**Appendix B – Specification**

Appendix B is made up of this introductory document and the following documents:

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|  | **Document** | **Relevance** | **Description** | **Date/ Ref** |
| 1 | PV Solar Specification | Applicable to all lots | Specification for the project | XXXXXX-XXXX-MAC-MOJ-XX SP-SPEC-001\_R04 |
| 2 | List of sites in each region  | Applicable to all lots | Defines which sites are in which Lot | Solar PV Sites and Regions - Rev 1 |
| 3 | 17 Feasibility Reports - Ground Mounted Solar Sites | Applicable to Lot 1 only | The initial feasibility studies for each site | HMP Werrington, HMP Eastwood Park, HMP Bullingdon, HMP Littlehey, HMP Onley, HMP Wayland, HMP Stocken, HMP East Sutton Park, HMP Erlestoke, HMP Parkhurst, HMP Ford, HMP Haverigg, HMP Lindholme & Moorland, HMP New Hall, HMP Portland, HMP Whatton, HMP Leyhill |
| 4 | HMPPS Solar Desktop Audit for Tender | Applicable to Lot 1 only | Spreadsheet of all available data on each site and recalculated array size at 75% min daytime load | 201015 MOJ PV Ground Summary for Tender - V3 |
| 5 | List of sites in each region  | Applicable to all lots | Defines which sites are in which Lot | HMCTS Solar PV Sites and Regions - Rev 1 |
| 6 | HMCTS Report with photos | Applicable to lots 2-7 | An aerial photo of each site |  |
| 7 | HMCTS Solar Desktop Audit for Tender | Applicable to lots 2-7 | Spreadsheet of all available data on each site | 201014 HMCTS Solar Desktop Audit for Tender |

**HMPPS - Ground Mounted Lot 1**

General

Arcadis has undertaken a desktop analysis to assess the feasibility of ground mounted solar PV outside the wire at various prison sites. The analysis has been undertaken based on information provided by MoJ on the red line boundary of the prison and parcels of land owned by MoJ outside the prison that have been identified for potential various uses.

The scenarios have been modelled using PV solar software.

The assessment also includes a review of potential barriers to installation of solar ground mounted such as environmental designation, land type and local airports. The assessment also includes a review of potential barriers to installation of solar ground mounted such as environmental designation, land type and local airports.

The scenarios in the Arcadis reports are based on maximising the area of solar panels and where possible exporting to the grid. MoJ have now decided to focus on delivering solar panels to meet the demands of the prison establishment only without exporting to the grid. Mace have recalculated the kW size of the arrays based on 75% of the Min Daytime Load (kW).

Planning approval

Further to the Arcadis reports, Cushman & Wakefield have advised on planning risks and opportunities and MoJ have had further discussions with the Regional Estates Manager for each site. The initial planning assessment and MoJ notes are included on the Solar PV spreadsheet. Based on these assessments, HMP Littlehey has been selected as the most likely site to be able to be delivered this financial year.

The planning process and preparation of the applications will be undertaken by MoJ’s planning consultant Cushman and Wakefield. The planning process for Littlehey has already commenced.

Depending on the level of planning complexity and environmental studies that are required, a planning decision for some sites could take until May 2021. However, sites with a Green RAG rating (see the solar PV spreadsheet) are not expected to require a formal pre-application period and its hoped that a decision would be made in 8 weeks instead of 13 weeks. Indicatively this is shown below for HMP Littlehey.



Programme and spending

Due to the planning approval periods and other factors it is unrealistic that all sites can be delivered this financial year. Bearing this in mind it is expected that the supplier will complete at least one site in the current FY, before 31 March 2021.

For the remaining sites, the works shall be programmed to complete as much of the work before 31 March 2021. This is likely to include the upfront purchase of PV panels for sites where there is a reasonable level of certainty around DNO negotiations and a positive planning decision. MoJ will work with the successful supplier to agree these arrangements.

Works will then continue into 2021/22. However, as the budget for 2021/22 has not been confirmed, the Contracting Authority does not guarantee the volume of works and may terminate the contract at the end of this FY, 31 March 2020.

It is expected that from the initial 17 sites that a number of sites may be ruled out during the initial survey and design process because they cannot be delivered within the budget and timeframes due to for example environmental constraints, lease arrangements and planning constraints.

Packaging

17 sites have been identified that are suitable for PV Generation systems. The sites will be packaged into a single lot.

Contract value

The initial contract award/ contract sum will be the price to develop the PV generation proposals for the 17 sites. The next stage/s of each project will then be awarded as a variation to the contract.

 **HMCTS – Roof Mounted – Lots 2 - 7**

General

MoJ provided a list of priority sites based on HMCTS freehold ownership and large GIA. Mace have taken the list and determined an indicative kW size and breaker size per site by measuring the roof area from Google maps.

Cushman & Wakefield have advised that site between 50kW and 1 MW require prior approval the statutory time frame for this is 56 days.

We estimate that about 10 sites would require prior approval. The remaining sites are permitted development but still need to be notified to the local planning authority.

The planning process and preparation of the applications will be undertaken by MoJ’s planning consultant Cushman and Wakefield.

Concurrent with the tender period surveys are underway to determine basic suitability of each site including:

1. Measurement of the area of the roof that is suitable for PV panels (flat or south facing pitch)
2. Location of the nearest electrical supply/ DB/ main switch board, approximate cable length/ route
3. Whether the electrical board has space for a suitable connection of the solar panels
4. Roof accessibility - i.e. is there an internal lift/ goods lift/ staircase. If so, then the number of flights, and/or whether there is a roof safety system present.
5. If no internal access to the roof, is there the potential to erect scaffolding, or to utilise a crane to access the roofs?
6. High level structural suitability/ roof loading capacity – general observations (the load of the panels is flat roof – 20kg per m2 / pitched roof 13kg per m2)
7. Any other observations / issues that could impact the installation of solar panels on the roof eg asbestos or imminent roof repairs required.

These surveys will be made available to the successful tenderer. In addition, half hour electrical data is available for each site.

It is expected that from the initial site list that a number of sites may be ruled out during the survey and design process and the volume of work in each lot cannot be guaranteed. If time permits, additional sites could be added to the scope of works subject to overall spending.

Packaging

90 sites have been identified that may be suitable for PV Generation systems. The sites will be packaged into 6 lots of approximately 16 sites per lot with the requirement to complete all feasible sites in the current FY, by 31 March. The lots are based on the HMCTS regions.

Number of contracts

There will be up to six HMCTS contracts awarded to potentially six different contractors to ensure the volume of works can be delivered in the restricted timeframe.

Contract value

The initial contract award/ contract sum will be the price to develop the PV generation proposals. The next stage/s of each project will then be awarded as a variation to the contract.

**Tender Pricing - Two stage pricing**

Due to the speed of the project, the tender pricing evaluation will be based upon a schedule of rates. Once the contract is awarded for each lot, the supplier will develop proposals for each site including a price (using the tendered schedule of rates) and an implementation plan/ programme. Once the proposals are agreed, these will be incorporated into the contract as Variations as per the contract process for change (Clause 22). It is anticipated that this will be approximately as set out below:

HMCTS – Roof Mounted – Lot 2 - 7

*Day 1 Scope & Contract Award*

Review the existing site information and prepare PV generation proposals for the following sites including the following:

* Site survey
* PV panel installation design
* Information to support planning pre-approval (if required)
* Information for the DNO application
* A cost per site and a programme

*Variation #1*

Following approval of the PV Generation Proposal from HMCTS, a Variation will be issued for:

* procurement, installation, testing, commissioning, certification, warranty and maintenance for each site

The variation will be for several sites at once. There may be more than one variation to cover all the sites.

HMPPS - Ground Mount – Lot 1

*Day 1 Scope & Contract Award*

Review the existing feasibility studies and prepare new PV generation proposals ensuring no export to the grid for the following sites including the following:

* Site survey
* PV panel installation design
* Information to support planning pre-approval
* Information for the DNO application/ negotiations
* A cost per site and a programme

*Variation #1*

Following approval of the PV Generation Proposal for Littlehey (or other site) from HMPPS, a variation will be issued for:

* procurement, installation, testing, commissioning, certification, warranty and maintenance for this site

*Variation #2*

Following approval of the PV Generation Proposals for X sites from HMPPS, a variation will be issued for:

* procurement by 31 March 2021 for X sites

*Variation #3*

Following on from Variation #2, a variation will be issued for:

* installation, testing, commissioning, certification, warranty and maintenance for X sites in the next FY.