Technical Appendix 5: Construction Traffic Management Plan

Colehill 110 kV Substation and Grid Route

20/11/2025

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Contents

EXECUTIVE SUMMARY

5.1 This Construction Traffic Management Plan (CTMP) outlines the overall framework for managing the movement of construction and delivery traffic to and from the proposed Colehilll Substation, as well as considering the type of traffic it will generate. The traffic assessment for the operational and decommissioning phases is also considered.

5.2 The CTMP considered parts of the National Roads Authority Guidance ("the NRA 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 NRAs (now TII) Traffic and Transport Assessment Guidelines.

5.4 Increased volumes of traffic will be generated by the Proposed Substation during the construction period. However, the overall volumes of traffic generated each day by the Proposed Substation during the construction period are considered to be quite low. During the anticipated 12-18-month construction period, a total of 314 HGV deliveries will be made to the Proposed Substation Site. During the peak construction period, it is anticipated that there will be an approximate maximum of 15 daily HGV deliveries.

5.5 The Offaly County Development Plan does not outline standard visibility splay dimensions and splay dimensions were not agreed at the pre-application meeting. Local Roads now have a standard speed limit of 60km/h and using the guidance prescribed within the Design Manual for Roads and Bridges this equates to visibility splays of 90m x 3m. However, at the time of submitting the previously Ballyteige solar consented application (ref: P21/98), the visibility splays of 160m x 3m for Local Roads were to be used and therefore for completeness, these have been retained for this amendment application. The visibility splay is achievable with no remedial works.

5.6 Swept path analysis shows that the existing access requires 6m of hedgerow removal, as well as a small post, in order to be suitable for the largest construction vehicles to access the Proposed Substation. No works are required to the carriageway to enable the construction vehicles to enter the Proposed Substation. The Wood of O Road, which connects the site entrance from the L60051-1 to the Proposed Development is a private road to which the Applicant has access rights. There is no drainage in place at present where the new internal access tracks meet this road and there are none proposed.

5.7 Two pinch points were identified along the haul route, one at the L1025/L60051-1 junction and one along the L60051-1. The works required to ensure the largest construction vehicle can access the Proposed Substation Site include Temporary Road widening with a load bearing surface, temporary hedgerow removal (21m), telegraph pole relocation, permanent widening of road and reduction in gradient approaching crest in road.

5.8 A dedicated person will be appointed for the management of the delivery booking system during the construction stage.

5.9 The Applicant will conduct a pre- and post-construction condition survey on the L60051-1, from the site access point to its junction with the L1025, with the Applicant liable to repair any damage to the public roads attributed to the construction of the Proposed Substation. This should be conditioned as part of any planning consent.

5.10 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.

5.11 This Construction Traffic Management Plan conforms to the policies and objectives of the Offaly County Development Plan 2021-2028, and the Design Manual for Roads and Bridges published by the National Roads Authority (NRA).

INTRODUCTION

Background

5.12 Neo Environmental Ltd have been commissioned by Renewable Energy Systems (RES) Ltd ("the Applicant") on behalf of Ballyteige Solar Limited to undertake a Construction Traffic Management Plan ("CTMP") for a Strategic Infrastructure Development ("SID") Application for a new 110kV Substation to connect into the existing Thornsberry Substation. The Substation, Access Road and Grid Route is situated within the townlands of Ballyteige Little, Wood of O, Corndarragh Derrynagall or Ballydaly, Ardan and Puttaghan, Co. Offaly ("Proposed Development"). The Substation is to facilitate the Ballyteige Solar Farm (PA Ref: 2198) and Derrygrogan Solar Farm (PA Ref: 22378 and ABP-318041-23).

5.13 Please see **Figure 103**, **Volume 2** for the layout of the Proposed Development.

5.14 Ballyteige and Derrygrogan Solar Farms will feed into a new 110kV substation. The method of connection to the national grid for the new substation will be a 110kV tail-fed connection into the existing Thornsberry Substation.

Scope of the Assessment

5.15 The purpose of this CTMP report is to provide a framework for managing the movement of traffic to and from the 110kV Substation ("Proposed Substation") and to minimise the impact on the local road network during the construction period of the Proposed Substation. The potential impact of traffic during the operation and decommissioning periods are also assessed.

5.16 The CTMP is solely for the 110kV substation development only. A Preliminary Traffic Management Plan will assess the impact from the cable and interconnection routes and is provided as **Technical Appendix 6** which will be submitted alongside this report.

5.17 This CTMP will provide details of:

- Traffic route identification and assessment;
- Swept path analysis; and
- Construction traffic management procedures.

5.18 This report is supported by the following appendices:

- Appendix 5A: Figures

– Figure 5.1: Proposed Haul Route

Statement of Authority

5.19 This Construction Traffic Management Plan has been produced by Michael McGhee and Tom Saddington 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.

5.20 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 in Ireland and the UK.

LEGISLATION

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

- Spatial Planning and National Roads Guidelines for Planning Authorities[1];
- National Roads Authority, Traffic and Transport Assessment Guidance[2];
- Design Manual for Roads and Bridges[3]; and
- TII Publications, online suite of Standards and Technical publications related to national road and light rail networks in Ireland[4].

Spatial Planning & National Roads Guidelines for Planning Authorities

5.22 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.

5.23 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…"*

5.24 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 National Roads Authority (2014) Traffic and Transport Assessment Guidelines. Available at: http://www.tii.ie/tii-library/land-use-planning/Transport-Assessment-GuidelinesMay2014.pdf

3 National Roads Authority, 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."*

5.25 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

5.26 The Traffic and Transport Assessment Guidance produced by the National Roads Authority ("the NRA 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.

5.27 The ("the NRA 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."

5.28 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 NRA 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.

5.29 This CTMP will consider elements of the NRA 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

Offlay County Development Plan 2021 - 2027 (CDP) [5]

5.30 The Offlay County Development Plan 2021 – 2027 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.

5.31 Chapter 8 'Sustainable Transport Strategy' contains policies in relation to access and movement the county, with much of the emphasis on promoting sustainable measures for new developments. These policies are not relevant to this type of development as transport during the operational stage will be minimal.

5.32 Chapter 13 'Development Management Standards' outlines standards and guidelines for access points on public roads. There is no specific guidance on access point design, however it states the following with regards to the entrance sight distance:

DMS -97 Safe Sight Distances required for access onto National, Regional and Local Roads

"The following safe sight distances, shall be provided from vehicular entrances on the road network;

- *Local Tertiary Roads: 60 metres;*
- *Local Secondary Roads: 90 metres;*
- *Local Primary Roads: 120 metres;*
- *Regional Roads: 150 metres; and*
- *National Roads: 230 metres.*

As set out by design standards detailed in TII publications, sight distances shall be measured from a point 2.4 metres from the road edge at the proposed access to a point at the near edge of the approaching carriageway. The standard for local roads is at the discretion of the Planning Authority and may be reduced where it would not give rise to a specific traffic hazard."

[5] Offlay County Council. Offlay County Development Plan 2021 – 2027.

TRAFFIC ROUTE IDENTIFICATION AND ASSESSMENT

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

Site Access

5.34 The Application Site will be accessed from an existing entrance point off the L60051-1 to the east of the Application Site. No speed signs were noted on this road; however, a speed limit of 60km/h is standard for a Local 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. The site entrance point is close to St Francis R.C Church and therefore the road has some localised widening. At the site entrance point, the L60051-1 contains no carriageway edge or centre markings and is not lit by public lighting. The road is approximately 6.5 metres wide and there are no pedestrian facilities along this section of road, whilst the carriageway appears to be in good condition.

5.35 The County Development Plan outlines standard visibility splay dimensions for Local Secondary Roads at 90m x 2.4m, however visibility splays of 160m x 3m were agreed as part of the adjacent solar development (**Planning Ref: 2198**). Therefore, 160m x 3m has been used for the site access point. The visibility splay is achievable with no remedial works see **Figure 115: Volume 2.**

5.36 Swept path analysis shows that the existing access requires 6m of hedgerow removal, as well as a small post, in order to be suitable for the largest construction vehicles to access the Proposed Development, see **Figure 112: Volume 2**. No works are required to the carriageway to enable the construction vehicles to enter the Application Site. The Kilbeggan Spur Road, which connects the site entrance from the L60051-1 to the Proposed Development is a private road to which the Applicant has access rights. There is no drainage in place at present where the new internal access tracks meet this road and there are none proposed.

5.37 Two pinch points were identified along the haul route, one at the L1025/L60051-1 junction and one along the L60051-1. The works required to ensure the largest construction vehicle (transformer deliveries) can access the Application Site include; Temporary Road widening with a load bearing surface, temporary hedgerow removal (21m), telegraph pole relocation, permanent widening of road and reduction in gradient approaching crest in road.

5.38 The Applicant will conduct a pre- and post-construction condition survey on the L60051-1, from the site access point to its junction with the L1025 (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

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

5.40 Tracks will measure 4m wide with a 3.5m running width, however, this increases at bends. All new tracks will 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) up to an approximate thickness of 0.3m, dependent on the ground conditions. Details of the access track construction can be found in the planning drawings (**Drawing Ref: 051064-DR-13**).

5.41 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;
- Access for the Landowner; and
- Access for decommissioning of the Proposed Development.

5.42 Once the grid substation is decommissioned, unless required by the landowner or ESB and agreed with the council, all new access tracks will be removed.

Proposed Haul Route

5.43 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.

5.44 It is anticipated that the haulage route will be from the M6 to the northwest of the Proposed Development. Haulage vehicles will exit the M6 at Junction 5 (Tullamore) onto the N52 and head southwards for approximately 8km before taking a left turn onto the L1024. After approximately 0.3km they will then take a right hand turn on to Puttaghan Road and follow this road for a further 0.25km approximately, before turning left onto the L1025. Vehicles will follow the L1025 in a northwest direction for approximately 4.5km before turning right onto the L60051-1 and approximately travel a further 0.8km before taking a right hand turn into the site access point. A map showing the proposed local access route is presented in **Figure 5.1: Appendix 5A**.

5.45 The above haul route was included as part of the adjacent solar farm application (**Planning Ref: 2198**).

5.46 A map showing the proposed local access route is presented in **Figure 5.1 of Appendix 5A**.

5.47 Autotrack analysis was carried out at a junction on the haul route for a low loader transport a grid transformer vehicle representing the largest vehicle that will be used to access the Application Site for the Proposed Development **(Figure 110 - 112: Volume 2).**

Route Assessment

5.48 This 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.

5.49 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 24.2m in total length

5.50 The exact dimensions of this vehicle and turning details can be found on the drawing in **Figure 110 -112 of Volume 2.**

5.51 The analysis was conducted using Ordnance Survey Ireland (OSI) mapping data and a site-specific topographical survey.

5.52 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.

5.53 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. It is not anticipated that the tonnages of the transformer delivery will meet the requirements of an Exceptional Abnormal Load.

5.54 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.

5.55 **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.**

Table 5 - 1: Route Analysis

Ref	Manoeuvre Required	Analysis	Remedial Work	Swept Path Drawings
1	Vehicles will need to take a right-hand turn onto the L60051-1	The existing junction requires widening to allow for the largest	Temporary load bearing surface including 6N and	Figure 110: Volume 2

	(Wood of O) from the L1025.	construction vehicles to turn at this junction.	geogrid, 21m of temporary hedgerow removal and relocation of two telegraph poles. See **Figure 107: Volume 2**.	
2	Vehicles will continue along the L60051-1 towards the Application Site.	The gradient of the existing road at the bridge is too steep to allow for the largest vehicles to continue along the L60051-1 at this point.	Permanent road widening to be proposed with 6N and geogrid. See **Figure 108: Volume 2.**	**Figure 111: Volume 2**
3	Vehicles will need to take a right-hand turn from the L60051-1 into the existing site entrance.	The existing access will require widening to allow the largest construction vehicles to gain access	6m of hedgerow and a post removed.	**Figure 112 Volume 2**

Summary of Enabling Works

5.56 As the proposal requires the slight widening of the existing access point (See **Figure 115: Volume 2**), enabling work will be required for access into the Application Site. This will include the removal of a small post as well as 6.0m of hedgerow. Further works are required at two pinch points which includes:

- Permanent road widening to reduce the gradient at the crest of the road;
- Temporary load bearing surface;
- Temporary removal of 21m of hedgerow;
- Reducing gradient approaching crest of L60051-1; and
- Telegraph pole relocation.

5.57 No remedial work will be required for the construction vehicles to access the site or for achieving the visibility splays.

CONSTRUCTION TRAFFIC MANAGEMENT

Construction Programme

5.58 Construction of the Proposed Substation is anticipated to occur over a 12-18-month period. 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.

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

Table 5 - 1: Estimates HGV Deliveries for construction equipment and infrastructure

TRANSPORT	ESTIMATED NUMBER OF VEHICLES	MOVEMENTS
Delivery of Substation Materials	35	70
Delivery of Cables	5	10
Delivery of Plant Equipment	5	10
Delivery of Gravel Hard Core Material	264	528
Delivery of Fencing	5	10
Total	**314**	**628**

5.60 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 314 HGV deliveries over the 12-18-month construction period. A daily maximum of approximately 15 HGV deliveries (30 HGV movements) is expected.

5.61 The expected HGV volumes are based on best estimates of trips generated for similar sized substations and will be subject to amendments based on local conditions and contractor working practices.

Delivery Booking System

5.62 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.

5.63 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.

5.64 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.

5.65 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.

5.66 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).

5.67 Deliveries will be managed and scheduled to ensure that no vehicles would have to wait on the surrounding road network.

Timing Restrictions

5.68 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; 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 Offaly County Council of such works within 24 hours of their occurrence.

5.69 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 Compound

5.70 The temporary construction compound and access track will consist of:

- 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

5.71 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.

5.72 Upon entrance/exit to and from the Proposed Substation, 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.

5.73 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

The construction compound has been 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

5.74 For security and safety purposes, the Proposed Substation will be closed to the general public via security deer fencing and a locked gate. The security deer fence installed around the perimeter of the substation will be erected at the start of the construction programme and will remain for the duration of the operation.

5.75 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

5.76 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.

MITIGATION

5.77 The impact of the Proposed Substation has been identified as **temporary** in nature and associated with 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 L60051-1, from the site access point to its junction with the L1025 (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 Substation. 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 Offaly 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 Substation.

SUMMARY

5.78 This CTMP outlined the overall framework for managing the movement of construction and delivery traffic to and from the Proposed Substation, as well as considering the type of traffic it will generate.

5.79 The CTMP considered parts of the NRA Guidance which are suitable for this project, namely to include details of the existing conditions and issues relating to the Proposed Development.

5.80 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.

5.81 Increased volumes of traffic will be generated by the Proposed Substation during the construction period. However, the overall volumes of traffic generated each day by the Proposed Substation during the construction period are considered to be quite low. During the anticipated 12-18-month construction period, a total of 314 HGV deliveries will be made to the Proposed Substation Site. During the peak construction period, it is anticipated that there will be an approximate maximum of 15 daily HGV deliveries.

5.82 The Offaly County Development Plan does not outline standard visibility splay dimensions and splay dimensions were not agreed at the pre-application meeting. Local Roads have a standard speed limit of 60km/h and using the guidance prescribed within the Design Manual for Roads and Bridges this equates to visibility splays of 90m x 3m. However, the previously consented visibility splays of 160m x 3m are to be used. The visibility splay is achievable with no remedial works.

5.83 Swept path analysis shows that the existing access requires 6m of hedgerow removal, as well as a small post, in order to be suitable for the largest construction vehicles to access the Proposed Substation. No works are required to the carriageway to enable the construction vehicles to enter the Proposed Substation. The Wood of O, which connects the site entrance from the L60051-1 to the Proposed Substation is a private road to which the Applicant has access rights. There is no drainage in place at present where the new internal access tracks meet this road and there are none proposed.

5.84 Two pinch points were identified along the haul route, one at the L1025/L60051-1 junction and one along the L60051-1. The works required to ensure the largest construction vehicle can access the Application Site include; Temporary Road widening with a load bearing surface, temporary hedgerow removal (21m), telegraph pole relocation, permanent widening of road and reduction in gradient approaching crest in road.

5.85 A dedicated person will be appointed for the management of the delivery booking system during the construction stage.

5.86 The Applicant will conduct a pre- and post-construction condition survey on the L60051-1, from the site access point to its junction with the L1025, 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.

5.87 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.

5.88 This Construction Traffic Management Plan conforms to the policies and objectives of the Offaly County Development Plan 2021-2028, and the Design Manual for Roads and Bridges published by the National Roads Authority (NRA).

APPENDICES

Appendix 5A - Figures

- Figure 5.1: Proposed Haul Route

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