# HOB LANE SOLAR FARM DUNHAM-ON-THE-HILL CHESTER

## **TRANSPORT STATEMENT & TRAFFIC MANAGEMENT PLAN**

**APRIL 2025** 

HOB LANE SOLAR FARM LTD

**Beacon Transport Planning** 

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#### **DUNHAM-ON-THE-HILL**

#### CHESTER

## **TRANSPORT STATEMENT & TRAFFIC MANAGEMENT PLAN**

**APRIL 2025** 

Beacon Transport Planning LLP 1a Cedar Avenue

Malvern Worcestershire WR14 2SG

info@beacontransportplanning.co.uk www.beacontransportplanning.co.uk

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# **List of Contents**

#### Sections

2 Baseline Conditions	2
3 Development Proposals	4
4 Construction Traffic Management Plan	7
5 Traffic Attraction	9
6 Traffic Impact	12
7 Planning Policy	14
8 Summary & Conclusion	16

#### **Plans & Appendices**

Plan 1: Site Location

- Plan 2: Local Highway Network
- Plan 3: Proposed Widening to North-Eastern Section of Common Lane

Plan 4: Proposed Signal-Control of South-Western Section of Common Lane

Plan 5: Construction Vehicle Routeing

Appendix A: Proposed Site Layout

Appendix B: Vehicle Tracking

Appendix C: Assumed Programme of Works & Traffic Forecasts



# **1** Introduction

- 1.1 This Transport Statement & Traffic Management Plan (TS&TMP) has been prepared for Belltown Power on behalf of Hob Lane Solar Farm Ltd in respect of development proposals for the construction and operation of a 30MWac solar photovoltaic farm with associated infrastructure and landscape and ecological enhancements, for a temporary period of 40 years. The proposals, known as Hob Lane Solar Farm, would be sited upon land to the north and south of Rake Lane, Dunham-on-the-Hill, and would be accessed from the A5117 via Common Lane.
- 1.2 This TS&TMP is intended to form part of the planning application documentation to be submitted to the Local Planning Authority (LPA), Cheshire West and Chester Council (CWCC). It provides: a description of baseline conditions; a description of the transport characteristics of the proposals including access; a framework construction traffic management plan; forecasts of traffic attractions; assessment of traffic impacts; and a review of the development proposals and assessment findings against relevant transport planning policy.



# **2** Baseline Conditions

#### Site Location & Use

- 2.1 The site is located to the west and north-west of Dunham-on-the-Hill and to the south-west of Hapsford, between the M56, A5117, Hapsford Lane and Rake Lane. The location of the site is shown by **Plan 1**.
- 2.2 The site comprises 77 hectares of mixed arable and pastoral fields bound by mature trees and hedgerows. It previously accommodated an explosives storage depot (ROF Dunham on the Hill), built during the second world war and closed in the 1960s, from which there remain a number of dispersed buildings. A concrete-paved access road extends into the site from Common Lane.

#### Access & Local Highway Network

- 2.3 The local highway network is shown by **Plan 2**.
- 2.4 Access to the site is provided from the north-east via Common Lane, a 540m-long private road that also serves fields to each side and a traveller site. The road is concrete surfaced, having a carriageway width of between 4.25m and 5.25m; there is a short (approximately 15m long plus tapers) section of widening on approach to the traveller site, where there are low metal gates.
- 2.5 At its north-eastern end, Common Lane adjoins the A5117 via a priority-controlled junction having 6m radii, for which a right-turn lane is provided along the A5117. There is good visibility to and from the junction, with visibility splays extending more than 295m in both directions.
- 2.6 Locally, the A5117 connects Junction 14 of the M56 (adjacent to the north-western corner of the site) with the A56 approximately 1.5km to the east. It has lighting along both sides and is subject to a 50mph speed limit; vehicle-actuated speed-limit signs are provided in both directions (diagonally opposite Common Lane in the eastbound direction and approximately 270m to the east of Common Lane in the westbound direction.) A paved footway, set back from the carriageway, is provided along the north side of the road (opposite Common Lane), extending from Hapsford to/beyond Junction 14 and to Helsby to the east.
- 2.7 In the immediate vicinity of the junction with Common Lane and to the east, the A5117 comprises a single carriageway road but approximately 300m to the west, to/from Junction 14 of the M56, it is dual carriageway.
- 2.8 Junction 14 of the M56 comprises a grade-separated five-arm roundabout that additionally serves Chester Services.

#### Highway Safety

- 2.9 Nationally collated personal injury accident data relating to road traffic incidents have been inspected for the local highway network for the most recent available 5-year period (2019-2023 inclusive.)
- 2.10 The data identifies a single incident resulting in personal injury as being recorded along the A5117 between Junction 14 of the M56 and the A56 to the east, resulting in slight injury; no incidents resulting in serious injury or fatality are recorded.
- 2.11 The single recorded incident occurred along the eastbound carriageway of the dual-carriageway section of the road, approximately 390m west of the junction with Common Lane, involving only a single vehicle.
- 2.12 No incidents are recorded at or within the immediate vicinity of the junction with Common Lane within the last 10 years, with no incidents recorded along Common Lane itself for the whole period for which data is available (since 1999.)

# 3 Development Proposals

- 3.1 It is proposed to construct/install and operate a solar farm, comprising arrays of photovoltaic modules (panels) affixed to frame tables, medium-voltage power station units (each incorporating a transformer, inverter and switchgear), a substation and associated infrastructure (fencing and access tracks). A copy of the proposed site layout is provided in **Appendix A**.
- 3.2 It is proposed to install modules across ten separate enclosed areas: eight to the north of Rake Lane; and two to the south. The substation would be located at the western end of the northern part of the site.
- 3.3 It is proposed to install approximately 40,000 modules, affixed to frames supported by piles driven into the ground, connected to 14 power station units. Each of the areas would be surrounded by 2.5m-high deer fencing affixed to timber posts, with 2.5m-high palisade fencing surrounding the substation and transformers; in total there would be approximately 11,000m of deer fencing and 380m of palisade fencing.
- 3.4 Internal tracks would be provided to each area, directly serving all of the power station units and the substation. There would be approximately 3,150m of internal stone-surfaced tracks; the tracks would be approximately 4m wide and would be constructed of compacted stone laid within and over a cellular confinement system placed upon a base geotextile layer it is anticipated that a 425mm depth of stone (prior to compaction) would be required.
- 3.5 Temporary construction compounds / laydown areas would be provided within the site during the construction phase. It is anticipated that modules, frames and fencing materials would be delivered to these locations for onward distribution around the site. It is anticipated that the containers making up each power station unit and any large/heavy components for the substation would be directly delivered to their installation locations, where they would be lifted into place by a mobile crane.
- 3.6 Construction/installation (excluding commissioning and other activities such as landscaping) is anticipated to occur over a period of approximately nine months, comprising: site preparation (access and fencing works); construction of the substation; delivery and installation of power station units; delivery and installation of frames; and delivery and fixing of modules. Elements of the above tasks may be undertaken concurrently with other tasks such that there is likely to be considerable overlap within the construction/installation programme between different areas. Components would be brought in at a similar rate to that at which they are installed (rather than en-masse), reducing the need for stockpiling and risk of theft.

- 3.7 Construction/installation activities, including deliveries of materials and components, are proposed to be limited to between 08:00 and 18:00 Monday to Friday only; there would be no working or deliveries on Saturdays, Sundays or bank holidays. It is estimated that between 10 and 40 construction/installation workers are anticipated to be on site at any one time.
- 3.8 Once installed, the operation should require only very limited ongoing servicing (e.g. monthly visits to undertake checks and maintenance tasks), with no staff being permanently based at the site. The modules are anticipated to remain in place for the duration of the operation, with any that fail individually replaced as required.
- 3.9 The solar farm is proposed to operate for a period of up to 40 years. Following this period, all components including fencing would be removed and the site restored to grassland. It is anticipated that decommissioning and removal would take place over a similar period to that identified for construction/installation.

#### **Highway Access**

- 3.10 All usual access during both the construction and operational phases would be taken from Common Lane.
- 3.11 In order to suitably accommodate delivery and other vehicle movements during the construction phase, it is proposed that various geometrical improvements be made to Common Lane and its junction with the A5117.
- 3.12 In order to facilitate two-way turning movements at the junction by large vehicles, it is proposed to widen the initial section of Common Lane (extending approximately 30m from the A5117) to provide a carriageway width of 6m, accompanied by increased radii. As shown by **Plan 3**, it is proposed that a 15m radius be provided to the east side of the junction (primarily to accommodate the swept paths of large vehicles turning right in but also benefitting any vehicles turning left in, which would not need to brake as much as at present) and that a 10m radius with 1:10 exit taper be provided to the west (allowing large vehicles to exit without over-running the right-turn lane along the A5117.) Existing visibility splays would be retained.
- 3.13 As also shown by **Plan 3**, it is also proposed that two further sections of widening to provide 6m carriageway widths be implemented along the north-eastern part of Common Lane, at approximate 130m centre spacings, each having inter-visibility to/from the previous/next widening section. The widened sections would be identified to drivers through the provision of centre-line markings to TSRGD Diagram 1008, with subsequent narrow sections identified by signage to TSRGD Diagrams 517 and 517L.

- 3.14 Land ownership constraints mean that there is no opportunity to provide widening along the south-western part of Common Lane, which, other than at the identified existing short section of widening on approach to the traveller site, has a maximum width of approximately 5m. In order to safely accommodate two-way movements by large vehicles, it is instead proposed that this part of Common Lane be temporarily subject to light-signal control during the construction period.
- 3.15 As shown by **Plan 4**, it is proposed that signals be placed at the end of the south-western section of proposed widening along Common Lane and at the exit from the main part of the site (where similar widening to 6m would also be provided.) It is anticipated that the signals would remain in place throughout the construction period but that they would be part-time, being turned off / removed outside of delivery/construction hours. It is further anticipated that (when operational) the north-eastern signal would generally remain on green, with the south-western signal (at the exit from the main part of the site) generally remaining on red, unless activated by a vehicle about to exit the site. It is not considered that vehicles exiting the traveller site would need to be signal controlled as there is direct visibility from the entrance to the signals / 6m width to the north-east, plus there is the existing passing place at the barriers (which would need to be temporarily removed.)
- 3.16 Vehicle tracking has been undertaken to ensure that all expected delivery vehicles can be suitably accommodated by the identified junction and carriageway widening. As shown in Appendix B, two-way movements by rigid design vehicles and unopposed movements by articulated design vehicles are able to be accommodated at the A5117 / Common Lane junction, with two-way movements by a combination of vehicles able to be accommodated at the other two sections of widening.

# 4 Construction Traffic Management Plan

- 4.1 It is anticipated that a full, detailed Construction Traffic Management Plan (CTMP) would be a condition of any planning consent granted, much of the content of such a CTMP only being able to be determined by an appointed contractor.
- 4.2 This section provides a framework for the CTMP, identifying elements such as vehicle routeing and other key environmental/safety measures in relation to vehicle access.

#### Minimisation of Vehicle Trips

4.3 In order to maximise efficiency and minimise transportation costs, all components and materials delivered to the site would be transported using the largest available payloads for vehicles suitable to the available access.

#### **Vehicle Routeing**

- 4.4 All construction and delivery vehicles would be required to access the site from Junction 14 of the M56 via the A5117 and Common Lane.
- 4.5 Exiting construction and delivery vehicles would be required to follow the same route in reverse.
- 4.6 The proposed routeing of delivery vehicles to/from the site is shown by **Plan 5**.

#### **Delivery Hours**

4.7 Construction/installation activities, including deliveries of materials and components, are proposed to be limited to between 08:00 and 18:00 Monday to Friday only; there would be no working or deliveries on Saturdays, Sundays or bank holidays.

#### **Traffic Management**

- 4.8 It is proposed that temporary direction signage be provided to the site during construction, located at and on approach to the A5117 / Common Lane junction.
- 4.9 Deliveries would be scheduled to minimise the number of delivery vehicles accessing the site at any one time. It is anticipated that deliveries made by articulated vehicles (e.g. deliveries of inverter/transformer containers) would be limited to two per day. Deliveries of stone (for the tracks) and ready-mixed concrete (for the substation and inverter/transformer foundations) would likely be made by the same one or two vehicles making repeated trips, such that movements would naturally be distributed throughout the day.

- 4.10 Items would be delivered at a similar rate to that at which they are installed (rather than enmasse), reducing the need for stockpiling and risk of theft.
- 4.11 It is proposed that any deliveries made by articulated vehicle be initially directed to Chester Services, to phone ahead. This is to ensure and confirm that there is clear access and that no large vehicles are concurrently exiting the site. An escort vehicle would be dispatched to meet the delivery vehicle, which would travel ahead of it along the initial part of Common Lane (to the middle passing place) to ensure that no oncoming vehicles are encountered in the vicinity of the junction.
- 4.12 Movement or dispensation order notification would be provided to applicable Police and Highway& Bridge Authorities in respect of any movements by applicable special vehicles (abnormal vehicles/loads), which would be undertaken in accordance with regulations.

#### Safety & Environmental Management

- 4.13 All loading and unloading activity would take place within the site (off the highway), with all vehicles entering, circulating and exiting in forward gear.
- 4.14 Site vehicles and mobile plant would be fitted with suitable reversing warning devices, with any reversing manoeuvres by other delivery and construction vehicles being overseen by banksmen.
- 4.15 The arrival, departure and movement of delivery vehicles within the site would be managed to control access to and use of construction compounds and turning areas.
- 4.16 Appropriate measures would be implemented to ensure that material is not deposited on the surrounding highway network. Material would be transported in suitable vehicles and would be sheeted or otherwise appropriately secured. All vehicles exiting the site would be required to be in a suitably clean condition so as to not deposit material upon the highway, with Common Lane required to be kept clean and maintained in a good standard of repair.



## 5 Traffic Attraction

#### Existing Site Uses

5.1 As noted in Section 2, the site presently comprises 77 hectares of mixed arable and pastoral land, potentially attracting regular traffic movements including a range of agricultural vehicles and machinery.

#### Proposed Development

- 5.2 The primary traffic attraction periods associated with the proposals would be during construction/installation (and also during subsequent decommissioning at the end of the proposed 40-year life of the development.)
- 5.3 Forecasts of vehicle movements associated with construction/installation activities have been derived based upon an assumed programme of works for those elements for which there would be significant traffic attractions, as presented in **Appendix C** and described below.
- 5.4 The proposed areas of widening along Common Lane and at the exit from the main part of the site account for 328m<sup>2</sup> of additional concrete paving. If laid to a depth of 200mm, this would require 66m<sup>3</sup> of ready-mixed concrete; using 8m<sup>3</sup>-capacity mixer lorries, this would require 9 deliveries, anticipated to occur over a two-week period, equating to one delivery per weekday.
- 5.5 The 3,150m of newly constructed access track would require 5,355m<sup>3</sup> of stone aggregate, weighing approximately 10,710 tonnes. If delivered by fully loaded 20t-capacity 8-wheel rigid tipper lorries, this would require a total of 536 deliveries. If such deliveries were to occur over nine weeks, there would be 60 deliveries per week, equating to an average of 12 deliveries per weekday, or just over one per hour for a 10-hour workday.
- 5.6 Assuming 25m-long rolls (each requiring 7 posts), the 11,000m of deer fencing would require 440 rolls; assuming around 12 rolls and associated posts per delivery, the deer fencing would require approximately 37 deliveries. If 300m of fencing were to be erected per full working day then it would take 7-8 weeks, requiring 5 deliveries per week (one per weekday.)
- 5.7 The foundation pad for the substation (measuring 40m x 25m and laid to a depth of 200mm) would require 200m<sup>3</sup> of ready-mixed concrete; using 8m<sup>3</sup>-capacity mixer lorries, this would require 25 deliveries, anticipated to occur over a one-week period, equating to 5 deliveries per weekday.

- 5.8 The foundation pads for each power station (each incorporating a 5.25m x 3.75m pad for the transformer, 6.45m x 2.85m pad for the inverter and 3.75m x 2.25m pad for the switchgear unit, all laid to a depth of 200mm) would require 9.3m<sup>3</sup> of concrete, equating to 130m<sup>3</sup> of concrete for all 14 power stations; using 8m<sup>3</sup>-capacity mixer lorries, this would require 17 deliveries, anticipated to occur over a two-week period, equating to 2 deliveries per weekday.
- 5.9 Each of the power station components would be individually delivered, requiring 42 deliveries. If a full set of components were to be delivered each working day, this would equate to 3 deliveries per weekday over a three-week period. A further 10 deliveries are assumed for the sub-station, assumed to occur over a two-week period and so equating to one delivery per weekday.
- 5.10 Assuming 3.2m-long panels, the 380m of palisade fencing identified to surround the substation and transformers would comprise approximately 120no. panels; based on up to 20 panels per delivery (assuming two stacks of 10 panels and associated posts), this would require 6 deliveries, assumed to occur over a three-week period.
- 5.11 An example specification for the type of PV modules to be used identifies a packing configuration of 36 pieces per pallet. On the basis that each pallet measures approximately 2.5m long by 1.5m wide by 1.3m tall, it is assumed that five pallets (180 modules) could be delivered by a 10.2m-long rigid, curtain-sided lorry. A total of 40,000 modules would therefore require a total of 222 deliveries. If such deliveries were to occur over 15 weeks, there would be 15 deliveries per week, equating to an average of 3 deliveries per weekday.
- 5.12 Based upon work undertaken for a previous scheme, it is estimated that 4no. table frames (each formed of purlins and rafters comprising universal I-beams measuring 152x89x16mm and 100mm square posts) could be delivered by a 10.2m-long rigid, curtain-sided lorry. As each such table would accommodate 40 modules (two rows of 20), each delivery would be sufficient for 160 modules. A total of 40,000 modules would therefore require a total of 250 deliveries of frame tables. If such deliveries were to occur over 17 weeks (starting two weeks ahead of the installation of modules), there would be 15 deliveries per week, equating to an average of 3 deliveries per weekday.
- 5.13 In addition to HGV movements, an allowance of 10-40 two-way movements per working day is assumed for worker arrivals and departures, numbers varying during the various phases of construction/installation.
- 5.14 As set out in **Appendix C**, it is forecast that construction/installation activities would attract a maximum average of 12 HGV deliveries per weekday (equating to 24 two-way HGV movements,

out of a total of 36 movements including worker arrivals and departures), this maximum value being associated with the formation of internal tracks (likely involving the same two or three delivery vehicles making repeated trips.) Accounting for worker arrivals and departures, there would be a maximum average of 52 total movements to/from the site per weekday (including 12 HGV movements), this occurring during the installation of the PV modules and frame tables.

5.15 Normal operational activities during the operational phase of the development would attract negligible trips, in the order of only one visit per month (fewer than may be expected to occur for the existing use.)

# 6 Traffic Impact

- 6.1 The forecast development traffic movements per weekday during the construction/installation phase should be suitably accommodated by the proposed access and the local highway network, particularly as HGV movements would be distributed throughout the day. During the subsequent operational phase, fewer movements may be expected to occur than for the existing use of the site.
- 6.2 Annual Average Daily Traffic (AADT) flow data is reported by the Department for Transport (DfT) for the A5117 immediately to the west of Common Lane (Count Point 47771).
- 6.3 For 2023 (the most recent year for which data is available) the data identifies a total of 13,262 vehicles passing along this section of the A5117, of which 372 (2.8%) are HGVs.
- 6.4 The maximum average development traffic flows identified in Section 5 are 52 total vehicle movements per day including 12 HGV movements. The maximum average HGV movements per day are 24 HGV movements, out of a total of 36 all-vehicle movements. Equivalent AADT movements (if spread over seven days per week) are 43 total vehicle AADT movements including 8 HGV AADT movements and 27 total vehicle AADT movements including 17 HGV AADT movements respectively.
- 6.5 Such movements would result in temporary increases in total traffic along the A5117 of less than
  0.5%, with HGV composition temporarily rising from 2.8% to 2.9%. Such minimal changes should have no material impact upon the normal operation or character of the road.
- 6.6 The recorded personal injury accidents reported in Section 2 do not indicate there to be any inherent safety issues along the local highway network providing access to the site. As such, no material impacts upon highway safety are similarly forecast.

#### **Non-Motorised Users**

- 6.7 Impacts upon any non-motorised users along Common Lane additionally need to be considered.
- 6.8 The proposed road widening along Common Lane would provide sections of 6m-wide carriageway, with intervisibility between each. Such a width is sufficient for a large vehicle to overtake or pass a pedestrian, cyclist or equestrian with a clearance in excess of the 1.5m 2m overtaking distances identified by the Highway Code (Rules 163 and 215.) The provision of additional clearances over the existing situation presents a significant improvement.

6.9 Having regard to the frequency of operational traffic movements forecast to occur during the construction/installation period (less than two HGV movements per hour in each direction), traffic impacts upon any non-motorised users along Common Lane would be limited, being mitigated by the increased clearance distances afforded by the improved specification of the road. During the subsequent operational period, when fewer movements may be expected to occur than for the existing use of the site, the improved clearance distances would provide a clear overall benefit.

#### **Glint & Glare**

- 6.10 A separate Glint & Glare Assessment has been undertaken by Metrica Environmental Consulting, intended to form part of the planning application documentation to be submitted to CWCC alongside this report. The Assessment considers possible impacts of glint and glare upon residential dwellings, the M56, the A5117, the Chester-Manchester rail line and aviation activity associated with Liverpool John Lennon Airport.
- 6.11 Due to existing screening and the proposed orientation and angle of the PV modules, no glint and glare effects are identified for any of the above receptors.

# 7 Planning Policy

7.1 This section provides a review of the development proposals against relevant national and local transport planning policy guidance provided in the National Planning Policy Framework and applicable Development Plan Documents.

#### National Planning Policy Framework (December 2024)

- 7.2 The National Planning Policy Framework (NPPF) sets out the Government's policies in respect of transport and development planning.
- 7.3 Section 9 of the NPPF (Promoting sustainable transport) states that it should be ensured that:
  - a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;
  - b) safe and suitable access to the site can be achieved for all users;
  - c) the design of streets, parking areas and other transport elements reflects current national guidance; and
  - any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach (paragraph 115).
- 7.4 The NPPF further states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios (paragraph 116).
- 7.5 As identified in Section 6 of this report, forecast traffic movements associated with the development proposals should have no significant impact upon the normal operation or safety of the highway network.

#### Cheshire West and Chester Local Plan (Part One) Strategic Policies (January 2015)

7.6 **Policy STRAT 10 (Transport and Accessibility)** states that development and associated transport infrastructure should, *inter alia*, provide and develop reliable and efficient transport networks and contribute to safer and secure transport. It further states that new development will be required to demonstrate that additional traffic can be accommodated safely and satisfactorily within the existing, or proposed, highway network and that satisfactory arrangements can be made to accommodate the additional traffic before the development is brought into use.

7.7 The proposed improvements highway and site access improvements identified in Section 3 would provide an efficient and safe means of access to the site during construction/installation and present a clear improvement to the network during the subsequent operational phase, in terms of its use both by motor vehicles and non-motorised users. The identified improvements would be implemented in advance of all other construction/installation works.

#### Cheshire West and Chester Local Plan (Part Two) Allocations and Detailed Policies (July 2019)

- 7.8 **Policy T 5 (Parking and access)** states that development proposals will be supported which meet the requirements of Local Plan (Part One) policy STRAT 10 and which: make safe provision for access to and from the site for all users of the development, including the provision of access to adopted highways, visibility splays and accompanying signage where necessary; allow for safe movement within the site, having regard to the requirements of the emergency services and service providers, including sufficient manoeuvring and standing space for the appropriate number and size of vehicles likely to serve the development at any one time; and will not create any unacceptable impacts on amenity or road safety that cannot be satisfactorily mitigated by routeing controls or other highways improvements.
- 7.9 The proposed improvements highway and site access improvements identified in Section 3 would provide safe access to and from the site. The internal layout of the site would provide for adequate vehicle manoeuvring and standing space, allowing all vehicles to enter, circulate and exit in forward gear. The traffic movements associated with the development proposals should be suitably accommodated the site access and local highway network and should not have any material impacts upon its normal operation, character or safety; on the basis of the proposed limitations upon construction hours and having regard to the temporary period during which construction/installation activities would occur, the proposals should similarly not incur unacceptable impacts upon the amenity of local residents.



# 8 Summary & Conclusion

#### Summary

- 8.1 It is proposed to construct/install and operate a solar farm, comprising arrays of photovoltaic modules (panels) affixed to frame tables, medium-voltage power station units (each incorporating a transformer, inverter and switchgear), a substation and associated infrastructure (fencing and access tracks).
- 8.2 Construction/installation (excluding commissioning and other activities such as landscaping) is anticipated to occur over a period of approximately nine months. Construction/installation activities, including deliveries of materials and components, are proposed to be limited to between 08:00 and 18:00 Monday to Friday only; there would be no working or deliveries on Saturdays, Sundays or bank holidays.
- 8.3 Once installed, the operation should require only very limited ongoing servicing (e.g. monthly visits to undertake checks and maintenance tasks), with no staff being permanently based at the site.
- 8.4 The solar farm is proposed to operate for a period of up to 40 years. Following this period, all components including fencing would be removed and the site restored to grassland. It is anticipated that decommissioning and removal would take place over a similar period to that identified for construction/installation.
- 8.5 All usual access during construction and operation would be taken from Common Lane.
- 8.6 In order to suitably accommodate delivery and other vehicle movements during the construction phase, it is proposed that various geometrical improvements be made to the north-eastern part of Common Lane and its junction with the A5117, comprising sections of carriageway widening and enlarged junction radii. In order to safely accommodate two-way movements by large vehicles, it is proposed that the south-western part of Common Lane be temporarily subject to light-signal control during the construction period.
- 8.7 It is anticipated that a full, detailed Construction Traffic Management Plan (CTMP) would be a condition of any planning consent granted, much of the content only being able to be determined by an appointed contractor. A framework for the CTMP is provided, identifying elements such as vehicle routeing and other key environmental/safety measures in relation to vehicle access.
- 8.8 The primary traffic attraction periods associated with the proposals would be those during construction/installation (and also during subsequent decommissioning at the end of the

proposed 40-year life of the development); normal operational activities during the operational phase of the development would attract negligible trips, in the order of only one visit per month (fewer than may be expected to for the existing use of the site.)

- 8.9 Forecasts of vehicle movements associated with construction/installation activities have been derived based upon an assumed programme of works for those elements for which there would be significant traffic attractions. It is forecast that construction/installation activities would attract a maximum average of 12 HGV deliveries per weekday (equating to 24 two-way HGV movements, out of a total of 36 movements including worker arrivals and departures), this maximum value being associated with the formation of internal tracks (likely involving the same two or three delivery vehicles making repeated trips.) Accounting for worker arrivals and departures, there would be a maximum average of 52 total movements to/from the site per weekday (including 12 two-way HGV movements), this occurring during the installation of the PV modules and frame tables.
- 8.10 Such movements should be suitably accommodated by the proposed access and the local highway network, particularly as HGV movements would be distributed throughout the day. There should be no material impact upon the normal operation, character or safety of the highway network.
- 8.11 A separately undertaken Glint & Glare Assessment identifies no glint and glare effects in respect of residential dwellings, the M56, the A5117, the Chester-Manchester rail line or aviation activity associated with Liverpool John Lennon Airport.
- 8.12 The proposals adhere to policy guidance, providing infrastructure improvements and other traffic management measures that will adequately serve forecast traffic movements and mitigate its impacts.

#### Conclusion

8.13 Having regard to NPPF guidance that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe, it is concluded that there are no transportation or highways matters that preclude the granting of planning permission for the development as proposed.

Plan 1: Site Location Dwg. No. BTP-2503-01 Plan 2: Local Highway Network Dwg. No. BTP-2503-02 Plan 3: Proposed Widening to North-Eastern Section of Common Lane Dwg. No. BTP-2503-04C Plan 4: Proposed Signal-Control of South-Western Section of Common Lane Dwg. No. BTP-2503-05C Plan 5: Construction Vehicle Routeing Dwg. No. BTP-2503-03 Appendix A: Proposed Site Layout

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Appendix C: Assumed Programme of Works & Traffic Forecasts