C3 Schedule of detailed requirement

Invitation to Bid No.:

Item	PEA Material No.	Quantity	Description
1	-	set(s)	Portable oil tester, microprocessor controlled fully automatic, for testing dielectric strength of an insulating oil with automatic oil temperature measurement, with:

Standard test methods : according to IEC 60156, VDE 0370-5, ASTM D877 and ASTM D1816, or more

Display : built-in LCD colour display with backlight

Test voltage : range of 0 to 100 kV r.m.s., or better

Rate of voltage rise and tolerance, according to standards:

- IEC 60156 and VDE 0370-5 : 2 kV/sec ±0.2 kV/sec

- ASTM D877 : 3 kV/sec ±5%

- ASTM D1816 : 0.5 kV/sec ±20%

Voltage measurement:

- accuracy, throughout the range : ±(1% of full scale + 2 digits), or better

- resolution, the best : 0.1 kV, or better

Temperature measurement:

- measurement range : $0\,^\circ C$ to $70\,^\circ C$, or better

- temperature resolution : $1\,^\circ C$, or better

Operating temperature : up to $45\,^\circ C$

Weight : not more than 40 kg

Power supply : single-phase, 230 VAC, 50 Hz, non-polarized (line and neutral of power source can be switchable)

Complete with :

1. Power supply cord and plug
2. Test vessel(s)
3. High-voltage electrodes according to specified standards
4. USB port(s) for interfacing with PC and/or printer
5. Built-in printer with ten (10) rolls of paper
6. Electrode spacing gauge set 1, 2, 2.5 and 2.54 mm, or more
7. PC software run in Microsoft Windows. comprising of useful function for importing data from the oil tester and generating report
8. Instruction manual for operation
9. Other accessories according to manufacturer's design and auxiliary equipment necessary to complete the sound function

II

C3 Schedule of detailed requirement

Invitation to Bid No.:

Item	PEA Material No.	Quantity	Description
2	-	lot(s)	Spare parts for Item 1
3	-	lot(s)	Optional accessories for Item 1

Note :

1. The bidder has to quote the unit costs.

2. The bidder has to quote spare parts and optional accessories (if any) with a list of quantities and their itemized prices, if any; PEA reserves the right to purchase the spare parts and the optional accessories by some or all of items, to adjust their quantities, or to cancel them.

3. Evaluation and comparison of bid price shall not include the spare parts and optional accessories.

4. The bidder shall be sole distributor or authorized representative, have a permanent office in Thailand and have at least two (2) years experience in sales and services products from the same manufacturer of the proposed portable oil tester to government utilities; otherwise shall not be accepted.

5. The proposed portable oil tester shall have been purchased form utilities or companies outside the country of manufacturer for not less than two (2) years. (give references)

6. The bidder has to submit sufficient references describing the previous experience of the suppliers (e.g. list of supply of equipment and/or materials having the same of similar design as proposed, field experience, the registration of TISI, the copies of license, etc.) to the satisfaction of PEA.

7. The bidders have to submit the Certificate of calibration and calibration test report of portable oil tester having same model as the proposed portable oil tester from Accreditation Bodies (PTB, NPL, NIST, or equivalent) or from the laboratories, which have been accredited by such the Accreditation Bodies.

8. The contractor has to submit the Certificate of calibration and calibration test report from Accreditation Bodies (PTB, NPL, NIST, or equivalent) or from the laboratories, which have been accredited by such the Accreditation Bodies.

II

Specification No. RTES-047/2554 : PORTABLE OIL TESTER					Page 1 of 3	
C4 Price schedule				Manufacturer :		
Invitation to Bid No.				Country of origin :		
				Trade-mark :		
Item	PEA Material No.	Catalogue No.	Description	Quantity	Unit Cost (See details & conditions attached)	Total Cost (See details & conditions attached)
1	-		Portable oil tester, microprocessor controlled-fully automatic, for testing dielectric strength of an insulating oil with automatic oil temperature measurement, with : Standard test methods : .... Display : .... Test voltage : .... kV r.m.s. Rate of voltage rise : - IEC 60156 and VDE 0370-5 : .... - ASTM D877 : .... - ASTM D1816 : .... Voltage measurement : - accuracy, throughout the range : .... - resolution, the best :	set(s)		
	II					

| Specification No. RTES-047/2554 : PORTABLE OIL TESTER | | | | | | Page 2 of 3 |

C4 Price schedule	Manufacturer :
Invitation to Bid No.	Country of origin :
	Trade-mark :

Item	PEA Material No.	Catalogue No.	Description	Quantity	Unit Cost (See details & conditions attached)	Total Cost (See details & conditions attached)
			Temperature measurement :			
			- measurement range :			
			- temperature resolution :			
			Operating temperature : .... $^{\circ}$C			
			Weight : .... kg			
			Power supply :			
			Complete with :			
			1.			
			2.			
			3.			
			4.			
			5.			
			6.			
			7.			
			8.			
	II		9.			

PROVINCIAL ELECTRICITY AUTHORITY
POWER SYSTEM STANDARD DIVISION

Specification No. RTES-047/2554 : PORTABLE OIL TESTER					Page 3 of 3

C4 Price schedule

Invitation to Bid No.

Manufacturer :

Country of origin :

Trade-mark :

Item	PEA Material No.	Catalogue No.	Description	Quantity	Unit Cost (See details & conditions attached)	Total Cost (See details & conditions attached)
2	–		Spare parts for Item 1 1. .... 2. .... 3. .... 4.	lot(s)		
3	–		Optional accessories for Item 1 1. .... 2. .... 3. .... 4.	lot(s)		
	II					