BID DOCUMENT

NATIONAL COMPETITIVE BIDDING

FOR

SUPPLY, INSTALLATION, COMMISSIONING & MAINTENANCE OF TUBULAR AND BOX TYPE FURNACES OF MICROWAVE PROCESSING LABORATORY FOR I.K.G.PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA AND ITS OTHER CONSTITUENT CAMPUSES (PUNJAB)

Bid No. : **EdCIL/PROC/PTU-2017/LAB-MTECH-MICRO/MICRO-PKG1/2**

PART-II- FINANCIAL BID

EdCIL (India) Limited
(A Govt. of India Mini Ratna Enterprises)
'EdCIL House', Plot No. 18A, Sector- 16A
NOIDA – 201301 (UP), INDIA
Tel: 0120 – 2512001-006, FAX: 0120-2515372

Dated: 09.06.2017
This document serially numbered from page number 01 to 15.

FINANCIAL BID

Instructions to Bidders

1. Financial Bid shall be submitted with full price details.

Financial Bid shall contain only the prices duly filled in as per the format given in Schedule of Rates provided in the tender document. Price bid should not have any Commercial and/or Technical stipulation in addition to, what is already given in Part I – Technical bid.

Financial Bid Standard Forms (Form-1, Form-2A and /or Form-2B) shall be used for the preparation of the price quote according to the instructions provided.

2. **The Bidder should quote for all the Laboratory items / equipments listed in this document. In case, the Bidder/s does not quote for all the Laboratory items/Equipments, the Bid shall be treated as incomplete and shall be rejected summarily.**

3. The Items / equipments to be supplied / delivered / installed / commissioned at various locations of IKGPTU Campuses is as shown in the enclosed Annexure VI. The rate shall be inclusive of all taxes, octroi, transportation (as per the location), packing, loading and unloading (as designated location) ,Insurance etc. and nothing shall be paid extra.

4. The bid shall be evaluated on total value of all Laboratory items/Equipments as shown in summary and supply order shall be placed to a bidder as a composite bid.

5. The prices quoted by the bidder shall be fixed for the quantity mentioned for the duration of the contract and shall not be subject to adjustment on any account. Price should be firm for any positive or negative variation in quantities up to 100%.

6. The changes displayed in the corrigendum/addendum to the bid documents, particularly with the financial bid should be attached with the financial bid submission, in the same packet, duly signed and stamped by the authorized signatory of the Bidder firm.

FINANCIAL BID SUBMISSION FORM

To:

Chief General Manager (EIS & EPS)
EdCIL (India) Limited
EdCIL House, 18 A, Sector-16 A
NOIDA – 201301 (U.P.), India

Dated: ___/___/2017

Dear Sir,

We, the undersigned, offer to provide "SUPPLY, INSTALLATION , COMMISSIONING & MAINTENANCE OF TUBULAR AND BOX TYPE FURNACES OF MICROWAVE PROCESSING LABORATORY
" in accordance with your Request for Proposal dated ___/___/2017.

Our attached Financial Bid is for the amount of _____ *[Indicate the corresponding to the amount(s), currency(ies) {Insert amount(s) in words and figures}].*

Please note that all amounts shall be the same as in Form-1. Our Financial Bid shall be binding upon by us subject to the modifications resulting from Contract negotiations, if any, up to expiration of the validity period of the Proposal.

We remain,

Yours sincerely,

Authorized Signature {In full and initials}:
Name and Title of Signatory:
In the capacity of:
Address:
E-mail:

FORM-1

SUMMARY OF FINANCIAL BID

S. No.	Description	Amount (exclusive of Tax) (Rs.)	Tax (Rs.)	Amount (Inclusive of Tax) (Rs.)
A.	Tubular and Box Type Furnace Equipments (Form-2A and/or Form-2B)			
B.	Comprehensive Annual Maintenance (Annexure-IV)			
	Total (Rs.)			
Total Price Bid (exclusive of taxes) (in Words) **(Rupees……..)**				
Total Price of Bid (Inclusive of taxes) (In Words) **(Rupees……)**				
	Signature of bidder		**……..**	
	Name & Address		**……..** **……..**	
Note :	**Date**		**……..**	
i)	***Discount or any other offers affecting the package price must be mentioned here only. Discount or any other offers affecting the package price mentioned at any other place of the bid will not be considered.***			
ii)	***In case of discrepancy between unit price and total price, the unit price shall prevail.***			
iii)	***Bids shall be evaluated based on total price without taxes.***			

FORM-2A
(FINANCIAL BID)

PRICE SCHEDULE FOR GOODS TO BE IMPORTED

ANNEXURE – I
Date: ……..

Name of the Department:
Name of the Laboratory:

(A) Price Schedule: (Format used for imported items)

S.No.	Currency	Description and Specification of the Item	Qty. in Units	Unit Price	Agency Commission (If applicable)	Discount	Ex-works price	Packing + Handling + DOC + Inland Freight +Insurance	CIF price	Insurance + Freight	CIP Price	Total Price
			(a)	(b)	(c)	(d)	(e)=(b+c-d)	(f)	(g)=(e+f)	(h)	(i) = (g+h)	(j) = (i*a)
				(i)In Figures: (ii)In words:								

Total Price of Bid (In Words) ……	
Signature of bidder	**……**
Name & Address	**……**
Date	**……**

Note:

1. ***The above financial template should be strictly followed. Any deviation from the above template (in terms of description and specification of the item) may debar the bidder at sole discretion of EdCIL.***
2. ***Discount or any other offers affecting the package price must be mentioned here only. Discount or any other offers affecting the package price mentioned at any other place of the bid will not be considered.***
3. ***In case of discrepancy between unit price and total price, the unit price shall prevail.***
4. ***Bids shall be evaluated based on total price including all charges as CIP Price.***
5. ***CIP - Carriage and Insurance Paid to (named place of destination):*** *The seller pays for the carriage of the goods up to the named place of destination and the seller is required to obtain insurance for the goods while in transit.*

FORM-2B

ANNEXURE-II

PRICE SCHEDULED FOR GOODS (INDIGENOUS / IMPORTED GOODS TO BE QUOTED IN INR)

Price Schedule: (Format used for indigenous items/ Imported Items).

S.No.	Description and Specification of the Item	Qty. in Units	Unit Price in Rs.	Excise Duty % /Custom Duty	CST/ VAT %	Insurance other duties and taxes if any,	Packing and Inland Transportation	F.O.R Destination Price	Total Price in Rs. (Excluding Taxes)	Total Price in Rs. (Including Taxes)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)=(b*a)	(i) = (g *a)
			(i)In Figures: (ii)In words:							
Total Price of Bid (In Words) ……										
								Signature of bidder	……	
								Name & Address	……	
								Date	……	

Note:

1. ***The above financial template should be strictly followed. Any deviation from the above template (in terms of description and specification of the item) may debar the bidder at sole discretion of EdCIL.***
2. ***Discount or any other offers affecting the package price must be mentioned here only. Discount or any other offers affecting the package price mentioned at any other place of the bid will not be considered.***
3. ***In case of discrepancy between unit price and total price, the unit price shall prevail.***
4. ***Bids shall be evaluated based on total price including all charges as F.O.R Destination Price.***

ANNEXURE – III

COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE

S. No.	Item Description	2nd Yr.	3rd Yr.	Total Comprehensive Annual Maintenance Contract for 2 years(2nd year & 3rd year) after warranty period of 1 year from the date of successful installation. (E= C+D)
A	B	C	D	E
1.	Equipment: Make: Model: Qty.: *(Mention Total quantity from Annexure-VI)*			
	SUB-TOTAL(Rs.) (Carry forwarded to Summary)			
Sub-Total Price Bid (exclusive of taxes) (in Words) (Rupees……)				
Sub-Total Price of Bid (Inclusive of taxes) (In Words) (Rupees……)				

Signature of bidder	**…….**
Name & Address	**…….** **…….**
Note: **Date**	**…….**

i)	***Discount or any other offers affecting the package price must be mentioned here only. Discount or any other offers affecting the package price mentioned at any other place of the bid will not be considered.***
ii)	***In case of discrepancy between unit price and total price, the unit price shall prevail.***
iii)	***Bids shall be evaluated based on total price without taxes.***

Note:

1. ***The above rates shall be included in computing the total cost of the equipments.***
2. ***Agency to use separate sheet for each equipment/Item/package.***

DETAILED TECHNICAL SPECIFICATIONS:

ANNEXURE-IV

SL.NO	NAME OF INSTRUMENT	SPECIFICATIONS
1	**ATMOSPHERE CONTROL HIGH TEMPERATURE TUBULAR FURNACE 1600 °C :**	
	A) Technical Specifications	• Maximum operating temperatures : 1600 °C or More
		• Operating Temp: 1500°C
		• Accepts work tubes up to 90 mm outer
		• Heated lengths of 600 mm
		• Silicon carbide heating elements
		• Horizontal configuration
		• Eurotherm PID Controller with 8 segment
		• programmable temperature control with 1 program (or better).
		• Maximum O/D Accessory Tube : 90 mm
		• Heat up time: 45 min or less
		• Tube Heated Length : 600 mm or better
		External Furnace • H x W x D : 600mm x 1000mm x 400mm (Approximate)
		• Uniform length +/-5°C : 400 mm or better
		• Thermocouple type: Should be independently controlled with a separate controller. “R” or “S” type thermocouple should be in-built in for temperature control.
		• Power Supply : 380 – 415 V, Three phase
		• Maximum Power: 6500 – 7000 W.
		• Low outer case temperature should comply to BSEN61010 only
		• Instrument should be “EC” Confirming
	b) Working Tube:-	**1-** RCA (Re-Crystallized Alumina) , Impervious; highly resistant to chemical attack; at least 99.7% Al_2O_3 suitable for 1800C, • Length 1200mm & Inner diameter 75 mm & outer diameter 85 mm or better.
		2- Insulation plugs suitable for horizontal or vertical use: • 1 x standard • 1 x thermocouple access slot •

		3 -Work tube end seals: • 1 x gas inlet/outlet pipe • 1 x gas inlet/outlet pipe + thermocouple gland
		4- Probe thermocouple access: • Above 1200 °C:10 mm gland with PTFE seal and blanking plug to suit optional type R or B or 20/40 probe thermocouple assembly
		5- Flow meter for Ar/N_2 (1 nos.)
	c) For Vacuum	1- End seal with NW25 flange for Vacuum suitable for Ø 85 or better of tube.
		2- Ceramic radiation shields, suitable for vacuum used up to 80mm ID for 1800C.
	D) Certificate Required:-	**1.** Attach the proof of specification of temperature, tube, and controller (in order to ensure high quality of the furnace)
		2. Attach Manufacturer authorization certificate.
	e) Safety-	Following certification is required: • Instrument should be according to EMC Directive 2004/108/EC & EN/61326-:2006.
		• Furnace Outer tem must be According to BSEN61010—010:2014

SL.NO	NAME OF INSTRUMENT	SPECIFICATIONS
2.	**Environmental Controlled High Temperature Muffle Furnace (Box Type Furnace) for 1400◦C**	
a)	**Configuration**:	Horizontal box type furnace
b)	**Loading:**	Front loading
c)	**Door opening**	Lift door
d)	**Maximum temperature**	1400°C or more
e)	**Minimum time to achieve maximum temperature**	Less than 25 minutes
f)	**Continuous operating temperature**	1300°C
g)	**Temperature Uniformity**	<±5°C or better
h)	**Temperature Stability**:	<± 1°C or better at 1400°C
i)	**Heating element**	**Silicon Carbide**

j)	**Thermocouple:**	**Type-R or S**
k)	**Inner Chamber Size (Minimum):**	170mmx170mmx 270mm (Approximately) (HXWXD) (±10 Acceptable)
l)	**Outer Dimensions of Furnace (Maximum):**	700mmx500mmx680mm (Approximately) (HXWXD) (±10 Acceptable)
m)	**Insulation (thermal mass of insulation material)**	Fully ceramic fiber board
n)	**Temperature Controller**:	Eurotherm PID temperature controller with thyrister to control the power supply to the heating element and temperature accuracy ±1°C, at least 8 segment programming facility, over temperature safety controller.
o)	**Supply power**	200-240 single phase
p)	**Maximum furnace Load**:	Less than 8 kW
q)	**Safety**	Door positive safety switch that isolate power to heating elements when door is open
r)	**Furnace Housing material**	Made of rust free stainless steel
s)	**Furnace Housing**	Dual shell construction with fan cooling
t)	**Outside body temperature**	Outer Temperature for Furnace should be less than 60°C Maintains outer case temperature to BSEN 61010 (Certificate Required)
u)	**Maximum weight**:	65 kg
v)	**Process Atmosphere**:	Suitable ports should be provided for gas pursing in back side of furnace
w)	**Compliance**(Certificate Required),	• Attach the proof of specification of temperature, tube, and controller (in order to ensure high quality of the furnace) • Attach Manufacturer authorization certificate. Instrument should be according to EMC Directive 2004/108/EC & EN/61326-:2006 . Furnace Outer tem must be According to BSEN61010—010:2014
x)	**Spares Required**	1 Set of Heating Element

ANNEXURE-V

TECHNICAL COMPLIANCE REPORT:

SL.NO	NAME OF INSTRUMENT	SPECIFICATIONS	Numerical values or other specification	Whether comply Yes/No
1	**ATMOSPHERE CONTROL HIGH TEMPERATURE TUBULAR FURNACE 1600** °C			
	F) Technical Specifications	• Maximum operating temperatures : 1600 °C or More		
		• Operating Temp: 1500°C		
		• Accepts work tubes up to 90 mm outer		
		• Heated lengths of 600 mm		
		• Silicon carbide heating elements		
		• Horizontal configuration		
		• Eurotherm PID Controller with 8 segment		
		• programmable temperature control with 1 program (or better).		
		• Maximum O/D Accessory Tube : 90 mm		
		• Heat up time: 45 min or less		
		• Tube Heated Length : 600 mm or better		
		External Furnace • H x W x D : 600mm x 1000mm x 400mm (Approximate)		
		• Uniform length +/-5°C : 400 mm or better		
		• Thermocouple type: Should be independently controlled with a separate controller. "R" or "S" type thermocouple should be in-built in for temperature control.		
		• Power Supply : 380 – 415 V, Three phase		
		• Maximum Power: 6500 – 7000 W.		
		• Low outer case temperature should comply to BSEN61010 only		

		• Instrument should be "EC" Confirming		
	g) Working Tube:-	**1-** RCA (Re-Crystallized Alumina) , Impervious; highly resistant to chemical attack; at least 99.7% Al_2O_3 suitable for 1800C, • Length 1200mm & Inner diameter 75 mm & outer diameter 85 mm or better.		
		2- Insulation plugs suitable for horizontal or vertical use: • 1 x standard • 1 x thermocouple access slot •		
		4 -Work tube end seals: • 1 x gas inlet/outlet pipe • 1 x gas inlet/outlet pipe + thermocouple gland		
		4- Probe thermocouple access: • Above 1200 °C:10 mm gland with PTFE seal and blanking plug to suit optional type R or B or 20/40 probe thermocouple assembly		
		5- Flow meter for Ar/N_2 (1 nos.)		
	h) For Vacuum	1- End seal with NW25 flange for Vacuum suitable for Ø 85 or better of tube.		
		2- Ceramic radiation shields, suitable for vacuum used up to 80mm ID for 1800C.		
	l) Certificate Required:-	**3.** Attach the proof of specification of temperature, tube, and controller (in order to ensure high quality of the furnace)		
		4. Attach Manufacturer authorization certificate.		

	j) Safety-	Following certification is required: • Instrument should be according to EMC Directive 2004/108/EC & EN/61326-:2006.		
		• Furnace Outer tem must be According to BSEN61010—010:2014		

SL.NO	NAME OF INSTRUMENT	SPECIFICATIONS		
2.	**Environmental Controlled High Temperature Muffle Furnace (Box Type Furnace) for 1400◦C Box Type Furnace for 1400◦C**			
a)	**Configuration**:	Horizontal box type furnace		
b)	**Loading:**	Front loading		
c)	**Door opening**	Lift door		
d)	**Maximum temperature**	1400°C or more		
e)	**Minimum time to achieve maximum temperature**	Less than 25 minutes		
f)	**Continuous operating temperature**	1300°C		
g)	**Temperature Uniformity**	<±5°C or better		
h)	**Temperature Stability**:	<± 1°C or better at 1400°C		
i)	**Heating element**	**Silicon Carbide**		
j)	**Thermocouple:**	**Type-R or S**		
k)	**Inner Chamber Size (Minimum):**	170mmx170mmx 270mm (Approximately) (HXWXD) (±10 Acceptable)		
l)	**Outer Dimensions of Furnace (Maximum):**	700mmx500mmx680mm (Approximately) (HXWXD) (±10 Acceptable)		
m)	**Insulation (thermal mass of insulation material)**	Fully ceramic fiber board		
n)	**Temperature Controller**:	Eurotherm PID temperature controller with thyrister to control the power supply to the heating element and temperature accuracy ±1°C, at least 8 segment programming facility, over temperature safety controller.		
o)	**Supply power**	200-240 single phase		
p)	**Maximum furnace Load**:	Less than 8 kW		
q)	**Safety**	Door positive safety switch that isolate power to heating elements when door is open		
r)	**Furnace Housing material**	Made of rust free stainless steel		

s)	**Furnace Housing**	Dual shell construction with fan cooling		
t)	**Outside body temperature**	Outer Temperature for Furnace should be less than 60°C Maintains outer case temperature to BSEN 61010 (Certificate Required)		
u)	**Maximum weight**:	65 kg		
v)	**Process Atmosphere**:	Suitable ports should be provided for gas pursing in back side of furnace		
w)	**Compliance**(Certificate Required),	• Attach the proof of specification of temperature, tube, and controller (in order to ensure high quality of the furnace) • Attach Manufacturer authorization certificate. Instrument should be according to EMC Directive 2004/108/EC & EN/61326-:2006 . Furnace Outer tem must be According to BSEN61010—010:2014		
x)	**Spares Required**	1 Set of Heating Element		

ANEXURE-VI

DETAILS OF EQUIPMENTS TO BE SUPPLIED AT VARIOUS IKGPTU CAMPUSES:

S.No.	Name of the Equipment	Kapurthala	Batala	Bhikhiwind	Hoshiarpur	Total Quantity
1	Atmosphere Control High Temperature Tubular Furnace (maxtemp 1600 deg celcius)	1	0	0	0	**1**
2	Environmental Controlled High Temperature Muffle Furnace (Box Type Furnace) for 1400 deg celcius	1	1	1	1	**4**