

**CORRIGENDUM-1**

Ref: Tender No. 112942/CREDA/SPVPP-PDN/2022-23 Dated: 21.10.2022

**Following Amendment/Clarification is being made against Tender No. 112942/CREDA/SPVPP-PDN/2022-23  
Dated: 21.10.2022**

S. No.	Page No./Ref. Clause	Original Version	Amendment/Addendum/Clarification
1.	Pg-9/S.no-1(e)	Bidders should have an aggregate turnover of minimum Rs. 02 Crores in last three financial years i.e. 2018-19, 2019-20, 2020-21/2021-22 in PDN related work. Certified copies of the annual returns and audited balance sheet submitted to the Registrar of Companies/ Income Tax Authorities should be enclosed.	Bidders should have an aggregate turnover of minimum <b>Rs. 01 Crore</b> in last three financial years i.e. 2018-19, 2019-20, 2020-21/2021-22 in PDN related work. Certified copies of the annual returns and audited balance sheet submitted to the Registrar of Companies/ Income Tax Authorities should be enclosed.
2.	Pg-13/S.no-20(a)	Preventive / Routine Maintenance: This shall be done by the contractor at least once in every three month and shall include activities such as tightening of all electrical connections and any other activity that may be required for proper functioning of the Power Distribution Network as a whole.	This point is omitted from the tender.
3.	Pg-19/S.no-16(b)	Beside this 5% of the cost shall also be retained as SD during the five years of warrantee period. No interest shall be payable on the Security Deposit.	Beside this 5% of the cost shall also be retained as SD during the <b>one year</b> of warrantee period. No interest shall be payable on the Security Deposit.
4.	Pg-48	Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years warrantee, as mentioned in the Bid document. (Above rates applicable for items as per specifications stated in bid document (Page 25-31). The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable.	Warrantee period is fixed for PDN materials as 1 Year and 2 Years for other items.

*Signature*  
9/11/22

5.	ANNEXURE – IV/ Pg.No-43		Technical Specifications of Pumps, ACs, BLDC Ceiling Fans and Reflective Paint are attached herewith and shall be treated as part of tender document.
6.	Pg-46/S.no-A31	<p><b>MATERIAL-</b> Supply of BEE certified 5 star rated 28w BLDC ceiling Fan with Remote of 1400mm sweep</p> <p><b>MATERIAL-</b> - Supply of BEE certified 5 star rated 28w BLDC ceiling Fan without Remote of 1400mm sweep</p> <p><b>SERVICE-</b> Installation/fitting of BEE certified 5 star rated 28w BLDC ceiling Fan with Remote &amp; without remote of 1400mm sweep with their complete accessories as per requirement.</p>	It is written as 28w due to typing mistake, it should be read as 28w to 35w.
7.	Pg-47/S.no-A42	<p><b>MATERIAL-</b> Supply of BEE certified 5 star rated 2 Ton capacity Split wall mounted cordless remote Air conditioners with Inverter Technology and equipped with all latest energy efficient technology and environment friendly (Suitable for operation on single phase, 230V±15%, 50Hz AC Supply) having ISEER value of 5.25 and above/unit.</p> <p><b>SERVICE-</b> Design, Supply, Installation, testing and commissioning of BEE certified 5 star rated 2 Ton capacity Split wall mounted cordless remote Air conditioners (single phase, 230V±15%, 50Hz AC Supply) with their complete accessories as per requirement.</p>	It is written as 5.25 due to typing mistake, it should be read as 5.22.
8.	Pg-48/S.no-A44	<p><b>MATERIAL-</b> Supply of Solar Heat Reflective Paint with SRI value equal to 130 for application on RCC roof, metal sheet roof &amp; walls of buildings.</p> <p><b>SERVICE-</b> Application of Solar Heat Reflective Paint with SRI value equal to 130 for application on RCC roof, metal sheet roof &amp; walls of buildings with pre-cleaning of surface properly with application of recommended thickness of coating of paint &amp; primer.</p>	It is written as 130 due to typing mistake, it should be read as 130 or above.

**\* In the price bid of the tender, it is mandatory to quote rates for each and every item. Those bidders who are not interested in bidding for any item in the price bid, then bidders should quote Rs 1.00 for those items and that quoted Rs 1.00 will be treated as “Not Quoted”/ “Regretted” and cannot be considered for evaluation of L1 rate.**

Note-

- All above amendments will be applicable for every clause having same point (co-related) in tender document.
- All other terms and conditions will remain same as per tender document.
- Bidder shall take note of the above amendment and submit their bids accordingly.
- This amendment forms an integral part of bidding document and shall be submitted along with the e-technical bid duly stamped and signed as a token of acceptance.

  
 Chief Engineer (RE-IV)  
 Tender Cell ,CREDA HO Raipur

**Technical Specification of Bureau of Energy Efficiency (BEE) certified Five Star rated Energy Efficient submersible pumps for clear cold water supply**

Supply & Installation of Energy Efficient Five Star Rating SUBMERSIBLE PUMPS with motor suitable for bore wells as per IS:8034 of 2018 (with upto date amendments) for clear cold, fresh water coupled with Submersible Motors as per IS:9283 of 1995 (with upto date amendments), wet type to work on Single phase & Three Phase AC Supply.

1. The motors shall be provided with submersible cable with copper conductor of suitable size of minimum 3 mtrs external length with suitable guard. The cable shall be PVC insulated and PVC sheathed, weather Proof Three core, flat type to IS: 694/2010 with up to date amendments. (The size of the conductor shall be suitably selected so that voltage drop at motor terminal does not exceed 3% of the rated voltage with 15 mtrs Extended length of the cable). The non-return valve should be fitted at pump delivery.
2. The bidder will quote price of pumps irrespective of No. of Stages & Motor Diameter.
3. All pump sets must have BEE (Bureau of Energy Efficiency) 5 star label along with the logo/name plate of pump manufacturer.
4. The logo of the pump set should be as per BEE guidelines. (kindly refer <http://www.beestarlabel.com/Content/Files/Schedule-7.pdf>)
5. The pump sets supplied under the project should be only BEE 5 star rating.
6. The impellers should be of stainless Steel of minimum 410 grade.
7. Polywrap submersible winding, wire with virgin copper shall be used for winding of the motors.
8. The typical materials of main parts of pump sets shall be as per clause 6.2 of IS 8034-2018 (with upto date amendments). However the pump housing, pump shaft, motor housing, motor shaft should be made up of stainless steel. The NRV should be made up of cast iron grade FG 200.
9. The motor stator should be easily rewirable. It should be possible to rewind the motor with readymade pretested coils.
10. The stator body should be rigidly fitted and welded on the stamping assembly to prevent any rotation or shifting of stampings. Stator or bearing housings should not have threaded joints and should be located by slide fit and held together by suitable bolts.
11. The stator as well as the motor should be impregnated under vacuum in epoxy base resin and baked repeatedly under controlled conditions to ensure hard corrosion resistant coating on the stator and motor.
12. The rotating elements of the pump and motor should be dynamically balanced at high speed.
13. The coupling shall be preferably of mesh type rigid sleeve coupling of stainless steel nonslip type with matching groove, coller and key way arrangement.
14. The Overall efficiency of the submersible pump sets should be quoted. No negative tolerance in overall efficiency will be allowed. The efficiency should not be less than the overall efficiency licensed by BIS AND BEE respectively.
15. The overall power factor of the pump set with starter should be more than 0.9.

16. The pumps shall be guaranteed by the manufacturer against the defects in material & workmanship under normal use, and also provide after sales service for a period of 02 years from the date of installation & commissioning. Guarantee of performance shall be applicable as per clause 15.2 of IS-8034:2018 (with up to date amendment)

17. Bidder should provide following documents for each pump set:

- Operation and maintenance manual.
- BEE certification
- Material test certificate, dynamic balancing records, surface finish certificate for pump shafts.
- Performance report/curve along with actual characteristic curves as specified.
- Pump free of cost onsite warranty certificate for 02 years from the date of installation & commissioning.

Following are the specification of Pump sets

**1. Single Phase Submersible Pump sets:**

Parameters	Specifications	Applicable IS	Documents to be submitted
Different Pump Set Rating	0.37Kw (0.5HP)	IS8034 of 2018 (with all amendments)	BIS/NABL lab test report
	0.75Kw (1HP)		
	1.1Kw (1.5HP)		
	1.5Kw (2HP)		
	2.2Kw (3HP)		
Pump Set Rating wise Discharge Capacity Range In litre. per second (lps)	0.37Kw (0.5HP)   0.420lps to 0.70lps		
	0.75Kw (1HP)   0.334lps to 2.20lps		
	1.1Kw (1.5HP)   0.334lps to 2.60lps		
	1.5Kw (2HP)   0.334lps to 2.30lps		
	2.2Kw (3HP)   0.334lps to 1.90lps		
Pump Set Rating wise Discharge Head Range in meter	0.37Kw (0.5HP)   27mtr to 45mtr		
	0.75Kw (1HP)   20mtr to 120mtr		
	1.1Kw (1.5HP)   28mtr to 160mtr		
	1.5Kw (2HP)   40mtr to 200mtr		
	2.2Kw (3HP)   67.5mtr to 200mtr		
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply		
Number of Poles	02 pole		
BEE certified Star Rating	5 Star		BEE star rating certification
Star Rating Validity	The validity period of the Star rating should be up to 31/01/2023.		
Type of Motor	ISI Marked to IS:9283 latest of wet type for continuous rating operating synchronous type		BIS/NABL lab test report
Insulation	B Class		
IP Protection	IP 68		
Application	Domestic Water Supply Rural Water Supply Over Tank Supply		

## 2. Three Phase Submersible Pump sets:

Parameters	Specifications		Applicable IS	Documents to be submitted
Different Pump Set Rating	1.1Kw (1.5HP)		IS8034 of 2018 (with all amendments)	BIS/NABL lab test report
	2.2Kw (3HP)			
	3.7Kw (5HP)			
	5.5Kw (7.5HP)			
Pump Set Rating wise Discharge Capacity Range In litre. per second (lps)	1.1Kw (1.5HP)	0.5lps to 2.5lps		
	2.2Kw (3HP)	1lps to 6.67lps		
	3.7Kw (5HP)	1lps to 9.2lps		
	5.5Kw (7.5HP)	1.39lps to 8.34lps		
Pump Set Rating wise Discharge Head Range in meter	1.1Kw (1.5HP)	30mtr to 100mtr		
	2.2Kw (3HP)	21mtr to 110.4mtr		
	3.7Kw (5HP)	32mtr to 128mtr		
	5.5Kw (7.5HP)	33mtr to 205mtr		
Power Supply	Three Phase, 415V±15%, 50Hz AC Supply			
Number of Poles	02 pole			
BEE certified Star Rating	5 Star			BEE star rating certification
Star Rating Validity	The validity period of the Star rating should be up to 31/01/2023.			
Type of Motor	ISI Marked to IS:9283 latest of wet type for continuous rating operating synchronous type			BIS/NABL lab test report
Insulation	B Class			
IP Protection	IP 68			
Application	Domestic Water Supply Rural Water Supply Over Tank Supply			

### **Technical Specification of Bureau of Energy Efficiency (BEE) certified Five Star rated Energy Efficient Window & Split Air Conditioner (AC)**

Supply, Installation & Commissioning of BEE certified Energy Efficient Five Star rated Inverter Technology based Window & Split type air conditioner including all fittings accessories with indoor unit & Outdoor unit having concealed copper Refrigerant piping with insulation up to 3 Mtr, indoor unit to outdoor unit copper power cable up to 4 Mtr. (at least 3CX 2.5 Sqmm, PVC Insulation, FRLS copper wire), R-22/R-410 Refrigerant, PVC drain pipe (dia 15mm), Remote suitable for 230V +10% of 50 Hz, single phase AC supply capable of performing cooling, dehumidification, air circulation for office buildings.

- All ACs must have BEE (Bureau of Energy Efficiency) 5 star label along with the logo/name plate of AC manufacturer.
- Bidder should provide following documents for each AC:
  - Operation and maintenance manual.
  - Warranty Certificate

Following are the specification of ACs

**1. Wall Mounted Split AC**

Parameters	Specifications		Applicable IS	Documents to be submitted
Air Conditioner Type	Split		IS 1391(part I & Part II) with all amendments	BEE star rating certification
Capacity	1 Ton, 1.5 Ton & 2 Ton			
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply			
Capacity Wise ISEER Value	1 Ton AC	6.2 or above		
	1.5 Ton AC	5.75 or above		
	2 Ton AC	5.22 or above		
BEE certified Star Rating	5 Star			
Star Rating Validity	The validity period of the Star rating should not be lapsed.			
Technology	Variable Speed Inverter Technology			
Refrigerant	Eco-friendly			
	Refrigerant	R-32/R-290/R-		
	Refrigerant	675/3/3		
Compressor Type	Rotary/Swing/ Scroll/reciprocating Compressor			
Material of condenser coil, evaporator coil and connecting tubes are made of copper tubes and coils	Copper Or higher			
Material of Air Filter (on indoor unit)	Synthetic Fiber			
Remote	Cordless Remote with Batteries			
Warranty	1 Year Comprehensive 5 year on PCB 10 Years on Compressor			

## 2. Window AC

Parameters	Specifications	Applicable IS	Documents to be submitted	
Air Conditioner Type	Window	IS 1391(part I & Part II) with all amendments	BEE star rating certification	
Capacity	1 Ton & 1.5 Ton			
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply			
Capacity Wise ISEER Value	1 Ton AC			3.57 or above
	1.5 Ton AC			3.6 or above
BEE certified Star Rating	5 Star			
Star Rating Validity	The validity period of the Star rating should not be lapsed.			
Technology	Variable Speed Inverter Technology			
Refrigerant	Eco-friendly			
	Refrigerant			R-32/R-290/R-
	Refrigerant	675/3/3		
Compressor Type	Rotary/Swing/ Scroll/reciprocating Compressor			
Material of condenser coil, evaporator coil and connecting tubes are made of copper tubes and coils	Copper Or higher			
Material of Air Filter (on indoor unit)	Synthetic Fiber			
Remote	Cordless Remote with Batteries			
Warranty	1 Year Comprehensive 10 Years on Compressor			

**Technical Specification of Bureau of Energy Efficiency (BEE) certified Five Star rated Energy Efficient BLDC Ceiling Fan**

Supply & Installation of BEE certified 5 star rated energy efficient Brushless direct current motor technology based ceiling fan with & without remote compatible with regulator for office buildings.

Bidder should provide following documents for each AC:

- Operation and maintenance manual.
- Warranty Certificate

The ceiling Fan with its complete accessories should be of following specifications:-

**1. BLDC Ceiling Fan 1200mm sweep with Remote**

Parameters	Specifications	Applicable IS	Documents to be submitted
Fan Rating/wattage	28Watt	IS 374:2019 with all amendments	NABL/BIS Test Report
Sweep	1200mm		
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply		
Energy Efficiency Standard	BEE, Certified 5-star Rating		
Technology	Brushless direct current (BLDC) motor technology		
BEE certified Star Rating	5 Star		BEE star rating certification
Star Rating Validity	The validity period of the Star rating should not be lapsed.		
Minimum Service Value	8 and above		
Minimum Air Delivery (Cubic M/min)	230 or above		
Speed	Adjustable Speed control with minimum 4 number of Speed		
Remote	Cordless Remote with Batteries		
No. of Blades	03		
Colour	White		
Warranty	2 Years		
Compatible with Regulator in case of non-working of remote	Yes		



**2. BLDC Ceiling Fan 1200mm sweep without Remote**

<b>Parameters</b>	<b>Specifications</b>	<b>Applicable IS</b>	<b>Documents to be submitted</b>
Fan Rating/wattage	28Watt	IS 374:2019 with all amendments	NABL/BIS Test Report
Sweep	1200mm		
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply		
Energy Efficiency Standard	BEE, Certified 5-star Rating		
Technology	Brushless direct current (BLDC) motor technology		
BEE certified Star Rating	5 Star		
Star Rating Validity	The validity period of the Star rating should not be lapsed.		
Minimum Service Value	8 and above		
Minimum Air Delivery (Cubic M/min)	230 or above		
Speed	Adjustable Speed control with minimum 4 number of Speed		
No. of Blades	03		
Colour	White		
Warranty	2 Years		
Compatible with Regulator	Yes		

### 3. BLDC Ceiling Fan 1400mm sweep with Remote

Parameters	Specifications	Applicable IS	Documents to be submitted
Fan Rating/wattage	28Watt to 35Watt	IS 374:2019 with all amendments	NABL/BIS Test Report
Sweep	1400mm		
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply		
Energy Efficiency Standard	BEE, Certified 5-star Rating		
Technology	Brushless direct current (BLDC) motor technology		
BEE certified Star Rating	5 Star		
Star Rating Validity	The validity period of the Star rating should not be lapsed.		
Minimum Service Value	7.5 and above		
Minimum Air Delivery (Cubic M/min)	250 or above		
Speed	Adjustable Speed control with minimum 4 number of Speed		
Remote	Cordless Remote with Batteries		
No. of Blades	03		
Colour	White		
Warranty	2 Years		
Compatible with Regulator in case of non- working of remote	Yes		

#### 4. BLDC Ceiling Fan 1400mm sweep without Remote

Parameters	Specifications	Applicable IS	Documents to be submitted
Fan Rating/wattage	28Watt to 35Watt	IS 374:2019 with all amendments	NABL/BIS Test Report
Sweep	1400mm		
Power Supply	Single Phase, 230V±15%, 50Hz AC Supply		
Energy Efficiency Standard	BEE, Certified 5-star Rating		
Technology	Brushless direct current (BLDC) motor technology		
BEE certified Star Rating	5 Star		
Star Rating Validity	The validity period of the Star rating should not be lapsed.		
Minimum Service Value	7.5 and above		
Minimum Air Delivery (Cubic M/min)	250 or above		
Speed	Adjustable Speed control with minimum 4 number of Speed		
No. of Blades	03		
Colour	White		
Warranty	2 Years		
Compatible with Regulator	Yes		

**Technical Specification of Heat Reflective Paint:-**

Supply & application of heat reflective paint for RCC concrete roof, walls, asbestos & Tin Sheets of office buildings for cooling purpose of following specification.

<b>Parameters</b>	<b>Specifications</b>	<b>Applicable IS</b>	<b>Documents to be submitted</b>
Paint base type	Water based liquid paint		NABL Test Report
Form of Paint	Paste		
Type	Emulsion		
Coating Type	Acrylic polymer/plastic/ceramic base heat insulating paint		
Solar Reflective Index Value	130 or above	ASTM E1980	
Solar Reflectance	0.98 or above	ASTM C1549	
Thermal Emittance	0.95 or above	ASTM C1371	
Minimum Adhesion Strength	40pound/square inch		
Number of applicable coat	02 coat		
Per Coat Thickness	55 micron/coat		
Solar Heat Reflective	Yes		
Water Proofing	Yes		
Dust & Water Repellent	Yes		
Paint Colour	Milky White		
Fire Resistance	Non Flammable		
Minimum Recoating Time	05 hours		
Toxicity	Non Toxic		
Reduce surface Temperature	Upto 10-15 degree celcius		
Application	RCC concrete roof, walls, asbestos & Tin Sheets		
Minimum lasting Time	5 years		