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

CORRIGENDUM No. 2 dated 05/11/2026

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

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

e-Tender Name: 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

Please find attached the comments of BRBNMPL on the various queries raised by the bidders during the pre bid meeting. Also as a result of the pre bid meeting, few changes are carried out in the technical specifications and techno commercials aspects of the tender.

The summary details of **Corrigendum 2** are as follows –

Sl. No.	Description	Details	Uploading as Annexures in MSTC Portal	
1.	Part 1	Reply to bidder wise queries and comments of BRBNMPL	Annexure 1 (28 pages) Annexure 2 (03 pages) Annexure 3 (02 pages) Annexure 4 (02 pages)	Annexure 5 (03 pages) Annexure 6 (01 page) Annexure 7 (03 pages) Annexure 8 (02 pages)
2.	Part 2	Amendments carried out in technical aspects of tender	Annexure 9-1 (06 pages) Annexure 9-2 (06 pages) and Annexure 10 (07 pages)	
3.	Part 3	Amendments carried out in techno-commercial aspects of tender	Annexure 11 (01 page)	
4.	Part 4	Revised Price Bid (Schedule 1 & 2) (Section-XI)	Annexure 12 (Schedule-2 Mysuru) (05 pages) & Annexure 13 (Schedule-1 Salboni) (04 pages)	

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Sl. No.	Description	Details	Uploading as Annexures in MSTC Portal
5.	Part 5	Extension of bid submission date	As per details mentioned below

Part 5 – Extension of bid submission date

Sl. No.	Description	Original details as per tender dated 22/06/2026	Details as per Corrigendum No. 1 dated 29/09/2026	Details as per Corrigendum No. 2 dated 05/11/2026	Reference Page number of Tender
1.	Date of Sale of tender documents	From 22/06/2026 to 15/09/2026 at website www.mstcecommerce.com	From 22/06/2026 to 15/10/2026 at website www.mstcecommerce.com	From 22/06/2026 to 04/12/2026 at website www.mstcecommerce.com	4
2.	Closing date and time for receipt of tenders	15/09/2026 at 11.00 hours	15/10/2026 at 11.00 hours	04/12/2026 at 11.00 hours	2, 4
3.	Time and date of opening of tenders	15/09/2026 at 11.30 hours	15/10/2026 at 11.30 hours	04/12/2026 at 11.30 hours	2, 4

Note: The tabulated changes are applicable at all places in tender document including aforementioned pages in their sequence of occurrence.

All other terms and conditions remain unchanged. Bidders may please note that Corrigendum No.2 must be uploaded along with Techno-Commercial Bid (Part – I) duly signed and sealed by authorised signatory on the nominated e-Procurement portal (i.e. MSTC Portal) till the deadline for bid submission.

For & on behalf of BRBNMPL, Salboni

Sd/-

(C V Giridhar)
Dy. General Manager

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Part 1

Sl. No.	Details	Uploading as Annexures in MSTC Portal
1.	Reply to bidder wise queries and comments of BRBNMPL	Annexure 1 (28 pages) Annexure 2 (03 pages) Annexure 3 (02 pages) Annexure 4 (02 pages) Annexure 5 (03 pages) Annexure 6 (01 page) Annexure 7 (03 pages) Annexure 8 (02 pages)

ANNEXURE-1

Spectron Engineers Private Limited, Mumbai

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
1	Page no 56 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit. 1. Mandatory site visit.	**Pre-Bid Conference - Site Visit** **Requirements:** **Objective of Site Visit:** **All prospective bidders shall mandatorily visit the project site to comprehensively assess the site location, feasibility, distance, terrain, integration with existing Surveillance system and any other** **miscellaneous activities. Examine access routes for material transportation and equipment handling logistics and identify site-specific challenges that may impact project execution.**	**1. The tender specifies that the site visit is mandatory. However, the mechanism for verifying whether a bidder has actually completed the mandatory site visit is not specified. To ensure transparency and effective compliance with this requirement, it is suggested that bidders be required to obtain an acknowledgement signed by the BRB team upon completion of the site** **survey. Submission of this signed acknowledgement should be made mandatory as part of the technical bid. In the absence of the signed acknowledgement, the bidder may be treated as non-compliant with the mandatory site visit requirement, and the bid will be rejected** **2. Details regarding integration with existing system is not mentioned in the document also information is not provided during site survey. Request to provide details so that it will be easy for all the understand the part of the work.**	1) Regarding site visit, Tender conditions prevail 2) All queries have been addressed during Site visit & Pre-bid meeting. Additionally, Handshaking of bidder's software with VMS software is in scope of the bidder. BRBNMPL will introduce the bidder with the VMS OEM, further bidder has to take forward the integration activity with the VMS OEM. VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI. Integration with existing VMS at Mysuru office is sought as Optional quote- Will be amended in tender document.
2	Page no 56 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	**Bidder's Responsibilities: The following documents/technicalities to be submitted and discussed by the vendor during Pre-bid conference** **1) Schematic Diagram** **2) Data Collection of the site and sychronization** **3) Server and Storage details** **4) GUI Configuration** **5) Algorithms (Events, logs, zones, cameras etc)** **6) Distance measurement** **7) Any other technicalities related to the project** **8) VMS integration and VMS Management (90 days backup)** **9) Dry contact configuration for the zones against alarm.**	1. The points mentioned do not appear to be appropriate for discussion during the pre-bid meeting. The tender should define clear benchmarks and design parameters for calculating storage sizing and related infrastructure requirements, rather than leaving these assumptions to individual bidders. If the sizing is left to the bidders' interpretation, the proposed solutions may vary significantly, making it difficult to conduct a fair and like-for-like ("apples-to-apples") technical and commercial evaluation. This may also result in compromises in the proposed solution. Since the technology stack has already been defined in the tender, the overall solution architecture and sizing criteria should be common for all bidders. Therefore, it is requested that the customer provide the necessary sizing parameters, benchmarks, and design assumptions to ensure uniformity and enable fair evaluation of all bids. 2. Details regarding existing VMS are not provided. 3. The tender document specifies that the controller shall have dry contact I/O ports. However, connecting these I/O ports to field devices using copper cables is an outdated approach and may not provide the desired level of reliability, especially over long distances. It is suggested that field I/O connectivity be implemented through distributed I/O controller modules connected to the main controller over an Ethernet/fiber communication network. This architecture offers improved reliability, enhanced scalability, and supports redundant loop/ring network topologies, thereby increasing overall system availability. Further, the tender does not specify the intended use of the dry contact I/O ports. It is requested that the customer clarify the purpose of these I/O points, identify the field devices/signals to which they are expected to be connected, and provide the required quantity and functional details. This information is essential for proper system design and for ensuring that all bidders propose a uniform and technically compliant solution. Using copper cable for longer distance to trigger hooters etc is not reliable due to cable internal resistance.	1. It should be submitted as a part of Pre-bid. All details to meet our functional requirments have been specified in the tender. 2. VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI. 3.Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical Specification and BOQ will be amended for both the schedules accordingly.
3	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: a).The scope of this tender includes the Design, Engineering, Supply, Installation, Testing, Commissioning and Training of an Alenabled 'Distributed Fibre Optic Perimeter Intrusion Detection System (DFOPIDS)' for the BRBNMPL Township perimeter, with integration to the existing CCTV network system and 90 days data backup of any intrusion occurrence.	The tender specifies that the proposed system shall be integrated with the existing CCTV system, and the recorded video is expected to be available in the existing CCTV storage infrastructure. In this context, it is requested to clarify whether a separate storage and backup system is also required as part of the scope of work. If video recordings are to be stored and backed up using the existing CCTV storage infrastructure, the requirement for additional dedicated storage and backup should be clearly defined to avoid duplication of infrastructure and ensure uniform compliance by all bidders. If the 90 days storage is mentioned for PIDS alarm then please clarify. 3. Things which needs to be integrated needs to be defined. Is it just to trigger and show the camera? Or Camera needs need to be visible in PIDS alarm? Or recording preboffer etc needs to be visible? Please specify the SOW of integration required.	Processed Alarm and Event logs shall be available for 90 days. Clause no. 3.4 of Technical Specification and BOQ will be amended

23/9/26
Manager (Utility)
Mysuru

DGM-PP (FM)

GM(US)

CM(PP)

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
4	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit	Scope of Work: d) The system shall provide continuous realtime monitoring with precise location-based alert generation, and shall be fully integrated with the existing CCTV/Video Management System (VMS) to enable automated video verification and security response workflows.	1. Please provide the make, model, and version of the existing CCTV system and Video Management System (VMS) 2. Kindly confirm whether the existing VMS supports third-party integration through standard APIs/SDKs or ONVIF events, and provide the relevant integration documentation. 3. Please clarify the expected integration workflow, including the actions to be performed upon event generation (e.g., automatic camera pop-up, video recording trigger, PTZ preset activation, alarm generation, video bookmarking, etc.). 4. If any additional software licenses, API licenses, or third-party integration modules are required for integration with the existing VMS, please specify whether these will be provided by the customer or are to be included in the bidder's scope.	Handshaking of bidder's software with VMS software is in scope of the bidder. BRBNMPL will introduce the bidder with the VMS OEM, further bidder has to take forward the integration activity with the VMS OEM. Integration with existing VMS at Mysuru office is sought as Optional quote. VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI.
5	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: e) 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 tender specifies that the fibre optic sensing cable shall be deployed on the existing concertina coil in both linear and zig-zag patterns along the perimeter wall, with underground buried loops where required. Based on our site survey and experience with distributed fibre optic sensing systems, it is observed that a zig-zag cable installation pattern is neither necessary nor advantageous for achieving the required intrusion detection performance and location accuracy. A single continuous linear cable installation is sufficient to provide the desired detection capability and precise event localization. Further, the zig-zag installation pattern significantly increases the cable length, installation effort, material cost, During the site survey, it was also observed that sufficient space is not available adjacent to the perimeter wall to accommodate a zig-zag cable loop. As a result, systems requiring such an installation methodology may not be feasible to implement and may not perform as intended under the site conditions. In view of the above, it is requested that the requirement for laying the sensing cable in a zigzag pattern be removed, and bidders be permitted to install the sensing cable in a straight linear pattern along the perimeter, provided that the specified detection performance and localization accuracy are achieved. This will ensure technical feasibility, simplify installation and maintenance, and enable fair competition among all technically compliant solutions.	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. Suitable intrusion detection system for drainage shall be deployed. Scope of work both the sites will be amended accordinlgy.
6	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: i) The system shall support an API framework for seamless integration with the customer's existing Security Surveillance System. The proposed PIDS software must be future-ready and compatible for integration with the existing CCTV Video Management System (VMS).	SOW for integration and existing VMS details needs to be provided.	Handshaking of bidder's software with VMS software is in scope of the bidder. BRBNMPL will introduce the bidder with the VMS OEM, further bidder has to take forward the integration activity with the VMS OEM. Integration with existing VMS at Mysuru office is sought as Optional quote. VMS OEM : Videonetics (Mysuru)/Genetac (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Saiboni office
7	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: j) The system architecture shall be redundant, ensuring that perimeter protection remains uninterrupted even in the event of one fibre cable cut. Redundancy shall be achieved through deployment of two cables in parallel, ensuring continuous intrusion detection capability.	It is requested to reconsider this requirement. Since the tender already specifies a 2-channel DAS controller, the desired redundancy can be effectively achieved using a single fibre optic sensing cable deployed in a closed loop (ring) topology, with both channels of the DAS controller connected to opposite ends of the loop. In the event of a fibre cable cut, the DAS controller can continue to monitor the affected location from the opposite direction, thereby maintaining continuous intrusion detection without loss of perimeter coverage. This approach provides the required redundancy while avoiding the need for a second parallel sensing cable. The proposed loop topology also offers the following advantages: • Eliminates the requirement for an additional parallel sensing cable.Reduces installation complexity, cable routing, and maintenance effort. • Simplifies fault identification and cable restoration • Optimizes project cost without compromising the required system availability or intrusion detection performance. Accordingly, it is requested that bidders be permitted to provide redundancy through a single sensing cable installed in a loop/ring topology with a dual-channel DAS controller, instead of mandating two parallel sensing cables, provided that the specified system availability and performance requirements are fully met.	Technical specifications will be amended as below: "j) The system architecture shall be redundant, ensuring that perimeter protection remains uninterrupted even in the event of one fibre cable cut. Redundancy shall be achieved through deployment of two independent controller channels, ensuring continuous intrusion detection capability".
8	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: k) 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.	The requirement for providing relay output panels with dry contact I/O ports and extending copper wiring from the control room throughout the perimeter appears to be based on a conventional architecture. Modern perimeter security systems typically use distributed field I/O modules connected over Ethernet/fibre networks, which provide higher reliability, easier scalability, reduced copper cabling, and support redundant ring topologies.	Ethernet based I/O module along with accessories shall be deployed with existing fiber optic network. Technical specification and BOQ will be amended for both the schedules accordingly.
9	Page no 59 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: i) Redundancy and Security Architecture: iii) 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. 1. The requirement for automatic switching to reverse feed may kindly be reviewed. In a dualchannel DAS system with ring topology, both optical channels remain continuously active using dedicated optical sources, and no switching mechanism	1. The requirement for automatic switching to reverse feed may kindly be reviewed. In a dua ichannel DAS system with ring topology, both optical channels remain continuously active using dedicated optical sources, and no switching opposite direction without any interruption or coverage loss. It is requested that such an always active redundant architecture also be accepted as compliant. 2. Many OEM use single laser source and split that signal in two channel. It becomes single point of failure. Request to make it mandatory that controller shall have two individual laser source and shall not work on mux and splitting mechanism. 3. The tender document does not specify the required topology for connecting the sensing cables. Kindly clarify whether the wall-top PIDS and buried intrusion detection system (BIDS) cables are required to be connected to separate controllers, or whether both systems can be connected to the same controller with a redundant/standby controller arrangement.	Tender conditions prevail. Functional requirement has been specified in the tender. Automatic Switch will be removed Technical specification will be amended accordingly.
10	Page no 57 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Scope of Work: h) The system shall not generate/suffer nuisance alarm from any of the following sources: 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.	It is requested to review and remove the requirement for conventional relay output panels with dry contact wiring, as this is an outdated approach and may not provide the desired level of reliability for a modern perimeter security system. It is suggested to allow the use of Ethernet/fibrebased distributed I/O modules that can be installed in the field and integrated with the command and control software. This architecture reduces long distance copper cabling, improves system reliability, simplifies installation and maintenance, and provides a more efficient and scalable solution while achieving the required alarm/light control functionality.	Ethernet based I/O module along with accessories shall be deployed with existing fiber optic network. Technical specification and BOQ will be amended for both the schedules accordingly.

3/28

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
11	Page no 61 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.2 Optical Fibre Cable (OFC): a) 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 tender specifies that the OFC sensing cable shall be laid underground in a linear/zig-zag pattern with a burial depth of 1 meter. During the site survey, it was observed that sufficient space is not available along the perimeter for implementing a zig-zag cable layout. Such an installation arrangement may not be feasible at site and may adversely affect system performance. It is therefore requested that the requirement be revised to allow a straight linear cable installation. Further, a burial depth of 1 meter is higher than the standard practice followed for similar applications and will significantly increase excavation effort and installation cost. It is requested that the standard burial depth be considered as 0.5 meter, subject to site conditions and OEM recommendations.	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. Suitable intrusion detection system for drainage shall be deployed. Scope of work both the sites will be amended accordingly.
12	Page no 61 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit	3.2 Optical Fibre Cable (OFC): c) The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be 10km ±5% as per the field requirement	The specified OFC drum length of 10 km ±5% is not practically feasible for manufacturing, transportation, and installation. It is requested to revise the requirement and permit a standard cable drum length of 2 km, or as per OEM standard manufacturing practice.	Will be amended to 4 Kms±5%
13	Page no 62 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.3 Interrogator / Controller Unit b). The Interrogator shall house: Laser source (LED) and digital signal processor	Request to consider two independent laser source for two different channel.	Tender condition prevails. Your understanding is correct. Two independent laser source for two different channel. Already included at page no. 101 of 217 under Sl. No. 8. Optical channel; "Dual channel, two independent channels shall be capable of operating simultaneously without performance degradation"
14	Page no 62 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.3 Interrogator / Controller Unit e) Zoning: Capability to configure virtual security zones of minimum 50meters resolution along the entire perimeter.	It's a request to consider that there shall be no restrictions of number of zones which can be created.	Technical specifications will be amended as below: *e)" Zoning: 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"*
15	Page no 62 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit	3.3 Interrogator / Controller Unit o) API and Integration i) Open RESTful API or any other form of API for integration with third-party VMS and existing CCTV network as required & it is part of vendor scope.	Details regarding existing VMS is not provided	Integration with existing VMS at Mysuru office is sought as Optional quote- VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI
16	Page no 64 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.4 Software, Server & Storage: Schedule 1 Server specifications: For Salboni Press. The server shall be a high-performance, enterprise-grade system designed to support data-intensive application, AI/ML workloads, and high-speed storage operations. The hardware configuration shall include, at minimum: Storage: 16TB HDDs configure in dual RAID arrays to ensure high availability, redundancy, and enhanced read/ write performance. Support for hot-swappable drives and scalable storage expansion. 1. Hardware Configuration:	Details are too specific. Every OEM can have their own specs. Request to consider it as per OEM recommendation specification	Clause no. 3.4 of Technical Specification and BOQ will be amended. The Bidder should ensure that the offered server shall meet the FOPIDS system AI/ML computational demands without affecting the functional requirement.
17	Page no 64 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.4 Software, Server & Storage: Schedule 1 Server specifications: For Salboni Press Purpose: • AI/ML model acceleration • Graphics rendering • Video analytics Parallel computation tasks.	Some of the task are not specific for the project requirement	3.4 Software, Server & Storage: Schedule 1 Server specifications: For Salboni Press Purpose: • AI/ML model acceleration • Graphics rendering • Video analytics. Technical specifications will be amended Parallel computation tasks

4/28

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
18	Page no 64 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.4 Software, Server & Storage: 7. Back-up Storage Specification: 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]	It is requested that CCTV/VMS integration be considered as a separate scope of work. The requirement for integration of only 10 cameras may not be sufficient considering the overall perimeter length and coverage requirements. Kindly clarify the camera coverage requirement and the expected number of cameras for effective video verification. Alternatively, CCTV scope to allow proper system design and evaluation.	Processed Alarm and Event logs shall be available for 90 days Clause no 3.4 of Technical Specification and BOQ will be amended.
19	Page no 66 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.4 Software, Server & Storage: 9. GUI Specification Command & Control GUI with real-time mapbased visualization of perimeter. Map based visualization must be online /offline mode	Request to consider it as Command & Control GUI with real-time map-based visualization of perimeter. Map based visualization must be online and offline mode. For the during the deployment the system needs to be configured using offline map option.	Map based visualization shall support both online and offline but deployment in only offline mode - Technical specifications will be amended
20	Page no 67 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.7 Data Storage & Backup	The SOW does not clearly define the type of data required from the DAS system. Kindly clarify whether the requirement is for access to the raw sensing data generated by the DAS unit or only the processed alarm/event data with location details	Processed Alarm and Event logs shall be available for 90 days Clause no 3.7 of Technical Specification will be amended.
21	Page no 67 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.7 Data Storage & Backup Data Storage for Perimeter Intrusion Detection Systems Types of Data to Store 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.	The mentioned requirement does not appear to be relevant to the DAS/PIDS scope of work, as this functionality is related to the Video Management System (VMS).It is requested to review and remove this requirement from the current scope or clarify its applicability to the proposed system.	3.7 Data Storage & Backup Data Storage for Perimeter Intrusion Detection Systems Types of Data to Store ~~xviii) Video analytics metadata (object detection, tracking)~~- Technical specifications will be amended.
22	Page no 69 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	3.8 Switch: 3 PoE Features POE + Standards should be in accordance with IEEE 802.3af and IEEE 802.3at standards with 30W PoE+ support with PoE budget of 240W	The requirement for PoE may kindly be reviewed, as PoE is not required for this application and may introduce additional components, thereby impacting overall system reliability and MTBF. It is requested to remove the PoE requirement and allow a suitable power arrangement as per the OEM-recommended system architecture	Technical Specifications will be amended Required 24 Port Enterprise grade Fully manageable L2 switch instead of 8 port.
23	Page no 70 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	e) Chemical Earth Pit technical details: vi) Electrode. Copper	Request to make it as copper bonded rod type earthing	Schedule 1 & 2 Technical specifications will be amended as copper bonded
24	Page no 72 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	e) FAT Scope and Requirements: i) 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.	It is requested to consider the PTZ camera functionality as an automatic integrated feature. Upon generation of an intrusion alarm with location coordinates (latitude/longitude), the PTZ camera should automatically move to the respective location and display the affected area without requiring any manual intervention, zonebased triggers, relay-based triggers, or additional operator action. This will enable faster response and effective video verification of events	Tender conditions prevail.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
25	Page no 73 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit. D	d) Power failure simulation: ➢ 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	As the UPS supply is under BRBNMPL scope, this point is not relevant. Request to remote this point.	~~d) Power failure simulation:~~ ~~➢ 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~~ To be removed (Technical specifications will be amended).
26	Page no 74 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	11. Technical Summary Table Controller Capacity ≥ 50 km per	The DAS system shall use individual dedicated optical lasers for each sensing channel. Optical splitting or multiplexing should not be considered, as it may reduce system performance and reliability during fault conditions. Multiplexing technology is generally suitable for telecom cable monitoring applications and is not recommended for high-performance PIDS applications where continuous and accurate intrusion detection is required. It is therefore requested to specify dedicated optical channels for the sensing system.	Already included at page no. 101 of 217 under Sl. No. 8: Optical channel: *"Dual channel, two independent channels shall be capable of operating simultaneously without performance degradation"*
27	Page no 74 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	11. Technical Summary Table: CCTV Integration PIDS software & CCTV expandable. single OEM	The requirement for PIDS software and CCTV to be expandable from a single OEM may kindly be reviewed. PIDS and CCTV are two separate technologies, and restricting the solution to a single OEM may limit participation to only a few vendors with limited functional capabilities. It is requested to allow integration between different OEMs for PIDS and CCTV systems through standard interfaces/APIs. A multi-OEM integrated solution can provide better functionality, flexibility, and scalability compared to a single OEM solution. Before making a single OEM solution mandatory, it is requested to conduct a feasibility study and evaluate the available market solutions to ensure that the requirement does not unnecessarily restrict competition and participation from technically capable bidders.	*Single OEM'* to be omitted. Technical specifications will be amended. 11. Technical Summary Table CCTV Integration: PIDS software & CCTV VMS integration.
28	Page no 84 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	Part-B: Non-Comprehensive Annual Maintenance Contract of an AIEnabled Distributed Fiber Optic Perimeter Intrusion Detection System. vii) The Contractor has to depute its technician when there is a complaint and need arises for all working days to attend the fault and he may be called on holiday if required. Mobile phone and telephone no. of technician are to be intimated for reporting the faults/breakdowns.	Instead of deploying personnel only for breakdown support, it is suggested to consider continuous deployment of an engineer/technician during working hours. This will enable proactive monitoring, faster response, preventive maintenance, and improved system availability. Further, the engineer/technician should be stationed locally, preferably within 10 km of the site, to ensure prompt response during emergencies and minimize system downtime.	Tender conditions prevail. However, during warranty period 01 no. of skilled manpower to be deployed. Amendment will be made in warranty clause.
29	Page no 84 of 217	Section VII: Technical Specification & Scope of Work Objective of site visit.	4. Manufacture under license / technology collaboration agreements with phased indigenization under 'Make in India' Suppliers may be exempted from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who hold intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content within the validity of the contract.	The provision allowing exemption from local content requirements for products manufactured in India under license/technology transfer agreements may kindly be reviewed. In case of any dispute between the local supplier and the foreign manufacturer, including termination of the license or technology collaboration agreement, there may be a risk to long-term support, availability of spares, and system continuity, which may impact BRBNMPL. It is therefore suggested that the DAS controller OEM shall own the complete intellectual property rights (IPR) of the offered product and shall be responsible for the product lifecycle, technical support, and future availability. This requirement will ensure long-term reliability and protect the interests of BRBNMPL.	Tender conditions prevail

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
30	Page no 2 of 217	Standard Bidding Document (SBD)	Earnest Money Deposit (EMD) Schedule 1: ₹ 5.00 Lakh for Salboni Schedule 2: ₹ 5.00 Lakh for Mysuru Both Schedules 1& 2: ₹ 5.00 Lakh	For both the schedules EMD shall be 10.00 Lakh or 5 Lakh?	Whether bidder participates in one or both schedules, the EMD is capped at Rs. 5 lakh
				Please confirm whether indoor/outdoor storage space will be provided for controllers, fibre drums, and accessories. Kindly clarify who will be responsible for securing and allocating such storage space at site (Employer or Contractor). Is insurance storage cum erection required? If yes then insurance shall be in the name of BRBNML or bidder or shall be in join name?	All electronic equipments can be kept indoor, while cable drums can be kept near installation area. With regard to comprehensive "Storagecum-Erection" (CAR) Insurance Policy, to be borne by the successful bidder
				Please confirm availability of hoosiers, cranes, hydra, or other lifting equipment at site for safe handling and mobilization of fibre drums and heavy items to the required control room and field locations. If not available, kindly clarify whether contractor will be permitted to mobilize such equipment inside premises after deliver	Under bidder's scope. Required permissions will be provided by BRBNMPL.
				ENTRY & EXIT GATE COUNT ilable(2) BOTH SIDE OF GATE MANHOLE(MH)/HAND HOLE(H/H) available for termination of Fibre enclosure if not MH& HH provisioning has to be made with proper cover (Cement RCC structure) & carry forward fibre as Gates are subject to crossing fibre below ducts & massive acoustic disturbances zone Also check spare ducts (Cement pipe/Conduit is available.)	In bidders's scope as it is a part of site visit. System incorporated shall be detailed in technical Bid.
				Please mentioned the standards that needs to be followed for the work like LA installation, Earthing, road crossing pipes, chambers, loop chambers, chambers for splicing enclosure in case of underground cable etc.	Tender conditions prevail as per applicable IS standard.
				Please provide BOM and location where hooter needs to be installed. What will be power provision for hooter in field? Any pole or mounting structure is required for hooter mounting? Just hooter is required or any light is also required.	BOM details will be provided along with (rack/PoE switch/hooter/industrial switch/IoT etc.) Location and others details will be provided to the successful bidder
31	Page 61 of 217	3.2 Optical Fibre Cable (OFC).	The OFC shall conform to the latest editions of all relevant international and national standards, including but not limited to ITU-T, TIA, IEC, ELA, ASTM, BS, TEC & Dot (as applicable). The OFC shall be protected against damage from termites, rodents, fire, moisture and water throughout the service life of the cable.	As per standard mentioned, in india TEC specification supersedes all and for rodent protection armoured is recommended. If there is any other specification for rodent protection, Need clarifications	As per tender conditions
				It is unlikely that all the pre-bid responses received from BRBNMPL will provide complete clarity in single round. The responses may give rise to additional queries requiring further clarification. We therefore request that the pre-bid query window remain open even after BRBNMPL issues its responses to the initial pre-bid queries. Since the scope of work is not clearly defined and certain requirements remain ambiguous, an opportunity to seek further clarifications will help ensure a clear understanding of the project requirements and enable bidders to submit technically compliant and competitive bids.	Tender condition prevails.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Clarification on DBMS & OS Licensing					
32	Pages 103-104	Section VII: Technical Specification & Scope of Work, Clause 3.4 (Software, Server & Storage), 1. "Supported OS: Windows Server 2025 / Red Hat Enterprise Linux 9, equivalent or higher." 2. "DBMS: Microsoft SQL server (Licenced) or equivalent/better" 3. "Data management software must be supplied with genuine and valid licenses issued in the name of BRBNMPL and perpetual in nature." Sub-clause 8 (Software & OS Support), Pages 65-66 (and Compliance Section B & D,	Bidders request clarification on whether the Windows Server 2025 and Microsoft SQL Server database licenses must be supplied by the bidder or if BRBNMPL will provide them under their corporate enterprise agreements. If these licenses are in the bidder's scope, please clarify: a. Windows Server: The specific edition required (Standard or Data center), the number of Server Core licenses (considering the dualsocket 16-Core Xeon Gold processors), and whether Client Access Licenses (CALs) are required for the Client Workstations. b. MS SQL Server: The licensing model to be quoted—Server + CAL model or Core-based licensing model—along with the exact core/CAL counts. c. Platform Agnosticism: Whether the bidder's proprietary PIDS application is fully compatible with Red Hat Enterprise Linux 9 to bypass proprietary OS/DBMS licensing overheads if RHEL is selected.	Enterprise server OS and database licenses (such as MS SQL Server) carry high procurement and recurring compliance costs that vary based on the CPU core count and client workstation access metrics. Many government entities and public sector enterprises maintain centralized Microsoft Enterprise Agreements (EA) that provide these licenses at a lower cost or include them in bulk. Requiring standalone, retail-priced perpetual licenses to be purchased individually by the bidder unnecessarily inflates the total project cost in the Financial Bid (Part-II). Standardizing the core counts and licensing models ensures that all bidders quote on an identical, fair, and commercially transparent basis, preventing bid-rejection or arithmetic discrepancies during evaluation.	Supply of all licenses as required is in the scope of the bidder. All licenses shall perpetual and in the name of BRBNMPL.
Clarification on Existing VMS & CCTV Specifications					
33	Pages 103-104)	Section VII: Technical Specification & Scope of Work, Clause 3.4 (Software, Server & Storage), Sub-clause 8 (Software & OS Support), Pages 65-66 (and Compliance Section B & D, Pages 103-104)1. "Supported OS: Windows Server 2025 / Red Hat Enterprise Linux 9, equivalent or higher." 2. "DBMS: Microsoft SQL server (Licenced) or equivalent/better" 3. "Data management software must be supplied with genuine and valid licenses issued in the name of BRBNMPL and perpetual in nature."	Bidders request clarification on whether the Windows Server 2025 and Microsoft SQL Server database licenses must be supplied by the bidder or if BRBNMPL will provide them under their corporate enterprise agreements. If these licenses are in the bidder's scope, please clarify: a. Windows Server: The specific edition required (Standard or Data center), the number of Server Core licenses (considering the dualsocket 16-Core Xeon Gold processors), and whether Client Access Licenses (CALs) are required for the Client Workstations. b. MS SQL Server: The licensing model to be quoted—Server + CAL model or Core-based licensing model—along with the exact core/CAL counts. c. Platform Agnosticism: Whether the bidder's proprietary PIDS application is fully compatible with Red Hat Enterprise Linux 9 to bypass proprietary OS/DBMS licensing overheads if RHEL is selected.	Enterprise server OS and database licenses (such as MS SQL Server) carry high procurement and recurring compliance costs that vary based on the CPU core count and client workstation access metrics. Many government entities and public sector enterprises maintain centralized Microsoft Enterprise Agreements (EA) that provide these licenses at a lower cost or include them in bulk. Requiring standalone, retail-priced perpetual licenses to be purchased individually by the bidder unnecessarily inflates the total project cost in the Financial Bid (Part-II). Standardizing the core counts and licensing models ensures that all bidders quote on an identical, fair, and commercially transparent basis, preventing bid-rejection or arithmetic discrepancies during evaluation.	Supply of all licenses as required is in the scope of the bidder. All licenses shall perpetual and in the name of BRBNMPL.
Clarification on Existing VMS & CCTV Specifications					

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
34		Section VII Technical Specification & Scope of Work, Clause 1(a) & 1(d) (Page 57), Clause 1(i) (Page 57), Clause 3.3(o) (Page 63), Clause 3.4(iv)(a) (Page 66), and Sl. No. 9 of Technical Summary Table (Page 73)a. "The system shall provide... integration to the existing CCTV network system and 90 days data backup of any intrusion occurrence." b. "The proposed PIDS software must be futureready and compatible for integration with the existing CCTV Video Management System (VMS)." c "Provision for integration of FOPIDS system with third party VMS software through TCP/IP shall be available. OEM to provide all associated hardware & software (SDKs/APIs) ... d "CCTV Integration: PIDS software & CCTV expandable, single OEM"	Bidders request detailed technical specifications of the existing security infrastructure to ensure seamless software-level integration. Please clarify: a. Existing VMS Details: What is the exact Make, OEM, Software Version, and Edition (e.g., Milestone XProtect Corporate/Expert, Genetec Security Center, Honeywell, etc.) currently running at the Salboni and Mysuru sites? b. Existing CCTV Cameras: What is the make/model of the existing perimeter cameras, and are they ONVIF Profile S/G/T compliant? c. Integration License Scope: Does BRBNMPL already possess the necessary integration/SDK/API licenses for the existing VMS to accept third-party alarm triggers, or must the bidder procure these VMS-side camera/integration licenses and factor them into the financial bid? d. Video Buffer/Streaming: To support the "one minute prior and one minute after" event recording, does the VMS support alarm-based bookmarking/video push, or must the PIDS pull continuous RTSP feeds from the cameras? e. "Single OEM" Ambiguity: Please clarify the summary table entry "PIDS software & CCTV expandable, single OEM." Does this imply that the PIDS Controller/Software and the existing/future CCTV cameras must be from the exact same manufacturer?	Software-level VMS and CCTV integration is a highly proprietary process. Different VMS platforms utilize distinct SDK architectures, proprietary APIs, and licensing metrics for third-party alarm inputs. Without knowing the exact VMS software make, version, and licensing state, it is technologically impossible for a system integrator to guarantee standard API compliance, verify SDK compatibility, or estimate the correct cost of integration software and licenses. Additionally, clarifying the "single OEM" requirement prevents conflicting interpretations. PIDS manufacturers typically specialize in Fibersensing technology (DAS/Rayleigh OTDR) and must integrate with independent, specialized camera manufacturers. If "single OEM" means PIDS and cameras must be the same brand, it heavily restricts competition and excludes top-tier global PIDS OEMs. Standardizing on open APIs / ONVIF ensures a robust, best-of-breed security architecture.	VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI "Single OEM" - will be removed from the clause
Clarification on Pro-Rata Progressive Payments vs. 100% complete BOQ delivery restrictions					
35	Page 50	Section V: SCC, Sl. No. 9 (Payment Terms), Sub-clause (ii), Page 50 (and Section VII: SLA, Part-A, Clause 3(a), Page 82 / 141) "70% of the value of Material Supply part will be released on receipt and acceptance of material at site and on production of all required documents by the supplier. 70% payment will be released only after delivery of all items as per BOQ."	Bidders request that the payment terms for the material supply part be amended to allow for progressive, pro-rata payments against partial, logical deliveries, instead of restricting the release of the 70% payment until 100% of all BOQ items are delivered to both sites. Bidders propose the following amendment to SCC Sl. No. 9(ii): "70% of the value of the delivered and accepted material batch (e.g., DAS controllers, sensing cable drums, or network switches) shall be released on a pro-rata basis within 30 days of receipt and acceptance of each shipment lot at the respective site."	The PIDS project involves a diverse range of equipment sourced from different manufacturers (such as specialized DAS controllers imported from global OEMs, domestic armoured Fiber optic cables, enterprise servers, and localized networking switches). These components have widely varying manufacturing and transit lead times. Forcing the contractor to withhold billing for high-value items (such as the main controllers and servers) until every minor miscellaneous item on the BOQ is delivered to both geographically separate sites severely strains the contractor's working capital. Bidders must make substantial advance payments to multiple OEMs to secure production slots. Allowing progressive, pro-rata payments against certified delivery lots ensures a healthy project cash flow, accelerates site mobilization, and aligns with standard commercial practices for large PSU infrastructure and works contracts.	**Tender conditions prevail.**
Clarification on Material Delivery Lead Time					

9/28

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
36	Page 71	Section VI: List of Requirements, Table and Note (Page 53) and Section VII Technical Specification, Clause 10 (Page 71)1. "Entire material should be supplied within 90 days from the date of LOI/NoA." 2. "Design, engineering, supply, installation, testing, commissioning, training and FAT of DFOPIDS to be completed within 180 days... from the date of issue of LOI/NoA."	Bidders request that the delivery period for the material supply part be extended from 90 days to 120 days from the date of LOI/NoA, while keeping the overall commissioning and project handover timeline of 180 days completely unchanged.	The primary active component of the perimeter defense system is the True phase-based Coherent Rayleigh OTDR Distributed Acoustic Sensing (DAS) Controller. These highly advanced sensor units are proprietary capital equipment manufactured by a limited number of specialized global OEMs and imported into India. The standard international lead time for manufacturing, factory testing, export licensing, shipping, and customs clearance of such sensitive electronic sensing systems often ranges between 60 to 75 days. This leaves a highly narrow and risky margin of only 15 to 30 days to transport the equipment to the geographically separate Salboni and Mysuru sites, handle local logistics, and complete joint physical verification at the consignee stores. Extending the material supply window to 120 days ensures that the specialized imported controllers and servers can be shipped and cleared securely without triggering liquidated damages (LD). Simultaneously, this extension will not impact the overall 180-day completion schedule, as the contractor can utilize the first 90 days to mobilize resources, obtain security gate clearances, and execute localized civil works—such as trenching, road core-cutting, and laying HDPE conduits and armoured sensing cables—which are sourced domestically.	Will be amended in tender. Project completion within 270 days and material supply within 120 days from LOI/NoA.
Clarification on Spare Parts Liability during NCAMC					
37		Section V: SCC, Sl. No. 4(a) (Warranty Clause) and Section VII: SLA, Part-B, Clause 1, 2(i) & 3(a.7) (Non-Comprehensive AMC)1. SCC Sl. No. 4(a): "Subsequently, 03 Years (Three-year) NCAMC post warranty on call basis..." 2. SLA Part-B, Cl. 1 & 2(i): "Non-Comprehensive Annual Maintenance Contract of an AI-Enabled Distributed Fiber Optic Perimeter Intrusion Detection System (DFOPIDS)..." 3. SLA Part-B, Cl. 3(a.7) Note: "Contractor has to strictly adhere to Quarterly Uptime Commitment .. subject to availability of spares provided by BRBNMPL." and "Breakdown time on account of unavailability of spares shall be waived-off for the calculation of Uptime." 4. SLA Part-B, Cl. 1 (Common): "Also, the Contractor shall ensure spare support for minimum period of Five years from the FAC date."	Bidders request formal confirmation that under the Non-Comprehensive AMC (NCAMC) phase, the contractor's scope of work is strictly limited to providing skilled engineering labour, routine quarterly preventive maintenance, diagnostics, and on-call troubleshooting, whereas the commercial cost of all replacement hardware, spare parts, active components, Fiber cables, or switches shall be borne or reimbursed directly by BRBNMPL. Please clarify: (a) Material Procurement: Will BRBNMPL maintain an on-site inventory of critical spares (as recommended by the contractor), or will the contractor procure the parts on an on-demand basis and be reimbursed by BRBNMPL upon submission of OEM invoices? (b) software/firmware support: Confirm that mandatory OEM back-toback software support and AI updates during the NCAMC period are exempt from hardwarerelated spare liabilities.	By definition, a Non-Comprehensive AMC (NCAMC) excludes the cost of materials, consumables, and hardware replacements. If the contractor were expected to absorb the cost of high-value electronic components (such as DAS optical interrogator boards, CPU processing chips, enterprise server storage HDDs, or Layer-2 managed switches) within the NCAMC price, it would structurally transform the contract into a Comprehensive AMC. This ambiguity forces bidders to load high-risk commercial contingencies into their service quotes, which artificially inflates the competitive financial bids (Part-II). Providing a clear distinction that BRBNMPL provides or pays for the physical spares, while the contractor provides the engineering labour to install and calibrate them, establishes a transparent, risk-free bidding environment, ensuring a lower and more realistic price discovery for BRBNMPL.	Tender conditions prevail. Scope of work during NCAMC period has been mentioned at page no. 84 of 217. As mentioned in query, BRBNMPL shall maintain an on-site critical spares inventory recommended by OEM/ SI. With regard to software/firmware support, please refer clause nos. x to xvi at page no. 85 of 217.
Clarification on Retention Money / Additional Security Deposit deductions					
38	Page 48 and 50	Section V: SCC, Sl. No. 2 (Page 48) & Sl. No. 9 (Page 50)	Bidders must submit a Performance Security of 10% of the total contract value (including 3 years NCAMC) within 21 days of LoI / NoA.	In works contracts, regional divisions sometimes deduct an additional 5% to 10% as retention money from running bills. Clarifying that the 10% PBG is the sole security prevents the double-jeopardy of double-withholding, which unnecessarily locks up the contractor's working capital and inflates financing costs.	Tender condition prevails.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
GSTIN Compliance and region-wise separate Invoicing					
39	Page 32 and 50	Section III: SIT, Sl. No. 21(c) (Page 32) & Section V: SCC, Sl. No. 9 (Page 50)	"Separate Work Contract will be executed by Mysuru and Salboni Press only after acceptance of NOA/LOI...". Destination states for GST are defined as West Bengal for Salboni and Karnataka for Mysuru Requesting formal confirmation that the successful bidder shall raise separate, regionspecific, GST-compliant invoices addressed directly to the respective regional presses: Schedule 1 (Salboni Press): Billed to West Bengal GSTIN. Schedule 2 (Mysuru Press): Billed to Karnataka GSTIN	Under CGST/IGST rules, because separate contracts are executed by independent accounting units of BRBNMPL in different states, region-wise billing is mandatory to ensure clean Input Tax Credit (ITC) reconciliation and avoid tax compliance mismatches.	**Your understanding is correct.**
Definite timeline for the "Date of Acceptance" to release 70% Payment					
40	Page 50	Section V: SCC, Sl. No. 9 (Page 50 / Clause xii)"Payment will be made within 30 days from the date of acceptance "	Requesting clarification on what constitutes the exact "date of acceptance" for the 70% material shipment. It is proposed that "date of acceptance" be defined as the date of physical delivery of material at the consignee stores as per the delivery challan, OR within 10 working days of delivery, whichever is earlier, to trigger the 30- day payment clock.	Physical inspections, material testing, and stock entry paperwork for complex electronic equipment (DAS controllers, servers) can take several weeks at the site. Bounding the "date of acceptance" ensures the 30-day payment timeline is contractually protected and doesn't face open-ended delays.	Tender conditions prevail. Date of acceptance at site.
Payment terms and billing schedule during 3-Year NCAMC					
41	Page 90	Section VII: SLA, Part-B, Sl. No. 5 (Page 90)	"Payment during NCAMC period shall be made on quarterly basis upon satisfactory execution of the contract and submission of bills..". Requesting confirmation that quarterly bills raised in arrears during the 3-year AMC period will be cleared within 15 days of submission alongside the quarterly Preventive Maintenance Service (PMS) reports.	AMC services require maintaining continuous technician mobilization and paying yearly back-to-back support fees to hardware OEMs. Bounding the payment clearance timeline to 15 days ensures steady cash flow to sustain round the-clock S1/S2 SLA response commitments.	Please refere Clause 5(c) at page no. 88 of 217- *Payment shall be made within 30 days of submission of bill subject to submission of all supporting documents.* No Change
Liquidated Damages (LD) & Penalties					
42	Page 44 and 51	Section V: SCC, Sl. No. 10(ii) (Page 51) versus Section IV: GCC, Clause 24.1 (Page 44)	SCC: "The total amount of liquidated damages for delay in completion under the contract will be subject to a maximum of 10% (Ten percent) of the total contract value." GCC "subject to a maximum deduction of the 10% ...of the delayed 'goods' or 'services' contract price(s) It is requested to confirm that the maximum cap on Liquidated Damages (LD) during the execution phase shall be restricted to 10% of the value of the delayed/undelivered portion of the work, in strict alignment with GCC. Clause 24.1, rather than the "total contract value".	Calculating the maximum penalty cap on the total contract value is highly punitive and departs from standard public procurement norms. If 95% of the system is successfully supplied, installed, and operational on time, any minor delay on a residual component should only attract penalties computed against that specific delayed portion's value, as the rest of the system is usable	Amendment - LD for delayed goods.
43	Page 51 and 32	Section V, SCC, Sl. No. 10(iv) (Page 51) and Section III: SIT, Sl. No. 21(e) (Page 32)	"For calculation of LD, date of issue of Notification of Award of Contract (Letter of Intent) shall be the reference date." & "Time Schedule will be considered from the date issue of Notification of Award of Contract (NOA) / Letter of Intent (LOI) "Bidders propose that the 180-day overall execution clock (and consequently the reference date for LD) should commence from the date of handing over of a clear, obstacle-free site and sign-off on drawings by BRBNMPL, rather than the raw LoI/NoA issuance date	Physical trenching, cable laying, and civil works require structural permissions, route clearances, and approved network topologies. Because both Salboni and Mysuru are highly secured "Prohibited Areas", significant lead time is consumed in mobilizing labour, completing security clearances, and procuring gate passes. Any delays on these administrative fronts from the client's side should not deplete the contractor's execution timeline or trigger LD.	Amendment - LD for delayed goods. Project completion within 270 days and material supply within 120 days from LOI/NoA. Shall be amended in tender.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
44	Page 86	Section VII: SLA, Part-B, Clause 3(a.5) & 3(a.7) (Page 86)	"Downtime will be counted from the time of reporting the maintenance call till the resolution of the problem of Hardware or Software issue." "Note: Contractor has to strictly adhere to Quarterly Uptime. It is requested to add the following exemption clause under Uptime "Downtime/breakdown hours resulting from Force Majeure, lack of input power supply/UPS backup, or delays in BRBNMPL issuing security gate passes or work permits to the technician shall be excluded from the penalty window."	Because the perimeter system runs 24x7 and operates inside restricted premises, any delay by the BRBNMPL security desk in issuing single-day visitor entry passes or hot work permits to the contractor's technicians directly prolongs the recorded "Resolution Time". Bidders should not be commercially penalized for downtime accumulated due to security/administrative delays completely outside their control.	Any delay/hinderance on part of BRBNMPL will be waived-off during calculation of total breakdown time.
Independent Earth Pits vs. Unified Grid					
45	Page 70-71 and Page 75 and 78	Section VII: Technical Specification & Scope of Work, Clause 3.10 (Civil and Electrical Works), Sub-clauses (c), (d), (e), and (f), Pages 70-71 (and Schedule 1/2 BOQ, Items 7 & 8, Pages 75 & 78)	"Surge protection and separate grounding with dedicated earth pits (equipment/body earthing) as per IS 3043:2018 & IEC 61000 & 62000 series." "Separate lightening arrestor to be installed nearby Controller unit and separate dedicated earthing to be done for lightning arrestor as per IS standards. "Chemical Earth Pit technical details .. Resistance should be less than 5 ohms " "Lightning Arrester. . Earth Termination: Separate maintenance free chemical earth pit as per IS 3043 Earth resistance ≤ 5 Ohms " Bidders request urgent technical clarification on the permitted earthing topology for the active electronics and lightning protection systems Please clarify: Grid Integration: Is it permissible to interconnect all chemical earth pits to form a Unified Equipotential Earthing Grid (where overall loop resistance is maintained below 1 Ohm), or is BRBNMPL strictly mandating physically isolated, independent earth pits for the lightning arrestor and sensitive active electronics (DAS Controllers/Servers)? Distance of Isolation: If isolated earth pits are mandatory, what is the minimum required physical distance of separation to be maintained between the pit and the electronics equipment earth pit? Transient Voltage Surge Suppressors (TVSS): Confirm if bidder-supplied TVSS/surge protection devices are required at both ends of the copper relay wiring spanning the perimeter.	True phase-based DAS systems utilize highly sensitive, high-speed optoelectronic components and FPGA signal processors which are highly susceptible to electromagnetic interference (EMI) and transient surges.In modern electrical safety and grounding standards (IEEE 80 and revised IS 3043:2018), maintaining physically isolated earth pits is highly discouraged for adjacent systems. During a lightning strike, a massive Ground Potential Rise (GPR) occurs at the lightning arrestor's isolated earth. Since the electronics earth is isolated, a severe voltage potential difference is created between the controller chassis and the ground, leading to catastrophic transient flashover and destruction of the sensitive sensor units. Interconnecting all earth pits into a unified equipotential loop grid eliminates these dangerous step and touch potential differences, safely dispersing surge currents. Clarifying this design parameter ensures that the system is engineered to maximum industrial safety standards, avoiding premature component failures.	The controller shall be True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS) Amendment will be carried out in the specification for both the schedules. Tender conditions prevail for Protection of the system.

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12/28

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Optical Fibre Cable Rodent Protection					
46	Page 61 of 217	Section VII Technical Specification & Scope of Work, Clause 3.2 (Optical Fibre Cable (OFC)), Sub-clauses (b), (d) & (f), Page 61 of 217	"The OFC shall conform to the latest editions of all relevant international and national standards, including but not limited to ITU-T, TIA, IEC, ELA, ASTM, BS, TEC & Dot (as applicable)." "The OFC shall be protected against damage from termites, rodents, fire, moisture and water throughout the service life of the cable."Bidders request clarification on the specific rodent and termite protection standards required for the armoured sensing cable: TEC Standard Primacy: Please confirm if the Fiber optic cable must fully comply with the Telecommunication Engineering Centre (TEC) specifications of India regarding rodent protection standards, and if TEC guidelines supersede other international standards. Armouring Construction: Please clarify if Corrugated Steel Tape Armouring (CSTA) is mandatory to provide the physical barrier against rodent bites for both buried and fencemounted installations. Chemical Repellents: Please clarify if the outer sheathing must contain specific non-toxic chemical rodent/termite repellents (such as glassbead or bittering chemical additives), or if standard mechanical steel tape armouring is sufficient to meet the "rodent-proof" criteria.	In Indian soil and outdoor perimeter environments, highdensity rodent and termite activity poses a severe physical risk to optical Fiber sensor cables, where any microdeformation or sheathing bite can lead to acoustic signal distortion and false alarms. The Telecommunication Engineering Centre (TEC) of India specifies highly robust mechanical requirements for domestic cables. Corrugated Steel Tape Armouring (CSTA) is the industry standard in India to prevent rodent penetration and structural water seepage. Specifying compliance with standard TEC sheathing rules ensures all bidders quote on an identical, high-durability, and field-proven design rather than using cheaper, non-armoured or purely chemical sheaths that degrade over time. This preserves the continuous 25-year service life of the cable.	CSTA (with ECCSA) type OFC cable is required for both wall mounted and burried laying. TEC compliant OFC is acceptable, however, other standards as per tender specifications are also acceptable.
Earnest Money Deposit (EMD) Calculation for Combined Schedules					
47	Page No. 2,4 and 30	Section I. NIT, Page 2 of 217 and Section I. NIT, Sl. No. 1 (Table), Page 4 of 217 and Section III. SIT, Sl. No. 11, Page 30 of 217	"Earnest Money Deposit (EMD) — Schedule 1: ₹ 5.00 Lakh for Salboni, Schedule 2: ₹ 5.00 Lakh for Mysuru, Both Schedules 1& 2: ₹ 5.00 Lakh. Bidder may quote for only one schedule or both the schedules." Bidders request urgent confirmation on the exact EMD value required to be submitted when bidding for both schedules simultaneously. a) Total EMD Amount: Please clarify if a bidder quoting for both Schedule 1 and Schedule 2 is required to submit a total EMD of ₹ 5.00 Lakh (as explicitly written in multiple sections of the SBD under "Both Schedules 1&2: ₹ 5.00 Lakh") or if the EMD is cumulative, requiring ₹ 10.00 Lakh in total (₹ 5.00 Lakh for Schedule 1 + ₹ 5.00 Lakh for Schedule 2). b) Single BG Sufficiency: If the EMD for both schedules is capped at ₹ 5.00 Lakh, please confirm if a single Bank Guarantee of ₹ 5.00 Lakh is sufficient to cover the bid security for both sites.	The SBD text on Page 2, Page 4, and Page 30 consistently states "Both Schedules 1&2: ₹ 5.00 Lakh". However, mathematically, the sum of individual schedules (₹ 5.00 Lakh each) equals ₹ 10.00 Lakh. Clarifying whether the EMD is capped at ₹ 5.00 Lakh for a combined bid or is additive is extremely critical. Under-payment of EMD is a non-negotiable preliminary ground for summary rejection of the bid. Resolving this discrepancy before bid submission ensures bidders do not face arbitrary disqualification due to varying interpretations by the Tender Evaluation Committee (TEC), while avoiding the unnecessary blockage of excess bank credit limits for the contractor.	Whether bidder participates in one or both schedules the EMD is capped at Rs 5 Lkh

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Mandatory Site Visit Verification					
48	Page 56 of 217	Section VII: Technical Specification & Scope of Work, Pre-Bid Conference - Site Visit Requirements, Page 56 of 217	"All prospective bidders shall mandatorily visit the project site to comprehensively assess the site location, feasibility, distance, terrain, integration. All doubts, clarifications, and queries shall be raised and resolved during the pre-bid conference. No claims of ignorance regarding site conditions, shall be entertained after bid submission." Bidders request urgent clarification on the following two points regarding the mandatory site visit: Verification Mechanism: Since the site visit is mandatory, please clarify the mechanism for verifying compliance during techno-commercial evaluation. Bidders propose that BRBNMPL issue a standardized Site Visit Completion Certificate / Acknowledgement Form signed by the authorized BRBNMPL representative at the respective presses (Salboni / Mysuru). Bidders must upload this signed certificate as a mandatory document in their Part-I Technical Bid to avoid rejection.	A mandatory site visit is a key preliminary gate. Without a formal, signed completion certificate or acknowledgment issued directly by BRBNMPL, there is no objective or legally binding method for the Tender Evaluation Committee (TEC) to verify which bidders mobilized and completed the survey. Restricting bid validity to certified site visitors ensures a highly transparent, fair evaluation and prevents non-compliant parties from submitting speculative, ungrounded bids	Site visit is mandatory to analyse the site condition and actual requirement in the tender.
Optical Fibre Cable (OFC) Drum Length Specification					
49	Page 115 of 217	Section VII: Technical Specification & Scope of Work, Clause 3.2 (Optical Fibre Cable (OFC)), Sub-clause (e), Page 61 of 217 (and Page 115 of 217)	"The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be 10km ±5% as per the field requirement." Bidders request a revision of the continuous cable drum length specification. It is proposed to amend this clause to permit a standard armoured cable drum length of 2.0 km (or as per the OEM's standard manufacturing and packaging practice) instead of the mandatory 10 km continuous drum requirement.	A continuous 10 km drum of heavy-duty, Corrugated Steel Tape Armoured (CSTA) double-sheathed optical Fiber cable is practically unfeasible due to severe manufacturing, shipping, and field installation constraints. 1. Weight & Logistics: A 10 km drum of armoured outdoor cable weighs several metric tons and is physically too large to be transported on standard trailers, cleared through narrow security gate access, or handled safely on-site using standard cable jacks/handling cranes. 2. Manufacturing Limitations: Standard cable manufacturing lines are calibrated to produce, and wind armoured cables in lengths of 2.0 km to 4.0 km per drum. Forcing a continuous 10 km extrusion significantly increases the risk of micro-bends, manufacturing defects, and sheathing inconsistencies during production. 3. High Pulling Tension Risk: Pulling a continuous 10 km length of cable underground or along fences is physically impossible without exceeding the cable's maximum tensile strength. The resulting friction increases pulling tension exponentially, which is highly likely to cause Fiber core elongation, microfractures, or irreversible attenuation spikes. 4. Standard Field Practices: Globally accepted system integration standards utilize 2.0 km drum lengths, with continuous runs fused together inside specialized, waterblocked IP68-rated outdoor joint splice enclosures placed in standard handholes/pull-chambers. This also ensures much easier localization and replacement of any cable segment damaged by future excavation or rodent activity.	Will be amended to 4 km±5%

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Dual Independent Laser Sources for Core Controller Redundancy					
50	Page 100-101 of 217	Section VII: Technical Specification & Scope of Work, Clause 3.3 (Interrogator / Controller Unit); Sub-clause (b), Page 62 of 217 (and Section VII: Compliance Table A, Sl. No. 1 & 8, Pages 100-101 of 217)	"b) The Interrogator shall house: Laser source (LED) and digital signal processor." Bidders request clarification on whether the dual-channel interrogator/controller unit must be equipped with two completely independent, separate laser sources (one dedicated per channel) rather than a single laser source shared or split between both channels. To ensure the system contains no single point of failure (SPOF), bidders propose that this clause be amended to: "The Interrogator/Controller Unit shall house two completely independent, separate Laser Sources (one dedicated to each of the two channels) and dual signal processors to guarantee true, active hardware-level redundancy."	Elimination of Single Point of Failure (SPOF): If a dual-channel interrogator utilizes a single shared laser source (split optically across both channels), any degradation, failure, or drop in output power of that single laser diode will immediately shut down both channels simultaneously. This leaves the entire perimeter completely unmonitored. 2. Alignment with mandated Redundancy Specs: The tender strictly mandates "100% Intelligent Redundancy" with "no single point of failure of the hardware" because "failure of the controller can be catastrophic" (Page 100 of 217, Compliance Sl. No. 4). A single shared laser architecture directly violates this core security requirement. 3. High-Security PSU Standard: Given that both Salboni and Mysuru are high-security sovereign note-printing facilities ("Prohibited Areas") requiring continuous 24x7 surveillance, the active sensor must be designed with the highest level of fault tolerance. Dual independent laser sources guarantee that if one laser fails, the second channel continues to actively monitor its designated perimeter loop without any loss of coverage.	Already included at page no. 101 of 217 under Sl. No. 8: Optical channel: "Dual channel, two independent channels shall be capable of operating simultaneously without performance degradation"
Specifications of Client-Provided UPS & Cabling Scope					
51	Page 140 of 217	Section VII: Sl.A, Part-A, Clause 1(j), Page 81 of 217 (and Page 140 of 217)	"j) UPS: Suitable UPS with battery backup shall be provided by BRBNMPL. However, establishing of power cable network is in Contractor's scope." Bidders request BRBNMPL to provide the detailed technical specifications of the client-provided UPS systems at both Salboni and Mysuru. Specifically, please clarify: (a) UPS Rating (kVA) & Phase Configuration: What is the exact rating (e.g., 5 kVA, 10 kVA) of the dedicated UPS, and is it a single-phase (1-in/1-out) or three-phase (3-in/1-out) system? (b) Autonomy/Backup Time: What is the designed battery backup duration (e.g., 30 minutes, 1 hour) allocated for the PIDS equipment under full operational load? (c) Output Receptacles & PDUs: What type of output sockets does the UPS provide (e.g., standard Indian 5A/15A sockets, IEC C13/C19 sockets, or industrial sockets) so that the bidder can supply matching Power Distribution Units (PDUs) in the server and controller racks? (d) Physical Location & Distance: What is the estimated physical distance between the client's UPS power distribution board and the proposed location for the bidder's server and interrogator racks inside the CCTV control room?	Under the scope of work, the bidder is fully responsible for establishing the power cable network and supplying the racks to house all active field and control room devices (including Xeon-grade servers, high-performance GPUs, Layer-2 managed switches, and dual-channel optical interrogators). Highly sensitive electronics have strict transient current thresholds and power-draw metrics. Knowing the exact specifications of the client's UPS allows the bidder's design engineers to: 1. Design compatible rack-level PDUs to prevent load balancing issues. 2. Calculate correct copper cable cross-sections to prevent voltage drops over distance. MSTC Event No. BRBNMPL/Salboni Press/MMD/7/26-27/ET/12 [PIDS] Ensure that the cumulative startup inrush current of the system does not exceed the capacity of the UPS, thereby ensuring zero-interruption 24x7 security operations	UPS procurement is BRBNMPL scope. Design requirements will be deliberated with the successful bidder.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Power Failure Simulation and UPS Scope Clarification					
52	Page 131 of 217 and 81,140 of 217	Section VII: Technical Specification & Scope of Work, Clause 9 1(c) (FAT Procedure), Sub-clause (vi)(d) (Sample test procedure and scenarios), Page 71 of 217 (and Page 131 of 217) vs. Section VII: SLA, Part-A, Clause 1(j) (UPS Provision), Page 81 & 140 of 217	FAT Procedure (Page 71): "d) Power failure simulation:➢ 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 "SLA Clause 1(j) (Page 81): "j) UPS. Suitable UPS with battery backup shall be provided by BRBNMPL. Bidders request formal confirmation that since the UPS and battery backup system are explicitly under BRBNMPL's scope of supply, the requirement to test a standalone battery switchover and generate an internal "trouble/power failure" signal at the controller chassis level be modified or waived. Proposed Amendment: Bidders propose that the FAT power failure simulation be limited to confirming that the supplied server and controller units continue to run without interruption or data loss when operating on the client-provided UPS during a main utility power outage, and that the PIDS software safely logs any shutdown commands if the outage exceeds the UPS backup threshold.	Alignment of Hardware Supply Boundaries: Standard 19" rackmountable optical interrogators (DAS Controllers) and enterprise-grade Xeonservers do not houseinternal high-capacity battery banks. Instead, they rely on the external 240V AC UPS network provided by the client. 2. Avoidance of Testing Mismatches: If a power outage occurs, the seamless switchover to battery power is performed entirely by the central BRBNMPL UPS, not the contractor's active equipment. 3. Elimination of Arbitrary Discrepancies: Verifying a built-in battery switchover within the interrogator chassis itself is technically impossible without adding proprietary DCbattery hardware, which is unnecessary and contradicts the provision stating BRBNMPL will supply the UPS. Clarifying this before the formal 21-day FAT prevents post-award execution bottlenecks.	d) Power failure simulation:- ➢ 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 Shall be removed (Shall be amended).
Dedicated On-Site Resident Manpower vs. On-Call Support during NCAMC					
53	Page 84 of 217	Section VII: Technical Specification & Scope of Work, Part-B (Non-Comprehensive AMC), Clause 2(vii), Page 84 of 217	"vii) The Contractor has to depute its technician when there is a complaint and need arises for all working days to attend the fault and he may be called on holiday if required. Mobile phone and telephone no of technician are to be intimated for reporting the faults/breakdowns "Bidders suggest modifying this clause to consider the continuous deployment of a dedicated, locally stationed engineer/technician during standard working hours instead of operating on a purely reactive, complaintbased "on-call" model. Bidders propose the following clarifications and changes a. Site Residency: Please clarify if the bidder should include the commercial overhead of a dedicated resident engineer to be stationed at each press during working hours for proactive monitoring, daily health checks, and preventive maintenance b. Local Stationing: Bidders propose that the maintenance technician be stationed locally within a 10 km radius of the Salboni and Mysuru sites to guarantee prompt response times during emergency breakdowns. c. Facilities: If resident manpower is required, please confirm that BRBNMPL will provide suitable seating space, a workstation, and terminal access within the CCTV control room for the resident engineer.	Proactive Security vs. Reactive Maintenance: An AI-enabled perimeter intrusion detection system (FOPIDS) is a highly sensitive, critical security asset that operates 24/7. Waiting for a failure to be noticed and reported (reactive on-call support) creates security gaps. A resident technician can perform daily optoelectronic diagnostic scans, realtime threshold calibrations to accommodate weather shifts, and proactively resolve issues before they escalate into system-wide downtime 2. SLA Compliance and Gate-Pass Delays: Both Salboni and Mysuru are high-security noteprinting presses ("Prohibited Areas") with extensive administrative, security, and work-permit entry protocols. Stationing the technician within 10 km of the site minimizes external transit delays, ensuring that severe S1 outages (which carry heavy penalties) can be addressed within the mandatory 4-hour physical response window without being choked by gateclearance procedures. 3. Commercial Parity in Financial Bids: Deploying dedicated, full-time local manpower represents a substantial recurring cost structure (salaries, local lodging, transit) compared to simple oncall visits. Standardizing whether a resident or on-call model is required ensures all bidders calculate their NCAMC commercial bids on an identical, transparent, and legally comparable basis, preventing artificially inflated or unviable service bids.	Tender conditions prevail. However, during warranty period, 01 no. of Skilled manpower has to be deployed. Suitable Amendments in Section-VII and Price schedule will be done.

16/28

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Product manufactured in India under a license from a foreign manufacturer					
54	159 of 217	Section IX. Qualification Criteria, Clause 4 (Manufacture under license / technology collaboration agreements with phased indigenization under 'Make in India'), Page 159 of 217 (Draft Int S. No. 30 referencing Page 84 / Section VII)	"Suppliers may be exempted from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who hold intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content within the validity of the contract." Bidders request that the provision allowing local content exemptions for products manufactured in India under license or technology collaboration agreements be reviewed and restricted specifically for core active electronic equipment such as the Distributed Acoustic Sensing (DAS) Interrogator/Controller. Bidders propose that: a. OEM IPR Ownership: For the core active sensor technology, the DAS controller OEM must own the complete, unencumbered Intellectual Property Rights (IPR) of the offered system and be directly responsible for the product lifecycle, technical support, and future availability. b. Back-to-Back Direct Guarantee: Alternatively, if a bidder participates under a "licensed manufacturing" or "technology collaboration" setup, they must submit a joint legal undertaking and direct guarantee from the foreign patent/IPR holder to BRBNMPL. This guarantee must cover back-to-back software/firmware support, AI upgrades, and spare parts availability for the entire 25-year designed service life of the system and the 5-year post-FAC support period, independent of the local partner.	A phase-based Coherent Rayleigh OTDR DAS system is a highly proprietary, specialized security asset where classification algorithms, DSP firmware, and optoelectronic engines are tightly integrated. Allowing local content exemptions based on "technology collaboration" or "licensed manufacturing" agreements introduces a severe operational risk for high-security, sovereign note-printing presses ("Prohibited Areas"). If a commercial, financial, or legal dispute arises between the Indian licensing partner and the foreign technology/patent owner, the license can be terminated abruptly. This would immediately halt technical support, freeze critical AI/ML model updates, and cut off the supply of proprietary optical/electronic spare parts. Such a scenario would leave the 24x7 security perimeter at Salboni and Mysuru unmonitored, rendering the entire investment obsolete. Requiring the OEM to own the core IPR, or providing a legally binding, perpetual direct backing from the original IP owner, ensures long-term system survivability and protects the strategic security interests of BRBNMPL.	Tender conditions prevail. However, OEM backed service and spares support to be amended to 10 years from the date of FAC. (Shall be amended in all the places in the tender documents) MAF from OEM during bid submission stage also takes care of issue raised. Further, this point is mentioned at page no. 85 of 217 at Sl. No. XV and Xvi
DAS Controller Designed Service Life and Technology Obsolescence Roadmap					
55		Section VII: Technical Specification, Clause 3.2(m), Page 61 of 217 (OFC Service Life) and Section VII: Technical Specification, Clause 3.3(l)(c), Page 63 of 217 (MTBF) and Section VII: SLA, Part-B, Common Clause 1, Page 88 of 217 (Spare Support)	OFC Service Life (Page 61): "The cable shall have a minimum service life of 25-years." 2. Controller Reliability (Page 63): "MTBF >100,000 hours" 3. Spares Support (Page 88): "Also, the Contractor shall ensure spare support for minimum period of Five years from the FAC date." Bidders request formal clarification regarding the designed service life of the Distributed Acoustic Sensing (DAS) Controller / Interrogator and the long-term technology refresh roadmap: 1. Hardware Lifecycle Mismatch: While the passive Fiber sensing cable is rightly mandated to have a service life of 25 years, the active optoelectronic DAS controller has a specified MTBF of >100,000 hours (~11.4 years). Bidders request BRBNMPL to clarify the expected designed operational life of the DAS controller unit itself. 2. Long-Term Obsolescence Support: Since the mandatory spare parts support is restricted to 5 years from the FAC date, please clarify if the OEM must provide a formal undertaking to support the hardware,proprietary laser modules, and DSP/FPGA firmware for a minimum of 10 to 15 years, aligning with the controller's physical operating life. 3. Backwards-Compatible Upgrade Path: Bidders propose that the OEM must guarantee that any future generation of DAS Interrogators will remain fully backwardscompatible with the physical parameters of the installed 25-year-life Fiber sensing cable, allowing for seamless "plug-and-play" controller upgrades in the future without disturbing the field infrastructure.	Optoelectronic vs. Passive Media Mismatch: True phasebased DAS systems rely on high-precision infrared laser sources, sensitive optical splitters, and fast processing boards that naturally degrade over time due to thermal and optical stress. While the passive armoured Fiber cable buried 1 meter underground or lashed to fences can easily survive 25 years, active semiconductor-based electronic controllers have a realistic commercial lifecycle of 10 years before critical components become obsolete. 2. Protection of Sovereign Capital Investment. Restricting spare support to 5 years creates a severe operational risk for BRBNMPL after Year 5. If a proprietary interrogator board or laser diode fails in Year 7 and the OEM has discontinued the model, the entire perimeter system would be rendered nonfunctional. Mandating an 8-to-10-year OEM lifecycle support guarantee ensures long-term system survivability. 3. Future-Proofing Field Installations: Specifying a guaranteed backwards-compatibility roadmap ensures that BRBNMPL can upgrade the control-room active units to leverage future optical processing or AIclassification breakthroughs while preserving 100% of the massive civil investment made in laying the 50,000 meters of sensing cable per site.	Tender conditions prevail. However, OEM backed service and spares support to be amended to 10 years from the date of FAC. (Shall be amended in all the places in the tender documents)

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Storage Benchmarks, VMS Specifications & Field I/O Architecture					
56		Section VII: Technical Specification, Pre-Bid Conference - Site Visit Requirements, Items (2) & (3), Page 56 of 217 (and Clause 3.4 & 3.7, Pages 64-67)	1."The following documents/technicalities to be submitted and discussed by the vendor during pre-bid conference: ... 2) Data Collection of the site and synchronization 3) Server and Storage details" 2. "Total Raw Capacity:96TB (6x16TB RAID 5/10) ... Calculation data sheet to be provided for integration of the minimum 10HD cameras x 8 Zones up to 90 days back-up ."Bidders request BRBNMPL to provide the standardized sizing parameters and design assumptions for calculating storage and server compute capacities. Specifically,please clarify: a. CCTV Video Stream Sizing Benchmarks. What are the baseline camera parameters to be used for the 90-day storage calculations (e.g., Resolution: 2MP/1080p or 4MP; Codec: H.264,H.265, or H.265+; Frame Rate: 15 FPS or 25 FPS; Bitrate: Constant Bitrate (CBR) or Variable (VBR))? b. Recording Scope: Confirm if the 90-day backup is strictly for event-triggered video clips (e.g., 1-minute preevent + 1-minute postevent as per Page 68) or if continuous 24x7 recording is required.Evaluation Sheet. Bidders propose that BRBNMPL issue a standardized storage calculator via corrigendum, so all bidders calculate on an identical baseline.	If sizing parameters are left to individual interpretations, bidders will use highly varied assumptions (e.g., H.264 at 30 FPS vs. H.265+ at 15 FPS), resulting in storage calculations that vary by hundreds of terabytes. This makes a fair and transparent "apples-toapples" technical and commercial evaluation impossible. Some bidders may quote under-sized storage to artificially lower their bid price, leading to system bottlenecks, frame drops, and storage audit failures during project execution. Standardizing these metrics ensures commercial bidding parity while securing BRBNMPL's data integrity.	Clause no. 3.4 of Technical Specification and BOQ will be amended.
		Section VII: Technical Specification, Pre-Bid Conference - Site Visit Requirements, Item (9), Page 56 of 217 (and Clause 1(k), Page 57; Clause 3.1(h)(vi), Page 60, and BOQ Sl. No. 11, Pages 75 & 78)	"Dry contact configuration for the zones against alarm." 2. "Relay output panel shall be supplied... with dry contact alarm output...Copper wiring or suitable shall be laid from the control room throughout the perimeter..." 3. BOQ Sl. No. 11 (Salboni &Mysuru): "Copper cable or suitable... Qty: 7000 Meters." Bidders request a critical technical review of the field-hardwired copper relay cabling architecture over the boundary. Bidders propose the following changes. a. Distributed Network I/O Architecture. Instead of laying thousands of meters of point-to-point physical copper cables spanning the entire ~8 km perimeter, permit the deployment of industrial IP-based Distributed Network I/O Controlle Modules housed inside secure, outdoor IP66 field cabinets along the fence. These field modules should communicate alarm signals back to the main interrogator over the redundant Fiber optic network loop. b. Signalling Purpose. Please clarify the exact purpose and signalling parameters of these dry contacts (e.g., triggering field hooters, floodlights, or existing physical mimic panels).	Hardwiring physical dry contacts over an 8 km perimeter using copper cables is technically obsolete and introduces severe operational risks: 1. Voltage Drops & Cable Resistance: Over distances of 4 to 8 km, copper cable internal resistance causes massive voltage drops, making it highly likely that field hooters or relays will fail to trigger. 2. Surge & Lightning Vulnerability: Long copper cables running outdoors act as massive antennas, picking up electromagnetic transients and induced voltages during lightning strikes. This will routinely fry both the field devices and the highly sensitive optoelectronic controllers in the server room, leading to continuous equipment failures. 3. Redundancy & Cost Efficiency: Distributed IP-based I/O controllers connected over the existing Fiber network eliminate copper laying costs while supporting redundant ring/loop topologies. If a cable is cut, the network automatically reverseroutes the alarm signals, ensuring 100% security uptime and safeguarding the core DAS controllers from high-voltage surges.	Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical specifications and BOQ will be amended for both the schedules accordingly.

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Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
True Phase (Quantitative) vs. Intensity-Based (Qualitative) DAS Specifications					
57	Page 62 of 217 and 100 of 217	Section VII: Technical Specification & Scope of Work, Clause 3.3(a), Page 62 of 217 and Section VII: Detailed Technical Compliance, Table A (DAS Controller), Sl. No. 1, Page 100 of 217	"The controller shall be True phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS) " Bidders Bidders request BRBNMPL to formally clarify and explicitly mandate that the Distributed Acoustic Sensing (DAS) controller must utilize "True Phase (Quantitative)" measurement technology, and that "Intensity-Based (Qualitative)" systems shall be strictly rejected during technical evaluation. Proposed Amendment: "The controller must be a True Phase-Based (Quantitative) Coherent Rayleigh OTDR DAS system capable of measuring absolute optical phase changes linearly. Qualitative orIntensity-Based (e.g., Phase-OTDR without phase demodulation) systems shall not be accepted."	1. True Phase (Quantitative) DAS measures the linear, absolute optical phase changes along the Fiber, enabling precise quantification of acoustic frequency and strain amplitude, whereas Intensity-Based (Qualitative) DAS only registers relative intensity fluctuations which cannot be mapped to physical strain 2. This quantitative capability allows the True Phase system to run advanced digital signal processing and AI classification algorithms on high-fidelity acoustic signatures, resulting in an exceptionally high Probability of Detection (PoD) and a near-zero False Alarm Rate (FAR) 3. In contrast, Intensity- Based systems suffer from signal fading and non-linear response,meaning they are prone to missing quiet or stealthy intrusion events while generating high rates of nuisance alarms from wind or rain. 4. Furthermore, True Phase DAS supports multiparameter calibration and remains stable under long-term environmental drifts, ensuring consistent, repeatable performance over the system's entire 25-year lifespan. 5. Mandating True Phase technology ensures that BRBNMPL receives a high-security, defensegrade perimeter protection system rather than a fewer-cost, highly unreliable commercialgrade vibration detector.	The controller shall be True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS) Amendment will be carried out in the specification for both the schedules
Network Connectivity, Remote Access, and On-Premise Software/Firmware Updates					
58	Page 65&120 of 217, Page 85 and 217	Section VII Technical Specification, Clause 3.4 (under Software & OS Support), Page 65 & 120 of 217 and Section VII: Technical Specification, Clause 3.7(b)(xvii) & (xix)(c) (Maintenance & Upgrades / Onpremises AI updates), Page 68-69 & 124-125 of 217 and Section VII: SLA, Part-B, Clause 2(xi), Page 85 & 145 of 217	1. Page 65 & 120: "Data management software must be supplied with genuine and valid licenses .. Upgradation if any should be provided by the contractor during the warranty period and AMC period without any extra cost." 2. Page 68-69 & 124-125: "Maintenance & Upgrades: troubleshooting and diagnostic tools to be included " and "Onpremises AI updates." 3. Page 85 & 145. "xi) Upgradation of any software / firmware to maintain the system operational and to comply with prevailing cyber security guidelines "Bidders request BRBNMPL to formally clarify the permissible network connectivity protocols and security boundaries for remote/on-site access, troubleshooting, and patch deployment during the I&C phase and the 5- year lifecycle period (2-year warranty + 3-year NCAMC). a. External Remote Connectivity: Please clarify if BRBNMPL will permit secure external remote connection (e.g., via IPsec VPN, SSL-VPN, or a secure remote jumphost managed by the client) to enable the contractor's or OEM's offshore technical support center to perform diagnostics, software debugging, and minor configuration adjustments. b. 100% Air-Gapped Confirmation: If external remote access is strictly prohibited due to BRBNMPL's cyber security policies for sovereign printing units, please confirm that all software/firmware updates, AI model tuning/re-training, and troubleshooting shall be executed exclusively onsite (on-premises) by locally deputed engineers c. Secure Media / Tool Ingress Policy: In case of a 100% air-gapped network setup, please confirm that BRBNMPL will permit authorized service engineers to bring in specialized diagnostic laptops and encrypted external media (USB/CDs containing signed OEM firmware, software patches, or re-trained AI weights) into the secure CCTV control room, subject to security clearances and anti-virus scanning.	1. Sovereign Cybersecurity Alignment: Since BRBNMPL presses are "Prohibited Areas" handling currency-grade sovereign functions, their control networks are typically completely isolated (air-gapped) from the public internet. Clarifying this upfront ensures that the bidder's system design and security controls conform 100% with the client's internal IT security policies. 2. SLA Penalty Risk Mitigation: AI-enabled DAS systems require frequent pattern-recognition threshold adjustments and firmware updates to accommodate environmental shifts. If external remote access is prohibited, resolving a complex optoelectronic or algorithmic anomaly requires the physical mobilization of specialized engineers to the site. Confirming an on-site-only support model prevents disputes regarding S1/S2 SLA resolution penalties (which demand resolution within 10 to 48 hours) when delays are strictly due to physical travel and security gate-pass processing times. 3. Secure Change Management: Establishing a formal, pre-approved administrative protocol for the entry of diagnostic laptops and testing media prevents project execution bottlenecks, ensuring critical security patches and OS updates can be safely deployed onpremises without introducing malware risks to the local network.	Tender conditions prevail All approved SOPs and administrative protocols of BRBNMPL will be followed

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Drainage Intrusion Detection and Culvert Gate Protection					
59		Section VII: Technical Specification & Scope of Work, Clause 1 (Scope of Work) and Clause 3.1(a) (Detection and Classification), Pages 57 & 60 of 217 (and Section XI Price Schedule / BOQ, Pages 74-75, 76-78)	The scope of work outlines physical sensor cable deployment over-ground (lashed to the concertina coil) and underground (buried 1 meter deep in soil, concrete, or bitumen adjacent to the boundary wall). No physical layout, sensor attachment guidelines, or BOQ hardware allocations are specified for securing drainage outlets, culverts, or storm-water channels intersecting the boundary wall. Bidders request BRBNMPL to clarify the approved engineering layout and detection mechanism for drains, culverts, and stormwater gates intersecting the boundary wall. Please clarify: 1. Mechanical-Optical Integration: Are these drainage openings to be secured using specialized high-sensitivity Fiber loops woven into custom, free-swinging stainless steel grates/gates across the drains (to detect physical movement or cutting of the grates)? 2. Underwater Deployment: Alternatively, should the buried OFC continue seamlessly under/across the bed of these wet channels using specialized heavy-duty,IP68-rated underwater conduit structures? 3. Commercial BOQ Allocation: Please confirm if a dedicated BOQ line item for drainage sensor grates/protection kits will be added via corrigendum, or if this custom engineering must be absorbed under the "Miscellaneous" lot (BOQ Sl. No. 13).	1. Vulnerability of Physical Gaps: Open drainage channels, storm-water culverts, and canal intersections represent major physical vulnerabilities and are classic breach points along any high-security perimeter wall. 2. False Alarm & Attenuation Risks. Standard buried cable cannot monitor wet, moving water flows or mud beds without suffering from severe signal attenuation, environmental deterioration, or continuous water-flowinduced vibration false alarms, unless specialized mechanicaloptical isolation is designed. 3. Need for Specialized Engineering: Customengineered swing-grate Fiber sensors or specialized heavy-duty underwater conduits are essential to guarantee 100% gap-free perimeter coverage of the ~8 km boundary. 4. Commercial Sizing Parity: Clarifying this engineering boundary upfront safeguards the sovereign note-printing facilities ("Prohibited Areas") and ensures all competing bidders calculate the specialized fabrication, underwater conduit laying, and optical loop termination costs on a uniform, comparable basis.	Suitable intrusion detection system for drainage shall be deployed and is the part of the tender. System incorporated shall be detailed in technical Bid Scope of work both the sites will be amended accordingly.
On-Site Storage, Custody, and Storage-cum-Erection Insurance					
60		Section VI List of Requirements, Clause 1 (Required Time Schedule), Page 53 of 217 and Section IV: General Conditions of Contract (GCC), Clause 12 (Insurance), Page 38 of 217 and Section VII Technical Specification, Clause 6 (Statutory Compliance / CAR Policy), Subclause (xii), Page 96 of 211. Material Delivery (Page 53): "Within 180 days... Entire material should be supplied within 90 days from the date of LOI/NoA." 2. Insurance (Page 38): "The insurance cover shall be obtained by the Supplier in its own name and not in the name of BRBNMPL." 3. CAR Policy (Page 96): "The Contractor's All Risk Policy (CAR Policy)" is listed under statutory compliance, but no explicit guidelines are provided regarding physical on-site storage custody or joint naming of policies.	Bidders request BRBNMPL to formally clarify the administrative and security boundaries for on-site material storage and risk coverage during the 180-day execution period. a. On-Site Storage Space Allocation: Please confirm if BRBNMPL will provide secure, weatherprotected indoor storage space (e.g., a lockable room/warehouse) at Salboni and Mysuru for safeguarding high-value active optoelectronics (DAS controllers, servers, switches), and dedicated outdoor yard space for physical Fiber cable drums and GI/HDPE conduits. b. Security and Safe Custody: Please clarify who will be responsible for the physical security, watch-and-ward, and safe custody of these stored materials on-site prior to installation—the Employer (BRBNMPL) or the Contractor? c. Storage-cum-Erection Insurance: Bidders propose that a comprehensive "Storagecum-Erection" (CAR) Insurance Policy be maintained for the entire 180-day installation phase. Please clarify if this policy should be issued in the joint names of BRBNMPL (as Principal) and the Contractor, or solely in the bidder's name.	1. Protection of Sensitive Optoelectronics: True Phase DAS interrogators and Xeon-grade servers are highly sophisticated, expensive active electronic assets. They are extremely sensitive to moisture, dust, and temperature fluctuations, and cannot tolerate open or unconditioned on-site storage without risking permanent damage to proprietary laser modules. 2. Physical Footprint of Heavy Media: Storing 50,000 meters of armoured OFC (supplied on massive industrial drums) and thousands of meters of GI/HDPE conduits requires a significant, secure physical storage footprint that must be planned for site logistics. 3. Prohibited Area Constraints: Since both Salboni and Mysuru are high-security sovereign note-printing presses ("Prohibited Areas"), the contractor cannot independently erect temporary structures or deploy unvetted private security guards. Clear space allocation and custody protocols must be established by BRBNMPL. 4. Mitigation of Asset Risk: Standard transit insurance terminates upon physical delivery at the site. Transitioning to a jointly named CAR policy protects both BRBNMPL and the contractor from loss due to theft, fire, or on-site force majeure, eliminating risk margins in commercial bids and resulting in more competitive pricing.	All electronic equipments can be kept indoor, while cable drums can be kept near installation area. With regard to comprehensive "Storage cum-Erection" (CAR) Insurance Policy, to be borne by the successful bidder

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
On-Site Lifting Equipment and Mechanical Mobilization Logistic					
61		Section VII, SLA, Part-A, Clause 7(iv) (Tools and Tackles), Page 83 of 217 (and Page 143 of 217) and Section VII: Scope of Work, Clause II(g) (Tools & Tackle), Page 93 of 217	1. SLA Clause 7(iv) (Page 83): "iv) Tools and Tackles: All tools & tackles, equipment and other required facilities for un-loading, shifting of equipment to the workplace, erection & commissioning of the system shall be arranged by the Contractor" 2. General Clause II(g) (Page 93): "j) Tools & Tackle: No tools, machines, fabric, manpower or others use required in the satisfactory execution of Contract shall be provided by BRBNMPL, Salboni." Bidders request BRBNMPL to formally clarify the logistical boundaries, administrative rules, and material handling support available at both Salboni and Mysuru sites: a. Availability of On-Site Lifting Assets: Please confirm if BRBNMPL maintains any hoisters, cranes, hydra machines,or forklifts at the site that can be provided to the contractor (either on a chargeable or nonchargeable basis) to facilitate the safe unloading and staging of heavy Fiber drums and rack infrastructure. b. Permission for Mobilization of Private Machinery: If no such equipment is provided by the employer, please confirm that the contractor will be permitted to mobilize their own cranes, hydra vehicles, or forklifts inside the high-security Note Press premises to perform offloading, field transit, and control room rigging under proper work-permit clearances. c. Security and Transit Protocols: Kindly clarify the security clearance lead times for bringing such heavy vehicles inside the prohibited area, and if dedicated security escorts will be assigned during movement to prevent any execution bottlenecks.	1. Extreme Physical Weight of Media Drums:Standard 12F armoured sensing cables supplied in continuous 10 km ±5% drum lengths (as specified in Clause 3.2(e)) weigh approximately 1.5 to 2.5 tons per drum. Safely offloading, spooling, and lacing these massive reels along the fence or trench line is technically impossible through manual labour alone and strictly requires motorized rigging machinery. 2. Control Room Rigging Requirements: Server racks containing dual Xeon processors, highperformance GPU engines, Layer-2 switches, and optical interrogators are dense, fragile, and expensive active electronic assets that must be lifted to elevated control rooms without experiencing severe shocks or vibration stress. 3. Prohibited Area Access Restrictions: Since both printing presses are strictly designated "Prohibited Areas" under state security rules, arbitrary movement of industrial machinery is forbidden. Clarifying these protocols beforehand ensures the contractor can secure appropriate gate passes, police verifications, and safety clearances well in advance of delivery, avoiding costly demurrage and schedule delays. 4. Standardization of Commercial Overhead: Bringing heavy cranes or hydras onto highsecurity sites incurs significant daily hire, operator, and security escort overheads. Defining these boundaries ensures all competing Class-I and Class-II local suppliers price their commercial bids on an identical, transparent, and realistic financial basis.	1 Will be amended to 4 Kms±5% Point no. 2, 3, 4 Tender conditions prevail. Under bidder's scope. Required permissions will be provided by BRBNMPL.
Entry/Exit Gates Count, RCC Manhole/Handhole Provisioning, and Duct Availability					
62		Section VII: Technical Specification & Scope of Work, Clause 1(e) & (j) (Cable Laying & Redundancy), Page 57 of 217 and Section VII: Technical Specification, Clause 4(a) & (b) (Installation), Page 70 of 217 and Section XI: Price Schedule / BOQ, Schedule 1 (Salboni) Sl. No. 12 & 16, and Schedule 2 (Mysuru) Sl. No. 12 & 16, Pages 75-78 & 134-138 of 217	Clause 1(e) (Page 57): "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..." Clause 4(b) (Page 70): "Use of IP68-rated junction boxes." BOQ (Page 75/77): HDPE pipe (50mm), GI pipe (100mm), trench digging, and installation are listed. No explicit line items exist for RCC Manholes (MH), Handholes (HH), or gatecrossing spare ducts. Bidders request BRBNMPL to formally clarify the gate-crossing infrastructure. Fiber termination setup, and provisioning of manholes/handholes at all Entry & Exit gates: a. Gate Count Confirmation: Bidders understand that there are exactly two (2) main Entry/Exit Gates per site (Salboni and Mysuru)that require physical underground crossings. Please confirm if this count is correct or specify the exact number of gates per press. b. Manhole (MH) / Handhole (HH) Provisioning: Since gates require transitioning from fence-mount to direct-buried loops, please clarify if BRBNMPL will provide existing, secure cement RCC Manholes/Handholes on both sides of each gate for Fiber loop storage and termination of IP68 joint enclosures. If not, please confirm if the contractor must construct/provision new RCC Manholes/Handholes with proper concrete covers, and if a separate BOQ line item will be added or if this must be absorbed. c. Gate-Crossing Ducts: Please clarify if spare, clear cement pipes or GI/HDPE ducts are already available underground at these gate crossings. If not, please confirm that the contractor is permitted to perform trenching, corecutting, or directional boring. Acoustic Noise Isolation: Gates represent massive acoustic and vibration disturbance zones (due to vehicle traffic). Please confirm if the contractor is permitted to configure specific "exclusion/silent zones" in software at gate locations, or if the Fiber should be routed through vibration-dampening conduits.	1. Critical Vulnerability and Slack Loop Management: Entry/exit gates are high-risk zones where fence sensing must transition underground. Standard practice demands placing a joint enclosure inside an RCC Handhole on both sides of the gate to store necessary slack Fiber loops (~10-15 meters), allowing for rapid re-splicing in case of a cable cut or physical damage. 2. Prevention of Asset Damage: Running Fiber under active gates without concrete protection exposes the cable to continuous crushing loads from heavy cargo trucks, risking micro-bending losses and Fiber failure. 3. Acoustic Noise Management: Active gates create continuous ambient vibrations that generate false alarms unless vibrationdampening conduits are used or software masking is defined, which would violate the system's performance target of 95% event classification accuracy and low NAR. 4. Transparent Cost Sizing: Constructing RCC Manholes/Handholes and executing heavyduty crossings represents significant civil work. Clarifying these logistics ensures that all bidders quote on a technically sound,uniform, and commercially equitable basis.	In bidder's scope as it is a part of site visit

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Specifications, Power Provisions, and Installation Architecture for Perimeter Hooters & Warning Lights					
63		Section VII: Technical Specification & Scope of Work, Clause 1(k) (Relay Output Panel & Power Cabling), Page 57 of 217 and Section VII: Technical Specification, Functional Requirements, Clause 3(d), Page 60 of 217 and Section VII: Detailed Technical Compliance, Table B (Application Software), Sl. No. 10, Page 103 of 217 And Section XI: Price Schedule / BOQ, Sl. No. 11 & 13, Pages 75-78 & 134-138 of 217	1. Page 57, Clause 1(k): "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 . "2. Page 60, Clause 3(d). " .. Simultaneously, the system shall trigger corresponding relay outputs for activation of external devices such as hooter or warning lights." 3. Page 75/77 (BOQ Sl. No. 11 & 13). "Copper cable or suitable .. Qty: 7000 Meter" and "Miscellaneous... Relay contacts, brackets, fixtures . ". (No explicit line items exist in the BOQ for hooters, visual strobe lights, or local power accessories). Bidders request BRBNMPL to formallyclarify the engineering scope, technical specifications, power architecture, and billing details for the perimeter hooter and warning light system: a. Bill of Materials (BOM) & Quantities: Please confirm the exact quantities and technical specifications of hooters and warning lights required to be supplied under this contract. If these are in the bidder's supply scope, please confirm if they should be factored under "Miscellaneous" (Sl No. 13) or if a separate BOQ line item will be added via corrigendum. b. Audio-Visual Integration (Strobe Lights): Please clarify if "Dual Hooter & Strobe" integrated sounders (incorporating both acoustic hooters and visual flashing LED strobe lights/beacons) are required, or if just standalone acoustic hooters are needed. c. Field Installation Locations: Please clarify the designated installation locations of these hooters (e.g., at each of the 8 perimeter zones, at gates, or only at the central control room building). d. Mounting Structures: Please confirm if hooters/strobes are to be mounted directly on the existing concrete perimeter boundary wall, or if separate, dedicated GI poles or brackets must be fabricated and installed by the contractor. e. Field Power Distribution Architecture: Since the BOQ allocates 7,000 meters of copper cable, please clarify the power distribution method. Will BRBNMPL provide localized 230V AC power points at field cabinets/gates, or must the contractor extend auxiliary power (e.g., 12V/24V DC or 230V AC) from the central CCTV control room over the entire 7,000-meter field network?	1. Acoustic & Visual Alert Synergy: High-security sovereign banknoteprinting facilities ("Prohibited Areas") require integrated audio-visual sounders (hooters + high-intensity LED strobes). High environmental noise levels (e.g., strong winds, perimeter vehicles, or nearby machinery) can easily mask audio-only alerts, whereas a synchronized flashing strobe provide patrolling security forces with an immediate, unambiguous directional cue to the exact breached zone. 2. Voltage Drop and Power Safety: Transmitting low voltage power (12V/24V DC) over a 7,000-meter perimeter run incurs severe voltage drops due to cable resistance. This will render field hooters completely inoperable unless localized 230V AC power sockets are provided or heavy-gauge AC cabling is laid inside secure field conduits, which directly impacts safety and material compliance under the Factories Act. 3. Structural and Civil Preparedness: Specifying structural requirements beforehand allows the contractor to design stable, wind-resistant structural brackets or GI poles to prevent hardware detachment during severe storm conditions common to Salboni (West Bengal) and Mysuru (Karnataka). 4. Commercial Sizing Parity: Since hooter units, visual strobes, structural poles, and localized powerdistribution accessories represent a significant cost footprint, clarifying this design boundary ensures all competing Class-I and Class-II local suppliers can submit highly competitive and commercially comparable bids on an identical financial baseline.	Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical specifications and BOQ will be generated for both the schedules accordingly.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Satboni office
Material Grades and Engineering Standards for Civil, Electrical, and Splicing Works					
64		Section VII Technical Specification, Clause 3.10 (Civil and Electrical Works), Sub-clause (e), (e), & (f), Page 69- 70 of 217 And Section VII. Technical Specification, Clause 4 (Installation Requirements), Subclause (b), Page 70 of 217 and Section XI Price Schedule / BOQ, Sl. No. 7, 8, 9, 10, & 12, Pages 75- 78 of 217	1. Page 69-70: General specifications for chemical earth pits (resistance 5 Ohms), lightning arrestors (mounted on GI/SS poles, coverage: 1km), and GI conduits/trenching/ducting are listed 2. Page 70: "Use of IP68- rated junction boxes " 3. BOQ (Page 75/77): Lists GI pipe (100mm), HDPE pipe (50mm), and trench digging. No explicit engineering design standards, dimensional specifications, or civil construction drawings are defined for joint chambers, loop chambers, or splicing manholes. Bidders request BRBNMPL to formally clarify and confirm the exact engineering codes, design standards, and material specifications to be followed during project execution for the following elements: a. Lightning Arrestor (LA) & Structural Pole: Please specify the standard mounting height, windloading survival capacity of the structural poles (e.g., survival against winds up to 150 km/h), down-conductor insulation standards, and testing procedures. b. Earthing Compound & Layout: Please specify the standard or approval body required for the backfill chemical compound (e.g., IEEE 80/IEC 62561-7 compliant) and confirm if the earthing system must utilize a copper-bonded rod or pure copper plate,along with standard grid layout dimensions. c. Road Crossing Pipes: Please clarify the physical class/grade of the 100mm GI pipes to be supplied (e.g., IS:1239 Medium or Heavy Class) and confirm if concrete encasement (casing) is mandatory when crossing active, heavy-vehicle bituminous/concrete roads. d. Splicing & Loop Chambers (RCC Handholes): Bidders propose the provisioning of standard RCC Manholes/Handholes at splicing and Fiber loop storage locations. Please provide standard structural drawings and specify the innerdimensions, minimum load-bearing class (e.g.,Class A/B pre-cast concrete as per IS 12592), water ingress protection, and drainage mechanisms for these field chambers.	1. Protection of Critical Optoelectronic Assets: True Phase DAS systems and Control Room active hardware are highly sensitive to high-voltage surges and physical Fiber stress. Clearly defining LA wind-resistance ratings, down-conductor layouts, and IS 3043:2018 earthing compliance prevents catastrophic equipment failures during monsoon lightning surges. 2. Prevention of Optical Fiber and Conduit Failure: Laying Fiber under active heavyvehicle roads or wet soils without standard GI pipe classes (IS-1239 Heavy) or without concrete protection casings exposes the 12F armoured sensing cable to continuous crushing, localized shear, and water logging. This leads to micro-bending losses, signal attenuation, and eventual Fiber fracture. 3. Splicing and Loop Management Security: Outdoor splicing points must be housed in robust pre-cast RCC handholes with standard load ratings (IS 12592) to survive heavy cargo truck loads without collapsing, while maintaining a clean, dry, and drainable environment for IP68 joint enclosures. 4. Commercial Pricing and Evaluation Equity: Since heavy civil works, concrete casting, and standard-compliant electrical installations represent major cost structures, defining these material codes and dimensions before hand ensures all Class-I and Class-II local suppliers calculate their Part-II commercial bids on an identical, transparent, and fair baseline, preventing post-award commercial disputes	1. The controller shall be True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS). Amendment will be carried out in the specification for both the schedules. Tender conditions prevail for Protection of the system. 2,3,4 Tender Conditions prevail.
Automated Dynamic PTZ Camera Integration					
65	Page 72 and 130	Section VII Technical Specification & Scope of Work, Clause 9.1(e)(i) (Functional Testing), Page 72 of 217 (and Clause 9.1(e)(i), Page 130 of 217)	"i) Functional testing: A complete check of all system functions, including: .. Confirming that the correct CCTV camera view pops up automatically when an alarm is triggered in its corresponding zone." Bidders request BRBNMPL to confirm and explicitly mandate that the CCTV/VMS integration must support automatic, coordinatebased dynamic tracking of PTZ (Pan-Tilt-Zoom) cameras: a. Pinpoint PTZ Slew/Preset Recall: Upon detection of an intrusion with pinpoint location coordinates (distance/latitude/longit ude) generated by the PIDS controller, the nearest PTZ camera must automatically slew/pantilt- zoom directly to the affected area to display and capture the event in real-time. b. Zero Manual Intervention: This alarmto- video PTZ tracking must operate as a fully integrated software-level feature at the VMS/C2 GUI level, completely automatically, without requiring manual operator intervention, zone-based physical drycontact relay triggers, or intermediate hardware. c. Dynamic Coordinate Sharing: Bidders request confirmation that the offered PIDS software must support dynamic coordinate-sharing (via open APIs/SDKs) with the client's VMS to enable this automated visual verification during the Final Acceptance Test (FAT).	1. Eliminating Human Latency: In a highsecurity perimeter of ~8 km, manually locating a breach zone and physically steering a PTZ camera to the spot incurs vital delays (often 30 to 60 seconds), whereas automated coordinate-based PTZ steering presents the exact breach area within <2 seconds, minimizing security response lag. 2. Optimized Threat Verification: Dynamic PTZ tracking ensures that the security control room receives a high-resolution, close-up visual stream of the actual intruder (enabling instant threat classification between humans, animals, or weather anomalies), rather than a static wideangle view from a fixed camera which may not capture the event details. 3. Software-Level Integration vs. Rigid Hardware Relays: Implementing native API/SDK software integration between the PIDS and VMS is exponentially more reliable and scalable than utilizing physical, hardwired dry-contact relays. Hardwired relays are limited to rigid, predefined zone-level presets and cannot achieve precise, spotspecific coordinate targeting along the perimeter. 4. Proactive Surveillance Shield: Specifying this automated visual verification feature ensures that BRBNMPL's sovereign note presses ("Prohibited Areas") are safeguarded by a modern, proactive defense-grade security shield rather than a reactive, manual monitoring system.	Tender conditions prevail.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Chemical Earth Pit Electrode Specification Contradiction					
66	Page 70,75 and 77	Section VII: Technical Specification, Clause 3.10(e)(vi), Page 70 of 217 (Chemical Earth Pit) and Section XI: Price Schedule / BOQ, Schedule 1 Sl. No. 7 (Page 75 of 217) & Schedule 2 Sl. No. 7 (Page 77 of 217	1. Technical Specs (Page 70): "e) Chemical Earth Pit technical details . vi)Electrode: Copper" 2. BOQ Specs (Pages 75 &77): "7) Earthing System: Maintenance-free chemical earthing with resistance ≤5ohm, copper bonded electrode, 3mtr length, backfilled with carbon and bentonite compound." Bidders request BRBNMPL to resolve this contradiction and formally confirm that a high-conductivity Copper-Bonded Steel Electrode/Rod (minimum 250 microns molecular copper coating thickness complying with UL 467 or BS 7430) is fully acceptable and shall be supplied in lieu of a solid copper electrode, in perfect alignment with BOQ Sl. No. 7	1. High Mechanical Tensile Strength: Solid copper is a soft, ductile metal that is highly prone to bending, warping, and structural deformation when driven deep (3 meters) into hardcompacted soil, bitumen, or rocky terrains on-site. A copper-bonded steel rod features a high-tensile carbon steel core that easily withstands heavy mechanical installation forces during driving. 2. Lifespan and Performance: The molecularly-bonded copper layer (minimum 250 microns) prevents peeling and offers robust resistance to galvanic corrosion, guaranteeing a low-impedance ground path and an operational service life of 25+ years in aggressive ground conditions, identical to solid copper. 3. Anti-Theft Protection: Solid copper plates or rods installed in unmonitored outdoor areas along a ~8 km perimeter boundary wall represents lucrative targets for physical theft and vandalism. Copperbonded steel has negligible scrap recovery value, preventing security compromises of active field electronics. 4. Contradiction Resolution: This clarification resolves the direct technical contradiction, enabling all Class-I and Class-II local suppliers to calculate their commercial bids on a uniform, transparent, and fair baseline.	Will be amended as copper bonded electrode in technical specifications an BOQ.
Unlimited Software-Defined Zoning Capacity					
67	Page 62 and 101	Section VII: Technical Specification & Scope of Work, Clause 3.3(e), Page 62 of 217 (Zoning) and Section VII: Detailed Technical Compliance, Table A (DAS Controller), Sl. No. 10, Page 101 of 217 (Zone Length)	1. Page 62, Clause 3.3(e): "e) Zoning: Capability to configure virtual security zones of minimum 50meters resolution along the entire perimeter." 2. Page 101, Sl. No. 10: "The length of a Zone shall be variable and should be software defined depending on the site conditions and as per the user requirement." Bidders request BRBNMPL to formally clarify and confirm that the offered perimeter intrusion detection software must support the configuration of unlimited software defined virtual security zones, without any software licensing restrictions, tier-based pricing caps, or hardware-enforced limitson the maximum number of zones that can be created.	1. In high-security facilities like sovereign banknoteprinting presses ("Prohibited Areas"), perimeter threat profiles are dynamic and vary significantly by terrain, lighting, and proximity to roads. 2. Providing unlimited software-defined zoning allows security teams to configure custom, highly granular sectors to match specific localized risk profiles. 3. Furthermore, precise software-defined zoning is essential for effective alarm-to-CCTV preset recall, ensuring that PTZ cameras pan-tilt-zoom to the exact spot of a breach rather than showing an excessively wide, unhelpful sector. 4. A modern, softwaredriven True Phase DAS platform must support on-the-fly re-zoning without requiring proprietary hardware upgrades, controller modifications, or additional software licensing fees over the system's 25-year lifetime. 5. Confirming that the zoning capability is unconstrained by proprietary software license caps ensures that all bidders quote on a uniform, robust baseline, preventing unexpected post-award commercial escalations.	Will be amended as below: *c)" Zoning: 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"*
Optical Fiber Sensing Cable Laying Layout & Burial Depth					
68		Section VII: Technical Specification & Scope of Work, Clause 3.2(a), Page 61 of 217 (and Section VII: Compliance Table E, Sl. No. 1, Page 105 of 217; and Clause 3.2(a), Page 115 of 217)	"a) The OFC (12F multicore 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." Bidders request BRBNMPL to formally review and relax the physical deployment parameters of the directburied sensing cable as follows: a) Straight Linear Laying: Permit a strictly straight linear cable installation along the perimeter corridors in lieu of a "linear/Zig Zag fashion." b) Reduction in Burial Depth: Reduce the standard burial depth requirement from 1.0 meter to 0.5 meter, subject to local soil conditions and OEM recommendations. (Bidders will continue to provide heavy-duty concrete/GI pipe casing protection at all critical heavy-vehicle road crossings).	1. Severe Physical Space Constraints: During the mandatory pre-bid site survey, it was observed that several stretches of the township perimeter lack the lateral clear width required to safely lay down and splice a zigzag cable loop. 2. Stress and Micro- Bending Prevention: Forcing a zig-zag layout inside highly restricted pathways violates the minimum bending radius of the 12F armoured sensing cable, inducing localized physical strain, micro-bending losses, and high attenuation that lead to premature Fiber fracture. 3. Signal Coupling & Localization Accuracy: A straight linear installation ensures highly uniform and consistent acoustic coupling between the Fiber and the ground. This provides stable wave propagation parameters, enabling the AI pattern classification and DSP engines to calculate pinpoint location coordinates with optimal 95% classification accuracy. 4. Cost and Safety Optimization: Excavating a continuous trench to a depth of 1.0 meter across active utility corridors, asphalt, and concrete surfaces significantly increases the risk of damaging existing underground municipal pipelines/high-voltage electrical cables, while exponentially raising civil excavation costs and execution timelines. 5. Alignment with Engineering Standards: A burial depth of 0.5 meter is the standard global engineering benchmark for Distributed Acoustic Sensing (DAS) perimeter security applications, providing the perfect balance of sensor sensitivity and environmental protection.	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 requirements. Suitable intrusion detection system for detection shall be deployed. Scope of work both the sides will be amended accordingly.

31/3/24

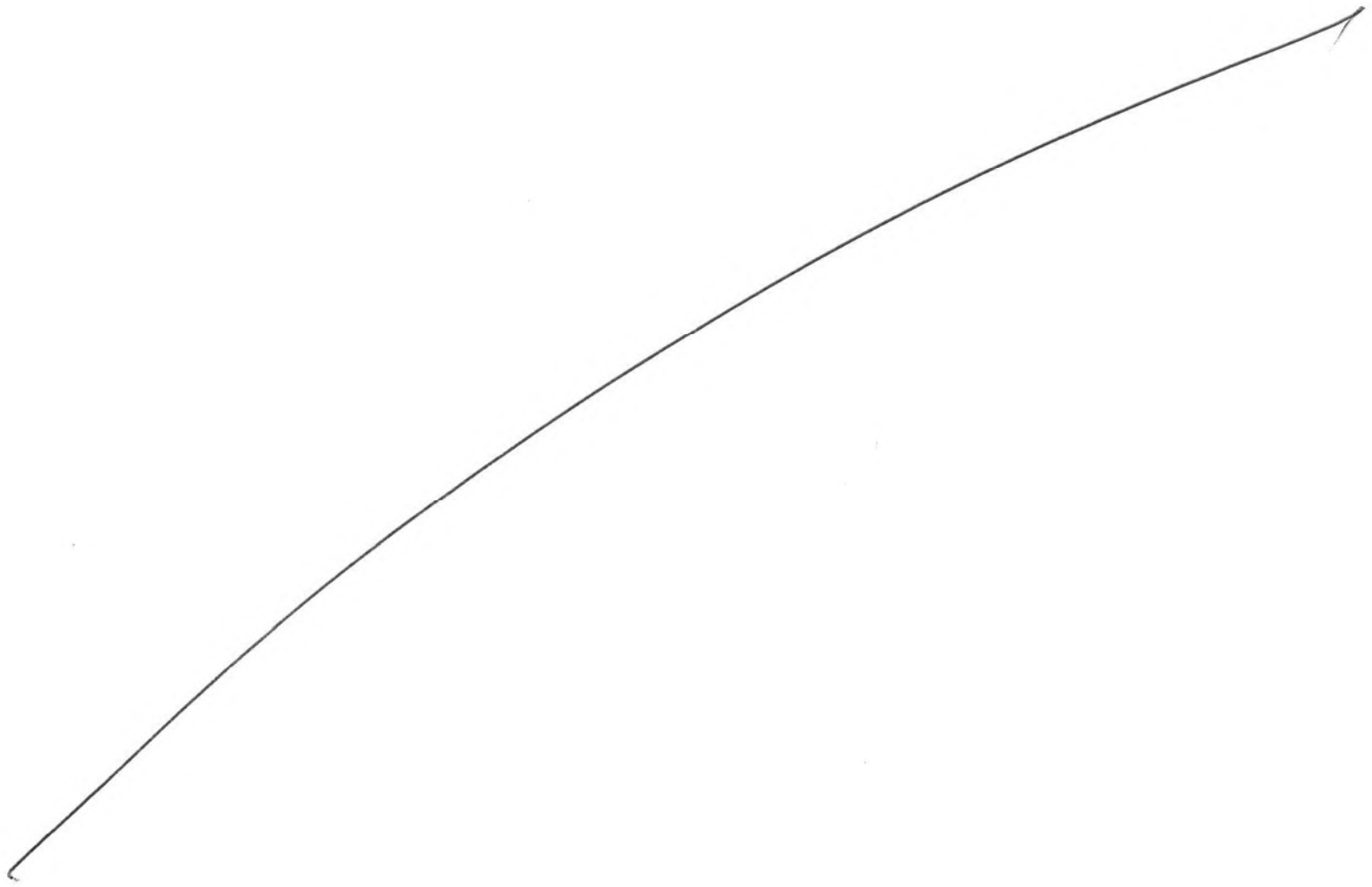
24/28

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
Raw Sensing Data Access vs. Processed Alarm Data					
69		Section VII: Technical Specification & Scope of Work, Clause 3.7 (Data Storage & Backup), Page 67 of 217 (and Clause 3.7(a), Page 123-124 of 217)	"Data Storage & Backup: 1- minute raw data (Storage Duration: 15 days, Storage Location: Local Storage, Backup Frequency: Hourly) ." Bidders request BRBNMPL to formally clarify the programmatic access and data delivery requirements from the DAS system. a. Raw Backscatter Data vs. Processed Events: Please clarify whether the system integration must provide open programmatic/API access to the raw, uncompressed optical backscatter sensing data (Phase-OTDR signals) generated directly by the DAS interrogator hardware, or if the requirement is strictly limited to accessing the processed alarm/event metadata (event classification type, timestamp, and pinpoint meter location). b. Definition of "1-minute raw data": Please clarify if the "1-minute raw data" in the storage table refers to raw signal waveforms for diagnostic troubleshooting or processed acoustic alarm signatures.	1. Extreme Storage and Network Overhead: A true phase-based Coherent Rayleigh OTDR DAS system samples optical backscatter at exceptionally high frequencies (up to 400 MHz as per Clause 3.3(j)). Storing and transmitting continuous raw physical sensing data along an ~8 km perimeter generates terabytes of data per hour, which would immediately overwhelm the specified 96TB RAID storage system and choke the local 1Gbps/10Gbps LAN network. 2. Proprietary Algorithm and IPR Protection: Raw optical phase demodulation, spatial filtering, and multivariable signal processing algorithms represent highly guarded, proprietary intellectual property (IPR) of the DAS manufacturer. Standard industry security protocols strictly limit third-party VMS integrations to standard, structured alarm packets (via open RESTful APIs or Modbus TCP/IP as per Clause 3.3(n)) rather than raw instrument telemetry. 3. Integration Scalability: Processed alarm/event data is lightweight, highly reliable, and natively supported by standard commercial Video Management Systems (VMS), ensuring seamless dynamic PTZ camera linkage without software lag. 4. Commercial Evaluation Parity: Clarifying this boundary ensures that all Class-I and Class-II local suppliers dimension their server CPU/GPU compute powers, storage arrays, and custom software licensing on an identical, realistic, and costeffective baseline.	Processed Alarm and Event logs shall be available for 90 days Clause no 3.7 of Technical Specification and BOQ will be amended
CCTV/VMS Integration Scope and Camera Coverage Sizing					
70		Section VII: Technical Specification & Scope of Work, Clause 3.4 (Software, Server & Storage), Sub-clause 7 (Back-up Storage Specification), Page 64 of 217 (and Section VII: Compliance Table C, Sl. No. 5, Page 104 of 217)	"Total Raw Capacity: 96TB (6x 16TB 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]" Bidders request BRBNMPL to formally clarify the engineering scope, camera quantities, and coverage requirements for the CCTV/VMS integration: a. Clarification of Camera Coverage: Kindly clarify the exact expected number of cameras required for effective visual verification of the PIDS alarms. Please clarify if the integration is strictly limited to exactly ten (10) cameras, or if the entire perimeter camera network is to be integrated. b. Separate/Optional Scope of Work: Bidders propose that the CCTV/VMS integration be considered as a separate, optional, or well-demarcated scope of work. This will allow bidders to provide a tailored, highly accurate system design and software integration estimate without being penalized by undefined field camera variables.	1. Mismatch of Perimeter Scale: For high-security sovereign banknoteprinting perimeters of ~8 km (Salboni) and ~7.5 km (Mysuru), a minimum of 80 to 100 cameras are typically required to ensure complete, gap free visual coverage. Integrating only 10 cameras leaves massive blind spots where PIDS alarms cannot be visually verified automatically. 2. Storage and Bandwidth Realities: High performance storage pools and core switches cannot be accurately engineered without knowing the total video stream load (resolution, frame rates, and codecs). Treating this integration as a separate or clearly defined scope ensures that system performance (frame drops, network latency) remains within safe operational bounds. 3. Eliminating Integration Risks: Existing camera makes, VMS platforms, and active software licenses vary heavily across sites. Separating this scope prevents technical mismatches and ensures that all bidders quote on an identical, transparent, and fair baseline. 4. Project Success Security: Establishing a clear demarcation for the CCTV/VMS integration ensures that BRBNMPL's core Fiber-optic sensor network remains highly responsive, secure, and fully aligned with the client's long-term security expansion plans.	VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NDA/LOI. Technical specifications will be amended.

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Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
CCTV/VMS Integration Storage Boundaries and Functional Scope					
71		Section VII: Technical Specification & Scope of Work, Clause 1(a), Page 57 of 217 (and Section VII: Compliance Table C, Sl No. 5, Page 104 of 217, and SLA Part-A, Clause 1(b), Page 81 of 217)	"a) The scope of this tender includes the Design, Engineering, Supply, Installation, Testing, Commissioning and Training of an AI-enabled 'Distributed Fibre Optic Perimeter Intrusion Detection System (DFOPIDS)' for the BRBNMPL Township perimeter, with integration to the existing CCTV network system and 90 days data backup of any intrusion occurrence." Bidders request: BRBNMPL to formally clarify the infrastructure boundaries and functional scope for the CCTV/VMS video storage and alarm integration: a. Video Storage Boundaries (Dedicated vs. Existing): Please clarify whether the contractor must supply a dedicated storage/backup system (such as the 96TB server storage) solely for the event-triggered video clips of the 10 integrated cameras, or if the recorded video streams are expected to be recorded and backed up on BRBNMPL's existing CCTV/VMS storage infrastructure. b. Clarification of "90 days backup of intrusion occurrence": Please clarify if the 90-day retention mandate applies strictly to the PIDS alarm logs, event metadata, and short event-triggered video clips (e.g., 1 minute preevent and 1-minute postevent as per Page 68 Clause 3.7(b)(viii)), rather than continuous 24x7 raw video recording of all integrated cameras for 90 days. c. Integration SOW & Visual Verification Functional Rules: Bidders request the exact functional SOW for VMS/CCTV integration to be defined. Specifically: o Is the PIDS software only required to send a trigger command (via API/SDK) to the existing VMS to pop up the corresponding live camera feed in a window? o Or must the camera video stream be rendered directly within the PIDS Command & Control GUI interface as an embedded video container? Should the popped-up event view display the pre-buffered recording (pre-alarm stream) and post-alarm stream, and what is the exact required pre-buffer duration?	1. Avoiding Infrastructure Redundancy: True enterprise VMS storage systems are highly complex and expensive. If video recordings are already being handled by BRBNMPL's existing CCTV storage network, requiring a separate duplicate continuous recording pool for the same cameras will lead to redundant hardware provisioning and unnecessary commercial inflation of bid prices 2. Engineering Storage Calculations Accurately: 90 days of continuous 24x7 raw HD video recording for multiple cameras consumes enormous storage space, far exceeding the baseline 96TB raw storage capacity. Clarifying that storage is strictly for lightweight event-triggered clips (pre/post-event) ensures technically compliant sizing of active servers and arrays. 3. Defining Integration Protocol Parity: Different levels of software integration (Simple VMS Event Trigger vs. Deep SDK-level Video Embedding vs. Pre-Buffer retrieval) have highly varied licensing, SDK development, and testing overheads. Defining this precise functional scope ensures that all Class-I and Class-II local suppliers' price their software integration bids on an identical, transparent, and fair baseline. 4. Ensuring Flawless Final Acceptance Test (FAT): Specifying the exact behaviour of video popups, pre-alarm buffer streams, and layout rendering ensures that the technical evaluation and subsequent 21-day continuous FAT (as per SBD Page 72) can be executed without administrative ambiguities or integration bottlenecks.	Only for Schedule-I: Only event/alarm occurs, it will be stored. Technical specifications will be amended
Dual DAS Controller Loop Connection and Cut Redundancy Limits					
72	Page 58-59	Section VII: Technical Specification, Clause 3(g) (Cut Immunity / Resilience, Pages 58-59 of 217), Clause 3(i) (Redundancy and Security Architecture, Pages 58-59 of 217), and Section VII: Compliance Table A, Sl. No. 12 (Cut Immunity, Page 101 of 217)	1. Clause 3(i)(ii) (Page 59): "Each perimeter segment of approximately 8km shall be connected to the DAS Controller from both ends of the same sensing cable using independent cores creating a fully redundant sensing path." 2. Table A Sl. No. 12 (Page 101): "In a cut-immune installation, the system shall protect the entire perimeter even when the cable is cut at one location. If the cable is cut at two locations, then only the cable in between the cuts shall lose protection." Bidders request: BRBNMPL to formally review and confirm the approved physical connection, core-routing, and termination methodology for the proposed dual-controller setup: a. Dual Controller Architecture: Bidders propose deploying two (2) separate 2-channel DAS controllers, providing a total of four (4) independent, nonmultiplexed laser sources. b. Loop Routing Design: From Controller A, Channel 1, one core of the Fiber sensor cable loops through the entire perimeter (covering concertina coil, perimeter wall, and buried area) and returns to the control room for termination. Simultaneously, from	1. Eliminating Optical Multiplexing Loss: Utilizing independent, non-multiplexed laser sources across four channels ensures high optical power budget margins, eliminating the insertion loss, signal fading, and crosstalk associated with optical multiplexers. 2. Establishment of Fail- Safe Loops: The proposed dual-loop, reverse-directional routing establishes a robust fail-safe mechanism, ensuring that single or double cable cuts do not cause complete perimeter blindness. 3. Clear Emergency Boundaries: In high-security sovereign banknote-printing installations ("Prohibited Areas"), defining the precise mathematical boundary of detection loss (e.g., the isolated zone between multiple cuts) is crucial for emergency response planning and guard dispatch. 4. Hardware Fault Isolation: Dual-controller physical separation provides complete physical and logical cutimmunity, allowing the secondary standby interrogator to maintain complete vigilance even if the primary server rack experiences localized power or hardware failure. 5. Bidding Baseline Standardization: Formally clarifying this connection and patching methodology ensures that all Class-I and Class- II local suppliers dimension their active laser hardware, optical budget calculations, and Fiber patch panels on an identical, high-reliability baseline.	Tender condition prevails.

Sl. No.	Page number	Tender terms	Details	Query	Final Comments of Mysuru & Salboni office
			Controller A, Channel 2, another core is routed in the opposite/reverse direction and returns back to the control room e. Multi-Cut Redundancy Limits: In the event of two (2) simultaneous physical cuts on extreme ends of a single cable run, the controller continues to detect intrusions up to the cuts from both active channels (providing 2-cut redundancy), while the segment between the two cuts is isolated. Configuring the second 2- channel controller in an identical loop-back manner using a separate set of Fiber cores/cables provides a total of 4-cut redundancy across the dual parallel system. d. Methodology Confirmation: Kindly clarify if this specific dualloop termination design is approved or suggest if any alternative optical core patching or daisychaining connection methodology is preferred by BRBNMPL e. Using 2 Separate Fiber optic cables can help to attain cable based redundancy.		



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Sl. No.	Page No	As per Tender Document	Queries	Final Comments of Salboni and Mysuru
1	110	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.	Needs further Clarification pertaining to the connectivity of Relay Module with main control room to transfer the contact state change to the field relay modules.	Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical specification and BOQ will be amended for both the schedules accordingly.
2	113	Vehicle Detection and Optional Rejection: The system shall be capable of detecting vehicles in the vicinity of the sensor cable due to the vibrations created by their motion or by the engine. In the case of a road parallel to the protected area, the system shall be configured to reject normal vehicle traffic and only raise an alarm if a vehicle drops below a configurable speed/vibration setting or stops altogether.	The requirement specifies that the system shall detect vehicles based on vibrations generated by their movement or engine operation and, for roads running parallel to the protected area, reject normal vehicular traffic while generating an alarm only when a vehicle slows below a configurable speed/vibration threshold or comes to a stop. We request clarification on this requirement, as it appears to prescribe a very specific operational behavior rather than a general performance requirement.In practical deployment scenarios, vehicles slowing down or stopping adjacent to the protected perimeter is a common occurrence due to traffic congestion, traffic signals, security checkpoints, toll plazas, parking activities, road maintenance, or other routine traffic conditions. Generating alarms based solely on a reduction in vehicle speed or a stationary vehicle is likely to result in a significant number of nuisance alarms, thereby reducing the operational effectiveness and reliability of the intrusion detection system. We therefore request the Purchaser to clarify: 1. The operational objective and intended use case of thisrequirement. 2. Whether the alarm is expected to be generated solely based on avehicle slowing down or stopping, or only when such an event is correlated with other intrusion indicators. 3. The requirement looks proprietary, as such requirement have notbeen mentioned in any other PIDS tenders	Tender conditions prevail.

23/9/26
Manager (Utility)
Mysuru

DGM (F&B)

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GM (Proj)

Sl. No.	Page No	As per Tender Document	Queries	Final Comments of Salboni and Mysuru
3	117	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	Every DAS system shall have its Stability Figures and Acquisition parameters. Would help if the Client Signifies this ask.	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 Technical specification will be amended
4	128	Compliance and Standards a) CE safety standards for all electronics. b) IEC 60794 standard for fibre optic cables. c) ISO 27001 compliance for system security. d) IEC 60825-1 (Laser Safety) e) IEC 61000 Series (EMC) f) ITU-T G.652D (Optical Fibre) g) CE / UL/BIS or equivalent Certified Interrogator h) IS 3043:2018 for Earth pits	Prominient Certificates like CE/Laser safety could be provided. Most of the Indian Make may or may not have all IEC Compliances. Is it necessary to have international certifications necessary.	Tender Conditions will prevails. However, the bidder should mention equivalent Indian standard for the IEC standards.
5	109	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 tender specifies two controllers. However, the required solution consists of three sensing layers: 1. Straight-line deployment on the Concertina Coil 2. Zig-zag deployment on the Perimeter Wall 3. Loop deployment for the Buried Fiber Kindly clarify whether: 1. An additional controller should be considered to provideindependent coverage for all three sensing layers 2. Whether Concertina Coil and Perimeter Wall are expected to becovered using the same controller. This clarification is required to ensure compliance with the tender requirements and the proposed system architecture.	Tender condition prevails. Specific architecure will be discussed with the successful bidder.
6	115	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.	Need further clarification with respect to drainage systems with maximum distance being 5 meters.	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. Suitable intrusion detection system for drainage shall be deployed. Scope of work both the sites will be amended accordinlgy.

Sl. No.	Page No	As per Tender Document	Queries	Final Comments of Salboni and Mysuru
7	123	Data Storage & Backup	Raw data of DAS Controller and alarm and event logs	Tender Condition prevails. Processed Alarm and Event logs shall be available for 90 days. Clause 3.7 of Technical Specification will be amended.
8	157	Qualifying Criteria	The qualifying work values (40%, 50% and 80% of the estimated cost) appear relatively high considering the specialized nature of AI-enabled Fibre Optic PIDS. We request the purchaser to consider reducing the qualifying thresholds to 30%, 40% and 60% of the estimated cost respectively, while retaining the same number of completed works.	Tender Condition prevails.
9	157	Qualifying Criteria - Similar Work means	Considering that Fibre Optic Perimeter Intrusion Detection System (PIDS) is typically deployed as an integral part of a comprehensive perimeter security solution, kindly clarify whether completed projects comprising integrated perimeter security systems with PIDS shall also be considered as similar work under the eligibility criteria	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". Qualifying criteria will be amended.
10	157	Qualifying Criteria - Similar Work means	Kindly clarify whether projects executed directly by OEM and through authorized system integrators shall both be accepted.	As per Section 9, Clause no.5 (B) of the tender document may be referred.
11		As per Site Conditions	Which is the existing VMS at both sites,will need support with VMS OEMs during VMS integration?	VMS OEM : Videonetics (Mysuru)/Genetac (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI
12		As per Site Conditions	Site information on existing cable laying for power & networking during installation to be provided to avoid damage.	Information will be provided to successful bidder.
13			Kindly clarify on mandatory spares list expected during warranty.	OEM recommended spares to be kept at site to ensure un-interrupted operations.

Bright Technologies, New Delhi.

Sl. No.	Tender Requirements	Changes proposed by bidder	Final Comments of Mysuru & Salboni
1	Acceptable 1 way loss budget over which system should perform satisfactory performance should not be less than 13dB per fiber.	Its the most important feature stating capability of DAS system to perform at high level of losses. Because the long fibers have Fiber attenuation, fusion splices losses Connectors losses, ODF losses, Repair joints losses and so on causes DAS to perform less effectively on longer ranges, they perform well at the start of fiber but not better till the end. Further it affects Signal to Noise Ratios, back scattering is poor causing system to perform inefficiently. Therefore, a good fiber loss budget fiber should be explicitly mentioned.	The functional requirements mentioned in the tender document prevails.
2	The Controller should be all in one, having the capability to generate the Laser as well as perform all the processing including AI and Machine learning and should not require a separate processor /server to perform the same and create an additional failure point in operation. Also the DAS system should have passed some International compliant Cyber threat Standards like CIS, or equivalent.	This is another important point considering cyber threats, spoofing vulnerability. If AI processing is hosted on an external server, the overall system depends on, DAS Interrogator & External server with dependency on OS and External AI software, we are increasing the failure points also vulnerability points. Failure of **any one** of these components can affect detection or classification. An integrated controller eliminates these dependencies as being compliant to international standards If a DAS controller is configured according to CIS Benchmarks or such International standards, many common vulnerabilities that would otherwise be found during test like VAPT can be prevented	Server is required as per the amended specifications.
3	Noise Floor [NF] Measured at front end of fiber should be -81dB, Rad Hz at stretch of 5km @20Hz measurements.	This is actually one of the most technically significant performance specifications in a DAS system because noise floor is directly related to detection sensitivity. Low noise floor = better ability to detect weak vibrations. Means as there will be lot of noise on the installed fiber plus system noise, at times the real events may get camouflaged due to this noise, so it will either create more false alarms if we blindly increase the levels for detections or it will miss the real events if we decrease the levels fearing the higher FAR. So the tradeoff won't work well. But a system with a good Noise floor number will perform better even in noisy conditions so may it be system noise or environment noise or climate noise.	The functional requirements mentioned in the tender document prevails.

23/9/26
Manager (Utility)
Mysuru

4	Each OSU must be able to monitor a minimum of 6,770 Channels per sensing fiber. 2.8. Each OSU must have integral processing with a minimum capability of 5.7 Tera floating point operations per second	The system should be capable enough to handle large data. If we are talking about the system to cater to 50km, based on processing speed, the number of channels should be higher with good spatial resolution like 3-5mtrs. Because a greater number of channels means the user gets more sensing points on the field. This will help him reduce the zone length even less than 50 mtrs asked in tender. Also 5.7 or Higher TFLOPS ensures that the system is robust enough to handle higher data and does not crumble in case of challenging processing capability.	The functional requirements mentioned in the tender document prevails.

Crown Solar Power Fencing System

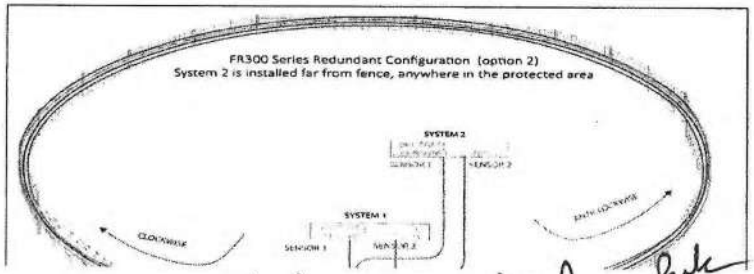
Sl. No.	Page No	Bidder Queries	Final comments of Salboni & Mysuru
1	117	Page no. 117, point no. l): It was proposed to install 3 runs of Fiber i.e. linear pattern on Concertina coil, Zig zag pattern on the Wall and buried lop pattern along the proposed Perimeter of about 8 Km each site. Thus, total length of the cable will be: 1. On existing concertina coil - 8 Km 2. Zig zag pattern on Wall considering 60% increase in length - ~13 Km 3. Underground - 8 Km 4. From Control room to boundary wall - 3 Km 5. Total length required shall be about 32Km 6. Total length required considering parallel cable recommended for redundancy will be - 62Km per site. 7. Controller capacity shall be > 62 Km in place of 50Km. Please confirm.	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. Scope of work for both the sites will be amended accordinlgy.

28/3/26
Manager (Utility)
Mysuru

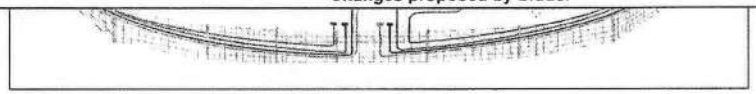
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2	110	Page no. 110, point no. k): It was proposed to provide Relay output panel with dry contacts for triggering alarms. We were informed that the relay contact is to be provided at every 200 meters i.e. there will be a minimum of 40 nos. per site. We need to plan for additional OFC backbone with network accessories like Racks, Switches, LIUs, I/o modules etc. as copper cable connectivity may not be meet functional requirements. Additional OFC of about 8 Km will be required and to be laid all along the boundary. Please confirm the availability of OFC network or we need to include the same in our scope. Also, please include the setup required for triggering alarm in the field in the Financial bid.	Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical Specifications and BOQ will be amended for both the schedules accordingly.
3		We wish to inform you that the prices of all Electronic devices & Cables have increased abnormally and hence the proposed budget may not be sufficient. Kindly look into it.	Tender condition prevails.
4		We hereby request you to consider above queries and amend the RFP accordingly.	Tender condition prevails.

Fiber Optics

Sl. No.	Tender Requirements	Changes proposed by bidder	Final Comments of Mysuru & Salboni
1	What type of redundancy you require for the hardware system (Interrogator + Server) ? If you just combine two systems without any intelligence and communication between them then it does not work, based on our experience. This is because they both will have separate tuning parameters and need to be constantly tuned, which is almost an impossible task. This will soon result in too many nuisance alarms from the neglected system.	To remedy this, we offer a 100% Intelligent Redundant Architecture, where the secondary controller remains in standby mode and can activate upon failure of the primary controller. This is explained at the end of this document. Kindly confirm whether our 100% Intelligent Redundant Architecture is acceptable and compliant with the tender requirement for redundant controller configuration. This is the latest technology and won an award at the ISC west 2026 conference in Las Vegas, USA, which is the largest security conference in the world. See Appendix1 and 2 **Appendix 1** FiberRanger 100% intelligent redundant System (Model FR301) Any critical infrastructure needs 100% intelligent hardware redundancy for protection where a failure of the hardware can be catastrophic. Key features of FR301 redundant system are: 1. 100% REDUNDANCY: 100% redundant system where the secondary controller is OFF and only turns ON when the primary fails. There is no single point of failure for the hardware and this DOUBLES the life of the system as the secondary is OFF. 2. IDENTICAL TUNING PARAMETERS: Both the primary and secondary controllers have identical tuning parameters for the ease of tuning. Any changes in the tuning parameters on the primary are automatically transferred to the secondary controller. This is made possible due to a very high stability of our hardware and software. 3. HOT SWAPPABLE: A failed controller can be swapped with a new controller during operation and without needing to reconfigure. If primary fails and is replaced by a repaired unit then the configuration from the secondary is automatically transferred to the primary without any human intervention. 4. AUTO DATA SYNCHRONIZATION: Configuration data are always synchronized between both primary and secondary controllers, thus no need to change these on the secondary. This greatly simplifies the tuning and maintenance, without which both systems cannot be managed. Primary automatically turns on the secondary, updates the new configuration, and then turns it off. 5. AUTO HEALTH CHECK: Periodically checks if the secondary system is fully functional. The secondary system is turned on periodically as set by the user. 6.AUTO TURN ON and OFF: Secondary system automatically starts if the primary fails or the cable between them is severed. 7. EASY CONFIGURATION AND OPERATION: This is because both primary and secondary communicate to each other and data between them are synchronized. If any configuration parameter on primary is changed then it automatically and intelligently transferred and updates the secondary. The system is designed for easy operation, maintenance, and repair. 8. SMALL FORM FACTOR: Small form factor (4U total rack space for redundant system with two controllers) for both primary and secondary controllers for easy installation and management. 9. HIGH RELIABILITY: High reliability by design and the secondary system is off (not eating through MTBF) unless primary system fails. 10.DOUBLE LIFE: Since the Secondary system is OFF the life of the redundant system is doubled. NOTE: Any non-intelligent combination of two separate systems does not work as it is "impossible" to constantly tune and maintain both systems. Very soon, any change on the Primary will not be properly maintained on the secondary and the two systems will become unmanageable and performance significantly affected to a point of not working. This is in addition to half life as both systems will be always ON.  	Details of redundancy for controller and server will be shared to successful bidder. Redundancy for both controller and server is required and accordingly controller and server quantities in BOQ are mentioned as 02 nos for Schedule 2. Two controllers willl be independently operated and no communication is required between controllers for Schedule 1.

23/9/26
Manager (Utility)
Mysuru

Sl. No.	Tender Requirements	Changes proposed by bidder	Final Comments of Mysuru & Salboni
			
		Appendix 2 **FiberRanger Awards** We are proud to announce that FiberRanger has won the world's most prestigious award in the "Intrusion Detection and Prevention Solutions (Physical) — Wired or Wireless" category for their FR300 System, at the 2026 ISC West Security conference at Las Vegas, USA, for New Products and Solutions (NPS). This further adds to INTERSEC Dubai 2025 Award for Exemplary Perimeter Security Solutions. See the links below: https://www.securityindustry.org/2026/03/25/security-industry-association-announces-winners-of-the2026-sia-new-products-and-solutions-awards/ The FR300 System has been recognized for its next-generation advanced technology, highest performance, and revolutionary innovative approach in delivering high-security and reliable perimeter intrusion detection solutions. Designed to meet the evolving security needs of critical infrastructure, the FR300 Series offers high sensitivity with lowest nuisance alarms, precise location accuracy, 100% intelligent redundant controller, and seamless integration with existing security ecosystems.    	
2	Our Integrator and Server are designed within the same enclosure to improve overall system reliability and support 100% redundancy.	In the tender, the requirements is for a separate interrogator and server architecture. Please confirm if this architecture is compliant with the tender.	Server is required as per the revised amended specifications.
3	The pricing structure for 4 controllers with ~25 km license for each channel is not clear in the tender. Based on a reliable redundant architecture and considering only the system scope (excluding cable, civil work, and installation), the expected project value should be greater than INR 10 Crore alone. Further, the EMD mentioned is INR 5 Lakh for each tender. Normally, EMD value should not be considered as an indication of the complete tender budget or project value.	Therefore, we request clarification on the estimated project value / budget and commercial evaluation methodology for proper bid preparation.	1) Only two controllers are required for Salboni press and two controllers are required for Mysuru press. 2) For EMD, tender condition prevails.

Sl. No.	Tender Requirements	Changes proposed by bidder	Final Comments of Mysuru & Salboni
4		Kindly clarify whether both project locations (Salboni and Mysuru) are planned to be installed in three deployment configurations (runs): •Concertina fencing section •Wall-mounted zig-zag section •Buried installation section Please confirm whether all three installation methods are included in the tender scope for both sites.	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 Suitable intrusion detection system for drainage shall be deployed. Scope of work both the sites will be amended accordinlgy.
5		In the Tender technical specifications, you seem to mention a specific form of DAS technology, True phase, which does not have anything to do with performance, detection, nuisance alarms, etc. Every company will have there own proprietary DAS technology, including specific designed hardware, which makes a big difference in the system overall performance, algorithms, classifications, and other key features. We have a pattern based DAS technology that was tested by an USA 3rd party government agency (safeskies.org) for over a year and was recognized as the highest performing DAS product. See details in See Appendix 3 at the end of the document. **Appendix 3** **3rd party testing** FiberRanger was Recognized by Safe Skies (https://www.sskies.org/), Figure 3, a US based testing agency for airports, as the top performer in the PIDS product that they ever tested. Their testing involves a full year blind testing in full weather conditions, such as heavy rain, wind, snow, and both low and high temperatures. They test for both intrusions and nuisance alarms on a daily basis. 	The controller shall be True phase/ phase based Coherent Rayleigh OTDR for Distributed Acoustic Sensing (DAS). Amendment will be carried out in the specification for both the schedules.

ANNEXURE-6

Genetec Bengaluru

<table>
<tr><th>Sl. No.</th><th>Page No</th><th>Section</th><th>Clause</th><th>Genetec Query</th><th>Final comments of Mysuru & Salboni</th></tr>
<tr><td>1</td><td>Page 65 of 217</td><td>3.4 Software, Server & Storage:
Schedule 1 Server specifications: For Salboni Press
7. Back-up Storage Specification:</td><td>➢ 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]</td><td>Each camera OEM can have different bandwidth for same recording parameters. Also, as per the standard bandwidht calculation, the requirement for 10 x8 = 80 cameras recording for 90 days would be higher than what is asked in the tender.
We request you kindly make the storage requirement as per the tender requirement without mentionint the max storage limit for the server.</td><td rowspan="10">M/s Genetec has not carried out the mandatory site visit and also OEM representing other bidder. Hence, M/s Genetec was advised that their queries cannot be discussed.</td></tr>
<tr><td>2</td><td>Page 66 of 217</td><td>9. GUI Specification:</td><td>iv) Data management software/application and licensing:
a) Firmware Support: PIDS system shall have independent Software interfaces for controlling as well as Hardware/Firmware.</td><td>As per our understanding whether a single, unified software platform capable of monitoring and controlling both the PIDS and VMS functions will be considered compliant. Many globally accepted OEM solutions provide integrated monitoring and control through a common software platform, eliminating the need for separate software interfaces. Please confirm if our understanding is correct.</td></tr>
<tr><td>3</td><td>Page 67 of 217</td><td>3.6 Alarm Management</td><td><table><tr><th>Priority</th><th>Type</th><th>Notification Method</th></tr><tr><td>P1</td><td>Critical (Safety)</td><td>Popup</td></tr><tr><td>P2</td><td>High (Equipment Fault)</td><td>Popup</td></tr><tr><td>P3</td><td>Medium (Performance)</td><td>Display</td></tr><tr><td>P4</td><td>Low (Informational)</td><td>Display only</td></tr></table></td><td>As per our understanding the in the Alarm Management the option is to be provided for Pop up of the alarm on specific workstation which might be monitoring the Critical alarms. Please confirm if our understanding is correct.</td></tr>
<tr><td>4</td><td>Page 68 of 217</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>The Backup system shall comprise 16TB or better Storage system with RAID 5/10 configuration for redundancy. Automated daily full backup procedures shall be implemented.</td><td>Please share the clarity on the use case on the backup of the data type mentioned in the above table. As per our understaning the metada will be saved in the database and the redundancy of the database has to be mainted by the SI. CCTV data will be saved in the hard drives with redundant recording. Please confirm if our understanding is correct.</td></tr>
<tr><td>5</td><td>Page 68 of 217</td><td>3.7 Data Storage & Backup
a) Data Storage for Perimeter Intrusion Detection Systems</td><td>Types of Data to Store
xi) Sensor health metrics (signal strength, battery level)
xii) Device configuration changes
xiv) Device diagnostic logs
xx) Access denied attempts</td><td>Please provide clartity on the detailed use case for the sections mentioned. As these details will be monitored on the physical devices directly by opening the device on web page. Please confirm if our understanding is correct.</td></tr>
<tr><td>6</td><td>Page 68 of 217</td><td>3.7 Data Storage & Backup
b) Reporting & Analytics</td><td>vi) Performance metrics and KPI (Key Performance Indicator)
ix) Reduced false alarm rates through Artificial Intelligence filtering
xx) Software Requirements
b) AI adaptive learning and model tuning.
c) On-premise AI updates.</td><td>Please provide clartity on the detailed use case for the sections mentioned.</td></tr>
<tr><td>7</td><td>Page 103 of 217</td><td>Technical Specifications & Scope of Work – Compliance
B. Application Software</td><td>9. Isolation or disabling of individual sections of the sensor cable</td><td>As per our understanding this functionality is to be done manually on the physical hardware and only monitored the online/ offline status in the software. Please confirm if our understanding is correct</td></tr>
<tr><td>8</td><td>Page 104 of 217</td><td>C. Back-up Storage</td><td>5. 96TB (6x16TB RAID 5/10 configuration and redundancy) or better Calculation data sheet to be provided (Event and Alarm) for Total Raw Capacity integration of the minimum 10HD cameras x 8 Zones (tentative) up to with RAID Configuration details</td><td>Each camera OEM can have different bandwidth for same recording parameters. Also, as per the standard bandwidht calculation, the requirement for 10 x8 = 80 cameras recording for 90 days would be higher than what is asked in the tender.
We request you kindly make the storage requirement as per the tender requirement without mentionint the max storage limit for the server.</td></tr>
<tr><td>9</td><td>Page 119 of 217 to Page 125 of 217</td><td></td><td></td><td>All queries same as mentioned above (repeate points)</td></tr>
</table>

31/7/24 23/7/24
Manager (Utl.), Mysuru

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ANNEXURE-7

RAMAN IT

Sl. No.	Page No.	Clause / Section	Existing Tender Requirement	Bidder's Pre-Bid Query / Request	Final Comments of Mysuru & Salboni
1	63	k)	Controller specified with sensing range of 50 km per channel.	The maximum perimeter length, including contingency and installation margin, is approximately 34 km. Therefore, a 40 km sensing range per channel is technically sufficient. We request that the controller specification be revised from 50 km/channel to 40 km/channel to optimize system cost while fully meeting the project requirement.	Tender conditions prevail.
2	63	j(iv)	Acquisition Rate: 400 MHz specified for the controller.	Acquisition Rate is a parameter of the ADC chipset and not of the controller itself. This requirement appears OEM-specific and does not directly affect system performance. We request deletion of the 400 MHz Acquisition Rate requirement.	Acquisition Rate: ~~400 MHz~~ "Acquisition rate shall be as per OEM design without degrading the detection capability, intrusion location accuracy as per tender requirement. Two independedint lasers required two independent channels"' Technical Specification will be amended as above.
3	61	e)	10 km sensing fiber cable drum length specified.	Standard sensing fiber is generally supplied in 2 km or 4 km drums, which are easier to transport, install and maintain. We request that acceptable drum lengths be revised accordingly instead of mandating 10 km drums.	Will be amended to 4 Kms±5%
4	59	3.1(i) (a) & (b)	Performance requirement.	The specified performance requirement appears to be vendor/OEM specific. We request that this clause be reviewed and suitably modified or removed to encourage wider competition.	Tender conditions prevail.
5	59	3.1(a)	System shall detect and classify intrusion.	Intrusion classification accuracy depends on soil conditions, terrain, moisture content and seasonal variations. We request changing the requirement to "System shall detect intrusion." Alternatively, classification accuracy may be specified under defined environmental conditions.	Tender conditions prevail.
6	65	3.4 Software, Server & Storage - Backup Storage	96 TB (6 × 16 TB RAID 5/10) with calculation for 80 HD cameras for 90 days.	Storage requirements depend on the camera OEM, codec, frame rate, bitrate and recording profile. The specified 96 TB capacity may not be sufficient for all compliant solutions. We request that the storage requirement be based on the actual tender recording requirement and OEM calculation rather than prescribing a fixed storage capacity.	Clause no. 3.4 of Technical Specification will be amended.
7	66	9(iv)(a) GUI Specification	Independent software interfaces for controlling hardware and firmware.	Please confirm whether a single integrated software platform capable of monitoring and controlling both the DFOPIDS and VMS functions shall also be considered compliant, as adopted by globally accepted OEM solutions.	Unified software platform is also acceptable.
8	67	3.6 Alarm Management	Alarm Management	Kindly confirm that the requirement is to provide configurable alarm pop-up notifications on designated operator workstations for critical events.	Yes
9	68	3.7 Data Storage & Backup	Data backup requirements	Kindly clarify the intended use case for the various backup data categories. As per our understanding, metadata is stored in the database while CCTV recordings are stored on redundant storage. Database redundancy and backup shall be maintained by the System Integrator. Please confirm.	Tender Condition will prevail. Processed Alarm and Event logs shall be available for 90 days. Clause 3.7 of Technical Specification will be amended. Schedule 1: It is clarified that PIDS data base including CCTV capture for intrusion events will have to be saved in the server dedicated for PIDS. Schedule 2: Requirement is to have processed alarm/event metadata (event classification type, timestamp, and pinpoint meter location).

23/5/26
Manager (Utl), Mysuru

1/3

Sl. No.	Page No.	Clause / Section	Existing Tender Requirement	Bidder's Pre-Bid Query / Request	Final Comments of Mysuru & Salboni
10	68	3.7(a) Data Storage	Sensor health metrics, configuration changes, diagnostic logs, access denied attempts.	Kindly provide the operational use case for these parameters. As per our understanding, these details are normally monitored directly from the respective hardware/web interface rather than archived in the central application database. Please confirm.	Tender Condition will prevail. Processed Alarm and Event logs shall be available for 90 days. Clause 3.7 of Technical Specification will be amended.
11	68	3.7(b) Reporting & Analytics	KPI reports, AI adaptive learning, AI model tuning, On-premise AI updates.	Kindly clarify the expected functionality and operational use case for these AI related requirements so that all bidders may offer technically equivalent solutions.	Tender conditions prevail.
12	103	B. Application Software	Isolation or disabling of individual sections of sensing cable.	As per our understanding, isolation of sensing cable sections is performed through the controller hardware, while the software only monitors the online/offline status. Kindly confirm.	This specification is under Application software that means Isolation or disabling of individual sections of the sensor cable can be done through application software itself.
13	104	C. Backup Storage	96 TB RAID storage requirement.	Same as Query No. 6. Kindly consider storage sizing based on actual recording calculations instead of specifying a fixed storage capacity.	Clause no. 3.4 of Technical Specification will be amended.
14	119-125	Technical Specifications	Repeated requirements.	The queries raised under Sl. No. 6 to 13 are repeated in these pages. We request that the clarification provided for the above queries shall be considered applicable to the corresponding repeated clauses.	Compliance statement will be amended
15	57	Relay Output Panel	Relay output panel shall be supplied and configured with dry contact alarm outputs (NO/NC – minimum 24 contacts or as required) for triggering alarms, lights and other security responses specified by BRBNMPL.	Kindly provide the detailed scope of integration with external systems. Please specify the quantity, type and installation locations of the devices (such as hooters, sirens, beacon lights, flood lights or any other equipment) that are required to be triggered upon an intrusion event.	Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical specifications and BOQ will be amended for both the schedules accordingly.
16	60	Detection & Classification	Performance requirements relating to pedestrian activity adjacent to the perimeter and false alarm prevention.	On Page 59, the system is required to detect human walking, whereas this clause indicates that pedestrian movement outside the protected perimeter should not generate alarms. Kindly clarify the exact detection philosophy and operational requirement for pedestrian movement outside the perimeter fence.	Tender Conditions will prevails.
17	61	Underground OFC Laying	The sensing cable shall be laid underground with a maximum distance of 5 m from the perimeter and at a depth of 1 m or as per BRBNMPL requirement.	Kindly confirm that the cable laying depth shall be 1 metre. The wording presently creates ambiguity between the horizontal distance (5 m) and burial depth, which significantly affects excavation methodology and project costing.	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. Suitable intrusion detection system for drainage shall be deployed. Scope of work both the sites will be amended accordinlgy.
18	30	Tender Validity	Tender Validity – 120 Days.	Considering the volatility in OEM pricing and procurement costs, we request that the bid validity be reduced from 120 days to 90 days.	Tender Conditions will prevail.
19	32	Clause 42 – Variation of Quantities	BRBNMPL reserves the right to increase or decrease the tendered quantity by ±25%.	Since this is a turnkey project with significant engineering, mobilization and fixed costs, we request that the permissible reduction in quantity be limited to 10%, while retaining the provision for increase, if required.	Tender Conditions will prevail.

Sl. No.	Page No.	Clause / Section	Existing Tender Requirement	Bidder's Pre-Bid Query / Request	Final Comments of Mysuru & Salboni
20	53	Required Time Schedule	Entire project to be completed within 180 days, with material supply within 90 days from LOI/NoA.	Considering the extensive civil works, labour deployment, approvals and execution at two locations, we request that the project completion period be revised to 365 days from the date of LOI, excluding Government holidays and force majeure conditions.	Project completion within 270 days and material supply within 120 days from LOI/NoA. It will be amended in tender.
21	50	Terms & Mode of Payment	70% payment on complete material supply; balance after commissioning and FAC.	We request release of 90% of the material supply value upon successful receipt and acceptance of materials at site. Further, we request milestone-based payments for Installation & Commissioning activities, considering the high labour component and extended project execution period.	Tender Conditions will prevail.
22	57	1(a) – Scope of Work	Integration with the existing CCTV network system.	Kindly provide the existing CCTV camera quantity, camera make/model, recording architecture and VMS details available at both locations to facilitate accurate system integration and storage sizing.	VMS OEM : Videonetics (Mysuru)/Genetec (Salboni) Other details will be shared with successful bidder after issue of NOA/LOI
23	57	1(h) – AI-Based Analytics	AI-based analytics platform for event categorization and false alarm minimization.	Kindly provide detailed functional requirements, expected AI analytics features, event classification criteria, performance expectations and reporting requirements to enable accurate compliance and solution design.	The AI model deployed shall be capable of event categorization, and false alarm minimization under varying environmental and operational conditions. Event categorization is described in terms of criticality at Clause no. 3.6 (page no. 67), in terms of differentiation is described at Clause no. 3.1 (f) (page no. 59), Clause no. 1 (e) (page no. 81) and Clause no. 3.7: Reporting and Analytics (b) (page no. 68)
24	74	Server, Workstation & Switch Specifications	Servers, Workstations and Network Switches.	Kindly confirm whether Precision Air Conditioning (PAC)/Precision Cooling, if required for the server room, is within the bidder's scope or shall be provided by BRBNMPL.	Not in scope of this tender.
25	79	B2 – Non-Comprehensive AMC	Three years Non-Comprehensive AMC on call basis after warranty.	Considering the criticality of this high-security installation, we request BRBNMPL to consider deployment of dedicated onsite resident service engineers during the Non-Comprehensive AMC period to ensure faster fault resolution and minimum downtime.	Tender conditions prevail. However, during warranty period 01 no. of skilled-4 manpower to be deployed. Amendment will be done inw arranty clause.
26	157	Similar Work Definition	Similar work means Supply and Installation of Fibre Optic Perimeter Intrusion Detection System.	We request that the definition of similar work also include Supply, Installation, Testing & Commissioning (SITC) of Fibre Optic Cabling infrastructure for Local Area Networks (LAN), including Network Switches and associated networking components, executed in Government, PSU or reputed private organizations, considering the technical similarity of fibre deployment and networking infrastructure.	*Similar work means "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". Similar work criteria will be amended.

ANNEXURE-8

Sensonic, Mysuru

Sl. No.	Section	Page no.	Clause	Des. In Tender	Queries/Clarification	Justification	Final comments of Mysuru & Salboni
1	3. Functional Requirements	61	3.2 Optical Fibre Cable (OFC)	The length of CSTA (with ECCSA) underground burial-type OFC per drum shall be 10km ±5% as per the field requirement.	Please clarify this point.	The usual OFC drum length comes around 2 to 3km.	Shall be amended to 4 Kms±5%
2	12. Bill of Quantities (BoQ) for DFOPIDS System	74-79	Schedule-I BoQ	FOPIDS integration with existing VMS of CCTV system	Please clarify, whether it will be amended in the Schedule - I Salboni BoQ as it is a requirment given in specifcations.	Not present in BoQ for Schedule - I Salboni. Do we consider this in BoQ?	Tender conditions prevail. It is mentioned in BOQ point No. 14 under Schedule -I
3	12. Bill of Quantities (BoQ) for DFOPIDS System	74-79	12. Bill of Quantities (BoQ) for DFOPIDS System	Back-up storage	Please clarify, whether it will be amended in the BoQ as it is a requirment given in specifcations.	Not present in BoQ. Do we consider this in BoQ?	Only for Schedule-I. Clause no. 3.4 of Technical Specification will be amended.
4	12. Bill of Quantities (BoQ) for DFOPIDS System	74-79	12. Bill of Quantities (BoQ) for System	Relay Output Panel	Please clarify, whether it will be amended in the BoQ as it is a requirment given in specifcations.	Not present in BoQ. Do we consider this in BoQ?	Ethernet based IO module along with accessories shall be deployed with existing fiber optic network. Technical specifications and BOQ will be amended for both the schedules accordingly.
5	Section IX: Qualification Criteria	157	Experience & Past Performance	**Schedule 1: For Salboni** a) Three *similar completed works each costing not less than the amount equal to 40% of the estimated cost (i.e., ₹ 112.00 Lakh); OR b) Two *similar completed works each costing not less than the amount equal to 50% of the estimated cost (i.e., ₹ 140.00 Lakh); OR c) One *similar completed work costing not less than the amount equal to 80% of the estimated cost (i.e., ₹ 224.00 Lakh). **Schedule 1: For Mysuru** a) Three *similar completed works each costing not less than the amount equal to 40% of the estimated cost (i.e., ₹ 156.00 Lakh); OR b) Two *similar completed works each costing not less than the amount equal to 50% of the estimated cost (i.e., ₹ 195.00 Lakh); OR c) One *similar completed work costing not less than the amount equal to 80% of the estimated cost (i.e., ₹ 312.00 Lakh). **Schedules 1&2: For Salboni & Mysuru** a) Three *similar completed works each costing not less than the amount equal to 40% of the estimated cost (i.e., ₹ 268.00 Lakh); OR b) Two *similar completed works each costing not less than the amount equal to 50% of the estimated cost (i.e., ₹ 335.00 Lakh); OR One *similar completed work costing not less than the amount equal to 80% of the estimated cost (i.e., ₹ 536.00 Lakh).	We request clarification on whether GST shall be included while evaluating the value of similar completed works under the Experience & Past Performance criteria. In case GST is excluded for evaluation, kindly confirm the same explicitly.	-	Inclusive of GST

23/9/25
Manager (Utility)
Mysuru

DGM (F&A)

AM(U)

Chairman

Sl. No.	Section	Page no.	Clause	Des. In Tender	Queries/Clarification	Justification	Final comments of Mysuru & Salboni
6	Section IX: Qualification Criteria	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	**We would request for revising the defination of "Similar work" as follows: "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".**	We request that experience in any Fibre Optic Distributed Acoustic Sensing (DAS)-based application be considered under the definition of "Similar Work" in addition to Fibre Optic-based PIDS projects. Since DAS is the underlying technology platform for PIDS solutions, this revision will allow participation of technically qualified DAS OEMs with proven deployment experience, thereby enhancing competition without compromising project quality or performance requirements.	*Similar work means "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". Similar work will be amended
7	Section IX. Qualification Criteria	157	Experience & Past Performance	*Similar completed work	We request confirmation whether experience from an ongoing Fibre Optic DASbased project, **where a substantial portion of the scope has already been executed, may also be considered** towards meeting the experience criteria.	We understand that the qualification criteria require experience of similar completed works. Since Fibre Optic Distributed Acoustic Sensing (DAS) technology is the underlying technology platform for Fibre Optic PIDS applications.	Only Completed projects to be considered
8	3. Functional Requirements	116	3.3 Interrogator / Controller Unit	i) DAS (Acoustic) Performance:i) Sensing Range: Minimum 50 km per channel ii) Frequency Response: 1Hz to 120kHz (application dependent).	We understand that application dependent means, it can vary as per application, system architecture, sensing technology, cable characteristics, processing algorithms, sensing distance, and environmental conditions, interrogator. So an OEM can propose any Frequency response spectrum to achieve the desired outcome. Please clarify.		Frequency Response: ~~1Hz to 120kHz (application dependent)~~ Frequency Response: minimum 1 Hz to 2.50 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
9	Standard Bidding Document (SBD)	2		Online Pre-Bid Start Date 22/06/2026 at 17:00 hours Online Pre-Bid End Date 13/07/2026 up to 17:00 hours	We have completed the site visit successfully for both the locations Salboni & Mysuru on 08th Jul & 09th Jul'26 respectively. Preparation and consolidation of required technical submissions detailed consultation with our engineering team to ensure that complete and accurate information is provided. Consequently, additional time is required to prepare and review the necessary documents. In view of the above, we kindly request you for extension of time till 25th July for submission of the documents stipulated in the pre-bid requirement of the tender over email.	This extension will enable us to submit the required technical documentation and participate more effectively in the pre-bid discussions. We sincerely hope that our request will receive your favourable consideration and look forward to your positive response.	No action required
10	Section VII: Technical Specification & Scope of Work	57	1. Scope of Work:	i) The system shall support an API framework for seamless integration with the customer's existing Security Surveillance System. The proposed PIDS software must be future-ready and compatible for integration with the existing CCTV Video Management System (VMS).	We believe that existing CCTV/VMS 's third party vendor will support during the overall project and BRBNMPL will facilitate.		Handshaking of bidder's software with VMS software is in scope of the bidder. BRBNMPL will introduce the bidder with the VMS OEM, further bidder has to take forward the integration activity with the VMS OEM.