

Reference No.: APSC/Pro-29/2022/613

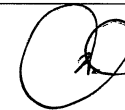
Date: June 14, 2022

Price Schedule for Goods (Form PG4-3B)

[Group B Tenders: Goods Manufactured outside Bangladesh, to be imported]

Invitation for Tender No:	As per tender notice.	Date:	As per tender notice.
Tender Package No:	R APP 2021-2022	Package Description:	[enter description as specified in Section 6]
Tender Lot No: Single lot		Lot Description:	[enter description as specified in Section 6]

1	2	3	4	5	6	7	8	9	10		
Item No.	Description of Item	Country of Origin	Unit of Measurement	Quantity	Unit price CFR (Cost Plus Freight) [insert port of destination] [FC]	CFR price per Line Item (Col. 5 x 6) [FC]	Inland transportation with loading-unloading cost, Port Handling Charges with C&F Agency cost and others [BDT]	VAT Payable on account of Supplier if the Contract is awarded [BDT]	Total Price per line item		
									FC (Col. 7)	BDT (Col. 8)	
01.	Portable Dissolve Gas Analyzer Brand: Transport-X2 or Equivalent, Country of Origin: USA / UK / EU / Japan / Canada. (As per technical Specifications)		Pc	1							
02.	Battery Ground Fault Detection Test Set with Standard Accessories Brand: BGFT or Equivalent, Country of Origin: USA / UK / EU / Japan. (As per technical Specifications)		Pc	1							
							Total Price for Lot				
Point of Delivery as per Schedule of Requirement: Store of Ashuganj Power Station Company Ltd. (APSC).							Period of Delivery as per Schedule of Requirement: 180 days from the date of L/C opening.				

*If any agency commission is granted to the Local agent, it should be included in the unit price.

*Price offered in foreign currency (FC) & Bangladeshi Taka (BDT).

Name:	<i>[insert full name of signatory]</i>	<i>Signature with Date and Seal</i>
In the capacity of:	<i>[insert designation of signatory]</i>	<i>[Sign]</i>
Duly authorized to sign the Tender for and on behalf of the Tenderer		



Specifications Submission and Compliance Sheet (Form PG4-4)

Invitation for Tender No. & Date:	As per tender notice.		
Tender Package No:	RAPP 2021-2022	Package Description:	<i>[enter description as specified in Section 6]</i>
Tender Lot No: Single		Lot Description:	<i>[enter description as specified in Section 6]</i>

Procurement of Test Equipment (Dissolve Gas Analyzer and Battery Ground Fault Detection Test Set) for Sub-Station Division of APSCL.

Item No.	Name of Goods / APSCL's Requirement		Full Technical Specifications and Standards (To be filled by the tenderer)
1	2		5
	Description	APSCL requirement	Note 1
Specification for Portable Dissolve Gas Analyzer (DGA) Set			
01	1.	Manufacturer's Name	GE Grid Solutions or Equivalent
	2.	Mfg. Type/Model Number	Transport-X2 or Equivalent
	3.	Country of Origin	USA/UK/EU/Japan/Canada
	4.	Reference Standard	EN-55011- Emission EN 61326-1. IEC 61010-1: Pollution degree 2; IEC 61010-2-033: and/or CAT III 1000 V/CAT IV 600 V or equivalent
	5.	Construction	Shall be robust with IP67, compact in designed Portable and easy to use in Hand
	6.	Gas Particle Detection Ranges	1~50,000 ppm or more
	7.	Measurement ranges as follows	
		Hydrogen (H2)	5 -5,000 ppm or more
	Carbon monoxide (CO)	2 -50,000 ppm or more	
	Carbon dioxide (CO2)	40-50,000 ppm or more	

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Item No.	Name of Goods / APSCL's Requirement		Full Technical Specifications and Standards (To be filled by the tenderer)
1	2		5
	Description	APSCL requirement	Note 1
Specification for Portable Dissolve Gas Analyzer (DGA) Set			
	Methane (CH ₄)	2 -50,000 ppm or more	
	Acetylene (C ₂ H ₂)	0.5 -50,000 ppm or more	
	Ethane (C ₂ H ₆)	2 -50,000 ppm or more	
	Ethylene (C ₂ H ₄)	2 -50,000 ppm or more	
	Water (H ₂ O)	0-100% relative humidity	
8.	Accuracy (%) at 20 °C	±5% or ±LDL	
9.	Capability of Moisture Analysis in Oil	Yes	
10.	Moisture in Oil Accuracy	± 3.5%	
11.	Display	Touch Screen, LCD for Control operation & Display	
12.	Printer	Embedded Thermal Printer	
13.	Power Source	115 to 230V ±10% AC, 1phase, 47 ~ 60Hz	
14.	Operating Humidity	Up to 90%	
15.	Weight	Shall be mentioned	
16.	Dimension	To be filled	
17.	PC Interface	Yes, USB 2.0 interface with software data download and analysis	
18.	PC Software	Manufacturer's PC software package to be Supplied at free of cost	
19.	Accessories	To be mentioned	
20.	Printed Catalogue mentioning offered Model, Type & all description.	Shall be submitted	
21.	Warranty	3 years	

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Item No.	Name of Goods / APSCCL's Requirement		Full Technical Specifications and Standards (To be filled by the tenderer)
1	2		5
	Description	APSCCL requirement	Note 1
Specification for Portable Dissolve Gas Analyzer (DGA) Set			
22.	Operation and Testing Procedure Manual (Language in English)	Must be supplied.	

Item No.	Name of Goods / APSCCL's Requirement		Full Technical Specifications and Standards (To be filled by the tenderer)
1	2		5
	Description	APSCCL requirement	Note 1
SPECIFICATION FOR BATTERY GROUND FAULT DETECTION SET			
02	1.	Mfg's Name	Megger Limited or Equivalent
	2.	Mfg's Type / Model	BGFT or Equivalent
	3.	Country of Origin	USA/UK/EU/Japan.
	4.	Reference Standard	The test set shall be conforming to relevant per IEC/IEEE and able to carry out the testing as per IEC/IS recommended practice
	5.	Construction	Lightweight, portable and Tough polyethylene plastic sealed enclosure that provides high shock and vibration resistance.
	6.	Operating voltage	100 to 250 V AC, 50Hz, 200 VA max.
	7.	Range of fault resistance detection	1K Ω to 39 K Ω . on both positive & negative at 50 V.
	8.	Distance of detection	Up to 1 km
	9.	Accuracy	$\pm 5\%$

Item No.	Name of Goods / APSCCL's Requirement		Full Technical Specifications and Standards (To be filled by the tenderer)
1	2		5
	Description	APSCCL requirement	Note 1
SPECIFICATION FOR BATTERY GROUND FAULT DETECTION SET			
10.	Source Voltage Output	Variable from 0 to 15 V rms in low range Variable from 0 to 50 V rms in high range	
11.	Source Current	Load dependent from 0 to 1.7 A rms	
12.	Source Frequency	20 Hz, ±2%	
13.	Line Capacitance	0.01 to 11.1 µF;	
14.	Display	Transmitter: Separate 3-digit LCD meters for volts and current Receiver: Digital meter display up to 1.999 (three gain selections)	
15.	Noise immunity	Immune to 50 HZ noise	
16.	Environmental Specifications		
	Operating Temperature Range	0 °C to 50 °C	
	Storage Temperature Range	-20 °C to 65 °C	
	Humidity	90% non-condensing	
17.	Weight	Maximum 18 Kilograms for Transmitter Maximum 0.5 Kilograms for Receiver	
18.	Dimensions	Shall be mentioned	
19.	Warranty	1 year	
20.	Accessories to be supplied	a) Fused source leads b) Current transformer with leads, c) AC power cord d) Feedback cable e) Padded accessory f) Battery, 9 volts	

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Item No.	Name of Goods / APSCCL's Requirement		Full Technical Specifications and Standards (To be filled by the tenderer)
1	2		5
	Description	APSCCL requirement	Note 1
SPECIFICATION FOR BATTERY GROUND FAULT DETECTION SET			
		g) Operation manual (Language in English) h) Calibration Certificate	

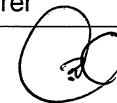
Note 1:

[The Tenderer should complete all the columns]

Note 2:

Tenderer shall submit above-mentioned required Manufacturer data properly filled by manufacturer on their Official Pad with submission of related supporting documents and seal & signed by Manufacturer.

Signature:	<i>[insert signature of authorized representative of the Tenderer]</i>
Name:	<i>[insert full name of signatory]</i>
In the capacity of:	<i>[insert designation of signatory]</i>
Duly authorized to sign the Tender for and on behalf of the Tenderer	

Section 6. Schedule of Requirements

Invitation for Tender No. & Date:	As per tender notice
Tender Package No:	RAPP 2020-2021

A. List of Goods and Delivery Schedule

When completing Form PG4-3A, 3B & 3C the Tenderer shall quote prices and contract delivery dates for each lot separately, as specified in the List of Goods and Delivery Schedule.

Sl. No	Description of the item	Unit of Measurement	Quantity	Point of Delivery (Final project site)	Completion time (in days)
01.	Portable Dissolve Gas Analyzer Brand: Transport-X2 or Equivalent, Country of Origin: USA / UK / EU / Japan/Canada. (As per technical Specifications)	Pc	01	At APSCL Store.	180 days from the date of L/C opening.
02.	Battery Ground Fault Detection Test Set with Standard Accessories Brand: BGFT or Equivalent, Country of Origin: USA / UK / EU / Japan. (As per technical Specifications)	Pc	01		

In the capacity of:
 Duly authorized to sign the Tender on behalf of the Tenderer.
 Date:




Section 7. Technical Specifications

Procurement of Test Equipment (Dissolve Gas Analyzer and Battery Ground Fault Detection Test Set) for Sub-Station Division of APSCL.

The Goods and Related Services shall comply with following Technical Specifications:

01. SPECIFICATION FOR PORTABLE DISSOLVE GAS ANALYZER (DGA) SET

Sl. No	Description of the item		Unit of Measurement	Qty.	
	Description	APSCL requirement			
SPECIFICATION FOR PORTABLE DISSOLVE GAS ANALYZER (DGA) SET					
01.	1.	Manufacturer's Name	GE Grid Solutions or Equivalent	Pc	01 (One)
	2.	Mfg. Type/Model Number	Transport-X2 or Equivalent		
	3.	Country of Origin	USA/UK/EU/Japan/Canada		
	4.	Reference Standard	EN-55011- Emission EN 61326-1. IEC 61010-1: Pollution degree 2; IEC 61010-2-033: and/or CAT III 1000 V/CAT IV 600 V or equivalent		
	5.	Construction	Shall be robust with IP67, compact in designed Portable and easy to use in Hand		
	6.	Gas Particle Detection Ranges	1~50,000 ppm or more		
	7.	Measurement ranges as follows			
		Hydrogen (H2)	5 -5,000 ppm or more		
		Carbon monoxide (CO)	2 -50,000 ppm or more		
		Carbon dioxide (CO2)	40-50,000 ppm or more		
		Methane (CH4)	2 -50,000 ppm or more		
	Acetylene (C2H2)	0.5 -50,000 ppm or more			
	Ethane (C2H6)	2 -50,000 ppm or more			

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Sl. No	Description of the item		Unit of Measurement	Qty.
	Description	APSCL requirement		
SPECIFICATION FOR PORTABLE DISSOLVE GAS ANALYZER (DGA) SET				
	Ethylene (C2H4)	2 -50,000 ppm or more		
	Water (H2O)	0-100% relative humidity		
8.	Accuracy (%) at 20°C	±5% or ±LDL		
9.	Capability of Moisture Analysis in Oil	Yes		
10.	Moisture in Oil Accuracy	± 3.5%		
11.	Display	Touch Screen, LCD for Control operation & Display		
12.	Printer	Embedded Thermal Printer		
13.	Power Source	115 to 230V ±10% AC, 1phase, 47 ~ 60Hz		
14.	Operating Humidity	Up to 90%		
15.	Weight	Shall be mentioned		
16.	Dimension	To be filled		
17.	PC Interface	Yes, USB 2.0 interface with software data download and analysis		
18.	PC Software	Manufacturer's PC software package to be Supplied at free of cost		
19.	Accessories	To be mentioned		
20.	Printed Catalogue mentioning offered Model, Type & all description.	Shall be submitted		
21.	Warranty	3 Years		
22.	Operation and Testing Procedure Manual (Language in English)	Must be supplied.		

B. S. Prasad

(Signature)

02. SPECIFICATION FOR BATTERY GROUND FAULT DETECTION SET

Sl. No	Description of the item		Unit of Measurement	Qty.	
	Description	APSCL requirement			
SPECIFICATION FOR BATTERY GROUND FAULT DETECTION SET					
02.	1.	Mfg's Name	Megger Limited or Equivalent	Pc	01 (One)
	2.	Mfg's Type / Model	BGFT or Equivalent		
	3.	Country of Origin	USA/UK/EU/Japan.		
	4.	Reference Standard	The test set shall be conforming to relevant per IEC/IEEE and able to carry out the testing as per IEC/IS recommended practice		
	5.	Construction	Lightweight, portable and Tough polyethylene plastic sealed enclosure that provides high shock and vibration resistance.		
	6.	Operating voltage	100 to 250 V AC, 50Hz, 200 VA max.		
	7.	Range of fault resistance detection	1K Ω to 39 K Ω . on both positive & negative at 50 V.		
	8.	Distance of detection	Up to 1 km		
	9.	Accuracy	$\pm 5\%$		
	10.	Source Voltage Output	Variable from 0 to 15 V rms in low range Variable from 0 to 50 V rms in high range		
	11.	Source Current	Load dependent from 0 to 1.7 A rms		
	12.	Source Frequency	20 Hz, $\pm 2\%$		
	13.	Line Capacitance	0.01 to 11.1 μ F;		
	14.	Display	Transmitter: Separate 3-digit LCD meters for volts and current Receiver: Digital meter display up to 1.999 (three gain selections)		
	15.	Noise immunity	Immune to 50 HZ noise		
	16.	Environmental Specifications			
	Operating Temperature Range	0 °C to 50 °C			
	Storage Temperature Range	-20 °C to 65 °C			
	Humidity	90% non-condensing			

Sl. No	Description of the item		Unit of Measurement	Qty.
	Description	APSCL requirement		
SPECIFICATION FOR BATTERY GROUND FAULT DETECTION SET				
17.	Weight	Maximum 18 Kilograms for Transmitter Maximum 0.5 Kilograms for Receiver		
18.	Dimensions	Shall be mentioned		
19.	Warranty	1 year		
20.	Accessories to be supplied	a) Fused source leads b) Current transformer with leads, c) AC power cord d) Feedback cable e) Padded accessory f) Battery, 9 volts g) Operation manual (Language in English) h) Calibration Certificate		

In the capacity of:
Duly authorized to sign the Tender on behalf of the Tenderer.
Date: