SPICES BOARD
(Ministry of Commerce & Industry, Govt. of India)
Palarivattom.P.O. N H By Pass
Kochi –682025

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REQUIREMENT OF UPS Systems and Batteries for Quality Evaluation Laboratories of Spices Board

No.QEL/NEW/UPS/2015 Dated 22nd September 2015

Sealed tenders are invited for the supply and installation of UPS systems and batteries in Board's Quality Evaluation Laboratories under buy-back of existing UPS and batteries, as per the requirement and specification given in Annexure - I, subject to the terms and conditions given in Annexure-II.

The quotations, addressed to the Scientist D and Head, Spices Board, Sugandha Bhavan, NH Byepass, Palarivattom PO, Kochi-682025, Kerala and should reach Quality Evaluation Laboratory of the Board latest by 5.00 p.m on 22nd October 2015. The quotations will be opened at 11.00 a.m on 23rd October 2015 in the presence of available vendors. The sealed cover containing the quotation shall be super-scribed as "Quotation for UPS and Batteries due on 23rd September 2015 (QELs)". As per normal payment terms of the Board, 90% of the payment will be released on delivery of items subject to inspection and, balance, on successful installation of the items. Spices Board has no 'C'/'D' forms. The Board reserves its right to reject any or all quotations without assigning any reason thereof.

Sd/-

Secretary, Spices Board

Annexure - I
REQUIREMENTS

Present requirements of UPS and Batteries in various Quality Evaluation Labs (QELs) of Spices Board, locations were supply and installation is required, and units available for buyback:

Table 1

1	2	3	4
No.	**Location of QEL**	**Requirement of new UPS and Batteries**	**Units available under buyback**
1	QEL Kochi	15 KVA UPS and batteries x 1 No. 10 KVA UPS and batteries x 7 Nos.	7.5KVA UPS (Electronics and Controls) and batteries x 2 Nos. 10 KVA UPS (Numeric) and batteries x 2 Nos. 10KVA UPS (Power Gun), without batteries x 2 Nos. 10 KVA UPS (Power Gun) with batteries x 1 No. 7.5 KVA UPS (Apblab) + batteries x 1 No. 10KVA UPS (Unitek) + batteries x 1 No. 100 AH Exide Powersafe SMF batteries x 40 Nos.
2	QEL Chennai	Exide EL Tubular 150AH batteries x 80 Nos.	Numeric LP12-120(12 V 120 AH) Rechargeable sealed Lead Acid Batteries x 80 Nos.
3	QEL Narela	Following Exide El Tubular Batteries: 150 AH x 40 Nos. 65 AH x 16 Nos. 100 AH x 32 Nos. 130 AH x 40 Nos.	Following numbers of batteries Exide Tubular batteries 150 AH x 40 Nos. Okaya 65 AH batteries x 16 Nos. Power safe 100 AH x 32 Nos.

			Quanta 130 AH x 40 Nos. .
4	QEL Tuticorin	Following Exide El Tubular Batteries: 150 AH x 20 Nos. 100 AH x 32 Nos.	Following numbers of batteries 150 AH x 20 Nos.(Rocket SMF) 100 AH x 32 Nos. (Exide SMF) 75 AH x 15 Nos. (Exide Tubular)

Detailed Specifications of UPS systems and Batteries:

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Table 2

TECHNICAL SPECIFICATIONS FOR 15 kVA TRUE ON-LINE DOUBLE CONVERSION UPS SYSTEMS		
	SPECIFICATION	**OUR REQUIREMENT**
	Modern, compact and portable model of UPS system should be quoted.	
1	**Capacity**	15 KVA - 12000 Watts (0.8 pf)
	Technology	True Online Double Conversion
		Compact and portable unit is to be quoted.
2	**Converter**	
	Input Voltage	415 V (3 phase)
	Input Voltage range	400 VAC ± 15%
	Input Frequency	50 Hz
	Input Frequency range	45 to 55 Hz
	Input Power Factor	≥ 0.9 at full load and nominal input Voltage
3	**Battery Charger**	
	Type of Charger	Constant voltage -constant current .
	Battery Recharge Time to 80%	Will not exceed 10 - 12 Hours after 100% discharge
	capacity after 100% Discharge.	
4	**Output (Inverter)**	
	Output Voltage	230 VAC, Single Phase
	Regulation (Steady State)	+/-1 %

	Dynamic Regulation	± 5% with 100% step load of 0.8PF & 3:1 CF and
	(Transient Response)	recovery in less than 50 milliseconds
	Total Harmonic Distortion	≤ 3 % for 100% linear load
		≤ 5% for 100% non-linear load
	Output Power Factor	0.6 to Unity
	Switching Frequency	12 - 24 KHz
	Inverter Technology	Sine Weighted Pulse width Modulation Technology
		using IGBT power Devices
	Crest Factor	3:1
	Output Wave form	Sinusoidal
	Output Frequency	50 Hz ± 0.1% (Free Running Mode)
	Overall Efficiency	≥ 85 %
	Overload Capacity	125% for 10 Minutes and 150% for 1 Minute
7	**Bypass**	
	Static Bypass	Provided
	Manual Bypass	Manual /Maintanance Bypass
8	**Protection and Controls**	Advanced Electronic protection for device safety backed with MCBs /
		Softstart feature for rectifier and inverter,built in overload
		protection, output short-circuit protection, Inverter over-temperature
9	**Indications**	LED indications will be provided for the following
		Mains ON
		DC On
		Output On
		DC Low
		Converter Fault
		Inverter Trip
		Output High
		Output Low
		Load on Bypass
		Load on Battery
10	**LCD Display**	LCD Display will be provided
		Input Voltage
		Output voltage
		Output current
		Output frequency
		Battery Voltage

		Battery Charge/discharge current
11	**Audible Alarms**	Mains failure
		Battery Low
		Over temperature
		Inverter Trip
		Load On Bypass
12	**Communication Port**	
	Interface Port	RS 232
13	**Standards (Mandatory)**	
	Quality System	ISO 9001 - 2008 and ISO 14001:2004
14	**General**	
	Cold Start in the absence of mains power	Cold Start is available to start on batteries.
	Relative Humidity	10 to 95% non-condensing
	Cooling	Forced Air Cooling
15	**Battery**	12V EXIDE 6EL TUBULAR C10 RATED
	Battery VAH Required	62400 VAH
	Battery DC Voltage	240VDC

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Table 3

TECHNICAL SPECIFICATIONS FOR 10 kVA TRUE ON-LINE DOUBLE CONVERSION UPS SYSTEMS		
	SPECIFICATION	**OUR REQUIREMENT**
1	**Capacity**	10 KVA - 8000 Watts (0.8 pf)
	Technology	True Online Double Conversion
		Compact and portable unit is to be quoted.
2	**Converter**	
	Input Voltage	415 V (3 phase)
	Input Voltage range	400 VAC ± 15%
	Input Frequency	50 Hz
	Input Frequency range	45 to 55 Hz
	Input Power Factor	≥ 0.9 at full load and nominal input Voltage
3	**Battery Charger**	
	Type of Charger	Constant voltage -constant current .
	Battery Recharge Time to 80%	Will not exceed 10 - 12 Hours after 100% discharge

	capacity after 100% Discharge.	
4	**Output (Inverter)**	
	Output Voltage	230 VAC, Single Phase
	Regulation (Steady State)	+/-1 %
	Dynamic Regulation	± 5% with 100% step load of 0.8PF & 3:1 CF and
	(Transient Response)	recovery in less than 50 milliseconds
	Total Harmonic Distortion	≤ 3 % for 100% linear load
		≤ 5% for 100% non-linear load
	Output Power Factor	0.6 to Unity
	Switching Frequency	12 - 24 KHz
	Inverter Technology	Sine Weighted Pulse width Modulation Technology
		using IGBT power Devices
	Crest Factor	3:1
	Output Wave form	Sinusoidal
	Output Frequency	50 Hz ± 0.1% (Free Running Mode)
	Overall Efficiency	≥ 85 %
	Overload Capacity	125% for 10 Minutes and 150% for 1 Minute
7	**Bypass**	
	Static Bypass	Provided
	Manual Bypass	Manual /Maintanance Bypass
8	**Protection and Controls**	Advanced Electronic protection for device safety backed with MCBs /
		Softstart feature for rectifier and inverter,built in overload
		protection, output shortcircuit protection, Inverter overtemperature
9	**Indications**	LED indications will be provided for the following
		Mains ON
		DC On
		Output On
		DC Low
		Converter Fault
		Inverter Trip
		Output High
		Output Low
		Load on Bypass
		Load on Battery
10	**LCD Display**	LCD Display will be provided

		Input Voltage
		Output voltage
		Output current
		Output frequency
		Battery Voltage
		Battery Charge/discharge current
11	**Audible Alarms**	Mains failure
		Battery Low
		Over temperature
		Inverter Trip
		Load On Bypass
12	**Communication Port**	
	Interface Port	RS 232
13	**Standards (Mandatory)**	
	Quality System	ISO 9001 - 2008 and ISO 14001:2004
14	**General**	
	Cold Start in the absence of mains power	Cold Start is available to start on batteries.
	Relative Humidity	10 to 95% non-condensing
	Cooling	Forced Air Cooling
15	**Battery**	12V EXIDE 6EL TUBULAR C10 RATED
	Battery VAH Required	48000 VAH
	Battery DC Voltage	240VDC

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Requirements of Batteries

All the batteries quoted as per Annexure 1 Table 1 Column 3 should be Exide 6EL Tubular C10 rated.

Annexure-II

1. A compliance statement for each point in the technical specification for each model of product offered must necessarily accompany the quotation, without which the quotation is laible to be rejected.

2. Make/brand name of UPS and Batteries shall be specified.

3. The Tenderer shall submit along with the tender an EMD of 2% of the tender value in the form of Demand Draft in favour of Secretary, Spices Board. The EMD should be submitted in a sealed cover marked on the outside with the word 'EMD'. The EMD of unsuccessful Tenderer(s) will be refunded, after short listing of proposals, without any interest. In case the tenderer withdraws from the process, the EMD deposited by him will be forfeited. EMD of the successful tenderer will be retained by the Board as security deposit till the successful completion of System installation. No interest shall be payable on this.

4. The tender received after the prescribed date and/or time and without EMD will be summarily, rejected.

5. There is no separate tender document. This enquiry notice can be downloaded from Board's web site at http://www.indianspices.com/html/quot.php for tender submission.

6. UPS and batteries shall be supplied from a factory with ISO 9001certification in manufacture of the respective equipments.

7. Cost shall include all taxes, duties, entry tax, packing, insurance, forwarding and installation charges.

8. Proposal shall include documents to prove quality of products, service support and technical competence.

9. The offer shall include delivery time, validity of quotation, warranty period and AMC rate for post-warranty period.

10. The units kept at each site for buyback, as per table in Annexure 1, should be cleared from the respective sites before the supply of the new systems. All labor charges involved in transport and installation of the UPS and batteries at the respective locations should be borne by the supplier.

11. Offers which are incomplete in terms of scope, items or specifications or required details will not be considered and such tenders are liable to be rejected forthwith.