



## REQUEST FOR QUOTATION

### Lot-03

Request for Quotation for Selection of Bidder for Establishing Tier-III Data Centre Passive Infrastructure

“Security (Fire, VESDA, Rodent,EMS, Access Control,CCTV,Video Wall Etc.)”

November 24, 2025

Grameen Communications  
Telecom Bhaban (Level - 7) 53/1 Box Nagar, Zoo Road, Mirpur, Dhaka-1216.

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

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### Disclaimer

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The RFQ is intended solely to assist bidders and may be updated, revised, or amended at GC's discretion. Bidders are responsible for conducting their own investigations, analysis, and due diligence regarding the project, applicable regulations, and related matters. Statements, estimates, or forecasts contained in this RFQ are based on assumptions that may or may not prove accurate, and no reliance should be placed on them as guarantees or promises.

By participating in this RFQ, bidders acknowledge that GC accepts no liability for any loss or damage arising from the use of, or reliance on, the information provided.

Lot-3: Technical Specification, BOQ, Compliance, Technical and Financial Process

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1. Bidder's Eligibility

| Sl. | Eligibility Criteria   | Document Proof  | Severity | Bidder response with relevant Proof of document |
|-----|--|---|----------|---|
| 1.  | The Bidder should be a legal entity and a registered company that have not been prohibited by Bangladeshi or international court(s) to enter contracts.  | 1. Certificate of Incorporation (in name change cases, copy of Certificate of Incorporation and all subsequent certificate of name change are to be provided) duly signed by the authorised signatory.<br>2. Updated Trade License<br>3. TIN and last year TAX return Certificate or Acknowledgement receipt<br>4. VAT Registration Certificate | Major    |   |
| 2.  | The Bidder should have at least 07 (Seven) years' overall experience in IT/ITES Infrastructure solution  | General Experience Certificates of 07 Years of work (Work Order/Work Completion Certificate) should be submit with this bid Documents   | Major    |   |
| 3.  | The Bidder should submit Audited Financial report for the last three financial years   | Audited Financial Statements or Report for the last three financial years   | Major    |   |
| 4.  | The Bidder must have at least 2 (Two) Data Centre installation and commissioning experience in last 5 (Five) Years in any Government/Financial Institute/Bank/Telco/Corporate/Private sector Years counting backward from the date of publication of the RFQ | Completion Certification must submit with the bid documents   | Critical |   |
| 5.  | The Bidder must have completion experience in last 4 years at least 2 (Two) Complete Data Centre including Auto Fire detection and suppression system, VESDA, EMS etc.   | Completion Certification must submit with the bid documents   | Critical |   |
| 6.  | Confirmation from the Bidder that there are no ongoing or settled cases of arbitration or legal dispute with any entity that will have an impact on the contract with GC   | Bidder must submit the Self-undertaking duly signed by authorised representative with the bid documents   | Critical |   |

## 2. Evaluation of Technical Bids

Technical Evaluation Criteria Table:

|          |  |
|----------|--|
| <b>2</b> | <b>Specific Experience</b>   |
| 2.2      | The bidder should have Specific Experience At least Tk. 1.0 Crore (One Crore in single or combined Data Center infrastructure work) in supply, installation and commissioning of Data Centre in a single contract for any Government/Financial Institute/Bank/Telco/Corporate/Private sector in last 3 years. Years counting backward from the date of publication of the RFQ (Enclose Experience Certificate for verification). |
| 2.4      | The bidder must have Valid ISO 9001:2015 Certificate (Quality Management System), The ISO 9001:2015 should be accredited from UAF or IAF. The Certificate should be verifiable from online.  |
| <b>3</b> | <b>Compliance with the Technical Specification</b>   |
| 3.1      | Bidder must provide all products and technical documents as per compliance of Tier - III (Uptime Institute)  |
| 3.2      | Bidder shall take responsibility if Tier III Certification is denied and Bidder will bear all cost to resolve observations and feedback that needs to be addressed for Certification re-evaluation. So, before selection of the product or brand, please chooses the standard product.   |
| 3.3      | Bidder must provide all kinds of certification related document (i.e.; proper brochure, design, fire gas calculation etc.) to the concern team/Consultant  |
| 3.4      | All critical and major items and features must be Complied with Technical reference and evidence should be submitted based on the compliance checklist   |
| 3.5      | Bidder must write response in details in bidder response column in technical specifications checklist. Don't write only 'complied'.  |
| 3.6      | Bidder shall be provided relevant answer and reference value to use instead of written compliance in technical compliance checklist.   |
| 3.7      | Bidder will provide necessary solution with details information if have any gap/missing in given technical specifications for any kinds of product/solution.   |
| 3.8      | The bidder must conduct the necessary Fluke testing as required and provide the corresponding test reports.  |
| 3.9      | Bidder shall be followed Fire safety standards (NFPA 75, NFPA 76)  |
| 3.10     | Bidder shall be followed Electrical standards (IEC, IEEE)  |
| 3.11     | Bidder shall be followed Structure Cabling standards (TIA/EIA)   |
| 3.12     | Bidder shall provide details specification for all products, even if they are not included in the RFQ  |
| 3.13     | Bidder shall provide all products and goods warranty and 24x7 services support for 3 years after successful handover the project.  |
| 3.14     | Bidder shall provide SOP during PAT/FAT.   |
| 3.15     | Bidder must work in coordination with everyone / stakeholder (Lot-1,2,3 & consultancy firm for DC certification) and obtain the necessary approvals from GC team and project consultant.   |
| 3.16     | Bidder must be following the guidance of GC team and project consultant in each step.  |
| <b>4</b> | <b>Proposed Project Plan: The bidder should submit an overall project plan. The bidder should complete the project within 150 Days from the Contract signing date.</b>   |

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|          |   |
|----------|---|
| 4.1      | <p>Solution Proposal should contain below information</p> <ol style="list-style-type: none"> <li>1. Project Plan with GANTT Chart, delivery/ project execution plan /shipment plan.</li> <li>2. Resource Deployment Plan</li> <li>3. Problem escalation matrix</li> <li>4. Problem escalation time</li> <li>5. Proposed Design (Design as per Tier-III compliance.)</li> </ol>  |
| 4.2      | <p>Bidder shall be provided the following documents during implementation period</p> <ul style="list-style-type: none"> <li>• Weekly progress report</li> <li>• Risk register</li> <li>• Issue log</li> <li>• Change request form</li> <li>• Design submission format</li> </ul>  |
| <b>5</b> | <b>Resource Profile: The Bidder must submit the resources CV</b>  |
| 5.1      | <p><b>Data Centre Expert#1</b><br/>Experience of the bidder in managing the installation and commissioning of large Data Center.</p> <ol style="list-style-type: none"> <li>a. 7+ years' experience in relevant field.</li> <li>b. Education: Bachelor in Computer Science &amp; Engineering (CSE) / in Electrical &amp; Electronics Engineering (EEE)/ in Electronics &amp; Communications (ECE) / Applied Physics &amp; Electronics (APE) / Physics / Mathematics</li> <li>c. Overall experience: Minimum 5 (Five) years with 3 Years of managerial experience in Government/ Corporate/ Financial/ Health Care/ Telco sector/Large IT System Integrator.</li> <li>d. Data Center Experience: At least 2 Data Center implementation/ management.</li> </ol> |
| 5.3      | <p><b>Data Centre Expert#1</b></p> <ol style="list-style-type: none"> <li>a. 5+ years' experience in relevant field.</li> <li>b. Education: Bachelor in Computer Science &amp; Engineering (CSE) / in Electrical &amp; Electronics Engineering (EEE)/ in Electronics &amp; Communications (ECE) / Applied Physics &amp; Electronics (APE) / Physics / Mathematics</li> <li>c. Overall experience: Minimum 5 (Five) years with 3 Years of managerial experience in Government/ Corporate/ Financial/ Health Care/ Telco sector/Large IT System Integrator.</li> </ol>  |
| <b>6</b> | <b>Other Criteria</b>   |
| 6.1      | <p>a. Major offered products (Fire Suppression, VESDA, Rodent, EMS etc.) OEM should have presence for last 5 years in local market.</p>   |
| 6.2      | <p>The proposed OEM Major offered products (Fire Suppression, VESDA, Rodent, EMS etc.) should be Tier III/Tier IV compatible. The OEM should submit a declaration to conformity of this requirement.</p>  |

### 3. Evaluation of Financial Bids

1. The Financial Bids of only the technically qualified bidders will be eligible for financial evaluation.
2. Any conditional bid may lead to disqualification.
3. **Total Contract Value or Total Project Price** will consist of supply of Hardware Cost, Implementation & commissioning Cost, 24X7 support Cost for 3 years within the warranty period with service support.
4. The bid price will include all taxes, VATs and levies and shall be in Bangladesh Taka.

#### 3.1 Summary of Costs:

| SI                          | Description                          | UoM | Qty. | Unit Price with TAX | Total Price |
|-----------------------------|--------------------------------------|-----|------|---------------------|-------------|
| 1.                          | Item Name: Safety and Security.....  |     |      |                     |             |
|                             | 1.1. Automatics Fire suppression.... |     |      |                     |             |
|                             | 1.2. VESDA                           |     |      |                     |             |
|                             | 1.3. EMS                             |     |      |                     |             |
|                             | 1.4. Rodent                          |     |      |                     |             |
|                             | 1.5. Access Control                  |     |      |                     |             |
|                             | 1.6. IP Camera.....                  |     |      |                     |             |
| 2.                          | Item Name: Video Wall                |     |      |                     |             |
|                             | 2.1. Video wall for NOC              |     |      |                     |             |
|                             | 2.2. ....                            |     |      |                     |             |
| Total Price (Including TAX) |                                      |     |      |                     |             |
| VAT                         |                                      |     |      |                     |             |
| Grand Total                 |                                      |     |      |                     |             |

Note:

- ✓ Bidder should submit the commercial offer including supply and installation.
- ✓ Bidder should submit price breakdown in each section

#### 3.2 Payment Milestone:

Infrastructure supply & Implementation Payment Milestone:

- (i) On Contract Signing: 10% of the Total Contract Price as mobilization money of the project
- (ii) On Delivery of major Products: 40% of the Total Contract Price
- (iii) On Delivery of rest of the Products: 10% of the Total Contract Price
- (iv) On Completion of installation & PAT: 25% of the Total Contract Price
- (v) On Completion of FAT: 10% of the Total Contract Price
- (vi) On completion of After 3 months of stable operation :5% of the Total Contract Price
- (vii) The final bill of the project shall be based at actual basis, subject to verification and approval by the client after completion of all deliverables.
- (viii) All payments will be made in Bangladeshi Taka (BDT) through account payee cheque as per agreed milestones and upon submission of proper invoices.
- (ix) Taxes and duties shall be deducted at source as per prevailing government regulations.

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Note:

- ✓ Partial/Part Delivery of the products is allowed, payment of that Partial/Part delivery products also allowed.
- ✓ If bidder is unable to support the client will impose penalty which will be decided during contract signing period.

4. Warranty with Service Support of the Product

**Warranty with 24x7 service support after FAT First 3 Year**

| SI       |   | Description  | Warranty with 24x7 service support after FAT First 3 Year |
|----------|---|--|---|
| <b>1</b> | <b>Item Name: Safety &amp; Security</b> |  |   |
|          | 1.1                                     | Automatic Fire Detection & Suppression System (AFD & AFSS) | ✓   |
|          | 1.2                                     | Very Early Smoke Detection Apparatus (VESDA)               | ✓   |
|          | 1.3                                     | EMS  | ✓   |
|          | 1.4                                     | Rodent   |   |
|          | 1.5                                     | Safety & Security-Access Control                           | ✓   |
|          | 1.6                                     | Safety & Security-IP Camera with CMS software              | ✓   |
| <b>2</b> | <b>Item Name: Video Wall</b>            |  |   |
|          | 2.1                                     | Video wall for Network Operation Center (NOC)              | ✓   |
| <b>3</b> | <b>Item Name: Product Training</b>      |  |   |
|          | 3.1                                     | Relevant Product Training and SOP                          | NA  |

## 5. Scope of Work

### 5.1 Brief of the Scope of Work

| <b>Sl.</b> | <b>Description</b>                      |  |
|------------|---|--|
| <b>1</b>   | <b>Item Name: Safety &amp; Security</b> |  |
|            | 1.1                                     | Automatic Fire Detection & Suppression System (AFD & AFSS) |
|            | 1.2                                     | Very Early Smoke Detection Apparatus (VESDA)               |
|            | 1.3                                     | EMS  |
|            | 1.4                                     | Rodent   |
|            | 1.5                                     | Safety & Security-Access Control                           |
|            | 1.6                                     | Safety & Security-IP Camera with CMS software              |
| <b>2</b>   | <b>Item Name: Video Wall</b>            |  |
|            | 2.1                                     | Video wall for Network Operation Center (NOC)              |
| <b>3</b>   | <b>Item Name: Product Training</b>      |  |
|            | 3.1                                     | Relevant Product Training and SOP                          |

**6. Technical Specification**

1. Item Name: Safety & Security

1.1 Automatic Fire Suppression System (AFSS)

| S<br>I  | Item   | Description   | Severity | Uo<br>M  | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |  |
|---|--|---|----------|----------|-----|--|--|
| <b>A</b>  | <b>Suppression Agent</b>   |   |          |          |     |  |  |
| 1   | Item   | Suppression Agent (GAS) NAFS or SHT 1230  | Critical |          |     |  |  |
|   | Brand  | Any International Reputed Brand   | Critical |          |     |  |  |
|   | Origin   | Renowned country over the world   | Critical |          |     |  |  |
|   | Qty  | NAFS or SHT 1230 agent (Server Room, Power Room, and MMR)   | Critical | Kg       | 230 |  |  |
|   | Chemical formula   | fluorinated ketone (FK-5-1-12).   | Critical |          |     |  |  |
|   | Features   | NAFS-1230 fluid has zero ozone depletion potential and the lowest atmospheric lifetime for chemical clean agent alternatives: 5 days. The next closest halon alternative is 29 years. |          | Critical |     |  |  |
|   |  | NAFS-1230 fluid has a Global Warming Potential of 1, which is 99.9% lower than any halocarbon agent acceptable for use in occupied spaces.  |          | Critical |     |  |  |
| With zero ozone depletion potential, extremely low global warming potential and short atmospheric |  | Critical  |          |          |     |  |  |
|   | Hydraulic calculations should be submitted along with bid submission according to site survey. Please add if need more after site survey |   | Critical |          |     |  |  |
| <b>B</b>  | <b>Agent Storage seamless Cylinder</b>   |   |          |          |     |  |  |
| 1   | Brand  | Any International Reputed Brand   | Critical |          |     |  |  |
|   | Country of Origin  | Renowned country over the world   | Critical |          |     |  |  |

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| S<br>I | Item                     | Description   | Severity  | Uo<br>M  | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |
|--------|--------------------------|---|---|----------|-----|--|
|        | Country of Manufacturing | Renowned country over the world   | Critical  |          |     |  |
|        | Model                    | To be mention by the Bidder   | Critical  |          |     |  |
|        | Qty                      | 100 LTR Seamless Cylinder With Basic Assembly, UL Listed with label indicator for Server Room   | Critical  | Set      | 2   |  |
|        |                          | 67.5 LTR Seamless Cylinder With Basic Assembly, UL Listed with label indicator for Power Room -A  | Critical  | Set      | 1   |  |
|        |                          | 67.5 LTR Seamless Cylinder With Basic Assembly, UL Listed with label indicator for Power Room - B   | Critical  | Set      | 1   |  |
|        |                          | 26.8 LTR Seamless Cylinder With Basic Assembly, UL Listed with label indicator For MMR Room-A   | Critical  | Set      | 1   |  |
|        |                          | 26.8 LTR Seamless Cylinder With Basic Assembly, UL Listed with label indicator For MMR Room-B   | Critical  | Set      | 1   |  |
|        |                          | Local Fill and Refill Facility  | Bidder Should Submit MOU who have local Fill and Refill Facility of NAFS-1230 | Critical |     |  |
|        | Hydraulic calculations   | Hydraulic calculations should be submitted along with bid submission according to site survey. Please add if need more capacity of cylinder after site survey | Critical  |          |     |  |
|        | Cylinder Assembly        | Cylinder Assembly with label indicator  | Critical  |          |     |  |
|        |                          | Solenoid valve, Actuator, discharge pressure switch, check valve and others necessary accessories should be assembled by manufacturer or equivalent           | Critical  |          |     |  |
|        |                          | The agent storage cylinder is a steel pressure vessel manufactured, tested and stamped in accordance with DOT   | Critical  |          |     |  |
|        | Storage Pressure         | 24.5 to 42 bar Max  | Critical  |          |     |  |
|        | Test Pressure            | From 150 bar to 300 bar   | Major   |          |     |  |
|        | Compliance               | UL Listed & ULC/FM Approved   | Major   |          |     |  |

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| S<br>I                            | Item   | Description   | Severity | Uo<br>M | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |
|-----------------------------------|--|---|----------|---------|-----|--|
|                                   | Electric Solenoid 24V DC - Stackable           | Electric solenoid valve is normally closed and the valve requires electrical energy to remain open. | Critical |         |     |  |
|                                   | Electrical Properties:                         | 24 V.D.C.   | Critical |         |     |  |
| <b>C</b>                          | <b>Steel Nozzles</b>                           |   |          |         |     |  |
|                                   | Qty  | Steel Nozzle UI Listed as per Hydraulic Calculations as per requirement                             | Critical | Set     | 23  |  |
| 1                                 | Feature  | Each nozzle is available with 360°16 port (central), 180° 7 port (sidewall) discharge pattern.      | Critical |         |     |  |
|                                   |  | 360° (central) and 180° (sidewall) nozzles generate a reactive force opposite to the nozzle         | Major    |         |     |  |
|                                   |  | area of protection when multiple nozzles are discharged into the same hazard the hazard             | Major    |         |     |  |
|                                   |  | Shall be divided in two equal coverage areas. 360° nozzles shall be centrally located.              | Major    |         |     |  |
|                                   |  | 180° Nozzles shall be centrally located against nearest wall. For protected spaces that             | Major    |         |     |  |
| Compliance                        | UL Listed                                      | Critical  |          |         |     |  |
| <b>D</b>                          | <b>Bracket/Strap</b>                           |   |          |         |     |  |
| 1                                 | Cylinder Front & Back Strap                    | Cylinder Front Strap with Back Rack   | Critical | Set     | 12  |  |
| <b>E</b>                          | <b>Portable Extinguisher</b>                   |   |          |         |     |  |
| 1                                 | Brand  | Renowned Brand as installed in Local Market   | Critical |         |     |  |
|                                   | Origin   | Renowned country over the world   | Critical |         |     |  |
|                                   | Qty  | CO2 Type 3 kg   | Critical | No's    | 6   |  |
| ABC Dry Chemical Powder Type 3 kg |  | Critical  | No's     | 6       |     |  |
| <b>F</b>                          | <b>Mechanical item and Electrical fittings</b> |   |          |         |     |  |
| 1                                 | Seamless MS Pipe and fittings                  | Carbon steel black color Schedule 40 pipe. Pipes size will be as per OEM Hydraulic calculations     | Critical | Lot     | 1   |  |

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| S<br>I | Item   | Description  | Severity | Uo<br>M | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |
|--------|--|--|----------|---------|-----|--|
|        |  | Pipe fitting i.e. elbow, socket, union, reducer, will be as per OEM Hydraulic calculations   | Critical | Lot     | 1   |  |
|        | MS Hanger  | For Pipe Fixing  | Critical | Lot     | 1   |  |
|        |  | MS Hanger for Detector setup   | Critical | Lot     | 1   |  |
|        | Fire resistance cable  | BYA 2x1.5 mm <sup>2</sup> Fire resistance cable, Brand: BRB/BBS/SQ   | Critical | Coil    | 12  |  |
|        | Paint  | Best Quality Local Painting, Berger or equivalent  | Critical | Job     | 1   |  |
|        | Manifold   | Bibber should provide if required  | Major    | Lot     | 1   |  |
|        | PVC Conduit  | PVC Pipe ¾" conduit, fittings Others   | Critical | lot     | 1   |  |
|        | <b>G</b> Digital Fire Alarm & Automatic Gas Suppression Control Panel (Fire Alarm Control Panel, Smoke Detector & Heat Detector should be from same Brand/OEM) |  |          |         |     |  |
|        | Brand:   | Fire Alarm Control Panel, Smoke Detector & Heat Detector should be from same Brand/OEM   | Critical |         |     |  |
|        | Country of Origin:   | Renowned country over the world  | Critical |         |     |  |
|        | Country of Manufacturing:  | Renowned country over the world  | Critical |         |     |  |
|        | Model:   | To be Mention by the Bidder  | Critical |         |     |  |
|        | Qty  | Control Panel with accessories   | Critical |         |     |  |
| 1      | Feature  | 2 Area Fire Extinguishing Panel uses the latest microprocessor technology to meet today's stringent needs for a comprehensive and versatile range of Fire Detection & Alarm Systems. | Critical | Set     | 3   |  |
|        |  | 1 Area Fire Extinguishing Panel uses the latest microprocessor technology to meet today's stringent needs for a comprehensive and versatile range of Fire Detection & Alarm Systems. | Critical | Set     | 1   |  |
|        |  | The Fire alarm Control Panel should have Zone wise Automatic   | Critical |         |     |  |

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| S<br>I | Item | Description   | Severity | Uo<br>M | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |
|--------|------|---|----------|---------|-----|--|
|        |      | Fire Detection and Gas Suppression Control Features.Outputs for Audio / Visual Warning Devices, and System Actuation specially designed to cater for Fire Extinguishing Systems   |          |         |     |  |
|        |      | The Fire Alarm Control Panel should cover all the critical area where required automatic Gas Suppression system i.e. Server Room etc.   | Critical |         |     |  |
|        |      | Design in compliance to EN54 Parts 2 & 4, each detection zone can cater up to 20 conventional devices. Attractively styled and compact in size to blend into any modern architecture, the slim profile of the panel is unobtrusive even when surface mounted. The panel should have minimum 4 zone. | Critical |         |     |  |
|        |      | The Fire Alarm Control Panel should be microprocessor programmable user friendly control panel with a digital ammeter, voltmeter and a countdown timer displayed on the front panel.  | Critical |         |     |  |
|        |      | The Fire Alarm Control Panel should have Built-in power pack with an intelligent charger which allow to charge up a set of complete flat 24 volts battery and automatically cuts off charging once battery fully charge.  | Critical |         |     |  |
|        |      | This controls and indications are housed in a compact enclosure finished with signal red polyester epoxy powder paint. The bidder should provide Indoor type of enclosure.  | Critical |         |     |  |
|        |      | FEATURES:   |          |         |     |  |
|        |      | Power Source Indicators   | Major    |         |     |  |
|        |      | Power Failure Indicators  | Major    |         |     |  |
|        |      | Zone Fire, Fault and Isolate Indicators   | Major    |         |     |  |

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| S<br>I   | Item                       | Description  | Severity | Uo<br>M | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |
|----------|----------------------------|--|----------|---------|-----|--|
|          |                            | Bell Isolate Switch and Indicator  | Major    |         |     |  |
|          |                            | Common Fault Contact   | Major    |         |     |  |
|          |                            | Low Pressure Indicator   | Major    |         |     |  |
|          |                            | The Control Panel should have facility to integrate with 3rd party monitoring system. In case of any alarm is occurred in the Fire alarm control panel, the Control panel should be able to send a signal to the 3rd party monitoring system for Email notification from EMS system. Fire Detection & Alarm Systems.<br>Design in compliance to EN54 Parts 2 & 4, each detection zone can cater up to 20 conventional devices. | Critical |         |     |  |
|          |                            | Power Supply: 240 V AC 50 Hz   | Critical |         |     |  |
|          |                            | Operating System Voltage: 24V DC   | Critical |         |     |  |
|          |                            | Auxiliary Output: 24V, 2Amp  | Critical |         |     |  |
|          |                            | Alarm Signal: N/O Contact  | Critical |         |     |  |
|          |                            | Gas Discharge Signal: N/O Contact  | Critical |         |     |  |
|          |                            | Dimension: To be mentioned by the Bidder   | Critical |         |     |  |
| 2        | Battery                    | SLA/VRLA 12V 7Ah/9Ah Battery for Fire Alarm Control Panel  | Critical | Nos     | 8   |  |
| <b>H</b> | <b>Heat Detector</b>       |  |          |         |     |  |
| <b>1</b> | Heat Detector              | Detector Principle: Linear approximation over temperature range 25°C to 90°C   | Critical |         |     |  |
|          | Brand                      | Fire Alarm Control Panel, Smoke Detector & Heat Detector should be from same Brand/OEM   | Critical |         |     |  |
|          | Country of Origin:         | Renowned country over the world  | Critical |         |     |  |
|          | Standard                   | EN54-7 : 2018  |          |         |     |  |
|          | Qty                        | Heat Detector with mounting accessories  | Critical | Set     | 40  |  |
|          | Features                   | ROR With Base  | Critical |         |     |  |
|          | Supply voltage: 9.6 to 30V | Critical   |          |         |     |  |
|          | Alarm indication: Red LED  | Major  |          |         |     |  |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| S<br>I           | Item                                      | Description   | Severity | Uo<br>M  | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |  |
|------------------|---|---|----------|----------|-----|--|--|
|                  |   | Standard: CE, LPCB approval   | Major    |          |     |  |  |
| <b>I</b>         | <b>Smoke Detector</b>                     |   |          |          |     |  |  |
| 1                | Smoke Detector                            | Optical Smoke detector with base  | Critical |          |     |  |  |
|                  | Brand                                     | Fire Alarm Control Panel, Smoke Detector & Heat Detector should be from same Brand/OEM                      | Critical |          |     |  |  |
|                  | Country of Origin:                        | Renowned country over the world   | Critical |          |     |  |  |
|                  | Qty                                       | Smoke Detector with mounting accessories  | Critical | Nos      | 40  |  |  |
|                  | Feature                                   | Photo-electric Smoke Detector   |          | Critical |     |  |  |
|                  |   | Detection Principles: Photo-electric detection of light scattered in a forward direction by smoke particles |          | Critical |     |  |  |
|                  |   | Supply Wiring: Two-wire supply, polarity insensitive  |          | Major    |     |  |  |
|                  |   | flashing LED  |          | Major    |     |  |  |
|                  | Supply voltage: 9.6 to 30V                |   | Critical |          |     |  |  |
| Alarm Indication | Alarm indication: Clear LED, Red in alarm | Major   |          |          |     |  |  |
| Materials:       | Detector Housing White polycarbonate      | Major   |          |          |     |  |  |
| <b>J</b>         | <b>Sounder with Flashing Light</b>        |   |          |          |     |  |  |
|                  | Brand                                     | Any International Reputed Brand   | Critical |          |     |  |  |
|                  | Country of Origin:                        | Renowned country over the world   | Critical |          |     |  |  |
|                  | Qty                                       | Sounder with Flashing Light   | Critical | Set      | 6   |  |  |
| <b>K</b>         | <b>Manual Call Point</b>                  |   |          |          |     |  |  |
|                  | Brand                                     | Same as Fire panel Brand/OEM  | Critical |          |     |  |  |
|                  | Country of Origin:                        | Renowned country over the world   | Critical |          |     |  |  |
|                  | Qty                                       | Manual Call point with accessories  | Critical | Set      | 12  |  |  |
| <b>M</b>         | <b>Mechanical Manual release switch</b>   |   |          |          |     |  |  |
|                  | Brand                                     | Any International Reputed Brand   | Critical |          |     |  |  |
|                  | Country of Origin:                        | Renowned country over the world   | Critical |          |     |  |  |
|                  | Qty                                       | Abort Station with accessories  | Critical | Set      | 13  |  |  |
| <b>N</b>         | <b>Exit Sign</b>                          |   |          |          |     |  |  |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| S<br>I   | Item                                    | Description  | Severity | Uo<br>M | Qty | Bidder's<br>Response<br>and<br>reference<br>document<br>with<br>page<br>number |
|----------|---|--|----------|---------|-----|--|
|          | Brand                                   | Renowned Brand as installed in Local Market  | Critical |         |     |  |
|          | Country of Origin:                      | Renowned country over the world  | Critical |         |     |  |
|          | Country of Manufacturing:               | Renowned country over the world  | Critical |         |     |  |
|          | Qty                                     | Exit sign with accessories   | Critical | Nos     | 16  |  |
| <b>O</b> | <b>Emergency Light</b>                  |  |          |         |     |  |
|          | Emergency Light                         | Twin Head Emergency Light 2 Hour   | Critical |         |     |  |
|          | Brand                                   | Renowned Brand as installed in Local Market  | Critical |         |     |  |
|          | Country of Origin:                      | Renowned country over the world  | Critical |         |     |  |
|          | Country of Manufacturing:               | Renowned country over the world  | Critical |         |     |  |
|          | Qty                                     | Emergency light with accessories   | Critical | Set     | 6   |  |
| <b>P</b> | <b>Sign</b>                             |  |          |         |     |  |
|          | Gas Discharge Sign                      | Gas Discharge Sign   | Critical | Nos     | 6   |  |
| 1        | Evacuate Sign                           | Evacuate Sign  | Critical | Nos     | 6   |  |
|          | Caution Sign                            | Caution Sign   | Critical | Nos     | 6   |  |
| <b>Q</b> | <b>Installation</b>                     |  |          |         |     |  |
| 1        | Installation Material                   | Bidder should provide all necessary installation material (i.e. Cable tie, PVC channel, PVC pipe, Spiral Insulation, Flexible pipe, Royal bolt, Royal plug, screw, GI wire, Velcro etc.) | Critical | LS      | 1   |  |
|          | Installation                            | Installation, Testing and Commissioning above all items  | Critical | Job     | 1   |  |
| <b>R</b> | <b>Instruction and other activities</b> |  |          |         |     |  |
| 1        | Sample                                  | Sample/Design/Image for the necessary item should be approved by GC before implementation.   | Critical | Job     | 1   |  |
| 2        | As built design                         | The bidder should provide as built design with details during the implementation and PAT period  | Critical | Job     | 1   |  |

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| S<br>I   | Item                                  | Description  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|---------------------------------------|--|----------|-----|-----|---|
| 3        | Labelling                             | Printed labeling enclosed with each applicable item                                      | Critical | Lot | 1   |   |
| 4        | Others                                | Bidder should accommodate additional items if required during the implementation period. | Critical | Lot | 1   |   |
|          | BOM                                   | Bidder should submit the details BOM   | Critical |     |     |   |
| <b>S</b> | <b>Warranty &amp; Service Support</b> |  |          |     |     |   |
| 1        | Warranty & Service support            | 03 (Three) Years from the date of PAT  | Critical |     |     |   |
|          |                                       | Bidder should ensure 24x7 service support with spare parts within the warranty period.   | Critical |     |     |   |

1.2 Very Early Smoke Detection Apparatus (VESDA)

| Descriptions                               | Required Specification   | Severity | UoM | QTY | Bidder's Response and reference document with page number |
|--|--|----------|-----|-----|---|
|  | VESDA/HSSD System  |          |     |     |   |
| Brand:                                     | Any International Reputed Brand  | Critical |     |     |   |
| Country of Origin:                         | Renowned country over the world  | Critical |     |     |   |
| APPROVALS standards                        | UL, ULC, Vds, EN 54-20, ISO 7240-20 for Four Inlet HSSD  | Critical |     |     |   |
| General                                    | The solution of Very Early High Smoke Detection Apparatus (VESDA) system should combines aspirating Smoke Detection at Server Room, Power Room, MMR, where required. | Critical |     |     |   |
| Smoke Detection                            | Laser-based Absolute   | Critical |     |     |   |
| Event log                                  | up to 18000 events or more   | Critical |     |     |   |
| Alarm Sensitivity Range for One inlet HSSD | 0.008 - 6.25 % obs/ft (0.025 - 20.00 % obs/m) or better  | Critical |     |     |   |

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

|  |  |          |      |   |  |
|--|--|----------|------|---|--|
| Alarm Sensitivity Range for Four inlet HSSD      | 0.005 to 20% obs/m (0.0016% to 6.25% obs/ft) or better   | Critical |      |   |  |
| Maximum Area coverage for One & Four Inlet HSSD: | Please Mention   | Critical |      |   |  |
| Programmable Relays For 4 Inlet HSSD:            | 7 Relays or better   | Critical |      |   |  |
| Programmable Relays For 1 Inlet HSSD:            | 3 Relays or better   | Critical |      |   |  |
| IP Rating  | IP30 or better   | Critical |      |   |  |
| Detector Ambient:                                | 0°C–39°C (32°–103°F)   | Critical |      |   |  |
| Humidity:  | 5%–95% RH, non-condensing  | Critical |      |   |  |
| HSSD two inlet                                   | Each device control 2 room   | Critical | Set  | 3 |  |
| Model:   | Please mention   | Critical |      |   |  |
| Power Supply Units                               | 24V DC, 2 /4 AMP   | Critical | Nos  | 6 |  |
|  | Sampling Pipe with Metal Hanger: The sampling pipe shall be smooth bore with an internal diameter between 15-25mm. Normally, pipe with an outside diameter of 25mm and internal diameter of 21mm should be used. painted MS Metal Hanger | Critical | lot  | 1 |  |
| Pipe Brand:                                      | Any International Reputed Brand  | Critical |      |   |  |
| Country of Origin:                               | Please mention   | Major    |      |   |  |
| Alarm Bell                                       | 24V Alarm Bell for Vesda   | Critical | Nos  | 6 |  |
| Power Cable                                      | 3 core x 1 sq. mm cable for Power line   | Critical | Coil | 2 |  |
| Accessories                                      | End Cap, T Joints & L Bends for sampling point network with related all accessories  | Critical |      |   |  |
| Supply, Installation & Commissioning charge      | Supply, Installation, and Commissioning with all required components/ items/ accessories also to supply components/ items/accessories that not mentioned here but required to complete the installation.                                 | Critical |      |   |  |
| Special Condition                                | If any other thing required to provide the solution it should be mentioned and quoted.   | Critical |      |   |  |

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

|                        |                                       |          |  |  |  |
|------------------------|---------------------------------------|----------|--|--|--|
| BOM & Product Brochure | To be attached                        | Critical |  |  |  |
| Warranty               | 03 (Three) Years from the date of PAT | Critical |  |  |  |

### 1.3 Automatic Environmental Monitoring System (EMS)

| SI               | Item   | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|------------------|--|--|----------|-----|-----|---|
| <b>A</b>         | <b>Item</b>  | <b>EMS Enterprise Systems</b>  |          |     |     |   |
| 1                | Brand  | Renowned Brand   | Critical |     |     |   |
|                  | Model  | To be mentioned by the Bidder  | Critical |     |     |   |
|                  | Country of Origin  | Renowned country over the world  | Critical |     |     |   |
|                  | Country of Manufacture                                       | Renowned country over the world  | Critical |     |     |   |
|                  | Qty  | EMS System   | Critical | Set | 1   |   |
|                  | Features   | The Environment Monitoring System monitors critical environmental conditions, such as temperature, humidity, liquid presence, and vibration. Management (SNMP), and SMS messages (via external GSM modem). | Critical |     |     |   |
|                  | RJ45 Sensor Ports  | 16   | Critical |     |     |   |
|                  | Digital Inputs   | 8  | Critical |     |     |   |
|                  | Device Internal Sensors                                      | 3  | Critical |     |     |   |
|                  | Remote Temp/Humidity Sensors over IP                         | 8  | Critical |     |     |   |
|                  | Remote 1-Wire Sensors over IP                                | 4  | Critical |     |     |   |
|                  | Output Relays  | 4 (Normally open / normally closed connection points)  | Critical |     |     |   |
|                  | Alarm Port   | Screw Terminal Pair 1  | Critical |     |     |   |
|                  | USB Console Port   | One female USB   | Critical |     |     |   |
| Ethernet Port    | One 10/100 Base-T Ethernet port with RJ45 Ethernet connector | Critical   |          |     |     |   |
| Alerts 8 methods | Email Authenticates  | Critical   |          |     |     |   |
|                  | Web Interface  | Critical   |          |     |     |   |

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| SI                    | Item  | Required specifications   | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|-----------------------|---|---|----------|-----|-----|---|
|                       |   | SNMP network management: V1/V2c/V3  | Critical |     |     |   |
|                       |   | Front Panel LEDs: LEDs for internal sensors, external sensors, backup battery, data log, power, AUX power | Critical |     |     |   |
|                       |   | SMS Messages Via external USB modem (Sim must provide by the customer)                                    | Critical |     |     |   |
|                       |   | Voice Phone Calls: Via automatic voice dialer system (not included)                                       | Major    |     |     |   |
|                       | Control Methods 6 methods                       | Web Interface: HTTP/HTTPS   | Critical |     |     |   |
|                       |   | Telnet  | Major    |     |     |   |
|                       |   | SSH   | Major    |     |     |   |
|                       |   | Network Operation (SNMP) V1/V2c/V3  | Critical |     |     |   |
|                       |   | RS232 (via female RJ45 RS232 connector & female USB Type B connector)                                     | Major    |     |     |   |
|                       | Protocols                                       | HTTP/HTTPS, SNMP V1/V2c/V3, SMTP, TCP/IP, Syslog, SNTP, DHCP, SSHv2, SSLv3, TLS v1.2,                     | Major    |     |     |   |
|                       |   | LDAPv3, XOAUTH2, AES 256-bit, 3DES, Blowfish, RSA, EDH-RSA, Arcfour, IPV6, WAP 2.0, RADIUS                | Major    |     |     |   |
|                       | Other Features                                  | Flash Upgradable  | Major    |     |     |   |
|                       |   | Restore Defaults Button   | Major    |     |     |   |
|                       |   | System Reset Button   | Major    |     |     |   |
|                       | Operating Temperature                           | 32 to 104°F (0 to 40°C)   | Major    |     |     |   |
| Power                 | 110 or 230 VAC at 50 or 60 Hz via IEC connector | Major   |          |     |     |   |
| Dimensions WxDxH (in) | To be mentioned by the Bidder                   | Major   |          |     |     |   |
| Regulatory Approvals  | CE, RoHS, TAA compliant                         | Major   |          |     |     |   |
| <b>B</b>              | <b>Temperature and Humidity sensor</b>          |   |          |     |     |   |
| 1                     | <b>Item</b>                                     | <b>Temperature and Humidity Sensor</b>  |          |     |     |   |
|                       | Brand   | Same Brand  | Critical |     |     |   |

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| Sl                        | Item   | Required specifications                          | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|---------------------------|--|--|----------|-----|-----|---|
|                           | Origin                                       | Renowned country over the world                  | Critical |     |     |   |
|                           | Part Number/Model                            | To be mentioned by the bidder                    | Critical |     |     |   |
|                           | Qty  | <b>Temperature and Humidity Sensor</b>           | Critical | Set | 6   |   |
|                           | Temperature accuracy                         | ±0.90°F (±0.50°C) for -4 to 14°F (-20 to -10°C). | Critical |     |     |   |
|                           |  | ±0.72°F (±0.40°C) for 14 to 140°F (-10 to 60°C). | Critical |     |     |   |
|                           | Connection Type                              | RJ45   | Critical |     |     |   |
| Cable Type and Max Length | Cat5/5e/6 cable up to 1000ft                 | Critical   |          |     |     |   |
| <b>C</b>                  | <b>Liquide Detection Sensor</b>              |  |          |     |     |   |
| <b>1</b>                  | <b>Item</b>                                  | <b>Liquid Detection Sensor (Rope Type)</b>       | Critical |     |     |   |
|                           | Brand  | Same Brand                                       | Critical |     |     |   |
|                           | Origin                                       | Renowned country over the world                  | Critical |     |     |   |
|                           | Part Number/Model                            | To be mentioned by the bidder                    | Critical |     |     |   |
|                           | Qty  | <b>Liquid Detection Sensor (Rope Type)</b>       | Critical |     |     |   |
|                           | Length                                       | Min. 50 Feet detection with extension            | Critical | Set | 2   |   |
|                           |  | Min. 10 Feet detection with extension            | Critical | Set | 2   |   |
|                           | Voltage and current                          | Open Circuit: 5VDC max @ 1µA.                    | Major    |     |     |   |
|                           |  | Closed circuit: <300mV 10.7mA.                   | Major    |     |     |   |
| Material                  | PVC twisted pair with stainless 316 elements | Major  |          |     |     |   |
| <b>D</b>                  | <b>Phase Power Monitor</b>                   |  |          |     |     |   |
| <b>1</b>                  | <b>Item</b>                                  | <b>3-Phase AC Power Monitor</b>                  |          |     |     |   |
|                           | Brand  | Same Brand                                       | Critical |     |     |   |
|                           | Origin                                       | Renowned country over the world                  | Critical |     |     |   |
|                           | Part Number                                  | To be mentioned by the bidder                    | Critical |     |     |   |
|                           | Qty  | <b>3-Phase AC Power Monitor</b>                  | Critical | Set | 2   |   |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| Sl              | Item   | Required specifications   | Severity  | UoM      | Qty | Bidder's Response and reference document with page number |  |
|-----------------|--|---|---|----------|-----|---|--|
|                 | Features   | The 3-Phase AC Voltage and/or Current Monitor Monitors and reports the True RMS Voltage, RMS Current, Frequency, Active Power, Reactive Power, Phase angle and Power Factor for any 3-phase circuit, such as the power a building consumes. | Critical  |          |     |   |  |
|                 | Frequency  | 50/60Hz   | Critical  |          |     |   |  |
|                 | Maximum primary current                              | Limited only by the current transformer used  | Critical  |          |     |   |  |
|                 | CT   | CT for monitoring   | Critical  |          |     |   |  |
| <b>E</b>        | <b>GSM Modem</b>                                     |   |   |          |     |   |  |
|                 | Brand  | Same Brand/compatible with EMS  | Critical  |          |     |   |  |
|                 | Origin   | Renowned country over the world   | Critical  |          |     |   |  |
|                 | Part Number  | To be mentioned by the bidder   | Critical  |          |     |   |  |
|                 | Qty  | <b>GSM Modem</b>  |   | Set      | 1   |   |  |
|                 | Features   |   | Sends SMS text messages to a pager or cell phone when a sensor goes out of range of a configurable threshold. | Critical |     |   |  |
|                 |  |   | SIM card supporting SMS messaging required. (Sim must provide by the customer)                                | Critical |     |   |  |
|                 |  |   | Supports third generation (3G/4G) digital cellular standards.   | Critical |     |   |  |
|                 |  |   | USB 2.0 stick with retractable Male USB Type A connector  | Critical |     |   |  |
|                 | 3G   | Quad band 850/AWS/1900/2100 MHz   | Critical  |          |     |   |  |
|                 | E-GPRS   | Quad band 850/900/1800/1900 MHz   | Critical  |          |     |   |  |
| GSM Power Class | 4 (2W) 850/900 MHz bands, 1 (1W) 1800/1900 MHz bands | Critical  |   |          |     |   |  |
| <b>F</b>        | <b>UTP CAT6 Cable:</b>                               |   |   |          |     |   |  |
| 1               | Brand  | Panduit / Siemon / Commscope / Belden   | Critical  |          |     |   |  |
|                 | Country of Origin                                    | Renowned country over the world   | Critical  |          |     |   |  |
|                 | Country of Manufacturing                             | Renowned country over the world   | Critical  |          |     |   |  |

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| SI  | Item                                    | Required specifications   | Severity | UoM      | Qty | Bidder's Response and reference document with page number |  |
|---|---|---|----------|----------|-----|---|--|
|   | Model/ Part No                          | To be mentioned by the Bidder   | Critical |          |     |   |  |
|   | Type                                    | Cable Type: U/UTP   | Critical |          |     |   |  |
|   | Qty                                     | Cat6 U/UTP  | Critical | Box      | 2   |   |  |
|   | General Specifications                  | Pairs quantity: 4 Conductor   |          | Critical |     |   |  |
|   |   | Gauge singles: 23 AWG   |          | Critical |     |   |  |
|   |   | Conductor Material: Bare Copper   |          | Critical |     |   |  |
|   |   | Conductors, quantity: 8   |          | Critical |     |   |  |
|   |   | Outer Jacket Materials: LSZH  |          | Critical |     |   |  |
|   |   | Operating Temperature Range – 20 <sup>0</sup> To + 75 <sup>0</sup>  |          | Major    |     |   |  |
|   |   | Bulk Cable Weight: To be mentioned by the Bidder  |          | Major    |     |   |  |
| Box Length: 305 Meter or 1000 ft                      |   | Critical  |          |          |     |   |  |
| Installation: Installation, Testing and Commissioning |   | Critical  |          |          |     |   |  |
| <b>G</b>  | <b>Installation</b>                     |   |          |          |     |   |  |
|   | Installation Material                   | Bidder should provide all the necessary installation material (i.e. Cable tie, PVC channel, PVC pipe, Spiral Insulation, Flexible pipe, Royal bolt, Royal plug, screw, GI wire, Velcro, etc.) | Critical | Lot      | 1   |   |  |
|   |   | Power Cable as required rating  |          | Lot      | 1   |   |  |
|   | Installation                            | Installation, Testing, and Commissioning with the necessary installation Material   | Critical | Job      | 1   |   |  |
| <b>H</b>  | <b>Instruction and other activities</b> |   |          |          |     |   |  |
|   | Sample                                  | Sample for necessary items should be approved by GC before implementation.  | Critical | Job      | 1   |   |  |
|   | As built design                         | Bidder should provide as built design with details during implementation and PAT period   | Critical | Job      | 1   |   |  |
|   | Labelling                               | Printed labelling enclosed with each applicable item  | Critical | Lot      | 1   |   |  |
|   | Others                                  | Bidder should accommodate additional items if required during the implementation period.  | Critical | Lot      | 1   |   |  |
| <b>I</b>  | <b>Warranty &amp; Service Support</b>   |   |          |          |     |   |  |
| 1   | Warranty & Service support              | 03 (Three) Years from the date of PAT   | Critical |          |     |   |  |

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

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| SI | Item | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----|------|--|----------|-----|-----|---|
|    |      | The bidder should ensure 24x7 service support with spare parts within the warranty period. | Critical |     |     |   |

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### 1.4 Rodent Repeller

| Sl       | Item                      | Required specifications   | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|---------------------------|---|----------|-----|-----|---|
| <b>A</b> | <b>Digital Controller</b> |   |          |     |     |   |
|          | Brand                     | MASER/ Internationally Reputed Brand  | Critical |     |     |   |
|          | Brand Origin:             | Renowned country over the world   | Critical |     |     |   |
|          | Country of Manufacture:   | Renowned country over the world   | Critical |     |     |   |
|          | Model:                    | To be mentioned by the Bidder   | Critical |     |     |   |
|          | Coverage area:            | To be mentioned by the Bidder   | Critical |     |     |   |
|          | Qty                       | Controller with Accessories   | Critical | Set | 2   |   |
|          | General Feature           | LCD display with on-board controls  | Critical |     |     |   |
|          |                           | Wave Speed: Is an indicator for the number of frequency sweeps per minute. It can have a maximum value of 130 and a minimum value of 60. The incremental size is 5 i.e. 65, 70, 75 and so on.   | Major    |     |     |   |
|          |                           | Wave Density: Is an indicator for the number of divisions within a  | Major    |     |     |   |
|          |                           | Frequency band. It can have a maximum value of 100 and a minimum value of 80. The incremental size is 10 i.e.80, 90 and 100.  | Major    |     |     |   |
|          |                           | Frequency Band Time: Is an indicator of the time for which the controller would operate in a pre-programmed frequency band. There are 3 bands available: Band A, Band B, and Band C. This parameter can have maximum value of 10 minutes and a minimum value of 1 minute per band. Depending upon the time frame set for each band, the controller will switch the bands automatically. | Major    |     |     |   |
|          |                           | Machine/Controller ID: Is an indicator of the machine/ controller identification number. It can have any value within the range of 0 to 255.  | Major    |     |     |   |

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| SI       | Item   | Required specifications   | Severity | UoM  | Qty | Bidder's Response and reference document with page number |
|----------|--|---|----------|------|-----|---|
|          |  | Password Protection: Every controller is password protected. To change the parameters mentioned above you have to key in the password. The password can be changed if required. The password can be any 5-digit number.                             | Major    |      |     |   |
|          |  | Frequency Testing: This feature will enable the user to test and verify the frequency that is being transmitted from the controller to the transducer. This feature would be particularly useful during systems audit.                              | Major    |      |     |   |
|          |  | Transducer Testing: Can drive up to 20 Transducers and all the 20 transducers can be tested in an audible range one at a time by using this feature of this device  | Major    |      |     |   |
|          |  | Inbuilt RS/EIA-485 transmission up to 1.2 kms to protected area (BMS Room).   | Major    |      |     |   |
|          |  | Frequency band of > 20 KHz and <60 KHz is pre-tuned for 100 different frequencies.  | Critical |      |     |   |
|          |  | Each Transducer should cover up to 500 sq. feet of area on true ceiling and below false flooring or up to 400 sq. feet of area.   | Major    |      |     |   |
|          |  | UL and CE approved transformers for power supply.   | Major    |      |     |   |
| <b>B</b> | <b>Transducers with related accessories:</b> |   |          |      |     |   |
| 1        | Brand  | MASER/ Internationally Reputed Brand  | Critical |      |     |   |
|          | Brand Origin:                                | Renowned country over the world   | Critical |      |     |   |
|          | Country of Manufacture:                      | Renowned country over the world   | Critical |      |     |   |
|          | Qty  | Transducer with Accessories   | Critical | No's | 20  |   |
|          |  | The satellites or Transducers shall be circular on true ceiling mounted low profile units that produce high decibel sound waves at very high frequency not less than 20 KHz. These satellites shall cover an area not less than 300 Sq. ft for Room | Major    |      |     |   |

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| Sl       | Item                                    | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|---|--|----------|-----|-----|---|
|          |   | void application, for ceiling Voids & floor void applications  |          |     |     |   |
| <b>C</b> | <b>Installation</b>                     |  |          |     |     |   |
| 1        | Installation Material                   | Bidder should provide all necessary installation material (i.e. Cable tie, PVC channel, PVC pipe/Conduit, Spiral Insulation, Flexible pipe, Royal bolt, Royal plug, screw, GI wire, Velcro etc.) | Critical |     |     |   |
|          |   | Accessories, Controller base, Cable for transducers (2x .4rm), Power cable for Controller  | Critical |     |     |   |
| 2        | Installation                            | Installation, Testing and Commissioning  | Critical |     |     |   |
| <b>D</b> | <b>Instruction and other activities</b> |  |          |     |     |   |
| 1        | Sample                                  | Sample for necessary item should be approved by GC before implementation.  | Critical | Job | 1   |   |
| 2        | As built design                         | Bidder should provide built-up design with detail during the implementation and PAT period   | Critical | Job | 1   |   |
| 3        | Labelling                               | Printed labeling enclosed with each applicable item  | Critical | Lot | 1   |   |
| 4        | Others                                  | Bidder should accommodate additional items if required during the implementation period.   | Critical | Lot | 1   |   |
| <b>E</b> | <b>Warranty &amp; Service Support</b>   |  |          |     |     |   |
| 1        | Warranty                                | 03 (Three) Years from the date of PAT  | Critical |     |     |   |
| 2        | Service support                         | Bidder should ensure 24x7 service support with spare parts within the warranty period  | Critical |     |     |   |

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

### 1.5 Safety & Security-Access Control

| SI       | Item   | Required specifications                                    | Severity  | UoM      | Qty | Bidder's Response and reference document with page number |  |
|----------|--|--|---|----------|-----|---|--|
| <b>A</b> | <b>Controller</b>  |  |   |          |     |   |  |
| 1        | Brand  | International Reputed Brand                                | Critical  |          |     |   |  |
|          | Country of Origin  | Renowned country over the world                            | Critical  |          |     |   |  |
|          | Country of Manufacturing   | Renowned country over the world                            | Critical  |          |     |   |  |
|          | Model/ Part No   | To be mentioned by the Bidder                              | Critical  |          |     |   |  |
|          | Qty  | Access Reader with Reader EM card, finger print & Password | Critical  | Set      | 8   |   |  |
|          | General Specifications   |  | Authentication: Fingerprint, Password & Card        | Critical |     |   |  |
|          |  |  | CPU: Required Minimum 1.2 GHz Single Core or above  | Critical |     |   |  |
|          |  |  | Memory: 4GB Flash + 64MB RAM or above               | Critical |     |   |  |
|          |  |  | LCD: Multi-Color                                    | Major    |     |   |  |
|          |  |  | Sensor Type: Optical Sensor (OP6)                   | Critical |     |   |  |
|          |  |  | Operating Temperature: -20°C ~ 50°C                 | Major    |     |   |  |
|          |  |  | Operating Humidity: 0% ~ 80%, non-condensing        | Major    |     |   |  |
|          |  |  | Dimension (WxHxD) mm: To be mentioned by the Bidder | Major    |     |   |  |
|          |  |  | Ethernet: Supported (10/100 Mbps, auto MDIX)        | Major    |     |   |  |
|          |  |  | RS-485: 1ch Host or Slave (selectable), OSDP V2.1.6 | Major    |     |   |  |
|          |  |  | Wigand: 1ch Input, 1ch Output                       | Major    |     |   |  |
|          |  |  | TTL Input: 2ch Inputs, 2ch Outputs                  | Major    |     |   |  |
|          |  |  | Relay: 1 Relay minimum                              |          |     |   |  |
|          |  |  | IP Rating: IP 67                                    | Critical |     |   |  |
|          |  |  | Minimum User: 10000                                 | Critical |     |   |  |
|          |  |  | Max. Template: 20000                                | Critical |     |   |  |
|          | Log Capacity: Minimum 1000000  | Critical   |   |          |     |   |  |
|          | Communication: TCP/IP, RS485   | Critical   |   |          |     |   |  |
|          | RFID Card Option: 125 KHz EM   | Critical   |   |          |     |   |  |
|          | Application required: Access Control and Time Attendance Solution both | Critical   |   |          |     |   |  |

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| SI       | Item                                    | Required specifications   | Severity                     | UoM  | Qty | Bidder's Response and reference document with page number |  |
|----------|---|---|------------------------------|------|-----|---|--|
|          |   | Certificates: CE, FCC, KC, RoHS, REACH, WEEE is preferable.   | Major                        |      |     |   |  |
|          | Exit Reader                             | Exit Reader with Reader EM card, finger print   | Critical                     | Set  | 8   |   |  |
|          | Brand                                   | International Reputed Brand   | Critical                     |      |     |   |  |
|          | Country of Origin                       | Renowned country over the world   | Critical                     |      |     |   |  |
|          | Country of Manufacturing                | Renowned country over the world   | Critical                     |      |     |   |  |
|          | Model/ Part No                          | To be mentioned by the Bidder   | Critical                     |      |     |   |  |
|          | Spec                                    | CPU-1.0 GHz,<br>Memory-8GB Flash + 64MB RAM,<br>Max. User-10,000<br>Template-10,000<br>Logs-1,000,000<br>Sound-Multi-Tone-Buzzer,<br>Power-DC 12V | Critical                     |      |     |   |  |
|          | RFID Card                               | RFID Card Option: 125 KHz   | Critical                     | No's | 20  |   |  |
|          | Software                                | Supported   |                              |      |     |   |  |
|          | Proximity Card                          | Supported   |                              |      |     |   |  |
| <b>B</b> | <b>Electromagnetic Lock-Single Door</b> |   |                              |      |     |   |  |
| 1        | Brand                                   | International Reputed Brand   | Critical                     |      |     |   |  |
|          | Country of Origin                       | Renowned country over the world   | Critical                     |      |     |   |  |
|          | Country of Manufacturing                | Renowned country over the world   | Critical                     |      |     |   |  |
|          | Model/ Part No                          | To be mentioned by the Bidder   | Critical                     |      |     |   |  |
|          | Qty                                     | Lock with accessories   | Critical                     | Set  | 8   |   |  |
|          | General Specifications                  |   | Min. 280kg                   |      |     |   |  |
|          |   |   | Voltage Input: 12VDC / 24VDC |      |     |   |  |
|          |   | Current Draw: 510mA / 285mA   |                              |      |     |   |  |
|          |   | Dimension: To be mentioned by bidder  |                              |      |     |   |  |
| <b>C</b> | <b>Electromagnetic Lock-Double Door</b> |   |                              |      |     |   |  |
| 1        | Brand                                   | International Reputed Brand   | Critical                     |      |     |   |  |
|          | Country of Origin                       | Renowned country over the world   | Critical                     |      |     |   |  |
|          | Country of Manufacturing                | Renowned country over the world   | Critical                     |      |     |   |  |
|          | Qty                                     | Lock with accessories   | Critical                     | Set  | 2   |   |  |

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| SI       | Item                                | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|-------------------------------------|--|----------|-----|-----|---|
|          | General Specifications              | Min. 2x280KG (Double Door);  |          |     |     |   |
|          |                                     | Voltage Input: 12VDC / 24VDC   |          |     |     |   |
|          |                                     | Current Draw: 510mA x2 / 285mA x2  |          |     |     |   |
|          |                                     | Dimension: To be mentioned by bidder   |          |     |     |   |
| <b>D</b> | <b>ZL/U Bracket</b>                 |  |          |     |     |   |
| 1        | Brand                               | International Reputed Brand  | Critical |     |     |   |
|          | Country of Origin                   | Renowned country over the world  | Critical |     |     |   |
|          | Country of Manufacturing            | Renowned country over the world  | Critical |     |     |   |
|          | Bracket                             | ZL Bracket / U Channel   | Critical |     |     |   |
|          | Qty                                 | ZL/U Bracket with accessories  |          | Set | 11  |   |
| <b>E</b> | <b>Release Button</b>               |  |          |     |     |   |
| 1        | Brand                               | International Reputed Brand  | Critical |     |     |   |
|          | Country of Origin                   | Renowned country over the world  | Critical |     |     |   |
|          | Country of Manufacturing            | Renowned country over the world  | Critical |     |     |   |
|          | Bracket                             | Emergency Lock Release Key Compatible with EM Lock as well as Device.                                  | Critical |     |     |   |
|          | Qty                                 | Release Button with accessories  |          | Set | 8   |   |
| <b>F</b> | <b>PC for Access Control System</b> |  |          |     |     |   |
| 7        | Brand                               | DELL/ Equivalent   | Critical |     |     |   |
|          | Country of Origin                   | Renowned country over the world  | Critical |     |     |   |
|          | Country of Manufacturing            | Renowned country over the world  | Critical |     |     |   |
|          | Qty                                 | Desktop PC and 21-inch LED Monitor with Mouse, Key board,  | Critical | Set | 1   |   |
|          | General Specifications              | PC for Access Control System Desktop Computer: Intel core I5, 8 GB RAM, 1 TB HDD/500GB SSD, DVD R & RW |          |     |     |   |
| <b>G</b> | <b>Monitoring software-PC based</b> |  |          |     |     |   |
| 1        | Brand                               | Should be same as Device   | Critical |     |     |   |
|          | Country of Origin                   | Renowned country over the world  | Critical |     |     |   |
|          | Country of Manufacturing            | Renowned country over the world  | Critical |     |     |   |

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| SI       | Item   | Required specifications  | Severity   | UoM  | Qty | Bidder's Response and reference document with page number |  |
|----------|--|--|--|------|-----|---|--|
|          | Model/ Part No   | To be mentioned by the Bidder  | Critical   |      |     |   |  |
|          | Qty  | Central Management Software  | Critical   | Set  | 1   |   |  |
|          | General Specification  | Attendance & Access Control Software to connect the supplied devices.  |  |      |     |   |  |
| <b>H</b> | <b>PoE Switch</b>  |  |  |      |     |   |  |
| 1        | Brand  | International Reputed Brand  | Critical   |      |     |   |  |
|          | Country of Origin  | Renowned country over the world  | Critical   |      |     |   |  |
|          | Country of Manufacturing   | Renowned country over the world  | Critical   |      |     |   |  |
|          | Model/ Part No   | To be mentioned by the Bidder  | Critical   |      |     |   |  |
|          | Qty  | 24 Port PoE Switch   | Critical   | No's | 1   |   |  |
|          | General Specifications   |  | SWITCH PORTS: 24-Port 10/100/1000 + 4 x 1GE SFP  |      |     |   |  |
|          |  |  | SIMPLE: Intuitive Cisco Business Dashboard or on-box U/I simplify network operations and automates lifecycle management  |      |     |   |  |
|          |  |  | POWER-OVER-ETHERNET: 24 PoE ports with 195W total power budget, PoE, PoE+  |      |     |   |  |
|          |  |  | ENHANCED SECURITY: IP-MAC port bidding detects and blocks deliberate network attacks. IPv6 First Hop Security provides unparalleled protection against a vast range of address spoofing and man-in-the-middle attacks on IPv6 networks |      |     |   |  |
|          |  |  | INNOVATIVE DESIGN: Elegant and compact design, ideal for installation outside of wiring closet such as retail stores, open plan offices, and classrooms  |      |     |   |  |
|          |  | ENERGY EFFICIENT: Optimizes power usage to lower operational cost. Compliant with IEEE802.3az Energy Efficient Ethernet. |  |      |     |   |  |
|          | PEACE OF MIND: Limited-lifetime warranty with Next-Business-Day advance replacement (where available) and one-year technical support |  |  |      |     |   |  |

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| SI                               | Item  | Required specifications  | Severity | UoM  | Qty | Bidder's Response and reference document with page number |  |
|----------------------------------|---|--|----------|------|-----|---|--|
| <b>I</b>                         | <b>UTP CAT6 Cable</b>   |  |          |      |     |   |  |
| 1                                | Brand   | Panduit / Siemon / Commscope / Belden  | Critical |      |     |   |  |
|                                  | Country of Origin   | Renowned country over the world  | Critical |      |     |   |  |
|                                  | Country of Manufacturing  | Renowned country over the world  | Critical |      |     |   |  |
|                                  | Model/ Part No  | To be mentioned by the Bidder  | Critical |      |     |   |  |
|                                  | Type  | Cable Type: U/UTP  | Critical |      |     |   |  |
|                                  | Qty   | Cat6 U/UTP   | Critical | Box  | 3   |   |  |
|                                  | General Specifications  | Pairs quantity: 4 Conductor  |          |      |     |   |  |
|                                  |   | Gauge singles: 23 AWG  |          |      |     |   |  |
|                                  |   | Conductor Material: Bare Copper  |          |      |     |   |  |
|                                  |   | Conductors, quantity: 8  |          |      |     |   |  |
| Environmental Space: Non-plenum  |   |  |          |      |     |   |  |
| Outer Jacket Materials: LSZH     |   |  |          |      |     |   |  |
| Box Length: 305 Meter or 1000 ft |   |  |          |      |     |   |  |
|                                  | Installation: Installation, Testing and Commissioning with minimum 25 Years of Site Certification |  |          |      |     |   |  |
| <b>J</b>                         | <b>Installation with Installation Materials</b>   |  |          |      |     |   |  |
| 1                                | Installation Material   | Bidder should provide all necessary installation material (i.e. Cable tie, PVC channel, PVC pipe, Spiral Insulation, Flexible pipe, Royal bolt, Royal plug, screw, GI wire, Velcro etc.) | Critical | Lot  | 1   |   |  |
|                                  |   | HDMI Cable-10mtr and 15 mtr.   |          | No's | 1   |   |  |
|                                  |   | Power Cable as required rating   |          | Lot  | 1   |   |  |
| 2                                | Installation  | Installation, Testing and Commissioning  | Critical | Job  | 1   |   |  |
| <b>K</b>                         | <b>Instruction and other activities</b>   |  |          |      |     |   |  |
| 1                                | Sample  | Sample for necessary items should be approved by GC before implementation.   | Critical | Job  | 1   |   |  |
| 2                                | As built design   | Bidder should provide as built design with detail during the implementation and PAT period   | Critical | Job  | 1   |   |  |
| 3                                | Labelling   | Printed labelling enclosed with each applicable item   | Critical | Lot  | 1   |   |  |

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| SI       | Item                          | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|-------------------------------|--|----------|-----|-----|---|
| 4        | Others                        | Bidder should be accommodated additional items if required during implementation period. | Critical | Lot | 1   |   |
| <b>L</b> | <b>Warranty &amp; Support</b> |  |          |     |     |   |
| 1        | Warranty                      | 03 (Three) Years from the date of PAT  | Critical |     |     |   |
| 2        | Service support               | Bidder should ensure 24x7 service support with spare parts within the warranty period    | Critical |     |     |   |

### 1.6 Safety & Security-IP Camera with CMS software

| SI       | Item                              | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|-----------------------------------|--|----------|-----|-----|---|
| <b>A</b> | <b>28/32 Channel Embedded NVR</b> |  |          |     |     |   |
| 1        | Item                              | <b>28/32 Channel Embedded NVR</b>  | Critical |     |     |   |
|          | Brand                             | Any International Reputed Brand  | Critical |     |     |   |
|          | Country of Origin                 | Renowned country over the world  | Critical |     |     |   |
|          | Country of Manufacturing          | Renowned country over the world  | Critical |     |     |   |
|          | Model/ Part No                    | To be mentioned by the Bidder  | Critical |     |     |   |
|          | Qty                               | minimum 28/32 Channel Embedded NVR   | Critical | Set | 1   |   |
|          | Features                          | Intuitive and user-friendly Graphic User Interface ( GUI ), Windows style operation by mouse                       | Major    |     |     |   |
|          |                                   | Dual stream technology for local storage with high definition, remote network transmission and remote surveillance | Major    |     |     |   |
|          |                                   | Multi-type recording: manual / timed/ motion / sensor / POS / AI recording   | Major    |     |     |   |

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| SI | Item                         | Required specifications   | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----|------------------------------|---|----------|-----|-----|---|
|    |                              | New logical and visualized GUI design                                     | Major    |     |     |   |
|    |                              | RAID 0 / 1 / 5 / 10 Backup configurable                                   | Critical |     |     |   |
|    |                              | Support face detection and comparison                                     | Major    |     |     |   |
|    |                              | Mobile App supporting iOS and Android                                     | Major    |     |     |   |
|    | System OS:                   | Embedded Linux  | Critical |     |     |   |
|    | <b>Video</b>                 |   |          |     |     |   |
|    | Video Compression Technique  | H.265/ H.264/ H.265+/ H.264+  | Critical |     |     |   |
|    | IP Video Input               | Up to 32CH  | Critical |     |     |   |
|    | Resolution                   | Supports 12MP / 8MP / 5MP / 4MP / 3MP / 2MP /1080P/ 720P / D1 / CIF       | Critical |     |     |   |
|    | Network Bandwidth support    | 192Mbps / 192Mbps (Incoming / Outgoing)                                   | Critical |     |     |   |
|    | <b>Audio</b>                 |   |          |     |     |   |
|    | Two-way Audio                | 1-CH, RCA (2.0 Vp-p, 1 K Ohm)   | Critical |     |     |   |
|    | Local Audio Output           | 1-CH, RCA (Linear, 1 K ohm)   | Critical |     |     |   |
|    |                              | Audio Compression Technique: G.711 $\mu$                                  | Critical |     |     |   |
|    | <b>Record</b>                |   |          |     |     |   |
|    | Recording Stream             | Dual stream recording   | Critical |     |     |   |
|    | Support Recording Resolution | 12MP/8MP/6MP/5MP/4MP/3MP/ 1080P/1280 $\times$ 1024/960P/ 720P/960H/D1/CIF | Critical |     |     |   |
|    | Recording Options            | Continuous / Scheduled / Event Based                                      | Critical |     |     |   |
|    | Recording Setting            | Recycle   | Critical |     |     |   |
|    | <b>Storage &amp; Backup</b>  |   |          |     |     |   |
|    | HDD Interface                | 8 X SATA @ maximum supported 10TB each Hard Disk                          | Critical |     |     |   |
|    | E-SATA Interface             | Available   | Critical |     |     |   |
|    | HDD Bay                      | To be mentioned by the Bidder   | Critical |     |     |   |
|    | RAID                         | RAID 0, 1, 5 supported  | Critical |     |     |   |

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| SI       | Item  | Required specifications   | Severity | UoM  | Qty | Bidder's Response and reference document with page number |
|----------|---|---|----------|------|-----|---|
|          | <b>Playback</b>                                     |   |          |      |     |   |
|          | Playback Display                                    | Simultaneous Playback: 16 CH  |          |      |     |   |
|          |   | Playback Mode: Camera Thumbnails / Time / Event / tag / smart search                            |          |      |     |   |
|          | <b>Network</b>                                      |   |          |      |     |   |
|          | Ethernet  | RJ45 1000 Mbps × 2  | Critical |      |     |   |
|          | Protocols   | TCP / IP, PPPoE, DHCP, DNS, DDNS, UPnP, NTP, SMTP, HTTP, HTTPS, 802.1x, RTSP, SNMP, ONVIF, etc. | Major    |      |     |   |
|          |   | Mobile Connection: iOS and Android  | Major    |      |     |   |
|          | <b>External Interface</b>                           |   |          |      |     |   |
|          | USB   | 2 X USB 2.0, 1 X USB 3.0  | Major    |      |     |   |
|          | Alarm In/out  | 16/4  | Major    |      |     |   |
|          | Alarm Mode  | Manual, sensor, motion, exception, smart events, etc.   | Major    |      |     |   |
|          | <b>General</b>                                      |   |          |      |     |   |
|          | Power Input   | 100 ~ 240 VAC   | Major    |      |     |   |
|          | Power Consumption                                   | To be mentioned by the bidder   | Major    |      |     |   |
|          | Operating Temperature                               | 0°C ~ 50°C (32°F ~ 104°F)   | Major    |      |     |   |
|          | Safety Certifications                               | CE & FCC  | Major    |      |     |   |
| <b>B</b> | <b>4MP IR Vandal Proof Mini Dome Network Camera</b> |   |          |      |     |   |
| 1        | Item  | <b>4MP IR Vandal Proof Mini Dome Network Camera</b>   |          |      |     |   |
|          | Brand   | Any International Reputed Brand   | Critical |      |     |   |
|          | Country of Origin                                   | Renowned country over the world   | Critical |      |     |   |
|          | Country of Manufacturing                            | Renowned country over the world   | Critical |      |     |   |
|          | Model/ Part No                                      | To be mentioned by the Bidder   | Critical |      |     |   |
|          | Qty   | <b>4MP IR Vandal Proof Mini Dome Network Camera</b>   | Critical | No's | 16  |   |
|          | <b>Camera Features</b>                              |   |          |      |     |   |
|          | Features  | 4MP with inbuilt IR for operations in low light conditions with 4MP @ 30fps the camera produces |          |      |     |   |

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| SI | Item                      | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----|---------------------------|--|----------|-----|-----|---|
|    |                           | exceptionally high Image quality. It supports H.265/H.264 video compression, multi-level video streaming configuration, support Basic/ Main/ High Profile H.265 encoding complexity.   |          |     |     |   |
|    |                           | The IP cameras should have designed to protect against cyber-threats. Additionally, for greater security, the Camera supports three-level user authentication                          |          |     |     |   |
|    |                           | Camera supports ONVIF (Profile S & G) protocol, up to 3 streams providing flexibility of video stream recording, live view at different resolutions and bitrate configuration options. |          |     |     |   |
|    | Image Sensor:             | 1 / 2.7" Progressive Scan CMOS   | Critical |     |     |   |
|    | IR range:                 | Up to 30M  | Critical |     |     |   |
|    | Min. Illumination:        | Color: 0.01 Lux @ F1.2, AGC ON;<br>Color: 0.04 Lux @ F2.2, AGC ON;<br>0 lux with IR  | Critical |     |     |   |
|    | Shutter Speed:            | 1 s to 1/100,000 s   | Critical |     |     |   |
|    | S/N Ratio:                | ≥52 dB   |          |     |     |   |
|    | Angle Adjustment:         | Pan : 0°-355°, Tilt : 0°-67°,<br>Rotation : 0°-355°  | Major    |     |     |   |
|    | Focal Length:             | 2.8 mm @ F2.0, 3.6 mm @ F2.2   | Major    |     |     |   |
|    | Iris Type:                | Fixed Iris   | Major    |     |     |   |
|    | Field of View:            | 2.8 mm @F2.0, horizontal field of view:110°,Vertical: 77.6°; 3.6 mm @F2.2,   | Major    |     |     |   |
|    | horizontal field of view: | 89°, Vertical: 58°   | Major    |     |     |   |
|    | Lens Mount:               | M12  | Major    |     |     |   |
|    | Video Compression         | H.264 / H.265  | Major    |     |     |   |
|    | Resolution:               | 4MP(2560×1440),<br>1080P(1920x1080),<br>720P(1280x720), D1, CIF, 480 x 240   | Major    |     |     |   |
|    | Max. Frame Rate:          | 30fps @ 4MP (2560×1440)  | Major    |     |     |   |
|    | Video Bit Rate:           | 64Kbps - 5 Mbps  | Major    |     |     |   |

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| SI | Item                | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----|---------------------|--|----------|-----|-----|---|
|    | Main Stream:        | 60Hz: 4MP/3MP/1080P(1-30fps);<br>50Hz: 4MP/3MP/1080P(1-25fps)  | Major    |     |     |   |
|    | Sub Stream:         | 60Hz: 720P(1-15fps)/D1 /CIF (1-30fps);<br>50Hz: 720P(1-12fps)/D1/CIF (1-25fps)<br>Smart Codec: ROI, 3 zones  | Major    |     |     |   |
|    | Quality Control:    | Five levels under VBR; Freely adjustable under CBR   | Major    |     |     |   |
|    | Multiple Streaming: | Triple streams   | Major    |     |     |   |
|    | Image Setting:      | time stamp, text overlay, flip & mirror, ROI, Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, white balance, video rotation, Scheduled profile settings, AGC  | Major    |     |     |   |
|    | Wide Dynamic Range: | Supported  | Major    |     |     |   |
|    | Video Privacy:      | 4 zones video mask   | Major    |     |     |   |
|    | Day & Night:        | IR cut filter with auto switch   | Major    |     |     |   |
|    | Image Features:     | Defog, BLC, HLC, 2D/3D DNR   | Major    |     |     |   |
|    | Alarm Triggers:     | Motion detection, Intelligent video analytics, Network disconnect, video tampering, IP address conflict, illegal login, SD Card full, SD Card error, Alarm input, Alarm output | Major    |     |     |   |
|    | Edge Storage:       | Built-in micro SD card slot, up to 128GB supported   | Major    |     |     |   |
|    | Protocols:          | TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, UPnP, Unicast, Multicast, ICMP, HTTP, HTTPS, DNS, DDNS, RTP, RTCP, IGMP, 802.1X, QoS, Ipv4, Ipv6                         | Major    |     |     |   |
|    | Cyber Security:     | HTTPS / IP Filter / IEEE 802.1X / Blacklist & whitelist / account security / telnet access control / serial password   |          |     |     |   |
|    | Online Connection:  | Support simultaneous monitoring for up to 4 users; Support multi-stream real time transmission   |          |     |     |   |
|    | API:                | ONVIF Profile (S & G), HAPI3   |          |     |     |   |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| SI       | Item                     | Required specifications                     | Severity | UoM         | Qty | Bidder's Response and reference document with page number |  |
|----------|--------------------------|---|----------|-------------|-----|---|--|
|          | Network:                 | 1 RJ45 10M/100M self-adaptive Ethernet port | Critical |             |     |   |  |
|          | Onboard Storage:         | Built-in micro SD/SDHC/SDXC slot            | Critical |             |     |   |  |
|          | Hardware Reset:          | Yes   | Critical |             |     |   |  |
|          | Vandal Resistance:       | IK 10                                       | Critical |             |     |   |  |
|          | Ingress Protection:      | IP 67                                       | Critical |             |     |   |  |
|          | Operating Temperature:   | - 30 °C to 60 °C                            |          |             |     |   |  |
|          | Operating Humidity:      | 10 % to 90 % relative humidity              |          |             |     |   |  |
|          | Input Voltage:           | DC12V / PoE                                 |          |             |     |   |  |
|          | Power Consumption        | To be mentioned by the bidder               |          |             |     |   |  |
|          | Weight                   | To be mentioned by the bidder               |          |             |     |   |  |
|          | Dimensions :             | To be mentioned by the bidder               |          |             |     |   |  |
|          | Camera Hanger            | Bidder should supply camera hanger          | Critical | Nos         | 16  |   |  |
|          | Certification:           | CE, FCC, UL, BIS                            |          |             |     |   |  |
| <b>C</b> | <b>Surveillance HDD</b>  |   |          |             |     |   |  |
| 3        | Brand                    | International Reputed Brand                 | Critical |             |     |   |  |
|          | Country of Origin        | Renowned country over the world             | Critical |             |     |   |  |
|          | Country of Manufacturing | Renowned country over the world             | Critical |             |     |   |  |
|          | Model/ Part No           | To be mentioned by the Bidder               | Critical |             |     |   |  |
|          | Storage Capacity         | Bidder should calculate                     |          | Critical    |     |   |  |
|          |                          | 60 Days Recording capacity                  |          |             |     |   |  |
| Qty      | 10TB each                | Critical                                    | No's     | As required |     |   |  |
| <b>D</b> | <b>PoE Switch</b>        |   |          |             |     |   |  |
| 1        | Brand                    | International Reputed Brand                 | Critical |             |     |   |  |
|          | Country of Origin        | Renowned country over the world             | Critical |             |     |   |  |
|          | Country of Manufacturing | Renowned country over the world             | Critical |             |     |   |  |
|          | Model/ Part No           | To be mentioned by the Bidder               | Critical |             |     |   |  |
|          | Qty                      | 24 Port PoE Switch                          | Critical | No's        | 1   |   |  |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| SI                              | Item                       | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|---------------------------------|----------------------------|--|----------|-----|-----|---|
|                                 | General Specifications     | SWITCH PORTS: 24-Port 10/100/1000 + 4 x 1GE SFP  |          |     |     |   |
| <b>E</b>                        | <b>PC for Camera</b>       |  |          |     |     |   |
| 1                               | Brand                      | DELL/ Equivalent   | Critical |     |     |   |
|                                 | Country of Origin          | Renowned country over the world  | Critical |     |     |   |
|                                 | Country of Manufacturing   | Renowned country over the world  | Critical |     |     |   |
|                                 | Model/ Part No             | To be mentioned by the Bidder  | Critical |     |     |   |
|                                 | Qty                        | Desktop PC and 21 inch LED Monitor with Mouse, Key board,  | Critical | Set | 1   |   |
|                                 | General Specifications     | PC for Camera System; Desktop Computer: Intel core I5, 16 GB RAM, 1 TB HDD/500GB SSD, DVD R & RW |          |     |     |   |
| <b>F</b>                        | <b>UTP CAT6 Cable</b>      |  |          |     |     |   |
| 1                               | Brand                      | Panduit / Siemon / Commscope / Belden  | Critical |     |     |   |
|                                 | Country of Origin          | Renowned country over the world  | Critical |     |     |   |
|                                 | Country of Manufacturing   | Renowned country over the world  | Critical |     |     |   |
|                                 | Model/ Part No             | To be mentioned by the Bidder  | Critical |     |     |   |
|                                 | Type                       | Cable Type: U/UTP  | Critical |     |     |   |
|                                 | Qty                        | Cat6 U/UTP   | Critical | Box | 3   |   |
|                                 | General Specifications     | Gauge singles: 23 AWG  |          |     |     |   |
|                                 |                            | Conductor Material: Bare Copper  |          |     |     |   |
| Conductors, quantity: 8         |                            |  |          |     |     |   |
| Environmental Space: Non-plenum |                            |  |          |     |     |   |
| Outer Jacket Materials: LSZH    |                            |  |          |     |     |   |
| <b>G</b>                        | <b>Display Monitor-55"</b> |  |          |     |     |   |
| 1                               | Brand                      | Sony/Samsung/LG/ Hisense   | Critical |     |     |   |
|                                 | Country of Origin          | Renowned country over the world  | Critical |     |     |   |
|                                 | Country of Manufacture     | Renowned country over the world  | Critical |     |     |   |
|                                 | Model                      | To be mention by the bidder  | Critical |     |     |   |

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| SI       | Item                                    | Required specifications  | Severity | UoM  | Qty | Bidder's Response and reference document with page number |
|----------|---|--|----------|------|-----|---|
|          | Qty                                     | Minimum 55" LED display with mounting bracket  | Critical | Set  | 2   |   |
|          | Technical Specification                 | LED Monitor, Display type: LED   |          |      |     |   |
|          |   | Display Resolution: Full HD 1080 (1920 x 1080)   |          |      |     |   |
|          |   | Viewing Angle: 178° (Right/Left), 178° (Up/Down)   |          |      |     |   |
| <b>H</b> | <b>Installation</b>                     |  |          |      |     |   |
| 1        | Installation Material                   | Bidder should provide all necessary installation material (i.e. Cable tie, PVC channel, PVC pipe, Spiral Insulation, Flexible pipe, Royal bolt, Royal plug, screw, GI wire, Velcro etc.) | Critical | Lot  | 1   |   |
|          |   | HDMI Cable-10mtr and 15 mtr  | Critical | No's | 4   |   |
|          |   | Power Cable as required rating   | Critical | Lot  | 1   |   |
| 2        | Installation                            | Installation, Testing and Commissioning  | Critical | Job  | 1   |   |
| <b>I</b> | <b>Instruction and other activities</b> |  |          |      |     |   |
| 1        | Sample                                  | Sample for necessary items should be approved by GC before implementation.   | Critical | Job  | 1   |   |
| 2        | As built design                         | Bidder should provide as built design with detail during implementation and PAT period   | Critical | Job  | 1   |   |
| 3        | Labelling                               | Printed labelling enclosed with each applicable item   | Critical | Lot  | 1   |   |
| 4        | Others                                  | Bidder should accommodate additional items if required during the implementation period.   | Critical | Lot  | 1   |   |
|          | BOM                                     | The bidder should submit the details BOM   | Critical |      |     |   |
| <b>J</b> | <b>Warranty &amp; Service Support</b>   |  |          |      |     |   |
| 1        | Warranty                                | 03 (Three) Years from the date of PAT  | Critical |      |     |   |
| 2        | Service support                         | Bidder should ensure 24x7 service support with spare parts within the warranty period  | Critical |      |     |   |



## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

### 2. Item Name: Video Wall

#### 2.1 Video Wall for Network Operation Center (NOC)

| Sl               | Item                          | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|------------------|-------------------------------|--|----------|-----|-----|---|
| <b>A</b>         | <b>2 x 2 Video Wall</b>       |  |          |     |     |   |
| 1                | General                       | Required Video wall should cover minimum 7.94ft x 4.46ft wall area, to be mounted on wall.   | Critical |     |     |   |
|                  |                               | Video wall shall have the capacity to deliver multiple options to connect many sources (minimum 4) with built-in control software.   | Critical |     |     |   |
|                  |                               | Video wall should have the capacity to be controlled by a single user seamlessly.  | Critical |     |     |   |
|                  |                               | Necessary civil works to hang the Video Wall Displays should be done within this work scope without any additional charges.  | Critical |     |     |   |
|                  |                               | System should have the capacity to run by 24x7.  | Critical |     |     |   |
|                  |                               | Video wall should have the capacity to be connected with Computer and it should support both single screen and multiple screens with Video Wall Controller (PIP, PBP, POP etc.). | Critical |     |     |   |
|                  | Qty                           | Display (2 : 2) with Mounting kit  | Critical | Set | 1   |   |
|                  | System Name                   | Video Wall Display   | Critical |     |     |   |
|                  | System Brand Name             | Any International Reputed Brand  | Critical |     |     |   |
|                  | System Model                  | To be mentioned by the bidder  | Critical |     |     |   |
|                  | Brand Country of Origin       | Renowned country over the world  | Critical |     |     |   |
|                  | Panel Country of Manufacture  | Renowned country over the world  | Critical |     |     |   |
|                  | System Country of Assemble    | To be mentioned by the bidder  | Critical |     |     |   |
| <b>Display</b>   |                               |  |          |     |     |   |
| Number of Panels | To be mentioned by the bidder | Critical   |          |     |     |   |

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| SI | Item                           | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----|--------------------------------|--|----------|-----|-----|---|
|    | Screen size (each panel)       | Min. 55 Inch   | Critical | Nos | 4   |   |
|    | Panel Technology (Descriptive) | D-LED DID/ IPS (In Plane Switching) or better                                    | Critical |     |     |   |
|    | Native Resolution              | Minimum 1920 x 1080p (FHD)   | Critical |     |     |   |
|    | Brightness (Typ.)              | Minimum 700 nits   | Critical |     |     |   |
|    | Contrast Ratio                 | Minimum 1,200:1  | Critical |     |     |   |
|    | Viewing Angle (H/V)            | 178/ 178 degree  | Major    |     |     |   |
|    | Response time (typical)        | Minimum 8ms (G to G)   | Major    |     |     |   |
|    | Surface Treatment (Haze)       | Haze 3% or better  | Major    |     |     |   |
|    | Operation Hours (Guaranteed)   | Minimum 24 Hrs   | Critical |     |     |   |
|    | Orientation                    | Landscape & Portrait   | Major    |     |     |   |
|    | <b>Connectivity</b>            |  |          |     |     |   |
|    | Input                          | 2x HDMI 2.0<br>1x DVI-D<br>1x DisplayPort 1.2<br>1x 1/8" / 3.5 mm (Analog Audio) | Major    |     |     |   |
|    | Output                         | DP, Audio  | Major    |     |     |   |
|    | External Control               | RS232C In/out, RJ45 (LAN) In/out, IR In  | Major    |     |     |   |
|    | <b>Physical Specification</b>  |  |          |     |     |   |
|    | Bezel Color                    | Black  | Critical |     |     |   |
|    | Bezel Width                    | Maximum 1.7mm / 0.88mm Bezel to Bezel  | Critical |     |     |   |
|    | Monitor Dimension (W x H x D)  | Please Specify   | Major    |     |     |   |
|    | Weight (Head)                  | Please Specify   | Major    |     |     |   |
|    | VESA Standard Mount Interface  | 600 x 400 mm (approx.)<br>Mounting interface should be mention                   | Major    |     |     |   |
|    | <b>Environment Conditions</b>  |  |          |     |     |   |

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| SI       | Item                         | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|------------------------------|--|----------|-----|-----|---|
|          | Operation Temperature Range  | 0°C to 40°C  | Major    |     |     |   |
|          | Operation Humidity Range     | 10% to 80%   | Major    |     |     |   |
|          | <b>Power</b>                 |  |          |     |     |   |
|          | Power Supply                 | 100-240V~, 50/60Hz   | Critical |     |     |   |
|          | Power Type                   | Built-in Power   | Critical |     |     |   |
|          | <b>Software</b>              |  |          |     |     |   |
|          | Software Control (Optional)  | Content Management, Control and Monitoring.  | Critical |     |     |   |
|          | <b>Miscellaneous</b>         |  |          |     |     |   |
|          | Certification                | FCC, EMC-A Class, Safety- 60950-1,   | Major    |     |     |   |
|          | Product Brochure             | Must be submitted  | Major    |     |     |   |
|          | Accessories (Included)       | Remote Controller, Power Cord, RS232C Cable, LAN Cable, DP Cable, IR Receiver, Guide Bracket, Screws, Manual | Critical |     |     |   |
| <b>B</b> | <b>Video wall Controller</b> |  |          |     |     |   |
| 1        | Brand:                       | Any International Reputed Brand  | Critical |     |     |   |
|          | Model:                       | To be mentioned by bidder  | Critical |     |     |   |
|          | Country of Origin:           | Renowned country over the world  | Critical |     |     |   |
|          | Country of Manufacture:      | Renowned country over the world  | Critical |     |     |   |
|          | Qty                          |  |          | Lot | 1   |   |
|          |                              | Min. 4 Input and 4 Output with built-in software and a separate enclose box.                                 | Critical |     |     |   |
|          |                              | Type of Input/ Output: HDMI Type A   | Critical |     |     |   |
|          |                              | Input & Output resolution minimum Should support 1920x1080 video quality @ 60Hz                              | Critical |     |     |   |
|          |                              | It can display arbitrary 12 images   | Major    |     |     |   |
|          |                              | Should have Crossing Smart Synchronous Uniformity of Splicing  | Major    |     |     |   |
|          |                              | Controller should be able to combine all screens together to show one image.                                 | Critical |     |     |   |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| SI       | Item  | Required specifications   | Severity | UoM  | Qty | Bidder's Response and reference document with page number |
|----------|---|---|----------|------|-----|---|
|          |   | Controller should be able to show different inputs source in different displays, Make PIP, POP and any picture can freely move anywhere in the video wall.  | Major    |      |     |   |
|          |   | Should have fade out and direct switching availability  | Major    |      |     |   |
|          |   | Power compatible with 100-240 VAC   | Critical |      |     |   |
|          |   | Control via UDP, RS232  | Major    |      |     |   |
|          | Video Wall Mount Kit                            | It has to be original push and pull system.   | Critical |      |     |   |
|          | Cabling Work                                    | All cabling should be standard insulation with conduit/ PVC channel where applicable to avoid damaging by external impact and proper cable numbering.   | Critical |      |     |   |
|          | Electrical and Network                          | All network and power connections must be provided. All cabling should be standard insulation with conduit/ PVC channel where applicable to avoid damaging by external impact and proper cable numbering. | Critical |      |     |   |
|          |   | Support combine any horizontal & vertical numbers of screens and show display   | Critical |      |     |   |
| <b>C</b> | <b>Installation with installation materials</b> |   |          |      |     |   |
| 1        | Installation Material                           | Bidder should provide all necessary installation material (i.e. Cable tie, PVC channel, PVC pipe, Spiral Insulation, Flexible pipe, Royal bolt, Royal plug, screw, GI wire, Velcro etc.)                  | Critical | Lot  | 1   |   |
|          |   | HDMI Cable-10mtr and 15 mtr.  | Critical | No's | 4   |   |
|          |   | Power Cable as required rating  | Critical | Lot  | 1   |   |
|          | Installation                                    | Installation, Testing and Commissioning   | Critical | Job  | 1   |   |
| <b>D</b> | <b>Instruction and other activities</b>         |   |          |      |     |   |
| 1        | Sample  | Sample for necessary items should be approved by GC before implementation.  | Critical | Job  | 1   |   |
| 2        | As built design                                 | Bidder should provide as built design with details during the implementation and PAT period   | Critical | Job  | 1   |   |
| 3        | Labelling                                       | Printed labeling enclosed with each applicable item   | Critical | Lot  | 1   |   |

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| SI       | Item                                  | Required specifications  | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|---------------------------------------|--|----------|-----|-----|---|
| 4        | Others                                | Bidder should accommodate additional items if required during the implementation period. | Critical | Lot | 1   |   |
|          | BOM                                   | The bidder should submit the details BOM   | Critical |     |     |   |
| <b>E</b> | <b>Warranty &amp; Service Support</b> |  |          |     |     |   |
| 1        | Warranty                              | 03 (Three) Years from the date of PAT  | Critical |     |     |   |
| 2        | Service Support                       | Bidder should ensure 24x7 service support with spare parts within the warranty period    | Critical |     |     |   |

### 2.2 3KVA online UPS

| S I      | Item                             | Description                             | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|----------------------------------|---|----------|-----|-----|---|
| <b>A</b> | <b>3 KVA online UPS</b>          |   |          |     |     |   |
|          | Item                             | Online UPS                              | Critical |     |     |   |
|          | Brand                            | Any International Reputed Brand         | Critical |     |     |   |
|          | Model                            | To be mentioned by bidder               |          |     |     |   |
|          | Origin                           | Renowned country over the world         | Critical |     |     |   |
| 1        | Qty                              | 3 KVA online UPS with 45 Minute Back up | Critical | Set | 1   |   |
|          | Installation Mood( User defined) | 1:1                                     | Critical |     |     |   |
|          | SNMP Card                        | Yes                                     | Critical |     |     |   |
|          | Type of Installation             | Rack Mount or Tower Type                | Critical |     |     |   |
|          | Rack Mount Kit                   | Optional                                | Critical |     |     |   |
|          | Rack Space                       | 2U                                      |          |     |     |   |
|          | Display                          | LCD Display with 5 button               |          |     |     |   |

RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| S<br>I | Item  | Description  | Severity | Uo<br>M | Qty | Bidder's<br>Response and<br>reference<br>document<br>with page<br>number |
|--------|---|--|----------|---------|-----|--|
|        | Output Power Capacity                                       | 2.4 KW / 3.0 kVA   |          |         |     |  |
|        | Nominal Output Voltage                                      | 230V   |          |         |     |  |
|        | Input Voltage Range   | 160 to 280 VAC at 35 °C  |          |         |     |  |
|        | Input frequency   | 40 – 70 Hz auto-selecting  |          |         |     |  |
|        | Input Connections   | (1) Hard wire 3-wire (1P+N+G)  |          |         |     |  |
|        | Other Input Voltages  | 220 , 240  |          |         |     |  |
|        | Input power factor (100% resistive load at nominal voltage) | ≥ 0.95   |          |         |     |  |
|        | Input over current protection                               | Circuit breaker  |          |         |     |  |
|        | Other Output Voltages                                       | 220, 240V  |          |         |     |  |
|        | Output connections  | (3) India socket<br>(1) Hard wire 3-wire (1P+N+G)  |          |         |     |  |
|        | Efficiency at nominal voltage and rated load (typical)      | ≥ 90%  |          |         |     |  |
|        | Efficiency: ECO mode (typical)                              | Upto 95%   |          |         |     |  |
|        | Output voltage regulation                                   | ±1% static   |          |         |     |  |
|        | Output voltage distortion                                   | <ul style="list-style-type: none"> <li>• 3% max. for full linear load</li> <li>• 6% max. for full non linear load (100% VA, 0.8 PF)</li> <li>• 15% for the last 60 seconds of the backup time</li> </ul> |          |         |     |  |
|        | Topology  | Double Conversion Online   |          |         |     |  |
|        | Frequency - On battery                                      | 50 Hz ± 0.5 Hz / 60 Hz ± 0.5 Hz  |          |         |     |  |
|        | Frequency - AC mode   | 50 Hz ± 3 Hz / 60 Hz ± 3 Hz  |          |         |     |  |
|        | Crest Factor  | 3:1  |          |         |     |  |
|        | Waveform Type   | Sine wave  |          |         |     |  |
|        | Bypass  | Internal   |          |         |     |  |
|        | Bypass range  | Lower setting:<br>161/173/184/196 VAC  |          |         |     |  |

## RFQ for Selection of Bidder for Establishing GC Tier-III DC: Lot-3

| SI       | Item                                  | Description   | Severity | UoM | Qty | Bidder's Response and reference document with page number |
|----------|---------------------------------------|---|----------|-----|-----|---|
|          |                                       | Upper setting:<br>242/253/265/276 VAC   |          |     |     |   |
| <b>B</b> | <b>Warranty &amp; Service Support</b> |   |          |     |     |   |
| 1        | Warranty                              | 03 (Three) Years from the date of PAT   | Critical |     |     |   |
| 2        | Service Support                       | Bidder should ensure 24x7 service support with spare parts within the warranty period | Critical |     |     |   |

### 3. Item Name: Product Training

#### 3.1 Relevant Product Training and SOP

| SI       | Required Technical Specification   | UoM | Qty | Bidder's Response and reference document with page number |
|----------|--|-----|-----|---|
| <b>A</b> | <b>OEM Training</b>  |     |     |   |
| 1        | Bidder shall arrange required training for 5-8 personnel related to supplied Product (i.e. AFSS, VESDA, EMS, Rodent, Access Control, video wall etc.) by OEM expert. | Lot | 1   |   |
| 2        | Bidder shall send all training materials before start of the training.   | Lot | 1   |   |