



Government of Jammu and Kashmir (UT)  
OFFICE OF THE EXECUTIVE ENGINEER  
JAL SHAKTI (PHE) MECHANICAL DIVISION SOUTH AWANTIPORA.  
E-MAIL ID: xenphemechsouthawp@gmail.com Fax/phone. 01933-295537



**Allotment Order No: 193 of 10/2023**

M/S HR Builders & General Suppliers  
Prop: Zahoor Ahmad  
H/o: 168-Budshah Colony, Srinagar, Kmr.  
R/o: Boulevard Road, Nehru Park, Srinagar  
GST No: 01AAEFH4219A1ZA  
E-mail: hrbgs13@gmail.com  
Cell No: 9906598626

AA Accorded vide Order No.	CE/PHE/DB/174 of 04/2021 Dated: 08/04/2021
Tech. Sanction Accorded vide Order No.	CE/PHE/DB/496 of 09/2022 Dated: 09/09/2022
Adv. Cost:	Rs. 94,77,000/-
Allotted Cost:	Rs. 94,76,836/-

**Subject:-** Supply, installation, testing and commissioning of electro-mechanical equipments at water supply scheme **Sathergund Qazigund** of Jal Shakti (PHE) Mechanical Division South Awantipora under JJM.

**Reference:-** 1. This office e-NIT No.: 96 of 2022-23 of 20/03/2023 issued under endorsement No.: JSD/PHE/MDSA/5953-71 Dated: 20/03/2023 read with Corrigendum No.: JSD/PHE/MDSA/1391-93 Dated: 15/06/2023.  
2. Superintending Engineer Hydraulic Circle Pulwama/Shopian [HQ] Shopian (DJJM)'s minutes of meeting circulated vide No.: SE/HYD/SPN/DB/4419-21 Dated: 05/10/2023 and Authorization thereof vide No.: SE/HYD/SPN/DB/4716-28 Dated: 17/10/2023.

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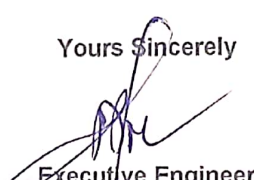
Dear Sir,

For and on behalf of Lt. Governor of J&K U.T contract for execution of aforementioned job is hereby fixed with you on Percentage basis (@ Par of the advertised rates). This is in response to your online bid and subsequent Acceptance of rates, specifications, terms and conditions as contained in Annexure "A & B" of this allotment order.

Encl. 20 1/11/23

No.: MDSA/ 3098-3905  
Dated: 10 /10/2023

Yours Sincerely

  
Executive Engineer  
Jal Shakti PHE Mechanical Division  
(South) Awantipora  
Member JJM

Copy to the:

1. Chief Engineer Jal Shakti (PHE) Department Srinagar for information.
2. District Development Commissioner (Chairman DJJM) Pulwama for information.
3. Superintending Engineer Jal Shakti (PHE) Mechanical Circle (South) Srinagar for information.
4. Superintending Engineer Jal Shakti (PHE) Hydraulic Circle Pulwama/Shopian for information.
5. Executive Engineer Jal Shakti (PHE) Division Pulwama for information & n/a.
6. Provisional Head, TPIA JJM Kashmir, (WAPCOS Limited) Corporate Office 76-C Institutional area Sector-18 Gurugram-122015 (Haryana) for information.
7. Assistant Executive Engineer Jal Shakti (PHE) Mech. Sub Division Shopian for information & necessary action. He will ensure execution of work strictly in accordance with the rates, specifications, terms / conditions & within the stipulated time, besides, the cost of work should not exceed beyond allotted cost. In case of any delay in completion of work, the reasons shall be justified.
8. File concerned.



Name of work: Supply, installation, testing and commissioning of electro-mechanical equipments at water supply scheme Sathergund Qazigund of Jal Shakti (PHE) Mechanical Division South Awantipora under JJM.

General Terms and Conditions: -

1. TIME OF COMPLETION: The scheme shall have to be completed/tested/commissioned within a period of 90 days from the date of issue of this allotment order.
2. AGREEMENT: A formal agreement deed shall be executed by the firm with the department within a period of 07 days from the date of issue of this allotment order after deposition of performance security @ 03% of allotted cost. However, non drawl of agreement will not prevent the contract from being enforced upon you.
3. PENALTY: In the event the contractor failing or delaying the work or a part thereof, & or non-complying with any of the terms and conditions of the contract, the NIT & the Agreement, the Department, without prejudice to the remedies available under the law in force in J&K UT, may terminate the contract after seven days' notice, and or recover the amount of loss caused by failure/delay or default of the contractor. The amount of such recoveries shall be determined by the Superintending Engineer PHE Mechanical Circle South Srinagar and or impose a penalty as the Government /Department may determine and or forfeit the performance security and or resort to any or all the remedial actions available under the law in force in the UT of J&K at the time of the dispute.
4. ARBITRATION: In case of any dispute arising at any stage between the contractor and the Department, the same shall be referred to the Superintending Engineer PHE Mechanical Circle South Srinagar /Govt. of J&K who may give a decision or nominate any other person of Government for arbitration. The decision to such arbitration shall be final and binding on both the parties.
5. PERFORMANCE SECURITY DEPOSIT: Soon after issuance of allotment order, the firm has to deposit performance security in the shape of CDR/FDR/BG valid for 18 months pledged to Executive Engineer PHE Mechanical Division (South) Awantipora within 07 days which shall be released after expiry of defect liability period/report of concerned AEE (After fulfillment of all contractual obligations). Failing to produce performance security, the firm is liable to be debarred for participation in future tendering in this Division and same shall be recommended to higher offices and other Govt. offices of UT of J&K.
6. JURISDICTION OF COURT: All disputes pertaining to this contract shall be subject to the jurisdiction of the Courts of J&K UT only.
7. TERMINATION OF CONTRACT: The department reserves the right to terminate the contract at any stage in case performance of the firm is found un-satisfactory in terms of any or all clauses of the NIT/Contract/Agreement in vogue.
8. ADVANCE PAYMENT: The Department shall in no case entertain any condition or request of making advance payment of any kind to the contractor during the execution of the work.
9. TAXES, DUTIES LEVIES etc:- The rates offered by the Department shall be firm and final. Payment of Income Tax/GST, Octroi, Toll tax, Entry tax, Cess service tax duties and other levies etc. of the central or the UT Government and incidental charges of any shall be the responsibility of the contractor/firm.
10. FORCE MAJEURE CLAUSE: Any failure or omission to carrying out the provision of the contract shall not give rise to any claim by the department or the contract one against the other if such failure or omission arises from the Act of God which shall include all natural calamities such as fire, floods, earthquakes, hurricane strikes, riots, embargoes from any political or other reasons beyond the control of parties including the war whether declared or not civil war or a state of insurrection.
11. ENGAGEMENT OF LABOURS: The contractor shall not engage any workman below the age of 18 years. Firm/Contractor shall also comply with the provisions of labour laws and rules framed thereof and as prevalent in the UT of J&K. The contractor shall be responsible for any accident to the human life which may occur during the execution of work, compensation as shall be provided under law or any law will be payable by the contractor.
12. INSURANCE: The contractor shall insure all work-man at his own cost till the completion of work and take over by the department.
13. DEFECT LIABILITY PERIOD:- The defect Liability period shall be for a period of 12 Months which shall commence after the successful completion of Trial run, during the defects Liability period (DLP) the firm shall have to operate & maintain the scheme as it is required for its successful running & as per Standard Engineering Practices, to the full satisfaction of the department. The bidder shall be responsible to make good & remedy at

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Executive Engineer



ANNEXURE "A" to this office Allotment Order No: 193 of 09/2023

his own expense any defect in works which is noticed during the DLP. In case any defect remains unattended by the firm at the completion of DLP, the department may extend the DLP for such time as deemed fit for getting the defect rectified subject to a maximum ceiling of 6 Months.

14. TRANSIT INSURANCE:- Prior to dispatch, the ordered equipment shall be insured through a Nationalized Insurance Company up to its final destination, against all transit risks. The firm should, therefore, take appropriate insurance policy in advance for covering the transit of the goods, charges for which shall be borne by the tenderer and shall be included in his quoted rates. The department shall pay no extra charges on this account.
15. SUBLETTING OF WORK:- The bidder shall not sublet the whole or part of the work. The bidder 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.
16. LIQUIDATED DAMAGES (LD):- In the event of firm's/joint venture failing, declining, neglecting or delaying the supplies / works or in the event of any damage occurring or being caused by the firm/ joint venture or in the event of any default or failure by the firm in complying with any of the terms and conditions of the contract, the Department shall with or without prejudice to any other remedies available to it under any law for the time being enforce in the UT:
  - a) Terminate the contract after 15 days' notice  
and/or
  - b) Recover the amount of loss caused by damage, failure or default, as may be determined by the department.  
and/or
  - c) Recover the extra cost, if any, involved in allotting contract to other party.  
and/or
  - d) Impose Liquidated damages on account of delay beyond the schedule completion period to the tune of 0.5% of the delayed portion of contract every week but not exceeding 10% value of the contract.  
and/or
  - e) Forfeit the performance security and blacklist the firm.
17. 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 agencies, quality of materials used for construction and quality of machinery installed in each scheme. The TPIQM's role shall be that of an assistant to the Employer's Representative for the purpose of monitoring and evaluation of the performance of the Contract during the Contract Period.
18. STORAGE AT SITE: The bidder 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 bidder 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.
19. OPERATION AND MAINTENANCE MANUALS: The bidder shall supply, free of cost to the Department, six complete sets of operation and maintenance manuals for the Pumping Equipment. The delivery of these manuals shall be made by the bidder to the Engineer along with the supply of equipment. The manuals shall be appropriately bound in book form and shall contain all necessary instructions regarding operation, preventive maintenance, repairs, trouble shooting, overhauling etc.
20. OEM Certificate: The contractor shall produce all relevant test certificates of the manufacturer to the Engineer in-charge before start of the work. The test certificates of the equipment's on whole or all accessories/ attachments and mountings thereof shall be appended with the invoice at the time of submission of the claim to Divisional office. Failure to do so shall result in non-acceptance of invoice/bills by the Divisional office.
21. CLARIFICATION: If any clarification is required by the Firm/contractor in relation of technical specifications, the same shall be had from the office of the Assistant Executive Engineer concerned/ Executive Engineer PHE Mechanical Division South Awantipora before the date of start of work.

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Executive Engineer



22. CONSIGNEE/PAYING AUTHORITY: The consignee/paying authority in respect of electromechanical component and associated civil works shall be the concerned Executive Engineer, Jal Shakti (PHE) Mechanical Division Awantipora. Besides, the supervision of the various components of the civil work shall be carried out by the concerned Division under the overall coordination of the concerned Superintending Engineer Hydraulic Circle.
23. TERMS OF PAYMENT: All payments to the contractor for fulfilling the contract will be made as per the unit rates of Price Schedule (BOQ). All payments will be made in Indian Currency and will be subject to deduction of Income tax, GST, Cess at source, on the rates as are in vogue at the time of release of payment:-
- 65% of the contract value shall be paid on receipt of the material at site (as per the BOQ) in full & verification thereof by the concerned Assistant Executive Engineer.
  - 15% of the contract value shall be released on installation of ordered equipment/material in full at site.
  - 10% of the Contract Value shall be released after successful testing and commissioning of the entire equipment on full load, commissioning and trial run.
  - 10% of the Contract Value shall be released after commissioning of the scheme and satisfactory performance of the equipment for the period as enunciated in warranty clause. However the balance amount can be released against furnishing of Bank Guarantee for an equivalent value valid for three months beyond the expiry of the warranty period of the contract.
24. WARRANTY:- The Firm/contractor shall be bound for satisfactory performance of equipment/work 12 months after the successful completion of trial run. If during warranty period, any malfunctioning/defect arises, 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 rectified 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 contract including blacklisting.
25. TRIAL RUN:- After completion of work, the firm/contractor will have to make a trial run of the scheme for a period of 03 months during which the manpower required for operation shall be provided by the Department.
26. EQUIPMENT MAKE: The supplied material/equipments should confirm as per specification of the contract as well as make confirmed by the Firm/contractor.
27. The work done claim should be supported with Geo tagged photographs before, during and after execution of the job.
28. SITE OFFICE: - The Firm/Contractor has to maintain at his own cost a suitable site office at the site of work to which the Department sends communications/instructions.
29. TRAINING OF DEPARTMENTAL STAFF: - The bidder shall arrange at his own cost and risk to depute at least one competent Engineer of the equipment manufacturer to train up to twelve departmental representatives in the operation & maintenance of the equipment at site. This training shall be for duration of at least 04 consecutive months and shall commence from the date of successful commissioning of the equipment or as may be mutually agreed upon. To groups of Departmental Engineers shall also be deputed to bidders/manufacturers works for short duration to obtain training free cost in the operation & maintenance of the equipment.
30. DRAWING & QUALITY ASSURANCE PLAN: - The Firm/Contractor shall be necessarily furnish within two weeks of the date of placement of this order which shall be approved by the Department within two weeks from the receipt by the consignee:-
- Sectional drawing of pumps.
  - General Arrangement Drawings (GAD)/ layout of the equipment fully dimensioned for pumps, motors, starters, shunt capacitors, panels, delivery manifold, cables etc.
  - Detailed circuit diagrams of LT Panels, Starters, Shunt Capacitors etc.

Quality assurance plan (QAP) of each piece of equipment to Third Party Inspection Agency (TPA) and Department for their approval.

No manufacturing/fabrication activity shall be started by the Firm without approval of the drawings of each ordered equipment by the competent authority. Additional time consumed due to observations/summary rejection of QAP/GAD shall not be considered in the delivery period of the contract and the bidder shall be wholly and solely held responsible for the delay thus caused.

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Executive Engineer



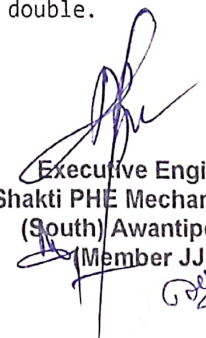
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23. TERMS OF PAYMENT: All payments to the contractor for fulfilling the contract will be made as per the unit rates of Price Schedule (BOQ). All payments will be made in Indian Currency and will be subject to deduction of Income tax, GST, Cess at source, on the rates as are in vogue at the time of release of payment:-
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- c) Detailed circuit diagrams of LT Panels, Starters, Shunt Capacitors etc.
- c) Detailed assurance plan (QAP) of each piece of equipment to Third Party Inspection Agency (TPA) and Quality assurance plan for their approval.
- No manufacturing/fabrication activity shall be started by the Firm without approval of the drawings of each ordered equipment by the competent authority. Additional time consumed due to observations/summary rejection of QAP/GAD shall not be considered in the delivery period of the contract and the bidder shall be wholly and solely held responsible for the delay thus caused.

31. **INSPECTION & 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. However, the Firm (Bidder) shall make payment to the Inspection Agency (in case of 3<sup>rd</sup> Party Inspection) which shall subsequently be reimbursed by the Department. The successful tenderer shall intimate the Department and the Inspecting Agency/Authority in advance regarding the readiness of the equipment for dispatch and shall furnish test certificates. It shall be responsibility of the suppliers to tie up with the third party nominated for inspection and get necessary inspection of the material done within the delivery period. Any delay on the part of the third party shall not be entertained as an excuse for timely supply of material. The product/ material at site shall be inspected by Assistant Executive Engineer concerned or any other official(s) of the department designated by the concerned Executive Engineer. Any modifications to the works as specified in the specifications considered to be necessary for smooth and trouble-free operation of the equipment by the Department or the third-party inspection agency, the firm shall have to execute the same without any extra cost, to the best satisfaction of the department. The firm shall as such keep the department informed about arrival of material at site. It shall be obligatory on the part of the firm to rectify the defects pointed out by the AEE, if any, and also to incorporate any modification within the scope of work which may be deemed necessary for better performance/finish and workmanship. The supplier upon demand by the department or its representative shall rectify or replace defective unsuitable equipment. The Department reserves the right to nominate his representative for inspection of the goods at the works of the supplier/ manufacturers. As such the department at all reasonable times shall have access to the works and to the site and to all workshops and places where work is being executed and where material / manufactured articles and machinery are being obtained. In case of Sub-Station and power/feeder lines, the firm shall have to obtain a clearance certificate from the concerned inspection Division of the Power Development Department. The list of electromechanical equipment in which third party inspection from CEIL/RITES is to be carried on:-

- 1) DG Set > 100 KVA.
- 2) Pumping Unit > 100 HP (Horizontal and Vertical)
- 3) Valves > 300 mm
- 4) Pipe > 200mm dia
- 5) HT Transformers > 300 KVA
- 6) Voltage Stabilizers > 500 KVA
- 7) Iron Removal Plant

For items other than those manufacturers test certificate shall have to be provided. The HT transformers shall have to be got inspected from the corresponding wing of Power Development department and the necessary certificate shall be submitted along with the manufacturers test certificate.

32. The work is executed strictly in close supervision of AEE/JE/Supervisory staff concerned. However, the civil work if involved should be executed under close supervision of civil counterpart.
33. **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.
34. All other terms and conditions shall be the part of this contract as laid down in e-NIT/SBD/GFR-2017/e-procurement manual 2019 and PWD form "25" double.

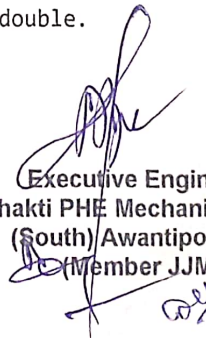
  
Executive Engineer  
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Executive Engineer  
Jal Shakti PHE Mechanical Division  
(South) Awantipora  
(Member JJM)

Annexure 'B' to this Office Allotment Order No. 193 of 10/2023 for WSS Sathergund Qazigund (At Par of the Estt. Rates)

Sl.No	Description of Work / Item(s) with technical specifications	No. of Qty	Units	Alloted/ Accepted Rate	Amount
1	<b>Electro-Mechanical Equipments for WSS Sathergund Qazigund (Stage 1st)</b>				
2	<p>Supply, installation, testing and commissioning of Horizontal pumping unit as per IS 1520 with following specification -  <b>Pump:- Discharge: 10000 GPH, Head: 50 Mtr</b>                      1.Type - Horizontal split casing /Multi stage                      Material of construction                      1 Impeller- S Steel                      2 Shaft - SS410                      3.Pump casing - Cast Iron                      4 RPM- 1440                      The pump shall confirm to IS-1520 code  <b>MOTOR :-</b>                      A) Type - Horizontal squirrel cage Induction Type                      B) Rating 20 HP/Suitable for above parameters                      C) No of phases 3 phase 415 V+10%,50 Hz, AC supply                      D) Winding Copper wound squirrel cage                      E) Type of enclosure SPDP/TEFC                      F) Method of cooling Air cooled with fan mounted                      G) Method of Starting star delta                      H) RPM-1440</p> <p>The pump-motor should be mounted on a common base frame fabricated out of M S channel of suitable size and duly fitted with T- type foundation bolts /nuts and washers to make the pumping unit vibration free. The pump and motor should be coupled through suitable coupling. The coupling faces 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 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.                      (Make: Lubbi/Kirloskar/KSB/M&amp;P/Crompton Greaves</p>	2.000	Job	195510.00	391020.00
3	<p>Fabrication, Providing and fitting of Y- junction having 1m length of each arm to be fabricated out of hot dip galvanized G.I, C-Class pipe. 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 reputed make electrodes to form strong welding joint by dint of DC arc welding. The job further includes Providing and Fitting of nuts and bolts (conforming to IS:1363 Part 1st) and Rubber Insertion Gaskets (conforming to IS: 638/79) to be used between flanged joints. The size of the Y- junction is 125 mm.</p>	1.000	Job	10358.00	10358.00
4	<p>P/I/T/C of horizontal single phase monoblock self priming pumping equipment. The pump &amp; motor should be mounted on a suitable size MS base frame . The Job also includes P/F of foundation bolts, DOL starter, wiring, and allied items.</p>	1.000	Job	12308.00	12308.00
5	<p>Providing/supplying and fitting of G.I flanged Rising Main at site. The Pipe shall be hot dip Galvanized, class B 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 reputed make electrodes to form strong welding joint.                      Welding Electrode                      DC Arc Welding using welding electrode having diameter not less than 4mm.                      Nuts and Bolts                      Nuts and Bolts (conforming to IS:1363 Part 1st)                      Rubber Insertion Gaskets                      Rubber Insertion Gaskets (conforming to IS: 638/79) to be used between flanged joints.                      The rising main is to be laid as per the instructions of the engineer in charge and site requirement.  <b>Size : DN 125 Class: B (Medium) Make:Tata/Jindal/Prakash Surya</b></p>	1400.000	Mtr	2412.00	3376800.00
6	<p>Earth work in excavation by manual means in trenches for foundation, drains, pipes, cables (not exceeding 1.5 m in width) and for shafts, wells, cesspits and the like not exceeding 10 sqm on plan, including dressing of sides and reaming of bottom lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed.</p>	391.900	cum	479.60	187955.24
6.01	<p>i. All kinds of soil (80%) 01 meter from cutting edge</p>				
	<p>ii. Ordinary rock (20%) 01 meter from cutting edge</p>	96.700	cum	1064.64	102950.20

*(Handwritten signature)*  
 A. D. S.



7	Filling available excavated earth in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by reaming and watering, lead upto 50 m ad lift upto 1.5m	435.300	cum	218.57	95143.52
8	Providing and laying of soling stone including manual compaction	1.000	cum	678.04	678.04
9	Centering and shuttering including strutting, propping etc. and removal of form work for Foundation, footings, bases for columns	8.900	sqm	288.53	2567.92
10	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering all work upto plinth level with 1 : 1.5 : 3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	6.830	cum	7287.28	49772.12
11	Providing and laying in position 12 mm thick cement plaster of mix 1:4 ( 1 cement : 4 fine sand)	14.560	sqm	286.06	4164.96
12	Fabrication, providing and fitting of washout Tee with each arm one feet long shall be fabricated out of 125 mm dia. G.I C-class pipe with 16mm thick flanges fastened with weld joints on three ends.	2.000	Job	5959.00	11918.00
13	<p>Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, non-rising spindle Resilient seated gate/ sluice valves (PN16) in accordance with BS 5163 part 1 and part 2 / EN 1074 Part 1 &amp; 2/IS 14846 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.</p> <p>Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work.</p> <p>The job includes providing and fitting of 02 nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> <li>• Body: Ductile iron EN-GJS-400-15 / GJS-500-7 (GGG-40/GGG-50)</li> <li>• Bonnet: Ductile iron EN-GJS-400-15/ GJS-500-7 GGG-40/GGG-50)</li> <li>• Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506)</li> <li>• Stem Nut : Brass</li> <li>• Check valve disk: Ductile iron EN-GJS-400-15/ GJS-500-7 (GGG-40/GGG-50)encapsulated with EPDM vulcanize</li> </ul> <p>The Test Certificates of Sluice/Gate Valves mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material. Size: DN 125 PN: 1.6/16 Make: Kirloskar/VAG/Sigma Flow/Talis</p>	5.000	Job	21671.00	108355.00
14	<p>Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, Slanted seat swing check valve (NRV) (PN16) as per EN 1074- Part -3 / BS 5153/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.</p> <p>Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work.</p> <p>The job includes providing and fitting of 02 Nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with Rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> <li>• Body: Ductile iron EN-GJS-400-15 / (GGG-40)</li> <li>• Bonnet: Ductile iron EN-GJS-400-15/ GGG-40)</li> <li>• Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506)</li> <li>• Stem Nut : Brass</li> <li>• Check valve disk: Ductile iron EN-GJS-400-15/ (GGG-40) encapsulated with EPDM vulcanized</li> </ul> <p>The Test Certificates of Check Valves (NRVs) mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material. Size: 125 mm PN: 1.6/16 Suggested Make:Kirloskar/VAG/Sigma Flow/Talis</p>	6.000	Job	26010.00	156060.00

15	<p>Providing, fitting, testing and commissioning of ARV (Air Release valve) (PN16) as per EN 1074 Part 4/IS 14845 to be fitted to G.I rising Main. The ARV Shall have the following specifications -</p> <p>i. Valve type - single chamber, single orifice.  ii. End connection- flanged ends to IS 1538  iii. Test pressure - body / seat 2.5 x PN  iv. Sealing ring - EPDM  v. Construction - ductile iron with stainless steel floats  vi. Coating - epoxy with corrosion resistance  vii. Working temperature (-45°C to 55°C)</p> <p>Besides the above works, The job also cost on account of P/F R.I gasket, nuts and bolts required for installation of ARV and arrangement of gas cutter/ welding set at site.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> <li>• Body: Ductile iron EN-GJS-400-15 (GGG-40)</li> <li>• Bonnet: Ductile iron EN-GJS-400-15 (GGG-40)</li> <li>• Inner parts: Stainless steel 1.4541</li> <li>• Float: Stainless steel A4 (exception: DN 50 - PN 10/16 synthetic, from PN 25 of A4)</li> <li>• Sealing: EPDM</li> <li>• Bonnet bolts: Stainless steel A4 (DIN EN ISO 3506)</li> </ul> <p>The Test Certificates of Air Release Valves mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material.  <b>Size = DN 50, PN 1.6/16 Make: Kirloskar/VAG/Sigma Flow/Talis</b></p>	1.000	Job	19394.00	19394.00
16	<p>Fabrication, Providing and fitting of 125mm dia 90-120 degree bend/elbow to be fabricated out of Class B GI pipe, 1 m length and flanged on both ends to make it leak proof. The flanges shall be M.S Flanges conforming to BIS 6392/1997 Table 17 (Rating PN16) and welded on both sides. The job includes nuts, bolts, gaskets etc as per site requirement.</p>	20.000	Job	4992.00	99840.00
17	<p>Cutting of hot dip galvanized G.I. pipe across the section by dint of 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&amp;T- SS Bond make electrodes to form strong welding joint by dint of DC arc welding. The job further includes Providing and Fitting of nuts and bolts (conforming to IS:1363 Part 1st) and Rubber Insertion Gaskets (conforming to IS: 638/79) to be used between flanged joints. The size of the pipe is <b>DN 125, Class-B</b></p>	20.000	Job	1801.00	36020.00
18	<p>Fabrication of gantry mechanism 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. The detailed drawing as appended.</p>	767.490	Kgs	102.14	78387.59
19	<p>Providing, installation and testing of manual type triple spur gear chain pulley block along with monorail geared travelling trolley having following features.</p> <p>Gears:- The hoist shall have precision machine case Hardened alloy steel gear mounted on bearings and housed in a dust proof gear box. The lubrication of gears should be of high viscosity and temperature for longer life of gears.</p> <p>Load Chain:- The load chain be made of high tensile alloy steel having wear resistance and greatest mobility. The chain should be accurately collaborated, tested and have adequate in built factor of safety for safer operation.</p> <p>Load chain wheel:- the load chain well should be double ball bearing supported and Specially designed, perfectly machined wheel providing correct grip of load chain to makes the hoist most safe and reliable against any failure. The main specifications of C.P Block are given below :</p> <p>Make = <b>Globe/Pull Lift/Indef</b> Capacity = <b>3 ton</b>  No. of load chain falls = <b>2 or above</b> Min. Height of lift = <b>6 M</b></p>	1.000	Job	62972.00	62972.00



20	<p>Supply, Installation, Testing &amp; Commissioning of non clog Pumping Unit as per IS 5600 at Raw Water Stage.</p> <p>PUMP -</p> <ul style="list-style-type: none"> <li>• Type of pump : Non - Clog Open well Submersible Vertical Pump</li> <li>• Discharge : 10,000 GPH</li> <li>• Head : 50-55 Meter</li> <li>• Solid Handling Capacity : 20mm (Minimum)</li> <li>• Quality of water : Raw water to be handled</li> </ul> <p>MATERIAL OF CONSTRUCTION</p> <ul style="list-style-type: none"> <li>• Pump Casing : Cast Iron</li> <li>• Impeller : Stainless Steel</li> <li>• Pump Shaft : Stainless Steel</li> <li>• Motor Body : Cast Iron</li> <li>• Sealing : Dual mech. seal</li> </ul> <p>ü The bowl plate shall be provided with name plate depicting all specifications</p> <p>MOTOR:-</p> <ul style="list-style-type: none"> <li>• Type : Squirrel Cage 3-Phase Induction Motor</li> <li>• Rating : Suitable for above parameter but not less than 20 HP</li> <li>• Method of starting: Star - Delta.</li> <li>• Frequency : 50Hz + 3%</li> <li>• Voltage : 415 ± 6 %, - 15%</li> <li>• Class of insulation : F/Suitable for above rating.</li> <li>• Sealing : Dual mech. seal. Provided with thermal and overload protection</li> </ul> <p>The motor shall be made of corrosion resisting materials to resist corrosion under normal conditions and the motor shall have a name plate depicting all specifications. Dual Mechanical Seals (01 No.) and Bearings (02 No.) for the pumping unit must be provided as spare parts for preventive maintenance by the firm. for each pumping unit</p> <p>Note: Test certificate having the Serial No. of the Pumping Unit along with the performance curve in duplicate from the Manufacturer must be produced on delivery of the item.</p> <p>Rating: 20.00 HP (Make: Kirloskar/Lubbi/KSB/M&amp;P/Crompton Greaves</p>	2.000	Job	174930.00	349860.00
21	<p>Supply, installation, commissioning and creation of pole mounted, outdoor type Electric Sub Station as per the technical specifications given here under - Specifications conforming to IS: 1180 (Part 1) 2014 with latest amendments.</p> <p>Type: HT/LT Transformer</p> <p>Type of cooling: ONAN.</p> <p>Operating conditions:</p> <p>Input =11000 volts</p> <p>Output =433 volts AC supply in 3- phase.</p> <p>Terminals:</p> <p>Input=3 No. HT bush rods with insulators, washer, nuts etc.</p> <p>Output=4 No. LT bush rods switch insulators, washers, nuts etc.</p> <p>Core: The core shall be of high permeability to reduce core losses and the strips shall be of suitable size and gauge.</p> <p>Transformer Coils: Suitable number of HT and LT coils in each leg of the core. The transformer coils shall be fabricated out of superior quality aluminum wire/strips properly wound. The HT transformer is completely filled with suitable grade transformer oil up to required level. The job includes carriage, and all leads and lifts involved.</p> <p>The HT transformer shall be of reputed make from an ISO certified company as per relevant standards and a test certificate shall be provided before installation. The transformer shall also be provided with breather fill with silica gel 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.</p> <p>NOTE: The scope of the work shall include obtaining of necessary inspection/clearance certificate from the concerned department for all the required equipment. The testing and commissioning shall be completed only after obtaining above certificate.</p> <p>Rating: 63 KVA HT Transformer, 3 phase (Level 2) Make: Northern//JK/ALBA/Equivalent</p>	1.000	Job	156330.00	156330.00
22	Providing and fitting G.I Channel /Angle/ Flat of sizes including clamps	352.000	Kgs	123.00	43296.00
23	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 200A complete as per IS specs.	2.000	Job	11388.00	22776.00
24	Supply, Installation, Testing and commissioning of 11KV polymer fuses Set Horn Gap 3-phase 200 A suitable for vertical installation.	1.000	Job	4838.00	4838.00
25	Supply, Installation, Testing and commissioning of Gapless Surge arrestor station class, 10KA, 9KV, LA With polymer housing , Station Type.	1.000	Job	7528.00	7528.00

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26	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	10.000	Job	337.00	3370.00
27	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	6.000	Job	20083.00	120498.00
28	P/F of Galvanized nuts, bolts of various sizes as per site requirement	60.000	Kgs	138.00	8280.00
29	P/F Danger Plate with clamps	6.000	Job	148.00	888.00
30	Providing and fixing G I Barbed wire for anti climbing/ anti-climbing devices.	25.000	Kgs	132.00	3300.00
31	Providing and fitting of Galvanized stay set with 50 X 8 mm Stay Clamp, Guy insulator (2 No.), Anchor plate (200X200X6mm), nuts and bolts, 2 No.- turn buckle, 1.8 m long, 16 mm diameter solid G I stay rod & 7/3 15 mm dia. G I stranded wire complete.	2.000	Job	4779.00	9558.00
32	Painting of poles with Red oxide	6.000	Ltr	297.00	1782.00
33	Painting of poles with Aluminum paint	6.000	Ltr	495.00	2970.00
34	Providing and fitting of ACSR as per IS 398 (part-2) 1996 for 50 sq.mm ACSR (Galvanised steel reinforced) for fitment of various accessories	60.000	Mtr	55.00	3300.00
35	Supply, Installation and Testing of 35 Sq mm XLPE Aluminum H.T cable (ABC type ) of 11 KV grade with following specs. Size (cross sectional area in sq mm) = 3x35 Phases: Red, Yellow, Blue (Make: Havells/Polycab/Finolex/L&T)	120.000	Mtr	794.00	95280.00
36	Providing and fitting of suspension / tension clamp with eye hook, straps and buckles or nuts and bolts required for holding of 3 – Core, 35 Sq. mm H.T AB Cable.	4.000	No	892.00	3568.00
37	P/F 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.	4.000	No	8732.00	34928.00
38	Providing and fitting of LT Distribution box for H.T transformer with MCCB For incomer and SFU for outgoing circuits. The capacity of H.T Transformer is 63 KVA	1.000	Job	28118.00	28118.00
39	P/I/T/C of LT 3-phase, 4 –wire, Prodigy meter of capacity 40-200 Ampere, 415 V, 50 HZ, preferably SECURE make with all accessories and fittings , cabling required as per site requirement. NOTE:- The job includes complete charging of substation which includes getting clearnace from PDD and sealing of meter etc.	1.000	Job	28000.00	28000.00
40	P/I of earthing station for 63 KVA 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	6.000	Job	10462.00	62772.00
41	Earthing complete by GI pipe 40mm, 3 meter long through GI strip 25x3mm	5.000	Job	2410.00	12050.00
42	Earth work in excavation by manual means in trenches for foundation, drains, pipes, cables (not exceeding 1.5 m in width) and for shafts, wells, cesspits and the like not exceeding 10 sqm on plan, including dressing of sides and reaming of bottom lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed-all kinds of soil.	3.000	cum	479.60	1438.80
43	Providing and laying of soling stone including manual compaction.	1.020	cum	678.04	691.60
44	a. Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering . all work upto plinth level with 1 : 2 : 4 mix (1 cement , 2 coarse sand , 4 graded stone aggregate 20 mm nominal size).	3.000	cum	6442.81	19328.43



Fabrication, Providing and fitting of Modular motor control panel (MUG-30) of appropriate size fabricated out of 14 SWG sheet having required openings/vents and protection Class IP-55 & fitted with accessories as under

a) Bus bar Chamber

The bus bar chamber shall be fitted at the top of the panel horizontally throughout the length. There shall be 3 Nos. of phase bus bar and 1 No neutral bus bar and 1 No earthing bus bar. The bus bars shall be air insulated and made up of high conductivity COPPER with current density of suitable rating for 100 Ampere. All panel compartments shall be provided with suitable cable alley and vertical bus bar alley. Suitable segregation shall be provided in between bus bar chamber and adjoining compartments. The bus bar shall be PVC sleeved with color strips of red, yellow, blue and black and the same be arranged in accordance with IS-375 specs. Electrical clearances shall be maintained between phases, neutral and body as per standards.

b) Main Circuit Breaker (Incomer MCCB)

Qty = 02

No. of poles = 4 Pole

Current Rating = 200 Amp/50 KA

Rated operational voltage = 415 V + 15 %

Rated frequency = 50 +/- 3% Hz

Ambient temperature = 40C

Ultimate S C Breaking Cap. at (415V AC, 50 Hz) = As per requirement

Type of release = Thermal-Magnetic

Overload protection = 0.8 - 1xIn adjustable

Short-circuit protection = 6-10xIn adjustable.

Current rating = As per requirement

c) Change over Switch:

Qty = 01 No.

Rating = 100 Ampere

Type = Front operated, on load, 4 pole, 400 +15%V, 50 + 3%Hz.

d) Motor Back-up Protection MCCB:

Qty = 2 Nos.

No of poles = 3P

Current Rating = 125 A/36 KA

Rated operational voltage = 415 V + 15 %

Rated frequency = 50 + 3% Hz

Ambient temperature = 40C

Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = As per requirement

Current rating = 200 A

e) Submersible starters:- Fully automatic star delta.

Capacity = MU-G 30

Power Specs = 3  $\Phi$ , 415 + 15% V, 50 + 3 % Hz.

Relay range = 30-50 A.

Coil Voltage = 380 v

Protection = single phasing, phase Reversal, phase unbalance (55  $\pm$  5 V),

Rated insulation voltage = 690V

Terminal capacity = 120 Sq. mm with lug Or above Conformity to standard = IS/IES 60947-4-1

Qty. = 2 No's

f) Auxiliary MCCB for Heating/Lighting:

Circuit Breaker = MCCB (Outgoing)

Qty. = 1 No.

No. of poles = 4P

Current Rating = 63 Amp.

Rated operational voltage = 415 V + 15 %

Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = As per requirement

g) Motor Protection Relay:

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

Protections = Thermal Overload with pre-alarm, Short Circuit, Phase Loss, Unbalance, Phase Reversal, Under Current, Over Current, Prolong Starting, Locked Rotor, Under Voltage, Over Voltage & Earth Fault.

h) M-power module for mobile starter for submersible motor 1P/3P 3 wire,

IVRS Languages – English, Hindi,

Suitable Region- North India

i) Over Voltage & Under Voltage Protection Relay (02 No's. to be fitted separately for both starters.

The panel shall be provided with phase indicators (03 N0) and digital ammeter of range 0-60 A, digital voltmeter of range 0-500 V, and digital frequency meter (01 No for each starter). The enclosure of the panel shall be of excellent fit and finish, corrosion resistant and powder coated gliding hinges for smooth and noiseless movement of windows and advanced locking arrangements.

(MCCB/Change Over Make: L&T/Havells/Anchor/ABB/GM)

45

2.000

Job

217200.00

434400.00

46	<p>Providing, fitting, testing and commissioning of 50 KVA voltage stabilizer as per specifications below:  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 : 175-400 volts (3 phase)  Output voltage : 400 ±10% volts  Frequency : 50 ±3 C/S.  Windings : Electrolytic grade copper of adequate section, vacuum impregnated and Oven-dried.  Insulation : Fiber glass insulations to 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.  Core laminates : High grade, low eddy loss, grain oriented silicon steel laminations.  Load : Three phase induction motor load.  Load Amperes (continuous)  Overload in 24-hours operation: 10% above continuous Ampere rating.  The voltage stabilizer shall have T-oil level indicator gauge preferably glass type tube or otherwise visible to naked eye. The top of the container to have a display panel for housing 02 numbers Digital voltmeters (0-500V) along with 4-way selector switch and set of neon indicators for incoming and outgoing phases (06 No's).  Insulating media (T. Oil) of 11 KVA grade to be provided and filled upto top level, with dielectric strength of 5 KV at 4m air gap. The T-Oil of specific grade should be provided in separate barrels and filled at site upto top level.  The voltage Stabilizer shall be accepted with manufacturers dully stamped test certificate and shall have name plate with specifications.</p>	2.000	No	97637.00	195274.00
47	<p>Providing and Fitting of 3.5-Core, XLPE, 1.1KV and 11KV grade 35 square mm Armoured Aluminium Cable of various sizes conforming to IS: 7098 part 1st as service line from the HT transformer to control panel including necessary thimbling, crimping, taping etc. (Make: Havells/Polycab/Finolex/L&amp;T)</p>	80.000	Mtr	362.00	28960.00
48	<p>Providing and fitting of 25 mm square single core copper cable for interconnecting various electrical gadgets as per IS 694: 2010. (Make: Havells/Polycab/Finolex/L&amp;T)</p>	100.000	Mtr	365.00	36500.00
49	<p>Providing and fitting of 16 square mm 3-Core flat submersible copper cable conforming to IS: 694 (Part 1st) – 1964 &amp; IS: 694 (Part 2nd) - 1964 for Submersible Pumping Unit and other electrical Equipments. The cable connections terminal shall be fitted with copper thimbles of required size. (Make: Havells/Polycab/Finolex/L&amp;T)</p>	180.000	Mtr	711.00	127980.00
50	<p>Supply, installation of 6 kg Co2 type fire extinguisher manufactured as per IS:15683 OF 2006 with IS mark and comply with DGMS (Approval). The Co2 extinguisher should be suitable for class B &amp; C fire and also for fire involving electrical equipments. the cylinder used for fire extinguisher shall be approved by protroleum and explosive safety organization (PESO) as per gas cylinder rules 2004 and as per IS: 7285 of 2004. The body should be made of seamless steel (manganese) confirming to IS:7285 with IS mark and should be provided with squeeze grip nozzle and should be filled with Co2 confirming to IS : 15222 of 2002 with certificate. The extinguisher shall be provided with manufactures test certificate and hydraulic test certificate by BIS from PESO.</p>	2.000	Job	6447.00	12894.00
51	<p>Illumination of Premises:  Providing and 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" ( cost of concreting not included in the job) 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</p>	1.000	Job	21168.00	21168.00

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52	<p>Providing, installation, testing and commissioning of area lighting 120 Watt LED (Street Light Type) on top of octagonal pole. (Make: Havells/Philips/Bajaj/Syska)          Having following specs:          Input: 90-240 V 50 Hz          Power Factor: &gt;0.9          Colour Temperature: 4K - 6.5K          Beam Angle: 120° - 170°          Lumens: &gt;12000          Operating Temperature: -20°C to 60°C          The LED is pressure die cast aluminum housing with power coated finish and having Ingress Protection up to IP-68          The LED is properly fitted on the arm of the pole and connected to the copper wire as provided in the high mast pole</p>	3.000	Job	8866.00	26598.00
53	<p>Providing Laying and connection of 2Cx10 mm<sup>2</sup> XLPE Aluminum Armored Cable from the connector of high mast pole to the stabilizer. The job includes underground laying or overhanging as per requirement and directions of the site in-charge. (Make: Havells/Polycab/Finolex/L&amp;T).</p>	50.000	Mtr	154.00	7700.00
54	<p>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.</p>	1.000	Job	2162.00	2162.00
55	<p>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 incharge.</p>	1.000	Job	7766.00	7766.00
56	<p>Supply, installation, Testing &amp; commissioning of 1000VA Full Sine wave power inverter (Make: Microtek/Luminous/Exide) including Providing / Installation of 12V, 180AH Tubular inverter Battery with trolley and cover. (Make: Luminous/Amaron/Exide) with 2-core 6mm<sup>2</sup> Cu 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.</p>	1.000	Job	34053.00	34053.00
57	<p>Providing, laying &amp; 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 &amp; limb of the workmen due to possible leakage of current &amp; short circuit. The floor surface shall be made good &amp; shall be free from dust, grease, foreign material &amp; moisture free. The mats shall be as per IS 15652:2006 &amp; shall have the following specifications: -          Composition: Rubber (synthetic mats for electrical purpose)          Thickness: - 2.5mm Size: - 1M wide.          Make: - Safe Volt/Jyoti/Reputed          The rubber mats shall be accepted with manufacturers test certificate</p>	16.000	Mtr	1205.00	19280.00
58	<p>TOOL KIT For Maintenance: -          The Tool Kit for maintenance shall comprise of the following and all the items as mentioned below shall be of:          Providing of tool kit consists of following items. (Make: Taparia/Bosch/Stanley/Jeelani)          i. Double ended Spanner (Chrome plated) of size in mm          6/7, 8/9, 10/11, 12/13, 14/15, 16/17, 18/19, 20/22, 21/23, 24/26, 25/28, 24/27, 30/32 each - 02 No.          ii. double ended Ring spanners chrome plated of size in mm          6/7, 8/9, 10/11, 12/13, 14/15, 16/17, 18/19, 20/22, 21/23, 24/26, 25/28, 24/27, 30/32 each - 02 No.          iii. Allen key set black finish of size in mm 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10 each - 2 No.          iv. Combination Pliers insulated with thick C.A sleeve; size in mm 165, 210, 255 each - 02 No.          v. Long nose plier insulated with thick C.A sleeve; size in mm 165, 205 each - 02 No.          vi. Side cutting plier insulated with thick C.A sleeve; size in mm 165, 205 make - taparia each - 02 No.          vii. Insulated screw Drivers          Blade length in mm Blade dia. in mm Tip dimensions in mm Quantity          50 3 1.6 x 0.4 02          75 3 1.6 x 0.4 02          100 3 3 x 0.4 02          125 3.5 3.5 x 0.5 02          150 3.5 3.5 x 0.5 02          200 4.4 x 0.6 02          300 5.5 x 0.8 02          viii. Hammer with handle weight - 110 gm, 340 gm, 600 gm - each - 1 No. .          ix. Heavy duty pipe Wrench length in mm - 200, 300, 600 each - 01 No..          x. Electric Multimeter=1No          xi. Digital multimeter - 1No.(Fluke/Meco/scemens/Mastech)          xii. Digital Clamp tester capable to measure up to 400A - 1 No.          xiii. Hack saw frame with hack saw blade - 01 no.          xiv. S-16 MXL, S- 16 H X L Socket Set (19 sockets + 6 Accessories) - 01 No.</p>	1.000	No	28840.00	28840.00

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59	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	94.750	Kgs	102.14	9677.29
60	Providing and fitting of 19 mm thick multilayered ply sheet of size 6 x 3 feet, 2 Nos. including cutting, fixing all complete including painting of the play sheet by one coat of primer and two coats of enamel paint	36.000	sqft	140.00	5040.00
61	a) Providing of good quality bedding for night stay/Shift consisting of: - i) Mattress with warm cover size 6'x3' (6Kg)- 02 No's ii) Quilt with warm cover size 5'x8' (6Kg)- 02 No's iii) Pillows with covers - 02 No's iv) Single bed warm blankets with one sided Fur- 02 No's The filling material for mattress, quilt and pillow shall be of good quality cotton b) The job also includes providing of pressure cooker 5ltr 02 No's, Steel patila( utensil) 5ltrs 02 No's, cooking heater 01 No., room heater 01 No., steel buckets 10 litre capacity 01 No., Plastic bucket 10 litre capacity with Mug 02 No's each, steel glasses 06 No's, steel Plates with large spoons and bowls 03 No's each, Cup and Saucer set (01 No. Set) and, 5kg Gas cylinder with burner/ stove. All the utensils shall be of Prestige, Pigeon, Wonder chef, United, Futura make. The job also includes providing of thermo-cool 15'x12' along with excel matting of 15'x12' size. The job also includes providing of unbreakable Plastic Chair table set consisting of chairs 04 No's, extra heavy Table 01 No. of Samruddhi/ Neel kamal/Supreme /Anmol Make. The job also includes providing of good quality safety Door locks (03 No's) of Godrej, Link locks, Thapar make.	1.000	No	39619.00	39619.00
62	Providing of solar/ electrical lantern chargeable on both solar & electrical 220v supply.	1.000	No	1911.00	1911.00
63	Providing of bamboo ladders 18 feet long along with 15 feet long Link rods and HT Glove pair (01 No each)	1.000	No	7350.00	7350.00
64	Providing of 1 KW heat convector for operators for winter season.	1.000	No	1205.00	1205.00
65	Providing and fitting of 01 No. LED (scroll type) sign board fabricated out of stainless steel and metal showing the names of water supply scheme and the Department. Size: 6'x16'	9.000	Sft	3998.00	35982.00
66	Providing and fitting of 01 No. angle iron/sheet metal board duly painted showing various specifications of the mechanical and electrical equipments installed at site. Size: 4'x6' out MS ANGLE OF 40X 40X 5 of 36 rft and MS sheet of 1 mm thick total weight of 50.16 kgs	24.000	Sft	250.00	6000.00
67	<b>Electro-Mechanical Equipments for WSS Sathergund Qazigund (Stage 2nd)</b>				
68	Supply, installation, testing and commissioning of Horizontal pumping unit as per IS 1520 with following specification:- Pump:- Discharge 10000 GPH, Head: 35 Mtr 1.Type :- Horizontal split casing /Multi stage Material of construction 1.Impeller:- S.steel 2.Shaft:- SS410 3.Pump casing- Cast Iron The pump shall confirm to IS-1520 code RPM 1440. MOTOR :- A) Type :- Horizontal squirrel cage Induction Type B) Rating:- Suitable for above parameters or 20HP C) No of phases: 3 phase 415 V+10%,50 Hz, AC supply D) Winding:- Copper wound squirrel cage E) Type of enclosure:-SPDP/TEFC F) Method of cooling:- Air cooled with fan mounted G) Method of Starting: star delta H) RPM: 1440. 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 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. (Make:Kirloskar/Lubbi/KSB/M&P/Crompton Greaves	2.000	Job	195510.00	391020.00






69	Fabrication, Providing and fitting of 125 mm dia Y- junction having 1m length of each arm to be fabricated out of hot dip galvanized G.I. C-Class pipe. 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 reputed make electrodes to form strong welding joint by dint of DC arc welding. The job further includes Providing and Fitting of nuts and bolts (conforming to IS 1363 Part 1st) and Rubber Insertion Gaskets (conforming to IS 638/79) to be used between flanged joints. The size of the Y-junction is 100 mm.	1.000	Job	10358.00	10358.00
70	P/W/T/C of horizontal single phase monoblock self priming pumping equipment. The pump & motor should be mounted on a suitable size MS base frame. The Job also includes P/F of foundation bolts, DOL starter, wiring, and allied items. (Make: CG/M&P/Kirloskar/Lubbi/KSB)	1.000	Job	12308.00	12308.00
71	Providing/supplying and fitting of G.I flanged Rising Main at site. The Pipe shall be hot dip Galvanized, class B conforming to IS 1239. The job includes providing and fitting of M.S Flanges conforming to BIS 6392/1997 Table 17 (Rating PN16). The flanges shall be double welded both from inside and outside of the pipe using standard electrode of reputed make. Flanges (as per IS 6392/1997 Table.17) Thickness shall conform to IS 6392 Part 1st Table-17. The flange welding shall be carried out in double layers using reputed make electrodes to form strong welding joint. Welding Electrode DC Arc Welding using welding electrode having diameter not less than 4mm. Nuts and Bolts Nuts and Bolts (conforming to IS:1363 Part 1st) Rubber Insertion Gaskets Rubber Insertion Gaskets (conforming to IS: 638/79) to be used between flanged joints. The rising main is to be laid as per the instructions of the engineer in charge and site requirement. Size : DN 125 Class: B (Medium) Make:Tata/Jindal/Prakash Surya	100.000	Mtr	2412.00	241200.00
72	Earth work in excavation by manual means in trenches for foundation, drains, pipes, cables (not exceeding 1.5 m in width) and for shafts, wells, cesspits and the like not exceeding 10 sqm on plan, including dressing of sides and reaming of bottom lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed.	40.730	cum	479.60	19534.11
73.01	i. All kinds of soil (80%) 01 meter from cutting edge ii. Ordinary rock (20%) 01 meter from cutting edge	10.210	cum	1064.64	10869.92
74	Filling available excavated earth in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by reaming and watering, lead upto 50 m ad lift upto 1.5m.	43.530	cum	218.57	9514.35
75	Centering and shuttering including strutting, propping etc. and removal of form work for: Foundation, footings, bases for columns	8.900	sqm	288.53	2567.92
76	Providing and laying of soling stone including manual compaction	1.000	cum	678.04	678.04
77	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering. all work upto plinth level with 1: 1.5 : 3 mix (1 cement, 1.5 coarse sand, 3 graded stone aggregate 20 mm nominal size).	6.830	cum	7287.28	49772.12
78	Providing and laying in position 12 mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand)	14.560	sqm	286.06	4164.96
79	Fabrication, providing and fitting of washout Tee with each arm one feet long shall be fabricated out of 125 mm dia. G.I C-class pipe with 16mm thick flanges fastened with weld joints on three ends.	1.000	Job	5959.00	5959.00

80	<p>Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, non-rising spindle Resilient seated gate/ sluice valves (PN16) in accordance with BS 5163 part 1 and part 2 / EN 1074 Part 1 &amp; 2/IS 14846 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.</p> <p>Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work.</p> <p>The job includes providing and fitting of 02 nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> <li>• Body Ductile iron EN-GJS-400-15 / GJS-500-7 (GGG-40/GGG-50)</li> <li>• Bonnet Ductile iron EN-GJS-400-15/ GJS-500-7 GGG-40/GGG-50)</li> <li>• Bonnet bolts Stainless steel A2 (DIN EN ISO 3506)</li> <li>• Stem Nut Brass</li> <li>• Check valve disk: Ductile iron EN-GJS-400-15/ GJS-500-7 (GGG-40/GGG-50)encapsulated with EPDM vulcanize</li> </ul> <p>The Test Certificates of Sluice/Gate Valves mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material. Size: DN 125 PN: 1.6/16 Make: Kirloskar/VAG/Sigma Flow/Talis</p>	4.000	Job	21671.00	86684.00
81	<p>Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, Slanted seat swing check valve (NRV) (PN16) as per EN 1074- Part -3 / BS 5153/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.</p> <p>Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work.</p> <p>The job includes providing and fitting of 02 Nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with Rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job.</p> <p>Material of Construction</p> <ul style="list-style-type: none"> <li>• Body: Ductile iron EN-GJS-400-15 / (GGG-40)</li> <li>• Bonnet: Ductile iron EN-GJS-400-15/ GGG-40)</li> <li>• Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506)</li> <li>• Stem Nut : Brass</li> <li>• Check valve disk: Ductile iron EN-GJS-400-15/ (GGG-40) encapsulated with EPDM vulcanized</li> </ul> <p>The Test Certificates of Check Valves (NRVs) mentioning the Material of Construction as above duly stamped by OEM shall be provided at the time of supply of material. Size: 125 mm PN: 1.6/16 Suggested Make:Kirloskar/VAG/Sigma Flow/Talis</p>	6.000	Job	26010.00	156060.00
82	<p>Fabrication ,Providing and fitting of 125mm dia 90-120 degree bend/elbow to be fabricated out of Class B GI pipe, 1 m length and flanged on both ends a to make it leak proof. The flanges shall be M.S Flanges conforming to BIS 6392/1997 Table 17 (Rating PN16) and welded on both sides. The job includes nuts, bolts, gaskets etc as per site requirement.</p>	8.000	Job	4992.00	39936.00
83	<p>Fabrication of gantry mechanism 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. The details are as per drawing appended.</p>	767.490	Kgs	102.14	78387.59

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54	Supply, installation, commissioning and creation of pole mounted, outdoor type Electric Sub Station as per the technical specifications given here under - Specifications conforming to IS 1180 (Part 1) 2014 with latest amendments 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 gel crystals, conservator with oil level indicator, explosion vent and adequate radiator fins/ Tubes. The impedance of transformer shall be as per IS 1180 (Part 1) 2014 with latest amendments. NOTE: The scope of the work shall include obtaining of necessary inspection/clearance certificate from the concerned department for all the required equipment. The testing and commissioning shall be completed only after obtaining above certificate. <b>Rating: 25 KVA HT Transformer, 3 phase (Level 2) Make:JK/ALBA/Northern/Equivalent</b>	1 000	Job	67674.00	67674.00
55	Providing and fitting G.I Channel /Angle/ Flat of sizes including clamps	352.000	Kgs	123.00	43296.00
56	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 200A complete as per IS specs	2.000	Job	11388.00	22776.00
57	Supply, Installation, Testing and commissioning of 11KV polymer fuses Set Horn Gap 3-phase 200 A suitable for vertical installation.	1.000	Job	4838.00	4838.00
58	Supply, Installation, Testing and commissioning of Gapless Surge arrestor station class, 10KA, 9KV, LA With polymer housing, Station Type.	1.000	Job	7528.00	7528.00
59	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.	10.000	Job	337.00	3370.00
90	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.	6.000	Job	20083.00	120498.00
91	P/F of Galvanized nuts, bolts of various sizes as per site requirement.	50.000	Kgs	138.00	6900.00
92	P/F Danger Plate with clamps.	6.000	Job	148.00	888.00
93	Providing and fixing G.I Barbed wire for anti climbing/ anti-climbing devices.	21.000	Kgs	132.00	2772.00
94	Providing and fitting of Galvanized stay set with 50 X 8 mm Stay Clamp, Guy insulator (2 No.), Anchor plate (200X200X6mm), nuts and bolts, 2 No.- turn buckle, 1.8 m long, 16 mm diameter solid G.I stay rod & 7/3.15 mm dia. G.I stranded wire complete.	2.000	Job	4779.00	9558.00
95	Painting of poles with Red oxide	6.000	Ltr	297.00	1782.00
96	Painting of poles with Aluminum paint	6.000	Ltr	495.00	2970.00
97	Providing and fitting of ACSR as per IS 398 (part-2) 1996 for 50 sq.mm ACSR (Galvanised steel reinforced) for fitment of various accessories.	60.000	Mtr	55.00	3300.00
98	Supply, Installation and Testing of 35 Sq mm XLPE Aluminum H.T cable (ABC type) of 11 KV grade with following specs. Size (cross sectional area in sq mm) = 3x35 Phases: Red, Yellow, Blue (Make: Havells/Polycab/Finolex/L&T)	120.000	Mtr	794.00	95280.00
99	providing and fitting of suspension / tension clamp with eye hook, straps and buckles or nuts and bolts required for holding of 3 – Core, 35 Sqmm H.T AB Cable.	2.000	No	892.00	1784.00
100	P/F 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.	4.000	No	8732.00	34928.00
101	Providing and fitting of 63 A TPN switch disconnecter fuse unit, the capacity of H.T Transformer is 25KVA.	1.000	Job	2667.00	2667.00
102	P/I/T/C of LT 3-phase, 4 –wire, Prodigy meter of capacity 40-200 Ampere, 415 V, 50 HZ, preferably SECURE make with all accessories and fittings, cabling required as per site requirement. NOTE:- The job includes complete charging of substation which includes getting clearance from PDD and sealing of meter etc.	1.000	Job	28000.00	28000.00

  
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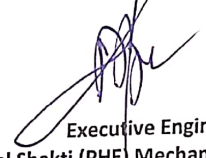


103	P/I of earthing station for 25 KVA electric substation, LT panel and stabilizer comprising of company fabricated earthing electrode as per IS 3043. The job includes Auguring of bore of required dia/depth for installation of electrode along with backfill compound mixed with soil and all other items 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 (Make Jyoti/Reputed)	6 000	Job	10462.00	62772.00
104	Earthing complete by GI pipe 40mm, 3 meter long through GI strip 25x3mm	3 000	Job	2410.00	7230.00
105	Earth work in excavation by manual means in trenches for foundation, drains, pipes, cables (not exceeding 1.5 m in width) and for shafts, wells, cesspits and the like not exceeding 10 sqm on plan, including dressing of sides and reaming of bottom lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed.	3 000	cum	479.60	1438.80
106	All kinds of soil (80 %) 01 meter from cutting edge	1.020	cum	678.04	691.60
107	Providing and laying of soling stone including manual compaction	3 000	cum	6465.00	19395.00
108	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering. all work upto plinth level with 1 : 2 : 4 mix (1 cement, 2 coarse sand, 4 graded stone aggregate 20 mm nominal size).	1.020	cum	678.04	691.60
106	Fabrication, Providing and fitting of Modular motor control panel (MUG-30) of appropriate size fabricated out of 14 SWG sheet having required openings/vents and protection Class IP-55 & fitted with accessories as under: a) Bus bar Chamber: The bus bar chamber shall be fitted at the top of the panel horizontally throughout the length. There shall be 3 Nos. of phase bus bar and 1 No neutral bus bar and 1 No earthing bus bar. The bus bars shall be air insulated and made-up of high conductivity COPPER with current density of suitable rating for 200 Ampere. All panel compartments shall be provided with suitable cable alley and vertical bus bar alley. Suitable segregation shall be provided in between bus bar chamber and adjoining compartments. The bus bar shall be PVC sleeved with color strips of red, yellow, blue and black and the same be arranged in accordance with IS-375 specs. Electrical clearances shall be maintained between phases, neutral and body as per standards. b) Main Circuit Breaker (Incomer MCCB): Qty. = 02 No. of poles = 4 Pole Current Rating = 200 Amp/50 KA. Rated operational voltage = 415 V + 15 % Rated frequency = 50+/-3%Hz Ambient temperature = 40C Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = As per requirement Type of release = Thermal-Magnetic Overload protection = 0.8 – 1×In adjustable Short-circuit protection = 6-10×In adjustable. Current rating = As per requirement c) Change over Switch: Qty. = 01 No. Rating = 100 Ampere Type = Front operated, on load, 4 pole, 400 +15%V, 50 + 3%Hz.	1.000	Job	217200.00	217200.00

109	<p>d) Motor Back-up Protection MCCB:  Only = 2 Nos.  No of poles = 3P  Current Rating = 125 A/36 KA  Rated operational voltage = 415 V + 15 %  Rated frequency = 50 + 3% Hz  Ambient temperature = 40C°  Ultimate S C Breaking Cap. at (415V AC, 50 Hz) = As per requirement  Current rating = 200 A  e) Submersible starters - Fully automatic star delta.  Capacity = M.L.G.30  Power Specs = 3 <math>\Phi</math>, 415 + 15% V, 50 + 3 % Hz.  Relay range = 30-50 A.  Coil Voltage = 380 V  Protection = single phasing, phase Reversal, phase unbalance (55 <math>\pm</math> 5 V),  Rated insulation voltage = 690V  Terminal capacity = 120 Sq. mm with lug Or above Conformity to standard = IS/IES  60947-4-1  Qty = 2 No's  i) Auxiliary MCCB for Heating/Lighting:  Circuit Breaker = MCCB (Outgoing)  Qty = 1 No.  No. of poles = 4P  Current Rating = 63 Amp.  Rated operational voltage = 415 V + 15 %  Ultimate S C Breaking Cap. at (415V AC, 50 Hz) = As per requirement  g) Motor Protection Relay:  Digital Motor Protection Relay with LCD Display for 3-phase supply with following  protections suitable for the Modular Control Panel:-  Protections = Thermal Overload with pre-alarm, Short Circuit, Phase Loss,  Unbalance, Phase Reversal, Under Current, Over Current, Prolong Starting, Locked  Rotor, Under Voltage, Over Voltage &amp; Earth Fault.  h) M-power module for mobile starter for submersible motor 1P/3P 3 wire,  VRS Languages – English, Hindi,  Suitable Region- North India  i) Over Voltage &amp; Under Voltage Protection Relay (02 No's. to be fitted separately for  both starters.  The panel shall be provided with phase indicators (03 NO) and digital ammeter of  range 0-60 A, digital voltmeter of range 0-500 V, and digital frequency meter (01 No  for each starter). The enclosure of the panel shall be of excellent fit and finish,  corrosion resistant and powder coated gliding hinges for smooth and noiseless  movement of windows and advanced locking arrangements.  (MCCB/Change Over Make: L&amp;THaveis/Anchor/ABB/GM)  Providing, fitting, testing and commissioning of 40 KVA voltage stabilizer as per  specifications below:  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 : 175-400 volts.(3 phase)  Output voltage : 400 <math>\pm</math>10% volts.  Frequency : 50 <math>\pm</math>3 C/S.  Windings : Electrolytic grade copper of adequate section, vacuum impregnated  and Oven-dried.  Insulation : Fiber glass insulations to 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.  Core laminates : High grade, low eddy loss, grain oriented silicon steel  laminations.  Load : Three phase induction motor load.  Load Amperes (continuous)  Overload in 24-hours operation: 10% above continuous Ampere rating.  The voltage stabilizer shall have T-coil level indicator gauge preferably glass type tube  or otherwise visible to naked eye. The top of the container to have a display panel for  housing 02 numbers Digital voltmeters (0-500V) along with 4-way selector switch and  set of neon indicators for incoming and outgoing phases (06 No's).  Insulating media (T, Oil) of 11 KVA grade to be provided and filled upto top level, with  dielectric strength of 5 KV at 4m air gap. The T-Oil of specific grade should be  provided in separate barrels and filled at site upto top level.</p>	2.000	No	89303.00	178606.00
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	The voltage Stabilizer shall be accepted with manufacturers dully stamped test certificate and shall have name plate with specifications				
110	Providing and Fitting of 3.5-Core, XLPE, 1 1KV and 11KV grade 35 square mm Armoured Aluminium Cable of various sizes conforming to IS 7098 part 1st as service line from the HT transformer to control panel including necessary thimbling, crimping, taping etc. (Make: Havells/Polycab/Finolex/L&T).	150 000	Mtr	362.00	54300.00
111	Providing and fitting of 25 mm square single core copper cable for intwrconnecting various electrical gadets as per IS 694 2010. (Make: Havells/Polycab/Finolex/L&T).	180 000	mtr	365.00	65700.00
112	Providing and fitting of 16 square mm 3-Core flat submersible copper cable conforming to IS 694 (Part 1st) - 1964 & IS 694 (Part 2nd) - 1964 for Submersible Pumping Unit and other electrical Equipments. The cable connections terminal shall be fitted with copper thimbles of required size. (Make: Havells/Polycab/Finolex/L&T).	180 000	mtr	711.00	127980.00
113	Illumination of Premises Providing and 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 6 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" ( cost of concreting not included in the job) 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	2.000	Job	21168.00	42336.00
114	Providing, installation, testing and commissioning of area lighting 120 Watt LED (Street Light Type) on top of octagonal pole. (Make: Havells/Philips/Bajaj/Syska). Having following specs: Input: 90-240 V 50 Hz Power Factor: >0.9 Colour Temperature: 4K - 6.5K Beam Angle: 120° - 170° Lumens: >12000 Operating Temperature: -20°C to 60°C The LED is pressure die cast aluminum housing with power coated finish and having Ingress Protection up to IP-68. The LED is properly fitted on the arm of the pole and connected to the copper wire as provided in the high mast pole	6.000	Job	8866.00	53196.00
115	Providing Laying and connection of 2Cx10 mm <sup>2</sup> XLPE Aluminium Armored Cable from the connector of high mast pole to the stabilizer. The job includes underground laying or overhanging as per requirement and directions of the site in-charge.	100.000	Mtr	154.00	15400.00
116	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.	2.000	Job	2162.00	4324.00
117	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 incharge.	1.000	Job	7766.00	7766.00
118	Supply, installation, Testing & commissioning of 1000VA Full Sine wave power inverter (Make: Microtek/Luminous/Exide) including Providing/Installation of 12V, 180AH Tubular inverter Battery with trolley and cover. (Make: Luminous/Exide/Amaron) with 2-core 6mm <sup>2</sup> Cu wiring as per site requirement along with other accessories like SS-Combine (02 No's), 3-pin plugs etc of reputed make for proper fitment and installation of the item.	1.000	Job	34053.00	34053.00
119	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.	94.750	Kgs	102.14	9677.29
120	Providing and fitting of 19 mm thick multilayered ply sheet of size 6 x 3 feet, 2 Nos including cutting, fixing all complete including painting of the play sheet by one coat of primer and two coats of enamel paint.	36.000	sqft	140.00	5040.00

121	<p>a) Providing of good quality bedding for night stay/Shift consisting of -</p> <p>i) Mattress with warm cover size 6'x3' (6Kg)- 02 No's</p> <p>ii) Quilt with warm cover size 5'x8' (6Kg)- 02 No's</p> <p>iii) Pillows with covers - 02 No's</p> <p>iv) Single bed warm blankets with one sided Fur- 02 No's</p> <p>The filling material for mattress, quilt and pillow shall be of good quality cotton</p> <p>b) The job also includes providing of pressure cooker 5ltr 02 No's, Steel patila( utensil) 5ltrs 02 No's, cooking heater 01 No , room heater 01 No., steel buckets 10 litre capacity 01 No. , Plastic bucket 10 litre capacity with Mug 02 No's each, steel glasses 06 No's, steel Plates with large spoons and bowls 03 No's each, Cup and Saucer set (01 No. Set) and, 5kg Gas cylinder with burner/ stove. All the utensils shall be of Prestige, Pigeon, Wonder chef, United, Futura make.</p> <p>The job also includes providing of thermo-cool 15'x12' along with excel matting of 15'x12' size. The job also includes providing of unbreakable Plastic Chair table set consisting of chairs 04 No's, extra heavy Table 01 No. of Samruddhi/ Neel kamal/Supreme /Anmol Make. The job also includes providing of good quality safety Door locks (03 No's) of Godrej, Link locks, Thapar make.</p>	1.000	No	39619.00	39619.00
122	Providing of solar/ electrical lantern chargeable on both solar & electrical 220v supply.	1.000	No	1911.00	1911.00
123	Providing of 1 KW heat convector for operators for winter season.	1.000	No	1205.00	1205.00
124	Providing of bamboo ladders 18 feet long along with 15 feet long Link rods and HT Glove pair (01 No each)	1.000	No	7350.00	7350.00
125	<p>Providing, laying &amp; 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 &amp; limb of the workmen due to possible leakage of current &amp; short circuit. The floor surface shall be made good &amp; shall be free from dust, grease, foreign material &amp; moisture free. The mats shall be as per IS 15652:2006 &amp; shall have the following specifications: -</p> <p>Composition: Rubber (synthetic mats for electrical purpose)</p> <p>Thickness: - 2.5mm Size: - 1M wide.</p> <p>Make: - Safe Volt/Jyoti</p> <p>The rubber mats shall be accepted with manufacturers test certificate</p>	10.000	Mtr	1205.00	12050.00
126	Providing and fitting of 01 No. angle iron/sheet metal board duly painted showing various specifications of the mechanical and electrical equipments installed at site. Size: 4'x6' out MS ANGLE OF 40X 40X 5 of 36 rft and MS sheet of 1 mm thick total weight of 50.16 kgs	24.000	Sft	250.00	6000.00
<b>Total in Figures:</b>				<b>9476836.426</b>	
<b>Total in Words: Rupees Ninety-Four Lac, Seventy-Six Thousand, Eight Hundred &amp; Thirty-Six Only.</b>					

  
 Executive Engineer  
 Jal Shakti (PHE) Mechanical Division  
 South Awantipora