Sub: Amendment to the tender for the Supply ,Installation, Testing and Commissioning Of Electrical Panel Board with Controls for Online Powder Finishing System as per specifications at our factory at Irapuram, Kerala

Ref: IFB NO.: HLL/CED/CON-C/SUPPLY/ELE.COMPONENTS/BTADLCDM/IFC2014 DATE: 15-12-2014

With reference to the above, we here by incorporate the following amendment to the tender documents as detailed below:

## **Amendment no.1**

The last date of date for receipt and opening of bid of the above referred tender has been amended as follows.

(a) Last date and time of receipt of tender: 02-01-2015,15.00Hrs (b) Date and time of opening tender : 02-01-2015, 15.30Hrs

(c) Schedule IV Schedule of items

## **Existing**

	EDULE FOR THE SUPPLY,INSTALLATI H CONTROLS FOR ONLINE POWDER F				G OF PA	NEL BOARD
SI No	Item Description	Make	Unit	Quantity	Rate	Amount
I	Supply ,Installation ,Testing and Commi	ssioning of	1			
1	Panel board having size 1x1x0.4 Mtr 1.6 mm Powder Coated CRCA Sheet panel(The item should confirm IS & IEC standards with Test Certificates)	Rishab, L&T	Nos.	1		
2	Supply and Installation of MCCB		Nos.			
a	MCCB 200 A , 3 Pole ,450Volts ,CAT -B.(It should confirm IS 13032 & IEC standards	L&T,Siemens, Schneider,ABB	Nos.	1		

	with Test Certificates and Calibration certificates)				
2	Supply and Installation of Trivector Meter		Nos.		
	Capable of Measuring KW,KVA,KVAR,V,A,PF and related Electrical parameters with appropriate CTs and PTs.(It should confirm IS 722 & IEC Standards (Part 1 to 9) with Test Certificates and Calibration certificates)	Rishab,Schneider, Omron	Nos.	1	
3	Supply of MCB		Nos.		
а	20 A ,3pole ,415 V MCB (It should confirm IS 13032 & IEC Standards with Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	6	
b	63 A, 3 Pole, 415 V MCB (It should confirm IS 13032 & IEC Standards with Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	2	
С	6A,3 Pole,415 V MCB ()It should confirm IS 13032 & IEC Standards with Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	7	
d	2A, 2pole, 230 V MCB( It should confirm IS 13032 & IEC Standards with Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	1	
4	Supply of Contactors	L&T ,Siemens, Schneider,ABB	Nos.		
a	40 A, 3 Pole, 415 Volts, 230 V Coil (PID Controller) (It should confirm IS 6875 (Part -1) & IS- 2959 & IEC Standards with Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	2	
b	25 A, 3 Pole, 415 Volts, 230 V Coil (It should confirm IS 6875 (Part -1) & IS-2959 & IEC Standardswith Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	6	
С	6 A, 3 Pole, 415 Volts, 230 V Coil (It should confirm IS 6875 (Part -1) & IS-2959 & IEC Standardswith Test Certificates)	L&T ,Siemens, Schneider,ABB	Nos.	7	

5	Supply and Installation of MPCB(It shou 13032 & IEC Standardswith Test Certific		Nos.			
		-				
a	0-4 A , 3 Pole 415 V	Omron,Siemens, Schneider	Nos.	6		
b	0-1.5 A , 3 Pole 415 V	Omron,Siemens, Schneider	Nos.	2		
С	0-12 A, 3 Pole 415 V	Omron,Siemens, Schneider	Nos.	2		
d	0-10 A, 3 Pole 415 V	Omron,Siemens, Schneider	Nos.	2		
6	Supply and installation of ESSR Relay		Nos.			
	ESSR Relay for Preheater 25 Kw( It should confirm IS 6875 (Part -1) & IEC Standards with Test Certificates and Calibration certificates)	Omron ,Rishab	Nos.	2		
7	Supply and Installation of Temperature with display	Controller (PID)	Nos.			
a	Programable Temperature Controller (PID) with LED Display( It should confirm IS 6875 (Part -1) & IEC Standards with Test Certificates and Calibration certificates)	Omron, Fuji,Rishab	Nos.	2		
8	Supply and Installation of Variable Freq Drives(VFD)	uency	Nos.			
а	1 HP VFD( With Test Certificates and Calibration certificates)	Mistubushi,Fuji,Si emens	Nos.	6		
9	Supply and Installation of illuminated S	elector switch	Nos.			
a	illuminated Selector switch( It should confirm IS 6875 (Part -2) & IEC Standards)	Schneider, Siemens	Nos.	16		
10	Supply and Installation of illuminated P Switches	ush button	Nos.			
	illuminated push button switches(Red,Green) 230 V (It should confirm IS 6875 (Part -2) & IEC Standards)	Schneider, Siemens	Set	1		
		j			1	

11	Supply and installation of Emergency Push Button		Nos.		
	Emergency Push Button 450 V,5A( It should confirm IS 6875 (Part -2) & IEC Standards)	Schneider, Siemens	Nos.	1	
12	Supply and installation of CT		Nos.		
	CT(It should confirm IS 2705 (Part -1&2) & IEC Standards with Test Certificates and Calibration certificates)	Schneider, ABB	Nos.	3	
13	Supply and installation of cooling fan,file, Panel light	ter,plug &socket	Nos.		
	Cooling Fan , Filter, Plug & Socket ,Panel Light( It should confirm IS 1293 & IEC Standards with test certificate)	Havels/CGL	Set	1	
14	Supply and Installation of RTD		Nos.		
	RTD , PT 100 Type with extended type of So Test Certificates and Calibration certificate	-	Nos.	2	
	Basic price				
	Packing&Finishing				
	CST/VAT				
	Other charges if any				
	Gross Amount Rs				

(In words)

I agree to supply all the items as per schedule at the rates quoted by me as above and the terms and conditions of the tender document.

SIGNATURE OF THE SUPPLIER

Note: Panel should be earthed with Cu Strippes on both sides it should be as per IS 3043 and door eathing to be provided,

Ferruling is Mandatory for panel internal wiring and for the all Incoming and out going cables , Tagging of all components in the panel is also mandatory ,

All the VFD should be mounted on the panel Naming board should be provided for all MCB and Control switches, incoming and out going cables

should be dressed properly with suitable cable ties, All the cables should confirm IS 1554 & IS 694, All wiring should be as per IS 732,

All safety measures should be taken at site as per IS 5216 (Part 1&2)

## Read as

	SCEDULEFOR THE SUPPLY, INSTALLATION,, TESTING &						
<u>C</u>	OMMISSIONING OF PANEL			OWDE	R FIN	<u>ISHING</u>	
	EQUIPN	IENTS AT I	_				
SI	Item Description	Make	Unit	Quan	Rate	Amount	
No				tity			
I	Supply ,Installation ,Testing an	d Commissio	oning	of			
1	Panel board having size	Rishab,	Nos.	1			
	1x1x0.4 Mtr 1.6 mm Powder	L&T					
	Coated CRCA Sheet panel(The						
	item should confirm IS & IEC						
	standards with Test Certificates						
2	Supply and Installation of		Nos.				
	МССВ						
a	MCCB 200 A , 3 Pole ,450Volts	L&T,Siemen	Nos.	1			
	,CAT -B.(It should confirm IS	S,					
	13032 & IEC standards with Test	Schneider,A					
	Certificates and Calibration	BB					
	certificates)						
2	Supply and Installation of Trive						
	Capable of Measuring	Rishab,Schn	Nos.	1			
	KW,KVA,KVAR,V,A,PF and	eider,Omro					
	related Electrical parameters	n					
	with appropriate CTs and PTs.(It						
	should confirm IS 722 & IEC						
	Standards (Part 1 to 9) with Test						
	Certificates and Calibration						
	certificates)						
3	Supply of MCB		Nos.				

а	20 A ,3pole ,415 V MCB (It	L&T	Nos.	6	
a	should confirm IS 13032 & IEC	,Siemens,	1103.	U	
	Standards with Test Certificates)	Schneider,A			
	Test del timentes	BB			
b	63 A , 3 Pole , 415 V MCB (It	L&T	Nos.	2	
	should confirm IS 13032 & IEC	,Siemens,			
	Standards with Test Certificates)	Schneider,A			
		BB			
С	6A ,3 Pole ,415 V MCB ()It	L&T	Nos.	7	
	should confirm IS 13032 & IEC	,Siemens,			
	Standards with Test Certificates)	Schneider,A BB			
d	2A, 2pole, 230 V MCB( It should		Nos.	1	
u	confirm IS 13032 & IEC	,Siemens,	NOS.	1	
	Standards with Test Certificates)	Schneider,A			
	Standards With Test der infeates;	BB			
4	Supply of Contactors	L&T	Nos.		
		,Siemens,			
		Schneider,A			
		BB			
a	40 A, 3 Pole, 415 Volts, 230 V	L&T	Nos.	2	
	Coil (PID Controller)( It should	,Siemens,			
	confirm IS 6875 (Part -1) & IS-	Schneider,A			
	2959 & IEC Standards with Test Certificates)	BB			
b	25 A , 3 Pole ,415 Volts ,230 V	L&T	Nos.	6	
	Coil (It should confirm IS 6875	,Siemens,	1103.	O	
	(Part -1) & IS- 2959 & IEC	Schneider,A			
	Standardswith Test Certificates)	ВВ			
С	6 A , 3 Pole ,415 Volts ,230 V Coil	L&T	Nos.	7	
	(It should confirm IS 6875 (Part	,Siemens,			
	-1) & IS- 2959 & IEC	Schneider,A			
<u> </u>	Standardswith Test Certificates)	BB			
5	Supply and Installation of MPC	•	Nos.		
	confirm IS 13032 & IEC Standar Test Certificates)	uswitti			
a	0-4 A , 3 Pole 415 V	Omron,Sie	Nos.	6	
١	, , , , , , , , , , , , , , , , , , ,	mens,	1100.	3	
		Schneider			
b	0-1.5 A , 3 Pole 415 V	Omron,Sie	Nos.	2	
		mens,			
		Schneider			
С	0-12 A , 3 Pole 415 V	Omron,Sie	Nos.	2	
		mens,			
	0.40.4.0.0.1.445.77	Schneider	N.T.	•	
d	0-10 A, 3 Pole 415 V	Omron,Sie	Nos.	2	
		mens, Schneider			
6	Supply and installation of ESSR		Nos.		
U	Supply and installation of ESSR	inclay	1105.		

	ESSR Relay for Preheater 25 Kw(	Omron	Nos.	2	
	It should confirm IS 6875 (Part -	,Rishab	11001	_	
	1) & IEC Standards with Test	,			
	Certificates and Calibration				
	certificates)				
7	Supply and Installation of Tem	perature	Nos.		
	Controller (PID) with display	•			
a	Programable Temperature	Omron,	Nos.	2	
	Controller ( <b>PID</b> ) with LED	Fuji,Rishab			
	Display( It should confirm IS				
	6875 (Part -1) & IEC Standards				
	with Test Certificates and				
	Calibration certificates)				
8	Supply and Installation of Varia	able	Nos.		
	Frequency Drives(VFD)	36 1 1.	N.T.		
a	1 HP VFD( With Test Certificates		Nos.	6	
	and Calibration certificates)	Fuji,Siemen			
	Supply and Installation of illun	S	Nos.		
9	Selector switch	imateu	NOS.		
а	illuminated Selector switch( It	Schneider,	Nos.	16	
l "	should confirm IS 6875 (Part -2)	Siemens	1105.	10	
	& IEC Standards)	biemens			
10	Supply and Installation of illum	ninated	Nos.		
	Push button Switches				
	illuminated push button	Schneider,	Set	1	
	switches(Red,Green) 230 V (It	Siemens			
	should confirm IS 6875 (Part -2)				
	& IEC Standards)				
11	Supply and installation of Emer	rgency	Nos.		
	Push Button	0.11	N.T.	1	
	Emergency Push Button 450	Schneider,	Nos.	1	
	V,5A( It should confirm IS 6875	Siemens			
12	(Part -2) & IEC Standards)		Noc		
12	Supply and installation of CT	Cahnaidan	Nos.	3	
	CT(It should confirm IS 2705 (Part -1&2) & IEC Standards	Schneider, ABB	Nos.	3	
	with Test Certificates and	ADD			
	Calibration certificates)				
13	Supply and installation of cooli	nσ	Nos.		
13	fan,filter,plug &socket ,Panel li	0	1103.		
	Cooling Fan , Filter, Plug &	Havels/CGL	Set	1	
	Socket ,Panel Light( It should				
	confirm IS 1293 & IEC Standards				
	with test certificate)				
14	Supply and Installation of RTD		Nos.		
	RTD, PT 100 Type with extended	l type of	Nos.	2	 
	Sensor Tube( With Test Certificat	tes and			
	Calibration certificates)				

1.5	Cumply and Installation of Callan	and Assesser	ioc (A-	Donic	C 640 / T	EC 60227		
15								
	,IS 1255, IS 10810 (Part 0 to 64), IEC 60189 (1 to 3), IEC 60304, IEC 60028,							
	IEC 60332-3,IEC 60227(1 to 5), I	EC 60719 , IE	C 6022	28.) wi	th test c	ertificates		
a	3x2.5 sq mm Cu cable							
b	4x2.5 sq mm Cu cable							
c	4X4 sq mm Cu cable							
d	1 x 2.5 sq mm Heat Resistant Arr	noured cable	<u> </u>					
u	Basic Price in Rs.	induica cabie						
	Packing & forwarding charges							
	Sub Total in Rs.							
	CST in Rs.							
	Gross Amount Rs.							
(In v	words)							
	ee to supply all the items as per se			quote	d by me	as above		
and	the terms and conditions of the te	nder docume	nt.					
						SIGNATU		
						RE OF		
						THE		
						<b>SUPPLIER</b>		
	<u>Note</u>							
Ferr	ruling(As per IS/IEC 61754-5) with	h prited Ferri	ıles is	Manda	tory for	panel		
	rnal wiring and all Incoming and c	-			J -	r		
	ging of all components in the pane			in the	nanel is	also		
	datory.	1 10 0100 111011	10101		parrerre	u100		
	he VFD should be mounted on the	nanel Earth	ing fro	m VFF	) end sh	ould be get		
	nected with the earthing of Machin	-		111 11 2	ona on	oura se get		
	ning and Control switches, board		vided	for all	MCB Ir	coming		
	out going cables should	modia be pre	viaca	ioi uii	1.1GD , 11	icoming		
	dressed properly with suitable cal	nle ties(As ne	r IS/IF	'C 622'	75) All	the cables		
	ald confirm IS 1554 &	oic ties(ris pe	1 15/11	022	, 5) , 1111	the cables		
	94 ,All wiring should beAs per IS 7	32 694 All w	riring c	hould	ho as no	ar IS		
	All safety measures should	J2,U J∃ ,MII W	ii iiig 3	noulu	be as pe	.1 10		
	aken at site As per IS 5216 ( Part 1	8.2) IS 0240	/IFC 6	<u> </u>	IS 8127	(Part		
	)/IEC 60479-1&2,IS 9409	.w4j,10 7445	71560	,0 <del>1</del> 14,	10 040 /	(ι αι ι		
	61140 , IS 9676. Earthing is mand	atory on all a	omnor	onto it	chould	ho ac nor		
	01140 , is 9676. Earthing is mand 043/IEC 60364 and	atory on all C	ompol	iciils Il	. SHOUIU	ne as per		
	<b>/</b>	la Motora ID	'o D:	nina T	onlr I	naghir a		
	thing should be provided for Pane	is,Motors , JB	s, Dip	hiiig I	alik - Lo	eaching		
	k and Entire Machine	.:	. C -	-4.5		-1.5		
	ts with double strand Cu Flat eartl	ning.Earthing	conne	ection	with Ma	cnine has		
	e clamped with suitable	,,,,		., 1	111	. ,		
	lamps at each 750 mm Interval , T	ne earthing c	ontinu	ity sho	ould be i	naintained		
	nterconection		2.1.	01 7				
	between eathing flats with suitable Cu connectors. Cables Should be provided with							
	Proper Lugs							
	per IS/IEC 61238) ,Ties&Tags ( A	s per IS/IEC 6	52275)	Ferru,	ıling (As	s per		
IS/IEC 61754-5)								
Dur	During heater wiring cable should be covered with sleeves to withstand							

temperature upto 400 Degrees

and Cable lugs (As per IS/IEC 61238) also should with stand temperature upto 400 degrees.

Proper Glanding(As per IS/IEC 60079) should be provided for all incoming/out going cables with Gland

EarthingSuitable heat resistant( up to 400 Degrees) /Flame proof ceramic connectors(As per IS/IEC 61754-7)

should be provided were ever it is necessory. Were ever necessory adequate Insulation should be provided

for both electrical and heat resistance by the contactorCable Tray has to be fixed on the panel by the

contactor with out any additional PayPanel erection is also included under the above work. Adequate

Tolls and Tackles has to be provided by the Contactor(Welding Machine ,Drilling set , Cutting Machine ,

Grinding Set, Ferruling machine, Tool set)Other than the above what ever small works which are coming

under the part of Commissioning has to attende by the Contractor-(small fabrication,welding, cutting

,drilling ,bending etc)During the above work all safety gadgets for the working personals at site as per

HLL Norms should be provided by the ContractorStrict Vigilance should be maintained for Safety during

entire project execution as per HLL NormsWorking personal in the project are strictly liable to follow all

rules and regulation under the HLL Norms.All Documents as per HLL Norms has to be provided by the

Contactor for processing the current bills. Alchohol consumption and smoking are strictly prohibited in

the HLL Premises.Gate pass should be maintained for eachbrought out item and counter sign should be

obtained from corresponding HLL personal for Processing the bill of the same.

## ASSOCIATE VICE PRESIDENT(CED)