Government of Jammu & Kashmir Office of the Executive Engineer, Jal Shakti (PHE) Mechanical Division (North) Sopore Website: phekashmir.com Email ID: phe.mdns@gmail.com

> No.: PHE/MDNS/DB/ Dated:

M/s A One Engineers Patwaw Budgam - 191111 GST No: 01ABBFA9036G1ZX Cell No: 7006300980

1.

Adv. Cost: Rs 29.977 Lacs **Allotted Cost:** Rs 27.879 Lacs

Subject:

Electro-mechanical works to be carried at WSS Malpora Tengpora Stage 1st and 2nd under JJM. &

Reference:

This office e-NIT No.: e-NIT No. 13 of 2023-24, S. No. 08 issued under endorsement No.: PHE/MDNS/DB/1455-60, dated: 10-06-2023.

2. Authorization awarded by Member Secretary DJJM Superintending Engineer Jal Shakti (PHE) Hydraulic Circle Baramulla/Bandipore HQ at Sopore issued vide No. SE/Hyd/DB/4897-4900, dated: 01-08-2023 /

Dear Sir.

For and on behalf of Lt. Governor of J&K UT contract for execution of "Electro-mechanica works to be carried at WSS Malpora Tengpora Stage 1st and 2nd under JJM" is hereby awarded to you firm on the quoted/negotiated rates, as per 'General Terms & Conditions' and 'Schedule of cost an quantities' annexed herewith as under:

Annexure A: General Terms & Conditions.

Annexure B: Schedule of cost and quantities.

ncl. leaves

> ecutive Engineer Mechanical Division (North' Sopore

py to the:

Chief Engineer Jal Shakti (PHE) Department Kashmir, Srinagar for favour of information.
 District Development Commissioner , for favour of information.

3. Superintending Engineer Jal Shakti (PHE) Mechanical Circle (North) Srinagar, for favour information.

Ka. HQ at 1. Superintending Engineer Jal Shakti (PHE) Hydraulic Circle favour of information.

Executive Engineer Jal Shakti (PHE) Division www., for favour of information. Provisional Head, TPIA JJM Kashmir, (WAPCOS Limited) Corporate Offige 76-C Institutional Sector-18 Gurugram-122015 (Haryana) for favour of information.

Assistant Executive Engineer Jal Shakti (PHE) Mechanical Sub-Division necessary action.

MM for informat

File concerned.

Annexure "B" Schedule of cost and quantities

to this office	Allotment Order No: PHE/MDNS/DB/	. dated:	

me of work:

Electro-mechanical works to be carried at WSS Malpora Tengpora Stage 1" and 2" under JJM

Item Description	Qty	Units	Rate	Amount
VT Pumping Units: Providing, installation, successful testing and				
commissioning of vertical turbine pumping unit for 1st stage as per IS 1710				
driven by hollow shaft VT motor for pumping water from River Jehlum of				
following parameters:				
• Site Condition:				
Altitude = 1580 Meters (AMSL)				}
Ambient Temperature = +40°C to - 15°C				
Relative Humidity = 60%				
• <u>Levels of site</u>				
Bottom level of intake channel = Zero Meters			1	
Machine Floor level from bottom level of sump = 8 Meters				
Water column in liner/sump above the bed level = 2 Meters				
 Type of water = Raw water having specific gravity of unity average 				
A. PUMP				
1. Discharge = 7000 GPH at 40 M head				
2. Type = Self water lubricated, VT pump, open line shaft.				
3. Liquid to be handled = Raw Water				
4. RPM = 1460 5. Head = 40 Meters with minimum stages.				
6. Efficiency = Not less than 65-70%				
7. Impeller = Enclosed/semi-enclosed mixed flow all bronze				
8. Line shaft/Head Shaft = Stainless steel			Ì	
9. Total length of line shaft = 10 m or as specified (excluding Head shaft)		1		
10. Impeller shaft = Stainless steel		l		
11. Line shaft bearing = Cut less rubber/Neoprene rubber				
12. Line shaft coupling = Stainless steel			-	1
13. Suction Strainer = MS fabricated		144.2	460000.00	920000
14. Suction Bowl/Bell mouth= Cast Iron	2	Jobs	460000.00	920000
15. Pump Bowl = Cast iron				
16. Bearing: Thrust bearing shall be suitable and of adequate capacity to	-			
carry the weight of all rotating parts and the hydraulic down thrust. The				
bearing housing shall have suitable cooling mechanism.	6	100		
17. Ratchet: Non-reversing ratchet shall be provide to prevent reverse	5 1 1	The last		
rotation.				
18. Column pipe = Mild Steel 150mm VT Pumping Unit dia, anti-				
corrosive and polished, of wall thickness not less than 12mm flanged type in	7	4		
assorted lengths. At least 8 Meters column pipes to be provided with				
maximum length of 5 feet/length.	85		1	1
Pump bowl to be designed with minimum number of stages.	K. Chr. s	1	. (
B. Prime Mover	Northwest 1	•		l.
1. Type = Vertical hollow shaft, AC squirrel cage induction motor		68 n		6
2. Power Supply = 03 Phase, 41 5V± 10% AC				
3. Frequency = 50Hz±3%				
4. RPM = 1450 Synchronous		3 8		
5. Efficiency = Not less than 85%		200	. 4	Ì
HP = Corresponding to Head and discharge but not less than 12.5 HP.		3		
7. Class of insulation = F or above		3		5-12
8. Type of duty = Continuous	Section 1		.1	(4)
9. Motor thrust bearing = Anti-friction ball bearing/roller bearing	AN .	. 1		179.
10. Method of starting = star/delta				
The motor should be able to with stand fluctuations in voltage and should be			12.1	
onforming to latest IS specifications.	1			
- Accessories			1	
ach pump unit shall be provided with suitable discharge head with proper			. .	

	The state of the s				W 17
	stiffening box arrangement, non-reverse ratchet, coupling etc. as per standard specifications besides all other accessories required for satisfactory performance and mechanical works required for installation of pumping unit at site are included in the job.				
	Base Frame Fabrication, providing and fitting of base frame for the installation of the pumping units. The base frame to be fabricated out of sultable size ISMB/ISMC members. The base frame shall be of robust construction and shall support entire static and dynamic load of pumping unit without any vibration.				
	Providing of test certificate & Characteristic Curve of pumping equipment is compulsory and pumping unit is to be approved from the concerned authority before procuring/dispatch. Original Manufacturer's Test certificates in original to be provided with the material before installation.				
2.	<u>Delivery manifold/Y-junction</u> : Providing/supplying and fitting of G.I flanged Rising Main at site for stage 1st and 2 nd . The Pipe shall be hot dip Galvanized, class C confirming to IS 1239. The job includes providing and fitting of M.S Flanges conforming to BIS 6392/1997 (Rating PN16) for fabrication of delivery manifold/Y-Junction as per site requirement. The flanges shall be double welded both from inside and outside of the pipe using standard electrode of reputed make.				
	Flanges (as per IS 6392/1997) Thickness shall conform to IS 6392 Part 1st. The flange welding shall be carried out in double layers using reputed make electrodes to form strong welding joint. Welding Electrode	30	Meters	2189.00	65670.00
	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: Size: 100 mm Class: C (Heavy)				
- 1	The job also includes providing fitting of 100mm dia washout connection in the delivery mainfold.				
	Providing and fitting of, Ductile Iron double flanged, non-rising spindle soft seated glandless gate/ sluice valves as per IS14846 for regulating the water supply outside the pumping units for stage 1st and 2nd . Size: DN100				
	PN:1.6/16 The body and bonnent 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			10004.00	76276 04
	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	4	No	19094.00	76376.00
	the scope of work. The job includes providing and fitting of 02 nos. M.S flanges (Table 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.			1,1,	
- 1	Providing and fitting of Ductile Iron double flanged, Slanted seat swing check valve(NRV) as per IS 5312 for stage 1st and 2nd, Size: 100 mm	4	No	20581.00	82324.0
	PN: 1.6/16		1	1	1

_	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. It shall have electrostatic epoxy coating (approved for drinking water) both				
	inside and outside of the valve.				
	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 (Table 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.				
5.	Supply, installation, testing and commissioning of Horizontal pumping unit for				
	Stage 2nd as per IS 1520 with following specification:-				
	Pump:- 1.Type :- Horizontal split casing /Multi stage, Single or Double suction				
	Material of construction				
	a. Impeller:- Stainless steel				
	b. Shaft:- 5S410				
	c. Pump casing:- Cast Iron				
	2.Discharge:- 7000 GPH				
	3. Head:- 40 Meter				
	4. Liquid to be handled: Clear water 5. Impeller: Closed/Semi open				
	6. RPM: 1440				
	The pump shall confirm to IS-1520 code				
	MOTOR:-				
	A) Type :- Horizontal squirrel cage Induction Type				
	B) No of phases: 3 phase 415 V± 10%,50 Hz, AC supply				
	C) Winding:-Copper wound squirrel cage D) Type of enclosure:-SPDP/TEFC	2	Jobs	135000.00	270000.0
	E) Method of cooling:- Air cooled with fan mounted				
	F)Method of Starting: star delta				
	G) Efficiency = Not less than 85 %				
	H) Class of Insulation= B or F or above				
1	1) H.P= Suitable for pump not less than 12.5 HP				
	J) R.P.M= 1440 Syn				
	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 checked for both angular and axial alignment with the help of				
	tapered gauges/feeler gauges or dial indicator. Job includes testing and				
	commissioning of pumping unit on full load at site.				
	Note: Test certificate having the Serial No. of the Pumping Unit along with the	1	1		
	performance curve in duplicate from the Manufacturer must be produced on delivery of the item and pumping unit is to be approved from the concerned				
	Sub Divisional office before procuring.				
5.	Providing, fitting, testing and commissioning of voltage stabilizer for stage 1st				
	as per specifications below:	1			
	Rating:: 30KVA	1	1		
	Type of voltage controller: Manually operated copper wound, 3-phase, AC	1			
	power supply multi step.			1	
	Type of Regulator : Double plate type with electrolytic copper contacts.		1	60100.00	126
	Input voltage : 250-400 volts.(3 phase)	2	No	68108.00	136;
	Output voltage : 400 ±10% volts.				
	Frequency: 50 ±3 C/S. Windings: Electrolytic grade copper of adequate section,				
	vacuum impregnated and Oven-dried.			1	
	Insulation : Fiber glass insulations to tested parameters.				
	Cooling : Naturally, Oil cooled			V	
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30°C	above ambient				
;					
1	30 volts per step		. 1		
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Ill be accepted with manufacturers dully stamped test iname plate with specifications. ficate to be appended. and commissioning of voltage stabilizer for stage 2 nd wis: r: Manually operated copper wound, 3-phase, AC lee plate type with electrolytic copper contacts. : 250-400 volts.(3 phase) : 400 ±10% volts. : 50 ±3 C/S. : Electrolytic grade copper of adequate section, down-dried. : Fiber glass insulations to tested parameters. : Naturally, Oil cooled 30°C above ambient : On Uni-directional wheels. 30 volts per step : virtually nil : 100% continuous. : MS sheet enclosure in pressed CGR Sheet powder or grade, low eddy loss, grain oriented silicon steel induction motor load. us) 1 No 107401.00 107401.00 11 kVA grade to be provided and filled up to top ongth of 5 kV kY at 4m air gap. The T-Oil of specific grade

transformer/ to control panel including necessary thimbling, crimping, taping				
etc. NOTE:- The cable terminal ends for connection to switchgear at various				
requisite points shall be Al. Thimbles of appropriate size and connected by				
hydraulic crimp tool only for stage 1st and 2nd				
Distribution Cables:				
Providing, Installation, testing of multi-stranded copper conductor PVC insulated single core unsheathed 25mm sq. Copper cable for internal				
distribution wiring for stage 1st and 2nd conforming to IS: 7098(part -1) 1988				
with latest amendments. The job includes providing and fitting of suitable	250.00	Meter	394.00	98500.00
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. Design, manufacturing, providing, fitting, testing & commissioning of Star-delta				
Motor control Panel for stage 1 st and 2 nd .				
The Star-delta Motor control Panel shall be fabricated out of 2 mm CRCA				
Sheets Modular, compartmentalized, Free Standing, Floor Mounting, Front				
hinged doors for indoor use, removable bottom gland plates for incoming cables, dust and vermin proof (IP:42 protection) with TP Aluminum Buses,				
complete with connection, internal wiring, neon indicators for each phase,				
starter buttons, name plates, painting, vents etc. 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.		k		
The control panel shall be furnished as per detail given below:				
Rated Voltage of the Panel 440 Volts			1	
Frequency 50 HZ				Y.
No of Phases Three				
Enclosure Details Free Standing, Floor mounted, Compartmentalized				
Design.	Kan da da			
Material CRS Thickness of sheet steel used 02mm	la tue	lane -	la series de la companya della companya della companya de la companya de la companya della compa	
Application Indoor				
Cable Entry Bottom	02	Job	250000.00	500000
Painting Shade Siemens grey.	production of the	No.		
a) Main Circuit Breaker (Incomer MCCB)	Free Season			W
Type Front Operated micro processor release type on load 4 pole	1			
The state of the s	and the second			1
Qty 1 Nos		party -	1 p	
No. of poles 4				
Current Rating 100 Amp	8	10		1
Rated operational voltage 415 V AC ± 15%				1
Rated frequency 50 ± 3% Hz				
Ultimate S.C Breaking cap at (415 volt A C , 50 Hz) 50kA				3
Type Microprocessor control			1	
D) Distribution bus bar	1		1	
TypeElectric grade AL with red, blue & yellow tapings of adequate	1 2 2 4 1			77
ection.			300	1
Rating 100 Amp			1	
Change over Switch				
Qty One	100			
Type Front Operated on load 4 pole (open execution)			1	
Rating 100 Amp				. 1
			1 1/	1

Type ---- MPCB Qty ---- 2 Nos No. of poles-----3 Rated current ----63 Amp Rated operational voltage ---- 415 V ± 15% Rated frequency ---- 50 ± 3% Hz Ultimate S.C Breaking capacity at (415 volt A C, 50 Hz) -----36kA e) Starters (FASD) 15HP Power Specification ---- 3 phase, 415 ± 15% v & 50 Hz Contactors: MNX / Schneider Line Contactor ---- AC3 40 A Delta Contactor --- AC3 40 A Star Contactor ---- AC3 32 A Timer ---- Star Delta Electronic . Overload relay – direct/CT operated (35-75A range) Coil Voltage: 220/240V Qty ---- 2 No's f) Aux. panel for heating and lighting Circuit breaker---MCCB Qnty---01 no. No. of poles---04 Thermal release range -----63-80 A Rated operational Voltage---415±15% Ultimate S.C. Breaking Capacity---35 KA at (415AC,50 Hz) g) Stabilization unit Qnty--01 no Rating--- 1 KvA single phase automatic voltage stabilizer Input:90V-300 Out Put: 220/240 (as per coil voltage of contractors) Enclosure--- to be housed within the cubical panel in separated chamber with additional meter, LED fitted outer side MCB DP ---10A----1nos h) Protection Details: Motor Protection Relay including other related accessories like single phase preventer relay, timer relay, overload-under load, phase difference etc. Display ---- LED/LCD Compact motor protection relay Note: all setting is to be controlled at display. Qnty:01 nos) Protections: Flush Mounting with display Last trip data recording Protections: - Thermal Overload with pre- alarm - Short Circuit - Earth fault - Phase loss, Unbalance, Phase reversal - Under Current, Over Load - Prolong starting, Locked Rotor. -Single phase protection- Single Phasing condition- Phase Reversal condition-Phase Unbalance condition-Modes of Operation i) Auxiliary Protection Earth Fault Relay ---- 3 phase Earth fault, ground fault module Type -----GF

Range 100-200A	T	Т		
MCB MCB SP , 10A (10 Ka)	- 1		1	
Metering Details:	1	1 1		
Incomers (Panel Mounted)	- 1		}	
(a) Multi-Function Meters LCD Display (1 No) Voltage of each phase, Curr	rent		1	
of each phase 3ø power (Active, Apparent), 3ø Power factor Frequency, Ene	ray			
(b) Analog voltmeter S/S operated (1 No)				
,				
(b) Outgoing				
(Analog voltmeter (0-500) S/S operated (1Nos).	1			
Analog Ammeters 0-100 Amp (2Nos) for both starters	- 1			
Each outgoing with S/S CT operated.				
11. Steel structural work in built up tubular (round, square or rectangular ho tubes, ISMC, ISMB, ISA etc.) trusses, construction of liner etc. including cut, hoisting, fixing in position and applying a priming coat of approved sprimer, including welding and bolted with special shaped washers complete. The drawings and Dimensions for Gantry/Transformer Bed/Pum Equipment Base will be provided by Site In Charge at the time of execution job.	steel etc. 1500 ping on of	Kg	135.00	202500.00
12. Providing, installation and testing of manual type triple spur gear chain policition block along with monorail geared travelling trolley for stage 1st has following features Gears:- The hoist shall have precision machine case Hardened alloy steel mounted on bearings and housed in a dust proof gear box. The lubrication gears should be of high viscosity and temperature for longer life of gears. Load Chain:- The load chain be made of high tensile alloy steel having we resistance and greatest mobility. The chain should be accurately collaboratested and have adequate in-built factor of safety for safer operation. Load chain wheel:- the load chain well should be double ball bearing supposed and Specially designed, perfectly machined wheel providing correct grilload chain to makes the hoist most safe and reliable against any failure main specifications of C.P Block are given below: i. Make = Reputed make ii. Capacity = 3 ton (P) iii. No. Of load chain falls = 2 or above iv. Min. Height of lift = 6 M	gear on of wear ated, 2 orted ip of	Job	62970.00	125940.00
13. Illumination of Premises for stage 1 st and 2nd: Providing and erection of 9 Mtr long Hot Dip Galvanized Octagonal pole (s Section) with bottom 150mm, top 75mm wide, thickness 3mm with Microns Zinc coating having inside arrangement for providing of prescription along with following items. 1) 3 Way Terminal Connector 20 Amp. 2) 3 No MCB 8 Amp. The job includes fabrication, providing and fitting of three arm GI structure that top having 120° angle between arms and each arm having 15° incline with respect to horizontal plane. Each arm should be of 2′ length and size shape appropriate as per requirement of the luminary. The job also includes providing and fitting of required length of flexible strand 2 mm copper wire from each terminal connector to each holding and The pole is mounted on 1:2:4 Cement concreting of size not less than 2′x (cost of concreting not included in the job) using 04 No anchor bor required size not less than 7″ in length. The complete job includes earthing GI Electrode as per relevant IS Code.	ower are at ation 2 e and multi rm. 12'x6" lts of ing in	Job	22226.00	44452.00
Providing, installation, testing and commissioning of area lighting 120 LED (Street Light Type) on top of octagonal pole vide item No.14 for stagend 2-1	Watt ge 1st			
and 2nd Having following specs:	6	Job	9486.00	56916.
Input: 90-240 V 50 Hz		300	2 .00.00	, , , ,
Power Factor: >0.9	4 19			
Colour Temperature: 4K - 6.5K		A 10 /	1	/

								1
E	Beam Angle: 12	0' - 170'						
	umens: >12000							
C	Operating Temp	perature: -20°C to	60,C					
				th power coated finis	h and	1		
		rotection up to						
				nd connected to the co	opper	1		
		d in the high mas						
P	Providing and i	nstallation of Jur	nction Box with DP	32 A MCB to serve as	Main			
5	witch for LED	Lighting. The job	includes making of	f electric connection t	o the 1	Job	2227.00	2227.00
C	ircuit.							
F	Providing, Insta	allation and test	ing of 2KVA fully a	utomatic voltage stat	oilizer			
V	with input volt	age 70-240 V a	nd output 220 V f	or stage 1st and 2nd	. The 2	Job	8154.00	16308.00
5	tabilizer shall l	e installed and	connected to the ele	ectric circuit as per loc	ation	100	01303	
F	provided by site	e in charge.						
F	Providing, laying	g & fixing of sh	ock proof rubber m	nats with adhesive/bo	nding			
				ering area around ele			1	
				mb of the workmen d				
				age 1st and 2nd. The	200 D. D.S.			
1				ist, grease, foreign ma	1 10	Meter	1205.00	12050.00
			all be as per IS 15	652:2006 & shall have	e the	Meter		
	ollowing specif							
			mats for electrical p	ourpose)				
1 4	and the second second	mm Size: - 1M w	The second secon	and known a deal North				
1		The second secon	ed with manufactur	ers test certificate.				
		aintenance for s		fallandar and all the				
		elow shall be of:		following and all the	items			
1		ol kit consists of t						
			plated) 02 sets con	nnlete			111	
		Ring spanners ch						
		ack finish 02 sets	1					
		liers insulated w	255					
	each – 02 No.	iicis ilisalatea w	itii tiiidii dii i didaada	, 5.12 1 103, 210	5, 255	1		
		insulated with t	hick C.A sleeve; size	in mm 165, 205 eacl	h - 02			
	No.							
15	Side cutting pli	er insulated with	n thick C.A sleeve; s	ize in mm 165, 205 m	nake –	10		
	02 No.							
1	nsulated screv	Drivers						
1	Blade length	Blade dia	Tip dimensions	Quantity				
1	n mm	in mm	in mm		1	Jop	28840.00	28840.00
	50	3	1.6×0.4	02		A.		
4	75	3	1.6 x0.4	02				
1	100	3		02				
1	125	3.5	3.5 x 0.5	02		1		
1	150	3.5	3.5 x 0.5	02		1		
	200	4	4 x 0.6	02				
	300	5	5 x 0.8	02			1	
1	viii. Hammer w	ith handle weig	ht – 110 mg, 340 gr	n , 600 gm –each – 1N	o			
			gth in mm - 200, 300	0, 600 each – 01 No.				
	k. Electric Mult							
	ki. Digital multi			48.4				
	xii. Digital Clamp tester capable	And the second s	00A - 1 No.					
			aw blade – 01 no.				1	
×				Accessories) – 01 No.				
			nience and utility it	ems as per following	details			
P	or stage 1st an							
f		good quality bed	ding for night stay/	Shift consisting of: -				
P fo					•	1	1	1
fo a			e 6'x3' (6Kg)- 02 No	's	2	Job	39619.00	79238
P for a i)	Mattress with	warm cover size		s	2	Jop	39619.00	79238
P fo a i) ii)	Mattress with Quilt with wa) Pillows with	warm cover size orm cover size 5' covers - 02 No's	e 6'x3' (6Kg)- 02 No		2	Jop	39619.00	79238

20.	also includes providing of good quality safety Door locks (03 No's), Link locks, Fabrication of 6' x 6' angle iron bed 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 for stage 1st and 2nd	189.50	Kg	114.00	21603.0
21.	Providing and fitting of 19 mm thick multi-layered ply sheet of size 6 x 3 feet, 2 no's including cutting, fixing all complete including painting of the play sheet by one coat of primer and two coats of enamel paint for stage 1st and 2 nd	36	Sft	150.00	5400.0
22.	Providing of solar/ electrical lantern chargeable on both solar & electrical 220v supply for stage 1st and 2 nd	2	Job	1911.00	3822.0
23.	Providing of 1 KW heat convector for operators for winter season for stage 1st and 2 nd	2	Job	1205.00	2410.
24.	Providing & fitting of lighting points for (machine room, operators room,) as per site requirement in 1.5 mm² multistranded single core 1100 volts, PVC insulated copper conductor through PVC conduit pipe by way, switches, socket modules, regulators, indicators, 08/10 watt LED lamps. Included is cost on account of modular switch boards with the wooden frames as per site requirements for stage 1st and 2nd	10	Job	1680.00	16800
25.	Providing fitting of heating points in 2.5mm ² multistranded single core 1100 volts, PVC insulated copper conductor through PVC conduit by way of p / f of 15 Amp switches, 6 pin socket on modular fitting as per site requirements. Heating points are to be connected from main control panel. All accessories required is to be provided by the firm for stage 1 st and 2 nd	2	Job	1470.00	2940
26.	Providing and fitting of 01 No. LED (scroll type) sign board fabricated out of stainless steel and metal for stage 1 st and 2 nd	18	Sft	3998.00	7196
27.	Providing and fitting of 01 No. angle iron/sheet metal board duly painted showing various specifications of the mechanical and electrical equipment's installed at site for Stage 1st and 2 nd .	25	Sft	250.00	6250
28.	Fabrication, providing and fitting of split type MS clamps10 mm thick, 2 ft long and 3 inch wide for lowering and holding of pumping unit fitted for stage 1st and 2 nd . The job includes the cost of required size of nuts and bolts. Size: 100mm	2	Job	1801.00	360
	Estimated / advertised amount;				2997
	Percentage quoted by L1 firm:	VI.			-7.
100	Total allotted amount: (Rupees Twenty Seven Lakh Eighty Seven Thousand Nine Hundr				2787

Executive Engineer

Makti PHE Mechanical Division (North)

Sopore