BHARATIYA RESERVE BANK NOTE MUDRAN (P) LIMITED
(Wholly owned subsidiary of Reserve Bank of India)
P.O. RBNM, Salboni, Dist. Midnapore (W), West Bengal, Pin Code 721132

Part 2

Sl. No.	Details	Uploading as Annexures in MSTC Portal
2.	Amendments carried out in technical aspects of tender	Annexure 9-1 (06 pages) Annexure 9-2 (06 pages) Annexure 10 (07 pages)

Annexure- 9/1

Amendments to be made in the tender document of DESIGN, ENGINEERING, SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND TRAINING OF AN AI-ENABLED DISTRIBUTED FIBER OPTIC PERIMETER INTRUSION DETECTION SYSTEM (DFOPIDS) AT BRBNMPL, SALBONI AND MYSURU.

Open e-Tender No. 004/SAL/PUR/2026-27 dated 22/06/2026

MSTC Event No. BRBNMPL/Salboni Press/MMD/7/26-27/ET/12 [PIDS]

Sl. No.	Page No.	Point No.	Parameter	As per Tender	Amendments to the tender (SCHEDULE-II)	Remarks (if any)
1	Page no. 57 & 110	1(k)	Scope of work	Relay output panel shall be supplied and configured with dry contact alarm output (NO/NC contact - minimum 24 contacts or as per requirement) for triggering alarms, lights, and other security responses specified by BRBNMPL. Copper wiring or suitable shall be laid from the control room throughout the perimeter to supply power to relay contacts. Proper saddling, conduit routing, surge protection, safety measures, and termination arrangements shall be ensured.	Ethernet based I/O module equipped with a minimum of 2 DI and 2 DO, along with other accessories shall be deployed using existing fiber optic network across the perimeter. Potential free dry contact shall be used to trigger hooter cum strobe. Bidder can use the existing OFC cable, existing network rack, input AC power, however, supply of network switch with SFP module/media coverter, SMPS, 2.5 sq. mm copper cable and hooter cum strobe is in the scope of the bidder.	
2	Page no. 59 & 112	3.1 (h)	3.1 Detection and Classification	The system shall not generate/suffer nuisance alarm from any of the following sources: i) Movement of nearby objects or vegetation without contact with the Perimeter ii) Temperature fluctuations iii) Motion of surface or ground water iv) Sensitivity must be adjustable and scalable. v) Audible and visual alarm notifications. vi) Relay output panel: Dry contact alarm output (NO/NC contact - minimum 24 contacts (as per requirement)) must be configured for alarm/light in each zone as per requirement by BRBNMPL.	**The system shall not generate/suffer nuisance alarm from any of the following sources:** i) Movement of nearby objects or vegetation without contact with the Perimeter ii) Temperature fluctuations/ rain fall. iii) Motion of surface or ground water	
3	Page no. 63 & 117	3.3 (i) & 3.3 (j)	3.3 Interrogator / Controller Unit	**i) DAS (Acoustic) Performance:** i) Sensing Range: Minimum 50 km per channel ii) Frequency Response: 1 Hz to 120 kHz (application dependent). **j) Laser and Data Acquisition:** i) Laser Type: Infrared Class 1M, LED ii) Wavelength: 1550 nm (approx.) iii) Laser Stability: ±5 pm. (digitally controlled for better. stability) iv) Acquisition Rate: 400 MHz	i) DAS (Acoustic) Performance: i) Sensing Range: Minimum 50 km per channel ii) Frequency Response: minimum 1 Hz to 2.5 kHz, controller shall detect all intrusion cases defined in tender such as cutting, climbing, lifting or tampering with the perimeter fabric, digging underneath the wall, machine drilling/excavation etc. j) Laser and Data Acquisition: i) Laser Type: Infrared Class 1M ii) Wavelength: 1550 nm (approx.) iii) Laser Stability: Laser Stability shall be as per OEM design without degrading the detection capability, intrusion location accuracy as per tender requirement. iv) Acquisition Rate: Acquisition rate shall be as per OEM design without degrading the detection capability, intrusion location accuracy as per tender requirement. v) Two independent lasers required for two independent channels.	
4	Page no. 57 & 109	1(e)	Scope of work	The fibre optic sensing cable shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 1mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	The fibre optic sensing cable shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 0.5mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	
5	Page no. 61 & 115	3.2 (a)	3.2 Optical Fibre Cable (OFC):	The OFC (12F Multi-core sensing cable) has to be laid underground ahead of and along the perimeter area in linear/Zig Zag fashion. The deployment shall follow a linear parallel alignment at a suitable distance as per ground conditions with maximum distance being 5mtr and depth of 01mtr or as per BRBNMPL requirement.	The OFC (12F Multi-core sensing cable) has to be laid underground and along the perimeter on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall. The deployment shall follow a linear alignment as per site conditions with minimum depth of **0.5mtr** or as per site requirement	
6	Page no. 63 & 118			The fibre optic sensing cable (total three runs) shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 1mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	The fibre optic sensing cable (total three runs) shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 0.5mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	
7	Page no. 59 & 111	3(i)-(ii)	3.Functional Requirem	In case of cable cut, the system shall automatically switch to reverse feed ensuring continued operation without any loss of detection capability or coverage gaps.	In case of cable cut, the system shall ensure continuous operation without any loss of detection capability or coverage gaps.	
8	Page no. 157		Experience & Past Performance : *Similar work means	Supply and Installation of Fibre Optic Perimeter Intrusion Detection System in Factories/Security Organizations or in similar industries/ Central/State Government/Reputed Private Organizations	Supply and Installation of "Fibre Optic based Perimeter Intrusion Detection System or any other applications based on Fiber Optic based Distributed Acoustic Sensing technology" in Factories/Security Organizations or in similar industries/ Central/State Government/Reputed Private Organizations	
9	Page no. 61 & 115	3.2 (e)	3.2 (e): Functional requirements	The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be 10km ±5% as per the field requirement.	The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be **4 km** ±5% as per the field requirement.	

Manager (Utility)
Mysuru

<table>
<tr><th>Sl. No.</th><th>Page No.</th><th>Point No.</th><th>Parameter</th><th>As per Tender</th><th>Amendments to the tender (SCHEDULE-II)</th><th>Remarks (if any)</th></tr>
<tr><td>10</td><td>Page no. 64, 119</td><td>3.4</td><td>Software, Server & Storage:</td><td>1. Hardware Configuration:
Model Type: Latest Enterprise grade 19" rack mountable server
➢ Processor (CPU): Intel® Xeon® E-2324G Processor equivalent or better.
➢ Memory (RAM): 2 x 16GB DDR5 ECC Unbuffered DIMM Modules (Total 32GB) DDR5 SDRAM or better.
➢ Graphics & Compute Unit
➢ GPU Model: Intel® UHD Graphics P750 equivalent or higher.
➢ Server Storage: SSD SATA Minimum 4TB usable capacity after hardware RAID 6 configuration or better/equivalent and expandable up to 10TB or higher.
➢ Provision for dual redundant power supply to servers.
➢ Tensor & RT Cores: AI and Ray-Tracing supported or better.
Purpose:
• AI/ML model acceleration
• Graphics rendering
• Parallel computation tasks</td><td>1. Hardware Configuration:
Model Type: Latest Enterprise grade 19" rack mountable server
➢ Processor (CPU): Latest Enterprise grade Dual socket Intel Xeon Processor suitable for AI/ML model acceleration, equivalent or better.
➢ Memory (RAM): 128 GB DDR5 ECC (Expandable up to 512 GB) or better.
➢ Graphics & Compute Unit
➢ GPU : Latest Enterprise grade NVIDIA or equivalent/better GPU capable of performing AI/ML processing .
➢ Server Storage: Enterprise grade PCIe gen 4 NVMe SSD, Minimum 4TB usable capacity after hardware RAID 6 configuration or better/equivalent and expandable up to 10TB or higher.
➢ Provision for dual redundant Hot-swappable enterprise power supplies.
➢ Tensor & RT Cores: AI and Ray-Tracing supported or better.
Purpose:
• AI/ML model acceleration
• Graphics rendering
• Parallel computation tasks</td><td>Wherever RAID 5/10 is mentioned in the tender document for storage & Server, it should be read as RAID 6.</td></tr>
<tr><td>11</td><td>Page no. 104, 105</td><td>D: Sl. No. 3,5 &11</td><td>Server & Failover Server for DAS controllers
Sl. No. 3: Processor
Sl. No. 5: SSD disk
Sl. No. 11: Power supply</td><td>Sl. No. 3: Minimum Intel Xeon Gold series dual socket processor or higher, 5th Gen or higher (16 Cores, up to 3.9 GHz), equivalent or better.
Sl. No. 5: Minimum 4TB usable capacity after hardware RAID 5/10 configuration or better/equivalent and expandable up to 10TB or higher
Sl. No. 11: Hot swappable Inbuilt power supply</td><td>Sl. No. 3: Latest Enterprise grade Dual socket Intel Xeon Processor suitable for AI/ML model acceleration, equivalent or better.
Sl. No. 5: Enterprise grade PCIe gen 4 NVMe SSD, Minimum 4TB usable capacity after hardware RAID 6 configuration or better/equivalent and expandable up to 10TB or higher.
Sl. No. 11: Dual redundant Hot-swappable enterprise power supplies</td><td></td></tr>
<tr><td>12</td><td>Page no. 105</td><td>D:</td><td>Server & Failover Server for DAS controllers</td><td></td><td>Sl. No. 14:GPU: Latest Enterprise grade NVIDIA or equivalent/better GPU capable of performing AI/ML processing
Sl. No. 15:Other Features:
• Tensor & RT Cores: AI and Ray-Tracing supported or better
• Graphics & Compute Unit
• Graphics rendering
• Parallel computation tasks</td><td>To be added in technical compliance sheet in line with specifications at Point no. 3.4 at Page no. 64 & 119</td></tr>
<tr><td>13</td><td>Page no. 67 & 123</td><td>3.7 & 3.7(a)</td><td>3.7 Data Storage & Backup</td><td><table><tr><th>Data Type</th><th>Storage Duration</th><th>Storage Location</th><th>Backup Frequency</th></tr><tr><td>1-minute raw data</td><td>15 days</td><td>Local Storage</td><td>Hourly</td></tr><tr><td>15-minute average data</td><td>30 days</td><td>Local Storage</td><td>Daily</td></tr><tr><td>Hourly average data</td><td>45 days</td><td>Local Storage + Server Storage</td><td>Daily</td></tr><tr><td>Daily summary data</td><td>90 days</td><td>Server Storage</td><td>Weekly</td></tr><tr><td>Alarm and Event logs</td><td>90 days</td><td>Local Storage + Server Storage</td><td>Daily</td></tr></table>
a) Data Storage for Perimeter Intrusion Detection Systems
Types of Data to Store i) Alarm & Event Data ii) Alarm triggers (date, time, location, sensor ID) iii) Alarm type (intrusion, tamper, fault) iv) Alarm priority (critical, high, medium, low) v) Alarm acknowledgment (who, when) vi) Alarm resolution (action taken, time to resolve) vii) False alarm incidents viii) Alarm escalation history ix) Sensor & Device Data x) Sensor status (active, inactive, fault, maintenance) xi) Sensor health metrics (signal strength, battery level) xii) Device configuration changes xiii) Communication status (online/offline) xiv) Device diagnostic logs xv) Video & Image Data xvi) Event-triggered video clips (before/after intrusion) xvii) Continuous recording (based on retention policy) xviii) Video analytics metadata (object detection, tracking) xix) Entry/exit events at perimeter gates xx) Access denied attempts xxi) System Performance Data xxii) Network latency and bandwidth xxiii) Database transaction logs xxiv) User login/logout xxv) Operator actions and commands xxvi) Configuration changes xxvii) Report generation xxviii) System access audit trails xxix) Alarm record: System shall have an Alarm acknowledgement facility xxx) Alarm logs: System shall show alarm log separately for Acknowledged and Not Acknowledged. xxxi) Any other alarm, event log etc. not explicitly mentioned above but recommended by OEM.</td><td><table><tr><th>Data Type</th><th>Storage Duration</th><th>Storage Location</th><th>Backup Frequency</th></tr><tr><td>Alarm and Event logs</td><td>90 days</td><td>Server Storage</td><td>Daily</td></tr></table>
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<tr><th>Sl. No.</th><th>Page No.</th><th>Point No.</th><th>Parameter</th><th>As per Tender</th><th>Amendments to the tender (SCHEDULE-II)</th><th>Remarks (if any)</th></tr>
<tr><td>14</td><td>Page no. 70 & 127</td><td>3.10 (e)(vi)</td><td>Chemical Earth Pit tech</td><td>Electrode: Copper</td><td>Electrode: Copper bonded</td><td></td></tr>
<tr><td>15</td><td>Page no. 72 & 130</td><td>9.1 (c)(i)</td><td>Functional testing:</td><td>Functional testing: A complete check of all system functions, including:
➢ Verifying that alarms are properly generated, transmitted, and displayed on the control room software for each detection zone.
➢ Confirming that the correct CCTV camera view pops up automatically when an alarm is triggered in its corresponding zone.</td><td>Functional testing: A complete check of all system functions, including:
➢ Verifying that alarms are properly generated, transmitted, and displayed on the control room software for each detection zone</td><td></td></tr>
<tr><td>16</td><td>Page no. 73 & 131</td><td>9.1 (c)(vi)(</td><td>Alarm verification:</td><td>➢ Simulate an intrusion in any Zone.
➢ Confirm an alarm signal is received in the control room.
➢ Verify the correct camera view for respective Zone is displayed on the operator's monitor.
➢ Sensor coverage check: Test the system by having a person walk along the entire perimeter, confirming gap-free detection coverage.</td><td>➢ Simulate an intrusion in any Zone.
➢ Confirm an alarm signal is received in the control room.
➢ Sensor coverage check: Test the system by having a person walk along the entire perimeter, confirming gap-free detection coverage.</td><td></td></tr>
<tr><td>17</td><td>Page no 73 & 131</td><td>9.1 (c)(vi)(</td><td>Environmental interference:</td><td>➢Simulate environmental conditions known to cause false alarms, such as heavy rain, wind, or nearby pedestrian traffic.
➢ Verify that the system's sensitivity settings are correctly filtering out these events.</td><td>~~➢Simulate environmental conditions known to cause false alarms, such as heavy rain, wind, or nearby pedestrian traffic.~~
~~➢ Verify that the system's sensitivity settings are correctly filtering out these events~~
Not required</td><td></td></tr>
<tr><td>18</td><td>Page no. 73 & 131</td><td>9.1 (c)(vi)(</td><td>Power failure simulation:</td><td>➢ Cut the primary power to the system's control unit.
➢ Confirm that the system switches to battery backup and generates a "trouble" or "power failure" signal</td><td>~~➢ Cut the primary power to the system's control unit.~~
~~➢ Confirm that the system switches to battery backup and generates a "trouble" or "power failure" signal~~
Not required</td><td></td></tr>
<tr><td>19</td><td>Page no. 73 & 132</td><td>11</td><td>Technical Summary Table:</td><td><table><tr><th>Parameter</th><th>Requirement</th></tr><tr><td>Total Perimeter</td><td>8 km (approx..)</td></tr><tr><td>Technology</td><td>DAS (Distributed Acoustic Sensing)</td></tr><tr><td>Zoning Resolution</td><td>≤ 50 m</td></tr><tr><td>Controller Capacity</td><td>≥ 50 km per channel</td></tr><tr><td>Redundancy</td><td>Cut-proof</td></tr><tr><td>Server Storage</td><td>≥ 90 days (RAID-enabled)</td></tr><tr><td>Integrations</td><td>VMS, API</td></tr><tr><td>GUI</td><td>Map-based, AI event categorization</td></tr><tr><td>CCTV Integration</td><td>PIDS software & CCTV expandable, single OEM</td></tr><tr><td>Cable Type</td><td>Armoured OFC, Direct Burial + Perimeter-mount</td></tr><tr><td>Warranty</td><td>2-year for whole DFOPIDS after issuance of FAC</td></tr><tr><td>AMC</td><td>3 years post-warranty on call basis after warranty obligations includes quarterly visit and unlimited breakdown visit.</td></tr></table></td><td><table><tr><th>Parameter</th><th>Requirement</th></tr><tr><td>Total Perimeter</td><td>8 km (approx..)</td></tr><tr><td>Technology</td><td>DAS (Distributed Acoustic Sensing)</td></tr><tr><td>Zoning Resolution</td><td>Capability to configure virtual security zones along the entire perimeter with no restrictions on the number of zones created. The system shall allow sub-10 meters or fewer zones as well to adapt to specific site conditions.</td></tr><tr><td>Controller Capacity</td><td>≥ 50 km per channel</td></tr><tr><td>Redundancy</td><td>Cut-proof</td></tr><tr><td>Server Storage</td><td>≥ 90 days (RAID-enabled)</td></tr><tr><td>Integrations</td><td>VMS, API</td></tr><tr><td>GUI</td><td>Map-based, AI event categorization</td></tr><tr><td>CCTV Integration</td><td>PIDS software & CCTV VMS integration.</td></tr><tr><td>Cable Type</td><td>Armoured OFC, Direct Burial + Perimeter-mount</td></tr><tr><td>Warranty</td><td>2-years warranty for Complete DFOPIDS after issuance of FAC including T.T.P and deployment of one manpower (Skilled) at site.</td></tr><tr><td>AMC</td><td>3 years post-warranty on call basis after warranty obligations includes quarterly visit and unlimited breakdown visit.</td></tr></table></td><td></td></tr>
<tr><td>20</td><td>Page no. 77, 135 & 170</td><td>12:B1:Sl. No. 3</td><td>Bill of Quantities (BOQ) for DFOPIDS System: Schedule-2: For MYSURU Press</td><td>Intel Xeon Gold or better 5th Gen or better (16 Core up to 3.9 GHz) or equivalent/ better.</td><td>Latest Enterprise grade Dual socket Intel Xeon Processor suitable for AI/ML model acceleration, equivalent or better , capable of fully supporting all functional, processing and throughput requirments of the system.</td><td></td></tr>
<tr><td>21</td><td>Page no. 77, 136 & 170</td><td>12:B1:Sl. No. 5</td><td>12 Port, 1 Gigabyte L2 Managed Switch with SFP Modules (8 Copper + 4 SFP)</td><td>19" rack mountable switch with Minimum
8 x10/100/1000 Base-T port of POE + and 4x 1 G SF+ ports with suitable AC/DC PSU; dual power inputs. 4 nos. 1G SM modules should be loaded.</td><td>24 Port, 1 Gigabyte L2 Managed Switch with 4 SFP Modules:
19" rack mountable switch with Minimum
24 x10/100/1000 Base-T port and 4x 1 G SFP ports with suitable AC/DC PSU; 4 nos. 1G SM modules should be loaded.</td><td></td></tr>
<tr><td>22</td><td>Page no. 77, 136 & 171</td><td>12:B1:Sl. No. 7</td><td>Earthing System</td><td>Qty: 20 nos.</td><td>Qty: 02 nos.</td><td></td></tr>
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Sl. No.	Page No.	Point No.	Parameter	As per Tender	Amendments to the tender (SCHEDULE-II)	Remarks (if any)
23	Page no. 77, 136 & 171	12:B1:Sl. No. 8	Lightning Arrestor	Qty: 08 nos.	Qty: ~~08 nos.~~ - **Not required**	
24	Page no. 77, 136 & 171	12:B1:Sl. No. 9	Supply of HDPE pipe 50mm dia	Qty: 1000 mtrs	Qty: 5500 mtrs	Considering re-measurement of soft soil and laying of 2.5 sq. mm copper cable for hooter cum strobe
25	Page no. 78, 137 & 172	12:B1:Sl. No. 13	Core cutting of surface and installation of OFC cable	Qty: 6500 mtrs	Qty: 5000 mtrs	
26	Page no. 78, 137 & 172	12:B1:Sl. No. 14	Soft soil digging and installation of OFC cable	Qty: 1000 mtrs	Qty: 2500 mtrs **Remarks**: For Mysuru Press, wherever buried cable in soft soil is not used as a SENSING CABLE, the cable shall be buried at a depth of 300mm x 900mm (WxD) Payment will be done on actual basis.	
27	Page no. 78, 137 & 171	12:B1:Sl. No. 11	Copper cable or suitable	Qty: 7000 mtrs	**Item Description:** 2.5 Sq. mm. armoured copper cable **Technical Specification/ Features:** For power supply to hooter cum strobe connections in the perimeter area Qty: 3000 mtrs (Payment will be made on actual basis).	
28	Page no. 79, 138 & 174	12:B1:Sl. No. 18		FOPIDS integration with existing VMS of CCTV system	FOPIDS integration with existing VMS of CCTV system	FOPIDS integration with existing VMS of CCTV system is OPTIONAL for BRBNMPL and may be ordered at a later stage subject to satisfactory performance of newly commissioned FOPIDS system. The price quoted shall be firm and binding and valid till completion of 1st year warranty period of the contract. Integration is OPTIONAL for BRBNMPL, however, bidders have to mandatorily quote in the Price bid for L1 determination.
29	Page no. 79, 138 & 174	12:B1:			**Item Description:** Ethernet based I/O module **Technical Specification/ Features:** Ethernet based I/O module equipped with a minimum of 2 DI and 2DO, along with other accessories such as network switch with SFP module/media coverter, SMPS etc. shall be deployed using existing fiber optic network across the perimeter (as mentioned in technical specification). UOM: Set Qty: 15	Schedule II: New Point to be added as 19 at Page no. 79, 138 & 174
30	Page no. 79, 138 & 174	12:B1:			Hooter cum strobe: 12V/24V AC/DC operated Hooter cum strobe for filed installation along with mounting arrangements and poles (5 mtr) with foundation etc in the scope of bidder. UOM: Set Qty: 30	Schedule II: New Point to be added as Sl. No. 20 at Page no. 79, 138 & 174
31	Page no. 79, 138 & 174	12:B1:			**Item Description:** Manual Soft soil digging and laying of 2.5 sq. mm copper cable for hooter cum strobe **Technical Specification/ Features:** Manual Trench digging (WxD: 300mm x 900mm, laying of underground copper cable through 50 mm HDPE pipe and refilling of trench Qty: 3000 mtrs	Schedule II: New Point to be added as Sl. No. 21 at Page no. 79, 138 & 174 (Payment will be done on actual basis).

Sl. No.	Page No.	Point No.	Parameter	As per Tender	Amendments to the tender (SCHEDULE-II)	Remarks (if any)
32	Page no. 79, 138 & 174	12:B1:			**Item Description:** Laying of copper cable: **Technical Specification/ Features:** Laying of copper cable over wall through HDPE conduit: Qty: 200 mtrs.	New Point to be added as Sl. No. 22 at Page no. 79, 138 & 174
33	Page No. 87, 148		Uptime of Severity level S1	99.50% or better = NIL • 98.50% to 99.49= 1% of quarterly bill amount • 97.50% to 98.49= 2% of quarterly bill amount • Less than 97.50%= 5% of quarterly bill amount	99.50% or better = NIL • 98.50% to 99.49= 1% of quarterly bill amount • 97.50% to 98.49= 2% of quarterly bill amount • Less than 97.50%= 7% of quarterly bill amount	
34	Page No. 87, 148		Uptime of Severity level S2	• 97.00% or better = NIL • 95.00% to 96.99= 1% of quarterly bill amount • Less than 95.00%= 3% of quarterly bill amount	• 97.00% or better = NIL • 95.00% to 96.99= 1.5% of quarterly bill amount • Less than 95.00%= 2.5% of quarterly bill amount	
35	Page No. 87, 149		Calculation of Liquidated Damages as per SLA for the quarter	Liquidated Damages applicable: 3% of quarterly bill amount	Liquidated Damages applicable: 2.5% of quarterly bill amount	
36	Page No. 87, 149		Calculation of Liquidated Damages as per SLA for the quarter	LD amount (Rs.): 7500	LD amount (Rs.): 6250	
37	Page No. 88, 150	1	Spares and Service Support	The Contractor shall attend periodical and breakdown maintenance of the system during the warranty period without any additional cost to BRBNMPL. Also, the Contractor shall ensure spare support for minimum period of Five years from the FAC date.	The Contractor shall deploy one manpower (Skilled) at site during 2 years of warranty period and attend periodical and breakdown maintenance of the system during the NCAMC period. Also, the Contractor shall ensure spare and service support for minimum period of TEN years from the FAC date.	Scope of work, payment terms and other T&Cs during Warranty period deployment of manpower is attached as Annexure-10. Accordingly, refer Section-XI, Price schedule Table-III.
38	Page No. 88, 150	2(a)	Manpower deployment:	The Contractor should deploy technically qualified service engineer during quarterly preventive and breakdown maintenance of FOPIDS system during warranty and NCAMC period.	2(a.1): The Contractor shall deploy 01 no. of technically qualified service engineer (Skilled Category) during warranty period for attending day-to-day issues at site. 2(a.2): The Contractor shall deploy technically qualified service engineer during quarterly preventive and breakdown maintenance of FOPIDS system during NCAMC period.	Scope of work, payment terms and other T&Cs during Warranty period deployment of manpower is attached as Annexure-10. Accordingly, refer Section-XI, Price schedule Table-III.
39	Page No. 90, 153	7	Assignment	The Contractor shall not subcontract the whole of the work or a substantial part thereof during warranty and NCAMC.	The Contractor shall not subcontract the whole or any substantial part of the work during the NCAMC period. However, on prior written permission from BRBNMPL, the Contractor may deploy or outsource onsite human resources from its own organization, subsidiaries, channel partners/agencies or authorized partners/agencies to execute work during the NCAMC period, provided that the Contractor submits a formal Undertaking on its official letterhead to that effect and also ensures strict compliance with all applicable statutory labour laws as stipulated in the tender. Notwithstanding any such deployment, the Contractor shall remain the primary service provider and sole point of contact and BRBNMPL shall correspond exclusively with the Contractor on all technical and administrative aspects. Any untoward incident arising out will be the sole responsibility of the Contractor.	
40	Page no. 62, 116	3.3 (a)	Interrogator / Controller Unit	The controller shall be True phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS).	The controller shall be **True phase/ phase based** Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS).	
41	Page no. 100	A(1)	System type	True phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS)	True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS)	
42	Page no. 66, 121	9	GUI Specification	Command & Control GUI with real-time map-based visualization of perimeter. Map based visualization must be online/offline mode	Command & Control GUI with real-time mapbased visualization of perimeter. Map based visualization support for both online and offline mode shall be available. However, deployment shall be done through offline maps.	
43	Page no. 66, 122	9(iv)(b)	Firmware Support:	PIDS system shall have independent Software interfaces for controlling as well as Hardware/Firmware.	PIDS system shall have independent/Unified Software interfaces for controlling as well as Hardware/Firmware maintenance. However, the unified software platform shall not interrupt ongoing operational monitoring during hardware/firmware administration.	
44	Page no. 57, 110				Suitable intrusion detection system/architecture for drainages shall be deployed and it is in scope of the Contractor.	New Point to be added as Sl. No. (L) under scope of work

<table>
<tr><th>Sl. No.</th><th>Page No.</th><th>Point No.</th><th>Parameter</th><th>As per Tender</th><th>Amendments to the tender (SCHEDULE-II)</th><th>Remarks (if any)</th></tr>
<tr><td>45</td><td>Page no. 106</td><td>G(5)</td><td>Operating System</td><td>Windows Server 2025 / Red Hat Enterprise Linux 9, equivalent or higher.</td><td>Latest Enterprise Windows OS/ Red Hat Enterprise Linux 9, equivalent or higher as required.</td><td></td></tr>
<tr><td>46</td><td>Page no. 69,106,126</td><td>3.8 and H</td><td>Switch</td><td>
<table>
<tr><th>Sl. No.</th><th>Parameter</th><th>Specification</th></tr>
<tr><td>1</td><td>Type</td><td>Enterprise Grade, Fully Manageable Layer-2 Switch. (PoE+)</td></tr>
<tr><td>2</td><td>Port Density & Hardware Requirement</td><td>19" rack mountable switch with Min 8 x10/100/1000 Base-T port of POE + and 4x 1G SF+ ports with suitable AC/DC PSU; dual power inputs, 4 nos. 1G SM modules should be loaded.</td></tr>
<tr><td>3</td><td>PoE Features</td><td>POE + Standards should be in accordance with IEEE 802.3af and IEEE 802.3at standards with 30W PoE+ support with PoE budget of 240W</td></tr>
<tr><td>4</td><td>Performance & System Capacity</td><td>The switch should have min. 16 Gbps of switching capacity & min. 11 Mpps of forwarding rate. Switch should support 4K MAC addresses</td></tr>
<tr><td>5</td><td>L2 Features</td><td>Support for Port-based VLANs, 4096 VLANs (IEEE 802.1Q), , MAC-based VLANs, IP subnet-based VLANs 256.</td></tr>
<tr><td>6</td><td>Security Features</td><td>Should support ACLs, DHCP snooping, IEEE 802.1x based port authentication, SSL, SSH, Port Mirroring, NTP, sflow/netflow, Dynamic ARP Inspection, IP source guard, FIPs 180, FIPS 46 etc.</td></tr>
<tr><td>7</td><td>Ingress protection</td><td>IP20 protection minimum</td></tr>
<tr><td>8</td><td>Operating temperature</td><td>0°C to 40° C or better</td></tr>
<tr><td>9</td><td>Operating humidity</td><td>10% to 90% RH non-condensing or better</td></tr>
<tr><td>10</td><td>Certifications</td><td>UL/CE/ FCC/EN/ ROHS or equivalent</td></tr>
</table>
</td><td>
<table>
<tr><th>Sl. No.</th><th>Parameter</th><th>Specification</th></tr>
<tr><td>1</td><td>Type</td><td>Enterprise Grade, Fully Manageable Layer-2 Switch. (Non-PoE)</td></tr>
<tr><td>2</td><td>Port Density & Hardware Requirement</td><td>19" rack mountable switch with Min 24 x10/100/1000 Base-T RJ-45 ports and 4x 1 G SFP uplink ports with suitable built-in dual redundant, hot-swappable AC PSU; 4 nos. 1G SM modules should be loaded.</td></tr>
<tr><td>3</td><td>Performance & System Capacity</td><td>The switch should have min. 56 Gbps of non-blocking switching capacity & min. 41 Mpps of forwarding rate. Switch should support 4K MAC addresses</td></tr>
<tr><td>4</td><td>L2 Features</td><td>Support for Port-based VLAN, 4096 VLAN (IEEE 802.1Q), MAC-based VLAN, Private VLAN, Spanning tree, STP, RSTP, MSTP, IGMP Snooping v1/v2/ v3, etc.</td></tr>
<tr><td>5</td><td>Security & Management Features</td><td>Should support ACLs, DHCP snooping, IEEE 802.1x based port authentication, SSHv2, HTTPS/TLS v1.3, SNMP v1/v2c/v3, Port Security, NTP, sflow/netflow, Dynamic ARP Inspection, IP source guard etc.</td></tr>
<tr><td>6</td><td>Ingress protection</td><td>IP20 protection minimum</td></tr>
<tr><td>7</td><td>Operating temperature</td><td>0°C to 40° C or better</td></tr>
<tr><td>8</td><td>Operating humidity</td><td>10% to 90% RH non-condensing or better</td></tr>
<tr><td>9</td><td>Certifications</td><td>BIS/UL/CE/ FCC/EN/ ROHS or equivalent</td></tr>
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</td><td></td></tr>
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Annexure-3/2

Amendments to be made in the tender document of DESIGN, ENGINEERING, SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND TRAINING OF AN AI-ENABLED DISTRIBUTED FIBER OPTIC PERIMETER INTRUSION DETECTION SYSTEM (DFOPIDS) AT BRBNMPL, SALBONI AND MYSURU.
Open e-Tender No. 004/SAL/PUR/2026-27 dated 22/06/2026
MSTC Event No. BRBNMPL/Salboni Press/MMD/7/26-27/ET/12 [PIDS]

Sl. No.	Page No.	Point No.	Parameter	As per Tender	Amendments to the tender (SCHEDULE-I)	Remarks (if any)
1	Page no. 57 & 110	1(k)	Scope of work	Relay output panel shall be supplied and configured with dry contact alarm output (NO/NC contact - minimum 24 contacts or as per requirement) for triggering alarms, lights, and other security responses specified by BRBNMPL. Copper wiring or suitable shall be laid from the control room throughout the perimeter to supply power to relay contacts. Proper saddling, conduit routing, surge protection, safety measures, and termination arrangements shall be ensured.	➢ Total 32 Zones (Minimum) shall be created. ➢ Each Zone shall be supported with Hooter cum Strobe Light in case of alarm. ➢ The IP 65 protected minimum 19U Racks (16 Nos.) are to support 32 zones spread across 8 KM of perimeter. Each Rack shall consist of :- a) LIU set: 01 No. b) SFP Switch: 01 No. c) IoT devices (2 DI/DO): 02 Nos. (To support 02 zones for triggering Hooter cum Strobe). d) Industrial contactor (Coil operating voltage 24V AC/DC): 02 Nos. e) Space to accommodate 1KVA UPS along with Battery Bank (UPS with Battery Bank will be provided by BRBNMPL). f) Any other accessories such as OFC & Cat 6 Patch cord etc. as required. ➢ The Hooter cum Strobe shall be connected 125 meters (approx.) away from Rack in opposite direction using copper cable 2.5 sqmm. which will be laid through 50 mm HDPE conduit.	
2	Page no. 59 & 112	h	3.1 Detection and Classification	The system shall not generate/suffer nuisance alarm from any of the following sources: i) Movement of nearby objects or vegetation without contact with the Perimeter ii) Temperature fluctuations iii) Motion of surface or ground water iv) Sensitivity must be adjustable and scalable. v) Audible and visual alarm notifications. vi) Relay output panel: Dry contact alarm output (NO/NC contact - minimum 24 contacts (as per requirement)) must be configured for alarm/light in each zone as per requirement by BRBNMPL.	**The system shall not generate/suffer nuisance alarm from any of the following sources:** i) Movement of nearby objects or vegetation without contact with the Perimeter ii) Temperature fluctuations/ rain fall. iii) Motion of surface or ground water	
3	Page no. 63 & 117	3.3 (i) & 3.3 (j)	3.3 Interrogator / Controller Unit	**i) DAS (Acoustic) Performance:** i) Sensing Range: Minimum 50 km per channel ii) Frequency Response: 1 Hz to 120 kHz (application dependent). **j) Laser and Data Acquisition:** i) Laser Type: Infrared Class 1M, LED ii) Wavelength: 1550 nm (approx.) iii) Laser Stability: ±5 pm. (digitally controlled for better. stability) iv) Acquisition Rate: 400 MHz	**i) DAS (Acoustic) Performance:** i) Sensing Range: Minimum 50 km per channel ii) Frequency Response: minimum 1 Hz to 50 kHz, controller shall detect all intrusion cases defined in tender such as cutting, climbing, lifting or tampering with the perimeter fabric, digging underneath the wall, machine drilling/excavation etc. **j) Laser and Data Acquisition:** i) Laser Type: Infrared Class 1M ii) Wavelength: 1550 nm (approx.) iii) Laser Stability: Laser Stability shall be as per OEM design without degrading the detection capability, intrusion location accuracy as per tender requirement. iv) Acquisition Rate: Acquisition rate shall be as per OEM design without degrading the detection capability, intrusion location accuracy as per tender requirement. v) Two independent lasers required for two independent channels vi) Shall feature localized AI/ML processing engine running directly at the network edge or equivalent.	
4	Page no. 57 & 109	1(e)	Scope of work	The fibre optic sensing cable shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 1mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	The fibre optic sensing cable shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 0.5mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	
5	Page no. 61 & 115	3.2 (a)	3.2 Optical Fibre Cable (OFC):	The OFC (12F Multi-core sensing cable) has to be laid underground ahead of and along the perimeter area in linear/Zig Zag fashion. The deployment shall follow a linear parallel alignment at a suitable distance as per ground conditions with maximum distance being 5mtr and depth of 01mtr or as per BRBNMPL requirement.	The OFC (12F Multi-core sensing cable) has to be laid underground and along the perimeter on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall. The deployment shall follow a linear alignment as per site conditions with minimum depth of **0.5mtr** or as per site requirement.	
6	Page no. 63 & 118			The fibre optic sensing cable (total three runs) shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 1mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	The fibre optic sensing cable (total three runs) shall be deployed on the existing concertina coil in linear pattern and zig-zag pattern on the perimeter wall and through an underground buried loop as required. The minimum burial depth for underground cable shall be 0.5mtr for soft soil and suitable depth for bitumen road/concrete surface through core cutting.	

अजय कुमार
Manager (Utility)
Mysuru

Sl. No.	Page No.	Point No.	Parameter	As per Tender	Amendments to the tender (SCHEDULE-I)	Remarks (if any)
7	Page no. 59 & 111	3(i)-(ii)	3.Functional Requirements	In case of cable cut, the system shall automatically switch to reverse feed ensuring continued operation without any loss of detection capability or coverage gaps.	In case of cable cut, the system shall ensure continuous operation without any loss of detection capability or coverage gaps.	
8	Page no. 157		Experience & Past Performance : *Similar work means	Supply and Installation of Fibre Optic Perimeter Intrusion Detection System in Factories/Security Organizations or in similar industries/ Central/State Government/Reputed Private Organizations	Supply and Installation of "Fibre Optic based Perimeter Intrusion Detection System or any other applications based on Fiber Optic based Distributed Acoustic Sensing technology" in Factories/Security Organizations or in similar industries/ Central/State Government/Reputed Private Organizations	
9	Page no. 61 & 115	3.2 (e)	3.2 (e): Functional requirements	The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be 10km ±5% as per the field requirement.	The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be 4 km ±5% as per the field requirement.	
10	Page no. 64, 119	3.4	Software, Server & Storage:	1. Hardware Configuration: Model Type: Latest Enterprise grade 19" rack mountable server ➢ Processor (CPU): Intel® Xeon® E-2324G Processor equivalent or better. ➢ Memory (RAM): 2 x 16GB DDR5 ECC Unbuffered DIMM Modules (Total 32GB) DDR5 SDRAM or better. ➢ Graphics & Compute Unit ➢ GPU Model: Intel® UHD Graphics P750 equivalent or higher. ➢ Server Storage: SSD SATA Minimum 4TB usable capacity after hardware RAID 6 configuration or better/equivalent and expandable up to 10TB or higher. ➢ Provision for dual redundant power supply to servers. ➢ Tensor & RT Cores: AI and Ray-Tracing supported or better. Purpose: • AI/ML model acceleration • Graphics rendering • Parallel computation tasks	1. Hardware Configuration: ➢ Model Type: Latest Enterprise grade 19" Rack mountable server ➢ Processor (CPU): Intel Xeon Silver series dual socket processor or higher, 5th Gen or higher (12 Cores, up to 3.9 GHz) suitable for AI/ML model acceleration, equivalent or better. ➢ Chipset: Intel C620 Server-class chipset, equivalent or better. ➢ Memory (RAM): 64 GB DDR5 ECC (Expandable up to 256 GB) or better. ➢ Graphics & Compute Unit ➢ GPU Model: Dedicated minimum NVIDIA RTX 4060 Ti (8 GB GDDR6), equivalent or higher capable of performing AI/ML processing. ➢ Server Storage: Minimum 4TB usable enterprise SSD capacity RAID 6 configuration or better/equivalent and expandable up to 8 TB or higher. ➢ Provision for Dual redundant Hot-swappable enterprise power supply to servers. ➢ Tensor & RT Cores: Yes (AI and Ray-Tracing supported) or better. ➢ With required Software for post processing. Purpose: • Graphics rendering • Parallel computation tasks	Wherever RAID 5/10 is mentioned in the tender document for storage & Server, it should be read as RAID 6.
11	Page no. 104, 105	D: Sl. No. 3,5 &11	Server & Failover Server for DAS controllers Sl. No. 3: Processor Sl. No. 5: SSD disk Sl. No. 11: Power supply	Sl. No. 3: Minimum Intel Xeon Gold series dual socket processor or higher, 5th Gen or higher (16 Cores, up to 3.9 GHz), equivalent or better. Sl. No. 5: Minimum 4TB usable capacity after hardware RAID 5/10 configuration or better/equivalent and expandable up to 10TB or higher Sl. No. 11: Hot swappable Inbuilt power supply	Sl. No. 3: Latest Enterprise grade Intel Xeon Silver series dual socket processor suitable for AI/ML model acceleration, equivalent or better. Sl. No. 5: Minimum 4TB usable enterprise SSD capacity RAID 6 configuration or better/equivalent and expandable up to 8 TB or higher. Sl. No. 11: Dual redundant Hot-swappable enterprise power supplies.	
12	Page no. 105	D:	Server & Failover Server for DAS controllers		Sl. No. 14:GPU: Latest Enterprise grade NVIDIA RTX 4060 Ti (8 GB GDDR6) or equivalent/better GPU capable of performing AI/ML processing Sl. No. 15:Other Features: • Tensor & RT Cores: AI and Ray-Tracing supported or better • Graphics & Compute Unit • Graphics rendering • Parallel computation tasks	To be added in technical compliance sheet in line with specifications at Point no. 3.4 at Page no. 64 & 119

<table>
<tr><th>Sl. No.</th><th>Page No.</th><th>Point No.</th><th>Parameter</th><th>As per Tender</th><th>Amendments to the tender (SCHEDULE-I)</th><th>Remarks (if any)</th></tr>
<tr><td>13</td><td>Page no. 64,104, 120</td><td>3.4</td><td>Software, Server & Stor</td><td>7. Back-up Storage Specification:
➢ HDD Capacity: 16TB per drive or better.
HDD Type: Enterprise HDD or better.
➢ HDD form factor: 3.5Inch.
➢ HDD RPM: 7200rpm.
➢ HDD Interface: SATA III or better.
➢ Total Raw Capacity: 96TB (6x16TB RAID 5/10 configuration and redundancy) or better [Calculation data sheet to be provided (Event and Alarm) for integration of the minimum 10HD cameras x 8 Zones (tentative) up to 90 days back-up with RAID Configuration details]
➢ RAID 5/10 (for Data)
Drives Used: 6 x 16TB or better
Type: Distributed parity with one-disk fault tolerance
Capacity Available: 80TB usable (16TB x 5 effective after parity).
Purpose: Data storage, database files, video archives, or backup data.
Benefit: Balance of performance, capacity, and redundancy.</td><td>7. Back-up Storage Specification:
To Integrate and Configure with existing SAN Storage Make- EMC VNX5600 of 320 TB capacity.
The above storage will be provided by BRBNMPL.</td><td></td></tr>
<tr><td>14</td><td>Page no. 67 & 123</td><td>3.7 & 3.7(a)</td><td>3.7 Data Storage & Backup</td><td><table><tr><th>Data Type</th><th>Storage Duration</th><th>Storage Location</th><th>Backup Frequency</th></tr><tr><td>1-minute raw data</td><td>15 days</td><td>Local Storage</td><td>Hourly</td></tr><tr><td>15-minute average data</td><td>30 days</td><td>Local Storage</td><td>Daily</td></tr><tr><td>Hourly average data</td><td>45 days</td><td>Local Storage + Server Storage</td><td>Daily</td></tr><tr><td>Daily summary data</td><td>90 days</td><td>Server Storage</td><td>Weekly</td></tr><tr><td>Alarm and Event logs</td><td>90 days</td><td>Local Storage + Server Storage</td><td>Daily</td></tr></table>
a) Data Storage for Perimeter Intrusion Detection Systems
Types of Data to Store i) Alarm & Event Data ii) Alarm triggers (date, time, location, sensor ID) iii) Alarm type (intrusion, tamper, fault) iv) Alarm priority (critical, high, medium, low) v) Alarm acknowledgment (who, when) vi) Alarm resolution (action taken, time to resolve) vii) False alarm incidents viii) Alarm escalation history ix) Sensor & Device Data x) Sensor status (active, inactive, fault, maintenance) xi) Sensor health metrics (signal strength, battery level) xii) Device configuration changes xiii) Communication status (online/offline) xiv) Device diagnostic logs xv) Video & Image Data xvi) Event-triggered video clips (before/after intrusion) xvii) Continuous recording (based on retention policy) xviii) Video analytics metadata (object detection, tracking) xix) Entry/exit events at perimeter gates xx) Access denied attempts xxi) System Performance Data xxii) Network latency and bandwidth xxiii) Database transaction logs xxiv) User login/logout xxv) Operator actions and commands xxvi) Configuration changes xxvii) Report generation xxviii) System access audit trails xxix) Alarm record: System shall have an Alarm acknowledgement facility xxx) Alarm logs: System shall show alarm log separately for Acknowledged and Not Acknowledged. xxxi) Any other alarm, event log etc. not explicitly mentioned above but recommended by OEM.</td><td><table><tr><th>Data Type</th><th>Storage Duration</th><th>Storage Location</th><th>Backup Frequency</th></tr><tr><td>Alarm and Event logs</td><td>90 days</td><td>Server Storage</td><td>Daily</td></tr></table>
a) Data Storage for Perimeter Intrusion Detection Systems
Types of Data to Store i) Alarm & Event Data ii) Alarm triggers (date, time, location, sensor ID) iii) Alarm type (intrusion, tamper, fault) iv) Alarm priority (critical, high, medium, low) v) Alarm acknowledgment (who, when) vi) Alarm resolution (action taken, time to resolve) vii) False alarm incidents viii) Alarm escalation history ix) Sensor & Device Data x) Sensor status (active, inactive, fault, maintenance) xi) Sensor health metrics (signal strength, battery level) xii) Device configuration changes xiii) Communication status (online/offline) xiv) Device diagnostic logs xv) Video & Image Data xvi) Event-triggered video clips (before/after intrusion) xvii) Continuous recording (based on retention policy) xviii)Entry/exit events at perimeter gates xix) Access denied attempts xx) System Performance Data xxi) Network latency and bandwidth xxii) Database transaction logs xxiii) User login/logout xxiv) Operator actions and commands xxv) Configuration changes xxvi) Report generation xxvii) System access audit trails xxviii) Alarm record: System shall have an Alarm acknowledgement facility xxix) Alarm logs: System shall show alarm log separately for Acknowledged and Not Acknowledged. xxx) Any other alarm, event log etc. not explicitly mentioned above but recommended by OEM. xxxi) To Support the AND/OR logic between the two independently operated controllers for simulation of alarm & identiification of pin point intrusion location across the optical fiber.</td><td></td></tr>
<tr><td>15</td><td>Page no. 70 & 127</td><td>3.10 (e)(vi)</td><td>Chemical Earth Pit technical details:</td><td>Electrode: Copper</td><td>Electrode: Copper bonded</td><td></td></tr>
<tr><td>16</td><td>Page no. 72 & 130</td><td>9.1 (c)(i)</td><td>Functional testing:</td><td>Functional testing: A complete check of all system functions, including:
➢ Verifying that alarms are properly generated, transmitted, and displayed on the control room software for each detection zone.
➢ Confirming that the correct CCTV camera view pops up automatically when an alarm is triggered in its corresponding zone.</td><td>Functional testing: A complete check of all system functions, including:
➢ Verifying that alarms are properly generated, transmitted, and displayed on the control room software for each detection zone.
➢ Confirming that the correct CCTV camera view pops up automatically when an alarm is triggered in its corresponding zone.</td><td></td></tr>
<tr><td>17</td><td>Page no. 72 & 130</td><td>9.1 (c)(iii)</td><td>Integration testing:</td><td>Ensuring that the PIDS integrates properly with all other security and building management systems.</td><td>Ensuring that the PIDS integrates properly with existing CCTV system</td><td></td></tr>
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<table>
<tr><th>Sl. No.</th><th>Page No.</th><th>Point No.</th><th>Parameter</th><th>As per Tender</th><th>Amendments to the tender (SCHEDULE-I)</th><th>Remarks (if any)</th></tr>
<tr><td>18</td><td>Page no. 73 & 131</td><td>9.1 (c)(vi)(</td><td>Alarm verification:</td><td>➢ Simulate an intrusion in any Zone.
➢ Confirm an alarm signal is received in the control room.
➢ Verify the correct camera view for respective Zone is displayed on the operator's monitor.
➢ Sensor coverage check: Test the system by having a person walk along the entire perimeter, confirming gap-free detection coverage.</td><td>➢ Simulate an intrusion in any Zone.
➢ Confirm an alarm signal is received in the control room.
➢ Verify the correct camera view for respective Zone is displayed on the operator's monitor
➢ Sensor coverage check: Test the system by having a person walk along the entire perimeter, confirming gap-free detection coverage.</td><td></td></tr>
<tr><td>19</td><td>Page no. 73 & 131</td><td>9.1 (c)(vi)(</td><td>Environmental interference:</td><td>➢Simulate environmental conditions known to cause false alarms, such as heavy rain, wind, or nearby pedestrian traffic.
➢ Verify that the system's sensitivity settings are correctly filtering out these events.</td><td>➢Simulate environmental conditions known to cause false alarms such as heavy rain / wind.
➢ Verify that the system's sensitivity settings are correctly filtering out these events.</td><td></td></tr>
<tr><td>20</td><td>Page no. 73 & 131</td><td>9.1 (c)(vi)(</td><td>Power failure simulation:</td><td>➢ Cut the primary power to the system's control unit.
➢ Confirm that the system switches to battery backup and generates a "trouble" or "power failure" signal.</td><td>~~➢ Cut the primary power to the system's control unit.~~
~~➢ Confirm that the system switches to battery backup and generates a "trouble" or "power failure" signal.~~
Not required</td><td></td></tr>
<tr><td>21</td><td>Page no. 73 & 132</td><td>11</td><td>Technical Summary Table:</td><td><table><tr><th>Parameter</th><th>Requirement</th></tr><tr><td>Total Perimeter</td><td>8 km (approx..)</td></tr><tr><td>Technology</td><td>DAS (Distributed Acoustic Sensing)</td></tr><tr><td>Zoning Resolution</td><td>≤ 50 m</td></tr><tr><td>Controller Capacity</td><td>≥ 50 km per channel</td></tr><tr><td>Redundancy</td><td>Cut-proof</td></tr><tr><td>Server Storage</td><td>≥ 90 days (RAID-enabled)</td></tr><tr><td>Integrations</td><td>VMS, API</td></tr><tr><td>GUI</td><td>Map-based, AI event categorization</td></tr><tr><td>CCTV Integration</td><td>PIDS software & CCTV expandable, single OEM</td></tr><tr><td>Cable Type</td><td>Armoured OFC, Direct Burial + Perimeter-mount</td></tr><tr><td>Warranty</td><td>2-year for whole DFOPIDS after issuance of FAC</td></tr><tr><td>AMC</td><td>3 years post-warranty on call basis after warranty obligations includes quarterly visit and unlimited breakdown visit.</td></tr></table></td><td><table><tr><th>Parameter</th><th>Requirement</th></tr><tr><td>Total Perimeter</td><td>8 km (approx..)</td></tr><tr><td>Technology</td><td>DAS (Distributed Acoustic Sensing)</td></tr><tr><td>Zoning Resolution</td><td>Capability to configure virtual security zones along the entire perimeter with no restrictions on the number of zones created The system shall allow sub-10 meters or lower zones as well to adapt to specific site conditions</td></tr><tr><td>Controller Capacity</td><td>≥ 50 km per channel</td></tr><tr><td>Redundancy</td><td>Cut-proof</td></tr><tr><td>Server Storage</td><td>≥ 90 days (RAID-enabled)</td></tr><tr><td>Integrations</td><td>VMS, API</td></tr><tr><td>GUI</td><td>Map-based, AI event categorization</td></tr><tr><td>CCTV Integration</td><td>PIDS software & CCTV VMS integration.</td></tr><tr><td>Cable Type</td><td>Armoured OFC, Direct Burial + Perimeter-mount</td></tr><tr><td>Warranty</td><td>2-years warranty for Complete DFOPIDS after issuance of FAC including DLP and deployment of one manpower (Skilled) at site.</td></tr><tr><td>AMC</td><td>3 years post-warranty on call basis after warranty obligations includes quarterly visit and unlimited breakdown visit.</td></tr></table></td><td></td></tr>
<tr><td>22</td><td>Page no. 74, 133 & 165</td><td>12:A1:Sl. No. 3</td><td>Bill of Quantities (BOQ) for DFOPIDS System: Schedule-1: For SALBONI Press-SERVER</td><td>Intel Xeon Gold or better 5th Gen or better (16 Core up to 3.9 GHz) or equivalent/ better.
RAID-5/10 capable, 4K output, dual network interface, supports alarm linkage with DFOPIDS.</td><td>Intel Xeon Silver series dual socket processor or higher, 5th Gen or higher (12 Cores, up to 3.9 GHz) suitable for AI/ML model acceleration, equivalent or better suitable for AI/ML model acceleration, equivalent or better capable of fully supporting all functional, processing and throughput requirments of the system.</td><td></td></tr>
<tr><td>23</td><td>Page no. 75, 133 & 165</td><td>12:A1:Sl No. 5</td><td>12 Port, 1 Gigabyte L2 Managed Switch with SFP Modules (8 Copper + 4 SFP)</td><td>19" rack mountable switch with Minimum
8 x10/100/1000 Base-T port of POE + and 4x 1 G SF+ ports with suitable AC/DC PSU; dual power inputs. 4 nos. 1G SM modules should be loaded.</td><td>24 Port, 1 Gigabyte L2 Managed Switch with 4 SFP Modules:
19" rack mountable switch with Minimum
24 x10/100/1000 Base-T port and 4x 1 G SFP ports with suitable AC/DC PSU; 4 nos. 1G SM modules should be loaded.</td><td></td></tr>
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Sl. No.	Page No.	Point No.	Parameter	As per Tender	Amendments to the tender (SCHEDULE-I)	Remarks (if any)
24	Page No. 75, 134 & 167	12:A1:Sl. No. 12	Trench digging	Qty: 10000 mtrs	Qty: 10000 mtrs **Remarks:** For Salboni Press, wherever buried OFC cable is not used for SENSING purpose, the cable shall be buried at a depth of 300mm x 900mm (WxD) through HDPE pipe in the trench with required bricks as per IS standard. Payment will be done on actual basis.	
25	Page no. 75, 134 & 166	12:A1:Sl. No. 11	Copper cable or suitable	Qty: 7000 mtrs	**Item description:** 2.5 Sq. mm. armoured copper cable along with 50 mm HDPE conduit: **Tehnical specifications:** For power supply to hooter cum strobe connections in the perimeter area : Qty: 4000 mtrs (Payment will be made on actual basis).	
26	Page no. 76, 135 & 168	12 A1:			a) Ethernet based I/O module: IoT of minimum of 2 DI/DO, Industrial contactor along with other accessories shall be deployed using existing fiber optic network across the perimeter. UOM: Set Qty: 32 b) Supply and Installation of IP65 protected minimum 19U Rack along with accessories such as Network Switch with SFP module, LIU, required patch cord etc. Foundation for racks as per IS standard is in the scope of bidder (as mentioned in technical specification). UOM: Set Qty: 16	Schedule I: New Point to be added as 16 at Page No. 76, 135 & 168
27	Page no. 76, 135 & 168	12 A1:			Hooter cum strobe: Supply and Installation of Hooter cum strobe along with mounting arrangements and poles (5 mtr) with foundation etc in the scope of bidder. UOM: Set Qty: 32	Schedule I: New Point to be added as 17 at Sl. No. 76, 135 & 168
28	Page no. 76, 135 & 168	12 A1:			Manual Digging (W X D: 300 mm X 900 mm), laying of 2.5 sq. mm copper cable through 50mm HDPE conduit (for hooter cum strobe) and refilling of trench as per IS standard: Qty: 4000 mtrs.	Schedule I: New Point to be added as Sl. No. 18 at Page no. 76, 135 & 168 (Payment will be done on actual basis)
29	Page No. 87, 148		Uptime of Severity level S1	99.50% or better = NIL • 98.50% to 99.49= 1% of quarterly bill amount • 97.50% to 98.49= 2% of quarterly bill amount • Less than 97.50%= 5% of quarterly bill amount	99.50% or better = NIL • 98.50% to 99.49= 1% of quarterly bill amount • 97.50% to 98.49= 2% of quarterly bill amount • Less than 97.50%= 7% of quarterly bill amount	
30	Page No. 87, 148		Uptime of Severity level S2	• 97.00% or better = NIL • 95.00% to 96.99= 1% of quarterly bill amount • Less than 95.00%= 3% of quarterly bill amount	• 97.00% or better = NIL • 95.00% to 96.99= 1.5% of quarterly bill amount • Less than 95.00%= 2.5% of quarterly bill amount	
31	Page No. 87, 149		Calculation of Liquidated Damages as per SLA for the quarter	Liquidated Damages applicable: 3% of quarterly bill amount	Liquidated Damages applicable: 2.5% of quarterly bill amount	
32	Page No. 87, 149		Calculation of Liquidated Damages as per SLA for the quarter	LD amount (Rs.): 7500	LD amount (Rs.): 6250	

<table>
<tr><th>Sl. No.</th><th>Page No.</th><th>Point No.</th><th>Parameter</th><th>As per Tender</th><th>Amendments to the tender (SCHEDULE-I)</th><th>Remarks (if any)</th></tr>
<tr><td>33</td><td>Page No. 88, 150</td><td>1</td><td>Spares and Service Support</td><td>The Contractor shall attend periodical and breakdown maintenance of the system during the warranty period without any additional cost to BRBNMPL. Also, the Contractor shall ensure spare support for minimum period of Five years from the FAC date.</td><td>Schedule-I
The Contractor shall deploy one manpower (Skilled) at site during 2 years of warranty period and attend periodical and breakdown maintenance of the system during the NCAMC period. Also, the Contractor shall ensure spare and service support for minimum period of TEN years from the FAC date.</td><td>Scope of work, payment terms and other T&Cs during Warranty period deployment of manpower is attached as Annexure-10. Accordingly, refer Section-XI, Price schedule Table-III.</td></tr>
<tr><td>34</td><td>Page No. 88, 150</td><td>2(a)</td><td>Manpower deployment:</td><td>The Contractor should deploy technically qualified service engineer during quarterly preventive and breakdown maintenance of FOPIDS system during warranty and NCAMC period.</td><td>2(a.1): The Contractor shall deploy 01 no. of technically qualified service engineer (Skilled Category) during warranty period for attending day-to-day issues at site in General Shift.

2(a.2): The Contractor shall deploy technically qualified service engineer during quarterly preventive and breakdown maintenance of FOPIDS system during NCAMC period.</td><td>Scope of work, payment terms and other T&Cs during Warranty period deployment of manpower is attached as Annexure-10. Accordingly, refer Section-XI, Price schedule Table-III.</td></tr>
<tr><td>35</td><td>Page No. 90, 153</td><td>7</td><td>Assignment</td><td>The Contractor shall not subcontract the whole of the work or a substantial part thereof during warranty and NCAMC.</td><td>The Contractor shall not subcontract the whole or any substantial part of the work during the NCAMC period. However, on prior written permission from BRBNMPL, the Contractor may deploy or outsource onsite human resources from its own organization, subsidiaries, channel partners/agencies or authorized partners/agencies to execute work during the NCAMC period, provided that the Contractor submits a formal Undertaking on its official letterhead to that effect and also ensures strict compliance with all applicable statutory labour laws as stipulated in the tender. Notwithstanding any such deployment, the Contractor shall remain the primary service provider and sole point of contact and BRBNMPL shall correspond exclusively with the Contractor on all technical and administrative aspects. Any untoward incident arising out will be the sole responsibility of the Contractor.</td><td></td></tr>
<tr><td>36</td><td>Page no. 62, 116</td><td>3.3 (a)</td><td>Interrogator / Controller Unit</td><td>The controller shall be True phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS).</td><td>The controller shall be True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS).</td><td></td></tr>
<tr><td>37</td><td>Page no. 100</td><td>A(1)</td><td>System type</td><td>True phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS)</td><td>True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS)</td><td></td></tr>
<tr><td>38</td><td>Page no. 66, 121</td><td>9</td><td>GUI Specification</td><td>Command & Control GUI with real-time map-based visualization of perimeter. Map based visualization must be online/offline mode</td><td>Command & Control GUI with real-time mapbased visualization of perimeter. Map based visualization support for both online and offline mode shall be available. However, deployment shall be done through offline maps.</td><td></td></tr>
<tr><td>39</td><td>Page no. 66, 122</td><td>9(iv)(b)</td><td>Firmware Support:</td><td>PIDS system shall have independent Software interfaces for controlling as well as Hardware/Firmware.</td><td>PIDS system shall have independent/Unified Software Interfaces for controlling as well as Hardware/Firmware maintenance. However, the unified software platform shall not interrupt ongoing operational monitoring during hardware/firmware administration.</td><td></td></tr>
<tr><td>40</td><td>Page no. 57, 110</td><td></td><td></td><td></td><td>Suitable intrusion detection system/architecture for drainages shall be deployed and it is in scope of the Contractor.</td><td>New Point to be added as Sl. No. (L) under scope of work</td></tr>
<tr><td>41</td><td>Page no. 106</td><td>G(5)</td><td>Operating System</td><td>Windows Server 2025 / Red Hat Enterprise Linux 9, equivalent or higher.</td><td>Latest Enterprise Windows OS/ Red Hat Enterprise Linux 9, equivalent or higher as required.</td><td></td></tr>
<tr><td>42</td><td>Page no. 69,106,126</td><td>3.8 and H</td><td>Switch</td><td>
<table>
<tr><th>Sl. No.</th><th>Parameter</th><th>Specification</th></tr>
<tr><td>1</td><td>Type</td><td>Enterprise Grade, Fully Manageable Layer-2 Switch. (PoE+)</td></tr>
<tr><td>2</td><td>Port Density & Hardware Requirement</td><td>19" rack mountable switch with Min 8 x10/100/1000 Base-T port of POE + and 4x 1 G SF+ ports with suitable AC/DC PSU; dual power inputs, 4 nos. 1G SM modules should be loaded.</td></tr>
<tr><td>3</td><td>PoE Features</td><td>POE + Standards should be in accordance with IEEE 802.3af and IEEE 802.3at standards with 30W PoE+ support with PoE budget of 240W</td></tr>
<tr><td>4</td><td>Performance & System Capacity</td><td>The switch should have min. 16 Gbps of switching capacity & min. 11 Mpps of forwarding rate. Switch should support 4K MAC addresses</td></tr>
<tr><td>5</td><td>L2 Features</td><td>Support for Port-based VLANs, 4096 VLANs (IEEE 802.1Q), , MAC-based VLANs, IP subnet-based VLANs 256.</td></tr>
<tr><td>6</td><td>Security Features</td><td>Should support ACLs, DHCP snooping, IEEE 802.1x based port authentication, SSL, SSH, Port Mirroring, NTP, sflow/netflow, Dynamic ARP Inspection, IP source guard, FIPs 180, FIPS 46 etc.</td></tr>
<tr><td>7</td><td>Ingress protection</td><td>IP20 protection minimum</td></tr>
<tr><td>8</td><td>Operating temperature</td><td>0°C to 40° C or better</td></tr>
<tr><td>9</td><td>Operating humidity</td><td>10% to 90% RH non-condensing or better</td></tr>
<tr><td>10</td><td>Certifications</td><td>UL/CE/ FCC/EN/ ROHS or equivalent</td></tr>
</table>
</td><td>
<table>
<tr><th>Sl. No.</th><th>Parameter</th><th>Specification</th></tr>
<tr><td>1</td><td>Type</td><td>Enterprise Grade, Fully Manageable Layer-2 Switch. (Non-PoE)</td></tr>
<tr><td>2</td><td>Port Density & Hardware Requirement</td><td>19" rack mountable switch with Min 24 x10/100/1000 Base-T RJ-45 ports and 4x 1 G SFP uplink ports with suitable built-in dual redundant, hot-swappable AC PSU; 4 nos 1G SM modules should be loaded.</td></tr>
<tr><td>3</td><td>Performance & System Capacity</td><td>The switch should have min. 56 Gbps of non-blocking switching capacity & min. 41 Mpps of forwarding rate. Switch should support 4K MAC addresses</td></tr>
<tr><td>4</td><td>L2 Features</td><td>Support for Port-based VLAN, 4096 VLAN (IEEE 802.1Q), MAC-based VLAN, Private VLAN, Spanning tree, STP, RSTP, MSTP, IGMP Snooping v1/v2/ v3, etc</td></tr>
<tr><td>5</td><td>Security & Management Features</td><td>Should support ACLs, DHCP snooping, IEEE 802.1x based port authentication, SSHv2, HTTPS/TLS v1.3, SNMP v1/v2c/v3, Port Security, NTP, sflow/netflow, Dynamic ARP Inspection, IP source guard etc.</td></tr>
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Supplementary Annexure to Tender No. 004/SAL/PUR/2026-27 dated 22/06/2026

Payment terms and Scope of work during Warranty period

1) **List of Equipment**: As per BOQ
2) **Scope of Work** :

i) Comprehensive maintenance of Distributed Acoustic Sensing (DAS) based Fiber Optic Perimeter Intrusion Detection System (FO-PIDS) during warranty period.

ii) Quarterly Preventive maintenance with equal intervals to carry out health check of FO-PIDS system.

iii) Preventive maintenance service (PMS) should cover the following activities.

- External cleaning of controllers, servers, switches and work station with a soft muslin cloth, if required, internal cleaning should be done.
- Dressing of loose cables, if required, in the CCTV room and across the township boundary wall.
- Check functioning of controllers, servers, switches and work station & activated features and take corrective action, if necessary.
- Check serviceability status of redundant controller and server.
- Take application and data backup of FO-PIDS system.
- Any other activities as specified by BRBNMPL, Mysuru during warranty period.
- Periodic preventive maintenance service (PMS) report shall be submitted by the Contractor to the Maintenance-Utility Officer-In-charge of BRBNMPL, Mysuru.

iv) Attending to breakdown calls, as and when received via email/mobile/telephone etc.

v) AI/ML model training/retraining and tuning to various environmental conditions of the site.

vi) Attending to all software (OS & Application) related problems.

vii) The Contractor has to provide breakdown maintenance service on all weekdays to keep the entire system in working condition on 24x7 basis. However, any emergency breakdown call shall be attended beyond working hours and on Holidays/Weekly-offs as well.

viii) Contractor shall ensure safe, efficient and reliable maintenance of the FO-PIDS system.

ix) Carrying out repairs of equipments/parts at our site / Contractor's workshop when found necessary, the same shall be made after getting written permission from BRBNMPL.

x) Software up-gradation as and when recommended by OEM shall be done by the Contractor at no additional cost to BRBNMPL.

xi) Up-gradation of any software / firmware to maintain the system operational and to comply with prevailing cyber security guide lines.

xii) Periodic reporting of equipment status to BRBNMPL.

xiii) All necessary tools and tackles, instruments, labour etc. are to be arranged by the Contractor at their own cost and risk.

xiv) Any other works as per the instruction of BRBNMPL Officer in- charge for smooth operation of FOPIDS system.

xv) Contractor shall have back to back service agreement with the OEMs for critical items like FOPIDS controllers, Servers, Switches and application software support during warranty.

Manager (Utility)
Mysuru

xvi) The Contractor shall be wholly responsible for breakdown or any mischief done by their staff and any loss to BRBNMPL shall be recovered from the immediate bill of the Contractor, balance if any from Security Deposit or otherwise to be paid by the Contractor.

xvii) The Contractor shall provide training on operation and maintenance of the system to the BRBNMPL maintenance team during preventive maintenance.

3) Liquidated Damages:

The Company expects the Contractor to complete the scope of work as mentioned in tender within the timelines mutually agreed upon with the Company. Inability of the Contractor to either provide the requirements as per the scope or to achieve the expected Service Levels as defined below to meet the timelines agreed with the Company would be treated as breach of Contract and would invoke this penalty clause. The rate of penalty would be as mentioned below. Cap for aggregate of all penalties under the Agreement will be limited to 5% of the Total Contract value of SITC cost during entire warranty period. In the event the timeframes are impacted due to delays caused solely by the Company, the Contractor will be given additional time (proportionate to the time lost due to the delay) to complete the activity and further, the Contractor will not be responsible for any penalties for such delay or resultant extension. The right to invoke the penalty clause is in addition to and without prejudice to other rights available to the Company such as termination of this Agreement, invocation of the BG/SD and recovery of the expenditure incurred by the Company.

a) Details of Severity levels:

a.1. **Severe (S1):** Incidents that can have severe impact on operations affecting FOPIDS at large viz. complete shutdown of FO-PIDS System/Software wherein complete system is down, redundant server/controller fails to take over from primary server/controller falls under this category.

a.2. **Essential (S2):** Incidents that can have essential impact on the FOPIDS System affecting individual component or service, but do not impact FO-PIDS functioning as a whole system and have partial loss of PIDS services of a particular section/area/zone fall under this category. E.g. – OS/ application functioning of workstation, OFC network issues, network switch issue, Hard disk crash, unavailability of certain module/feature of application software, damaged OFC cable etc.

a.3. **Normal (S3):** Incidents that do not have much impact on the FOPIDS System as a whole but one or more low level components failure that does not result in loss of PIDS services fall under this category. E.g. – Network Switch port issue, Cat6 cable issue, SMPS issue etc.

a.4. The services shall be classified as in Table-01 below for the purposes of fault rectification, quarterly uptime commitment and levy of damages.

a.5. Downtime will be counted from the time of reporting the maintenance call till the resolution of the problem.

a.6. Severity Level of Calls logged will be decided based on the type of item / equipment and its impact on FO-PIDS System as defined above. In case of any discrepancies in deciding on Severity Level, Company's decision on Severity Level based on business impact shall be final.

a.7. Liquidated Damages shall be recovered on a quarterly basis for failure to maintain the

committed uptime.

TABLE – 01 (Service Classification)

Severity Level	Response Time (time within which the Contractor should Respond from time of reporting/call log)	Resolution Time (Time within which the Contractor should bring the service back to normal working Condition from the time of reporting/call log)
S1	10 hour	24 hours
S2	18 hour	36 hours
S3	24 hours	48 hours

a.8. Appropriate LD will be deducted from quarterly payment if the Contractor fails to maintain required resolution timelines as mentioned above. A penalty of 0.5% (half per cent) per week or part thereof of the contract value for the delay in response time beyond specified time as detailed above shall be recoverable from the Performance Guarantee / Security Deposit. The maximum penalty for warranty failure will be 5% (Five percent) of the contract value during the whole warranty period. If there is further such delay after reaching this limit, BRBNMPL shall be entitled to encashment of whole of Performance Guarantee / Warranty Bonds/ Security Deposit.

4) Payment terms :

a) Payment against deployment of contractually mandated manpower during the warranty period shall be made on a quarterly basis. Such payment will be released only upon satisfactory execution of the contract and submission of bill. The bill must be accompanied by all supporting documents such as Proof of PF contribution, ESIC/Workmen compensation policy, Wage register, Attendance register, Undertaking regarding compliance with Labour laws in BRBNMPL's format, Salary deposit proof /Bank statement etc.

b) The Contractor shall raise the bill in the 1st week of succeeding quarters for release of payment after fulfilling all the necessary formalities.

c) Payment shall be made within 30 days of submission of bill along with all supporting documents.

d) Liquidated damages, if any, shall be deducted from quarterly bills.

e) Statutory deductions shall be made at source as per prevailing rules.

f) The billing/invoice price shall remain fixed, firm, and binding for the entire duration of the warranty period, and shall not be subjected to any escalation on any grounds. However, any statutory revision in Goods and Services Tax (GST) or other applicable taxes shall be reimbursed at prevailing rates, subject to submission of valid documentary evidence in support of such revision.

5) Recovery & Rectification of work:

In case, the Contractor fails to attend any issue/breakdown as per warranty clauses above from the date of intimation, the issue shall be rectified by the owner through another agency and expenditure shall be recovered from the Contractor. If the work is not completed in all respect or delayed beyond reasonable time or Contractor discontinues the work abruptly, then BRBNMPL reserves the right to get the remaining work / uncompleted work done through any other agencies at the risk and cost of the Contractor. In such case, the pending claims and Security Deposit of the

Contractor shall be forfeited.

6) Manpower deployment

The Contractor must deploy one no. of manpower during warranty period as below.

a) One Residential Engineer as a System Administrator / Senior Technician (**Skilled category**) in General Shift. The timings will be as per BRBNMPL shift timings. Deployment may be changed as per BRBNMPL's requirement.

b) The Contractor should comply with all statutory provisions as applicable such as but not limited to:

i. Provisions of the Factories Act, Workman Compensation Act, Employers Liability Act, Contract Labour Act, Industrial Dispute Act, Minimum Wages Act, Payment of Wages Act, EPF and ESI Act including any modification thereof or any other law relating thereto and rules framed there under from time to time.

ii. The Contractor shall indemnify the Company from any and all claims, liabilities, losses, penalties and legal expenses arising out of or resulting from any breach of statutory requirements or Labour laws by the Contractor. As the Principal employer, the Company reserves the right to enforce the provisions of the relevant Acts.

iii. The Contractor shall give prevailing minimum wages to deployed manpower as per their skill category mentioned above. The Contractor shall adhere to pay minimum wages published by Labour Welfare officer, BRBNMPL, Mysuru.

iv. Deployment of System Administrator / Residential Engineer/ Senior Technician (Qualification: B Tech/ BE/ Diploma in Electrical/Electronics/ IT/ Computer Science/ Networking): Minimum 01 Year of experience in the field of PIDS or similar systems for B.Tech/ BE candidates or minimum 03 years of experience in PIDS or similar systems for Diploma in Engineering candidates.

v. Contractor shall take care of insurance coverage for their workmen/ Resident Engineer/ System Administrator/Technician during the contract period in the Company. The workmen/ engineer or their legal heirs shall not be entitled to any claim from the Company under any circumstances.

vi. If the Company desires replacement for any of the personnel deployed by the Contractor for whatsoever reason, it may give the notice of the same to the Contractor and the Contractor shall replace such personnel within two weeks to the satisfaction of the Company. Failure to do so will amount to a breach by the Contractor.

vii. The Contractor has to provide the details of the persons in advance, which they will be deploying as standby in case the resident engineer proceeds on leave. The Contractor should certify and take responsibility on the character and antecedents of the standby engineer to be deployed for temporary replacement.

viii. Resident/Onsite engineer shall work closely with BRBNMPL's representatives and abide by directives issued by BRBNMPL that are consistent with the terms of the Agreement. Contractor is responsible for managing the activities of its employees and to ensure that they observe the rules and regulations of the Company while at the Company premises.

ix. Non-compliance of deployment of Manpower will attract proportionate deductions as per prevailing minimum wages of corresponding category of manpower as published by The Office of Chief Labour Commissioner, Ministry of Labour and Employment, Government of India. Deductions mentioned above are independent of LD and will be imposed concurrently.

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7) **Other requirements**

a) **Responsibility against damage caused:**
The Contractor shall be responsible for any damage caused to the existing system due to (1) Lack of knowledge (2) Wrong Operation (3) Mishandling (4) by Intentional act by its employee and Contractor has to pay entire amount/charges for repair / replacement which is limited to total value of the contract value. However, Contractor shall not be liable for any consequential loss arising out of or connected with this contract in anyway whatsoever.

b) **Repairs involving External Agencies:**
In the event that any work requires the involvement of an external agency, the Contractor must inform BRBNMPL well in advance and obtain the necessary permission. However, if BRBNMPL decides to engage an external agency for rectifying, modifying, or improving the system, the Contractor shall cooperate and coordinate with the external agency. Any work that is not covered under this contract but is necessary for the proper functioning of the system shall be carried out by the Contractor with prior approval from BRBNMPL, and the associated costs will be reimbursed by BRBNMPL.

8) Safety & Security Measures:

a) The Contractor should scrupulously conform to the Safety and Security norms as stipulated in Karnataka State Factories Act and relevant norms in force, while working in the security area.

b) Any untoward incident arising out of improper supervision or inadequate safety measures will be the sole responsibility of the Contractor.

c) The successful bidder shall provide safety shoes, suitable uniform to his employees for proper identification of their staff. Colour of uniform shall be approved by BRBNMPL.

d) BRBNMPL, Mysuru is a security organization and the Govt. of Karnataka has declared the premise as Prohibited Area. Hence, the Contractor has to abide by the security rules of the Company. The Contractor has to ensure the character and antecedent of the persons deployed. The Contractor must be in a position to produce such documents whenever he is asked to do so. Details shall be furnished as per format when called for. The Contractor has to issue printed photo Identity Card to its workers duly authenticated by the designated Security Officer of the Company. Contractor should apply for Gate Pass for labours, welding permission and material entry pass etc. as per approved format only, well in advance to avoid any delay in issue of Gate pass.

e) BRBNMPL reserves the right to get the antecedents of the employees deployed verified through police. The charges for verification shall be borne by the successful bidder. Any employee of the Contractor, if found unsuitable or having doubtful integrity or associated with any other job, shall be removed from the premises at the risk and cost of the Contractor. The Contractor shall vouch for the integrity of its workers.

f) The Contractor shall sign the Non-disclosure format and abide **Non-disclosure clause by not revealing any secured information to any party not related to our FOPIDS System.**

g) While applying for pass, the successful Contractor must enclose copy of address proof (Aadhar card/Voters ID card/Ration Card/Driving License/Passport etc.), police verification and character certificate from any Gazetted Officer or Gram panchayat for all the workers

for whom gate pass has been requested. The request shall be made in the format prescribed by BRBNMPL.

9) Responsibility of the Contractor:

a) The Contractor shall be responsible for any damage to property and machines etc., arising out of operations in connection with the Agreement. The cost of repairing such damage may be recovered from the security deposit furnished by the Contractor or by deduction from the Contractor's bill or from any other monies of the Contractor available with the Company or in any other manner. The Contractor shall also indemnify the Company against any loss or damage caused by the negligence on the part of the Contractor.

b) In case of any damages caused by the Contractor to any of the software/hardware equipment owned by the Company, the Contractor has to bring it back to working condition by either replacing the required new spares or with brand new equipment and for software the Contractor has to bring it back to the original condition by re-installation of software to the entire satisfaction of the Company.

c) The Contractor is expected to reply to all queries / complaints that may be raised by the Company from time to time. Evasive attitude by the Contractor would subject the contract being terminated or non-renewal of further contracts with the Contractor

10) Assignment:

The Contractor shall not subcontract the whole or any substantial part of the work during the warranty period. However, on prior written permission from BRBNMPL, the Contractor may deploy or outsource onsite human resources from its own organization, subsidiaries, channel partners/agencies or authorized partners/agencies to execute work during the warranty period, provided that the Contractor submits a formal Undertaking on its official letterhead to that effect and also ensures strict compliance with all applicable statutory labour laws as stipulated in the tender. Notwithstanding any such deployment, the Contractor shall remain the primary service provider and sole point of contact and BRBNMPL shall correspond exclusively with the Contractor on all technical and administrative aspects. Any untoward incident arising out will be the sole responsibility of the Contractor.

11) Intellectual Property & Confidential Information:

The related Parties shall agree that all details, plans, documentation, specifications, schedules, programs, reports and provision of operations pursuant to this Contract (hereinafter referred to as "Proprietary Material") which have been or are hereafter written, originated or made by any of them or any of their respective employees by the persons related to the Contractor in connection with this contract shall be owned by and be the property of the BRBNMPL. The determination of information as Proprietary Materials shall be made at the sole discretion of BRBNMPL.

12) Confidentiality:

a) The Contractor shall ensure that all personnel associated with this service contract do not, without the prior written consent of the Authority, divulge, disclose to any person or use for any purpose unconnected with the operations, any proprietary material or information regarding Press operations under this contract.

b) The Contractor shall, whenever required, take all necessary steps to ensure that all person/s employed under this Contract comply with the Indian Official Secrets Act, 1923 (XIX of 1923). The Contractor acknowledges that this Act applies to its personnel and shall continue to apply following the completion of this Contract.

c) The Contractor shall neither take nor permit any of its employees to take photographs of the Press, the System, or any associated equipment without prior written approval from the Authority. Furthermore, no such photographs may be published or otherwise circulated without the written consent of the Authority.

13) Legal jurisdiction:

All disputes arising out of or anyway connected to this contract shall be subject to jurisdiction of The Court of Mysore (Karnataka state).

14) IMS Requirements:

BRBNMPL is an ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 organization. The Contractor/supplier should strictly comply with all the IMS norms. Contractor has to follow all the Security, ISO procedures and rules of BRBNMPL.

15) General terms & conditions:

a) BRBNMPL's contract is exclusively with the Contractor, and instructions will be given directly to them. BRBNMPL will not be responsible for the employment conditions of the Contractor's staff deployed at the site for the performance of this contract. However, for security reasons, the Contractor must ensure that their deployed staff adheres to all rules, regulations, and security restrictions prescribed by BRBNMPL from time to time.

b) Contractor shall be responsible for compliance of all statuary obligations under various enactments, such as The Contract Labour (Regulation & Abolition) Act, 1970, Minimum Wages Act, Employees Provident Fund, Workmen Compensation Act etc. and Misc. provisions Act and any other Act/s as may be applicable. Contractor shall maintain all registers prescribed for execution of this kind of contract and shall make payment of wages to their staff (Not less than the Minimum Wages) deployed at this site. Contractor will take the total responsibility of safety of the staff deployed during execution of this contract.

c) In case of any loss / losses are caused to BRBNMPL on account of non-fulfilment and /or non-compliance of any obligations, statutory or otherwise, on their part, BRBNMPL shall have full right to make adjustment for the said losses from the bills payable.

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