 2-7 in Chapter 2.

The projected increased volumes of HGV traffic has been incorporated into the assessment of traffic effects related to the construction of the entirety of the wind farm (including the turbine delivery route and grid route) in the sections which follow.

16.4.1.4 Delivery Vehicle Volumes

The c. 18 months of construction will require the approximate importation of 8, 846 loads of construction deliveries. This includes the delivery vehicles for the 10 wind turbines, their steel towers, turbine blades, nacelle, rotor hub etc. from the proposed port of entry (Foynes, County Limerick) to the site. All other construction materials will be imported using standard heavy vehicle delivery trucks with capacities of 10m^3 / 20 tonnes entering the site from the N62. The summary of the estimated deliveries is outlined in Table 16-5 below.

Table 16-5 Proposed Construction Works Delivery Volumes - Peak Hour

Works	Total Number of Heavy Vehicles		
	Total Construction Programme	Peak Daily	Highest Peak Hour
Concrete	**2,506**	**40**	**4**
Reinforced Steel	**138**	**10**	**4**
Wind Turbine	**100**	**10**	**3**
Crane	**20**	**10**	**4**
Imported Stone	**6,081**	**40**	**4**
Substation Transformer	**1**	**1**	**1**
TOTAL	**8,846**	**40**	**4**

Note [(1)] : During base concrete pours. Other deliveries to site will be curtailed or stopped during concrete pours.

Note [(2)] : For the purpose of the analysis, truck movements are conservatively assumed to occur within a 18-month period, during which more onerous construction elements are taking place.

The wind turbine components will be delivered in consultation with the local authority, to be delivered during off-peak traffic periods. A total of 100 delivery vehicles will be required for the components of the 10 turbines over a period of 3 months. This could result in temporary traffic delays along the turbine delivery route during the off peak delivery periods.

Peak heavy vehicle traffic volumes for the delivery of concrete, steel, and quarry materials will be up to 40 heavy vehicles per day, both to and from the site. This will occur on six (6) separate days during the concrete pours for the turbine foundations. Other deliveries to site will be curtailed or stopped during concrete pours. Highest peak hour heavy vehicle traffic volumes will be up to four (4) heavy vehicles, both to and from the site. The total construction vehicular traffic is further analysed in the section below.

16.4.1.5 Total Network Volumes and Construction Volumes

The predicted average annual daily traffic volumes, peak daily traffic volumes and highest peak hour traffic volumes generated by the proposed development construction are provided in Table 16-6 below.

The predicted AADT volumes are calculated based on an 18-month construction programme, which would have a higher increase in AADT volumes than the same amount of construction traffic spread over more months.

Table 16-6 Proposed Construction Works AADT Traffic Volumes

Total Vehicles		
AADT (% HGV)	Peak Daily (HGV)	Highest Peak Hour (HGV)
196 (15.38%)	250 (80)	8 (8)

The predicted 2028 peak daily and peak hour traffic volumes on the existing local roads with the proposed peak construction works traffic volumes are provided in Table 16-7 and Table 16-8 respectively.

Table 16-7 Existing Traffic Volumes with Peak Daily Construction Vehicles

Road Location	Peak Daily Vehicles (HGV's)	
	Total Vehicles (HGV's)	Change (HGV's)
Site Access (L8017)	2988 (630)	+250 (80)

Table 16-8 Existing Traffic Volumes with Peak Hourly Construction Volumes

Road Location	Peak Hour Vehicles (HGV's)	
	Total Vehicles (HGV's)	Change (HGV's)
Site Access (L8017)	198 (43)	+4 (4)

16.4.1.6 Volume Capacity Ratios

The estimated rural road link AADT volume/capacity ratio for the approach roads to be used along the construction site access road at the proposed development site is provided in Table 16-9 on the basis of the TII Rural Road Link Design, for predicted 2028 AADT volumes with the TII high growth scenario, with the proposed construction development.

Table 16-9 Volume Capacity Ratio

Approach	AADT Vehicles	AADT Capacity	AADT Volume/Capacity Ratio
Site Access (L8017)	2988	[1]5000	59.76%

Note [1]: Lowest AADT on Rural Road Layouts as per TII Rural Road Link Design DN-GEO-03031 Type 3 Single Carriageway

The surrounding network will continue to operate within its estimated rural road link AADT capacity, for the predicted construction AADT volumes on the basis of the TII high growth scenario and the proposed construction traffic volumes, with significant reserve capacity on all approaches. It is envisaged that the construction traffic will have **moderate, negative, short-term impacts on the surrounding transport network** as a result of increased traffic to the wind farm site.

16.4.1.7 Conclusion of Traffic Effects from Wind Farm Construction

The nature of the surrounding road network being lightly trafficked, partnered with adequate carriageway widths of the approach roads and proximate access to the national road network, indicates that utilising the surrounding routes will not raise major safety concerns or cause disruption to the surrounding networks mobility, due to sufficient reserve capacity on the surrounding transport network. It is further noted that the roads already accommodate heavy goods vehicle movements being able to successfully navigate the junction turning movements at the N62/L-8017. This effect is considered to be **moderate, negative, local** and **Short-Term.**

16.4.2 HGV Haul Routes

All cement and fill materials delivered to the proposed project site will enter the wind farm site from the west at the junction of the N62 and the L-8017 Rossestown road. The HGV deliveries will all access the wind farm site at the three proposed access points on the L8017, including access to the substation site. There are a number of local quarries and cement suppliers located within 20km north, south and east of the proposed site which will likely be used to source materials for the proposed project. As indicated in the traffic data in section 16.3 above, traffic volumes on the local access roads are light and well below the road capacities. This pre-mitigation HGV traffic effect is considered to be **moderate, negative, local** and **Short-Term.**

16.4.3 Turbine Delivery Route

The components for each turbine are expected to be delivered in approximately 100 No. deliveries. Due to their abnormal size, blades and towers will be delivered at night to avoid disruption to peak daytime traffic. The turbine blades will be the longest components to be transported from port to site. The turbine blades will range from 73m to 76m in length. The components are expected to be delivered by sea to the Port of Foynes in County Limerick and transported to site along the national, regional and local road network as per description in **section 16.3.3** above. The full details of the Turbine Delivery Route as well as works proposed to address the pinch points along the route are further elaborated on in the Turbine Delivery Assessment Report (**Appendix 2A**).

Twenty-two pinch points have been identified along the route where various temporary accommodation works will be required. These include the following:

- The temporary removal of traffic signs and lights
- The temporary removal of electricity poles, bollards and lamp posts
- Hedges and tree removal or trimming
- Temporary land take
- Lowering of some roadside banks
- Temporary Fence removal

- Road widening

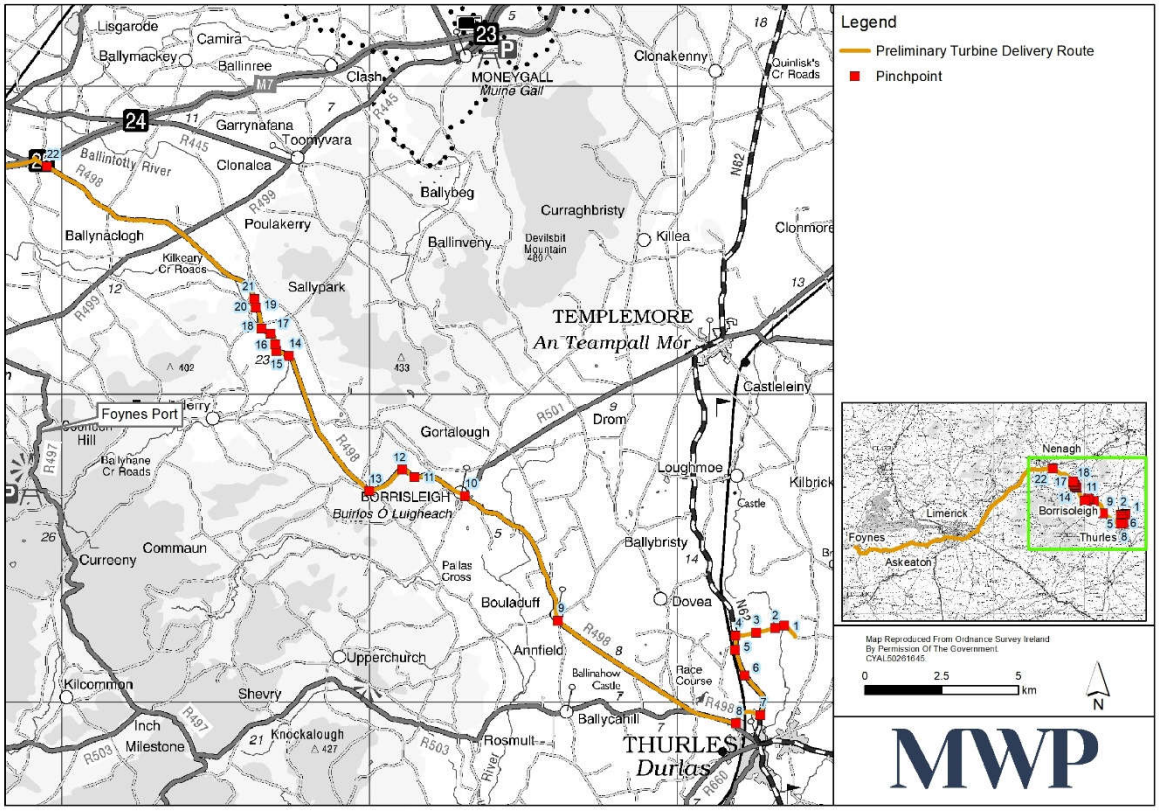

Figure 16-8: Turbine Delivery Route

Two points have been identified where hardstanding areas are required and these are included in the redline planning boundary for this planning application.

The majority of the temporary works mentioned above can be accommodated through road opening licence. A permit for moving abnormal loads to the wind farm site along the proposed TDR will be sought from An Garda Síochána, Tipperary County Council and Limerick City & County Council. A detailed transportation plan with a breakdown of the timing of deliveries will be established at construction stage.

Apart from the two pinch points identified where road widening will be required, all other turbine component movements can be accommodated within existing road alignments. 100 abnormal size heavy vehicles will be used to deliver the turbine components over a period of 3 months. These deliveries will be made at night to reduce disruptions to day-time road users. The vehicles will be slow moving and will require a garda escort. In advance of these deliveries the temporary accommodation works will be needed to trim or remove trees, remove road signs, street light poles, electrical poles, fences and road widening at the 22 pinch points along the delivery route. This will result in some temporary inconvenience for existing road users and some potential traffic safety risks at these pinch points as well as some temporary alterations to public road infrastructure.

Consequently, these changes and turbine component deliveries will have a more significant effect compared to typical HGV deliveries.

The first portion of the turbine delivery route will be along the N69 and M7 from the port, to Junction 25 (Nenagh Centre). Transport Infrastructure Ireland (TII) automatic count data for counter number TMU M07 (Junction 25) records an AADT of 15,595 vehicles for the year of 2024. This indicates that the existing vehicular traffic utilises c. 30% of the road capacity based off of the Rural Road Link Design Manual (TII – DN-GEO-03031-11) for Motorways.

This indicates that the road operates with a reserve capacity of above 70% allowing the vehicle volumes to be tripled before congestion becomes prevalent.

From junction 25 on the M7 motorway, the TDR largely following regional roads to the proposed project site as outlined in Section 2.4.5 of Chapter 2 (Project Description) of the EIAR. These roads are lightly trafficked. It is further noted that the pinch points located are along the regional road (R498) which were further surveyed in order to establish baseline traffic volumes. The Table below highlights the results of the on-site survey.

Table 16-6 AADT Turbine Delivery Route and Reserve Capacity

Approach	AADT Vehicles (% HV's)	AADT Capacity	AADT Volume/Capacity Ratio
R498	**1,602 (1.4%)**	**5000**	**32.04%**

As shown in the table above, the turbine delivery route will operate with significant reserve capacity considering a road with of c5.5m along the R498. It is further envisaged that throughout construction the road will remain in operation with a 67% reserve capacity (with an existing reserve capacity of 68%).

The delivery of the turbine components will have pre-mitigation traffic effects that are rated as **slight, negative, regional** and **temporary**.

The temporary accommodation works for the TDR will include temporary alterations to existing public road infrastructure, the movement or removal of some electricity poles, bollards and lamp posts, the trimming or removal of some hedges and trees, temporary land take, lowering of some roadside banks, temporary removal of some fences and some road widening. these works may result in:

- temporary traffic delays and disruptions to road users;
- road safety issues should the works not be carried out in line with good traffic management practices;
- Soiling of the public road leading to a general lack of cleanliness and poor skid resistance on roads;
- Damage to existing public road infrastructure.

These effects are rated as **moderate negative temporary** and **local** due to nuisance and road safety effects on local road users.

16.4.4 Grid Connection Route

The proposed grid connection from the proposed on-site substation to the existing Thurles 110kV substation will be constructed in on-site tracks and within the public road over a period of 4-5 months. It is expected that 100m of active construction works will be completed each day over a period of approximately 2 months. Thereafter, the second 2-3 months of construction will involve sequentially opening up all joint bays (these are pre-cast concrete chambers that will be required along the grid connection route over its entire length) and pulling electrical cables through ducts and then joining each cable together. There is anticipated to be 12 joint bays with 2-3 days' work involved at each. Construction activities along the proposed grid connection route will operate between the hours 7:00 a.m. and 7:00 p.m., Monday to Saturday (if required).

It is expected that the civil works for the grid connection route will require at least 10 personnel to complete the works. The electrical works will require less heavy machinery but more labour personnel, with typically 25 personnel to complete the works. The expected peak staff would generate approximately 48 car and van trips on the basis of an average vehicle occupancy rate of 1.25 personnel per vehicle. The staff requirements will further be managed by the contractor on site with the construction staff utilising the main site (wind farm parking compound) to park their vehicles and travel together for the construction of the grid route.

The vehicular volumes associated with the grid route connection are estimated and shown in the Table below.

Table 16-7 Proposed Grid Route Connection Vehicle Volumes

Works	Total Number of Heavy Vehicles		
	Total Construction Vehicles	Peak Daily Vehicles	Highest Peak Hour Vehicle Volumes
Excavation Material for External Cable Route	**380**	**10**	**4**
Imported Stone for External Cable Route	**217**	**10**	**4**
Concrete	**400**	**10**	**3**
TOTAL	**997**	**40**	**4**

In order to establish the level of impact associated with the proposed grid route connection (in isolation) on site counts were undertaken on the 09th and 10th of July 2024. These counts were further adjusted by a factor (calculated on the basis of TII Automatic traffic count data) to establish baseline traffic volumes on a typical

weekday (outside of school holiday periods). The adjusted survey data along the grid route recorded are shown in the Figure below.

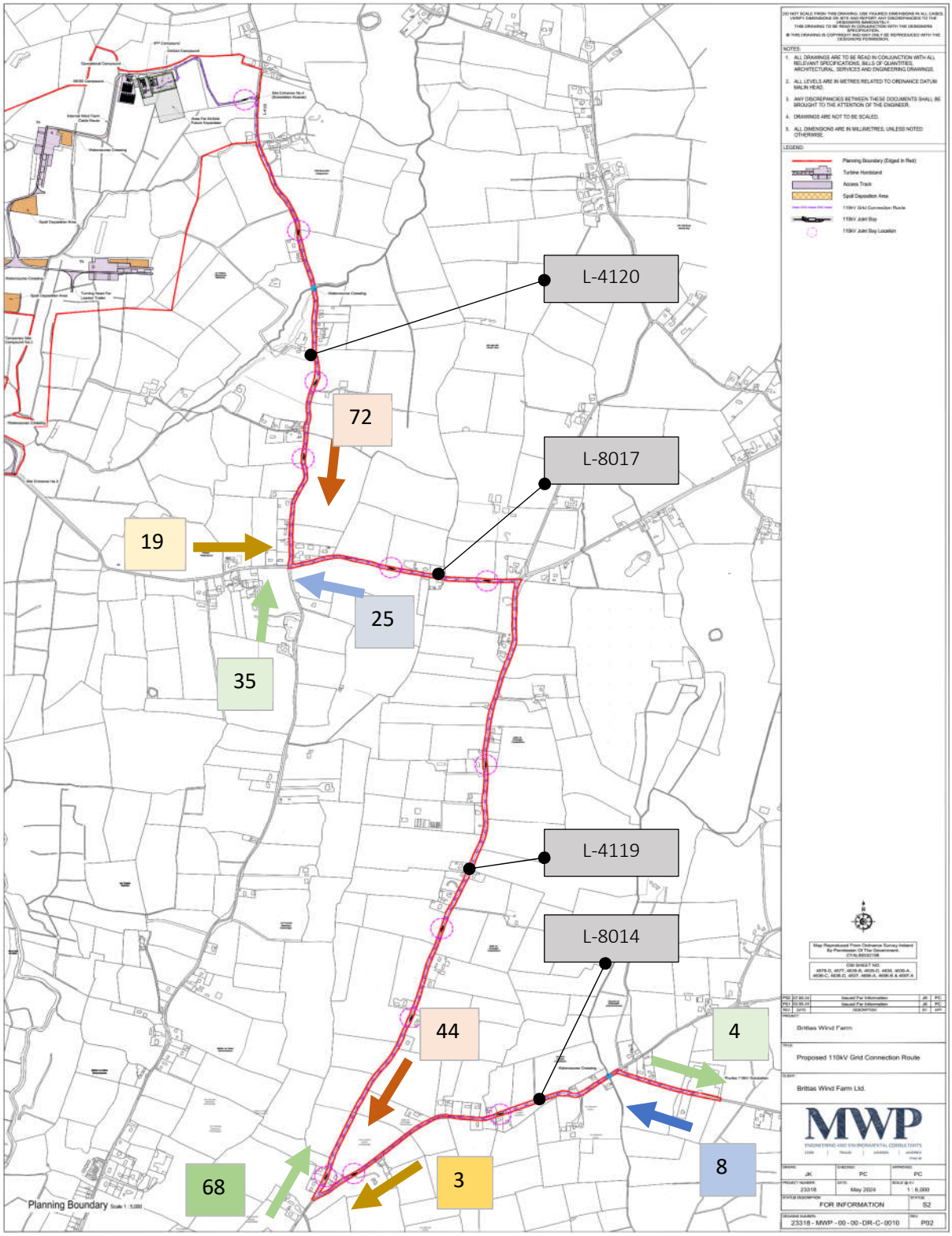

Figure 16-9: Adjust4ed Peak Hour Volumes (Grid Route)

Based on the adjusted surveyed vehicular volumes, the AADT along the grid route connection as well as the associate reserve capacity are outlined in the table below.

Table 16-8 Grid Route AADT and Reserve Capacity (Existing Volumes)

Approach	AADT Vehicles (% HV's)	AADT Capacity	AADT Volume/Capacity Ratio
L-4120	1035 (2.78%)	5000	20.7%
L-8017	431 (3.32%)	5000	8.6%
L-4119	977 (4.41%)	5000	19.5%
L-8014	172 (0.00%)	5000	3.4%

The impact of the construction vehicles of the grid route as well as the predicted staff associated with the construction has been loaded on the existing transport network determining the volume to capacity ratio and have been outlined in the Table below.

Table 16-9 Total Vehicles along the Grid Route during Construction

Approach	AADT Vehicles (% HV's)	AADT Capacity	AADT Volume/Capacity Ratio
L-4120	2185 (26.32)	5000	43.7%
L-8017	1509 (38.10)	5000	30.2%
L-4119	1782 (32.26%)	5000	35.6%
L-8014	1179 (48.78)	5000	23.6%

Based on the available reserve link capacity along the grid route, it is envisaged that the entirety of the grid route will continue to operate with excess of 50% of reserve capacity throughout grid route construction.

To minimise the disruptive effect on neighbouring households and local traffic, the project will use stop-and-go traffic management measures and to provide temporary diversions where this might be needed. Access to specific houses along the grid route will be maintained and outside of construction hours open trenches will be temporarily reinstated to allow access to dwellings in the normal manner. These traffic management measures will be developed in consultation with Tipperary County Council. Local affected residents will also be kept informed and consulted during the construction works. In many cases, there are alternative routes that residents can use to access properties while works are underway along the proposed grid route. The contractors will ensure that residents will have access to their properties at all times. The impacts of the grid route vehicles, although small in volume as shown in Table 16-7 will be moderate to significant, local, negative and temporary due to the operation of a stop-go system.

16.4.5 Potential Road Damage

Heavy vehicle traffic volumes generated by the proposed construction works could result in damage to existing and proposed road pavements on public roads, including at vehicle turning, accelerating and decelerating locations. While the effects of construction vehicles on the road pavements is predicted to have negative, non-significant, likely impacts, road pavements will be regularly monitored and reinstated in accordance with the requirements of the local council to ensure any adverse impacts are temporary.

Damage to the roads caused by construction traffic, the construction of the grid route and the temporary accommodation works for the TDR, will be repaired and the roads and road infrastructure reinstated post construction activities.

The effect of these activities on the local roads is considered **negative, not significant, temporary, and local**. These effects will also be **reversed** with the proposed reinstatement works.

16.4.6 Summary of Construction Phase Traffic and Road Effects

Table 16-10 provides a summary of the assessed pre-mitigation traffic effect ratings.

Table 16-10: Summary of Pre-mitigation Construction Traffic & Road Effect Ratings

Impact	Quality of Effect	Significance	Spatial Extent	Duration	Other Relevant Criteria	Likelihood
Wind Farm Site	Negative	Moderate	Local	Short Term	Direct & Reversible	Likely
HGV Routes	Negative	Moderate	Local	Temporary	Direct & Reversible	Likely
Turbine Delivery Route	Negative	Slight	Regional	Temporary	Direct & Reversible	Likely
Grid Connection Route	Negative	Moderate to significant	Local	Temporary	Direct & Reversible	Likely
Damage to Roads	Negative	Not significant	Local	Temporary	Direct & Reversible	Likely

16.5 Operational Phase Impacts

16.5.1 Wind Farm Site

During the operational phase, there will be periodic maintenance on site. This will generate a relatively low volume of vehicles, including occasional heavy vehicles.

During the operation of the wind farm, the turbine manufacturer, the Developer or a service company will carry out maintenance of the turbines. During the life of the project, it is envisaged that at least two permanent jobs will be created locally in the form of an operator or maintenance personnel. In addition, operation and monitoring activities will be predominantly carried out remotely with the aid of computers connected via a telephone broadband link. However, routine inspection and preventive maintenance visits will be necessary to ensure the smooth and efficient running of the wind farm and require a minimal presence (of approximately 2 personnel generating 2 vehicular trips to and from the site daily).

The regional supervisor will visit the site 2 times per month, civils maintenance will occur as needed and will likely take place twice per year, substation maintenance will occur twice per year and the Original Equipment Manufacturer (OEM) will inspect the wind turbines twice per year or as needed if specific issues are identified.

Table 16-11 Operational Maintenance Traffic

Item	Frequency	No. of vehicles
Substation maintenance	2 visit per year	2 individual LGV
Regional supervisor	2 visits per month	1 individual LGV
Civil Maintenance	As needed (approx. 2 visits per year, 2 days per visit)	3 individual LGVs
OEM maintenance	2 visits per year (may occur over a 7 day period)	2 individual LGVs
Operational Maintenance	2 LGV visits per day	2 individual LGVs

On the basis of the EPA Guidelines, the proposed operational phase will have **long term, neutral, local and imperceptible** traffic effects due to the small amount of additional traffic associated with the operations phase.

16.5.2 Turbine Delivery Route

There may occasionally be a need to replace a blade or other large component for a turbine during the operational period. In this case the component will be imported and transported along the same turbine delivery route. This would require similar temporary accommodation works along the TDR including temporary hardstands at the two identified locations along the route where these are required during the construction phase, as well as other accommodation works as described in Section 16.4.3. Thereafter, the hardstands would be removed and all road and roadside infrastructure reinstated. The pre-mitigation effects of the turbine component deliveries will be **not significant, negative, regional** and **occasional and brief**.

16.5.3 Grid Route Maintenance

During the operational phase the grid connection cable will remain in situ. It is unlikely that the underground cable will require much maintenance during its operation but in the event a fault does occur, inspection of the fault will be carried out to determine what works to the cabling/ducting may be required. In the event of this occurring a small team of technicians will require to excavate a small section of road resulting in the need for stop-go measures. In the event of grid connection maintenance, there will be a **negative, imperceptible, occasional brief** and **unlikely** impact on the transport network.

16.5.4 Summary of Operational Phase Traffic Effects

Table 16-12 provides a summary of the assessed pre-mitigation traffic effect ratings.

Table 16-12: Summary of the Assessed Pre-mitigation Operational Traffic Effect Ratings

Impact	Quality of Effect	Significance	Spatial Extent	Duration	Other Relevant Criteria	Likelihood
Wind Farm Site	Neutral	Imperceptible	Local	Long-Term	Direct	Likely
Turbine Delivery Route	Negative	Not Significant	Regional	Occasional & Brief	Direct & Reversible	Unlikely
Grid Maintenance	Negative	Imperceptible	Local	Occasional & Brief	Direct	Unlikely

16.6 Decommissioning Phase Impacts

At the end of the 35-year lifespan of the proposed project, the Developer will make the decision whether to repower or decommission the turbines. Any further proposals for development at the site during or after this time will be subject to a new planning permission application. If planning permission is not sought after the end of life of the turbines, the site will be decommissioned and reinstated with all 10 No. wind turbines and towers removed. Removal of infrastructure will be undertaken in line with landowner and regulatory requirements and best practice applicable at the time. The information below outlines the proposed decommissioning tasks based on current requirements and best practice.

Prior to the decommissioning work, the following will be provided to Tipperary County Council for approval:

- A plan outlining measures to ensure the safety of the public and the workforce, and the use of best available decommissioning techniques at the time.
- A comprehensive reinstatement proposal, including the implementation of a programme that details the removal of all structures and landscaping.

Cranes of similar size to those used for construction will disassemble each turbine. The towers, blades and all components will then be removed.

Wastes generated during the decommissioning phase will be taken off site and disposed of at an authorised waste facility. Any materials suitable for recycling will be disposed of in an appropriate manner.

At present it is anticipated that underground cables connecting the proposed turbines to the proposed on-site substation will be cut back and left underground. The cables will not be removed if an environmental assessment of the decommissioning operation demonstrates that this would do more harm than leaving them *in situ*.

Hardstand and turbine foundation areas will be left in situ and covered with soil to match the existing landscape. Access roads will be left for agricultural use.

The removal of the wind turbines during the decommissioning phase would be significantly less than that of the delivery of the wind turbines for the construction phase, with less staff requirements, less deliveries and materials.

The turbine delivery route will not be required during the decommissioning phase as turbine components can be taken down and cut down on site for ease of removal for recycling.

The grid route connecting the on-site substation to the Thurles 110kV substation will be maintained as part of the national grid and will therefore likely not require any works during the decommissioning phase.

Consequently, the decommissioning traffic will likely have **temporary, slight and negative** traffic effects on the surrounding transport network.

16.7 Mitigation

16.7.1 Construction Phase

Reasonable efforts will be made to minimise the impact of the works on local residences and users of the public road network throughout the project lifespan, but particularly in the construction phase where elevated traffic numbers will occur. A Traffic Management Plan (TMP) outlining the required traffic management procedures to be implemented on the public roads during the construction of the proposed project and delivery of the wind turbine components is included as **Appendix 16A.** In the event ABP decides to grant approval for the proposed project, the final TMP will be updated to address the requirements of any relevant planning conditions, including any additional mitigation measures which are conditioned by ABP. The TMP (**Appendix 16A**) will be updated prior to commencement of construction, subject to the approval of the local planning authority, to ensure controls are in place for the increase in the numbers of Heavy Good's Vehicles (HGV's) and Light Goods Vehicles (LGV's) using the local road infrastructure, associated with the construction phase. .

The following measures will be incorporated to ensure a safe and regulated traffic management system is enforced during the construction phase:

- A dedicated traffic management coordinator will be appointed for the duration of the project construction and this person will be the main point of contact for all matters relating to traffic management on the project.
- Final TMP will clearly identify roads that will be used to access the project site and roads that are not to be used. Turbine components and quarry material deliveries shall use the N62 and the western 1.6km section of the L-8017 roads as the primary haul route.
- With the construction of the grid route along the local narrow roads, the roads authority may want to introduce a system of one-way construction traffic movements during the construction of the grid connection under the public roads. Any such one-way systems will be identified in the construction stage TMP in agreement with the roads authority.
- The appointed contractor shall make provision for safe access at all times to private residences and commercial/business premises in proximity to the construction works. Steel plates or stone will be made available to allow access to residential properties. This will be done in co-operation / communication with local residents in the area. The appointed contractor will inform local residents of the programme of works in their area and local access will be catered for where possible.
- Prior to the grid route construction works commencing, the area where excavations are planned will be surveyed and all existing services will be identified. All relevant bodies i.e., ESB Networks, EirGrid, Uisce Eireann, Eir, Tipperary County Council etc. will be contacted and drawings for all existing services sought. A road opening licence will be obtained where required from the council for the relevant road sections.

All plant operators and general operatives will be inducted and informed as to the location of any services;

- Prior to works commencing a dilapidation survey will be carried out photographing and noting any existing damage or defects to structures or road surfaces. A copy of this survey will be submitted to the council prior to works commencing;
- Pre-construction and post-construction surveys will be carried out to ensure the structural integrity of the proposed haulage route road network. Repairs will be carried out on the public roads, as necessary, during the construction phase, to ensure that the road condition does not deteriorate below a standard that could affect the safe use of the road, as required;
- Haulage traffic will share the same route with local residents, and other road users, which may present risks. Advance warning will be given to the local residents for specific times when large volumes of HGV traffic may occur and appropriate signage will be placed at the approach to the site or where temporary works are planned;
- All signage relating to the proposed construction traffic routes for construction traffic will be agreed with the planning authority;
- A well planned and executed delivery programme avoiding peak traffic on typical days will be utilised;
- Ensure a strict protocol for HGV drivers to follow the designated haulage route and timing restrictions are implemented and monitored by the contractor with the suppliers and deliveries;
- Adequate parking will be provided on site for both employees and visitors at the temporary compounds during the construction and decommissioning phases and at the EirGrid substation and IPP substation compounds for the operational phase to ensure parking will not occur on the public road;
- The construction phase of the wind farm will require the delivery of turbine components, concrete, steel and aggregate to the site via the public road network. The key timing periods when use of the public road network will be at its peak for residents is between 08.15 and 09:15. It is proposed to allow routine deliveries such as aggregate into the site outside of peak hours to minimise any impact on surrounding network peak traffic. The initial early morning delivery trucks will exit the wind farm site empty with the run of traffic, but they will be delayed from delivering again until the peak hour has fully subsided as instructed and coordinated by the contractor once appointed.
- To mitigate the impact of the delivery of large turbine components, the deliveries will be undertaken under garda and traffic management escort during off-peak (i.e. night-time) hours. The arrangement of the appropriate abnormal load licenses will be obtained by the appointed contractor. The appointed contractor will liaise with the relevant road's authorities and an Garda Síochána on the delivery schedule for the oversized loads.
- A road sweeping vehicle will be provided as required to remove any mud that may be deposited on the local road in the vicinity of the site access.
- The nuisance of dirt on the local road network during wet weather and dust during dry weather is an area of identified concern where the primary mitigation measure for this impact will be in the form of a proprietary construction vehicle wheel wash facility to be installed on the exit of the wind farm site as detailed within the Traffic Management Plan (TMP) section 4.8 attached in Appendix 16.A.
- All roads will be reinstated expeditiously on completion of the construction works. Roads will be reinstated to their pre works condition or better and to the satisfaction of the roads authority.

- All construction workers will receive a comprehensive site induction which will include a section on traffic management and clear guidance on the routes to be used/ not used to access the site.
- 24 hour emergency contact phone number will be maintained for the duration of the construction works and the number will be noted on temporary signage at each works area (for the grid connection) and the site entrance for the wind farm site.

The Traffic Management Plan (see Appendix 16A) details the proposed general traffic management and control procedures.

16.7.1.1 General

- Excavation, backfilling and reinstatement of trenches in roads will be completed within the shortest possible time frame.
- The planning of road closures and traffic diversions will ensure that reinstatement of the trenches, joint bays, launch and reception pits are completed and all temporary traffic measures (lane and road closures/diversions) are removed in progressive stages.

16.7.1.2 Access for Residents (along the proposed grid route)

- The appointed contractor shall make provision for safe access at all times to private residences in proximity to the construction works.
- Where it is required that trenches in the public road are left open overnight in proximity to a residence, steel plates or stone will be used to bridge the trench and allow access to residential properties. This will be done in co-operation / communication with local residents in the area.
- The appointed contractor will inform local residents of the programme of works in their area and local access will be catered for where possible.

16.7.1.3 Access to Commercial/Business Properties

- Where applicable, the appointed contractor shall make provision for safe access to commercial and business premises for employees, customers, the general public and for deliveries.

16.7.1.4 Pedestrian Safety

- The appointed contractor shall ensure that throughout the course of the works its operations do not put pedestrians at risk.
- Where the construction work necessitates the restriction, partial closure or closure of a pedestrian walkway where they may exist, the appointed contractor shall provide adequate safety barriers, signposts, lighting and temporary surfacing (if applicable) to ensure safe passage for pedestrians.
- With respect to pedestrians, the appointed contractor shall refer to and observe the requirements of the updated version of the Traffic Signs Manual 2019 titled Temporary Traffic Measures and Signs for Roadworks, or nay guidance that supersedes this.

16.7.2 Operational Phase

Due to the relatively low operational traffic associated with operations and maintenance of the proposed wind farm, effects on traffic and transport are envisaged to be imperceptible. As such, no mitigation measures are proposed for the operation and maintenance of the wind farm and associated generated recreational traffic. In the event that a turbine component requires replacing during operations, the current Turbine Delivery Route will be re-assessed as road conditions may change over time. Any movement of large components during the operational period will be agreed with the local authority prior to delivery.

16.7.3 Decommissioning

On decommissioning of the wind farm, a decommissioning plan will be prepared and agreed with the local authority. The plan will be implemented to minimise the effects on traffic and transport during the decommissioning phase. The decommissioning phase will employ similar mitigation measures as the construction phase. As the decommissioning phase is envisaged to be over 35 years from commissioning, a new TMP will be undertaken to take account of any changes to the road network and legal requirements in the future.

16.8 Residual Effects

Residual effects section outlines the degree of environmental change that will occur after the proposed mitigation measures have taken effect.

16.8.1 Construction Phase

After mitigation, the proposed **construction** phase will have **non-significant to moderate, temporary to short term reversible negative impacts** on the surrounding transport network.

Table 16-13: Residual Construction Traffic Effects

EFFECT (PRE-MITIGATION)	PRE-MITIGATION RATING	MITIGATION MEASURES	RESIDUAL EFFECT (POST-MITIGATION)					
			QUALITY OF EFFECT	SIGNIFICANCE	SPATIAL EXTENT	DURATION	OTHER RELEVANT CRITERIA	LIKELIHOOD
CONSTRUCTION								
Wind Farm	Moderate, Negative, Local and Short-Term	Traffic Management Plan (**Appendix 16A**), Pre and Post Construction Structural Surveys. Road Sweeping Vehicle	Negative	Slight to Moderate	Local	Short Term	Direct & Reversible	Likely
HGV Routes	Moderate, Negative, Local and Short-Term	HGV Driver Protocol, Delivery Schedule	Negative	Slight to Moderate	Local	Temporary	Direct & Reversible	Likely
Turbine Delivery Route	Negative, Slight, Regional and Temporary	HGV Driver Protocol, Delivery Schedule	Negative	Slight	Regional	Temporary	Direct & Reversible	Likely
Grid Route	Moderate to Significant, Local, Negative and Temporary	Road Signage, Maintaining Local Access, Stop-go System	Negative	Moderate to significant	Local	Temporary	Direct & Reversible	Likely
Potential Road Damage	**Negative, Not Significant, Temporary, and Local**	Pre and Post Construction Structural Surveys, Repairs, Road Sweeping Vehicle	Negative	Not significant	Local and Regional	Temporary	Direct & Reversible	Likely

16.8.2 Operational Phase

As the effects form traffic during the operational phase will be imperceptible, there will be no significant residual effects during this stage.

Table 16-14: Residual Operational Traffic Effects

EFFECT (PRE-MITIGATION)	PRE-MITIGATION RATING	MITIGATION MEASURES	RESIDUAL EFFECT (POST-MITIGATION)					
			QUALITY OF EFFECT	SIGNIFICANCE	SPATIAL EXTENT	DURATION	OTHER RELEVANT CRITERIA	LIKELIHOOD
OPERATIONAL								
Wind Farm	Long-term, Neutral, Local and Imperceptible	None needed	Neutral	Imperceptible	Local	Long-Term	Direct	Likely
Turbine Delivery Route	Not significant, Negative, Regional and Occasional and Brief	Replacement blades, where needed, will see the establishment of a temporary turbine delivery route	Negative	Not Significant	Regional	Occasional & Brief	Direct & Reversible	Unlikely
Grid Route	Negative, Imperceptible, Occasional Brief and Unlikely impact on the transport network	None needed	Negative	Imperceptible	Local	Occasional & Brief	Direct	Unlikely

16.8.3 Decommissioning Phase

As indicated in the table below, the post-mitigation effects of the decommissioning works are expected to be **slight, temporary negative impacts** on the surrounding transport network.

Table 16-15: Residual Decommissioning Traffic Effects

EFFECT (PRE-MITIGATION)	PRE-MITIGATION RATING	MITIGATION MEASURES	RESIDUAL EFFECT (POST-MITIGATION)					
			QUALITY OF EFFECT	SIGNIFICANCE	SPATIAL EXTENT	DURATION	OTHER RELEVANT CRITERIA	LIKELIHOOD
DECOMMISIONING								
Wind Farm	**Temporary, Slight and Negative**	A new Traffic Management Plan will be developed	Negative	Slight	Localised	Temporary	Direct and Indirect	Definite
Turbine Removal Route	**Temporary, Slight and Negative**	Decommissioning of the wind farm will see the turbine blades cut on site to allow easier removal	Neutral	Imperceptible	Localised	Temporary	Indirect Reversible	Unlikely
Grid Route	**Temporary, Slight and Negative**	*Grid route will be maintained as part of the national grid*	Neutral	Imperceptible	Localised	Temporary	Direct	Likely

16.1 Cumulative Impacts

The predicted future baseline traffic volumes are on the basis of TII's predicted high sensitivity growth scenario. This high sensitivity growth scenario includes for other proposed development generated traffic volumes on the surrounding local road network.

A list of cumulative projects is set out in Chapter 1 of this EIAR. A search within 5km of the proposed development site within the last 10 years identified 12 sizable developments yet to be constructed or in the planning system. Six multiple housing developments (five in Thurles and 1 in Roscrea), 1 incomplete powerline (Borrisoleigh to Thurles), one solar farm and substation (Rahelty 5km southeast), a community health care centre and pharmacy (Thurles), one staff welfare compound (Birchgrove – 23km southwest), and a multifunctional spectator stand for a sports facility with three pitches in Thurles. One multi-housing development (86 units) in Thurles was permitted in Feb 2024, another in Feb 2023 (26 units) and a third in Sept 2022 (63 dwellings). One multi-housing planning application in Thurles is still under consideration. These are all located at least 3km south and downstream of the proposed wind farm site. As construction of the proposed windfarm is not expected to begin until late in 2028, the distance and timing of the construction works for these permitted projects will result in no likely significant cumulative effects with the proposed windfarm.

The only potential development where cumulative negative traffic effects could be reasonably foreseen is the incomplete powerline which transects the proposed Brittas WF development site. This c.6.94 km of incomplete powerline requires either new poles to be erected or that existing poles be strung. The structures to be erected comprise either twin or predominately single timber pole structures strung or to be strung with a twin line. This development has been approved and is likely to be constructed prior to the Brittas Wind Farm obtaining planning permission.

Brittas Wind Farm Ltd will make a separate planning application to re-route the section of this powerline which passes through the wind farm site. Construction of this re-routing will take place concurrently with the wind farm construction and prior to the wind farm becoming operational. Given the location and required transport infrastructure, it is not likely to have any cumulative negative impacts on the surrounding transport network.

During the operational phase, due to the low numbers of traffic associated with operations and maintenance, it is unlikely that perceptible cumulative effects on traffic and transport will occur in combination with other plans or projects.

It is therefore predicted that there will be no significant cumulative traffic volumes on the surrounding local road network as a result of the proposed development.

16.2 References

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