

**OFFICE OF THE EXECUTIVE ENGINEER (Mech.)**  
**IRRIGATION MECHANICAL DIVISION, MOHANIA**

Letter Nos.....251...../Mohania

Date:-01-04-2026

**Short Quotation Invitation Notice Nos.- 01/2026-27**

This Quotation is being invited for Rate against the following items related to Supply, Installation, Testing, Commissioning and Maintenance of Electrical, Mechanical works with all other allied components for helping estimate preparation of repair & maintenance at respective Pump house and other sites under irrigation Mechanical Division Mohania.

This Quotation is being invited from reputed firms/institutions. The Submission of rates under this quotation does not guarantee for the award of work. It is advised to submit their quotation only after proper site inspection. Quotation shall be accepted by registered post or on official Email id- imd.mohania@gmail.com till date 10.04.2026.

The rate quoted shall be inclusive of transportation charge and all other cost but exclusive of GST & Labour cess.

The Technical Particulars are :-

S. No	Description of Items	Unit	Rate
<b>Part A :- Electrical Items</b>			
1	<b>HT / LT Panel</b>		
1.1	<b>PANEL Component and Circuit Breaker Accessories</b>		
a	Dismantling of 500 Hp incomer Minimum Oil circuit breaker from respective pump house site, including transportation charges and labour cost.	Job	
b	Dismantling of 1200 Hp incomer vacuum circuit breaker from respective pump house site, including transportation charges and labour cost.	Job	
c	S.I.T.C. Breaker Control Rotary Switch (Trip- Neutral - Close)	Each	
d	Repairing of Lever Lock mechanism system of Breaker	Job	
e	Repair Work Breezing and silver plating of male and female contact	Set	
f	S.I.T.C of Spring Charging Motor	Job	

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g	S.I.T.C Tripping coil and closing coil	Job	
h	Breezing and silver plating of male and female contact (both fixed and movable ) of circuit breaker	Set	
i	Silver breezing and silver plating of the main fixed contacts.	Job	
j	Silver breezing and silver plating of copper flat contacts.	Job	
k	Silver plating of flexible copper support connectors.	Job	
l	Silver plating of fixed mounting components.	Job	
m	Welding and machining of lever lock assembly.	Job	
n	Supply and installation of rectifier circuit module for converting AC to DC, consisting of bridge rectifier, filtering components, and protection devices. The circuit shall be suitable for providing stable DC output for control applications.	Each	
o	S.I.T.C VCB interrupter tube for Vacuum Circuit Breaker	Each	
p	Complete dismantling of the breaker, testing, re-assembly, and fitting,/installation of spare parts, including transportation and labour charges.	Job	
q	Transportation of circuit breaker from workshop to site and vice versa, including labour charges for unloading and re-assembly at site.	Job	
r	Supply of Switch Mode Power Supply (SMPS) with input 230V AC and output 12V DC, minimum 2A or as required, with overload, short circuit, and over-voltage protection. The unit shall be suitable for industrial control panels.	Each	
s	Supply of contact cleaner / rust preventive spray (CRC or WD-40 equivalent) used for cleaning electrical contacts, removing moisture, and protecting metallic components against corrosion during maintenance.	Each	
<b>1.2</b>	<b>Measuring Instruments</b>		
a	S.I.T.C. Voltmeter 6.6 KV/110 V	Each	
b	S.I.T.C. Voltmeter 0-500 V	Each	
c	S.I.T.C. KV meter 96 x 96, 0-15 V	Each	
d	S.I.T.C. Power factor meter 96 x 96, 1A/110V	Each	
e	S.I.T.C. frequency meter 96 x 96	Each	

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f	S.I.T.C. Ammeter 0-30A	Each	
g	S.I.T.C. Ampere meter 0-250 A (250/5A)	Each	
h	S.I.T.C. Ampere meter 96 x 96, 0-100 A (100/1A)	Each	
i	S.I.T.C. Ampere meter 96 x 96, 0-30 A (100/1A)	Each	
<b>1.3</b>	<b>Panel Miscellaneous Items</b>		
a	Supply and installation of LED indication lamps suitable for panel mounting, rated for 230V AC / 415V AC, complete with necessary wiring and accessories. Lamps shall be of Red, Yellow, and Blue colors for phase indication and shall be suitable size for mounting hole.	Each	
b	Supply and installation of panel mounting neon lamps complete with built-in resistor and mounting accessories. Lamps shall be used for status or voltage presence indication.	Each	
c	Servicing of control panel and complete control wiring including replacement of damaged wires, ferruling, termination, tightening, testing, and commissioning, complete in all respects.	Job	
d	Supply and filling of transformer oil for minimum oil circuit breaker, including cost of packing, loading, transportation, unloading at site, complete as required.	Per Ltr	
e	SITC of approved quality rotary switch of required rating, including all materials, wiring, fixing, and connections, complete in all respects.	Each	
f	Supply and installation of panel mounting push buttons, industrial duty type with NO/NC contacts as required. Push buttons shall be suitable for control circuit operation (230V AC) and provided with durable actuator and contact blocks.	Each	
g	S.I.T.C. of volt selector switch of suitable rating, complete with wiring, connections, and all accessories, as required.	Each	
h	S.I.T.C. of ampere selector switch of suitable rating, complete with wiring, connections, and all accessories, as required.	Each	
i	Supply and fixing of panel door lock with key and gas spring (gas kit) suitable for panel operation, including all fittings and accessories, complete in all respects.	Job	
j	S.I.T.C. of copper lugs ring type suitable for 2.5 sq mm cable with 4 mm hole, including crimping, termination, and all	Each	

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	accessories, complete in all respects.		
k	S.I.T.C. of panel space heater of suitable rating mounted on appropriate ceramic/porcelain insulators, complete with wiring, accessories, installation, testing, commissioning, and all labour and transportation charges.	Each	
l	S.I.T.C. of breaker switch of suitable rating and approved make, complete with all accessories, connections, installation, testing, commissioning, and all labour and transportation charges.	Each	
m	S.I.T.C. of contact spring suitable for breaker mechanism, complete with all accessories, fitting, replacement, and all labour and transportation charges.	Each	
<b>2</b>	<b>SWITCHGEAR and other related accessories</b>		
a	Supply, installation and fixing of HRC Fuse (2A-20A )	Each	
b	Supply, installation and fixing of 25A HRC Fuse	Each	
c	Supply of 32 A 415 V Type HF HRC Fuse	Each	
d	Supply of 63 A 415 V Type HF HRC Fuse	Each	
e	S.F.F. 200A HRC Fuse	Each	
f	S.I.T.C. 250 A TPN main switch - with HRC type	Each	
g	S.F.F. Panel Fuse base with Carrier	Each	
h	S.I.T.C. contactor 3P 415V 25 A	Each	
i	S.F.F. 32A 415V 3 Ph Contactor	Each	
j	S.I.T.C. Over load relay 0-16A	Each	
k	S.F.F. of 100A, 4P RCCB, 30mA with box enclosure and Clamp	Set	
l	S.F.F. of 2P MCB box enclosure and Clamp	Set	
m	S.F.F. of 4P MCB box enclosure and Clamp	Set	
<b>3</b>	<b>Supply and application of approved quality insulation tapes including All materials, labour, tools, and accessories required to complete the work Surface preparation, cleaning, and finishing of insulated portions, for motor terminal connections and associated electrical works.</b>		
a	Supply and fixing of Capton Tape	Meter	

b	Supply and fixing of Glass mica Tape	Meter	
c	Supply and fixing of Glass tape	Meter	
d	Supple and fixing of Empire tape	Meter	
e	Supply and fixing of Shrinking Tape	Meter	
f	Supply and Fixing of Thermica Tape	Meter	
4	<b>Cable/ wires and Accessories including dressing, clamping on wall or trench, proper termination with cable glands, lugs, and testing complete with all labour and materials as per specification and direction of E/I including transportation charges and labour cost.</b>		
4.1	Supply at the site of work of 1.1 kV grade, Copper Conductor, XLPE/PVC Insulated, Technical Specifications of the following sizes:		
a	Supply and laying of 2 Core X 1.5 Sq. mm Copper Cable	Meter	
b	Supply and laying of 3 Core X 1.5 Sq. mm Copper Cable	Meter	
c	Supply and laying of 3 Core X 2.5 Sq. mm Copper Cable	Meter	
d	Supply and laying of 4 core x 4 sq.mm copper conductor PVC insulated and sheathed armoured cable (1100 V grade) from starter to pump	Meter	
4.2	Supply of 3 Core X 10 Sq. mm, 1.1 KV grade, XLPE/PVC insulated PVC sheathed ( Heavy Duty) armoured electric cable with Aluminium conductor	Meter	
4.3	Supply of 4 Core X 25 Sq. mm, 1.1 KV grade, XLPE/PVC insulated PVC sheathed ( Heavy Duty) armoured electric cable with Aluminium conductor	Meter	
4.4	S.F.F. of Al.& Copper lugs and its proper Crimping	Each	
4.5	Supply of PVC Electrical Insulation Adhesive tape	Each	
4.6	Labour Charges for Excavation and Laying of cable Meter including sand and brick work	Meter	
5	<b>Testing and Repairing of Protection Relays complete job including inspection, cleaning of terminals and contacts, functional testing, calibration, and submission of calibration/test certificate and relay setting record after completion, conforming to IEC 60255, IS 3231, and manufacturer's standards, complete with all labour,</b>		

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	tools, testing instruments, consumables as directed by E/I.		
a	<b>Testing and repairing of Over Voltage Relay</b> including functional testing, calibration and verification of pick-up/drop-off voltage by secondary injection kit, inspection of wiring and control supply, cleaning/tightening of terminals and replacement of defective components, complete.	Job	
b	<b>Testing and repairing of Under Voltage Relay</b> including control supply checking, functional testing, calibration and verification of trip voltage by secondary injection kit, inspection of wiring, cleaning of terminals and replacement of defective components, complete.	Job	
c	<b>Testing and repairing of Definite Time Lag (DTL) Relay</b> including functional testing, verification of current setting and operating time using relay test kit, terminal cleaning, minor repairs and replacement of defective components, complete.	Job	
d	<b>Testing and repairing of IDMT (Inverse Definite Minimum Time) Relay – (2 Over current + 1 Earth Fault + 1 High Fault (Phase))</b> including checking of plug setting, TMS and tripping characteristics using secondary injection kit, inspection, cleaning, calibration adjustment, replacement of defective components and retesting, complete.	Job	
e	<b>Testing and repairing of High Speed Tripping Relay (HSTR)</b> including functional verification, timing test, pick-up/drop-off test, continuity check of trip contacts, inspection of auxiliary circuits, cleaning and replacement of defective components, complete.	Job	
f	<b>Testing and repairing of Multifunction Motor Protection Relay</b> (overload, phase failure, phase unbalance, earth fault, under/over voltage, stall etc.) including complete functional testing with relay test kit, inspection of wiring/control supply, cleaning of terminals and replacement of defective components, complete.	Job	
g	<b>Testing and repairing of Over-Current relay (Inverse) type CDG</b> including contact cleaning, insulation resistance and coil testing, calibration of current and TMS settings, secondary injection testing and restoration to serviceable condition, complete. as per direction of E/I.	Job	

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h	<b>Testing and repairing of Earth Fault relay ( Inverse ) type CDG</b> including dismantling, inspection, contact/coil testing, calibration of PSM and TMS settings, secondary injection testing and checking tripping accuracy, complete. as per direction of E/I.	Job	
i	<b>Testing and repairing of Instantaneous Under Voltage Relay type VAG</b> including inspection of coil, adjustment of pick-up voltage, contact resistance testing, calibration, cleaning and secondary voltage injection testing, complete as per direction of E/I.	Job	
j	<b>Testing and repairing of Motor Protection Relay type CTM</b> including inspection of thermal/magnetic elements, verification of sensing circuits, cleaning of contacts, calibration and functional testing for overload, single phasing and earth fault protections, complete as per direction of E/I.	Job	
6	<b>S.I.T.C. of 11kV AB Switch: Supply, Installation, Testing and Commissioning of 11kV Air Break (AB) Switch, outdoor type, triple pole, gang operated, suitable for off-load operation, rated 11kV, 50Hz with 200A–1250A current rating, complete with porcelain/polymer insulators, operating mechanism, base frame, arcing horns, connectors, mounting hardware and all accessories, conforming to relevant IS/IEC standards, including erection, alignment, testing and commissioning.</b>	Job	
7	<b>Heating and Re-varnishing Work</b>		
7.1	<b>Heating and re-varnishing of 3-phase 500 HP, 60 Cusec foot mounted slip ring induction motor</b>		
a	<b>Dismantling, Cleaning and Pre-Testing of Motor: Pre-maintenance testing of insulation resistance (IR), resistance and inductance using 5 MΩ megger/motor checker; dismantling of motor including removal of rotor from stator and DE/NDE end covers; thorough cleaning of stator and rotor using approved thinner (Dr. Beck or equivalent), petrol and high-pressure air compressor.</b>	Job	
b	<b>Heating and Insulation Varnishing Treatment: Heating of stator and rotor up to 160°C using controlled FINS heater system; application of HT insulating varnish (STANVAC Red hydrophobic or equivalent approved make) on stator and rotor windings; baking/curing of varnish at controlled temperature up to 160°C.</b>	Job	

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c	<b>Bearing Servicing and Minor Mechanical Repairs:</b> Cleaning of DE and NDE bearings with petrol, lubrication with approved high-temperature grease; denting, painting and carrying out minor mechanical repairs of motor body and accessories.	Job	
d	<b>Re-Assembly, Alignment and Sealing:</b> Re-assembly of motor after servicing including fitting of rotor, bearings and end covers; placement on foundation using crane; coupling alignment using dial gauge ensuring proper axial, radial and horizontal alignment; sealing of terminal box with ANABOND resin or equivalent for protection against air and moisture.	Job	
e	<b>Final Testing and Trial Run:</b> Post-maintenance testing including IR value, resistance and inductance measurement using 5 M $\Omega$ megger/motor checker; conducting final no-load trial run and checking/recording current in all three phases to ensure satisfactory performance.	Job	
f	Charges for labour, tools & tackles, crane handling, transportation, safety equipment, boarding & lodging and all consumables required for complete execution of the work.	Job	
7.2	<b>Heating and re-varnishing of 3-phase 1200 HP, 150 Cusec foot mounted slip ring induction motor</b>		
a	<b>Dismantling, Cleaning and Pre-Testing of Motor:</b> Pre-maintenance testing of insulation resistance (IR), resistance and inductance using 5 M $\Omega$ megger/motor checker; dismantling of motor including removal of rotor from stator and DE/NDE end covers; thorough cleaning of stator and rotor using approved thinner (Dr. Beck or equivalent), petrol and high-pressure air compressor.	Job	
b	<b>Heating and Insulation Varnishing Treatment:</b> Heating of stator and rotor up to 160°C using controlled FIN heater system; application of HT insulating varnish (STANVAC Red hydrophobic or equivalent approved make) on stator and rotor windings; baking/curing of varnish at controlled temperature up to 160°C.	Job	
c	<b>Bearing Servicing and Minor Mechanical Repairs:</b> Cleaning of DE and NDE bearings with petrol, lubrication with approved high-temperature grease; denting, painting and carrying out minor mechanical repairs of motor body and accessories.	Job	

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d	<b>Re-Assembly, Alignment and Sealing:</b> Re-assembly of motor after servicing including fitting of rotor, bearings and end covers; placement on foundation using crane; coupling alignment using dial gauge ensuring proper axial, radial and horizontal alignment; sealing of terminal box with ANABOND resin or equivalent for protection against air and moisture.	Job	
e	<b>Final Testing and Trial Run:</b> Post-maintenance testing including IR value, resistance and inductance measurement using 5 MΩ megger/motor checker; conducting final no-load trial run and checking/recording current in all three phases to ensure satisfactory performance.	Job	
f	Charges for labour, tools & tackles, crane handling, transportation, safety equipment, boarding & lodging and all consumables required for complete execution of the work.	Job	
7.3	<b>Heating and re-varnishing of 3-phase 60 HP, 16 Cusec foot mounted slip ring induction motor</b>		
a	<b>Dismantling, Cleaning and Pre-Testing of Motor:</b> Pre-maintenance testing of insulation resistance (IR), resistance and inductance using 5 MΩ megger/motor checker; dismantling of motor including removal of rotor from stator and DE/NDE end covers; thorough cleaning of stator and rotor using approved thinner (Dr. Beck or equivalent), petrol and high-pressure air compressor.	Job	
b	<b>Heating and Insulation Varnishing Treatment:</b> Heating of stator and rotor up to 160°C using controlled FINS heater system; application of HT insulating varnish (STANVAC Red hydrophobic or equivalent approved make) on stator and rotor windings; baking/curing of varnish at controlled temperature up to 160°C.	Job	
c	<b>Bearing Servicing and Minor Mechanical Repairs:</b> Cleaning of DE and NDE bearings with petrol, lubrication with approved high-temperature grease; denting, painting and carrying out minor mechanical repairs of motor body and accessories.	Job	
d	<b>Re-Assembly, Alignment and Sealing:</b> Re-assembly of motor after servicing including fitting of rotor, bearings and end covers; placement on foundation using crane; coupling alignment using dial gauge ensuring proper axial, radial and horizontal alignment; sealing of terminal box with ANABOND resin or equivalent for protection against air and	Job	

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	moisture.		
e	<b>Final Testing and Trial Run:</b> Post-maintenance testing including IR value, resistance and inductance measurement using 5 MΩ megger/motor checker; conducting final no-load trial run and checking/recording current in all three phases to ensure satisfactory performance.	Job	
f	Charges for labour, tools & tackles, crane handling, transportation, safety equipment, boarding & lodging and all consumables required for complete execution of the work.	Job	
7.4	<b>Provision for Annual Maintenance of Submersible Pump motor set 75 HP, 3 ph 415 V</b> including Aqua engineer service charges, heating and varnishing of motor, maintenance of miscellaneous items, greasing, and attending minor repairs, complete with labour, tools, tackles, consumables, and transportation to ensure satisfactory operation throughout the contract period.	Job	
8	<b>Lift Repair work Accessories including transportation and labour charges for Vishwakarma Pump House</b>		
a	S.F.F. of Air Break contactor 415 V 3-phase,	Each	
b	S.F.F. of Gate Lock	Each	
c	S.F.F. of Digital Display Board	Each	
d	Display unit wiring -Includes supply of wires, terminals and connections for digital display unit.	Each	
e	S.F.F. of Cav internal gate contact	Each	
f	S.F.F. of Limit Switch	Each	
g	S.F.F. of lift control relay card /S.S.F.R. Card (Solid State Fault Relay) for controller unit.	Each	
h	S.F.F. of Push Button Switch, for floor and cabin control	Each	
i	S.F.F. of EP 90 Gear oil for lift machine gearbox	Each	
j	S.F.F. of Rope chemical -Anti-corrosive rope lubricant for wire ropes.	Each	

k	S.F.F. of Board for Display unit	Each	
l	Repair work of Governor Wheel -Includes cleaning, balancing, alignment and lubrication of governor assembly.	Each	
m	Lubrication of guide rails, sheaves, bearings and gear train with recommended grease. Oiling And Greasing of Complete lift system	Each	
n	Labour charges for Complete Dismantling of lift, removal, rewiring, alignment, testing and commissioning of entire lift system. Includes functional and safety tests as per IS:14665	Each	
<b>9</b>	<b>Repair and Maintenance EOT Crane</b>		
a	Provision for repairing of crane motor including heating, varnishing, and replacement of defective parts (if required), complete with labour, materials, tools, and transportation, as per specifications and direction of E/I.	Job	
b	Provision for supply and filling of gear oil for EOT crane, including all materials, labour, and handling, as per specifications and direction of E/I.	Job	
c	Provision for repairing of EOT crane starter including replacement of defective components/spare parts, complete with labour and materials, as per specifications and direction of E/I.	Job	
d	Provision for repairing/replacement of bus bar system of EOT crane including necessary spare parts, joints, insulation, and supports, complete with labour and materials, as per specifications and direction of E/I .	Job	
e	Provision for repairing and maintenance of crane brake system including replacement of brake shoes, springs, and other accessories, complete with labour and materials, as per specifications and direction of E/I	Job	
f	Provision for supply and fixing of brake kit of crane with all accessories, complete with labour and materials, as per specifications and direction of E/I	Job	
g	Repair and maintenance of EOT Crane Panel, including replacement of indicators and contactors, along with labour and transportation charges at Site	Job	

h	Supply of heavy-duty flexible multi-core copper control cable (minimum 1.5 sq.mm per core), PVC/FRLS insulated and sheathed, suitable for EOT crane pendant/remote operation, resistant to abrasion,, moisture and mechanical stress, complete with glands, lugs, termination, installation, testing, and commissioning.	Job	
10	<b>Repair and Maintenance of Exhaust Fan motor</b>		
10.1	Repairing and rewinding of burnt stator winding of <b>Exhaust Fan motor (1-phase, 230V)</b> using super enamelled copper wire with Class 'F' insulation, including impregnation, varnishing and heating, replacement of bearings, assembling, testing and commissioning at site, complete in all aspects as per direction of E/I. along with labour and transportation charges form site	Job	
10.2	Rewinding and repairing of burnt winding of <b>3-phase, 415 V Exhaust Fan Motor</b> including removal of burnt coils, cleaning and varnishing of stator core, rewinding with super-enamelled copper wire of existing gauge, insulation with class 'F' materials, baking and impregnation with insulating varnish, reassembly of motor, checking and greasing of both end ball bearings, replacement of defective bearings if required, testing and commissioning with all labour, materials, and tools complete as per specification and direction of E/I. along with labour and transportation charges from site	Job	
11	<b>Repair and Maintenance of Vacuum pump motor</b>		
11.1	<b>S.I.T.C. of 10 HP, 3 Phase, 415 V, 50 Hz vacuum pump</b> , complete with installation, alignment, electrical and piping connections, testing and commissioning for smooth and efficient operation, including all labour, tools, consumables and transportation as per direction of E/I.	Job	
11.2	Provision for Repairing of vacuum pump motor including <b>heating, varnishing, insulation strengthening</b> , testing of winding condition and <b>replacement of defective electrical components (if required)</b> , complete with supply of materials, labour, tools, testing and transportation as per specifications and direction of E/I.	Job	

11.3	Provision for Overhauling and mechanical repair of vacuum pump including <b>bearing cleaning/greasing or replacement, welding works, alignment of motor-pump assembly, replacement of ball bearings, fan cover and terminal box, and other worn-out mechanical components</b> , complete with labour, materials, tools, tackles and transportation as per specifications and direction of E/I.	Job	
12	<b>Repair and Maintenance of Dewatering pump motor</b>		
12.1	<b>S.I.T.C. of 5 HP, 3 Phase, 415 V submersible dewatering pump</b> , complete with installation, lowering in sump, alignment, electrical and piping connections, testing and commissioning for smooth and efficient operation, including all labour, tools, consumables and transportation as per direction of E/I.	Job	
12.2	Provision for Repairing of dewatering pump motor including <b>heating, varnishing and insulation strengthening</b> , testing of winding condition and <b>rewinding (if required)</b> , complete with supply of necessary materials, labour, tools, testing and transportation as per specifications and direction of E/I.	Job	
12.3	Provision for Overhauling and mechanical repairing of dewatering pump including <b>bearing replacement/greasing, welding work, alignment of motor-pump set, replacement of ball bearings, fan cover and terminal box (if required)</b> , complete with labour, materials, tools, tackles and transportation as per specifications and direction of E/I.	Job	
13	Repairing and servicing of Starter for Pump including inspection, cleaning of enclosure, checking/repair of contactors, overload relay, push buttons, indicators, wiring and earthing connections, tightening of terminals, replacement of minor defective components if required, testing and commissioning to ensure proper starting and protection of pump complete with labour, tools and consumables as per direction of E/I.	Job	
14	<b>FAN (Ceiling Fan/Pedestal Fan)</b>		
14.1	Repairing and servicing of ceiling fan including dismantling, inspection, fault finding, and rectification of defects such as replacement of bearings, capacitor, winding (if required), shaft alignment, lubrication, and tightening of all components.	Job	

14.2	Supply of pedestal fan (400/450 mm sweep) of approved make (Usha/Orient/Crompton/Bajaj or equivalent) with oscillating mechanism, adjustable height, speed control, copper motor suitable for 230V, 50Hz single-phase supply, complete with all accessories, power cord, and transportation charges.	Each	
15	<b>Diesel Generator Set</b>		
a	Provision for repair and maintenance of 10 kVA DG set including servicing, minor overhauling, replacement of defective parts, and routine checks, complete with labour, materials, tools, and transportation, as per specifications and direction of E/I.	Job	
b	Provision for repair and maintenance of 63 kVA DG set including servicing, minor overhauling, replacement of defective parts, and routine checks, complete with labour, materials, tools, and transportation, as per specifications and direction of E/I.	Job	
c	<b>Provision for Annual Maintenance of 100 kVA DG Set</b> including periodic servicing, preventive maintenance, testing, minor repairs, and attending breakdowns of engine, alternator, control panel, and all associated systems, complete with labour, tools, tackles, consumables, and transportation, to ensure satisfactory operation throughout the contract period.	Job	
d	S.I.T.C. of 125 KVA silent diesel generator set with AMF (auto on/off) control panel, complete with acoustic enclosure, fuel tank, battery, exhaust system, cabling, earthing, foundation, and all standard accessories, including transportation, installation, testing, commissioning, and connection to existing panels at Durgawati Dam control room for reliable backup power supply, complete in all respects as per specification and direction of E/I (Approved makes: Kirloskar/Mahindra Powerol/KOEL/Ashok Leyland).	Job	
e	S.I.T.C. of AVR (Automatic voltage regulator )	Each	
f	S.I.T.C SMPS 12V 35 A and Cable for charging	Each	
g	Servicing of Engine and Alternator including Mobil change	Job	
16	<b>Battery. Battery Charger, Voltage Stabilizer</b>		

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a	Supply installation, testing and commissioning of Plante/SMF lead-acid battery, 9 set of 12 V DC, 100 Ah capacity Supplied with 35mm <sup>2</sup> cable and 35mm <sup>2</sup> copper lugs, inter-cell connectors and terminals, MS angle racks . Conforming to IS:1651 / IS:13369.	Job	
b	Supply Fitting Fixing, testing and commissioning of Automatic float-cum-boost charger, input 230 V AC, output 12 V DC, 12 A, with digital meters, automatic voltage regulation, protection against over-current, reverse polarity & short circuit as per IS:5852. including supply of wooden table .	Job	
c	Supply Fitting Fixing, testing and commissioning of 6 to 7 MVA 3-phase Automatic servo voltage stabilizer with input 340-460 V, output 415 V $\pm$ 1%, 50 Hz. Efficiency $\geq$ 98%, digital display for voltage/current. Conforming to IS:9815..	Each	
d	Supply Fitting Fixing, testing and commissioning of Combination of 12 V DC, 2 set of 80Ah battery (FXP5-XP800 or equivalent) with 12A Automatic float-cum-boost charger. Includes inter-rack wiring, termination and performance testing for DG set.	Set	
e	Supply, installation, fitting of 12 volt battery 130 Ah for DG Set with labour, material, transportation, taxes all complete job as per specification and direction of E/I.	Each	
f	Supply of <b>Battery Charging Acid</b> suitable for lead-acid batteries of approved make and specification, complete as required.	Per Litre	
g	Supply of <b>Distilled Water</b> suitable for battery electrolyte topping, of approved quality and make, complete as required.	Per Litre	
17	<b>Lightning Protection System with Chemical Earthing Arrangement</b>		
a	Labour charge for excavation and fill up of excavated earth Supply of Solid Copper Earth Electrode, Earth Pit Cover and Complete Lightning arrangement work including Earth inspection pit Test terminal.	Job	
b	S.F.F. Air terminal (Copper Spike)- Solid Copper Rod 16mm dia. 2m length.	Set	
c	Supply, fitting and fixing of GI hollow pipe having 50mm dia, 3m long. For lengthening the air terminal	Set	

<b>18</b>	<b>Earthing Arrangement System</b>		
a	Excavation of earth pit (minimum 600 mm dia × 3000 mm depth or as site condition demands), placement of electrode, refilling with chemical compound, watering, proper compaction, and disposal of surplus soil as directed by the E/I	Set	
b	Supply of earthing electrode made of GI pipe (minimum 50 mm dia × 3.0 m long) to achieve long-term stable earth resistance. The electrode shall conform to IS:3043 and IEC 62561 standards.	Set	
c	Supply and laying of GI strip (25 mm × 6 mm) from earth electrode to street light pole for interconnection, fixed with saddles and bolts as required. Joints shall be welded or bolted and corrosion protected with bitumen paint.	Meter	
d	Supply and installation of heavy-duty weatherproof PVC/FRP chamber with removable cover for housing earth electrode top, complete with watering arrangement and identification plate marked.	Set	
e	Proper termination and connection of earth strip to the pole's earthing terminal using suitable lugs, bolts, and washers ensuring firm and corrosion-free connection.	Job	
<b>19</b>	<b>Hooter/Siren Alarm System</b>		
a	S.F.F. of Hooter siren 3 Phase copper winding 2 K.M. sound Capacity with beacon light IP66 rating.	Set	
b	S.F.F. of Battery 80Ah and Inverter 300KVA for Protection of overflow of water Siren Alarm	Set	
c	S.I.T.C. of Alarm for protection of Water Overflow Sensor.	Set	
d	S.F.F. of Conduit MS Pipe, Socket, Bend Jointer, clamp & screw etc. for protection of Siren Control Cable	Meter	
<b>20</b>	<b>Safety Equipments</b>		
a	Supply, fitting and fixing of First Aid Box with medicines, complete with bandages, antiseptic lotions, ointment, scissors, cotton etc.	Job	
b	Providing and supplying waterproof raincoat made of PVC/nylon material with hood and front closure, suitable for rainy season use. Size and colour as approved.	Each	

c	Supply of good quality umbrella suitable for outdoor use, complete.	Each	
d	Supply of heavy-duty PVC/rubber gum boots suitable for wet and slippery conditions, of approved make, complete.	Each	
e	Supply and delivery of full body safety belts or safety harness made of high-strength webbing with double lanyard, hooks, and necessary fittings, conforming to relevant safety standards, complete in all respects for use in repair and maintenance works.	Each	
f	Electrical Shock Treatment Laminated Chart as per IS:1986, displayed near control panel for emergency guidance.	Each	
g	Supply, fitting and fixing of ISI-marked, CO2 type Fire Extinguisher (6 Kg) ISI-marked, 6 kg capacity CO <sub>2</sub> extinguisher suitable for electrical fire, conforming to IS:15683, with wall bracket and pressure gauge.	Each	
h	Supply, fitting and fixing of ISI-marked, 4.5 Kg Capacity Portable Fire Extinguisher (CO <sub>2</sub> or Dry Chemical (ABC Powder)	Each	
i	Provision for refilling and servicing of fire extinguisher cylinders including replacement of minor parts, testing, and certification, complete with labour and materials, as per specifications and direction of E/I	Job	
j	Supply of Insulation Rubber Mat for 11 KV having Size (1m X 2m X 2.5mm )	Each	
k	Supply of Safety Gadget (Helmet, Boot, Hand Gloves) for H.T. line	Per Set	
l	<b>S.F.F. of IS:2551 compliant danger plates for 11 kV, 6.6 kV and 415 V, made of minimum 2 mm thick GI sheet with enamel painted surface, displaying "DANGER" with skull and bones symbol in red on white background with Hindi &amp; English lettering, complete with all fixing materials.</b>	Per Set	
21	<b>Miscellaneous Items</b>		
a	Supply of high-beam rechargeable LED torch made of aircraft-grade aluminium alloy, zoom LED flashlight, minimum 650 lumens, 1200 mAh battery, Philips Model SFL2141/56 or equivalent approved, complete with charger.	Each	

b	<b>S.F.F. of RO purified water system of 10 litre capacity, complete with all accessories including filtration unit, storage tank, piping connections, electrical connections, installation, testing and commissioning, with all labour, materials, tools and transportation charges as per direction of E/I.</b>	Job	
c	<b>Servicing of RO water purifier including replacement of filters, complete with all labour and incidental charges.</b>	Job	
d	<b>Supply of 9W or above rechargeable LED bulb with inbuilt lithium-ion/lithium-polymer battery and automatic charging circuit, operating on 230V AC, with minimum 3-4 hours battery backup during power failure, polycarbonate housing, lumen output <math>\geq 900</math> Make: Philips / Wipro / Havells / Syska / Crompton or equivalent approved by E/I.</b>	Each	
e	<b>Supply, installation and testing and commissioning of 3-Phase Automatic Voltage Stabilizer including Cable Connection. Input Voltage Range: 300 – 480 V AC. Output Voltage: 440 V <math>\pm</math> 1% (adjustable). As per load requirement 250KVA. or above Technology: Servo-controlled electronic stabilizer. Efficiency: <math>\geq 95\%</math>. Over-voltage, under-voltage, overload, short-circuit protection. As per IS: 9815 / IEC 60076. Testing: No-load and full-load testing to confirm voltage regulation.</b>	Each	
f	<b>Supply, fitting and fixing of Red, Yellow, Blue and Black, Heat-shrinkable HT Tape, 5m for each conductor cable of Transformer Outgoing Cable.</b>	meter	
g	<b>Supply, fitting and fixing Brass Stud with Double Bush Transformer Gripper, and Aluminium Cable Lugs As per conductor size at site.</b>	Each	
h	<b>Supply, fitting and fixing transformer breather with filling of Blue/Orange indicating silica gel for 11/0.415KV rating transformer.</b>	Set	
i	<b>S.F.F. of MS Bracket Angle and for the fixing of LED Street/Flood light in the hoist area.</b>	Each	

j	Supply, fitting, and fixing of G.I. Pipe 50 mm nominal bore (medium class) for pump delivery line including all necessary bends, sockets, unions, clamps, jointing materials, cutting, threading, welding where required as per specification and direction of E/I including transportation charges and labour cost.	Meter	
k	Provision for repairing/calibration of pressure gauge including replacement of defective parts, complete with labour and materials, as per specifications and direction of E/I.	Job	
l	Supply of 25mm 3 Way Junction Box, with Suitable Cover and Screw	Each	
m	Supply of 25mm 4 Way junction Box With Suitable Cover and Screw	Each	
n	Supply of Earth wire GREEN (14 swg /0.75 Sqmm)	Meter	
o	Supply of PVC Electrical Insulation Adhesive tape	Each	
p	S.I.T.C. of complete CCTV surveillance system comprising of IP based HD CCTV cameras for control room and dam premises including three radial gate locations, Near of Left and Right canal outlet gates consisting of outdoor IR bullet cameras (minimum 4MP resolution, 30–50 m night vision, IP66/67 weatherproof housing, metal body, wide dynamic range), indoor dome cameras for office areas (minimum 4MP, vandal resistant), suitable network video recorder (minimum 16 channels, H.265/H.265+ compression, HDMI/VGA output), surveillance-grade HDD (minimum 4 TB or as required for 30 days backup), PoE switches, CAT-6 armoured data cables with proper routing, HDPE/ PVC conduit and accessories, junction boxes, mounting brackets and poles where required, power supply units, earthing and surge protection, LED monitor (minimum 24”), UPS with battery backup, complete networking accessories (RJ-45 connectors, patch cords, racks), configuration for remote monitoring, addressing and labelling of cables, testing, commissioning and training of staff, including all structural supports, labour, transportation and making good of surfaces — all complete job as per direction of E/I.	Job	
q	S.I.T.C. of an Early Warning System (EWS) and downstream warning system for the dam by utilizing the existing water level sensor. The work shall include supply,	Job	

	installation and integration of data logger/RTU compatible with the existing sensor, telemetry system (GSM/4G/radio) for real-time data transmission, and central monitoring software with dashboard, data acquisition and threshold-based alarm generation, along with integration to existing hydrological data systems. The downstream warning system shall include supply, installation, testing and commissioning of siren/hooter units at identified vulnerable locations, control panel for automatic and manual alert operation, communication network, and provision of power supply with adequate battery backup. The work shall also include testing, commissioning, training of personnel and submission of necessary documentation, complete in all respects as per applicable dam safety guidelines and standards.		
<b>Part B:- Mechanical Items</b>			
<b>1</b>	<b>Repair and Maintenance of Impeller, Shaft and components of Pump of 60 Cusec Discharge with top &amp; Bottom Casing Complete Job</b>		
a	Dismantling of top cover casing & taking out impeller shaft set from foundation to platform & loading on vehicle carriage from pump house to workshop & un-loading by mechanical means.	Job	
b	Machining, Turning & Finishing charge of impeller with key with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
c	Machining, Turning & Finishing charge of Shaft with key as per sample with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
d	Making/Casting of Sleeve & Impeller bearing ring (Neckring) as per sample with all complete job as per direction of E.I.	Job	
e	Machining, Turning & Finishing of Sleeve & Impeller bearing ring (Neckring) as per sample with sleeve with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
f	Machining, Turning & Finishing charge Coupling with key as per sample with sleeve with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	

g	Machining, Turning & Finishing charge of Bearing housing with all related work as per sample with sleeve with all materials & labour charge.	Job	
h	Static and dynamic Balancing of Impeller shaft set with all complete job as per direction of E.I.	Job	
i	Repairing, Machining, Turning & Finishing of top cover casing, welding by proper welding rod and fitting with all complete job, all materials & labour cost complete job as per specification & direction of E.I.	Job	
j	Repairing, Machining, Turning & Finishing of bottom casing cover, welding by proper welding rod with all materials & labour cost complete job as per specification & direction of E.I.	Job	
k	Rubber packing special quality with all cost of materials & labours	Per Kg	
l	Stud Nut & bolt as per sample with all cost of materials & labours	Per Kg	
m	S.F.F. of Suitable bearing for 60 cusec discharge pump bearing make S.K.F. or standard make with fitting & testing all complete job both side.	Each	
n	Assembling of impeller shaft set un-loading carriage charge & testing with all labor cost, all complete job per specification & direction of E.I.	Job	
2	<b>Repair and Maintenance of N/R Valve of Pump of 60 Cusecs discharge capacity with Re-Casting of Ring &amp; hinge, Machining, Turning &amp; Finishing of Flap, Middle plate etc.</b>		
a	Dismantling of N/R Valve from Pipe line taking out middle plates & loading vehicle for repairing with carriage all materials & labour all cost , taxes with all complete job as per direction of E.I.	Job	
b	Making of Mould/pattern for Casting of Middle plate as per sample welding by rod with all complete job as per direction of E.I.	Job	
c	Re-Casting of CI Middle plate as per sample welding by rod with all complete job as per direction of E.I.	Job	

d	Turning & Finishing appropriate shape & size of CI Middle plate with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
e	Making of Mould/pattern for Casting of Flap as per sample welding by rod with all complete job as per direction of E.I.	Job	
f	Casting and Replacement of CI Flap as per sample welding by rod with all complete job as per direction of E.I.	Each	
g	Machining Charge of Flap & making appropriate shape & size for fitting with all materials & Labour cost taxes complete job as per direction of E.I.	Each	
h	Casting and Replacement of G.M. Ring 08 Nos. @ 10 Kg. i.e. 80 Kg. with all Materials, taxes complete job as per Specification & direction of E.I.	Per Kg.	
i	Turning & Finishing appropriate shape & size of G.M. Ring with all materials & Labour cost taxes complete job as per direction of E.I.	Each	
j	Pattern making for re-casting of C.I. Hinged with all materials & Labour cost taxes complete job as per direction of E.I.	Each	
k	C.I. Hinged Casting and Replacement 08 Nos. each @ 10 Kg. i.e. 80 Kg. with all materials & Labour cost taxes complete job as per direction of E.I.	Per Kg	
l	Turning & Finishing of C.I. Hinged with G.M Bush & making hole as per appropriate shape & size with all materials & Labour cost taxes complete job as per specification & direction of E.I.	Each	
m	Making hole with finishing as per appropriate shape & size in C.I. Hinged with G.M Bush with all materials & Labour cost taxes complete job as per specification & direction of E.I.	Each	
n	S.F.F. of High Carbon steel (High tensile) Nut-Bolt different size as per sample in top cover & N/R/ Valve body.	Per Kg	
o	S.F.F. of Rubber Packing for N/R Valve with all taxes complete job as per specification & direction of E.I.	Per Kg	
p	S.F.F. of Suitable M/S Nut-Bolt 5"X5/8" with all cost of Materials as per specification & direction of E.I.	Each	

q	Assembling of N/R Valve with un-loading & Carriage charge & testing with all Labour & Materials as per specification & direction of E.I.	Job	
3	<b>Repair and Maintenance of Sluice Valve for Pump of 150 Cusec discharge with Spindle, checknut, ring, Flapper/Wedge type disc, Gear box/handle etc.</b>		
a	Dismantling of top cover casing & taking out Sluice Valve from foundation to platform & loading on vehicle carriage from pump house to workshop & un-loading by mechanical means.	Job	
b	Manufacturing of M.S. Spindle 63 mm Dia. Double TPI ( As per sample ) by turning the rod to proper shape & size & Making by a square threaded cutting to groove & complete repairing the sluice valve body as per specification & direction of E.I.	Per m	
c	S/F/F 63 mm Dia. C.I Check Nut With Internal G.M Bush Threading ( As per sample ) For Matching Dia. Spindle 12 mm Thick Base Plate Separating Hole etc With Cost of All Labour, Materials, Taxes etc as per Specification & Direction of E.I.	Set	
d	Rubber packing/Gasket sheet for sluice valve 6mm thick as per specification & direction of E.I.	Per Kg	
e	Turning & Finishing of Flapper/Valve sheet/Wedge type disc appropriate shape & size with all materials & Labour cost taxes complete job as per direction of E.I.	Set	
f	Turning & Finishing of Ring with appropriate shape & size with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
g	G.M Nut & bolt as per sample with all cost of materials & labours	Kg	
h	Turning & Finishing of Gear box/handle appropriate shape & tooth size with all materials & Labour cost taxes complete job as per direction of E.I.	Set	
i	Turning & Finishing of Gland Packing with Stuffing box appropriate shape & tooth size with all materials & Labour cost taxes complete job as per direction of E.I.	Set	

j	Assembling of Sluice Valve un-loading carriage charge & testing with all labor cost, all complete job per specification & direction of E.I.	Job	
4	<b>Repair and Maintenance of Impeller, Shaft and components of Pump of 150 Cusec Discharge with top &amp; Bottom Casing Complete Job</b>		
a	Dismantling of top cover casing & taking out impeller shaft set from foundation to platform & loading on vehicle carriage from pump house to workshop & un-loading by mechanical means.	Job	
b	Machining, Turning & Finishing charge of impeller with key with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
c	Machining, Turning & Finishing charge Shaft with key as per sample with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
d	Making/Casting of Sleeve & Impeller bearing ring (Neckring) as per sample with all complete job as per direction of E.I.	Job	
e	Machining, Turning & Finishing of Sleeve & Impeller bearing ring (Neckring) as per sample with sleeve with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
f	Machining, Turning & Finishing charge Coupling with key as per sample with sleeve with all materials & labour charge as per sample with all complete job as per direction of E.I.	Job	
g	Machining, Turning & Finishing charge of Bearing housing with all related work as per sample with sleeve with all materials & labour charge.	Job	
h	Static and dynamic Balancing of Impeller shaft set with all complete job as per direction of E.I.	Job	
i	Repairing, Machining, Turning & Finishing of top cover casing, welding by proper welding rod and fitting with all complete job, all materials & labour cost complete job as per specification & direction of E.I.	Job	

j	Repairing, Machining, Turning & Finishing of bottom casing cover, welding by proper welding rod with all materials & labour cost complete job as per specification & direction of E.I.	Job	
k	Rubber packing special quality with all cost of materials & labours	Per Kg.	
l	Stud Nut & bolt as per sample with all cost of materials & labours	Per Kg.	
m	S.F.F. of Suitable bearing for 150 cusec discharge pump bearing make S.K.F. or standard make with fitting & testing all complete job both side.	Each	
n	Assembling of impeller shaft set un-loading carriage charge & testing with all labor cost, all complete job per specification & direction of E.I.	Job	
5	<b>Repair and Maintenance of N/R Valve of Pump of 150 Cusecs discharge capacity with Re-Casting of Ring &amp; hinge, Machining, Turning &amp; Finishing of Flap, Middle plate etc.</b>		
a	Dismantling of N/R Valve from Pipe line taking out middle plates & loading vehicle for repairing with carriage all materials & labour all cost , taxes with all complete job as per direction of E.I.	Job	
b	Making of Mould/pattern for Casting of Middle plate as per sample welding by rod with all complete job as per direction of E.I.	Job	
c	Turning & Finishing appropriate shape & size of CI Middle plate with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
d	Machining Charge of Flap & making appropriate shape & size for fitting with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
e	Casting and replacement of G.M. Ring 08 Nos. @ 15 Kg. i.e. 80 Kg. with all Materials, taxes complete job as per Specification & direction of E.I.	Job	
f	Turning & Finishing appropriate shape & size of G.M. Ring with all materials & Labour cost taxes complete job as per direction of E.I.	Each	

g	Pattern making for Casting and replacement of C.I. Hinged with all materials & Labour cost taxes complete job as per direction of E.I.	Each	
h	C.I. Hinged Casting and replacement 08 Nos. each @ 10Kg. i.e. 80 Kg. with all materials & Labour cost taxes complete job as per direction of E.I.	Per Kg.	
i	Turning & Finishing of C.I. Hinged with G.M Bush & making hole as per appropriate shape & size with all materials & Labour cost taxes complete job as per specification & direction of E.I.	Each	
j	Making hole with finishing as per appropriate shape & size in C.I. Hinged with G.M Bush with all materials & Labour cost taxes complete job as per specification & direction of E.I.	Each	
k	S.F.F. of High Carbon steel (High tensile) Nut-Bolt different size as per sample in top cover & N/R/ Valve body.	Per Kg.	
l	S.F.F. of Rubber Packing for N/R Valve with all taxes complete job as per specification & direction of E.I.	Each	
m	S.F.F. of Suitable M/S Nut-Bolt 5" x 5/8" with all cost of Materials as per specification & direction of E.I.	Each	
n	Assembling of N/R Valve with un-loading & Carriage charge & testing with all Labour & Materials as per specification & direction of E.I.	Per Kg.	
6	Pipe and fitting		
a	S.F.F. of 2 feet connecting Pipe dia. 3 inch with flange, Washer, Nut-volt, valve ( as per sample ) etc for Vishwakarma pump	Set	
b	S.F.F. of Vacuum Pipe dia. 0.5 inch with Valve ( as per sample ) etc for Bahuara pump.	Feet	
c	Repair, Maintenance and servicing of Vacuum Pipe complete with dismantling and refitting at Bahuara Pump	Job	
d	Supplying and fixing of oil level gauge for hydraulic power pack unit, including mounting, sealing and testing, complete as per directions of E/I.	Each	
e	Supplying, fitting and fixing of hydraulic flexible pipes (as per sample) of approx 3 ft length, complete with nozzle fittings on both sides, suitable for high-pressure hydraulic oil	Set	

	service, including testing, complete as per directions of E/I.		
7	R/M of Roller Shutter (Front) 17' x 15', gearbox, greasing, alignment with replacement of bearing etc	Job	
8	Repair and Maintenance of Sluice Valve for Pump of 60 Cusec discharge with Spindle, checknut, ring, Flapper/Wedge type disc, Gear box/handle etc.	Job	
a	Dismantling of top cover casing & taking out Sluice Valve from foundation to platform & loading on vehicle carriage from pump house to workshop & un-loading by mechanical means.	Job	
b	Manufacturing of M.S. Spindle 63 mm Dia. Double TPI (as per Sample) by turning the rod to proper shape & size & Making by a square threaded cutting to groove & complete repairing the sluice valve body as per specification & direction of E.I.	Each	
c	S/F/F 63 mm Dia. C.I Check Nut With Internal G.M Bush Threading (as per sample) For Matching Dia. Spindle 12 mm Thick Base Plate Separating Hole etc With Cost of All Labour, Materials, Taxes etc as per Specification & Direction of E/I.	Each	
d	Rubber packing/Gasket sheet for sluice valve 6mm thick as per specification & direction of E.I.	Job	
e	Turning & Finishing of Flapper/Valve sheet/Wedge type disc appropriate shape & size with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
f	Turning & Finishing of Ring with appropriate shape & size with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
g	G.M Nut & bolt as per sample with all cost of materials & labours	Each	
h	Turning & Finishing of Gear box/handle appropriate shape & tooth size with all materials & Labour cost taxes complete job as per direction of E.I.	Job	
i	Turning & Finishing of Gland Packing with Stuffing box appropriate shape & tooth size with all materials & Labour cost taxes complete job as per direction of E.I.	Job	

j	Assembling of Sluice Valve un-loading carriage charge & testing with all labor cost, all complete job per specification & direction of E.I.	Job	
9	Supply, fitting and installation of 1000 litres PVC 5 layer Water Storage Tank with all complete job including all taxes & labour and material charges with 3 years guarantee as per specification and direction of E/I. (Make-Syntax/Himgiri/Plasto or Equivalent)	Nos.	
10	Supply, installation, testing and commissioning of appropriate capacity submersible water pump along with PVC pipeline including wiring, earthing, and all accessories required for satisfactory operation, complete with all materials, labour, taxes, and charges as per specification and direction of E/I.	Job	
11	Supply, laying, fixing, and commissioning of complete water supply and drainage system using UPVC (SDR-11) and PVC pipes of various sizes including all fittings such as tees, bends, sockets, unions, reducers, valves, taps, tank nipples, NRVs, insulation, basin with stand and accessories, Teflon tape, and other miscellaneous connection materials, complete with labour, tools, and transportation, in all respects.	Job	
12	Supply, installation, and commissioning of heavy-duty locking arrangement for Cross Regulated (CR) / Head Regulator (HR) gate, including all materials, labour, tools, and transportation required to complete the work in all respects.	Job	
13	Supply, installation, testing, and commissioning of automatic water level controller system for tank with auto cut-off of pump at full level, complete in all respects.	Job	
14	<b>Dam related Work</b>		
a	Underwater Inspection by expert team & Providing underwater Strengthening of weak/corroded portion of RBC H/R gate of size-2.0m x 2.5m after checking thickness of skin plate, vertical stiffeners, horizontal girders, guide rail alignment, bottom seal Gate Alignment, all guide roller assembly, suitable size bearing, grouting and other necessary work to gate as to remove obstruction while moving vertically downward of gate on full load (Gates should be smoothly fully closed in full load) etc. including Removing of Rusted/Corroded parts and welding extra M.S. Plate /	Job	

	Other necessary work as per requirement all complete job as per specification and direction of E/I.		
b	Underwater Inspection by expert team & Providing underwater Strengthening of weak/corroded portion of LBC H/R gate of size-1.2m x 1.2m after checking thickness of skin plate, vertical stiffeners, horizontal girders, guide rail alignment, bottom seal, all guide roller assembly, suitable size bearing etc. Gate Alignment/other necessary work to gate as to remove obstruction while moving vertically downward of gate on full load (Gates should be smoothly fully closed in full load) including Removing of Rusted/Corroded parts and welding extra M.S. Plate / Other necessary work as per requirement all complete job as per specification and direction of E/I.	Job	
c	Inspection by expert team & Providing Strengthening of weak/corroded portion of Dam Radial gate of size-10m x 15m after checking thickness of skin plate, vertical stiffeners, horizontal girders trunion assembly. hoist system. guide roller grouting etc. including Removing of Rusted/Corroded parts and welding extra M.S. Plate / Other necessary work as per requirement all complete job as per specification and direction of E/I.	Job	
d	Provision of underwater videography before and after completion of work for inspection of all underwater mechanical components of LBC, RBC, River feeder and Radial Gate including bottom seal beam, vertical stiffener, side groove channel, any metallic default in gates, grouting etc work includes underwater camera with audio, lighting, recording system, accessories, safety arrangements, skilled underwater videographer, expert team inspection, data recording and submission of videos & photos. all complete job as per specification and direction of E/I.	Job	
e	Providing services for Non-Destructive Testing (NDT) including Ultrasonic Testing (UT Scanning) (IS 4260, IS 822) by ASNT Level-II certified technician (minimum) for thickness measurement of load-bearing members and assessment of riveted, bolted and critical welded joints of radial gates (including trunion housing assembly, hoist system and associated hydro-mechanical components), LBC, RBC, gantry crane, railing, crane guide rail path, etc. The work shall include Visual Testing (VT) (IS 822), Ultrasonic Testing (UT) (IS 4260), Dye Penetrant Testing	Job	

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	(DPT) (IS 3658) and Magnetic Particle Testing (MPT) (IS 3703) for detection of surface and subsurface defects, cracks, corrosion, misalignment and structural integrity, including all labour, T&P, equipment, calibration, testing and submission of complete reports as directed by the Engineer-in-Charge.		
f	Providing and conducting water jet test and light test of gates to check leakage and ensure proper and uniform contact between seal and seal seat, including supply of all labour, tools, equipment, water arrangements and submission of test observations, complete as per site requirement.	Job	
g	Providing services for Non-Destructive Testing (NDT) including Ultrasonic Testing (UT Scanning) (IS 4260, IS 822) by ASNT Level-II certified technician (minimum) for thickness measurement of load-bearing members and assessment of riveted, bolted and critical welded joints of spillway gate (including hoist system and associated hydro-mechanical components), railing etc. The work shall include Visual Testing (VT) (IS 822), Ultrasonic Testing (UT) (IS 4260), Dye Penetrant Testing (DPT) (IS 3658) and Magnetic Particle Testing (MPT) (IS 3703) for detection of surface and subsurface defects, cracks, corrosion, misalignment and structural integrity, including all labour, T&P, equipment, calibration, testing and submission of complete reports as directed by the Engineer-in-Charge.	Job	
15	Valves and fittings		
a	Design, drawing, supply, fitting, fixing , installation and commissioning of 300 dia Non Return Valve C.I. Swing Type (As per sample) Non Return Valve flanged end as per SI : 5312 Body, cover- CI 210, Gr. FG260 Body Ring- Bronze IS:318 Gr. LTB2 Door Face -Natural Rubber Hinge Pin- SS ASTM A276 Type 420 Fasteners- CS IS: 1367,CL-4.6/4.0 Gasket- natural Rubber flange Drilling-IS: 1538, Table 4&6 and appropriate as per requirement for site with labour, material, transportation, taxes all complete job as per specification and direction of E/I.	Nos	
b	Design, drawing, supply, fitting, fixing, installation and commissioning of Flanged C.S.Blind Flange 300mm, 300 class, as per ANSI B-16.5 Std., in full machine and drilled condition with raised face and concentric serred face, material as per ASTM- A 181 Grd 1,appropriate as per requirement for site with labour, material, transportation, taxes all complete job as per specification and direction of	Nos	

	E/I.		
c	Supply, fitting, fixing, installation of CNAF Gasket Sheet Size: 1.50 motor wide x 2 Meters Long Thickness: 3mm, Make Champion Style AF 120 appropriate as per requirement for site with labour, material, transportation, taxes all complete job as per specification and direction of E/I.	Kg	
16	Chain Pulley		
A	S.I.T.C. of 5 Ton capacity manual chain pulley block with alloy steel load chain, heat-treated gears, double-pawl brake, and forged hooks with safety latch, complete with all accessories, mounting arrangement, lubrication, testing and certification, including transportation, labour charges, and commissioning, complete in all respects as per IS specifications and direction of E/I (Approved makes: BEMCO/Brady & Morris/KITO/Indef/Elephant/Jet or equivalent).	Each	
b	Repair and maintenance of existing 15-ton capacity chain block and chain pulley hoist system, including detailed inspection, dismantling, cleaning, replacement of worn-out/damaged components such as load chain, hooks with safety latch, gears, bearings and brake assembly, lubrication, reassembly, proper alignment, load testing and commissioning, complete in all respects with all materials, skilled labour, tools and tackles, transportation, and incidental charges, conforming to relevant IS standards and as per site requirements and direction of E/I	Job	
<b>Part C :- Consumable Items</b>			
a	<b>Supply of Mobil oil BW-40 for pump, suitable for pump engine lubrication, conforming to relevant standards, including all loading, unloading and transportation charges up to site, complete in all respects.</b>	Liter	
b	<b>Supply of super quality APLR Green Grease, lithium-based high-performance grease suitable for heavy-duty applications, including all, loading, unloading and transportation charges up to site, complete in all respects.</b>	Kg.	
c	<b>Supply and fixing of gland packing (stuffing) 25mm. for 150 cusec pump for pump shaft sealing, including removal of old packing, fixing, tightening and testing, complete as per direction of E/I.</b>	Kg.	

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d	Supply and fixing of gland packing (stuffing) 19mm. for 60 cusec pump for pump shaft sealing, including removal of old packing, fixing, tightening and testing, complete as per direction of E/I.	Kg.	
e	Supply of Different type of Nut-bolt with washer.	Kg.	
f	Supply of Cotton Waste.	Kg.	
g	S.F.F. of Rubber Gasket nylon finish threaded for sluice valve.	Kg.	
h	Supply and consumption of diesel for operation of DG sets and other equipment, complete with handling, labour, and materials, as per specifications and direction of E/I.	Liter	
i	S.F.F. of Gate Valve 2'' dia	Each	
j	Supply of of thrust bearing 018 for sluice valve bevel gear.	Each	
k	Supply of approved make lock (Link or equivalent) of suitable size and heavy-duty construction, complete with keys, all accessories, and transportation charges.	Each	
l	Supply of Different type of Nut-bolt with washer	Kg	
m	Supply of Consumable materials like Soap, detergents, jhadu etc	Job	
n	S.F.F. of Gate Valve 1'' dia	Set	
o	S.F.F. of Gate Valve 0.5 '' dia	Each	
p	S.F.F. of Gate Valve 0.75 '' dia	Each	
q	S.F.F. of Gate Valve 1.25'' dia	Each	
r	S.F.F. of Gate Valve 2.25'' dia	Each	
s	S.F.F. of Supply of foldable cum adjustable aluminium ladder, multi-position type with anti-skid steps and rubber feet, complete with all fittings, accessories, transportation, and labour charges.	Each	
t	Supply of flat rubber seal made of durable rubber material suitable for sealing applications, complete with all materials and transportation charges.	Each	

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u	Supply of musical rubber seal complete with all materials, fabrication, and transportation charges.	Each	
v	Supply of torch battery of suitable size and capacity of approved make, complete with all materials and transportation charges.	Each	
<b>PART D :- Tools and Measuring Instruments</b>			
a	Supply of Infrared Thermometer IR-600 Non-Contact Digital Handheld Temperature Gun With Back Light LCD Display Industrial Thermometer. (Make- MECO/ FLUKE/ Metravi/HTC)	Each	
b	Supply of Digital Earth Resistance Tester with Testing Kit (Make-Metravi/WACO/HTC/ Maxtech/Stanley/Sigma )	Each	
c	Supply of Non-Contact Digital Tachometer (Make- HTC/ Helect Instrument/ Meco / Fluke/Metrex )	Each	
d	Elcometer -Digital Coating Thickness Gauge and Calibration Certificate (Make - Elecoat M/G.TECH/Caltech/Mextech/ Fischer)	Each	
e	Supply of Portable LCD Digital Clamp Ampere AC/DC Voltage Multi Meter (Make- Meco/ Sigma/Fluke/HTC/Sigma)	Each	
f	Supply of Digital Lux Meter (Make- SIGMA/ Fluke/ HTC/RETEK)	Each	
g	Supply of Digital Vernier Caliper (Make- Insize/Luxina/Mitutoyo/Baker gauge/Kristeel)	Each	
h	Supply of Digital Vibration meter (Make - HTC Instrument / Metravi/Lutron/WORK-ZONE)	Each	
i	Supply of Sound Level Meter /Digital Noise Tester (Make- Fluke/HTC/G.TECH )	Each	
j	Supply of Digital Insulation Resistance Tester /Megger (Make -HTC/BOSCH/Fluke/Meco)	Each	
k	Supply of Dial Indicator (Make – INSIZE/BOSCH/STANLEY)	Each	
l	Supply of Tool Box Kit (Make – INSIZE/BOSCH/STANLEY)	Each	
m	Supply of Durometer Analog (Make – INSIZE/BOSCH/STANLEY)	Each	

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n	Supply of Grease Gun (Make – INSIZE/BOSCH/STANLEY)	Each	
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**Terms & Conditions :-**

1. The quoted rates shall be **inclusive of all applicable taxes, duties, and transportation charges up to the site**, excluding GST and labour cess, which shall be paid extra as applicable.
2. The contractor shall submit **materials bill/invoice** indicating all applicable taxes and duties.
3. All items supplied shall be **new, unused, genuine**, and conform to relevant **IS/IEC standards** and approved technical specifications.
4. **Raw material test certificates / internal test reports** (wherever applicable) shall be submitted, duly issued by the manufacturer/supplier, confirming compliance with relevant standards.
5. All measuring instruments shall be supplied with **valid calibration certificates**, traceable to relevant standards and issued by the manufacturer/supplier.
6. The **make and model** of all items shall be subject to prior approval of the E/I before supply.
7. Delivery of all materials shall be completed **within the stipulated time period** as mentioned in the purchase order.
8. **Payment shall be released only after** satisfactory supply, inspection, verification, and acceptance of materials by the department.
9. The contractor shall be responsible for the **satisfactory performance of all supplied materials and executed works** for a period of **one (1) year** from the date of completion/commissioning. Any defects arising due to faulty materials, poor workmanship, or improper installation during this period shall be rectified or replaced by the contractor at no additional cost within a reasonable time.

  
 Executive Engineer (Mech.)  
 Irrigation Mechanical Division, Mohania