

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: 209 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/218 of 06/2021
Tech. Sanction Accorded vide Order No.	TS. by SE: 14 Dated: 04/09/2023.
Adv. Cost:	Rs. 79,76,447/-
Allotted Cost:	Rs. 77,17,212/-

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

Reference:-  
1. This office e-NIT No.: 20 of 2023-24 Dated: 09/09/2023 issued under endorsement No.: JSD/PHE/MDSA/3164-76 Dated: 09/09/2023 read with Corrigendum Nos.: JSD/PHE/MDSA/3453-55 Dated: 30/09/2023.  
2. Superintending Engineer Hydraulic Circle Pulwama/Shopian [HQ] Shopian (Member Secretary DJJM)'s Authorization No.: SE/HYD/SPN/DB/4823-34 Dated: 25/10/2023.

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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 (@ 3.25% below the advertised rates). This is in response to your online bid and subsequent quoted rates, specifications, terms and conditions as contained in Annexure "A & B" of this allotment order.

Encl. B Lyc.

No.: MDSA/4077-84

Dated: 25/10/2023

Yours Sincerely

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

Copy to the:

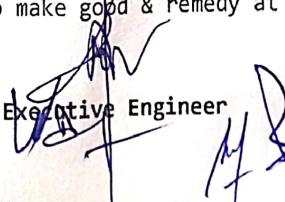
1. Chief Engineer Jal Shakti (PHE) Department Srinagar for information.
2. District Development Commissioner (Chairman DJJM) Pulwama for information.
3. Superintending Engineer Jal Shakti (PHE) Mechanical Circle (South) Srinagar for information.
4. Superintending Engineer Jal Shakti (PHE) Hydraulic Circle Pulwama/Shopian for information.
5. Executive Engineer Jal Shakti (PHE) Division Awantipora 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 Pampore 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 Bonibagh Lelhar of Jai 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 @ 05% 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

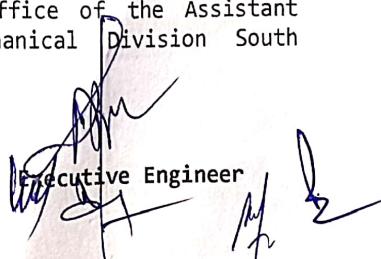
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Executive Engineer  


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.

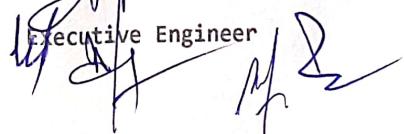
14. **TRANSIT INSURANCE**:- Prior to dispatch, the ordered equipment shall be insured through a Nationalized Insurance Company up to its final destination, against all transit risks. The firm should, therefore, take appropriate insurance policy in advance for covering the transit of the goods, charges 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:-
- a) 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.
  - b) 15% of the contract value shall be released on installation of ordered equipment/material in full at site.
  - c) 10% of the Contract Value shall be released after successful testing and commissioning of the entire equipment on full load, commissioning and trial run.
  - d) 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:-
- a) Sectional drawing of pumps.
  - b) General Arrangement Drawings (GAD)/ 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.
- 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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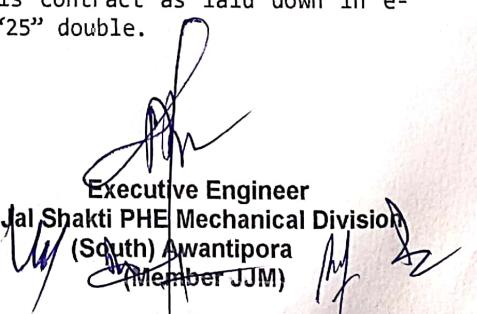
ANNEXURE "A" to this office Allotment Order No: २०९ of 10/2023

**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  $\geq$  40KVA
- 2) Pumping Unit (Horizontal and Vertical)  $\geq$  40 HP
- 3) Valves  $>$  200 mm
- 4) Pipes of all dia
- 5) HT Transformers  $\geq$  250KVA
- 6) Voltage Stabilizers  $\geq$  150KVA
- 7) Iron Removal Plants

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.

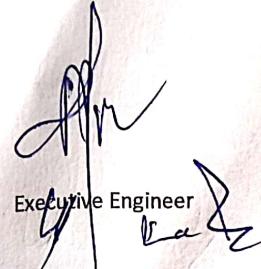


Executive Engineer  
Jal Shakti PHE Mechanical Division  
(South) Jwantipora  
(Member JJM)

Sl.No	Description of Work / Item(s) with technical specifications	No. of Qty	Units	Alloted/ Quoted Rate	Amount
1	<p>Supply, Installation, Testing &amp; Commissioning of 10 HP non clog Pumping Unit as per IS 5600 at Raw Water Stage.</p> <p>PUMP - Discharge: 10000 GPH Head: 25 Mtrs</p> <p>Type of pump Non - Clog Open well Submersible Vertical Pump</p> <p>Solid Handling Capacity: 20mm (Minimum)</p> <p>Quality of water Raw water to be handled to be handled</p> <p><b>MATERIAL OF CONSTRUCTION</b></p> <p>Pump Casing : Cast Iron Impeller : Stainless Steel</p> <p>Pump Shaft : Stainless Steel Motor Body : Cast Iron</p> <p>Sealing : Dual mech. seal</p> <p><input type="checkbox"/> The bowl plate shall be provided with name plate depicting all specifications</p> <p><b>MOTOR</b> -</p> <ul style="list-style-type: none"> <li>Type: Squirrel Cage 3-Phase Induction Motor</li> <li>Method of starting: Star – Delta/DOL (as specified).</li> <li>Frequency: 50Hz ± 3%</li> <li>Voltage: 415 ± 6 %, - 15% 3 phase</li> <li>Class of insulation: 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</p> <p>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 and pumping unit is to be approved from the concerned Sub Divisional office before procuring.</p> <p>(Make: Mather Plate/Kirloskar/WIPL)</p>	2.000	Job	90365 468	180730.94
2	<p>Supply, Installation, Testing &amp; Commissioning of Submersible Pumping Unit as per IS 8034 with following specification are as under:</p> <p>PUMP: Discharge: 4000 GPH Head: 65 Mtrs</p> <p>Efficiency = Not less than 50% Speed = 2900 Rpm</p> <p>Type of pump = Mixed flow. Type of fluid to be handled = Clear Water</p> <p><b>MATERIAL OF CONSTRUCTION:</b></p> <p>Impeller = C.I. Pump Shaft = Stainless Steel SS 410.</p> <p>Pump Casing = Cast Iron/Stainless steel</p> <p><b>IMPELLER:</b> Impeller is of the enclosed or semi – enclosed type and properly balanced. Enclosed Impellers equipped with seal rings on their hubs.</p> <p><b>COUPLING:</b> A suitable coupling arrangement provided with pump set.</p> <p><b>Non Return Valve:</b> Non Return Valve of the suitable size provided above the pump discharge case.</p> <p><b>MOTOR:-</b> a. Rating: 10 HP Method of starting = Star – Delta/DOL (as specified) Speed = 3000 (Sync). Frequency = 50 ± 3 % Hz</p> <p>Working Voltage = 380-415 ± 15% V, 03 phase</p> <p>Efficiency = Not less than 90% Class of insulation = F/Suitable for above parameters</p> <p>Submersible motor should be water filled water lubricated squirrel cage type having capacity for above pumping parameters and working on 3 phases; AC supply ranging from 380 to 415 volts, 50Hz. The motor should be sealed by radial rings to avoid mixing of well water with motor filled water.</p> <p>a) The job includes providing and fitting of interlocking arrangement against any failure of coupling. It must be fabricated out of MS strips of suitable size and length.</p> <p>b) The job includes providing and fitting of appropriate size MS nipple 2 feet long threaded on one end and welded to same size MS flange of thickness (as per Table-17) at other end for column pipe as per site requirement. The threaded portion should be as per size of pumping outlet for proper fixing.</p> <p>The job includes providing and fitting of R. I. cloth joints/rubber washers with nuts, bolts and washers for all joints of column pipe. The job also includes lowering of pumping unit in the well then proper testing and commissioning of pumping unit on full load at site.</p> <p>Note: Providing of test certificate &amp; Characteristic Curve of pumping equipments is compulsory and pumping unit is to be approved from the concerned Sub Divisional office before procuring.</p> <p>(Make: Mather Plate/Kirloskar/WIPL)</p>	2.000	Job	83289.173	166578.35
3	<p>b. Motor Rating 10.00 HP Discharge: 8000 GPH Head: 30 Mtrs</p> <p>(Make: Mather Plate/Kirloskar/WIPL)</p>	2.000	Job	83289.173	166578.35
4	<p>Providing/supplying and fitting of G.I flanged Rising Main at site. The Pipe shall be hot dip Galvanized, class C conforming to IS 1239. The job includes providing and fitting of M.S Flanges conforming to BIS 6392/1997 Table 17 (Rating PN16). The flanges shall be double welded both from inside and outside of the pipe using standard electrode of reputed make.</p> <p>Flanges (as per IS 6392/1997 Table:17)</p> <p>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.</p> <p>Welding Electrode</p> <p>DC Arc Welding using welding electrode having diameter not less than 4mm. Nuts and Bolts</p> <p>Nuts and Bolts (conforming to IS:1363 Part 1st) Rubber Insertion Gaskets</p> <p>Rubber Insertion Gaskets (conforming to IS: 638/79) to be used between flanged joints. The main technical specifications of the pipe are given here under:</p> <p>Size : DN 80 Class: C (Make: Appolo/Jindal/Prakash Surya)</p>	1100.000	Mtr	1436.738	1580411.25
4.01	Size : DN 100 Class: C (Make: Appolo/Jindal/Prakash Surya)	50.000	Mtr	2117.858	105892.88
4.02	Size : DN 125 Class: C (Make: Appolo/Jindal/Prakash Surya)	200.000	Mtr	2570.648	514129.50
5	<p>Fabrication, providing and fitting of split type MS clamps 10 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.</p> <p>Size: 80mm</p>	2.000	Job	1742.468	3484.94

Executive Engineer

Sl.No	Description of Work / Item(s) with technical specifications	No. of Qty	Units	Alloted/ Quoted Rate	Amount
6	Providing and fitting of 300mm in length GI reducer bend flanged on both sides, flange conforming to Table-17 (PN16) to be fitted with the column pipe/delivery manifold of submersible pumping unit to join Rising-main and column pipe/delivery manifold. The flange welding shall be carried out in double layers using reputed make electrodes from inside and outside of pipe to form strong welding joint. 80 mm - C class	1.000	Job	3773.250	3773.25
6.01	100 mm - C class	1.000	Job	5805.000	5805.00
7	Supply, Installation, Testing And Commissioning of Ductile Iron double flanged, non rising, spindle Realigner seated gate/ sluice valves (PN16) in accordance with BS 5163 part 1 and part 2 / EN 1074 Part 1 & 2/ IS 14845 for regulating the water supply outside the pumping units. The body and bonnet of the valve shall be of ductile iron, wedge with fully vulcanized EPDM rubber (Approved for drinking water) and NBR seal. The Gate/Sluice valve shall be compatible for buried applications and shall be safe to install in both horizontal and vertical positions. It shall have electrostatic epoxy coating (approved for drinking water) both inside and outside of the valve. The valve shall be supplied along with hand wheel. Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work. The job includes providing and fitting of 02 nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job. Material of Construction <ul style="list-style-type: none"> <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> 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: 80 mm PN 1.6 (Make: Kirloskar/VAG/Sigma Flow/Talis)	4.000	Job	14993.348	59973.39
7.01	Size: 100 mm PN 1.6 (Make: Kirloskar/VAG/Sigma Flow/Talis)	2.000	Job	18473.445	36946.89
7.02	Size: 125 mm PN 1.6 (Make: Kirloskar/VAG/Sigma Flow/Talis)	2.000	Job	21595.568	43191.14
8	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. Cost on account of Nuts, bolts, gaskets, etc required for the job is included in the scope of work. The job includes providing and fitting of 02 nos. M.S flanges perfectly adaptable to the inbuilt flanges of the valve which shall be fitted with Rising main of the pumping unit at appropriate spots as per site requirement. The job includes the cost on account of P/F of nuts, bolts and gasket required for the job. Material of Construction <ul style="list-style-type: none"> <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> 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: 80 mm PN 1.6 (Make: Kirloskar/VAG/Sigma Flow/Talis)	4.000	Job	16920.608	67682.43
8.01	Size: 100 mm PN 1.6 (Make: Kirloskar/VAG/Sigma Flow/Talis)	2.000	Job	19912.118	39824.24
8.02	Size: 125 mm PN 1.6 (Make: Kirloskar/VAG/Sigma Flow/Talis)	2.000	Job	25919.325	51838.65
9	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: - <ol style="list-style-type: none"> <li>i. Valve type - single chamber, single orifice.</li> <li>ii. End connection - flanged ends to IS 1538</li> <li>iii. Test pressure - body / seat 2.5 x PN</li> <li>iv. Sealing ring - EPDM</li> <li>v. Construction -ductile iron with stainless steel floats</li> <li>vi. Coating - epoxy with corrosion resistance</li> <li>vii. Working temperature (-450c to 550c)</li> </ol> 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. Material of Construction <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> 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. Size : DN 50 mm PN 16 (Make: Kirloskar/VAG/Sigma Flow/Talis)	2.000	Job	18763.695	37527.39



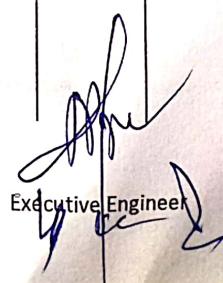
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Sl.No	Description of Work / Item(s) with technical specifications	No. of Qty	Units	Allotted/ Quoted Rate	Amount
10	<p>Supply, installation, commissioning and creation of pole mounted, outdoor type 100 KVA (Level-2) Electric Sub Station as per the technical 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. 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 vent and adequate radiator fins/ Tubes. The impedance of transformer shall be as per IS: 1180 (Part 1) 2014 with latest amendments.</p> <p>NOTE: The scope of the work shall include obtaining of necessary inspection/clearance certificate from the concerned department for all the required equipment. The testing and commissioning shall be completed only after obtaining above certificate. Make: North Sun/RR Transformer/JK/ALBA</p>	2.000	Job	203121.788	406243.58
11	Providing and fitting G.I Channel /Angle/ Flat of sizes including clamps	300.000	Kg	119.003	35700.75
12	Supply, Installation, Testing and commissioning of Polymer 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	11348.775	22697.55
13	Supply, Installation, Testing and commissioning of 11KV polymer fuses Set Horn Gap 3-phase 200 A suitable for vertical installation.	1.000	Job	4821.053	4821.05
14	Supply, Installation, Testing and commissioning of Gapless Surge arrestor station class, 10KA, 9KV, LA With polymer housing, Station Type.	1.000	Set	7501.995	7502.00
15	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	8.000	Job	335.723	2685.78
16	Supply, installation, erection of 9 mtrs long HT 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 GI wire earthing of pole as per REC standard.	8.000	No	20013.705	160109.64
17	P/F of Galvanized nuts, bolts of various sizes as per site requirement.	35.000	Kg	137.385	4808.48
18	P/F Danger Plate with clamps	8.000	No.	148.028	1184.22
19	Providing and fixing G.I Barbed wire for anti climbing	70.000	Kg	131.580	9210.60
20	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	Set	4762.035	9524.07
21	Painting of poles with Red oxide	16.000	Lit	296.055	4736.88
22	Painting of poles with Aluminum paint	16.000	Lit	493.425	7894.80
23	Providing and fitting of ACSR as per IS 398 (part-2) 1996 for 50 sqmm ACSR (Galvanised steel reinforced) for fitment of various accessories.	45.000	Mtr	54.180	2438.10
24	<p>Supply, Installation and Testing of 35 Sq mm XLPE Aluminum H.T cable (ABC type ) of 11 KV grade with following specs.</p> <p>Size (cross sectional area in sq mm) = 3x35 with reinforced wire</p> <p>Phases: Red, Yellow, Blue (Make: Havells/Polycab/Finolex/L&amp;T)</p>	180.000	Mtr	791.415	142454.70
25	Providing and fitting of Anchoring clamps comprising clamp body, plastic wedge, steel bill bracket, straps and buckles or nuts and bolts required for holding of 3 – Core, 35 Sq. mm H.T AB Cable.	10.000	Job	442.148	4421.48
26	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 100 KVA HT transformer.	4.000	Job	8701.695	34806.78
27	Providing and fitting of LT Distribution box for HT transformer with MCCB For incomer and SFU for out going circuits . Capacity of transformer: 100KVA	1.000	Job	38140.785	38140.79
	<p>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 &amp; fitted with accessories as under:</p> <p>a) Bus bar Chamber:</p> <p>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.</p> <p>Electrical clearances shall be maintained between phases, neutral and body as per standards.</p> <p>b) Main Circuit Breaker (Incomer MCCB):</p> <p>Qty. = 02</p> <p>No. of poles = 4 Pole</p>				



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Sl.No	Description of Work / Item(s) with technical specifications	No. of Qty	Units	Alloted/ Quoted Rate	Amount
28	<p>Current Rating = 100-125 A  Rated operational voltage = 415 V + 15 %  Rated frequency = 50+/-3%Hz  Ambient temperature = 40C°  Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 50 KA  Type of release = Thermal-Magnetic  Overload protection = 0.8 – 1xIn adjustable  Short-circuit protection = 6-10xIn adjustable.  Current rating = 100 A  c) Change over Switch  Qty. = 01 No.  Rating = 100 A  Type = Front operated, on load, 4 pole, 400 +15%V, 50 + 3%Hz.  d) Motor Back-up Protection MCCB:  Qty. = 2  No of poles = 3P  Current Rating = 100 A  Rated operational voltage = 415 V +15 %  Rated frequency = 50 + 3% Hz  Ambient temperature = 40C°  Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 36 KA  e) Submersible starters:- Fully automatic star delta/DOL starters.  Capacity = 20 HP  Power Specs = 3 Φ, 415 + 15% V, 50 + 3 % Hz.  Relay range = 20-32 A.  Coil Voltage = 380 v  Protection = single phasing, phase Reversal, phase unbalance (55 ± 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 A.  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.  Qty. = 02 No's, (01 for each starter) MM10 L&amp;T  h) M-power module for mobile starter for submersible motor 1P/3P 3 wire,  Qty. = 2 No's.  IVRS Languages ~ English, Hindi,  Suitable Region- North India  Qty. = 02 No's, (01 for each starter)  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.  (Electric Accessories Make: L&amp;T/Havells/Anchor/ABB/GM)</p>	2.000	Job	182452.118	364904.24
	<p>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 &amp; fitted with accessories as under:</p> <p>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 100/200 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.</p> <p>b) Main Circuit Breaker (Incomer MCCB):  Qty. = 02  No. of poles = 4 Pole  Current Rating = 100 A.  Rated operational voltage = 415 V + 15 %  Rated frequency = 50+/-3%Hz  Ambient temperature = 40C°  Ultimate S.C Breaking Cap. at (415V AC, 50 Hz) = 36 KA  Type of release = Thermal-Magnetic  Overload protection = 0.8 – 1xIn adjustable  Short-circuit protection = 6-10xIn adjustable.  Current rating = 100 A  c) Change over Switch:  Qty. = 01 No.  Rating = 100 A  Type = Front operated, on load, 4 pole, 400 +15%V, 50 + 3%Hz.</p>				



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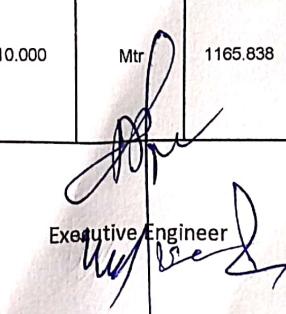
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33	Providing and Fitting of three/single-Core, copper pvc insulated Cable, XLPE armoured conforming to IS 7089 part 1st for internal connections crimping, taping etc. NOTE - The cable terminal ends for connection to switchgear at various requisite points shall be Al. Thimbles and of appropriate size and connected by hydraulic crimp tool only <b>Single core PVC Insulated 25 sqmm (Make: Havells/Polycab/Finolex/L&amp;T)</b>	90 000	Mtr	381.195	34307.55
33 01	<b>Single core PVC Insulated 16 sqmm (Make: Havells/Polycab/Finolex/L&amp;T)</b>	90 000	Mtr	239.940	21594.60
34	Providing and fitting of prodigy LT Meter of following specification complete with all fixtures required for fitting at site for above mentioned scheme Type E3L 100, 3 Phase 4-wire Measurements offered KWh, KVARh, KVAh, KVA Voltage: 2240 V (415 V) 50 Hz. Lb 40 A I max : 200A Battery : Lithium	1 000	Job	24187.500	24187.50
35	P/I of earthing station for substation, LT panel, DG set 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	7.000	No	10121.985	70853.90
36	Providing, Installation, Testing & commissioning of 415 ±10%V (output), 3 phase 82.5 KVA Water Cooled Diesel Generator set as per IS 8528 (2018) and ISO 3046 (2002) for engine and IEC/IS 60034-1 for alternator suitably assembled and fitted in a pollution free acoustic enclosure / canopy of required size as per Ministry of Environment protection rule 1986 read with latest amendments. The DG Set is required to be fitted and tested on load at site The DG Set shall have following specifications: The DG Set shall be able to operate at 1600 mtrs ASL (at actual site conditions) efficiently without causing any malfunctioning. The DG Set shall comprise of Diesel Engine and Alternator coupled together with heavy duty flexible coupling and mounted on M. S. Base Frame along with all standard accessories, Control Panel, Battery, M. S. Canopy, duly painted and conforming to noise reduction norms as per environmental protection rules 1986 as laid down by Ministry of Environmental (Protection) and Forest, read with GSR-371(E) Dated: 17-05-2002 at S. No 95 for emissions limits and GSR-371 (E) Dated: 17-05-2002 at S. No 94 (Paragraph 1 and 3) for noise limits for the DG Set and as per the latest amendments if any. Besides the above works the D.G set shall be provided with 12 V, 150 AH Lead acid battery of reputed make fitted inside the D.G set Canopy along with necessary accessories like fuel tank (inbuilt) etc and battery charger of required capacity. DG Set should be rated for continuous duty with overload provision of 10% for the period not exceeding one hour in twelve hours. A) ALTERNATOR :- The alternator shall be self-excited, self-regulated and shall be brushless, continuous duty. The alternator shall be screen protected drip proof enclosure, and horizontal foot mounted in double bearing construction. a) Rated Output: 82.5 KVA b) Rated Speed: 1500 RPM c) Efficiency at full load 0.8 P.F. = Not less than 86.00% or as per relevant IS code. d) Total distortion factor = less than 3% e) Voltage: 415 V at 50 Hz f) Class of Insulation: H g) Enclosure: IP 23. h) Governor = Electronic Standards: Standards: The alternators shall be in accordance with the following standards as are applicable a. IS-4722/IS-2613:1970. The performance of rotating electrical machines. b. IS-4889/BS 269 rules for method of declaring of efficiency of electrical machines. B). DIESEL ENGINE (Prime Mover) The Prime Mover shall be diesel driven to develop requisite BHP as per ISO-8528-part- I at 1500 RPM for the alternator rated as above with ambient temperature ranging from -10C to +45C with 70% humidity. a) Speed: 1500 RPM b) Cooling System: Water Cooled c) Method of Start: Electric Start with a Key. d) Rated BHP: Suitable for 82.5 KVA output at NTP as per ISO-8528-part- I. Aspiration turbo charged The engine shall be fitted with following accessories:- 1) Fuel Tank: The capacity of the fuel tank shall be so as to last for 12 hours of continuous running on full load. The fuel tank shall be mounted on an angle iron frame of suitable height and fabricated out of M.S. Sheet of 4 mm Thickness duly painted and fitted with connections for inlet, outlet and return and also to be provided with air vent, drain with valve, level indicator and fuel pipes complete in all respects. 2) Battery: Battery suitable for above capacity DG set. 3) Starting System: Providing and Fitting of Terminals, Leads, C/W Charging Dynamo and fitted with 12 Volt Starting System. The system shall be able of starting of DG set with 20-30 Sec even in winter conditions with ambient temp down to -50C 4) Engine Instrument Panel: The Engine Instrument Panel shall be fitted with starting switch with keys, Lube Oil Gauge, Temperature & Pressure Gauge, Speedometer, Kilowatt Hour Meter etc and all other accessories as required. 5) Safety Control: The D. G. Set shall be provided & fitted with all the safety controls i.e. for Low lube oil Pressure indication switch, High water temperature Indication, RPM indication, water temperature indication, battery charging indication etc. C) Standard Control Panel: -	1.000	Job	826327.238	826327.24

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	<p>The control panel shall be fabricated out of suitable sheet steel duly pretreated and aesthetically finished. The control panel shall be totally enclosed, dust and vermin proof, floor/ wall mounted type. The control panel shall consist of following instruments.</p> <ul style="list-style-type: none"> <li>i). A.C Voltmeters of class 1.5 accuracy and 0-600 V with 4 position Selector switch.</li> <li>ii). A.C Ammeter of class 1.5 accuracy and of suitable range.</li> <li>iii). HRC Fuses of suitable rating.</li> <li>iv). One MCB of suitable rating for D.G Sets.</li> <li>v). Frequency meter.</li> <li>vi). Power Factor meter digital type above 15 KVA</li> <li>vii). Push buttons switch for ON and OFF operation.</li> <li>viii). Pilot lamps.</li> <li>ix). Battery charger/inverter with voltage regulator, Voltmeter and Ammeter for charging the battery from Mains. This will be in addition to battery charging alternator fitted on the engine.</li> <li>x). Energy meter (class-2) of suitable rating conforming to relevant IS for DG Sets above 15 KVA rating.</li> <li>xi). Instrument and control fuses.</li> </ul> <p>All the components in the control panel shall be properly mounted, duly wired and labelled. Suitable terminals shall be provided for incoming and outgoing connections. The instruments / components shall be of reputed make. Item No ii, v, vi, and x can be alternately supplied in one combined digital meter.</p> <p><b>Canopy</b></p> <p>The Canopy of the D.G. Set shall be fabricated out of M.S. Sheet of required gauge so as to withstand the snow load etc. duly painted. The Canopy shall be as per the Norms of the as laid down in the environmental protection rules 1986 of Ministry of Environmental (Protection) and Forest, read with GSR-371(E) Dated: 17-05-2002 at S. No 95 for emissions limits and GSR-371(E) Dated: 17-05-2002 at S. No 94 (Paragraph 1 and 3) for noise limits for the DG Set and as per the latest amendments if any.</p> <p>The job also includes the cost on account of HSD and skilled operator required for operation of D.G set for a period of 10 hours continuously during its testing and commissioning of D.G set at site. The size of the DG is given below:</p> <p>(Suggested Make: Mahindra/Eicher/Kirloskar/Cummins)</p>				
37	<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 equipment. The cylinder used for fire extinguisher shall be approved by petroleum and explosive safety organization (PESO) as per gas cylinder rules 2004 and as per IS: 7285 of 2004. The body should be made of seamless steel (manganese) confirming to IS: 7285 with IS mark and should be provided with squeeze grip nozzle and should be filled with co2 confirming to IS: 15222 of 2002 with certificate. The extinguisher shall be provided with manufacturers test certificate and hydraulic test certificate by BIS from PESO.</p>	4.000	Job	6237.473	24949.89
38	<p>Illumination of Premises:</p> <p>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.</p> <ol style="list-style-type: none"> <li>1) 3 Way Terminal Connector 20 Amp.</li> <li>2) 3 No MCB 6 Amp.</li> </ol> <p>The job includes fabrication, providing and fitting of three arm GI structures 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.</p> <p>The job also includes providing and fitting of required length of flexible multistrand 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 2x2x6" (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>	2.000	Job	21503.655	43007.31
39	<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)</p> <p>Having following specs:</p> <p>Input: 90-240 V 50 Hz</p> <p>Power Factor: &gt;0.9</p> <p>Colour Temperature: 4K - 6.5K Beam Angle: 120° - 170° Lumens: &gt;12000</p> <p>Operating Temperature: -20°C to 60°C</p> <p>The LED is pressure die cast aluminum housing with power coated finish and having Ingress Protection up to IP-68.</p> <p>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>	6.000	Job	9177.705	55066.23
40	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.	2.000	Job	7888.995	15777.99
41	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	2154.623	4309.25
42	Supply, installation, Testing & commissioning of 1000VA Full Sine wave power inverter including Providing / Installation of 12V, 180AH Tubular inverter Battery with trolley and cover with 2-core 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. (Make: Exide/Luminous)	2.000	Job	32946.278	65892.56
43	<p>Providing, laying &amp; fixing of shock proof rubber mats with adhesive/bonding material 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)</p> <p>Thickness: - 2.5mm Size: - 1M wide.</p> <p>The rubber mats shall be accepted with manufacturers test certificate.</p>	10.000	Mtr	1165.838	11658.38

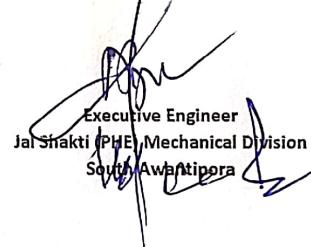

 Executive Engineer

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44	<p><b>TOOL KIT For Maintenance:</b> - 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. ( Taparia /Bosch)</p> <ul style="list-style-type: none"> <li>i Double ended Spanner (Chrome plated) 02 sets complete</li> <li>ii Double ended Ring spanners chrome plated 02 sets complete</li> <li>iii Allen key set black finish 02 sets complete</li> <li>iv Combination Pliers insulated with thick C.A sleeve, size in mm 165, 210, 255 each – 02 No.</li> <li>v Long nose pliers insulated with thick C.A sleeve, size in mm 165, 205 each – 02 No</li> <li>vi Side cutting pliers insulated with thick C.A sleeve, size in mm 165, 205 make – 02 No</li> <li>vii Insulated screw Drivers ( Taparia /Bosch)</li> </ul> <table> <thead> <tr> <th>Blade length</th> <th>Blade dia.</th> <th>Tip dimensions</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>3</td> <td>1.6 x 0.4</td> <td>02</td> </tr> <tr> <td>75</td> <td>3</td> <td>1.6 x 0.4</td> <td>02</td> </tr> <tr> <td>100</td> <td>3</td> <td>3 x 0.4</td> <td>02</td> </tr> <tr> <td>125</td> <td>3.5</td> <td>3.5 x 0.5</td> <td>02</td> </tr> <tr> <td>150</td> <td>3.5</td> <td>3.5 x 0.5</td> <td>02</td> </tr> <tr> <td>200</td> <td>4</td> <td>4 x 0.6</td> <td>02</td> </tr> <tr> <td>300</td> <td>5</td> <td>5 x 0.8</td> <td>02</td> </tr> </tbody> </table> <p>viii Hammer with handle weight – 110 mg. 340 gm . 600 gm –each – 1No .</p> <p>ix Heavy duty pipe Wrench length in mm - 200, 300, 600 each – 01 No. RIGID/IRWIN/Maxpower</p> <p>x Electric Multi-meter =1No Make Fluke /Klein</p> <p>xi Digital Clamp tester capable to measure up to 400A - 1 No. Make. Fluke /Klein</p> <p>xii Hack saw frame with hack saw blade – 01 no.</p> <p>xiii S-16 MXL, S- 16 H X L Socket Set (19 sockets + 6 Accessories) – 01 No. Make: Taparia /Bosch Tool Kit Make: Taparia /Bosch/Jelani</p>	Blade length	Blade dia.	Tip dimensions	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	1.000	Job	27902.700	27902.70
Blade length	Blade dia.	Tip dimensions	Quantity																																		
50	3	1.6 x 0.4	02																																		
75	3	1.6 x 0.4	02																																		
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300	5	5 x 0.8	02																																		
45	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	190.000	Kg	89.978	17095.73																																
46	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	Sft	135.450	4876.20																																
47	<p>a) Providing of good quality bedding for night stay/Shift consisting of :-</p> <ul style="list-style-type: none"> <li>i) Mattress with warm cover size 6'x3' (6Kg)- 02 No's</li> <li>ii) Quilt with warm cover size 5'x8' (6Kg)- 02 No's</li> <li>iii) Pillows with covers - 02 No's</li> <li>iv) Single bed warm blankets with one sided Fur- 02 No's</li> </ul> <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 patella (utensil) 5ltrs 02 No's, cooking heater 01 No., room heater 01 No., steel buckets 10 litre capacity 01 No., Plastic bucket 10 litre capacity with Mug 02 No's each, steel glasses 06 No's, steel Plates with large spoons and bowls 03 No's each, Cup and Saucer set (01 No. Set) and, 5kg Gas cylinder with burner/ stove. The job also includes providing of thermo-cool 15'x12' along with excel matting of 15'x12' size. The job also includes providing of unbreakable Plastic Chair table set consisting of chairs 04 No's, extra heavy Table 01 No. The job also includes providing of good quality safety Door locks (03 No's) of Godrej, Link locks.</p>	1.000	Job	38331.383	38331.38																																
48	Providing of solar/ electrical lantern chargeable on both solar & electrical 220v supply.	3.000	Job	1848.893	5546.68																																
49	Providing of bamboo ladders 18 feet long along with 15 feet long Link rods and HT Glove pair (01 No each)	1.000	Job	7111.125	7111.13																																
50	Providing of 1 KW heat convector for operators for winter season.	3.000	Job	1165.838	3497.51																																
51	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	3868.065	34812.59																																
52	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 5mm and MS sheet of 1 mm thick	24.000	Sft	241.875	5805.00																																
53	Plat form/Liner/Gantry Mechanism: Structural Steel work in built up welded sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	6400.000	Kg	133.709	855734.40																																
54	Providing corrugated G.S Sheet roofing including vertical/ curved surface fixed with polymer coated J or L Hooks, bolts and nuts 8 mm dia. diameter with bitumen and G.I limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (upto any pitch in horizontal /vertical or curved surface) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. 0.50 mm thick with zinc coating not less than 275 gram/m2 High Rib.	20.000	Sqm	819.860	16397.19																																
55	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.	41.000	Sqm	187.308	7679.63																																
56	Providing and fixing of PUF Enclosure in Walls, Ceiling ridges etc made up of 50/60 mm thick rigid PUF, CFC free with profile surface on one side, conforming to IS-12436-88 with subsequent amendments having density of $40\pm2$ kg/m3 sandwiched between 0.5 mm pre-painted Galvanized steel sheet as per IS-14246-95 with subsequent amendments with 18-20 microns of Exterior Polyester Coating of white color on epoxy primer on both sides. The basic substrate is Gr-120 Hot dip Galvanized steel. The panels are made by continuous line and are joined together by means of Tongue-n-groove joint system. The joints shall be air-tight by using proper sealant (like silicon PU foarn etc). The PUF panels have closed cell content of 90-95%; Thermal Conductivity of 0.023 at 10W/mK; Compressive strength of 2.1 Kg/m2 (at 10% deformation); Water vapor permeability 0.08 0.12 gm/h_m2; Self-extinguishing fire property. Make : Conforming to IS code	50.000	Sqm	2581.290	129064.50																																

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Sl.No	Description of Work / Item(s) with technical specifications	No. of Qty	Units	Alloted/ Quoted Rate	Amount
57	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 01 meter from cutting edge)	160 000	cum	463 723	74195.64
58	Providing and laying hand packed stone soiling hand packed in foundation including ramming, watering and consolidating complete, cost and carriage of all materials involved upto site of work-all complete	8 000	cum	1021 680	8173.44
59	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 : 4 : 8 mix (1 cement , 4 coarse sand , 8 graded stone aggregate 20 mm nominal size) including cost of carriage of all materials involved upto site of work -all complete	8 000	cum	5033 806	40270.45
60	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchors blocks, plain window sills, fillets etc upto floor V level, including curing but excluding the cost of centring, shuttering and finishing with: 1:3.6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	20 000	cum	7260.701	145214.01
61	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 and lift upto 1.5m.	80.000	cum	211.302	16904.16
62	Centering and shuttering including strutting, propping etc. and removal of form for: Columns, pillars, piers, abutments, posts and struts.	20.000	Sqm	682.813	13656.26
63	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 : Make = Pull Lift/Globe/Indef/Equivalent No. Of load chain falls = 2 or above Min. Height of lift = 6 M Capacity = 2 ton	1.000	Job	43027.628	43027.63
64	Capacity = 3 ton	1.000	Job	60925.410	60925.41
<b>Total in Figures:</b>					
<b>7717212.279</b>					
<b>Total in Words: Rupees Seventy-Seven Lac, Seventeen Thousand, Two Hundred &amp; Twelve Only,</b>					

Executive Engineer  
Jai Shakti (PHE) Mechanical Division  
South Awantipora



Executive Engineer

