



Government of Jammu and Kashmir

**OFFICE OF THE SUPERINTENDING ENGINEER
JSD(PHE) MECHANICAL CIRCLE (SOUTH) SRINAGAR**



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M/S UNION EQUIPMENT & SERVICES,
BUDSHAH BRIDGE ,
SRINAGAR- 190001

AA Accorded vide Order No	CE/PHE/DB/JJM/253 of 09/2022, Dtd:- 05-09-2022
Tech Sanction Accorded vide Order No	CE/PHE/DB/296 of 9/ 2022, Dtd:- 07-09-2022
Advertised Cost	Rs. 1,86,16,920.00
Allotted Cost	Rs.1,82,32,148.00

ALLOTMENT ORDERS NO: JSMCS/TS/03
DATED: - 20/04/2023

Sub:- ALLOTMENT ORDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ELECTRO-MECHANICAL EQUIPMENTS AT WATER SUPPLY SCHEME BAGHI MEHTAB UNDER JJM.

- Ref:-(i). Minutes of Meeting held under chairmanship of District Development Commissioner Budgam (Chairman DJJM) issued vide No:- DDCB/JJM/167-79, Dated:- 05/04/2023.
(ii). E-NIT No:- 44 of 2022 , Dated:- 01.10.2022.
(iii). Technical Sanction No:- CE/PHE/DB/296 of 9/ 2022, Dated:- 07-09-2022

Dear Sir,

For and behalf of Lt. Governor of Union Territory of Jammu and Kashmir the above noted job for Supply, Installation, Testing and Commissioning of Electro-Mechanical equipments at Water Supply Scheme Baghi Mehtab under JJM allotted to you on overall cost of Rs. 1,82,32,148.00 (Rupees One Crore Eighty Two Lakh Thirty Two Thousand One Hundred Forty Eight Only) in reference to above NIT on the rates, terms and conditions and specification contained in Annexure "A" and "B" of this allotment.

No: JSMCS/TS/ 199- 807

Dated: 20 /04/2023

Mulay
Superintending Engineer,
Jalshakti PHE Mechanical Circle,
South, Srinagar

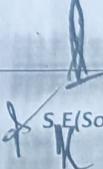
Copy to the:-

- Chief Engineer Jalshakti PHE Department Srinagar for favour of information.
- Deputy Commissioner, Budgam (DJJM) for information.
- Superintending Engineer, Hydraulic Circle Budgam, (Member Secretary) for information.
- Additional Commissioner Excise & Taxation office Complex Solina Srinagar for information.
- Executive Engineer J/S PHE Mechanical Division Srinagar for information.
- Executive Engineer J/S PHE Division Chadoora for information.
- Asstt. Ex-Engineer J/S PHE Mech. City Left Sub-Division Sgr. for information.
- AAO J/S PHE Mech. Division Srinagar for information.

ANNEXURE "A"

TECHNICAL SPECIFICATION TO THIS OFFICE ALLOTMENT ORDER NO:-
JSMCS/TS/ 03 , Dated:- 20/04/2023, FOR ELECTRO MECHANICAL
EQUIPMENTS AT WSS BAGHI MEHTAB SRINAGAR UNDER JJM

S. NO	DESCRIPTION OF WORK / ITEM(S)	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs)
1.	<p>Supply, Installation, Testing And Commissioning of Horizontal pumping unit as per IS 1520 with following specification:</p> <p><u>PUMP:-</u></p> <p>Discharge : 15000 GPH Dynamic Head: 90 Meters 1. Type :- Horizontal split casing Material of construction 1. Impeller:- Stainless Steel/ Bronze/ CF8M 2. Shaft:- SS410 3. Pump casing:- Cast Iron 4. Speed :- 1440-1500RPM The pump shall confirm to IS-1520 code</p> <p><u>MOTOR :-</u></p> <p>A) Type :- Horizontal squirrel cage Induction Type B) Rating:- Suitable for above parameters/ As per OEM C) No of phases: 3 phase 415 V ± 10%, 50 Hz, AC supply D) Winding:-Copper wound squirrel cage E) Type of enclosure:-TEFC F) Method of cooling:- Air cooled with fan mounted G) Method of Starting: star delta</p> <p>The pump-motor should be mounted on a common base frame fabricated out of M.S channel of suitable size and duly fitted with T-type foundation bolts / nuts and washers to make the pumping unit vibration free. The pump and motor should be coupled through suitable coupling. The coupling faces shall be checked for both angular and axial alignment with the help of tapered gauges/feeler gauges or dial indicator. The pumping equipment is to be installed on the foundation base with J Bolts. Job includes testing and commissioning of pumping unit on full load at site.</p> <p>Note: Test certificates having the Serial No. of the Pumping Unit along with the performance curves in duplicate and Material of Construction from the Manufacturer must be produced on delivery of the item.</p> <p><u>MAKE:</u> </p> <p>PUMP:- MATHER PLATT/ KIRLOSKAR</p> <p>MOTOR:- KIRLOSKAR/ABB</p>	2.00	Jobs	479000	958000


S.E(South)

2.	<p>Supply, Installation, Testing And Commissioning of GI C Class column pipe conforming to IS: 1239 of length 10 Rft into collection sump up to the desired depth; The job includes Providing and welding of flanges conforming to IS: 6392, Table-17 and PN 16 to these pipes and welding of flanges in two layers to make the flanged joint strong and leak proof. Each pipe of 10 ft length is to be weld on both sides with flanges using welding rod of reputed make. The job includes all types of skilled labors, arrangement of power supply/ diesel Generator set etc required for the job including P/F of suitable size nuts bolts and R.I Gasket in the flanged joints of column pipes. The job further includes cutting of 2 no. rectangular cable slots in each flange.</p> <p>ND= 150 MM, Class: C (Heavy)</p> <p>Test/Inspection certificates from the Manufacturer must be produced on delivery of the item</p> <p>MAKE:- JINDAL HISSAR/ SURYA PRAKASH</p>	5.00	Jobs	10700	53500
3.	<p>Supply, Installation, Testing And Commissioning of G.I flanged Rising Main from Kanipora to Baghi Mehtab OHT. The Pipe shall be hot dip Galvanized, class C conforming to IS 1239. The job includes providing and fitting of M.S Flanges conforming to BIS 6392/ 1997 Table 17 (Rating PN16). The flanges shall be double welded both from inside and outside of the pipe using standard electrode of reputed make. The job includes Fabrication ,Providing and fitting of 90-120 degree bend/elbow to be fabricated out of Class C GI pipe, 1 m length and flanged on both ends a to make it leak proof. The flanges shall be M.S Flanges conforming to BIS 6392/ 1997 Table 17 (Rating PN16) and welded on both sides. The job includes nuts, bolts, gaskets etc as per site requirement.</p> <ul style="list-style-type: none"> • Flanges (as per IS 6392/1997 Table:17) • Thickness shall conform to IS 6392 Part 1st Table-17. The flange welding shall be carried out in double layers using reputed make electrodes to form strong welding joint. • Welding Electrode • DC Arc Welding using welding electrode having diameter not less than 4mm. • Nuts and Bolts • Nuts and Bolts (conforming to IS:1363 Part 1st) • Rubber Insertion Gaskets • Rubber Insertion Gaskets (conforming to IS: 638/ 79) to be used between flanged joints. • The main technical specifications of the pipe are given here under: • ND= 150 MM • Class: C (Heavy) • Test/inspection certificates from the Manufacturer must be produced on delivery of the item <p>MAKE:-</p> <p>JINDAL HISSAR/ SURYA PRAKASH</p>	3970.00	Meter	3075	12207750

4.	Earth work in excavation by mechanical means(Hydraulic Excavator) in trenches for foundation , drains ,pipes , cables (not exceeding 1.5 m in width) and for shafts , wells , cesspits and the like not exceeding 10 sqm on plan , including dressing of sides and reaming of bottom lift upto 1.5 m , including getting out excavated earth and disposal of surplus excavated earth as directed. pipes. <i>(All kinds of soil 01 meter from cutting edge)</i>	2016.45	Cum	262.7	529724.04
5.	Filling available excavated earth in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by reaming and watering, lead up to 50 m and lift upto 1.5m.	1613.16	Cum	221.35	357072.96
6.	Providing and laying of stone soling including manual compaction	3.00	Cum	1300	3900
7.	Centring and shuttering including strutting, propping etc. and removal of form work for Foundation, footings, bases for columns	18.00	Sqm	280	5040
8.	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering. all work upto plinth level with 1: 2: 4 mixes (1 cement, 2 coarse sands, 4 graded stone aggregate 20 mm nominal size)	9.18	Cum	6591.25	60507.67
9.	Fabrication, providing and fitting of washout Tee. The Tee shall be fabricated out of G.I C-class pipe with M.S Flanges conforming to BIS 6392/1997 Table 17 (Rating PN16) fastened with weld joints on three ends. The size of the Tee is given Below: ND= 150 MM Class: C (Heavy)	1.00	Job	6500	6500
10.	Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, non-rising spindle Resilient seated gate/ sluice valves (PN16) in accordance with BS 5163 part 1 and part 2 / EN 1074 Part 1 & 2 for regulating the water supply outside the pumping units. The body and bonnet of the valve shall be of ductile iron, wedge with fully vulcanized EPDM rubber (Approved for drinking water) and NBR seal. The Gate/Sluice valve shall be compatible for buried applications and shall be safe to install in both horizontal and vertical positions. It shall have electrostatic epoxy coating (approved for drinking water) both inside and outside of the valve. The valve shall be supplied along with hand wheel. Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work. The job includes providing and fitting of 02 nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job. Material of Construction <ul style="list-style-type: none"> • Body: Ductile iron EN-GJS-400-15 / GJS-500-7 (GGG-40/GGG-50) • Bonnet: Ductile iron EN-GJS-400-15/ GJS-500-7 GGG-40/GGG-50) • Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506) • Stem Nut : Brass • Check valve disk: Ductile iron EN-GJS-400-15/ 	4.00	Nos	25000	100000

	<p>GJS-500-7 (GGG-40/GGG-50)encapsulated with EPDM vulcanized</p> <p>The Test Certificates of Sluice/Gate Valves mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material.</p> <p>MAKE:- SIGMA FLOW / TALIS</p>				
11.	<p>Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, Slanted seat swing check valve (NRV) (PN16) as per EN 1074- Part -3 / BS 5153. The body shall be of ductile cast iron with fully encapsulated vulcanized EPDM rubber (Approved for drinking water). The valve shall be compatible for buried applications and shall be safe to install in both horizontal and vertical positions.</p> <p>It shall have electrostatic epoxy coating (approved for drinking water) both inside and outside of the valve.</p> <p>Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work.</p> <p>The job includes providing and fitting of 02 nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with Rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> • Body: Ductile iron EN-GJS-400-15 / GJS-500-7 (GGG-40/GGG-50) • Bonnet: Ductile iron EN-GJS-400-15/ GJS-500-7 GGG-40/GGG-50) • Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506) • Stem Nut : Brass • Check valve disk: Ductile iron EN-GJS-400-15/ GJS-500-7 (GGG-40/GGG-50)encapsulated with EPDM vulcanized <p>The Test Certificates of Check Valves (NRVs) mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material.</p> <p>MAKE:- SIGMA FLOW / TALIS</p>	10.00	Jobs	31000	310000
12.	<p>Providing, fitting, testing and commissioning of ARV (Air Release valve) (PN16) as per EN 1074 Part 4 to be fitted to G.I rising Main. The ARV Shall have the following specifications:-</p> <ol style="list-style-type: none"> i. Valve type - single chamber, single orifice. ii. End connection - flanged ends to IS 1538 iii. Test pressure - body / seat 2.5 x PN iv. Sealing ring - EPDM v. Construction -ductile iron with stainless steel floats vi. Coating - epoxy with corrosion resistance <p>Besides the above works, The job also cost on account of P/F.R.I gasket, nuts and bolts required for installation of ARV and arrangement of gas cutter/welding set at site.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> • Body: Ductile iron EN-GJS-400-15 (GGG-40) • Bonnet: Ductile iron EN-GJS-400-15 (GGG-40) • Inner parts: Stainless steel 1.4541 • Float: Stainless steel A4 (exception: DN 50 - PN 10/16 synthetic, from PN 25 of A4) 	3.00	Jobs	19000	57000

	<ul style="list-style-type: none"> • Sealing: EPDM • Bonnet bolts: Stainless steel A4 (DIN EN ISO 3506) <p>The Test Certificates of Air Release Valves mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material</p> <p>MAKE:- SIGMA FLOW / TALIS</p>				
13.	<p>Providing, Fabrication, fitting, testing and commissioning of Structural Steel, including cutting, hoisting, fixing in position and applying a priming coat of steel primer and 02 coats of paint of approved shade all complete. The Structural steel is to be utilized for Fabrication of DG set Shed, Gantry, and any other support required as per site requirement. The Steel may include ISMB, ISMC, ISA (Angle Iron), Chequered plate etc as per the site requirement.</p>	1550.00	Kgs	120.80	187240
14.	<p>Supply, Installation, Testing And Commissioning of manual type triple spur gear chain pulley block along with monorail geared travelling trolley having following features</p> <p>Gears: - The hoist shall have precision machine case Hardened alloy steel gear mounted on bearings and housed in a dust proof gear box. The lubrication of gears should be of high viscosity and temperature for longer life of gears.</p> <p>Load Chain: - The load chain be made of high tensile alloy steel having wear resistance and greatest mobility. The chain should be accurately collared, tested and have adequate in built factor of safety for safer operation.</p> <p>Load chain wheel: - The load chain well should be double ball bearing supported and Specially designed, perfectly machined wheel providing correct grip of load chain to makes the hoist most safe and reliable against any failure. The main specifications of C.P Block are given below :</p> <ul style="list-style-type: none"> • Capacity = 3 ton • No. Of load chain falls = 2 or above • Min. Height of lift = 6 M <p>Testing/Inspection Certificates are mandatory and are to be produced at the time of supply of material</p> <p>MAKE:- INDEF/ PULL LIFT</p>	1.00	Jobs	62972	62972
15.	<p>Supply, Installation, Testing And Commissioning of outdoor type Electric Sub Station as per the technical specifications given here under -</p> <p>Specifications conforming to IS: 1180 (Part 1) 2014 with latest amendments.</p> <p>Type: HT/LT Transformer (Level-2)</p> <p>Type of cooling: ONAN.</p> <p>Operating conditions:</p> <p>Input = 11000 volts</p> <p>Output = 433 volts AC supply in 3-phase.</p> <p>Terminals:</p> <p>Input=3 No. HT Brass bush rods with insulators, washer, nuts etc.</p> <p>Output=4 No. LT Brass bush rods switch insulators, washers, nuts etc.</p> <p>Core: The core shall be of high permeability to</p>	1.00	Job	196466	196466

	<p>reduce core losses and the strips shall be of suitable size and gauge.</p> <p>Transformer Coils: Suitable number of HT and LT coils in each leg of the core. The transformer coils shall be fabricated out of superior quality aluminum wire/strips, properly wound. The HT transformer is completely filled with suitable grade transformer oil up to required level. The job includes carriage, and all leads and lifts involved.</p> <p>The HT transformer shall be of reputed make from an ISO certified company as per relevant standards and a test certificate shall be provided before installation. The transformer shall also be provided with breather fill with silica jel crystals, conservator with oil level indicator, explosion vent and adequate radiator fins/ Tubes. The impedance of transformer shall be as per IS: 1180 (Part 1) 2014 with latest amendments.</p> <p>NOTE: The scope of the work shall include obtaining of necessary inspection/clearance certificate from the concerned department for all the required equipment. The testing and commissioning shall be completed only after obtaining above certificate.</p> <p>MAKE:- NORTH SON</p>				
16.	<p>TRANSFORMER BED:-</p> <p>The HT Transformer has to be erected on a transformer bed of size 2000x2000mm fabricated by welding out of 04 No's of vertically grouted Mild Steel pipes of 100 MM diameter; 5.4mm Thick, 2500 long grouted in cement concrete mix of 1:2:4 MIX (500MM underground) and 2000MM above ground) including providing and fitting by welded with 10 mm thick M. S. Plate of 200 mm x 200 mm in size at the bottom of adequate size to avoid tilting. Providing and fitting of ISMC-100, 2000MM, 4nos, over the above erected MS pipes. The job further including providing and fitting of Channel section ISMC-100, 2000MM, 20 Nos. horizontally on top over the above erected MS pipes by welding using high quality electrodes for resting of HT transformer. The job also includes fabrication and fitting Of stair of length 2.5 mtrs made out of IS 50X50X6MM with steps of length 450mm and at equidistance of 300mm . The whole structure shall be applied with Red Oxide Primer and two coats of anti-corrosive paint of desired shade.</p>	1	Job	93500	93500
17.	<p>Providing and fitting G.I Channel / Angle/ Flat of sizes including clamps. The job includes fitting of Channels on two poles for the installation of insulators and safety devices, GO Set, Lighting Arrestor etc. It also includes the channels for fitting of LT Meter and LT Distribution Box. The job includes P/F of GI channels at Tapping point for installation of GO Link Set, Pin Insulators Etc as per site requirement</p> <p>Size of Channel= ISMC 75X40MM</p>	403.00	Kg	123	49569
18.	<p>Supply, Installation, Testing and commissioning of 02 No. Polymeric Gang operated Air break switch, outdoor type, triple pole, suitable for vertical installation, single break provided with locking arrangement at both ON and OFF position consisting of HT pole double insulator, copper or copper alloy high pressure heavy</p>	2.00	Jobs	11730	23460

	contact assembly, rod with bearings , operating handle and 2 length of 32mm dia. GI pipe conforming to IS 1818 1961, 06 No. of insulators, rated voltage 11KV 200A complete as per IS specs. The 11 KV AB switches shall conform to IS: 9920 (Part-I to IV). 01 No. GO Set is to be fitted at tapping point and 01 No at HT Transformer (Substation) Testing/Inspection Certificate as per IS 9921 Part IV is mandatory and is to be produced at the time of supply of material				
19.	Supply, Installation, Testing and commissioning of 11KV polymer fuses Set Horn Gap 3-phase 200 A suitable for vertical installation.	1.00	Jobs	4983	4983
20.	Supply, Installation, Testing and commissioning of Gapless Surge arrestor station class, 10KA, 9KV, LA With polymer housing, Station Type.	1.00	Set	7500	7500
21.	Supply and fitting of 11 KV polymeric composite pin insulator 12 KV, 5KN, Lighting impulse 75KV Positive, and 80 KV Negative , creepage distance 320 mm	27.00	Jobs	347	9369
22.	Supply, installation, erection, Testing And Commissioning of 9 mtrs long H.T Steel Tubular pole of specifications ST- 410 (SP-33) . The job further includes drilling of holes for installation of various accessories wherever required the job further includes G.I wire earthing of pole as per REC standard. The tubular steel poles shall conform to the latest edition of Indian Standard specification IS: 2713 (Part - I, III): 1980 The materials used in construction of tubular steel poles shall be of the tested quality of steels of minimum tensile strength 540 MPa. The Poles shall be fitted with base plate as per above standard. The poles shall be applied with Red Oxide Primer and two coats of anti-corrosive Red paint at bottom up to the length of 4M and two coats of paint of silver shade for the rest.	9.00	Nos	19900	179100
23.	P/F of Galvanized nuts, bolts of various sizes as per site requirement	26.00	Kgs	142	3692
24.	P/F Danger Plate with clamps	9.00	Nos	150	1350
25.	Providing and fixing G.I Barbed wire for anti-climbing/ anti-climbing devices. The barbed wire shall be tightly close wrapped around the pole for 10-12 turns, commencing at 2.50m above the datum line.	36.00	Kg	130	4680
26.	Supply, Installation, Testing And Commissioning of Galvanized stay set with 50 X 8 mm Stay Clamp , Guy insulator (2no.), Anchor plate (200X200X6mm), nuts and bolts , 2 NO- turn buckle , 1.8 m long , 16 mm diameter solid G.I stay rod & 7/3.15 mm dia. G.I stranded wire complete.	4.00	Set	4922	19688
27.	Providing and fitting of ACSR as per IS 398 (part-2) 1996 for 50 sq.mm ACSR (Galvanized steel reinforced) for fitment of various accessories	10.00	Mtr	56	560
28.	Supply, Installation, Testing And Commissioning of 50 sq mm XLPE HT cable (ABC type) of 11 KV Grade with following specifications size cross sectional area in square mm)= 3x50+1x70 sq mm phases Red, Yellow , Blue The Cable should conform to IS: 8130-1984, IS:	27.00	Mtr	930	25110

	398(Part-IV)-1994, IS: 7098(Part-II)-2011 & IS: 5831-1984 with up to date amendments, if any. The Test Certificate of Cables duly stamped by manufacturer shall be provided at the time of supply of material				
29.	Supply, Installation, Testing And Commissioning 11 KV cable termination kit for connecting 50 Sq mm XLPE cable (ABC type) with the existing HT line near tapping point and HT transformer.	4.00	Jobs	8000	32000
30.	Supply, Installation, Testing And Commissioning of LT Distribution box for H.T transformer with MCCB For incomer and SFU for outgoing circuits. The LT distribution Box is to be fitted on GI Channels.	1.00	Jobs	28000	28000
31.	Supply, Installation, Testing And Commissioning of PRODIGY LT Meter of following specification complete with all fixtures required for fitment at site Type: E3L100, 3 Phase, 4 wire Measurements offered: KWh, KVARh, KVAh, KVA Voltage : 3x240V(415v),50HZ Ib : 40A Imax: 200A Battery: Lithium The Prodigy Meter must be fitted inside the Box, that is to be fitted on GI Channels near LT Distribution Box. Both the enclosures must be symmetrical Sealing / Inspection report of Prodigy meter from JKPDC (Concerned) is to be submitted by the firm at the time of charging of SUBSTATION.	1.00	Jobs	29000	29000
32.	Supply, Installation, Testing And Commissioning of Modular motor control panel of appropriate size fabricated out of 14 SWG sheet having required openings/vents and protection Class : IP-55 & fitted with accessories as under: a) Bus bar Chamber: The bus bar chamber shall be fitted at the top of the panel horizontally throughout the length. There shall be 3 Nos. of phase bus bar and 1 No neutral bus bar and 1 No earthing bus bar. The bus bars shall be air insulated, and made-up of high conductivity COPPER with current density of suitable rating for 200 Ampere. All panel compartments shall be provided with suitable cable alley and vertical bus bar alley. Suitable segregation shall be provided in between bus bar chamber and adjoining compartments. The bus bar shall be PVC sleeved with color strips of red, yellow, blue and black and the same be arranged in accordance with IS-375 specs. Electrical clearances shall be maintained between phases, neutral and body as per standards. b) MAIN CIRCUIT BREAKER (INCOMER MCCB): Qty. = 02 No. of poles = 4 Pole Current Rating = 200-250A (DN2 250N) Rated operational voltage = 415 V ± 10 % Rated frequency = 50 ± 3%Hz Ambient temperature = 70°C to 40 °C Type of release = Thermal-Magnetic Overload protection = 0.8 - 1×In adjustable Short-circuit protection= 6-10×In adjustable. Ultimate S.C Breaking Cap. at (415V AC, 50 Hz)= 50kA	1.00	Job	334000	334000

MAKE:- L&T/ HAVELLS**c) CHANGE OVER SWITCH:**

Qty. = 01 No.
 Rating = 200A
 Type = Front operated, on load, 4 pole,
 $415 \pm 10\% V, 50 \pm 3\% Hz.$

MAKE:- L&T/ HAVELLS**d) MOTOR BACK-UP PROTECTION MCCB:**

Quantity = 2 No
 No. of poles = 3P
 Current Rating = 200A
 Rated operational voltage = $415 V \pm 10\%$
 Rated frequency = $50 \pm 3\% Hz$
 Ambient temperature = $-7^\circ C$ to $40^\circ C$
 Ultimate S.C Breaking Cap.
 at (415V AC, 50 Hz) = 50kA

MAKE:- L&T/ HAVELLS**e). SUBMERSIBLE STARTERS:- = FULLY AUTOMATIC STAR DELTA STARTERS.**

Power Specs = $3 \Phi, 415 \pm 10\% V, 50 \pm 3\% Hz.$
 Relay range = 66-110 A
 Coil Voltage = 380 v
 Protection = single phasing, phase
 Reversal, phase unbalance (55 ± 5

V),

Conformity to standard = IS/IES 60947-4-1

Qty. = 2 No's

MAKE:- L&T/ HAVELLS**f) AUXILIARY MCCB FOR HEATING/LIGHTING:**

Circuit Breaker= MCCB (Outgoing)
 Qty. = 1 No.
 No. of poles = 4P
 Current Rating = 63A
 Rated operational voltage = $415 V \pm 10\%$
 Ultimate S.C Breaking Cap
 at (415V AC, 50 Hz) = 36kA

MAKE:- L&T/ HAVELLS**g) MOTOR PROTECTION RELAY:**

Digital Motor Protection Relay with LCD Display for 3-phase supply with following protections suitable for the Modular Control Panel:-

Protections = Thermal Overload with pre-alarm, Short Circuit, Phase Loss, Unbalance, Phase reversal, Under Current, Prolong starting, Locked Rotor & Earth fault. And over current

Qty. = 02 No's (01 No. for each starter)

MAKE:- L&T/ HAVELLS**h) M-POWER MODULE for mobile starter for submersible motor 1P/3P 3 wire**

Quantity - 02 no.

IVRS Languages - English, Hindi,
 Suitable Region- North India

i) Over Voltage and Under Voltage Protection relay (02No.) to be fitted separately for both starters
 The panel shall be provided with phase indicators (03 NO) and digital ammeter of range 0-60 A, digital

	voltmeter of range 0-500 V, and digital frequency meter (01 No each). The enclosure of the panel shall be of excellent fit and finish, corrosion resistant and powder coated gliding hinges for smooth and noiseless movement of windows and advanced locking arrangements.				
33.	<p>Supply, Installation, Testing And Commissioning of 75KVA voltage stabilizer as per specifications below:</p> <p>Type of voltage controller: Manually operated copper wound, 3-phase, AC power supply multi step.</p> <p>Type of Regulator : Double plate type with electrolytic copper contacts.</p> <p>Input voltage : 180-400 volts.(3 phase)</p> <p>Output voltage : $415 \pm 10\%$ volts.</p> <p>Frequency : 50 ± 3 C/S.</p> <p>Windings: Electrolytic grade copper of adequate section, vacuum impregnated and Oven-dried.</p> <p>Insulation : Fiber glass insulations to tested parameters.</p> <p>Cooling : Naturally, Oil cooled (ONAN)</p> <p>Temp. Rise (Max):30°C above ambient</p> <p>Mounting :On Uni-directional wheels.</p> <p>Correction rate : 30 volts per step</p> <p>Wave form distortion : virtually nil</p> <p>Duty cycle : 100% continuous</p> <p>Enclosure : MS sheet enclosure in pressed CGR Sheet powder coated with radiators.</p> <p>Core laminates : High grade, low eddy loss, grain oriented silicon steel laminations.</p> <p>Load : Three phase induction motor load.</p> <p>Load Amperes (continuous)</p> <p>Overload in 24-hours operation: 10% above continuous Ampere rating.</p> <p>The voltage stabilizer shall have T-oil level indicator gauge preferably glass type tube or otherwise visible to naked eye. The top of the container to have a display panel for housing 02 numbers Digital voltmeters (0-500V) along with 4-way selector switch and set of neon indicators for incoming and outgoing phases (06 No's).</p> <p>Insulating media (T. Oil) of 11 KVA grade to be provided and filled up to top level, with dielectric strength of 5 KV at 4m air gap. The T-Oil of specific grade should be provided in separate barrels and filled at site up to top level.</p> <p>The voltage Stabilizer shall be accepted with manufacturers duly stamped test certificate and shall have name plate with specifications.</p> <p>MAKE:- UNION EQUIPMENT & SERVICES</p>	02	Jobs	139000	278000
34.	Providing and Fitting of 3.5/2-Core, XLPE Armored Aluminum Cable conforming to IS: 7089-part 1st as service line from the HT transformer to control panel				
34.01	95 sqmm , 3.5core, LT cable MAKE:- HAVELLS/POLY CAB/FINOLEX/ PARAMOUNT	70.00	M	837	58590
34.02	10 sqmm, 2 core, LT cable MAKE:- HAVELLS/POLY CAB/FINOLEX/ PARAMOUNT	150.00	M	140	21000

35.	<p>Supply, Installation, Testing And Commissioning of 50 mm square L.T, 1 core , capable to work up to 1.1 KV , XLPE insulated , galvanized steel strip armored copper cable conforming to IS : 7098(part -1) 1988 With latest amendments to be utilized for interconnection of various electrical gadgets . The job includes providing and fitting of suitable rating copper thimbles duly crimped and taped at conductor ends by hydraulic crimping tool. The job includes laying of cable in cable tray</p> <p>The Test Certificate of Cables duly stamped by manufacturer shall be provided at the time of supply of material</p> <p>MAKE:- HAVELLS/POLY CAB/FINOLEX/ PARAMOUNT</p>	180.00	Mtrs	780	140400
36.	<p>Supply, Installation, Testing And Commissioning perforated cable trays including horizontal and vertical bends, tees, cross members and other accessories as required and duly bolted to walls of building with Geyser bolts including Nuts and Washers etc</p> <p>Size= 150x50x1.6mm</p>	30.00	M	900	27000
37.	<p>Supply, Installation, Testing And Commissioning of earthing station for electric substation, LT panel, DG set and stabilizer comprising of company fabricated GI earthing electrode as per IS: 3043. The job includes Auguring of bore of required dia/depth for installation of electrode along with backfill compound mixed with soil and all other items required thereof for achieving the best result. The job includes connecting of electric gadgets through GI strip (25x3mm) as per relevant standards.</p> <p>SAFE EARTHING ELECTRODE SIZE : 80 MM DIA , LENGTH : 2000 MM BACK FILL COMPOUND : 30 KG</p>	10.00	Nos	9000	90000
38.	<p>Supply, Installation, Testing And Commissioning of 6 kg CO2 type fire extinguisher manufactured as per IS: 15683 of 2006 with IS mark and comply with DGMS (Approval). The co2 extinguisher should be suitable for class B & C fire and also for fire involving electrical equipment. The cylinder used for fire extinguisher shall be approved by petroleum and explosive safety organization (PESO) as per gas cylinder rules 2004 and as per IS: 7285 of 2004. The body should be made of seamless steel (manganese) confirming to IS: 7285 with IS mark and should be provided with squeeze grip nozzle and should be filled with co2 confirming to IS: 15222 of 2002 with certificate. The extinguisher shall be provided with manufactures test certificate and hydraulic test certificate by BIS from PESO.</p>	4.00	Jobs	6447	25788
39.	<p>ILLUMINATION OF PREMISES:</p> <p>Supply, Installation, Testing And Commissioning of 9 Mtr long Hot Dip Galvanized octagonal pole (single Section) with bottom 150mm, top 75mm wide, thickness 3mm with 70 Microns Zinc coating having inside arrangement for providing of power connection along with following items.</p> <p>1) 01 No MCB 16 Amp. 2pole</p> <p>The job includes fabrication, providing and fitting of Single arm GI structures at the top having 15' inclination with respect to horizontal plane. The arm should be of 2' length and size and shape appropriate as per requirement of the luminary.</p>	6.00	Jobs	21000	126000

	The job also includes providing and fitting of required length of flexible multi strand 2.5 sq mm copper wire from MCB to holding arm. The job also includes connecting of Junction Box with MCB. The pole is mounted on 1:2:4 Cement concreting of size not less than 2'x2'x1 using 04 No anchor bolts of required size not less than 7" in length. The complete job includes earthing in GI Electrode as per relevant IS Code.				
40.	Providing, installation, testing and commissioning of area lighting 120 Watt LED (Street Light Type) on top of octagonal pole vide item No.40, having following specs; Input: 90-240 V 50 Hz, Power Factor: >0.9 Colour Temperature: 4K - 6.5K, Beam Angle: 120° - 170°, Lumens: >12000, Operating Temperature: -20°C to 60°C. The LED is pressure die cast aluminum housing with power coated finish and having Ingress Protection up to IP-68. The LED is properly fitted on the arm of the pole and connected to the copper wire as provided in the high mast pole	8.00	Jobs	9000	72000
41.	Supply, Installation, Testing And Commissioning of Junction Box with DP 32 A MCB to serve as Main switch for LED Lighting. The job includes connecting the junction box to the main power supply from panel.	06	Jobs	2100	12600
42.	Supply, Installation, Testing And Commissioning of 5KVA fully automatic voltage stabilizer with input voltage 70-240 V and output 220 V. The stabilizer shall be installed and connected to the electric circuit as per location provided by site in charge. The voltage stabilizer is to be connected to the heating and lighting circuit of the scheme including the street lights.	01	Job	13500	13500
43.	Supply, installation, Testing & commissioning of 1000VA Full Sine wave power inverter including Providing / Installation of 12V, 180AH Tubular inverter Battery with trolley and cover. with 2-core 4 mm ² Cu (25 m) wiring as per site requirement along with other accessories like SS-Combine (02 No's), 3-pin plugs etc of reputed make for proper fitment and installation of the item.	1.00	Jobs	31000	31000
44.	Providing, laying & fixing with adhesive/bonding material of insulation rubber mats on the floor of the pump house, covering area around electro-mechanical machinery for safeguarding the life & limb of the workmen due to possible leakage of current & short circuit. The floor surface shall be made good & shall be free from dust, grease, foreign material & moisture free. The mats shall be as per IS 15652:2006 & shall have the following specifications:- Composition: Rubber (synthetic mats for electrical purpose) Thickness:- 2.5mm Size: - 1M wide. The rubber mats shall be accepted with manufacturers test certificate.	10.00	Mtr	1200	12000
45.	TOOL KIT FOR MAINTENANCE:- The Tool Kit for maintenance shall comprise of the following and all the items as mentioned below shall be of (Taparia / Bosch) i. Double ended Spanner (Chrome plated) 02 sets complete ii. Double ended Ring spanners chrome plated 02 sets complete	1.00	Job	28840	28840.00

- iii. Allen key set black finish 02 sets complete
- iv. Combination Pliers insulated with thick C.A sleeve; size in mm 165, 210, 255 each - 02 No.
- v. Long nose pliers insulated with thick C.A sleeve; size in mm 165, 205 each - 02 No.
- vi. Side cutting pliers insulated with thick C.A sleeve; size in mm 165, 205 make - 02 No.
- vii. Insulated screw Drivers (Taparia / Bosch)
 - i. Hammer with handle weight - 110 mg, 340 gm, 600 gm -each - 1No.
 - ii. Heavy duty pipe Wrench length in mm - 200, 300, 600 each - 01 No.
 - RIGID/IRWIN/Maxpower
 - iii. Electric Multi-meter = 1No Make: Fluke / Klein
 - iv. Digital multi-meter - 1No. Make: Fluke / Klein
 - v. Digital Clamp tester capable to measure up to 400A - 1 No. Make: Fluke / Klein
 - vi. Hack saw frame with hack saw blade - 01 no.
 - vii. S-16 MXL, S- 16 H X L Socket Set (19 sockets + 6 Accessories) - 01 No. Make: Taparia / Bosch

TOOL KIT MAKE: TAPARIA /BOSCH

**THE TOOL KIT IS TO BE PROVIDED IN TOOL BOX
OF MAKE: TAPARIA /GEAR WRENCH/ STANLEY**

Blade length in mm	Blade dia. in mm	Tip dimensions in mm	Quantity
50	3	1.6 x 0.4	02
75	3	1.6 x 0.4	02
100	3	3 x 0.4	02
125	3.5	3.5 x 0.5	02
50	3.5	3.5 x 0.5	02
200	4	4 x 0.6	02
300	5	5 x 0.8	02

46. a) Providing of good quality bedding for night stay/Shift consisting of:-
- i) Mattress with warm cover size 6'x3' (6Kg)- 02 No's
 - ii) Quilt with warm cover size 5'x8' (6Kg)- 02 No's
 - iii) Pillows with covers - 02 No's
 - iv) Single bed warm blankets with one sided Fur- 02 No's
- The filling material for mattress, quilt and pillow shall be of good quality cotton
- b) The job also includes providing of pressure cooker 5ltr 02 No's, Steel patella (utensil) 5ltrs 02 No's, cooking heater 01 No., room heater 01 No., steel buckets 10 litre capacity 01 No., Plastic bucket 10 litre capacity with Mug 02 No's each, steel glasses 06 No's, steel Plates with large spoons and bowls 03 No's each, Cup and Saucer set (01 No. Set) and, 5kg Gas cylinder with burner/ stove. The job also includes providing of thermo-cool 15'x12' along with excel matting of 15'x12' size. The job also includes providing of unbreakable Plastic Chair table set consisting of chairs 04 No's, extra heavy Table 01 No. The job also includes providing of good quality safety Door locks (03 No's) of

01 Job 38000 38000

	Godrej, Link locks,				
47.	Fabrication of 7' (L) x 6'(B) x 1.5' (H) angle iron bed for operators with back-height of 2 feet by way of providing and fitting of Structural steel in built up sections , trusses and framed work, including cutting , hoisting , fixing in position and applying a priming coat of approved steel primer all complete welded	114.00	Kgs	120.8	13771.2
48.	Providing and fitting of 19 mm thick multilayered ply sheet of size 6 x 3 feet , 3 no's including cutting , fixing all complete including painting of the play sheet by one coat of primer and two coats of enamel paint	54.00	Sft	140	7560
49.	Providing of CP 12 5WP solar/electrical lantern chargeable on both solar & electrical 220v supply. The solar lantern is to be provided with solar plate (provided in box with lantern)	1.00	Jobs	191	1911
50.	Providing of 6.0 meter (20.0 ft) Foldable, portable & compact aluminum Telescopic Ladder, EN131 Certified., built from rust-proof, high-grade aluminum alloy and. precise engineered HDPE components to ensure maximum corrosion resistance. It should be designed for use in all climatic and weather conditions and to enhance safety, and a strong grip even on wet surfaces. Ladder should be easy to extend and retract with storage straps, convenient to use, store and carry around. The length of step should be 40-50cm Approximately with distance of 40-50cm between steps.	1.00	Jobs	19500	19500
51.	Providing of Industrial Rubber 11 KV Electrical Hand Shock Proof Safety Gloves for handling electrical equipments/ connections.	3.00	Pairs	750	2250
52.	Providing and fitting of 02 No. angle iron/sheet metal board duly painted showing various specifications of the mechanical and electrical equipment installed at site (01No.) and The name of water supply Scheme (01No) of appropriate sizes. The details, drawings and specifications will be provided by Site Incharge.	45.00	Sft	250	11250
53.	Supply, Installation, Testing And Commissioning of OFF-Load (Side operated) Changeover Switch in Separate SS Enclosure as below Type: OFF Load Voltage : 415V No of Poles: 4 Operation: Side Operated Standard Conformity: IS / IEC: 60947 - 1&3	2.00	Jobs	18000	36000
54.	Electrification of Pump House by way of P/F of 1.5 mm sq. multi strand PVC wire for lighting points (08Nos.) and 2.5 sq.mm for heating points (04Nos.) to be laid in PVC Conduit Pipes in slab and brick walls of Pump House / as per site requirement. Lighting points should be run on Inverter also. Providing and fitting of Modular type board comprising of 6A Switch =08 No's, 5-Pin 6A socket =04 No's, Indicator= 02 No's , Fan dimmer = 01No, 3-Pin 16A Switch Socket Combine =04No's, 12 watt Slim Round Conceal Ceiling type = 08 No's, Ceiling Fan=01 No , Main Switch board with input and output arrangement etc.	1.00	Jobs	29000	29000
55.	Providing, installation, testing and commissioning of 'Silent type" WATER COOLED Diesel Generator set of 125.00 KVA Rating and 3 Phase. The DG Set shall be				

<p>able to operate at 1600 mtrs ASL efficiently without causing any malfunctioning. The DG Set shall comprise of Diesel Engine and Alternator coupled together with heavy duty flexible coupling and mounted on M. S. Base Frame along with all standard accessories, Control Panel, Battery, M. S. Canopy, duly painted and conforming to noise reduction norms as per environmental protection rules 1986 as laid down by Ministry of Environmental (Protection) and Forest, read with GSR-371(E) Dated:17-05-2002 at S.No 95 for emissions limits and GSR-371(E) Dated: 17-05-2002 at S.No 94 (Paragraph 1 and 3) for noise limits for the DG Set and as per the latest amendments if any. The engine shall conform to IS: 10000/BS: 649/BS: 5514 amended up to date. The DG Set should be rated for continuous duty with overload provision of 10% for the period not exceeding one hour in twelve hours.</p> <p>A). ALTERNATOR :-</p> <p>The alternator shall be self-excited, self-regulated for 125.00 KVA rating and shall be brushless, continuous duty. The alternator shall be screen protected drip proof enclosure, and horizontal foot mounted in double bearing construction. The alternator shall conform to IS-4722 / IEC-34/BS2613</p> <ul style="list-style-type: none"> a) Rated Output : 125.00 KVA b) Rated Speed : 1500 RPM c) Efficiency at full load 0.8 P.f. = Not less than 86.00% or as per relevant IS code. d) total distortion factor = less than 3% e) Voltage : 415 V at 50 Hz f) Class of Insulation : H g) Enclosure: IP 23. h) Governor = Electronic <p>Standards:</p> <p>The alternators shall be in accordance with the following standards as are applicable IS-4722/IS-2613:1970. The performance of rotating electrical machines.</p> <p>IS-4889/BS 269 rules for method of declaring of efficiency of electrical machines.</p> <p>B). DIESEL ENGINE (Prime Mover)</p> <p>The Prime Mover shall be diesel driven to develop requisite BHP as per ISO-8528-part- I at 1500 RPM for the alternator rated as above with ambient temperature ranging from -10C to +45C with 70% humidity.</p> <ul style="list-style-type: none"> a) Speed :1500 RPM c) Cooling System : Water cooled d) Method of Start: Electric Start with a Key. e) Rated BHP : Suitable for 125 KVA rating output at NTP as per ISO-8528-part- I <p>The engine shall be fitted with following accessories:-</p> <p>1) Fuel Tank:</p> <p>The capacity of the fuel tank shall be so as to last for 12 hours of continuous running on full load. The fuel tank shall be mounted on an angle iron frame of suitable height and fabricated out of M.S. Sheet of 4 mm thickness duly painted and fitted with connections for inlet, outlet and return and also to be provided with air vent, drain with valve, level indicator and fuel pipes complete in all respects.</p> <p>2) Battery:</p> <p>Battery suitable for above capacity DG set.</p>	1	Job	1011375	1011375
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	<p>3) Starting System Providing and Fitting of Terminals, Leads, C/W Charging Dynamo and fitted with 12 Volt Starting System. The system shall be able of starting of DG set with 20-30 Sec even in winter conditions with ambient temp down to -5°C</p> <p>4) Engine Instrument Panel: The Engine Instrument Panel shall be fitted with starting switch with keys, Lube Oil Gauge, Temperature & Pressure Gauge, Speedometer, Kilowatt Hour Meter etc and all other accessories as required.</p> <p>5) Safety Control: The D. G. Set shall be provided & fitted with all the safety controls i.e. for Low lube oil Pressure indication switch, High water temperature indication, RPM indication, water temperature indication, battery charging indication etc.</p> <p>C. Standard Control Panel: The Control Panel shall be fabricated out of steel sheet 1.5 mm thick duly pre-treated and aesthetically finished. It shall be totally enclosed, dust, vermin proof with IP-53 degree of protection as per IS 2147-62. The panel shall consist of following instruments:</p> <ul style="list-style-type: none"> a) 0 - 600 V, AC Voltmeter of class 1.5 accuracy with phase selector switch b) A.C. Ammeter of Class 1.5 accuracy. c) HRC Fuses of required rating. d) One No MCCB of required rating. e) Frequency Meter. f) Power factor meter. g) Pilot Lamps h) Energy Metre i) Push Button Switch for ON-OFF operation. <p>All the above components shall be properly mounted duly wired and shall be of reputed make.</p> <p>Canopy: The Canopy of the D. G. Set shall be fabricated out of M.S. Sheet of required gauge so as to withstand the snow load etc, duly painted. The Canopy shall be as per the Norms of the as laid down in the environmental protection rules 1986 of Ministry of Environmental (Protection) and Forest, read with GSR-371(E) Dated: 17-05-2002 at S.No 95 for emissions limits and GSR-371(E) Dated: 17-05-2002 at S.No 94 (Paragraph 1 and 3) for noise limits for the DG Set and as per the latest amendments if any.</p> <p><u>The following jobs are also included in the scope of work:</u> The job includes providing of 50 ltrs of HSD for initial testing of DG set at site.</p> <p>MAKE:- KIRLOSKAR/EICHER</p>			
56.	<p>Supply, Installation, Testing And Commissioning of L.T., 50 mm², 1 core, capable to work up to 1.1 KV , XLPE insulated, galvanized steel strip armored copper cable conforming to IS : 7098(part -1) 1988 With latest amendments to be fitted from D.G Set to Modular control panel . The job includes providing and fitting of suitable rating copper thimbles duly crimped and taped at conductor ends by hydraulic crimping tool. The job includes earth work in excavation wherever required for laying of cable underground.</p> <p>MAKE:- HAVELLS/POLY CAB/FINOLEX / PARAMOUNT</p>	120	Mtr	780 93600

57.	Providing, Installation, Testing & Commissioning of complete switchgear unit for protection of D.G Set consisting of 200A MCCB 3-pole, 415 V, 50 KV breaking capacity housed properly in cubical enclosure made up of M.S SWG - 16 sheet steel (outdoor type) duly powder painted with anti-corrosive paint comprising of three compartments for incoming / outgoing circuits and MCCB. The panel should have adequate double locking Arrangement with Cu- Bus Bar 12x40 mm with Bakelite insulation and LT Arrangement selector switches, phase indicators. The equipment should be installed at appropriate height in a stand consisting of 50 x 50 x 6 mm angle grouted in ground with appropriate cement bottoming as per the IS standard.	1.00	Jobs	39422	39422												
58.	Colour Coated ROOFING <i>Providing fitting and Installation of HI RIB Colour Coated sheet roofing including upto any pitch in horizontal vertical/ curved surface fixed with polymer coated J or L hooks, bolts and nuts 8mm diameter with bitumen and limpet washers. The Roofing sheets shall be manufactured from zinc/ aluminum alloy coated high tensile steel.</i> <table border="1" data-bbox="200 897 816 1256"> <tr> <td>Thickness of Sheet</td> <td>0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm</td> </tr> <tr> <td>Material</td> <td>Steel / Stainless Steel/Pre Coated GI Profile Sheets</td> </tr> <tr> <td>Colour</td> <td>Blue/green/red/as desired by site incharge</td> </tr> <tr> <td>Surface Treatment</td> <td>Colour Coated</td> </tr> <tr> <td>Usage/Application</td> <td>Roofing/ Walls</td> </tr> <tr> <td>Manufacturing Technique</td> <td>Cold Rolled</td> </tr> </table>	Thickness of Sheet	0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm	Material	Steel / Stainless Steel/Pre Coated GI Profile Sheets	Colour	Blue/green/red/as desired by site incharge	Surface Treatment	Colour Coated	Usage/Application	Roofing/ Walls	Manufacturing Technique	Cold Rolled	68.50	Sqm	706.50	48395.25
Thickness of Sheet	0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm																
Material	Steel / Stainless Steel/Pre Coated GI Profile Sheets																
Colour	Blue/green/red/as desired by site incharge																
Surface Treatment	Colour Coated																
Usage/Application	Roofing/ Walls																
Manufacturing Technique	Cold Rolled																
59.	Providing/ Fitting and installation of Ridge 90 cm wide overall in colour coated sheets fixed with Polymer coated J or L hooks, bolts, nuts 8 mm dia etc, 0.50 mm thick.	4.25	Meter	508.7	2161.97												
TOTAL AMOUNT				Rs. 1,82,32,148.00													
	(RUPEES ONE CRORE EIGHTY TWO LAC THIRTY TWO THOUSAND ONE HUNDRED FORTY EIGHTY ONLY)																


 Superintending Engineer,
 Jalshakti PHE Mechanical Circle,
 South, Srinagar

ANNEXURE "B"**GENERAL TERMS AND CONDITIONS TO THIS OFFICE ALLOTMENT**

ORDER NO:-JSMCS/TS/03

Dated:- 20 /04/2023

1. CONSIGNEE/PAYING AUTHORITY:

The consignee/paying authority shall be the Executive Engineer, Mechanical Division Srinagar. The supervision of the various components of the civil work shall be carried out by the concerned civil Divisions under the overall coordination of the concerned Superintending Engineer Hydraulic Circle.

2. INSPECTION AND TESTING:

Third Party Inspection shall be carried out on following items only:-

- (a) Pipes of all sizes (without flanges)
- (b) Pumping units along with Motor (Horizontal & Vertical)
- (c) D G Sets of all capacities.

Transformers and Voltage Stabilizers shall be tested for resistive/ Inductive load in addition to specification laid out in Annexure "A".

Before dispatch from the works of the OEM, the electro-mechanical equipment shall be inspected by a third-party inspection agency i.e. M/S CEIL/Rites etc New Delhi. (only for equipment enumerated above).

For rest of the equipment, test certificate along with warranty documents shall be furnished by the contractor). The charges for the inspection shall be borne by the Department. However, the Firm shall make payment to the Inspection Agency (in case of 3rd Party Inspection) which shall subsequently be reimbursed by the Department. The successful tenderer shall intimate the Department and the Inspecting Agency/Authority in advance regarding the readiness of the equipment for dispatch and shall furnish test certificates.

It shall be responsibility of the suppliers to tie up with the third party nominated for inspection and get necessary inspection of the material done within the delivery period. Any delay on the part of the third party shall not be entertained as an excuse for timely supply of material.

The product/ material at site shall be inspected by Assistant Executive Engineer concerned or any other official(s) of the department designated by the concerned Executive Engineer. Any modifications to the works as specified in the specifications considered to be necessary for smooth and trouble-free operation of the equipment by the Department or the third party inspection agency, the firm shall have to execute the same without any extra cost, to the best satisfaction of the department.

The firm shall as such keep the department informed about arrival of material at site. It shall be obligatory on the part of the firm to rectify the defects pointed out by the AEE, if any, and also to incorporate any modification within the scope of work which may be deemed necessary for better performance/finish and workmanship. The supplier upon demand by the department or its representative shall rectify or replace defective unsuitable equipment.

The Department reserves the right to nominate his representative for inspection of the goods at the works of the supplier/ manufacturers. As such the department at all reasonable times shall have access to the works and to the site and to all workshops and places where work is being executed and where material / manufactured articles and machinery are being obtained. In case of Sub-Station and power/feeder lines, the firm shall have to obtain a clearance certificate from the concerned inspection Division of the Power Development Department.

3. THIRD PARTY MONITORING:

JAL SHAKTI (PHE) MECHANICAL CIRCLE (SOUTH), SRINAGAR.



S.E. (South)

The allotted works shall be subject to check by the third party monitoring agency appointed by the Department in Kashmir. The agency shall check the quality of works executed by the agencies, quality of materials used for construction and quality of machinery installed in each scheme. The TPIQM's role shall be that of an assistant to the Employer's Representative for the purpose of monitoring and evaluation of the performance of the Contract during the Contract Period.

4. TRANSIT INSURANCE:

Prior to dispatch, the ordered equipment shall be insured through a Nationalized Insurance Company up to its final destination, against all transit risks. The firm should, therefore, take appropriate insurance policy in advance for covering the transit of the goods, charges for which shall be borne by the tenderer and shall be included in his quoted rates. The department shall pay no extra charges on this account.

5. MODE OF DISPATCH:

The supplier shall dispatch the material through a reputed road transport agency direct from dispatching station up to destination. The material shall be suitably transported for which the supplier shall take due care keeping in view the limitation for maximum size and weight.

6. COMPLETION PERIOD:

The entire work shall be completed within 150 days from issuance of this Allotment.

7. PERFORMANCE SECURITY:

The firm on award of the contract shall furnish a performance security equivalent to 03% of the value of the contract within one week of the issuance of allotment order in the shape of CDR/FDR/Bank Guarantee, valid for a period of three months beyond the contractual obligation including trial run and warranty period.

- a. Safeguard against material and manufacturing defects, bad workmanship, improper design etc.
- b. Successful execution of the contract and fulfillment of the conditions of the agreement.
- c. Satisfactory performance of equipment in terms of the agreement.

8. TERMS OF PAYMENT:

Electro-Mechanical Component:

- a. 70 % payment shall be made on Supply of the ordered equipment in full.
- b. 10 % payment shall be released after installation of the ordered equipment in full.
- c. 10% payment shall be released after testing of equipment on full load, commissioning and trial run.
- d. Balance 10% (Ten Percent) shall be released after commissioning of the scheme and satisfactory performance of the equipment for a period as enunciated in warranty clause below. However, the balance amount can be released against furnishing of a Bank Guarantee for an equivalent value valid for three months beyond the expiry of the warranty period of the contract. As the firm would have furnished a performance security of 03% of the allotted amount at the time of signing of the agreement, he/she is free to furnish a BG for balance 07% of allotted cost, with the validity of both the BGs commensurate to the terms and conditions of the contract.

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9. WARRANTY:

The firm shall be bound for satisfactory performance of equipment/ works for 12 months after the successful completion of trial run of 3 Months or whichever is later. If during warranty period any malfunctioning/ defects arise, the firm shall have to rectify the same within a period of ten

days of receipt of intimation. In case of any failure on the part of the firm to remove the defect, the Department may get the defects removed/ repaired by any other agency and cost thereof shall be recovered from the firm and shall be recommended for further punitive action as governed under the relevant clause of the contract including blacklisting.

10. TRIAL RUN:

After Completion of the work the firm will have to make a trial run of the scheme for a period of 3 Months during which the firm will have to operate & maintain the executed work to the full satisfaction of the Department.

The manpower required for operation shall be provided by the department.

11. DEFECTS LIABILITY PERIOD (DLP):

The defects Liability period shall be for a period of 12 Months which shall commence after the successful completion of Trial run, during the defects Liability period (DLP). The firm shall be responsible to make good & remedy at his own expense any defect in works which is noticed during the DLP. In case any defect remains unattended by the firm at the completion of DLP, the department may extend the DLP for such time as deemed fit for getting the defect rectified subject to a maximum ceiling of 6 Months.

12. LIQUIDATED DAMAGES (LD)

In the event of firm's/joint venture failing, declining, neglecting or delaying the supplies / works or in the event of any damage occurring or being caused by the firm/ joint venture or in the event of any default or failure by the firm in complying with any of the terms and conditions of the contract, the Department shall with or

without prejudice to any other remedies available to it under any law for the time being enforce in the UT:

- a) Terminate the contract after 15 days' notice
and/or
- b) Recover the amount of loss caused by damage, failure or default, as may be determined by the department.
and/or
- c) Recover the extra cost, if any, involved in allotting contract to other party.
and/or
- d) Impose Liquidated damages on account of delay beyond the schedule completion period to the tune of 0.5% of the delayed portion of contract every week but not exceeding 10% value of the contract. and/or
- e) Forfeit the performance security and blacklist the firm.

22. Force Majeure:

Any failure or commission to carry out the provision of the contract shall not give rise to any claim by the department or firm one against the other if such failure or commission arises from the 'ACT OF GOD' which shall include all natural calamities such as fires, floods, earthquake, hurricane, strikes, riots, embargoes or from any political or other reasons beyond the control of the parties including war, or a state of insurgency.

23. Arbitration: Any Dispute or difference arising between the department and firm shall be dealt in accordance with the Arbitration and Conciliation Act 1996 and rules thereof.

24. SUBLETTING OF WORK:

The firm shall not sublet the whole or part of the work. The firm shall not assign the work or any part thereof or any benefit or any interest thereon or any claim arising of the contract, without prior written consent of the allotting authority.

25. WORK UNDER FIRMS CHARGE:

From the commencement of the work to the completion thereof the same shall be under the firms charge. The firm shall be held responsible for and make good any loss or injuries by fire or other causes / theft and shall hold the Government harmless for any claims for injuries to persons or damage to property happening from any neglect, default, want of proper care and misconduct on the part of the firm, or any of his employees, during the execution of work. The firm shall be responsible for the compensation if any, to labour under the existing labour laws of the country.

26. FIRM TO MAINTAIN SITE OFFICE:

The firm shall provide and maintain, at his own cost a suitable site office at the site of Work to which the Department may send communications/ instructions.

27. CLAIMS TO BE PUT IN WRITING:

The Department shall not be liable to the Firm for any matter or thing arising out of or in connection with the contract or the execution, completion and maintenance of the work unless the firm puts a claim in writing in respect thereof before getting the certificate of final completion.

28. SETTING OUT OF WORKS:

The firm shall be responsible for the time and proper setting out of all the works and for the correctness of the positions, levels, dimensions and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith.

29. LABOUR:

The firm shall make his own arrangements for the engagement of all types of the labour, required for the execution of the job. No workman below the age of 18 years shall be employed on the works. Also the firm shall comply with the provisions of all labour laws and the rules framed there under.

30. STORAGE AT SITE:

The firm shall at his own cost make arrangements for proper storage, watch & ward especially towards Rain and Snow damages of the equipment/ materials at sites till its erection/ completion. For the purpose the firm shall, with the approval of Engineer in charge construct temporary storage accommodation for equipment/ material at site for which land shall be provided by the department near the site of work.

31. WATCH & WARD OF WORKS:

The firm shall in connection with the work provide and maintain at his own cost all lights, guards, fencing and watching, when and where necessary or required by the Department for the protection of the work or safety and convenience of the Public etc.

32. TRAINING OF DEPARTMENTAL STAFF:

The firm shall arrange, at his own cost and risk, to depute at least one competent Engineer of the equipment manufacturer, to train upto twelve Departmental representatives in the operation and maintenance of the equipment at site. This training shall be for duration of at least (4) four consecutive months and shall commence from the date of successful commissioning of the equipment or as may be mutually agreed upon.

Two groups of Departmental Engineers shall also be deputed to firms/manufacturers works for short duration to obtain training free of cost in the operation and maintenance of the equipment.

33. FINAL ACCEPTANCE:

The equipment/work shall be accepted by the Department only after the system has been tested and has performed satisfactorily in all respects, at site, in accordance with the provisions of the contract.

34. DRAWING AND QUALITY ASSURANCE PLANS:

The following details shall be necessarily furnished within Two (02) weeks of the date of placement of this order which shall be approved by the Department within two (02) weeks from the receipt by the consignee.

- a) Sectional Drawing of Pumps
- b) General Arrangement Drawings (G.A.D.) / Layout of the equipment fully dimensioned for pumps, motors, starters, shunt capacitors, panels, delivery manifold, cables etc.
- c) Detailed circuit diagrams of LT Panels, starters, shunt capacitors etc.
- d) Quality Assurance Plan of each piece of equipment to Third Party Inspection Agency and Department for their approval.

No manufacturing activity shall be started by the firm without approval of the drawings for each ordered equipment/work by the competent authority.

Additional time consumed due to observations/summary rejection of QAP/GAD shall be considered in the delivery period of the contract and the firm shall be wholly and solely held responsible for the delay, thus caused.

Although no make has been specified in respect of any equipment, the firm shall furnish QAP/GAD of only those makes which are standard with proven record of satisfactory performance in this Department or any other Government Department in the UT or outside.

35. OPERATION AND MAINTENANCE MANUALS:

The firm shall supply, free of cost to the Department, six complete sets of operation and maintenance manuals for the Pumping Equipment. The delivery of these manuals shall be made by the firm to the Engineer along with the supply of equipment. The manuals shall be appropriately bound in book form and shall contain all necessary instructions regarding operation, preventive maintenance, repairs, trouble shooting, overhauling etc. The manuals shall also include detailed drawings of the equipment, circuit diagrams and station layout with all items properly identified. The manuals shall also include the spare parts catalogues with part numbers clearly given, which must tally with index numbers in the drawings.

36. CLEANING UP:

On completion of the works the firm shall clear away, load into trucks or any other transport and remove from the site all constructional plant, surplus materials, dismantled or otherwise, earth and rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workmanship condition, to the satisfaction of the Department.

37. POWER AND WATER SUPPLY:

The firm/firm shall make his own arrangement, at his own cost, for all lines, individual power points, etc. to the machinery and plant required by him for the erection, testing and commissioning of the equipment ordered on him. The firm shall pay for all electrical energy consumed by him for this purpose at the prevalent electricity tariff in J&K State. Such charges shall be paid by the firm/firm direct to the Electricity Corporation and the firm's final bill shall be settled only after he gets a no outstanding certificate from the Electricity Corporation.

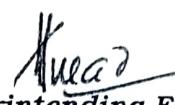
The Government shall not be responsible, and the firm shall have no claim whatsoever for any interruption in power supply or voltage fluctuation or total cut off at the site. The firm/firm must provide an alternative source of power, at his own cost, at the site for completion of the work. The firm shall make his own arrangements for water to be used for the execution/Hydro-testing/ water tightness Test/ Curing, labour colony, Site Office etc.

38. AGREEMENT:

As soon as letter of award is communicated to the firm, the contract shall be complete and binding upon them, the firm shall also be required to execute an agreement with the competent authority within Seven days from the date of issue of letter of award. Failure to execute such an agreement in time shall not however, prevent this contract from being enforced against the firm

and the date of delivery of the material/completion of works shall be reckoned from the date of issue of the letter of award in favour of successful firm.

39. All other terms and conditions as laid down in form No.25 of P.W.D. shall remain in force and binding on Firm.
40. Any rules/terms and conditions, if not stipulated in the bidding document, shall be strictly dealt in accordance with the relevant rules/guidelines stipulated in the General Finance Rules (GFR 2017) and Manual for procurement of Works 2019 Government of India.


Superintending Engineer,
Jalshakti PHE Mechanical Circle,
South, Srinagar

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