

Pre-Bid Queries Replies					
Pre-Bid Queries against NIT No. CMC/BY/25-26/RS/Sk5/ASR/33 (Supply of Partial Discharge measurement instrument)					
Name of Company :					
S.no	Clause No. of NIT	Technical / Commercial Qualification Criteria	Equipment Description	Pre-Bid Query details	Clarifications/Reply by BYPL
1	4.1.30 Compatibility for Sensors for future applications	The detector should be compatible with additional sensor features like HFCT, UHF, Contact acoustic, parabolic dish and other sensors for future requirements and applications in the BSES network. This will give extra advantage in selecting the PD device	4.1 Guaranteed Technical Particulars for PD measurement device for Switchgear Panels	UHF is mainly used for GIS applications, where UHF sensors should be pre-installed and UHF ports are readily available on the GIS. As per the BYPL tender specifications, the application is different and does not require UHF. Adding UHF sensors would unnecessarily increase the cost and may lead to unjustified technical evaluation. Removing this requirement will help encourage participation from multiple bidders. Hence it (UHF) should be removed.	Amendment as: The detector should be compatible with additional sensor features like HFCT, parabolic dish and other sensors for future requirements and applications in the BSES network.
2	4.2.4 Type: Real time Sound Visualization with camera and atleast 100 microphones	<b>Number of Microphones: Minimum 100 microphones</b>	4.2 Guaranteed Technical Particulars for PD measurement device with in-built Thermography camera for Overhead Power Transmission and Distribution network	<b>Upgrade to <math>\geq 180</math> MEMS microphones or higher</b> to achieve higher spatial resolution, better sensitivity at longer distances, and improved accuracy in noisy substation environments. More microphones directly translate to superior fault localization capability.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
3	4.2.12 User Interface c) Snapshot resolution: 800x480	<b>Snapshot Resolution : 800 x 480</b>	4.2 Guaranteed Technical Particulars for PD measurement device with in-built Thermography camera for Overhead Power Transmission and Distribution network	<b>Upgrade to <math>\geq 1920 \times 1200</math> (MPAC208 level)</b> to ensure clear identification of PD source location very precisely. Higher resolution avoids misinterpretation and improves reporting quality for condition-based maintenance decisions. <b>Current Resolution is too low.</b>	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
4	4.2.12 User Interface a) Display: Above 4 Inch	<b>Display Size &amp; Type: Above 4-inch display</b>	4.2 Guaranteed Technical Particulars for PD measurement device with in-built Thermography camera for Overhead Power Transmission and Distribution network	<b>Colour display <math>\geq 6</math>-inch</b> improves real-time analysis, visibility in outdoor substations, and ease of interpretation during live inspections. Larger display significantly enhances operator safety and reduces inspection time.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
5	4.2.29 Thermography To be specified by the manufacturer: a) Camera resolution - High	<b>Camera Resolution / Imaging: Standard visual camera (High) (No Spec mentioned)</b>	4.2 Guaranteed Technical Particulars for PD measurement device with in-built Thermography camera for Overhead Power Transmission and Distribution network	<b>Thermal imaging module <math>\geq 364 \times 288</math> resolution (or better)</b> enables simultaneous detection of thermal anomalies along with acoustic PD sources, allowing multi-phenomena correlation (PD + overheating) and reducing dependency on multiple instruments.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
6	4.2.29	a) Camera resolution High b) Thermal sensitivity (NETD) Value c) Temperature measurement range d) Fields of view angle- for max area coverage e) Accuracy	Partial Discharge Measurement for overhead network	There is no specification given for Thermal camera. It is very difficult to provide Thermal sensitivity feature with the partial discharge device without any technical specifications. Partial discharge and thermography are two different technologies and using the two dedicated cameras will provide accurate result for both tests.	Refer Quantities for PD & PD with thermographic camera in the unpriced bid format
7	4.2.29	a) Camera resolution High b) Thermal sensitivity (NETD) Value c) Temperature measurement range d) Fields of view angle- for max area coverage e) Accuracy	Partial Discharge Measurement for overhead network	There are many Chinese manufacturers who provide dual-camera system, we respectfully request that such Chinese manufacturers shall not be considered.	Refer Quantities for PD & PD with thermographic camera in the unpriced bid format.
8	4.2.12	a) Display above 4 inch b) 10X digital zoom c) Snapshot Resolution 800x480 d) Mega Pixel 5mp & above	Partial Discharge Measurement for overhead network	In the current market, partial discharge and thermal cameras typically support zoom levels of 1X, 2X, 4X, and 8X. These are the standard zoom options available in acoustic and thermal imaging devices.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
9	4.2.17	a) Headphones with connecting plug	Partial Discharge Measurement for overhead network	Since the screen is available with PD camera, the headphones are not required.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
10	4.2.4	a) Real time sound visualization with camera and atleast 100 microphones	Partial Discharge Measurement for overhead network	A set of 96 microphones is available & sufficient for fault detection, ensuring compatibility and delivering consistent performance.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
11	4.2.12	a) Display above 4 inch b) 10X digital zoom c) Snapshot Resolution 800x480 d) Mega Pixel 5mp & above	Partial Discharge Measurement for overhead network	Up to 8X digital zoom available.  Normally Partial discharge camera and even thermal camera consider only 1X, 2X, 4X and 8X zoom. This is general availability of zoom in acoustic & Thermal camera in the present market.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
12	4.2.17	a) Headphones with connecting plug	Partial Discharge Measurement for overhead network	4 inch screen is available so headphones not required  In partial discharge camera screen has been already mentioned in TS, so there is no requirement of headphones in camera. While further for analyzing the PD smart software with auto report generation is available where no need to human interference and report will be generated with giving just 2 inputs.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
13	4.2.4	a) Real time sound visualization with camera and atleast 100 microphones	Partial Discharge Measurement for overhead network	Max 96 microphones are available in the market  96 microphones are also enough for detecting to find out fault and it will make it compatible and working was totally same	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration

14	4.2.29	a) Camera resolution High b) Thermal sensitivity (NETD) Value c) Temperature measurement range d) Fields of view angle- for max area coverage e) Accuracy	Partial Discharge Measurement for overhead network	Thermal sensitivity feature is very difficult with the partial discharge device without any technical specifications we need specifications related to thermal sensitivity  These are two different technology 1. Partial Discharge 2. Thermovision Here we want to inform BYPL that there is no specification has been mentioned for thermography while the thermal camera used partial discharge doesn't provide accuracy and it will make it very complex in use. Further more if BYPL use these two tests with two cameras it will be user friendly, accurate reports for both thermovision and PD. Sir we also want to inform you that some manufacturers selling this type of dual camera from china and they have there servers used for camera in china. So we request you to chinese manufacturers will not be entertained considering Land border clause of Goverment of India	Refer Quantities for PD & PD with thermographic camera in the unpriced bid format
15	4.1 Guaranteed Technical Particulars for PD measurement device for Switchgear Panels	Technical Specifications	Compatibility for Sensors for future applications: The detector should be compatible with additional sensor features like HFCT, UHF, Contact acoustic, parabolic dish and other sensors for future requirements and applications in the BSES network. This will give extra advantage in selecting the PD device.	UHF sensors are mainly used for partial discharge monitoring and are typically installed inside GIS cabinets or EHV transformers above 220 kV during the manufacturing stage. Further, the Contact Acoustic sensor has functionality similar to a TEV sensor; therefore, if a TEV sensor is used, a Contact Acoustic sensor is not required. Based on this, kindly confirm whether GIS cabinets or EHV transformers above 220 kV are present in the BSES system, if not, the requirement of UHF sensors may not be applicable.	Amendment as: The detector should be compatible with additional sensor features like HFCT, parabolic dish and other sensors for future requirements and applications in the BSES network.
16	Guaranteed Technical Particulars for PD measurement device with in-built Thermography camera for Overhead Power Transmission and Distribution network	Technical Specifications	b)Zoom:10 X digital zoom	It is understood that zooming may reduce the field of view, making it difficult to detect partial discharge sources outside the zoomed area, and may also impact sound localization accuracy due to pixelation or reduced resolution. In this regard, we kindly request your confirmation on whether the zoom option may be removed from the specification.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration
17	Guaranteed Technical Particulars for PD measurement device with in-built Thermography camera for Overhead Power Transmission and Distribution network	Technical Specifications	Minimum up to 120 min	For identifying the location of partial discharge and for data analysis, a video recording duration of minimum 10 seconds and maximum 60 seconds (1 minute) is sufficient. A 120-minute video recording is not necessary, as it requires significantly larger storage capacity without providing additional technical benefit.	May submit the bid. The same may be evaluated at the time of detailed engineering/ product demonstration.
18	Technical QR 2.2	The bidder must have supplied atleast 10 nos of Partial Discharge measurement equipment of offered rating or higher to any Power utilities / Govt. undertakings/ State & Central Govt. or have supplied to wherein the end user shall be utilities/ SEBs / PSUs entities, in the last five (05) years from the date of bid submission,			
19	Revised Quantity of Partial Discharge Measurement for overhead network (No's)	1) PD without Thermographic Camera - 3no.s 2) PD with Thermographic Camera- 2no.			