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PROVISIONAL TRAFFIC MANAGEMENT PLAN

PROPOSED SOLAR FARM ON LAND AT FRANCIS LANE, WREXHAM

Contents

1.0	Introduction.....	3
2.0	Traffic Management Information.....	3
2.1	Construction vehicle details	3
2.2	Public Road Cleanliness	6
2.3	Additional Controls.....	6
2.4	Warning Signs	6
2.5	Storage	6
2.6	Health and Safety	6
2.7	Drainage	6
2.8	Construction Compound/Site Details.....	7
3.0	Vehicle Route Information	7
3.1	Proposed Route for construction vehicles	7
4.0	Conclusion	9

1.0 Introduction

This Provisional Traffic Management Plan (PTMP) accompanies an application for planning permission for a 4.61 MWp solar farm and associated development (the Proposals) on land off Francis Lane, Wrexham (the Site). The application is made by TGC Renewables Ltd (TGC).

The purpose of this PTMP is to provide details of how construction and operation traffic associated with the Proposals would be managed. This PTMP details the vehicle numbers associated with the Proposals, taking a 'worst case scenario' in terms of timescales associated with the increased numbers of vehicles visiting the Site, impact on the local road network and total vehicle numbers. It is also assumed that the Proposals would be built entirely separately from the scheme at Bryn Lane, although in reality there would likely be reduced numbers on each scheme if they were built at the same time.

The scope of this PTMP includes access and parking arrangements for contractors and visitors to the Site, as well as arrangements for the delivery and removal of construction materials and consideration of the narrow roads on the approach to the Site.

During the construction period the following main areas of activity are envisaged:

- Site preparation and marking out the positioning of the Proposals on the Site;
- Erecting the security fence;
- Construction of access roads and substation areas;
- Affixing the frames onto the ground;
- Affixing the panels to the mounting frames;
- Cable works;
- Installation of the inverter and transformer cabinets; and
- Planting of approved landscaping works.

During the operation period, one visit per month by a van or similar sized vehicle is anticipated.

2.0 Traffic Management Information

2.1 Construction vehicle details

Description	Vehicle type (up to UK standard Long Rigid Truck)	Estimated number of vehicles
Temporary office/stores and welfare facilities	HGV	10
Generator	HGV	1
Excavator	HGV	2
Cranes (3)	Self-drive	3
Pile hammer	HGV	2
Readymix Cement	Cement mixer	7
Aggregates for access tracks and foundations	Aggregate Truck	27
Fencing	HGV	10
Cabling	HGV	18
PV Panels	HGV (at 300 modules per HGV)	48

Description	Vehicle type (up to UK standard Long Rigid Truck)	Estimated number of vehicles
Mounting Frames	HGV (at 125kW per HGV)	37
Inverters, transformer, comms buildings, switchgear housing	HGV	8
Substation	HGV	1
Temporary fences and safety equipment	HGV	10
Waste containers and removal	Waste trucks	16
Workers and staff travelling to site	Minibus and cars (est. six per day)	504
Total number of Vehicles		704
Total number of Movements		1,408

Table 1: Estimated number of vehicles (one vehicle equates to two movements)

Week	Principal Activity	Number of Delivery Vehicles	Number of Workers' Vehicles	Number of Movements
1	Site establishment	29	36	130
2	Fencing and ducting	18	36	107
3	Access Roads	13	36	106
4	Fencing ; frame supports	12	36	99
5	Fencing; frame supports	13	36	96
6	Frame support module installation	13	36	97
7	Module Installation	15	36	97
8	Module Installation Inverters & Transformers	13	36	102
9	Module Installation	12	36	97
10	Module Installation	17	36	96
11	AC installation	11	36	94
12	Contingency	0	36	72
13	Test & Commissioning	14	36	100
14	Off Hire & reinstatement	21	36	114
Total		199	504	1,407

Table 2: Principal Construction Activity and associated vehicle numbers (long rigids and workers)

Figure 1: Vehicles Per Week

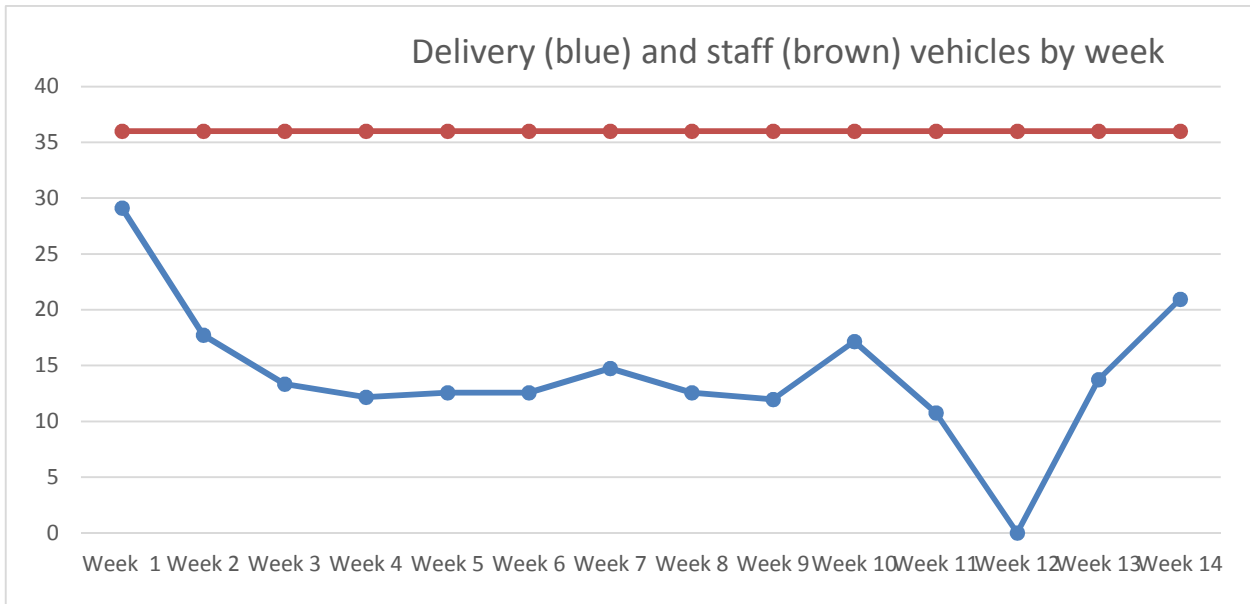
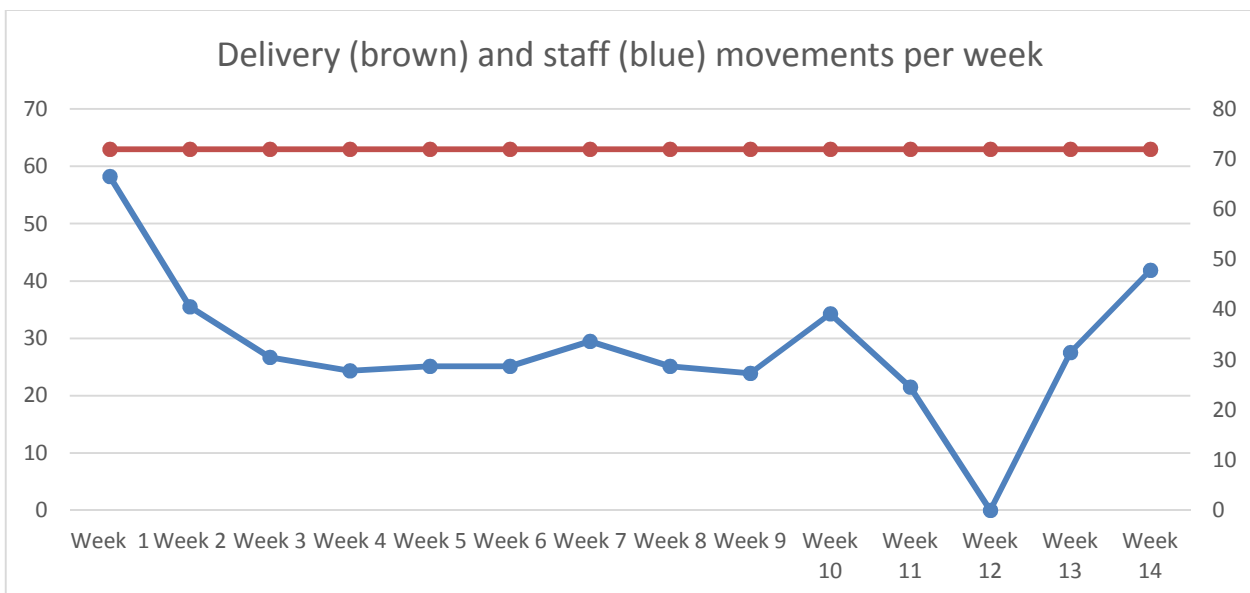


Figure 2: Movements Per Week



It should be noted that the estimated vehicle movement numbers set out in the above tables and figures have been calculated using the number of movements for an existing solar farm. As a contractor has yet to be appointed for the Proposals, vehicle movements are liable to change although the following is a conservative estimate suitable for the purposes of preparing this PTMP and fully considering highways issues.

Size of Vehicles

Having considered the nearby road network, the proposed access route (refer to Section 3.0 below) and the access point to the Site, it is concluded that, overall, the proposed route can accommodate standard UK Long Rigid Lorries (or vehicles of a similar length).

Due to the short, temporary nature of the construction period for the Proposals and the low level of movements as a result of it, no adverse effects on the local road network are anticipated.

Frequency and duration of vehicle movements

It is envisaged that the construction phase would last for approximately 14 weeks based on the size of the Proposals (this is subject to constructors' timescales). However, frequency of deliveries would vary. The initial stages of the construction programme would experience higher volumes of construction traffic as materials are delivered to the Site and the construction compound is established. The remainder of the programme would be less intense in terms of vehicle movements (refer to Figures 1 and 2).

Delivery hours and timing

Delivery times would typically be between 8am and 6pm from Monday to Saturday, with no deliveries on Sundays or Public Holidays. Consideration would be given to avoiding particularly sensitive periods through further consultation with Highways Officers once the application has been submitted.

2.2 Public Road Cleanliness

A wheel wash would be used and placed as close to the public highway as practicable. This would ensure, as far as possible, that debris from the Site is not deposited on the local highway network. It is anticipated that the wheel wash would comprise an operator removing excess mud and debris using a high-pressure washer.

2.3 Additional Controls

During the first two weeks of construction it is anticipated that there would be the greatest number of traffic movements, due to the delivery of the crushed stone for the Site access and compound areas as well as the haul roads across the construction site (refer to the build programme delivery timetable above). Banksman would assist with vehicles entering and leaving the Site as need be and appropriate.

2.4 Warning Signs

As necessary, warning signs would be sited in advance of the Site along the single lane portion of Francis Lane.

2.5 Storage

All equipment delivered to the Site would be stored either within the construction compound or delivered to the point of use within the main portion of the Site. The public highway would not be used for storage of any equipment.

2.6 Health and Safety

Site safety would be detailed within the Site Construction Health and Safety Plan, prepared post-consent. This would include details of site management, site speed limits and control of vehicle access to the Site. If necessary, a banksman can be present at the entrance to the Site for assistance with deliveries and to ensure vehicles are released safely onto the public road. The Principal Contractor is responsible for site health and safety.

2.7 Drainage

As the access arrangements would not involve the introduction of impermeable hard surfacing, no additional drainage measures are required beyond the Sustainable Drainage System (SuDS) proposed in the Flood Consequence Assessment (FCA) which accompanies the application (separate report). Nearby

drainage facilities including private drainage facilities would be taken into account by the contractor and impacts avoided through any necessary protection or strengthening.

2.8 Construction Compound/Site Details

The temporary site compound would be located entirely off of the public highway, close to the entrance to the Site. Construction workers would use this area to park private cars and small vans to ensure there is no parking outside of the Site, or on the public road. Where practical, a car sharing scheme would be used, however adequate parking would be provided to avoid overspill onto the public highway. The compound would also be used to store some construction materials before deployment on the Site itself. The existing private access track, extended to the boundary of the solar farm, would link the existing access onto the road with the Proposals, as shown on the Site Design drawing.

3.0 Vehicle Route Information

3.1 Proposed Route for construction vehicles

It is likely that construction vehicles would access the Site from the A534, which connects to the rest of the trunk road network, as detailed and shown below in Figures 3 and 4:

- Turn off the A534 / Wrexham Road onto the B5130 / Francis Lane
- Bear right, staying on Francis Lane; and
- After approximately 1.9km turn left into the Site.



Figure 3: Route to the Site from A534, along B5130 and Francis Lane (Source: Google Maps)

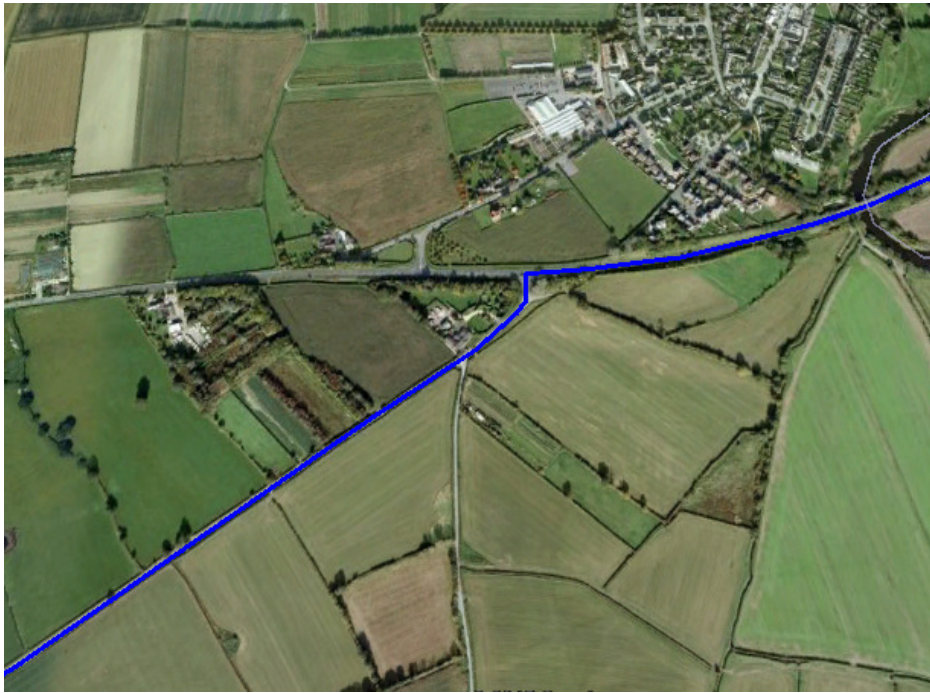


Figure 4: Left turn from A534 onto B5130 (Source: Google Maps)

The above route largely avoids heavily built up areas, bypassing Nantwich to the north and Holt to the south. Furthermore, there are few settlements through which the route directly passes. Where the route does pass through built up areas or close to dwellings, this should not cause an issue for residents as the roads used for access are wide enough to accommodate the transportation vehicles and allow other traffic to pass by, having minimum impact on local residents. In addition to this advance warning signs can advise traffic of any likely disruption.

The above route minimises access via sharp bends or tight corners, which may prove problematic for construction vehicles during deliveries. It is the most straightforward and least disruptive, minimising the possibility of potential traffic congestion. It is anticipated that any additional congestion, if any, would be minimal and as previously stated efforts can be made to avoid deliveries at sensitive times.

It is anticipated that radio connected banksmen would control the access and egress of lorries from the Site and onto Francis Lane, which would help to ensure road safety around the Site access.

Although the last portion of Francis Lane is single lane, there is excellent forward visibility, broad verges and existing passing places. Combined, these will avoid conflict between road users. It is also noted there are few dwellings or other traffic generating uses along the single lane portion of Francis Lane.

Noise and vibration impacts are unlikely to be adverse due to the temporary and short nature of the construction phase as well as the nature of the roads. In addition, advance warning signs can advise traffic of any likely disruption.

Once the Proposals have been constructed TGC do not envisage that use of the road by vehicles would be more intensive than at present.

Care would be taken during the construction phase to ensure no trees or hedges are damaged in line with the recommendations of the Ecological Appraisal which accompanies this planning application.

TGC and the electrical component suppliers provide detailed instructions for the safe sequencing and carrying out of the installation and commissioning works. All works would comply with the relevant UK and EU regulations to ensure a safe working and post installation environment would be achieved.

TGC will discuss the traffic management process with the Highways Department during the planning process to comply with an appropriate condition ensuring safe working procedures during the construction process.

Overall, it is considered that the temporary and short term nature of the construction process, combined with the above existing and proposed mitigation measures, would ensure minimum disruption within the surrounding area. The identified route solely utilises A roads, capable of accommodating both construction traffic and the normal traffic flow without any significant issues.

4.0 Conclusion

It is considered that the proposed route and access to the Site are capable of accommodating the traffic requirements for construction and operation of the Proposals. Review of the proposed route and entrance to the Site demonstrates that the access point could accommodate the vehicles proposed.

Careful management of the vehicles coming to and from the Site would avoid any serious disruptions on the roads surrounding the Site. Further information can be provided through the use of conditions, with the appointed contractor setting out the proposed mitigation measures and likely construction timetable in more detail.