UNION TERRITORY OF JAMMU AND KASHMIR
Office of the SUPERINTENDING ENGINEER, JAL SHAKTI (PHE)
MECHANICAL CIRCLE NORTH SRINAGAR
NEW ENGINEERING COMPLEX, NEAR SILK FACTORY ROAD, RAJBAGH, SRINAGAR
Telephone No: 0194-2951906 E-Mail I.D sephemcn@gmail.com

M/s Union Equipment & Services,
Budshah Bridge Srinagar,
GST No: 01APNPS0557E1Z1
E-mail I.D unionequipment2017@gmail.com

Subject: **Allotment for Supply, Installation, Testing & Commissioning of Electro-Mechanical equipments for Water Supply Scheme Rangreth Wavoosa for District Budgam under Jal Jeevan Mission (JJM).**

Reference:
1. Executive Engineer Jal Shakti PHE Mechanical Rural Division Srinagar's e-NIT No: 160 of 02/2023 dated: 27-02-2023 issued under endorsement No: PHE/MRD/4888-99 dated: 27-02-2023, corrigendum No: PHE/MRD/5240-51 dated: 18-03-2023, No: PHE/MRD/5445-56 dated: 29-03-2023 and No: PHE/MRD/5193-5204 dated: 15-03-2023.
2. Executive Engineer Jal Shakti PHE Mechanical Rural Division Srinagar's letter No: PHE/MRD/426-28 dated: 12-05-2023.
3. Your acceptance letter No: UES/786/801 dated: 04-05-2023.
4. This office letter No: PHE/MCN/JJM/589-91 dated: 15-05-2023.
5. Superintending Engineer Hydraulic Circle Budgam (Member Secretary DJJM) letter No: SE/Hyd/CS/Bud/759-62 dated: 18-05-2023 and No: SE/Hyd/CS/Bud/1353-56 dated: 14-06-2023.
6. Minutes of Meeting of (DJJM) Budgam held on 05-06-2023 issued by District Development Commissioner, Budgam vide No: DDCB/Plg/JJM/2167-81 dated: 13-06-2023.
7. This office letter of Intent (LOI) No: PHE/MCN/JJM/1332-38 dated: 23-06-2023
8. Performance Security 3% vide B.G No: 23062300724000287 dated: 23-06-2023 for **Rs. 4,97,600/-** of HDFC Bank Branch H.S.H Street Srinagar pledged to Superintending Engineer Jal Shakti PHE Mechanical Circle North Srinagar forwarded by Executive Engineer Jal Shakti PHE Mechanical Rural Division Srinagar vide No: PHE/MRD/1068-69 dated: 24-06-2023.

A.A Accorded vide order No	CE/PHE/DB/JJM/253 of 09/2022 dated: 05-09-2022
Tech. Sanction Accorded No	CE/PHE/DB/308 of 09/2022 dated: 07-09-2022
Advertised Cost	Rs. 1,66,47,880/-
Allotted Cost	Rs. 1,65,89,612/=
Time of Completion	120 (One Hundred Twenty) Days

ORDER NO: SE/PHE/MCN/JJM- 01-of 07/2023

DATED: 11-07- 2023

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For and on behalf of Lieutenant Governor Union Territory of Jammu & Kashmir, the contract for **Supply, Installation, Testing &**

Commissioning of Electro-Mechanical equipments for Water Supply Scheme Rangreth Wavoosa under Jal Jeevan Mission is hereby allotted in your favour with the allotted cost of **Rs.1,65,89,612/- (Rupees One Crore Sixty Five Lacs Eighty Nine Thousand Six Hundred and Twelve Only)** in references to above e-NIT, terms, conditions and specifications contained in Annexure "A" & "B" respectively.

No: PHE/MCN/JJM/ 1461-68
Dated: 11 **-07-2023**

(Er. Prithi Pal Singh)
Superintending Engineer,
Jal Shakti PHE Mech. Circle North,
Srinagar.

Copy to the:-

01: Principal Secretary to Govt. Jal Shakti Department, Civil Secretariat, J&K for information, please.
02: Chief Engineer Kashmir Jal Shakti PHE Department Srinagar for information please.
03: Mission Director, Jal Jeevan Mission J&K, Civil Secretariat J&K for information.
04: District Development Commissioner, Budgam (Chairman District Jal Jeevan Mission) for information.
05: Deputy Commissioner (Administration), Sales Tax Department, Kashmir for information.
06: Superintending Engineer, Hydraulic Circle Budgam (Member Secretary JJM) for information.
07: Executive Engineer, Jal Shakti PHE Mechanical Rural Division Srinagar for information and necessary action. He is directed to execute the work strictly as per the approved design, construction drawings and specifications. He shall also take all the measures for abiding strictly to quality control practices as per relevant ISI code, appropriate sections of tender documents and standard practices of engineering. He should also get the latest Sales Tax Clearance Certificate from the agency before the start of work.
08: File concerned.

ANNEXURE "A" to this office allotment order No: PHE/MCN/JJM/ 01 of 07/2023 dated: 11-07-2023

(Amount in Rupees)

S. No.	Particulars	Qty.	Rate	Amount
	STAGE 1ST			
1.01	Supply, Installation, Testing & Commissioning of Non-clog Pumping Unit as per IS 5600 at Raw Water Stage. PUMP: - **Discharge: 10000 GPH** **Head: 70mtrs** Type of pump : Non–clog Open well Submersible Vertical Pump Solid Handling Capacity: 20mm (Minimum) Quality of water to be handled: Raw water **MATERIAL OF CONSTRUCTION:** As per IS 5600, suitable for above parameters. Make- **MOTOR: -** Type: Squirrel Cage 3-Phase Induction Motor Speed: 1500 rpm (syn) Rating: Suitable for above parameter Method of starting: Star – Delta. Frequency: 50Hz ± 3% Voltage: 415 ±6%,-15% Class of insulation: Suitable for above rating. **Make of Pumping Unit: Kirloskar/KSB/Grandfoss/CRI/or equivalent standard.** The motor shall be made of corrosion resisting materials to resist corrosion under normal conditions and the motor shall have a name plate giving complete specifications The job includes providing and fitting of suitable size/Dia GI nipple for pumping equipment as per site requirement. **Note: The Pump Unit supplied shall be provided with the test certificate from OEM confirming the required discharge at the given head. The head and discharge given on performance curve must meet out requirement at the site of commissioning.**	02 Jobs	270000	**540000**
1.02	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. The job includes the cost of required size of nuts and bolts.	02 Jobs	1800	**3600**
1.03	Providing and fitting of 16 Sq.mm 3-Core flat submersible copper cable conforming to IS: 694 (Part 1st) – 1964 & IS: 694 (Part 2nd) - 1964 as power wiring to Pumping Units and for interconnections to other electrical Equipment. The cable connections terminal shall be fitted with copper thimbles of required size.	90 Mtrs	700	**63000**
1.04	Fabrication, Providing and fitting 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: **Bus bar Chamber:** The bus bar chamber shall be fitted at the top of the panel horizontally/vertically throughout the length. There shall be 3 Nos. of phases 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 300 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 colour strips of red, yellow, blue and black and the same be arranged in accordance with IS-375 specifications. Electrical clearances shall be maintained between phases, neutral and body as per standards. **Main Circuit Breaker (Incomer MCCB):** Quantity = 02 Nos No. of poles = 4 Nos Current Rating = 150-175 Amp. Rated operational voltage = 415 V + 15 % Rated frequency = 50+/-3%Hz Ambient temperature = 40° C Ultimate S.C Breaking Cap at (415V AC, 50 Hz) = 50KA Type of release = Thermal-Magnetic **Change over Switch:** Quantity = 01 No. Rating = 200 Amp Type = Front operated, on load, 4 pole, 400 ±15%V, 50 ± 3%Hz. **Motor Back-up Protection MCCB:** Quantity = 2 Nos. Poles = 3 Nos Rated Current -100 Amp Rated operational voltage = 415 V ±15 % Rated frequency = 50 ± 3% Hz Ambient temperature = 40°C	01 Job	300000	**300000**

	Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 35-37KA **Starters:-** Fully automatic star delta starters. Power Specs = 3 Φ, 415 ± 15% V, 50 ± 3 % Hz. Relay range= 45-66 A Coil Voltage = 380 v Protection = single phasing, phase Reversal, phase unbalance Qty. = 2 No's **Auxiliary MCCB for Heating/Lighting:** Circuit Breaker = MCCB (Outgoing) Qty. = 1 No. No. of poles = 4 Current Rating = 32 Amp. Rated operational voltage = 415 V ± 15 % Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 36KA **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 Besides above, **M-power module** for mobile starting for submersible motor 1P/3P 3 wire Quantity – 02 no. IVRS Languages – English , Hindi, Suitable Region- North India The panel shall be provided with phase indicators (03 NO) and digital ammeter of range 0-100 A (02 Nos) digital voltmeter of range 0-500 V (01 No) and digital frequency meter (01 No). The enclosure of the panel shall be of excellent fit and finish, corrosion resistant and powder coated with gliding hinges for smooth and noiseless movement of windows having advanced locking arrangements. Preferably make of constituent parts: ABB/Schinider/L&T/C&S			
1.05	Providing, fitting, testing and commissioning of 75 KVA voltage stabilizer as per specifications below: Capacity: **75 KVA**, 3-phase Type of voltage controller: Manually operated copper wound, 3-phase, AC power supply multi- step. Type of Regulator: Double plate type with electrolytic copper contacts. Input voltage: 150 volts. (3 phase) Output voltage: 415 ±10% volts. Frequency: 50 ±3 C/S. Windings: Electrolytic grade copper of adequate section, vacuums impregnated and Oven dried. Insulation: Fibre glass insulations of tested parameters. Cooling: Naturally Oil cooled Temp. Rise (Max) : 30°C above ambient Mounting: On Uni-directional wheels. Correction rate: 30 volts per step Wave form distortion: virtually nil Duty cycle: 100% continuous. Enclosure: MS sheet enclosure in pressed CGR Sheet powder coated with radiators of adequate thickness. Core laminates: High grade, low eddy loss, grain oriented silicon steel or CRG core. Load: Three phase induction motor load. The voltage stabilizer shall be capable to withstand load 10% above maximum load for 02 hour operation. 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 shall have a display panel for housing 02 numbers voltmeters (0-500V) along with 4-way selector switch and set of neon indicators for incoming and outgoing phases (06 No's).Insulating media (T. Oil) of 11 KVA grade with 62 dielectric value is to be provided and filled up to top level. The T-Oil of above grade should be provided in separate barrels and filled at site up to top level. **NOTE: The voltage Stabilizer shall be provided with manufacturers test certificate duly stamped, confirming the rating of equipment's. The Voltage Stabilizer shall have name plate with specifications, name of manufacturer and name of Water Supply Scheme.**	01 Job	163000	**163000**
1.06	Providing and Fitting of 3.5-Core, 70 Sq. mm XLPE, and 11KV grade Armoured Aluminum Cable of various sizes conforming to IS: 7098 part 1st as service line from the HT transformer and DG set to control panel including necessary thimblings, crimping, taping etc. to be fitted from changeover panel to modular panel. The job also includes P/F of Aluminum thimbles of various sizes as per site requirement including crimping and taping.	60 Mtr	668	**40080**
1.07	Providing and fitting of 125mm Dia G.I flanged Rising Main at site. The Pipe shall be hot dip Galvanized, class C (5.4mm thickness) confirming 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. 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	3300 Mtr	2600	**8580000**

	using Advani/ Esab/L&T- SS Bond make electrodes to form strong welding joint. The electrodes shall be having diameter not less than 4mm, Nuts and Bolts, Rubber Insertion Gaskets of reputed makes to be used between flanged joints. The work includes the cost on account of earth work excavation by mechanical means of all sorts and backfilling for laying the raising main underground as per site requirement.			
1.08	Fabrication, providing and fitting of washout Tee with arm length as per site requirement but not less than 1.5'x1.5'x1.5'. 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. Nominal Dia -125 mm	01 Job	6000	**6000**
1.09	Fabrication, Providing and fitting of Y- junction / Manifold having length of each arm as per site requirement but not less than 2'x2'x2' to be fabricated out of hot dip galvanized G.I, (5.4mm thickness) C-Class pipe as per site requirement. The job also includes Providing and welding of M.S flanges to the ends of each arm. The thickness of Flange shall conform to IS 6392 Part 1st Table -17. The flange welding shall be carried out in double layers using Advani/ Esab/L&T- SS Bond make electrodes to form strong welding joint by way of DC arc welding. The job further includes Providing and Fitting of nuts and bolts,) Rubber Insertion Gaskets to be used between flanged joints. Nominal Dia -125mm	01 Job	11500	**11500**
1.10	Fabrication, Providing and fitting of Tail piece as per site requirement by Cutting of hot dip galvanized G.I, (5.4mm thickness) C-Class pipe across the section by using pipe cutter/ gas cutter. The job also includes Providing and welding of M.S flanges to the two ends of pipe. The Thickness of flange shall conform to IS 6392 Part 1st Table-17. The flange welding shall be carried out in double layers using Advani/ Esab/L&T- SS Bond Make electrodes to form strong welding joint by using DC arc welding. The job further includes Providing and Fitting of nuts and bolts, Rubber Insertion Gaskets to be used between flanged joints. Nominal Dia - 125 mm	07 Jobs	1800	**12600**
1.11	Fabrication, Providing and fitting of long radius bend out of Class C GI pipe (5.4mm thickness) of length as per site requirement and flanged on both ends. 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. Nominal Dia -125mm	09 Jobs	5000	**45000**
1.12	Providing and fitting of Ductile Iron double flanged, Slanted seat swing check valve(NRV) 125mm as per IS 5312. 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. 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 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. Preferably makes : VAG/AVK/SIGMA FLOW	06 Jobs	26000	**156000**
1.13	Providing and fitting of, Ductile Iron double flanged, non-rising spindle soft seated glandless gate/ sluice valves 125 mm as per IS14846 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. Preferably makes : VAG/AVK/Sigma Flow	03 Jobs	22000	**66000**
1.14	Providing, fitting, testing and commissioning of ARV (Air Release valve) as per IS 14845 to be fitted to G.I rising Main. The ARV Shall have the following specifications: - Valve type - single chamber, single orifice Nominal Dia=50 mm. End connection - flanged ends to IS 1538 Working temperature - 70oc to 550 c Test pressure - body / seat 2.5 x PN Sealing ring - EPDM Construction -ductile iron with stainless steel floats Coating - epoxy with corrosion resistance 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. Preferably makes : VAG/AVK/Sigma Flow	02 Jobs	19000	**38000**

1.15	Fabrication of gantry mechanism, bed for staff and base frame and allied works by way of providing 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 The job also includes painting of complete Structure in one coat of red oxide and 02 coats of enamel metal paint. The quantity of the steel members like ISMB 200/150/100 , MS chequered sheet, ISMC 100, ISMC 75, ISA 50X 50 X5mm /40X 40 X 6mm, Square bars, railing pipe, MS pipes, angles, tubes, shall be used as per directions of site engineer, same may vary as per site requirement as it is conditional to civil structures being constructed.	2480 Kgs	110	**272800**
1.16	Providing, installation and testing of manual type triple spur gear chain pulley block along with monorail geared travelling trolley having following features 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. Load Chain:- The load chain be made of high tensile alloy steel having wear resistance and greatest mobility. The chain should be accurately collaborated, tested and have adequate in built factor of safety for safer operation. 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 i. Make = Indeff / Pull lift ii. Capacity = 2 ton Iii. No. Of load chain falls = 2 iv. Min. Height of lift = 6 M	01 Job	44000	**44000**
1.17	Supply, installation, Testing & commissioning of 950VA Full Sine wave power inverter including Providing/Installation of 12V, 180AH Automotive inverter Battery with trolley and cover. with 2-core 4 mm2 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. Make : Exide/Luminious/Amaron	01 Job	30000	**30000**
1.18	Illumination of Premises: Providing / erection 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. 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 at the top having 120° angle between arms and each arm having 15° inclination with respect to horizontal plane. Each arm should be of 2' length and size and shape appropriate as per requirement of the luminary. The job also includes providing and fitting of required length of flexible multi strand 2 mm copper wire from each terminal connector to each holding arm. The pole is mounted on 1:2:4 Cement concreting of size not less than 2'x2'x6" 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	01 Job	22000	**22000**
1.19	Providing, installation, testing and commissioning of area lighting 120 Watt LED (Street Light Type) on top of octagonal pole having following specifications: Input: 90-210 Volts Power Factor: >0.8 Colour Temperature: 4K - 6.5K Beam Angle: 120° - 170° Lumens: >12000 Operating Temperature: -20°C to 60°C The LED is pressure die cast aluminium 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	03 Jobs	9000	**27000**
1.20	Providing and installation of Junction Box with DP 32 A MCB to serve as Main switch for LED Lighting. The job includes making of electric connection to the circuit.	01 Job	2200	**2200**
1.21	Providing and Fitting of 2-Core, 10 Sqr mm XLPE, and 1.1KV and 11KV grade Armoured Aluminum Cable of various sizes conforming to IS: 7098 part 1st as service line from the HT transformer to control panel including necessary thimblings, crimping, taping etc. To be fitted from auxiliary MCCB of panel to main junction box of octagonal pole.	50 Mtr	160	**8000**
1.22	a) Providing of good quality bedding for night stay/Shift consisting of: - I) Mattress with warm cover of size 6'x3' (6Kg) white cotton - 02 No's ii) Quilt with warm cover of 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 white cotton b) The job also includes providing of pressure cooker 5ltr (02 Nos), Steel patella (utensil) 5ltrs (02 Nos), cooking heater (01 No.), room heater (01 No), steel	01 Job	38000	**38000**

	buckets 10 liter capacity (01 No), Plastic bucket 10 liter capacity with Mug (02 Nos) each, steel glasses (06 Nos), steel Plates with large spoons and bowls (03 Nos) 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, heavy Table 01 No. The job also includes providing of good quality safety Door locks (03 No's).			
1.23	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. Make : Jyoti / Dunlop	04 Mtrs	780	**3120**
1.24	Providing, Installation and testing of 2KVA 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.	01 Job	8000	**8000**
1.25	Supply, Installation, Commissioning and creation of pole mounted, outdoor type **100 KVA capacity** Level II Electric Sub Station as per the amendment No. 4 March 2021 to IS: 1180 (Part 1) 2014 (Fourth Revision). Type: HT/LT Transformer Type of cooling: ONAN. Operating conditions: Input =11000 volts Output =433 volts AC supply in 3- phase. Terminals: Input=3 No. HT bush rods with insulators, washer, nuts etc. Output=4 No. LT bush rods switch insulators, washers, nuts etc. Core: The core shall be of high permeability to reduce core losses and the strips shall be of suitable size and gauge. 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. 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 jell crystals, conservator with oil level indicator, explosion vet and adequate radiator fins/ Tubes. The impedance of transformer shall be as per IS: 1180 (Part 1) 2014 with latest amendments. The scope of work shall include obtaining of necessary inspection/clearance certificate from the concerned Department for the equipment. **NOTE: The OEM shall be CPRI certified and equipment's supplied shall be provided with test certificate confirming the rating and standard of H.T/L.T Distribution Transformer. The testing and Commissioning of the equipment shall be completed only after obtaining above certificate**	01 Job	209000	**209000**
1.26	Providing and Fitting G.I Channel/Angle/Flat of sizes including clamps (For transformer bed, taping point, brackets of poles etc.)	300 Kgs	120	**36000**
1.27	Supply, Installation, Testing and commissioning of 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 post double insulator, copper or copper alloy high pressure heavy 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 200 Amp complete as per IS specs	02 Jobs	11500	**23000**
1.28	Supply, Installation, Testing and commissioning of 11KV polymer fuses Set Horn Gap 3-phase 200 A suitable for vertical installation.	01 Set	4900	**4900**
1.29	Supply, Installation, Testing and Commissioning of Gapless Surge arrestor station class, 10KA, 9KV, LA with polymer housing, Station Type.	01 Set	7700	**7700**
1.30	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	24 No's	340	**8160**
1.31	Supply, installation, erection of 9 Mtrs long H.T 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.	08 Jobs	20000	**160000**
1.32	Providing/Fitting of Galvanized nuts, bolts of various sizes as per site requirement for fitment of electric substation, poles etc.	40 Kgs	140	**5600**
1.33	Providing/Fitting of Danger Plate with clamps	08 Jobs	150	**1200**
1.34	Providing and fixing G.I Barbed wire as anti-climbing devices.	04 Kgs	130	**520**
1.35	Providing & Fitting 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	06 Sets	4900	**29400**

	stranded wire complete.			
1.36	Painting of poles by Red oxide	02 Ltr	300	**600**
1.37	Painting of poles by Aluminum paint	02 Ltr	510	**1020**
1.38	Providing/Laying of ACSR conductor 0.05 as per relevant IS code	400 Mtr	60	**24000**
1.39	Providing and fitting of PG clamps.	12 No's	420	**5040**
1.40	Supply, installation, testing of 35 Sqr mm XLPE HT cable (ABC type) for 11 KV grade with cross sectional area 3x35 .	30 Mtr	800	**24000**
1.41	Providing/Fitting of 11 KV cable termination kit for connecting 35 Sq mm XLPE cable (ABC type) with the existing HT line near tapping point and HT transformer	04 No's	8900	**35600**
1.42	Providing and Fitting of LT Distribution box for H.T Transformer with 100 Ampere , 36KA MCCB For incomer and SFU for outgoing circuits. (For 63 KVA Substation)	01 Job	28000	**28000**
1.43	Providing and fitting of three phase, 4 wire commercial LT Prodigy Meter with all allied Accessories and fixtures.	01 Job	26000	**26000**
1.44	Providing/Installation of earthing for electric substation, LT panel and stabilizer comprising of company fabricated 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 as per relevant standards. Safe earthing electrode size : 80 mm Dia Length : 2000 mm Back fill compound : 30 kg	04 Job	10000	**40000**
1.45	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	36 Sqft	150	**5400**
1.46	Earth work in excavation by mechanical means (hydraulic excavator) in trenches for foundations, drains, pipes, cables etc. (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 ramming of bottoms lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed, within a lead of 50 metres:- **All kinds of soil**	10 Cum	300	**3000**
1.47	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centering and shattering. All works up to plinth level with 1:2:4 mix (1 cement, 2cores sand, 4 graded stone aggregate 20mm nominal size).	02 Cum	7000	**14000**
1.48	Centering and shattering including strutting, propping etc. and removal of from work for foundation, footings, base for columns	10 Sqm	310	**3100**
	STAGE 2ND			
2.01	Supply, Installation, Testing & Commissioning of Open Well Pumping Units as per IS: 14220 :1994 **PUMP: -** **Discharge: 10000 GPH** **Head: 68 Mtrs** Type of pump: Open well Submersible Pump (Vertical) Quality of Water to be handled: clear water. Efficiency- Not less than 50% **MATERIAL OF CONSTRUCTION:** As per IS: 14220 :1994 suitable for above parameter Make: - Kirloskar/ KSB/ Grandfoss/ CRI **MOTOR: -** Rating: Suitable for above parameter Method of starting: Star – Delta/DOL (as specified). Frequency: 50Hz ± 3% Voltage: 415 ±10% Class of insulation: Suitable for above rating. **Make of Pumping Unit: Kirloskar/KSB/Grandfoss/CRI/or equivalent standard.** The motor shall be made of corrosion resisting materials to resist corrosion under normal conditions and the motor shall have a name plate giving complete specifications The job includes providing and fitting of suitable size/Dia GI nipple for pumping equipment as per site requirement. **Note: The Pump Unit supplied shall be provided with the test certificate from OEM confirming the required discharge at the given head. The head and discharge given on performance curve must meet out requirement at the site of commissioning.**	02 Jobs	140000	**280000**

2.02	Fabrication, providing and fitting of split type MS clamps10 mm thick, 2 feet long and 3 inch wide for lowering and holding of pumping unit fitted. The job includes the cost of required size of nuts and bolts.	02 Jobs	1800	**3600**
2.03	Providing and fitting of 16 Sq.mm 3-Core flat submersible copper cable conforming to IS: 694 (Part 1st) – 1964 & IS: 694 (Part 2nd) - 1964 as power wiring to Pumping Units and for interconnections to other electrical Equipment. The cable connections terminal shall be fitted with copper thimbles of required size.	90 Mtr	700	**63000**
2.04	Fabrication, Providing and fitting 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: **Bus bar Chamber:** The bus bar chamber shall be fitted at the top of the panel horizontally/vertically throughout the length. There shall be 3 Nos. of phases 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 300 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 colour strips of red, yellow, blue and black and the same be arranged in accordance with IS-375 specifications. Electrical clearances shall be maintained between phases, neutral and body as per standards. **Main Circuit Breaker (Incomer MCCB):** Qty. = 02 Nos No. of poles = 4 Nos Current Rating = 150-175 Amp. Rated operational voltage = 415 V + 15 % Rated frequency = 50+/-3%Hz Ambient temperature = 40° C Ultimate S.C Breaking Cap at (415V AC, 50 Hz) = 50KA Type of release = Thermal-Magnetic **Change over Switch:** Qty. = 01 No. Rating = 200 Amp Type = Front operated, on load, 4 pole, 400 ±15%V, 50 ± 3%Hz. **Motor Back-up Protection MCCB:** Qty = 2 Nos. Poles = 3 Nos Rated Current -100 Amp Rated operational voltage = 415 V ±15 % Rated frequency = 50 ± 3% Hz Ambient temperature = 40°C Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 35-37KA **Starters:-** Fully automatic star delta starters. Power Specs = 3 Φ, 415 ± 15% V, 50 ± 3 % Hz. Relay range= 45-66 A Coil Voltage = 380 v Protection = single phasing, phase Reversal, phase unbalance Qty. = 2 No's **Auxiliary MCCB for Heating/Lighting:** Circuit Breaker = MCCB (Outgoing) Qty. = 1 No. No. of poles = 4 Current Rating = 32 Amp. Rated operational voltage = 415 V ± 15 % Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 36KA **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 Besides above, **M-power module** for mobile starting for submersible motor 1P/3P 3 wire Quantity – 02 no. IVRS Languages – English , Hindi, Suitable Region- North India The panel shall be provided with phase indicators (03 N0) and digital ammeter of range 0-100 A (02 Nos) digital voltmeter of range 0-500 V (01 No) and digital frequency meter (01 No). The enclosure of the panel shall be of excellent fit and finish, corrosion resistant and powder coated with gliding hinges for smooth and noiseless movement of windows having advanced locking arrangements. Preferably make of constituent parts: ABB/Schinider/L&T/C&S	01 Job	300000	**300000**
2.05	Providing, fitting, testing and commissioning of 75 KVA voltage stabilizer as per specifications below: Capacity: **75 KVA**, 3-phase Type of voltage controller: Manually operated copper wound, 3-phase, AC power supply multi- step. Type of Regulator: Double plate type with electrolytic copper contacts. Input voltage: 150 volts. (3 phase) Output voltage: 415 ±10% volts.	01 Job	163000	**163000**

	Frequency: 50 ±3 C/S. Windings: Electrolytic grade copper of adequate section, vacuums impregnated and Oven dried. Insulation: Fibre glass insulations of tested parameters. Cooling: Naturally Oil cooled Temp. Rise (Max) : 30°C above ambient Mounting: On Uni-directional wheels. Correction rate: 30 volts per step Wave form distortion: virtually nil Duty cycle: 100% continuous. Enclosure: MS sheet enclosure in pressed CGR Sheet powder coated with radiators of adequate thickness. Core laminates: High grade, low eddy loss, grain oriented silicon steel or CRG core. Load: Three phase induction motor load. The voltage stabilizer shall be capable to withstand load 10% above maximum load for 02 hour operation. 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 shall have a display panel for housing 02 numbers voltmeters (0-500V) along with 4-way selector switch and set of neon indicators for incoming and outgoing phases (06 No's).Insulating media (T. Oil) of 11 KVA grade with 62 dielectric value is to be provided and filled up to top level. The T-Oil of above grade should be provided in separate barrels and filled at site up to top level. **NOTE: The voltage Stabilizer shall be provided with manufacturers test certificate duly stamped, confirming the rating of equipment's. The Voltage Stabilizer shall have name plate with specifications, name of manufacturer and name of Water Supply Scheme.**			
2.06	Providing and Fitting of 3.5-Core, 70 Sq. mm XLPE, and 11KV grade Armoured Aluminum Cable of various sizes conforming to IS: 7098 part 1st as service line from the HT transformer and DG set to control panel including necessary thimblings, crimping, taping etc. to be fitted from changeover panel to modular panel. The job also includes P/F of Aluminum thimbles of various sizes as per site requirement including crimping and taping.	60 Mtr	668	**40080**
2.07	Providing and fitting of 125mm Dia G.I flanged Rising Main at site. The Pipe shall be hot dip Galvanized, class C (5.4mm thickness) confirming 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. 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 Advani/ Esab/L&T- SS Bond make electrodes to form strong welding joint. The electrodes shall be having diameter not less than 4mm, Nuts and Bolts, Rubber Insertion Gaskets of reputed makes to be used between flanged joints. The work includes the cost on account of earth work excavation by mechanical means of all sorts and backfilling for laying the raising main underground as per site requirement.	1300 Mtr	2600	**3380000**
2.08	Fabrication, providing and fitting of washout Tee with arm length as per site requirement but not less than 1.5'x1.5'x1.5'. 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. Nominal Dia -125 mm	01 Job	6000	**6000**
2.09	Fabrication, Providing and fitting of Y- junction/Manifold having length of each arm as per site requirement but not less than 2'x2'x2' to be fabricated out of hot dip galvanized G.I, (5.4mm thickness) C-Class pipe as per site requirement. The job also includes Providing and welding of M.S flanges to the ends of each arm. The thickness of Flange shall conform to IS 6392 Part 1st Table -17. The flange welding shall be carried out in double layers using Advani/Esab/L&T- SS Bond make electrodes to form strong welding joint by way of DC arc welding. The job further includes Providing and Fitting of nuts and bolts,) Rubber Insertion Gaskets to be used between flanged joints. Nominal Dia -125mm	01 Job	11500	**11500**
2.10	Fabrication, Providing and fitting of Tail piece as per site requirement by Cutting of hot dip galvanized G.I, (5.4mm thickness) C-Class pipe across the section by using pipe cutter/ gas cutter. The job also includes Providing and welding of M.S flanges to the two ends of pipe. The Thickness of flange shall conform to IS 6392 Part 1st Table-17. The flange welding shall be carried out in double layers using Advani/ Esab/L&T- SS Bond Make electrodes to form strong welding joint by using DC arc welding. The job further includes Providing and Fitting of nuts and bolts, Rubber Insertion Gaskets to be used between flanged joints. Nominal Dia - 125 mm	05 Jobs	1800	**9000**
2.11	Fabrication, Providing and fitting of long radius bend out of Class C GI pipe (5.4mm thickness) of length as per site requirement and flanged on both ends. 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. Nominal Dia -125mm	08 Jobs	5000	**40000**
2.12	Providing and fitting of Ductile Iron double flanged, Slanted seat swing check valve(NRV) 125mm as per IS 5312. The body shall be of ductile cast iron with fully encapsulated vulcanized EPDM rubber (Approved for drinking water). The	04 Jobs	26000	**104000**

	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 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. Preferably makes : VAG/AVK/SIGMA FLOW			
2.13	Providing and fitting of, Ductile Iron double flanged, non-rising spindle soft seated glandless gate/ sluice valves 125 mm as per IS14846 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 also includes the cost on account of Providing/Fitting of nuts, bolts and gasket required for the job. Preferably makes : VAG/AVK/Sigma Flow	03 Jobs	22000	**66000**
2.14	Providing, fitting, testing and commissioning of ARV (Air Release valve) as per IS 14845 to be fitted to G.I rising Main. The ARV Shall have the following specifications: - Valve type - single chamber, single orifice Nominal Dia=50 mm. End connection - flanged ends to IS 1538 Working temperature - 70oc to 550 c Test pressure - body / seat 2.5 x PN Sealing ring - EPDM Construction -ductile iron with stainless steel floats Coating - epoxy with corrosion resistance 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. Preferably makes : VAG/AVK/Sigma Flow	01 Job	19000	**19000**
2.15	Fabrication of gantry mechanism, bed for staff and base frame and allied works by way of providing 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 The job also includes painting of complete Structure in one coat of red oxide and 02 coats of enamel metal paint. The quantity of the steel members like ISMB 200/150/100 , MS chequered sheet, ISMC 100, ISMC 75, ISA 50X 50 X5mm /40X 40 X 6mm, Square bars, railing pipe, MS pipes, angles, tubes, shall be used as per directions of site engineer, same may vary as per site requirement as it is conditional to civil structures being constructed.	1000 Kgs	110	**110000**
2.16	Providing, installation and testing of manual type triple spur gear chain pulley block along with monorail geared travelling trolley having following features 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. Load Chain:- The load chain be made of high tensile alloy steel having wear resistance and greatest mobility. The chain should be accurately collaborated, tested and have adequate in built factor of safety for safer operation. 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 i. Make = Indeff / Pull lift ii. Capacity = 2 ton Iii. No. Of load chain falls = 2 iv. Min. Height of lift = 6 M	01 Job	44000	**44000**
2.17	Supply, installation, Testing & commissioning of 950VA Full Sine wave power inverter including Providing/Installation of 12V, 180AH Automotive inverter Battery with trolley and cover. with 2-core 4 mm2 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. Make : Exide/Luminious/Amaron	01 Job	30000	**30000**
2.18	Illumination of Premises: Providing/Erection 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	01 Job	22000	**22000**

	connection 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 at the top having 120° angle between arms and each arm having 15° inclination with respect to horizontal plane. Each arm should be of 2' length and size and shape appropriate as per requirement of the luminary. The job also includes providing and fitting of required length of flexible multi strand 2 mm copper wire from each terminal connector to each holding arm. The pole is mounted on 1:2:4 Cement concreting of size not less than 2'x2'x6" 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			
2.19	Providing, installation, testing and commissioning of area lighting 120 Watt LED (Street Light Type) on top of octagonal pole having following specifications: Input: 90-210 Volts Power Factor: >0.8 Colour Temperature: 4K - 6.5K Beam Angle: 120° - 170° Lumens: >12000 Operating Temperature: -20°C to 60°C The LED is pressure die cast aluminium 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	03 Jobs	9000	**27000**
2.2	Providing and installation of Junction Box with DP 32 A MCB to serve as Main switch for LED Lighting. The job includes making of electric connection to the circuit.	01 Job	2200	**2200**
2.21	Providing and Fitting of 2-Core, 10 Sqr mm XLPE, and 1.1KV and 11KV grade Armoured Aluminum Cable of various sizes conforming to IS: 7098 part 1st as service line from the HT transformer to control panel including necessary thimblings, crimping, taping etc. To be fitted from auxiliary MCCB of panel to main junction box of octagonal pole.	50 Mtr	160	**8000**
2.22	a) Providing of good quality bedding for night stay/Shift consisting of: - I) Mattress with warm cover of size 6'x3' (6Kg) white cotton - 02 No's ii) Quilt with warm cover of 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 white cotton b) The job also includes providing of pressure cooker 5ltr (02 Nos), Steel patella (utensil) 5ltrs (02 Nos), cooking heater (01 No.), room heater (01 No), steel buckets 10 liter capacity (01 No), Plastic bucket 10 liter capacity with Mug (02 Nos) each, steel glasses (06 Nos), steel Plates with large spoons and bowls (03 Nos) 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, heavy Table 01 No. The job also includes providing of good quality safety Door locks (03 No's).	01 Job	38000	**38000**
2.23	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. Make : Jyoti / Dunlop	04 Mtr	780	**3120**
2.24	Providing, Installation and testing of 2KVA 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.	01 Job	8000	**8000**
2.25	Supply, Installation, Commissioning and creation of pole mounted, outdoor type **100 KVA capacity** Level II Electric Sub Station as per the amendment No. 4 March 2021 to IS: 1180 (Part 1) 2014 (Fourth Revision). Type: HT/LT Transformer Type of cooling: ONAN. Operating conditions: Input =11000 volts Output =433 volts AC supply in 3- phase. Terminals: Input=3 No. HT bush rods with insulators, washer, nuts etc. Output=4 No. LT bush rods switch insulators, washers, nuts etc. Core: The core shall be of high permeability to reduce core losses and the strips shall be of suitable size and gauge. 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 Aluminium 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. The HT transformer shall be of reputed make from an ISO certified company as	01 Job	209000	**209000**

	per relevant standards and a test certificate shall be provided before installation. The transformer shall also be provided with breather fill with silica jell crystals, conservator with oil level indicator, explosion vet and adequate radiator fins/ Tubes. The impedance of transformer shall be as per IS: 1180 (Part 1) 2014 with latest amendments. The scope of work shall include obtaining of necessary inspection/clearance certificate from the concerned Department for the equipment. **NOTE: The OEM shall be CPRI certified and equipment's supplied shall be provided with test certificate confirming the rating and standard of H.T/L.T Distribution Transformer. The testing and Commissioning of the equipment shall be completed only after obtaining above certificate**			
2.26	Providing and fitting G.I Channel/Angle/Flat of sizes including clamps (for transformer bed, taping point, brackets of poles etc.)	300 Kgs	120	**36000**
2.27	Supply, Installation, Testing and commissioning of 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 post double insulator, copper or copper alloy high pressure heavy 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 200 Amp complete as per IS specs	02 Jobs	11500	**23000**
2.28	Supply, Installation, Testing and commissioning of 11KV polymer fuses Set Horn Gap 3-phase 200 A suitable for vertical installation.	01 Set	4900	**4900**
2.29	Supply, Installation, Testing and Commissioning of Gapless Surge arrestor station class, 10KA, 9KV, LA With polymer housing, Station Type.	01 Set	7700	**7700**
2.30	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	24 No's	340	**8160**
2.31	Supply, installation, erection of 9 Mtrs long H.T 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.	08 Jobs	20000	**160000**
2.32	Providing/Fitting of Galvanized nuts, bolts of various sizes as per site requirement for fitment of electric substation, poles etc.	40 Kgs	140	**5600**
2.33	Providing/Fitting of Danger Plate with clamps	08 Jobs	150	**1200**
2.34	Providing and fixing G.I Barbed wire as anti-climbing devices.	04 Kgs	130	**520**
2.35	Providing/Fitting 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 and 7/3.15 mm dia. G.I stranded wire complete.	06 Sets	4900	**29400**
2.36	Painting of poles by Red oxide	02 Ltr.	300	**600**
2.37	Painting of poles by Aluminium paint	02 Ltr	510	**1020**
2.38	Providing/Laying of ACSR conductor 0.05 as per relevant IS code	400 Mtr.	60	**24000**
2.39	Providing and fitting of PG clamps.	12 No.	420	**5040**
2.4	Supply, installation, testing of 35 Sqr mm XLPE HT cable (ABC type) for 11 KV grade with cross sectional area 3x35 .	30 Mtr.	800	**24000**
2.41	Providing/Fitting of 11 KV cable termination kit for connecting 35 Sq mm XLPE cable (ABC type) with the existing HT line near tapping point and HT transformer	04 No's	8900	**35600**
2.42	Providing and fitting of LT Distribution box for H.T transformer with 100 Ampere , 36KA MCCB For incomer and SFU for outgoing circuits. (for 63 KVA Substation)	01 Job	28000	**28000**
2.43	Providing and fitting of three phase, 4 wire commercial LT Prodigy Meter with all allied Accessories and fixtures.	01 Job	26000	**26000**
2.44	Providing/Installation of earthing for electric substation, LT panel and stabilizer comprising of company fabricated 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 as per relevant standards. Safe earthing electrode size : 80 mm Dia Length : 2000 mm Back fill compound : 30 kg	04 Jobs	10000	**40000**
2.45	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.	36 Sqft	150	**5400**
2.46	Earth work in excavation by mechanical means (hydraulic excavator) in trenches for foundations, drains, pipes, cables etc. (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 ramming of bottoms lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed, within a lead of 50 metres:- **All kinds of soil**	10 Cum	300	**3000**
2.47	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shattering. All works up to plinth level with 1:2:4 mix (1 cement, 2cores sand, 4 graded stone aggregate 20mm	02 Cum	7000	**14000**

	nominal size).			
2.48	Centring and shattering including strutting, propping etc. and removal of from work for foundation, footings, base for columns	10 Sqm	310	3100
Total				**16647880**
Depreciate 0.350% on Advertised cost as quoted				**-58268**
Grand Total				**16589612**

(Rupees One Crore Sixty Five Lacs Eighty Nine Thousand Six Hundred & Twelve Only)

(Er. Prithi Pal Singh)
Superintending Engineer,
Jal Shakti, PHE Mechanical Circle North,
Srinagar.

Annexure "B" to allotment order No: PHE/MCN/JJM/ 01 - of 07/2023 dated: 11-07-2023

GENERAL TERMS AND CONDITIONS

01: **Time of Completion:** Time of completion shall be **120 (One Hundred Twenty) days** and reckoned from 7th day after the issuance of formal allotment letter by the Department. In the event of the contractors failing/declining/neglecting or delaying, the work shall be got executed through any other agency at the risk and cost of the original contractor.

02: **Advance Payment**: No mobilization advance or advance payment shall be made in favour of the contractor.

03: **Agreement**: The contractor shall draw an agreement with the Department within seven days from the date of issue of this allotment order. Contractor's failure to execute such an agreement in time shall not however, prevent this contract from being enforced against the contractor and the conditions laid down in the NIT/allotment order shall hold good even before drawl of formal agreement and the contract shall be complete and binding upon the contractor.

04: **Defect Liability Period**: If during the period of 18 (Eighteen) months (which shall be considered as the defect liability period) reckoned from the date of actual completion and handing over of the structure any defect is found in the work or in the part thereof which may have been caused by the bad workmanship, use of inferior material or otherwise or if in the opinion of the Chief Engineer or Engineer Incharge any repairs are required to be made in any work done, the contractor shall be liable to remove the defects or make repairs at his cost and expenses within a period of thirty days from the issue of the notice by the Engineer in charge, in the event of the failure on the part of contractor to remove these defects or make the repair within a stipulated period. The engineer in charge may get the defects removed or repairs made through other agency and cost thereof shall be recoverable from the security deposit or any amount due to the contractor. The defects or repairs shall be recoverable from the amount due to the contractor the defects or repairs shall be deemed to have been removed/made when the Chief Engineer/Engineer in charge certifies that the defects have been removed or the repairs have made to his entire satisfaction.

05: **Disposing excavated material:** All excavated material shall remain the property of the Department. The Contractor shall ensure that no excavated material which is suitable for and is required for re-use in the Works is transported unless so ordered by the Engineer-in-Charge.

06: **Consignee/Paying Authority:** The consignee/paying authority shall be the Superintending Engineer, Jal Shakti (PHE) Mechanical Circle North, Srinagar.

07: **Release of Performance Security:** Performance security shall be released after 18 (Eighteen) Months beyond successful completion of trial run/report of concerned Assistant Executive Engineer (After fulfillment of all contractual obligation).

08: **Inspection and Testing:** 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 as per details given below**. 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 firm shall intimate the department and the Inspecting Agency/Authority in advance regarding the readiness of the equipment for dispatch and shall furnish test certificates.

The firm shall 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/execution of work.

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 concerned Assistant Executive Engineer, 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 firm 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 & machinery are being obtained.

In case of Sub-Station and power/feeder lines, the firm shall have to obtain an Inspection clearance certificate from the concerned Inspection Division of the Power Development Department besides power connection from concerned Electric Division of the concerned Area.

The list of Electro-Mechanical equipment in which third party inspection from M/S CEIL/ RITES is to carried on are:-

01	DG Set	>50 KVA
02	Pumping unit	>40 HP (Horizontal & Vertical) >30 HP (Submersible Pumping unit/Open Well)
03.	Valves	>150mm Φ
04.		>80mm Φ and above 200mtr in length
04.	HT Transformer	>100 KVA
05.	Voltage Stabilizer	>100 KVA

For items other than above, **Test Certificates from OEM** shall have to be provided at the time of Supply of the item. At the time of installation, the firm will provide Third Party Inspection report of machinery at works of respective OEM'S which shall be undertaken only for equipment as mentioned in above clause. For rest of the equipment, test certificate along with the warranty documents shall be furnished by the contractor.

09: **Third Party Monitoring:** 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 firm, 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.

10: **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 firm. The department shall pay no extra charges on this account.

11: **Mode of dispatch:** The firm 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 firm shall take due care keeping in view the limitation for maximum size and weight.

12: **Jurisdiction of Court:** All disputes pertaining to this contract shall be subject to the jurisdiction of the Hon'ble Court of Union Territory of J&K and Ladakh only.

13: **Termination of Contract:** The department reserves the right to terminate the contract at any stage in case the performance of the firm is found unsatisfactory in terms of any or all clauses of the NIT/Contract/Agreement.

14: **Tax, Duties Levies etc.:** The rates offered are firm and final for payment inclusive of GST etc. and incidental charges of any kind shall be the responsibility of the firm.

15: **Terms of payment:**

(d) 70% payment shall be made on Supply of the ordered equipment in full as per BOQ.

(e) 20% payment shall be released after Successful, installation and testing of equipment on full load and commissioning thereof.

(f) Balance 10% 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 18 (Eighteen) months including the expiry of the warranty period of the contract.

16: **Warranty:** The firm shall be bound for satisfactory performance of equipment/ works for 12 months after the successful completion of trial run of 03 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.

17: **Trial Run:** After Completion of the work, the firm will have to make a trial run of the scheme for a period of 03 Months during which the firm will have to operate through staff provided by the department & maintain the executed work to the full satisfaction of the Department. During this period, the firm shall impart training to the staff provided at the scheme by the Department.

18: **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 of 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.

19: **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 within the Jurisdiction of District Srinagar of Union Territory of Jammu & Kashmir.

20: **Safety of Govt. Infrastructure:** The bidder should ensure the safety of the water supply lines, sewer lines, telephone cables, power cables, storm water drains etc., pipe laying alignment and, if any damage occurs during execution, it should be attended immediately at the cost of the firm. Failing to attend immediately, the same will be got done by the Department at the risk and cost of the bidder.

21: **Firms Risk and Insurance:** All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the firm.

22: **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.

23: **Work under Firm charge:** From the commencement of the work to the completion thereof the same shall be under the firm 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.

24: **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.

25: **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

26: **Storage at Site:** The firm shall at his own cost make arrangements for proper storage 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.

27: **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.

28: **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 (03) three consecutive months and shall commence from the date of successful commissioning of the equipment or as may be mutually agreed upon.

29: **Drawing & Quality Assurance Plan:** 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.

30: **Operation & Maintenance Manuals:** The firm shall supply, free of cost to the Department, 06 complete sets of operation & maintenance manuals for the Pumping Equipment. The delivery of these manuals shall be made by the firm to the Engineer alongwith 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 No. in the drawings.

31: **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.

32: **Power & Water Supply:** The 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 UT of J&K. Such charges shall be paid by the firm directly to the concerned Electrical Division and the final bill shall be settled only after he gets a no outstanding certificate from the concerned Electrical Division.
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 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, labour colony, Site Office etc.

33: **Liquidated damages:** 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.

34: This contract is being awarded for Supply, Installation, Testing & Commissioning of Electro-Mechanical equipments at Water Supply Scheme **Rangreth Wavoosa** and its components on a holistic basis to the allotee. Any item of work that may have got omitted for whatever reason but required at site for functional completion of the Water Supply Scheme shall be executed by the allottee at no extra cost.

(c) The method of measurement/specification of completed work for payment etc. shall be in accordance with the "Book of Specifications" published by the CPWD that forms basis for PS-SOR in vogue.

(d) All other terms and conditions shall remain same as laid down e-NIT, SBD.

35: No liability should be created on this account.

36: The circular instructions issued by Chief Engineer Kashmir, Jal Shakti (PHE) Department Srinagar from time to time regarding use of MS flanges be adhered to.

37: In case the contractor fails to execute the work, the work shall be put to fresh tenders on the risk and cost of the contractor & the excess cost if involved shall be recovered from the contractor and strict action as warranted under contractual obligation shall be taken against the defaulter.

38: Geo Tagged Photographic evidences of the work; pre-execution, during execution and post execution should be maintained by the agency on his own expenses.

39: The executing agency/contractor must execute the work as per the requirements/ specifications detailed in the relevant/applicable IS codes.

40: All Environmental norms, labour laws and all other guidelines issued by competent authorities shall be followed in letter and spirit

41: Any of the pipe material procured/supplied by the agency shall have to be get verified by the competent authority before utilizing the same at site.

42: 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

All other terms & conditions as laid down in Form No: 25 of P.W.D and the standard bidding document/e-NIT, PWD form-25, GFR-2017 and manual of procurement of works 2022 shall remain in force.

(Er. Prithi Pal Singh)
Superintending Engineer,
Jal Shakti PHE Mech. Circle North,
Srinagar.