1. Pricing and Technical Schedules
   1. Tender Cost Schedule

Schedule of Prices for BMS System

|  |  |  |  |
| --- | --- | --- | --- |
| **Item**  **No.** | **Title of Work** |  | **Tender Price** |
|  | New communications network including web-based access requirements | $ |  |
|  | Run and Standby Operator workstation- server and secondary 4G enabled device | $ |  |
|  | Field controllers including integrated UPS | $ |  |
|  | Software and graphics | $ |  |
|  | Programming of control strategies, monitor, logging and alarm functions including interfaces with wider building services (electrical, hydraulic, vertical transport etc) | $ |  |
|  | Energy Management Systems | $ |  |
|  | Fixing, connection and integration of existing field devices and equipment with new field controllers (including cabling) |  |  |
|  | Temperature sensors including cabling | $ |  |
|  | Metering | $ |  |
|  | Uninterruptible power supply (UPS) | $ |  |
|  | Weather station | $ |  |
|  | Demolition and removal works | $ |  |
|  | Painting and labelling | $ |  |
|  | Testing and Commissioning | $ |  |
|  | User Training and User Acceptance Testing | $ |  |
|  | 12 Months Preventative Maintenance and Seasonal Tuning | $ |  |
|  | Workshop Drawings, Tech Data, O/M manuals ‘as installed’ drawings | $ |  |
|  | On a monthly basis provide an update of contractors deliverables registers outlining information such as technical submittals, sample submissions, workshop drawings and Inspection Hold points | $ |  |
|  | Optional 5 year maintenance contract. Ensure that the quotation is based on identified maintenance activities in section 3. Detail any activities not covered by the contract. | $ |  |
|  | Other items (provide description) | $ |  |
|  | **Total** (Excluding GST) | **$** |  |

|  |  |
| --- | --- |
| **Omissions and Non-compliances – clearly state any omissions or non-compliances associated with the above price:** |  |

* 1. Tender Schedule of Technical Data

Equipment offered in tender – BMS System

|  |  |  |  |
| --- | --- | --- | --- |
| **Item of Equipment** | **Manufacturer, Supplier or Subcontractor** | **Range or type** | **Model or Figure No.** |
| Backbone Communications Network (Cabling Type) |  |  |  |
| Distributed Communications Network (Cabling Type) |  |  |  |
| Field Controllers |  |  |  |
| Operator Workstations, CPU and servers including infrastructure for web-based access |  |  |  |
| 4G enabled tablet or device for remote / mobile access |  |  |  |
| Laser Printer |  |  |  |
| Temperature sensors |  |  |  |
| Software |  |  |  |
| Weather station |  |  |  |
| EMS Software |  |  |  |
| Power Meters |  |  |  |
| Gas Meter |  |  |  |
| Water Meter |  |  |  |

* 1. Tender Schedule of Rates

The following schedules of unit rates are to be completed by all tenderers (on fixed price basis) and must apply to all authorised variations for additions and omissions for a period of 5 years.

**Labour Rates**

The labour rate is to include all current award allowances and any special site loading or specified site allowances.

|  |  |  |
| --- | --- | --- |
| Electrical / Controls Installation | Per Hour | $ |
| Communications Installation | Per Hour | $ |
| Pipework Installation (Valves, Actuators) | Per Hour | $ |
| Sheetmetal Installation (Dampers, Actuators etc) | Per Hour | $ |
| Commissioning Contractor | Per Hour | $ |

**DDC Points**

Supply and installed cost of providing DDC points for addition purpose only:

|  |  |
| --- | --- |
| **Item** | **Cost** |
| Analogue Type Input | $ |
| Analog Type Output | $ |
| Digital Type Input | $ |
| Digital Type Output | $ |
| Relays | $ |
| HLI associated with water-cooled chiller (including proprietary network interfaces necessary) | $ |
| HLI associated with boiler controls (including proprietary network interfaces necessary) | $ |
| Graphics | $ |

**Control and Balancing Valves**

Supply and installation of valves including 30m of cabling:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Valve Type** | **Stad Balancing Valve** | **2-way Control Valve +Actuator** | **3-way Control Valve +Actuator** | **Combined Dynamic Balancing and Control 2-way Valve** |
| Pipe Size – 15mm | $ | $ | $ | $ |
| Pipe Size – 25mm | $ | $ | $ | $ |
| Pipe Size – 32mm | $ | $ | $ | $ |
| Pipe Size – 40mm | $ | $ | $ | $ |
| Pipe Size – 50mm | $ | $ | $ | $ |
| Pipe Size – 65mm | $ | $ | $ | $ |
| Pipe Size – 80mm | $ | $ | $ | $ |
| Pipe Size – 100mm | $ | $ | $ | $ |
| Pipe Size – 125mm | $ | $ | $ | $ |
| Pipe Size – 150mm | $ | $ | $ | $ |
| Pipe Size – 200mm | $ | $ | $ | $ |
| Pipe Size – 250mm | $ | $ | $ | $ |
| Pipe Size – 300mm | $ | $ | $ | $ |

**Cabling**

**Supply and installed cost**

|  |  |  |
| --- | --- | --- |
| **Cable Type** |  |  |
| Optical fibre | Per Metre | $ |
| Category 6a UTP | Per Metre | $ |
| Category 6 UTP | Per Metre | $ |
| Category 6a STP | Per Metre | $ |
| Category 6 STP | Per Metre | $ |
| Other –( define ) |  |  |
|  |  | $ |
|  |  | $ |

**Motorised Dampers**

Supply and installed cost including 30m of cabling and integration with BMS

|  |  |
| --- | --- |
| **Item** | **Cost** |
| 300x300 parallel blade - motorised | $ |
| 600x600 parallel blade - motorised | $ |
| 900x900 parallel blade - motorised | $ |
| 300x300 opposed blade - motorised | $ |
| 600x600 opposed blade - motorised | $ |
| 900x900 opposed blade - motorised |  |

**Hydronic Sensors**

Supply and installed cost

|  |  |
| --- | --- |
| **Item** | **Cost** |
| Flow switches (including 30m of cabling) | $ |
| Temperature sensor wells (including 30m of cabling) | $ |
| Differential pressure sensor (including 30m of cabling) | $ |
| Water Flow Meters (electro-magnetic) 80mm | $ |
| Water Flow Meters (electro-magnetic) 100mm | $ |
| Water Flow Meters (electro-magnetic) 150mm |  |
| Water Flow Meters (electro-magnetic) 200mm |  |
| Water Flow Meters (electro-magnetic) 250mm |  |
| Water Flow Meters (electro-magnetic) 300mm |  |

**Airside Sensors**

Supply and installed cost

|  |  |
| --- | --- |
| **Item** | **Cost** |
| Wall mounted temperature sensor (including 30m of cabling) | $ |
| Duct mounted temperature sensor (including 30m of cabling) | $ |
| Differential air pressure switch (including 30m of cabling) | $ |
| Capillary sensors with probes (including 30m of cabling) | $ |
| Ambient temperature sensor (including 30m of cabling) | $ |
| Ambient humidity sensor (including 30m of cabling) |  |
| CO2 and mixed-gas sensors - room mounted (including 30m of cabling) |  |
| CO2 and mixed-gas sensors – duct mounted (including 30m of cabling) |  |

**Maintenance Costs**

|  |  |
| --- | --- |
| **Item** | **Cost** |
| Software Upgrade | $ |
| Emergency Call-out | $ |

**Controllers / Outstations and Sub-Modules**

Supply and installed cost

|  |  |
| --- | --- |
| **Item** | **Cost** |
| Programmable Controller with a minimum of 30 universal inputs and 30 universal outputs (specify the QTY of inputs and outputs for a standard controller offered) | $ |
| Add-on DI module (state quantity of inputs for typical module) |  |
| Add-on DO module (state quantity of outputs for typical module) |  |
| Add-on AI module (state quantity of inputs for typical module) |  |
| Add-on AO module (state quantity of outputs for typical module) |  |

**Meters**

Supply and installed cost including 50m of cabling and any gateway/interface requirements to the BMS

|  |  |
| --- | --- |
| **Item** | **Cost** |
| Gas Meter – DN50 | $ |
| Gas Meter – DN65 | $ |
| Gas Meter – DN80 | $ |
| Gas Meter – DN100 | $ |
|  |  |
| Water Meter – DN100 | $ |
| Water Meter – DN125 | $ |
| Water Meter – DN150 | $ |
| Water Meter – DN200 | $ |
| Water Meter – DN250 | $ |
| Water Meter – DN300 | $ |
|  |  |
| Power Meter – 100 Amp | $ |
| Power Meter – 200 Amp | $ |
| Power Meter – 400 Amp | $ |
| Power Meter – 600 Amp | $ |
| Power Meter – 800 Amp | $ |
| Power Meter – 1000 Amps |  |
| Power Meter – 1250 Amps |  |