



Technical Appendix 5: Construction Traffic Management Plan

Gortnalug 110kV Substation and Grid Connection

24/03/2026



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EXECUTIVE SUMMARY

- 5.1 This CTMP outlined the overall framework for managing the movement of construction and delivery traffic to and from the Proposed Development, as well as considering the type of traffic it will generate. The traffic assessment for the operational and decommissioning (if required) phase was also considered.
- 5.2 The CTMP considered parts of the Transport Infrastructure Ireland (TII) Guidance which are suitable for this project, namely to include details of the existing conditions and issues relating to the Proposed Development.
- 5.3 Impacts from the operational phase of the site, consisting of between 10-15 LGVs per year, will be below the threshold for a Traffic Impact Assessment, as stated in the TII's Traffic and Transport Assessment Guidelines.
- 5.4 Increased volumes of traffic will be generated by the Proposed Development during the construction period. However, the overall volumes of traffic generated each day by the Proposed Development and Adjacent Developments during the construction period are considered to be quite low. During the anticipated 14 month construction period, a total of 2458 HGV deliveries will be made to the Application Site. During the peak construction period, it is anticipated that there will be an approximate maximum of 20 daily HGV deliveries. The increase from the Adjacent Developments 1900 HGV deliveries is not considered to be a significant increase and the peak daily impact remains the same, although the peak delivery period will last approximately four weeks extra.
- 5.5 The Galway County Development Plan outlines standard visibility splay dimensions for Local Secondary Roads at 90m x 2.4m, however visibility splays of 160m x 2.4m were agreed as part of the (**Planning Ref: 2361049**). Therefore, for completeness, these have been retained for this application. The visibility splay requires remedial works that is under previous consent for the adjacent solar farm, this includes the trimming of 227m of hedgerow.
- 5.6 Swept path analysis shows that the existing access requires 23m of hedgerow removal, as well as three trees and fence posts, in order to be suitable for the largest construction vehicles to access the Proposed Development.
- 5.7 A dedicated person will be appointed for the management of the delivery booking system during the construction stage.
- 5.8 The Applicant will conduct a pre- and post-construction condition survey on the L4031, 200m either side of the access point, with the Applicant liable to repair any damage to the public roads attributed to the construction of the Proposed Development. This should be conditioned as part of any planning consent.

5.9 The CTMP sets out a variety of specific mitigation measures that will be implemented during construction that will minimise the impact of the construction traffic on the environment and local communities; these include:

- Limitations on working times and HGV scheduling;
- Site security and signage; and,
- Measures to control emissions of dust and other airborne contaminants.

5.10 This Construction Traffic Management Plan conforms to the policies and objectives of the Galway County Development Plan 2022-2028, and the Design Manual for Roads and Bridges published by the Transport Infrastructure Ireland (TII).

INTRODUCTION

Background

- 5.11 Neo Environmental Ltd has been appointed by Renewable Energy Systems on behalf of Ballydonagh Solar Limited (the “Applicant”) to undertake a Construction Traffic Management Plan (CTMP) for a new 110kV Air insulated substation (AIS) and grid connection with associated infrastructure (the “Development on lands at Ballydonagh, Kiltormer, Co. Galway, Ireland (the “Application Site”).
- 5.12 The method of connection to the national grid will be a new 110 kV AIS Loop-in station (Gortnalug) with a ‘Loop-in/Loop out’ connection into the existing Ennis-Agannygal-Shannonbridge 110kV circuit. Ballydonagh Solar Limited accepted the Eirgrid Connection Offer (P602-CA-OL) in December 2025.
- 5.13 The Proposed Development comprises a 110kV AIS and associated grid connection infrastructure to facilitate the connection of the permitted Ballydonagh Solar Farm under Ref 2361049, as amended under Ref 25/61903 and Ballydonagh Solar Farm Extension under Ref 2461749, as amended under 26/60009, to the national grid. The applicant is seeking a ten-year permission from the date of consent of the 110kV Substation.
- 5.14 Please see **Figure 300101338-DR-100** Overall Site Layout for the layout of the Proposed Development.

Development Description

- 5.15 The Proposed Development comprises a 110kV Air Insulated loop in/ loop out electricity substation (11,300m²) consisting of EirGrid control building (25m x 18m), customer control building (23.1m x 10.8m), 110kV bay arrangement, busbar infrastructure foundations, transformer, lightning masts, telecoms pole, CCTV, lighting columns, capacitor bank, reactor bank, harmonic filter, rural supply kiosk, house transformer, neutral earth resistor, resistor, stand by generator, compound roads, drainage, parking and hardstanding, palisade fence and gates.
- 5.16 The grid connection will consist of the removal of c.248m of the existing overhead line and poles from Ennis-Agannygal-Shannonbridge 110kV circuit and the erection of two new towers (16m height) and c.975m of double 110kV underground circuit and tracks into the proposed substation.
- 5.17 Remaining associated infrastructure consists of entrance; perimeter fencing, access tracks (1907m) (upgraded and localised widening) with water crossings; deposition areas (4300m³); temporary construction compound; and all associated and ancillary site development, excavation, construction, landscaping and reinstatement works and the provision of site drainage.

Site Description

- 5.18 The area of the proposed Development (the “Application Site”) lies at an elevation of approximately 76.51 – 96.56m AOD and covers a total area of c. 34.8 hectares. The proposed substation area is c.2.76acres and lies at an elevation of 82.2 – 87.4m AOD,. The site lies within the boundary of the consented Ballydonagh Solar Farm. The approximate Irish Grid Reference points (ITM) of the proposed substation are X 583891 and Y 720775.
- 5.19 The site comprises 13 field parcels of agricultural land, the site is currently being used for pastoral farming. Predominantly improved grassland with pockets of wet grassland and scrub and an existing track and is bound by a mixture of trees, hedgerows and post-and-wire fencing and roadway. Access will be from the L4301 which is the same entrance point as the consented Ballydonagh Solar Farm (PA Ref: 23/61049).
- 5.20 The surrounding context is predominately agriculture with pockets of forestry and peatland and punctuated by individual properties, farmsteads and ribbon development associated with the minor and regional road network. Fields are typically small to medium in scale and similar in character to the Application Site lands.
- 5.21 The existing OHL Ennis- Agannygal-Shannonbridge 110kV circuit is located in the southeast and southwest fields of the application site and runs in a south westerly direction.

Scope of the Assessment

- 5.22 The purpose of this CTMP report is to provide a framework for managing the movement of traffic to and from the Application Site, and to minimise the impact on the local road network during the construction period of the Proposed Development. The potential impact of traffic during the operational period is also assessed.
- 5.23 This CTMP will provide details of:
- Traffic route identification and assessment;
 - Swept path analysis; and
 - Construction traffic management procedures.
- 5.24 This report is supported by the following appendices:
- Appendix 5A: Figures
 - Figure 5.1: Proposed Haul Route

Statement of Authority

- 5.25 This Construction Traffic Management Plan has been produced by Michael McGhee, Tom Saddington and Oliver Henderson of Neo Environmental Ltd. Having completed a civil engineering degree in 2012, Michael has worked on over 1.5GW (approximately 50 individual sites) of solar farm Construction Traffic Management Plans across the UK and Ireland, as well as more detailed transport statements for major developments.
- 5.26 Tom has an undergraduate degree in Bioengineering and graduated with an MSc in Environmental and Energy Engineering in January 2020. He has been working on various technical assessments for numerous solar farms and SID applications in Ireland and the UK.
- 5.27 Oliver graduated with an undergraduate degree in Geography in 2021. He has previously worked for a Geo-Environmental consultancy before moving to Neo Environmental Ltd in 2025.

LEGISLATION

5.28 The assessment has been collated and considered based on the following legislative and guidance context:

- Spatial Planning and National Roads Guidelines for Planning Authorities¹;
- Transport Infrastructure Ireland, Traffic and Transport Assessment Guidance²;
- Design Manual for Roads and Bridges³; and
- TII Publications, online suite of Standards and Technical publications related to national road and light rail networks in Ireland⁴.

Spatial Planning & National Roads Guidelines for Planning Authorities

5.29 The Spatial Planning and National Roads Guidelines for Planning Authorities document (“the Spatial Planning and Roads Guidelines”) sets out planning policy considerations in relation to development affecting national primary and secondary roads.

5.30 Section 3.4 of the Spatial Planning and Roads Guidelines ‘Traffic and Transport Assessments (TTA)’ describes a TTA as “a methodology used to assess the transport impacts of a proposed development, incorporating any subsequent measures necessary to ensure roads and junctions and other transport infrastructure in the vicinity of the development remain fit for purpose...”

5.31 The Spatial Planning and Roads Guidelines indicate the following:

- *“The TTA should be written as an impartial assessment of the traffic impacts of the proposed development and it should not be seen to be a “best case” promotion of the development. All impacts, whether positive or negative, should be recorded.*
- *The level of detail included within the TTA should be sufficient to enable the planning authority and those making observations on the proposed development to follow all*

1 Department of Environment, Community and Local Government (2012) Spatial Planning and National Roads Guidelines for Planning Authorities. Available at: <http://www.environ.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownload%2C29322%2Cen.pdf>

2 Transport Infrastructure Ireland (2014) Traffic and Transport Assessment Guidelines. Available at: <http://www.tii.ie/tii-library/land-use-planning/Transport-Assessment-GuidelinesMay2014.pdf>

3 Transport Infrastructure Ireland, The Design Manual for Roads and Bridges (2013). Found Here: <http://www.tiipublications.ie/library/GE-INT-01003-02.pdf>

4 Transport Infrastructure Ireland, TII Publications, online suite of Standards and Technical publications related to national road and light rail networks in Ireland, Found here <http://www.tiipublications.ie/>

stages of the assessment process, to know what assumptions have been made and to arrive at a similar set of results and conclusions.

- *The TTA should assist the developer and local planning authority in deciding if any adverse traffic impact identified is significant enough to require revision of the development proposal or whether the proposed response measures are sufficient to mitigate the impact of the development on the road network to acceptable levels. This is the fundamental test and is often regarded as the main purpose of a Traffic and Transport Assessment as related to road infrastructural considerations.”*

5.32 Where proposed developments have the potential to impact upon national and non-national roads, a TTA should be submitted in support of the planning application.

Traffic & Transport Assessment Guidance

5.33 The Traffic and Transport Assessment Guidance produced by the Transport Infrastructure Ireland (“the TII Guidance”) aims to provide a framework to promote an integrated approach to development, which ensures that proposals promote efficient use of investment in transportation infrastructure, reduce travel demand and promote road safety.

5.34 The (“the TII Guidance”) states:

“A Traffic and Transport Assessment is a comprehensive review of all the potential transport impacts of a proposed development or re-development, with an agreed plan to mitigate any adverse consequences.

It is essential that the developer or promoter should provide a full and detailed assessment of how the trips to and from the development might affect the transport network. The assessment should be an impartial description of the impacts of the proposed development and should outline both its positive and negative aspects.”

5.35 The trip generation from the operational phase of the Proposed Development will not reach the numbers required to justify a full Traffic & Transport Assessment. As per the TII Guidance, a TTA is only necessary when traffic to and from the development exceeds 10% of the traffic flow on the adjoining road or 5% where congestion exists or the location is sensitive.

5.36 This CTMP will consider elements of the TII Guidance which are relevant to this project, namely, to include details of the existing conditions and issues relating to the Proposed Development.

Review of County Development Plan Policy

Galway County Development Plan 2022-2028 ⁵

- 5.37 The Galway County Development Plan 2022 – 2028 (CDP) provides a clear direction and focus for development over the development plan period, while setting the scene for ongoing growth in the context of the region and country as a whole.
- 5.38 Chapter 6 ‘Transport and Movement’ contains policies in relation to transport across the county, with much of the emphasis on promoting sustainable transport measures for new developments. These policies are not relevant to this type of development as transport during the operational stage will be minimal.
- 5.39 Chapter 15 ‘Development Management Standards’ outlines standards and guidelines for access points on public roads. Table 15.3 of the Development Plan outlines the requirements for access onto national, regional roads and local roads These can be found in **Table 5-1**.

Table 5 - 1: Sight Distances required for Access onto National, Regional and Local Roads

Design Speed	100 kmph	85 kmph	70 kmph	60 kmph	50 kmph	40 kmph	30 kmph
Y Distance	215m	160m	120m	90m	70m	50m	35m

⁵ Galway County Council. Galway County Development Plan 2022 – 2028 (As varied), Found at <https://www.galway.ie/en/planning-building/plans-and-strategies/galway-county-development-plan-2022-2028>

TRAFFIC ROUTE IDENTIFICATION AND ASSESSMENT

5.40 This delivery route and subsequent CTMP is based upon information provided by the Applicant as well as a thorough review of the local, regional and national roads in the vicinity of the Application Site.

Site Access

5.41 The Application Site will be accessed from an existing entrance point off the L4301 to the south of the Application Site. Speed signs of 60mk/h were noted on this road. It was observed that vehicles were likely to travel at speeds up to this statutory speed limit due to the road being straight and having good visibility. At the site entrance point, the L4031 contains no carriageway edge or centre markings and is not lit by public lighting. The road is approximately 4.9 metres wide and there are no pedestrian facilities along this section of road, whilst the carriageway appears to be in good condition.

5.42 The County Development Plan outlines standard visibility splay dimensions for Local Roads at 90m x 2.4m, however visibility splays of 160m x 2.4m were agreed as part of the adjacent solar development (**Planning Ref: 2361049**). Therefore, for completeness, these have been retained for this application. The visibility splay requires remedial works that is under previous consent for the adjacent solar farm, see **Figure 106: Site Entrance Visibility Splay of Volume 2**. These visibility splays required 227m of hedgerow to be trimmed.

5.43 Swept path analysis shows that the existing access requires 23m of hedgerow removal, as well as the removal of three trees and relocation of an existing telegraph pole and associated cabling, in order to be suitable for the largest construction vehicles to access the Proposed Development, see **Figure 107: Site Entrance SPA of Volume 2**.

5.44 The Applicant will conduct a pre- and post-construction condition survey on the L4031, 200m either side of the access point (see **Figure 5.1: Appendix 5A**), with the Applicant liable to repair any damage to the public roads attributed to the construction of the Proposed Development. This should be conditioned as part of any planning consent.

Internal Site Tracks

5.45 Additional and upgraded access tracks will be constructed to allow access for the construction, operation and maintenance of the grid substation and associated infrastructure.

5.46 Tracks will measure 5m wide with a 4.0m running width, however, this increases at bends. All new tracks will likely be unpaved and constructed from local stone. Geosynthetic reinforcement or soil stabilisation may be used to reduce the depth of track construction. The surface will be a compacted granular material (crushed rock). Details of the access track construction can be found in the planning drawings (**Drawing Ref: Figure 105 Access track of Volume 2**).

- 5.47 The access tracks will be left in situ after completion of the construction phase, as they will provide:
- Access for the Proposed Development maintenance and repair works; and
 - Access for the Landowner;
- 5.48 The temporary widening area at the site access point for the transformer delivery will be removed after delivery of the transformer, however in the unlikely event that the transformer needs replacing this area will be re-instated during the operational period.

Proposed Haul Route

- 5.49 The proposed haul route has been identified by considering the ability of the route to physically accommodate the required vehicles, in addition to the sensitivity of the route to potential disruption by the movements of traffic to and from the site.
- 5.50 The abnormal load route survey was carried out by Pell Frischmann, as shown in **Abnormal Indivisible Load Route Survey Report in Volume 3** that has been submitted alongside this CTMP. The vehicles will leave the M6 at Junction 16 and join the N65 heading southeast to Killimor. At Killimor, vehicles will join the L4322 northbound to Attykee. The vehicles will join the L4301 once at Attykee, and travel east via Kiltormer to the site access point. Note the abnormal load is considered an indivisible load and not an extraordinary abnormal load.
- 5.51 For all non-abnormal load deliveries, the haulage route will be from the M6 to the north of the Proposed Development. Haulage vehicles will exit the M6 at Junction 15 (Ballinasloe) onto the R355 and head in a southern direction for approximately 3.4km before taking a right turn onto the L84081. Vehicles will travel along the L84081 for approximately 6.5km before turning left onto the L4301 Kiltormer East that the Proposed Development will be accessed from. The L4301 Kiltormer East will be travelled in an eastern direction for approximately 1.8km before the vehicles take a left hand turn into the Proposed Development's access point.
- 5.52 The above haul route was included as part of the adjacent solar farm application (**Planning Ref: 2361049**).
- 5.53 A map showing the proposed local access route is presented in **Figure 5.1 of Appendix 5A**.
- 5.54 Autotrack analysis was carried out at the site access point for a standard HGV and low loader transport a grid transformer vehicle representing the vehicles that will be used to access the Application Site for the Proposed Development, **Figure 107: Site Entrance SPA of Volume 2**.

Route Assessment

- 5.55 The abnormal load route has been assessed as part of Pell Frischmann's **Abnormal Indivisible Load Route Survey Report in Volume 3** that has been submitted alongside this CTMP.
- 5.56 The HGV route assessment was conducted as a desk-based exercise. Where required, swept path analysis has been conducted using Autotrack software to model the movement of the most onerous load to determine what actions are required to address any issues identified.
- 5.57 As per the specifications provided, the most onerous loads for the purpose of the swept path are the deliveries of the transformers. As part of the swept path analysis, the following vehicle was used:
- Transformer Transport Vehicle of 33.9m in total length
- 5.58 The exact dimensions of this vehicle and turning details can be found on the drawing in **Figure 107: Site entrance SPA of Volume 2**.
- 5.59 The analysis was conducted using Ordnance Survey Ireland (OSI) mapping data and a site-specific topographical survey.
- 5.60 No allowances have been made for the provision of independent driver-operated rear steering. The approved haulage operator for the project will confirm final vehicle types prior to construction works.
- 5.61 The load bearing capacity of any bridges or structures have not been measured, should this be required then this will be completed post consent as part of the detailed CTMP. As noted within the Abnormal Indivisible Load Route Survey, a number of bridges have been highlighted as potentially needing a structural assessment, this will be completed prior to the application for an abnormal load permit and as part of a suitably worded condition post consent.
- 5.62 All traffic management and safety implications will be considered by suitably qualified and experienced personnel when arranging the transit of the loads and can be agreed through a suitably worded condition following planning approval.
- 5.63 **Table 5-1** provides a brief commentary of the route analysis at specific points on the haul route. These points can also be viewed on **Figure 5.1 Appendix 5A** and do not include the points of interest outlined within the Abnormal Indivisible Load Route Survey. All points of interest along the abnormal load route have been assessed within the Abnormal Indivisible Load Route Survey.

Table 5 - 1: Route Analysis

Ref	Manoeuvre Required	Analysis	Remedial Work	Swept Path Drawings
1	Vehicles will need to take a left-hand turn from the L4301 into the existing site entrance.	The existing access will require widening to allow the largest construction vehicles to gain access	Approximately 23m of hedgerow, three trees, one telephone pole and cabling to be relocated.	Figure 107: Site entrance SPA

Summary of Enabling Works

- 5.64 As the proposal requires the slight widening of the existing access point (See **Figure 107: Site entrance SPA**), enabling work will be required for access into the Application Site. This will include topsoil strip and land clearing as well as the relocation of one telephone pole and cabling as well as 23m of hedgerow and three trees.
- 5.65 Remedial work will be required for the construction vehicles to access the site. However, no remedial works will be needed for the visibility splays, as these works will be completed under the consent for the adjacent solar farm (**Planning Ref: 2361049**). This includes 227m of hedgerow trimming.

CONSTRUCTION TRAFFIC MANAGEMENT

Construction Programme

5.66 Construction of the Proposed Development is anticipated to occur over a 14-month period, this is a longer construction period than the Adjacent Developments (Ballydonagh Solar Farm- **Planning Ref: 23/61049** and Ballydonagh Solar Farm Extension – **Planning Ref: 24/61749**) . During this period, there will be a combination of HGVs (for the component and material deliveries) and cars/vans (for construction staff) on site. HGV movements are expected to be the most intense during the first few weeks of construction, reducing in numbers towards the final weeks. Car/van movements are expected to be constant throughout.

5.67 **Table 5-2** shows the estimated amount of deliveries and movements for the main infrastructure.

Table 5 - 2: Estimates HGV Deliveries for construction equipment and infrastructure

	PROPOSED DEVELOPMENT		ADJACENT DEVELOPMENTS		COMBINED	
	ESTIMATED NUMBER OF VEHICLES	MOVEMENTS	ESTIMATED NUMBER OF VEHICLES	MOVEMENTS	ESTIMATED NUMBER OF VEHICLES	MOVEMENTS
Delivery of Substation Materials	35	70	N/A	N/A	35	70
Delivery of Mounting Frames	N/A	N/A	194	388	194	388
Delivery of Modules	N/A	N/A	427	854	427	854
Delivery of Cabinets	N/A	N/A	31	62	31	62
Delivery of Cables	5	10	97	194	102	204
Delivery of Plant Equipment	5	10	194	388	199	398
Delivery of Cable Mast	5	10	N/A	N/A	5	10

Delivery of Gravel Hard Core Material	503	1006	917	1834	1420	2840
Delivery of Fencing/CCTV	5	10	40	80	45	90
Total	558	1116	1900	3800	2458	4916

- 5.68 More visits may be required due to site conditions, weather restrictions, etc., and therefore, these numbers should be treated as a guideline for planning purposes only. In total, the construction of the grid substation is expected to give rise to 558 HGV deliveries over the 14-month construction period. A daily maximum of approximately 15 HGV deliveries (30 HGV movements) is expected.
- 5.69 In total, the construction of the combined developments is expected to give rise to 2458 HGV deliveries over the 14-month construction period, therefore the Proposed Development is only increasing the number of deliveries by 558. A daily maximum of approximately 20 HGV deliveries (40 HGV movements) is expected. This is the same as for the Adjacent Development, although the peak delivery period will last approximately four weeks extra. The increase from the adjacent developments 1900 HGV deliveries is not considered to be a significant increase and the peak daily impact remains the same.
- 5.70 The expected HGV volumes are based on best estimates of trips generated for similar sized substation and grid routes and will be subject to amendments based on local conditions and contractor working practices.
- 5.71 It is noted, however, that the adjacent Ballydonagh and Ballydonagh Extension Solar Farm developments have/will have conditions attached to their planning approval requiring a detailed CTMP to be prepared. This will be agreed with Galway County Council prior to construction commencing. As the detailed CTMPs for each development will have the construction timelines, it is proposed, that a similar condition can be attached to the Proposed Development to allow Galway County Council to coordinate construction activities for each development independently.

Delivery Booking System

- 5.72 On a weekly basis, the Site Manager will evaluate details of the daily profile of deliveries proposed for the upcoming week. Through discussions with hauliers, the Site Manager will ensure that the deliveries are spread out across the week and across the day to minimise any potential disruption.
- 5.73 Deliveries will be checked against the weekly delivery schedule. This will be overseen by the Site Manager to ensure that construction deliveries are managed in an efficient manner, with minimal disruption and delays.

- 5.74 It is proposed that temporary signage would be used to highlight the entrance points to the site and to direct construction traffic to the site via the local and regional roads. The Applicant will provide banksmen to assist with the manoeuvring of delivery vehicles to and from the site, as well as internal site movements.
- 5.75 Hauliers will be required to contact the Site Manager to give an indicative delivery time, to ensure that the delivery space and banksmen are prepared for their arrival on site.
- 5.76 To avoid any vehicles idling, sufficient time will be provided between deliveries to allow for any delays (such as loading/unloading taking longer than expected).
- 5.77 Deliveries will be managed and scheduled to ensure that no vehicles would have to wait on the surrounding road network.

Timing Restrictions

- 5.78 All traffic movements will be carried out between the hours of 07.00 to 19.00 on Monday to Friday and 08.00 to 16.00 on Saturdays. Outside of these times works are limited to:
- Abnormal loads will likely be delivered outside of these times and will be subject to prior approval with the Council;
 - Testing of equipment; and
 - Works required in an emergency where there is the potential of harm or damage to personnel, plant, equipment, or the environment, provided the developer retrospectively notifies Galway County Council of such works within 24 hours of their occurrence.
- 5.79 Deliveries will also be scheduled to avoid peak times where relevant, e.g. avoiding rush hours and after school pick up times.

Temporary Site Construction Compounds

- 5.80 There will also be space within the Application Site for:
- Temporary site facilities (Port-a-Cabin type) to be used for site office and welfare facilities, including welfare facilities with provision for sealed waste storage and removal;
 - Container storage unit(s) for tools and equipment storage;
 - Container storage unit(s) for components and materials;
 - Refuelling compound for construction vehicles and machinery;

- Chemical toilets;
- Adequate parking area for cars, construction vehicles and machinery;
- Designated skips for construction waste; and
- Wheel washing facility.

Construction Parking

- 5.81 It is forecast that there will be approximately 20 staff across the site at any one time during the construction period. This will vary subject to the overall programme of works. It is likely that there will be a degree of vehicle sharing by staff and therefore, less than 20 staff vehicles (estimated maximum at 10 per day at peak construction periods) are expected to arrive on site each day. Labour vehicle sharing will be actively encouraged to reduce vehicular movements.
- 5.82 Upon entrance/exit to and from the Application Site, workers vehicles will report directly to the area of hard standing at the temporary site construction compound. There will be sufficient space for parking and turning. Site opening and closing will be outside of morning and evening peak traffic times, minimising local traffic disruption during busy periods.
- 5.83 No parking will be allowed for construction workers on the public road network in the vicinity of the Application Site. A number of additional unscheduled visits may be required throughout the construction period for site inspections and due to unforeseen circumstances, which is accounted for in the existing car parking plans.

Turning Facilities

- 5.84 The construction compound will be designed to provide adequate space for vehicle manoeuvring and turning, and all HGV deliveries will report here for unloading. The turning areas will ensure that all vehicles will ingress and egress in a forward gear to maintain safety on the public highway.

Site Security

- 5.85 For security and safety purposes, the substation compound will be closed to the general public via security palisade fencing and a locked gate. The palisade fence installed around the compound for security/protection and a concrete post and rail fence to mark the substation boundary at the start of the construction programme and will remain for the duration of the operation.
- 5.86 Access to the construction site during construction hours will be controlled by personnel located at the entrance of the Proposed Substation. All visitors will sign in and out with security. Visitors to the site will be given a Health and Safety site induction, provided with

Personal Protective Equipment, and will remain with an appropriately trained escort at all times.

Operational Period

- 5.87 The operational phase of the substation is anticipated to have negligible trip generation potential with approximately 10-15 Light Goods Vehicles (LGVs) expected every year for scheduled maintenance checks, with additional visits required to attend to remedial issues when necessary. The operational access point will use the same entrance to the site as during the construction period.

Decommissioning Period (If required)

- 5.88 In the unlikely event that decommissioning is required, the number of HGVs required for the decommissioning period will be slightly higher than the construction phase due to the materials not being as neatly packed as when shipped from factory conditions. Whilst the construction phase has a total of approximately 1,620 movements, the decommissioning phase will have a total of approximately 1,782 movements (estimate includes a 10% increase on the construction stage). This increase is not considered to be significant.

MITIGATION

5.89 The impact of the construction of the Proposed Development has been identified as **temporary** in nature and associated with a short construction stage only. It is still important that any impact is minimised as far as possible and, in light of this, the following mitigation measures have been considered:

- A dedicated person will be appointed for the management of the delivery booking system during the construction stage. It will also be this person's duty to make sure haulage companies use the chosen haul route (See **Figure 5.1 Appendix 5A**), without fail.
- The Applicant will conduct a pre- and post-construction condition survey on the L4031, 200m either side of the access point (see **Figure 5.1: Appendix 5A**), with the Applicant liable to repair any damage to the public roads attributed to the construction of the Proposed Development. This should be conditioned as part of any planning consent.
- Traffic movements will be limited to 07:00 - 19:00 on Monday to Friday and 08:00 – 16:00 on Saturdays, unless otherwise agreed in writing with Galway County Council. Deliveries will be scheduled to avoid morning and evening peak hours. This will avoid HGV traffic arriving during the morning peak hours, creating conflict with local residents' commute or school run. Construction personnel will be encouraged to car-pool, or to travel to site in minibuses.
- During the construction phase, clear construction warning signs will be placed on the approach to the access point, in accordance with Chapter 8 of the Traffic Signs Manual. The site entrance point will also be appropriately signed. Access to the construction site will be controlled by onsite personnel and all visitors will be asked to sign in and out of the site by security/site personnel. Site visitors will receive a suitable Health and Safety site induction and Personal Protective Equipment ("PPE") will be worn.
- To control, prevent and minimise dirt on the access route and emissions of dust and other airborne contaminants during the construction works, the following mitigation measures will also be implemented:
 - Wheel washing equipment will be available and used onsite within the construction compound, as required, to prevent the transfer of dirt and stones onto the public highway. All drivers will be required to check that their vehicle is free of dirt, stones and dust prior to departing from the site;

- Wheel washing facilities should consist of a water bowser with pressure washer.
- The bowser will contain water only and no other additives.
- Run-off from this activity will be directed to the drainage situated on the lower boundary of the construction compound.
- Damping down site roads to minimise dust emissions;
- Any soil stockpiles will be covered when left for extended periods of time;
- Drivers will adopt driving practices that minimise dust generation including a 30km/h internal access road speed limit; and,
- Any dust generating activities will be avoided or minimised, wherever practical, during windy conditions.
- Once construction of the Proposed Development is completed, all portacabins, machinery and equipment will be removed and hard standing excavated. The area will be regraded with the stockpiled topsoil to a natural profile, unless the hardstanding is part of the Proposed Development.

SUMMARY

- 5.90 This CTMP outlined the overall framework for managing the movement of construction and delivery traffic to and from the Proposed Development, as well as considering the type of traffic it will generate. The traffic assessment for the operational and decommissioning phases were also considered.
- 5.91 The CTMP considered parts of the TII Guidance which are suitable for this project, namely to include details of the existing conditions and issues relating to the Proposed Development.
- 5.92 Impacts from the operational phase of the site, consisting of between 10-15 LGVs per year, will be below the threshold for a Traffic Impact Assessment, as stated in the NRAs (now TII) Traffic and Transport Assessment Guidelines.
- 5.93 Increased volumes of traffic will be generated by the Proposed Development during the construction period. However, the overall volumes of traffic generated each day by the Proposed Development and Adjacent Developments during the construction period are considered to be quite low. During the anticipated 14 month construction period, a total of 2458 HGV deliveries will be made to the Application Site. During the peak construction period, it is anticipated that there will be an approximate maximum of 20 daily HGV deliveries. The increase from the Adjacent Developments 1900 HGV deliveries is not considered to be a significant increase and the peak daily impact remains the same, although the peak delivery period will last approximately four weeks extra.
- 5.94 The County Development Plan outlines standard visibility splay dimensions for Local Secondary Roads at 90m x 2.4m, however visibility splays of 160m x 2.4m were agreed as part of the adjacent solar development (**Planning Ref: 2361049**). The visibility splay requires remedial works that is under previous consent for the adjacent solar farm, this includes 227m of hedgerow trimming.
- 5.95 Swept path analysis shows that the existing access requires 23m of hedgerow removal, as well as three trees and fence posts, in order to be suitable for the largest construction vehicles to access the Proposed Development. No works are required to the carriageway to enable the construction vehicles to enter the Application Site.
- 5.96 A dedicated person will be appointed for the management of the delivery booking system during the construction stage.
- 5.97 The Applicant will conduct a pre- and post-construction condition survey on the L4031, 200m either side of the access point, with the Applicant liable to repair any damage to the public roads attributed to the construction of the Proposed Development. This should be conditioned as part of any planning consent.

5.98 The CTMP sets out a variety of specific mitigation measures that will be implemented during construction that will minimise the impact of the construction traffic on the environment and local communities; these include:

- Limitations on working times and HGV scheduling;
- Site security and signage; and,
- Measures to control emissions of dust and other airborne contaminants.

5.99 This Construction Traffic Management Plan conforms to the policies and objectives of the Galway County Development Plan 2022-2028, and the Design Manual for Roads and Bridges published by the Transport Infrastructure Ireland (TII).

APPENDICES

Appendix 5A - Figures

- Figure 5.1: Proposed Haul Route



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