CMS Requirements

Lot Two shall comprise Street Lighting works including but not limited to:

Street lighting maintenance and improvement including wall mounted units and catenary;

Maintenance and improvement to illuminated traffic signs and other street furniture equipment including, Feeder pillars, illuminated traffic sign, illuminated traffic bollards, Belisha beacons, Vehicle actuated signs and other electrical equipment;

Electrical cable installations/repairs and all works associated with lighting and traffic signs.

As part of this contract The Contractor will be required to procure, install and manage a CMS system capable of the following:

The CMS will enable the control and monitoring of street lights including switching on/off and adaption of light levels across all of the street lighting assets in the network.

The CMS will provide a BSCP520 report suitable for the energy administrator to provide monthly billing, the billing should revenue grade and be accurate and auditable and all equipment will be Elexon approved.

The CMS will be able to accept data and communicate with other types of smart highway sensor.

The CMS will have the capability and capacity to control and monitor the full range and diversity of highway electrical equipment.

The nodes will be mounted on each lighting asset. The nodes will communicate data to the Gateways/Base stations and receive commands and software updates from the Gateways/Base stations using radio frequency signals. The nodes will be configured, activated and connected to the CMS upon installation.

The Gateways/Base Stations are the devices that act as the interface between the nodes and the CMS Server. The gateways will be mounted on lighting assets and communicate with the CMS Server typically using cellular backhaul (4G/5G). Each Gateway should communicate with several thousand nodes depending on the network topology (e.g. Mesh/PMP/Star etc.)

The Nodes will be GPS enabled to link with the client's asset management system and plot units on map using geo location and of robust and weatherproof construction with a simple method of installation generally via 7 pin NEMA socket.

The CMS Server contains the application software which will be hosted on a secure server and is responsible for control and monitoring of the street lighting network.

The CMS Server will be capable of sending and receiving data to each asset that is fitted with a CMS Node.

Havering's Asset Management System is currently Mayrise but may convert to Alloy. The CMS shall integrate seamlessly with the AMS, such that any amendments to either system data are synchronized with the other. The integration should support both asset synchronisation and export of alarm data. This integration should utilise a RESTful API and require no actions by the user to reprogram the CMS following the synchronisation.

Management of the CMS will include: monitoring notifications; checking network connectivity; responding to outages that have continued for more than 48 hours; creating dimming profiles; making ad-hoc dimming profile changes where requested by the Service Manager; and providing performance reports upon request by the Service Manager.

Full details of requirements will be included within the specification.