

- Name of Work -

**EPC Contract for Providing Irrigation Water
Facility to Filling Kelamul Village Tank by Lifting
Water from KLBMC at Ch.8.20 km of Taluka
Kadana, Dist. Mahisagar.**

Tender Document

VOLUME III

PRICE BID

Government of Gujarat
Narmada Water Resources, Water Supply
& Kalpsar Department

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1. PREAMBLE TO THE PRICE SCHEDULE

Name of Work :

EPC Contract for Providing Irrigation Water Facility to Filling Kelamul Village Tank by Lifting Water from KLBMC at Ch.8.20 km of Taluka Kadana, Dist. Mahisagar.

1. The bidder shall quote his firm and fixed lump sum price for the entire work under this contract, as defined in detail in various sections of this bid document. However, increase or decrease in quantity of certain items mentioned under Payment Schedule will be paid or recovered on pro-rata basis as per Point 6 of this section.
2. The rates and prices shall be submitted in the formats given in the enclosed Price schedules A to F. Rates and prices received in any other formats will be rejected and the bid be considered as non-responsive.
3. It will be entirely at the discretion of the Employer to either accept or reject the bidder's design proposal, without giving any reasons whatsoever and the bidder shall not be permitted to withdraw his bid on this account.
4. The Summary Price Schedule for A to E shall be added with price quoted in Schedule F and the total price shall be considered for Price bid Evaluation and shall form a part of the contract agreement.
5. In the Price Schedules - A to F, bidder shall furnish break-up of his lump sum prices quoted in summary schedule. Price schedules - A to E gives the list of some principal items with tentative quantities of the work for the guidance of the bidder. In Schedule F, bidder shall also add items and quantities as necessary for the completeness of the work and shall quote his prices against each item.
6. The bidder shall quote his price for the quantities indicated in Price Schedule - A. and during execution, any variation in the quantities under these items mentioned below which unit is other than lumpsum (LS), shall be paid / recovered based on actual quantity executed on site. The bidder shall verify other principal items at his end independently and assess the same if required.
 - a) Transmission Main line
 - b) Butterfly Valves with chamber
 - c) D/F Sluice Valve with chamber
 - d) Kinetic Double Orifice Tamper Proof Air Valves
 - e) RCC Chamber for Flow meter
 - f) Pipe Pushing for Highway crossing
 - g) Concrete in Encasing
 - h) Concrete in Thrust Block
 - i) M.S Inspection Manhole
 - j) Surge Control Devices
 - k) MS and H.D.P.E pipeline for pond feeder including all necessary networks

- l) Air valves for pond feeder HDPE pipeline with Shaft
 - m) Inlet Structure at Pond i.e., End/ Dissipation structure
 - n) Box Pushing for Railway/ High-way Crossing
 - o) Compound wall / Retaining Wall, Approach & Internal Road and MS entry Gate, Pumping Station, Panal room, Store room, Staff Quarters, Site Grading & development, Intake Sump / Intake Well, Pumping Station, Gardening and Beautification, Crop compensation etc.
7. ~~Each item is to be individually priced, and the amounts shall be added up to arrive at the "Total of each price schedule". No column in the schedules of prices shall be left blank except where the item description requires the item to be priced on "as applicable" basis. The item shall not be priced if it is "not applicable" to the bidder's design. The wording in the item description is for subject matter guidance only; clause references are indicative only and all other relevant clauses shall also be referred to. The prices shall allow for all the works covered under the bid and all liabilities and contractual obligations whether separately specified or not are applicable. Items against which no prices are quoted shall not be separately paid for and the bidder shall be deemed to have covered the cost of execution of such items (according to the requirement of the project) in the prices quoted for other items.~~
8. The details of deviation from technical specifications and conditions of contract are to be furnished in Volume- I, II (A), II (B), II (C), II (D), II (E) respectively. Financial implications against each item mentioned is to be quoted in Volume- I, II (A), II (B), II (C), II (D), II (E). Only cost of admissible/ acceptable deviations from technical specifications and conditions of contract will be considered for final price evaluation and will be added/ subtracted in the price bid amount for evaluation purpose.
9. Items not specifically listed in Price Schedules - A to E, but required as per bidder to be executed for satisfactory working of the system as specified, such items must be listed with amount in Price Bid under Summary Schedule and Price Schedule - F.
10. The work includes necessary liaison, co-ordination for execution of work with the concerned local bodies, affected people and authorities (including obtaining permissions, applying for power supply connection etc.) on behalf of the department and it shall be the scope of the contractor. The cost of such work shall be deemed to be included in the relevant item of Price schedules.
11. The department shall arrange for incoming HT power supply and bear the cost of the same, up-to Pumping station switch yard area. All the necessary arrangements (e.g., permissions, clearances, lesioning etc.) to receive the power supply at the Pumping station switch yard area shall be made by the contractor at his own cost.
12. Land cost for pumping Station to be borne by the department as per Government rules and regulation. Land cost for getting ROU for laying pipeline shall be paid by the department as per government rules and regulation. All other charges for crop compensation including cost of manholes, kundies etc. shall be paid by contractor. The cost of same shall deem to be included in respective item. All other charges for crop compensation, damage to the properties, insurance, NOC & other miscellaneous charges are to be paid by the contractor for the entire period of the contract. The bidder is instructed to refer the tender conditions / documents and quote the price

accordingly.

13. All the statutory charges & other charges such as fees, insurance, damage, NOC etc. for laying of pipeline below railway, NH, SH and all other roads and other crossings are to be paid by the contractor. However, if the concerned department insists to pay such statutory charges through the department / owner, such charges shall be paid by the department / owner and such amount shall be adjusted /recovered from the contractor's bills. If any deposit which is reimbursable only after construction period and completion of Operation and Maintenance of 05 years shall be paid by the department. The bidder is instructed to refer the tender conditions / documents and quote the price accordingly.
14. The price includes initial survey, detail topographical survey, geo-tech investigation etc. required for detailed engineering and design of various project system / item under the scope of work and prices for the same shall be deemed to be included in the relevant items of price schedules. No separate payment shall be made by the department. The bidder is instructed to refer the tender documents for provision of power and water and quote the price accordingly.
15. The bidder is instructed to refer tender provision for disposal of the excavated stuff and for royalty charges and quote the price accordingly.
16. The bidder has to carry out Operation and Maintenance of the system for Five (5) years after successful commissioning. This also includes three (3) years of Defect Liability Period. The bidder shall give year wise break up of cost for O&M in Price Schedule - E.
17. ~~The bidder shall have to quote total amount of Operation & Maintenance for Five (5) years which should not be less than 2% of the total amount of Sum of Price Schedule A to D and F. The year-wise distribution of this quoted amount of O&M shall be distributed as per schedule of payments.~~
18. ~~If the price quoted by bidder for the O&M of the system is found to be less than 2% of total amount of Sum of Price Schedule A to D and F, then department shall re-work the final amount by counting 2.5% of total amount of sum of Price Schedule A to D and F for O&M price in Schedule E. This final amount will be considered for bid evaluation.~~
19. The items and consumable which are having life lesser than the O&M period of Five (5) years shall be replaced as and when their life ends and or as per manufacturer recommendation to upkeep the system operations in good working conditions and within guaranteed parameters.
20. All the mandatory spares are meant for use by the department after O&M period. However, those shall hand over to department on completion of defect liability period. Such mandatory spares shall be procured from Original Equipment Manufacture - whose equipment's are already used for this project and shall be replaceable in place of the original one. Additionally, the contractor shall keep adequate spares/ consumables on their own apart from the spares handed over to the department for trouble free Five (5) years and to upkeep the system operations in good working conditions and within guaranteed parameters.
21. Payment Schedule gives the basis of interim payment for design, procurement, and construction of all the mentioned works.
22. Only Price in Summary schedule will be considered for financial evaluation of the bid. While Price Schedules - A to F shall be the basis to work out a schedule of running payments during

construction with the successful bidder.

23. The bidder shall be deemed to have allowed in his price for provision, maintenance, and final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, dewatering etc. for the proper execution of works. The rates shall also be deemed to be included any work and setting out that may be required to be carried out for laying out of all the works involved.
24. Grand total prices shall be entered in figures and in words. Where, there is a discrepancy between figure in numbers and the amount entered in words, the later shall govern.
25. The Price schedules are to be read in conjunction with the conditions of contract, the specifications, indicative drawings and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.
26. Prices quoted by the bidder shall be fixed for the entire period of contract, except the variation in taxes and Price variation clauses specified in the tender documents.
27. The prices quoted shall also include the cost of materials to be utilized for testing at various stages.
28. The bidder should acquaint himself with the site condition, including the access to worksite. The successful bidder shall have to make suitable access to worksites at his own cost. These accesses will also be used by the other contractors working for the department and shall not be liable for any compensation.
29. The contractor is requested to refer the reference Clause 45 of Volume I - Standard Bid documents (SBD) regarding GST and other taxes.
30. The Contractor has to collect & dispose of Hard rock met during execution of entire work. The payment of the same shall be recovered from him at Rs 220.05 per m³ (rate of R & B SOR, Mahisagar 2024-25, it- M540) for the hard rock. The Royalty charges if any shall have to be paid by contractor.
31. One (1) Percent of value of work will be deducted from each bill towards labour welfare cess as applicable as per Standard Bid documents in Volume – I. All testing charges shall be borne by contractor.
32. Payment Schedule for interim payment is furnished in this volume.
33. ~~For the payment of supply of MS and HDPE pipeline, maximum 3 km of unlaied pipeline length for each diameter shall be paid and the payment of remaining length of pipes should be done after laying and joint coating of pipeline only.~~

2. SUMMARY SCHEDULE

Name Of The Work :

EPC Contract for Providing Irrigation Water Facility to Filling Kelamul Village Tank by Lifting Water from KLBMC at Ch.8.20 km of Taluka Kadana, Dist. Mahisagar.

BREAK UP OF SUMMARY SCHEDULE - PRICE SCHEDULE

The bidder is requested to fill in the price quoted in the Price Schedule - A to E

Sr. No.	Description	Tender Amount for Design, Engineering, Procurement, Construction, Testing, Commissioning and O&M of the System for 05 Years Period	
		In Figures	In words
1	EPC Contract for Providing Irrigation Water Facility to Filling Kelamul Village Tank by Lifting Water from KLBMC at Ch.8.20 km of Taluka Kadana, Dist. Mahisagar.		
A	PRICE SCHEDULE – A	17469993.00/-	
	Civil and Pipeline work		
B	PRICE SCHEDULE – B	1788448.00/-	
	Mechanical Works		
C	PRICE SCHEDULE – C	315453.00/-	
	Electrical Works		
D	PRICE SCHEDULE – D	290484.00/-	
	Instrumentation Works		
E	PRICE SCHEDULE – E	3094850.00/-	
	Operation and Maintenance		
F	PRICE SCHEDULE – F	-	
	Additional Item		
Grand Total (Rs.) =		2,29,59,228.00/-	

I/ We am/ are willing to carry out the work at _____ % above/ below percent (Should be written in figures and words) of the estimated rate mentioned above. Amount of my/ our tender works out as under.

Estimated amount put to tender

Deduct _____ % below

Net _____

In words _____

Estimated amount put to tender

Add _____ % Above

Net _____

In words _____

Seal & Signature of Contractor

3. PRICE SCHEDULE

Item No.	Item	Qty.	Unit	Rate (In Rs.)	Amount (In Rs.)
A	<u>PRICE SCHEDULE- A: CIVIL AND PIPELINE WORKS</u>				
1	R.C.C. PIPE: Providing and supplying ISI Standard R.C.C. pipes (of Sulphate Resisting Cement) in standard lengths of following class and diameter suitable for either collar joints or rubber ring joints including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, etc. with required excavation in all strata, required bedding, refilling the trenches. including required air vent pipe, RCC around joint/credal concrete of M-20, TMT steel etc. completed. RCC NP4 pipe of 600 mm dia	100	Rmt	5316.00	531600.00
2	HR Gate: Providing fabricating and erecting in position service gate and emergency gate including finishing, hoisting arrangement embedded parts as per approved design and drawing with painting as directed etc. complete.	0.64	Smt	343215.00	219658.00
3	CIRCULAR WELL: Construction of cast in situ M20 RCC circular well of required size having wall thickness, Bottom slab thickness and top slab thickness as per drawing, including minimum reinforcement of FE500 TMT and bottom base cement concrete (PCC) (1:3:6) as per detailed drawing & specification and as per instruction of Engineer-in-charge including cost of excavation, curing, providing & fixing of heavy-duty C.I. Steps in wall concrete etc. Circular well of 5 m dia & 6 m depth	1	No	649236.00	649236.00
4	H.D.P.E Pipe - Providing & supplying in standard length ISI mark high density Polyethylene H.D.P.E suitable for potable water as per IS 4984/1995 including all local and central taxes, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, etc. complete. including Excavation for pipe trench incl. all safety provisions using site rails and stacking excavated stuff up to a lead directed by EIC, Cleaning the site etc. complete for lifts and strata as specified Lowering & laying in position to correct line & level and on pedestal or chairs upon prepared formation or prepared bedding in trenches the rates include conveyance from store to site of work loading, unloading, joint plastering, hydro	2250	rmt	5041.00	11342250.00

	testing etc. complete & Refilling the Pipeline trenches incl. ramming, watering, consolidating deposal of surplus stuff as directed within Project Area and as per approved design & drawing by EIC or his Authorized Representative. Note: - Rate for HDPE (PE-100) Pipe based on the rate of HDPE Resin as Rs. 121185/MT (Price Without GST). 450 mm dia HDPE pipe-6.0 kg/cm ²				
5	REFLUX VALVES: SITC of Providing and supplying ISI mark CI D/F Reflux Valves as per IS:5312 (Latest Edition) of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. complete. Also, including SITC of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods etc. of following MOC & pressure ratings. MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weld ends: IS 2062 Gr. B; Flanges: IS 2062 Gr. B (Drilling as per IS 1538 / IS 6392) & Limit Rods & Nuts: CS - IS 1367. complete of same dia including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete. 450 mm dia. Reflux Valve	1	No	118525.00	118525.00
6	SLUICE VALVE: SITC of double flanged Gear Operated Sluice Valve generally conforming to IS :780 / IS: 2906, having body, door, cover in graded cast iron to IS:210, FG: 200, inside screw non-rising spindle of stainless steel - AISI 410, Body and door seat (four) ring of stainless-steel CF-8. Spindle nut of leaded TIN bronze grade LTB: 2 to IS :318. Valve seat tested to 10 kg/cm ² and body to 15 kg/cm ² flanges machined faced and drilled to IS: 1538 / 1976 Part- IV/VI. Hydraulic tests certificate & certificate of material of construction of parts shall be submitted before dispatch of valve of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. Also, including SITC of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods etc. of following MOC & pressure ratings. MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weld ends: IS 2062 Gr. B;	1	No	92570.00	92570.00

	Flanges: IS 2062 Gr. B (Drilling as per IS 1538 / IS 6392) & Limit Rods & Nuts: CS - IS 1367. complete of same dia including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete rate for sluice valve including Expansion Bellow but Without Actuator including fixing in position. 450 mm Dia Sluice Valve				
7	RCC Chamber for Flowmeter/ BFV/ SV/ RV/ Air valve at Various Locations -Construction of cast in situ M20 RCC Flowmeter/ BFV/ SV/ RV/ Air valve chambers of required size having wall thickness, Bottom slab thickness and top slab thickness as per drawing, including minimum reinforcement of FE 500 TMT and bottom base cement concrete(PCC) (1:3:6) as per detailed drawing & specification and as per instruction of Engineer-in-charge including cost of excavation, refilling, curing, top man hole cover of precast concrete M-20, providing & fixing of Heavy Duty PVC Steps in Wall Concrete etc. 1.5 m x 1.5 m x 2.0 m size	4	No	74600.00	298400.00
8	AIR VALVE : Providing and fixing in position and jointing of cast steel temper proof Kinetic Double Orifice Cast Steel Tamper Proof non- tamper Air release valve with isolating sluice valve of PN1.6 type, flanged ends high performance CI air valves for water combination type (Air release valve non tempering type) having double ball, double orifice with stainless steel ball, tamper proof air vents rolling seal mechanism for air release and anti-vacuum application, having flat faced flanges and drilled to IS : 1538 / Part-IV /VI. Hydraulic tests certificate & certificate of material of construction of parts shall be submitted before dispatch of valves. (Rate to include cost of gaskets, bolts, nut and any other materials required for jointing and its transportation etc. including all taxes and duties. with required accessories, erection hardware, necessary mounting supports etc. complete, including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading conveyance to site of work stacking etc. complete with Double flanged Class A CI pipes for raising air valve up to 4 m from crown of pips as per IS-1536 with internal & external epoxy painting including 100 mm thick M-20 for encasing the pipe and painting the same from outside & connecting main pipe etc. complete.	8	No	23957.00	191656.00

	80 mm dia Air Valve				
9	<p>WATER HAMMER CONTROL DEVICE: Providing, supplying and delivery of Water Hammer Control Devices i.e., Zero velocity valve of M.S body for use on various pumping main of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. complete. Also, including SITC of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods etc. of following MOC & pressure ratings. MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weld ends: IS 2062 Gr. B; Flanges: IS 2062 Gr. B (Drilling as per IS 1538 / IS 6392) & Limit Rods & Nuts: CS - IS 1367. complete of same dia including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete. Rate for water hammer control device is including Expansion Bellow fixing in position but without actuator.</p> <p>Zero velocity valves - M.S. body (class-10) - 450 mm dia with Expansion bellow of same dia.</p>	1	No	143329.00	143329.00
10	<p>THRUST BLOCK: Providing and Casting in situ C.C. grade M-20 (proportions shall be as per mix design or as per Table 9 of IS 456 in mass by weigh batching) using granite, quartzite trap metal of size 6 mm to 20 mm for RCC work, including scaffolding, centering, formwork, needle vibrated consolidation, curing etc. complete up to all lead and lift but with water proofing compound and also including PCC below thrust block projecting min. 15 cm on both side and also including minimum reinforcement 10 mm dia @ 250 mm c/c on each surface of concrete and pipe as per Typical drawing for Thrust Block for all lead & lift.</p>	23	cum	7472.00	171856.00
11	<p>ENCASING: Providing CC M-10 for encasing of pipes using trap metal size 12 mm to 50 mm as per drawing incl. formwork, curing, consolidation etc. complete for various locations on pipeline including necessary formwork & minimum temperature reinforcement Fe 500 TMT Bars of 5 kg/ m²</p> <p>1. Using trap metal 20 mm nominal size</p>	71	cum	7546.00	535766.00
12	<p>ROU /ROW: Land Acquisition for Water Pipeline from Intake Pump House to village tanks. This item includes field survey to ascertain details of Private</p>	3.4	Ha	75000.00	255000.00

	land and Government land wide, length and alignment of the route marked on village map and prepare proposal for approval of competent authority including Completion of all the statutory formalities up to entering in to agreement for ROU shall be of the tenderer as directed by engineer-in-charge. The scope also includes for laying of pipeline on the alignment of required land width, Legal payments for ROU / ROW rent of land and standing crop compensation etc. as required, shall be paid by contractor and same will be reimbursed by Department to contractor. Proposals in these respects with complete justification to be submitted by tenderer for approval of competent authority and payment from Department. The department will sign the necessary documents required for permissions / clearances. Required co-ordination for sanction from the concerned authority & NOC from the concerned authority / land owner for satisfactory completion shall be provided by the bidder. Mode of payment: Payment will be made in pro rata of laid pipeline length in ROU/ROW.				
13	PANAL ROOM & STORE ROOM: Providing and constructing in RCC M-30-Panal room with all required RCC work incl steel, plaster, light fitting, doors & window, lighting with providing water supply facility etc. as per detailed drawing etc.	60	Sqmt	17193.00	1031580.00
14	COMPOUND WALL & FENCING: Construction of Compound Wall with wire fencing as per detailed drawing, detailed specification and directed by engineer in charge during execution period.	95	Rmt	9706.00	922070.00
15	MS GATE: Providing and fixing of main gate of size 5.0 x 2.0 m in compound wall of approved design including fabrication from M.S. Section, boxes, channels, flats, rod, etc. with necessary welding and fixtures and fastening etc. complete as per drawing with one coat of red oxide and two coats of enamel paint of approved quality. All shall be as per approved drawing and as per the instruction and direction of Engineer In-charge etc. complete as directed.	1	No	62532.00	62532.00
16	SITE GREADING: Includes levelling, scrabbing of trees & plants carting away all additional Debris etc. complete	600	m ²	549.00	329400.00
17	INTERNAL ROAD: Construction of RCC internal road in M-20 with box cutting, preparation of sub base, cc 1:3:6 of 15 cm and RCC M-20 of .15 cm with 10 mm dia Reinforcement of 300 c/c with vibrating, compacting and curbing etc. completed.	120	m ²	1871.00	224520.00

18	ROAD CROSSING: Drilling of horizontal bore hole for water main pipeline under the Railway / Road tracks in all strata with required length including fixing of M.S. (or as specified by Railway/ Road authority) casing pipe of suitable size and Thickness. Rate includes the cost of Drilling of bore hole, Casing pipe & welding pushing etc. complete but excluding the cost of water main, valves and other items. Entire work should be as per approved drawing and as per instruction of Railway/ Road authority for following diameter of Bore hole. for MS pipe. For Highway Road for 450 mm dia HDPE water main - Horizontal Drilling -600 mm & MS Casing Pipe-500 mm dia, thick: 8 mm	30	Rmt	9166.00	274980.00
19	DISSIPATION STRUCTURE: Providing and constructing dissipation structure with all required RCC work incl proper foundation, steel, etc. as per detailed drawing complete.	1	No	75065.00	75065.00
B PRICE SCHEDULE- B: MECHANICAL WORKS					
1	SUBMERGED CENTRIFUGAL PUMP: Supply, installation, testing & commissioning of submerged centrifugal pump sets (water immersed, dry air filled, class "F" insulated TEWC motor integrally mounted on volute casing pump sets for water duty, 3-phase, $50 \pm 3\%$ Hz, $415 \pm 10\%$ V along with suitable foundation / installation device with cable length from pumps to panels & of following Material of Construction: Impeller: CF8M, Casing: C.I. FG 260, Wearing Ring: SS, TC mechanical seal, CS/SS bearing, SS shaft with sleeve, SS strainer & MS motor body. 30 KW (2W+1S), Capacity: 204 m ³ /hr, Head: 35.0 m.	3	Nos	349020.00	1047060.00
(ii)	Erection Charges for Motor rating (without material supply)	3	Nos	20948.00	62844.00
2	MS PIPE: Manufacture, supply & delivery of submerged arc spiral welded MS Pipe with inside lining food grade solvent free epoxy of 406 micron thickness & outside 3 LPE Coating having beveled ends plate or coil confirming to IS-3589-2001 or its latest revision/ amendment for following thickness & outside diameter at Departmental store/ site including Providing and Laying/ Fixing the specials anywhere in the Project area including all taxes, insurance, transportation, freight charges, Octroi, inspection charges, loading, unloading, conveyance to Department store/ sites, stacking etc. complete as instructed by EIC, including Excavation for pipe	60	Rmt	1654.00	99240.00

	trench incl. all safety provisions using site rails and stacking excavated stuff up to a lead directed by EIC, Cleaning the site etc. complete for all lifts and all strata, Lowering & laying in position to correct line & level M.S. Pipe as above on pedestal or chairs upon prepared formation or completely dry or completely saturated sand bedding of 100 mm thickness in trenches, the rates include conveyance from store to site of work loading, unloading, jointing, hydrotesting etc. complete & Refilling the Pipeline trenches incl. ramming, watering, consolidating deposal of surplus stuff as directed within Project area as per approved design and drawing by EIC or his Authorized Representative. (Rate for MS Pipe based on the ex. works price of HR Coil as Rs.58500 per MT - without GST (Above 3.15 mm to 10 mm) & Rs. 59000.00 per MT without GST (Above 10 mm) as on Jan-23. (WPI Index of H. R Coil of Dec-22 is 144). 113 mm dia MS pipe - 4.0 mm thick				
(i)	219.1 mm dia MS pipe – 6.3 mm thick	45.0	Rmt	3674.00	165330.00
(ii)	457 mm dia MS pipe - 6.3 mm thick	20.0	Rmt	8131.00	162620.00
3	REFLUX VALVES: SITC of Providing and supplying ISI mark CI D/F Reflux Valves as per IS:5312 (Latest Edition) of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. complete. 200 mm dia - PN 1.6	3	No	16313.00	48939.00
4	BUTTERFLY VALVES: Providing & erecting Ductile Iron D/F Butterfly valves IS 13095 with ISI Mark (PN-1.6) as Isolation Valves with jointing to pipe work (including all hardware and packing) water quality, having non-rising spindle with hand wheel and without bypass arrangement, spindle, etc. as per requirement, including providing and fixing expansion Bellow. Hydraulic tests certificate & certificate of material of construction of parts shall be submitted before dispatch of valve of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete rate for Butterfly valve including followings but With Actuator. Also, including SITC of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods	3	No	14176.00	42528.00

	etc. of following MOC & pressure ratings. MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weld ends: IS 2062 Gr. B; Flanges: IS 2062 Gr. B (Drilling as per IS 1538 / IS 6392) & Limit Rods & Nuts: CS - IS 1367. complete of same dia including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete rate for Butterfly valve including fixing in position. 200 mm dia – PN 1.6				
5	SLUICE VALVE: SITC of double flanged Gear Operated Sluice Valve generally conforming to IS :780 / IS: 2906, having body, door, cover in graded cast iron to IS:210, FG: 200, inside screw non-rising spindle of stainless steel - AISI 410, Body and door seat (four) ring of stainless-steel CF-8. Spindle nut of leaded TIN bronze grade LTB: 2 to IS :318. Valve seat tested to 10 kg/cm2 and body to 15 kg/cm2 flanges machined faced and drilled to IS: 1538 / 1976 Part-IV/VI. Hydraulic tests certificate & certificate of material of construction of parts shall be submitted before dispatch of valve of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. 100 mm dia - PN 1.6	4	No	5082.00	20328.00
6	CHAIN PULLEY BLOCK - Providing chain pulley block with triple gear arrangement, lifting hook, load chain & hand chain & locking device etc. Capacity: 2 Ton, Lift: 6 m.	1	Set	17400.00	17400.00
7	STEEL - Providing, Supply of Structure Steel at site of work with freight, loading, unloading carting, etc. including all taxes and duties complete such as joints, channels, angles, Iron Rails, ISA/ISMC/ISMB/MS flat, Plates, Chequered plates (below 10mm thickness) for cable trench etc. required for support structure of all Electro-mechanical equipment, piping, etc. for support on floor / wall / beam / brackets etc. as per tender and IS.	1500.0	Kg	72.916	109374.00
8	LABOUR FOR STEEL - Labour charges for lowering laying, erecting, fixing, various size of M. S section such as joints channel, angles plates, Iron Rails, ISA/ ISMC/ ISMB/ MS flat, Plates, Chequered plates for cable trench etc. complete with two coats of red oxide and two coats of approved colour shade of epoxy paint as per relevant IS and as per specification.	1500.0	Kg	8.523	12785.00

C	PRICE SCHEDULE- C: ELECTRICAL WORKS				
1	SWITCH FUSE UNIT: - Providing Approved make Triple Pole Metal Clad Switch Fuse Unit 415/500 V. with HRC fuse of suitable load and neutral link confirming to IS. Rating: - 200 Amp (Cat -III)	1	No	9360.00	9360.00
2	LV PANEL (ATS STARTER) - Auto transformer starter suitable for local & remote pump control application consisting of Auto Transformer (vacuum impregnated, air cooled having three (3) tapings at 50%, 65% and 80%), incomer MCCB / MPCB, overload relay and contactors as per Type II coordination including digital MFM with RS 485 communication port, analogue type ammeter with selector switch, run hour meter, required protective relays & control accessories. Rating- 30 kW	3	No	33403.00	100209.00
3	SITC of Lighting Distribution Board (LDB) as under: 1. Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs. (The DBs should be used of same company of MCB to be used) suitable for-(B) 3 phase incoming and 1 phase horizontal type outgoing-Per phase isolation type (PPI) single door-8 way (for indoor & outdoor lighting suitable to house)-1 nos. 2. Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity Incoming- 32A FP, MCB 'C' curve-cat III- 1 nos. Outgoing- 20A SP, MCB 'C' curve-cat III- 5 nos.+ 16A SP, MCB 'C' curve-cat III- 5 nos. (At panel Room).	1	No	10401.00	10401.00
4	MIDIUM VOLTAGE CABLES: Supply, laying, testing & commissioning 1.1 kV grade, XLPE insulated, standed Aluminium conductor, galvanized steel flat strip / round wire armoured, extruded PVC type ST2 sheathed, heavy duty cable (to be laid on wall surface with necessary clamps / in existing cable trench / cable trays / conduit / pipe sleeves at road crossing or floor as per site requirement) conforming to IS:7098 (Part-1) & IEC:60502 (Part-1) of following sizes:	20	m	343.00	6860.00

	3.5 core, 95 sq.mm - AL XLPE Armoured (GEB meter to SFU)				
b	3.5 core, 35 sq.mm - AL XLPE Armoured (SFU to panel)	60	m	165.00	9900.00
5	CABLE GLAND - DOUBLE COMPRESSION: Providing & fitting heavy duty Double Compression Brass Cable Glands (nickel-plated) with washers & rubber ring conforming to IS, suitable for 3, 3½ & 4 core cables of following type & sizes: 3C x 95 sq.mm-AL XLPE Armoured	2	Nos	392.00	784.00
6	CABLE LUGS: Supplying and erecting crimping type aluminium/ copper lugs conforming to IS suitable for cable as per below evenly crimped with high pressure tool and connected to switch gear terminal with brass/ cadmium plates nuts bolts in an approved manner. Aluminium Reducer Terminals (in Sq. mm.) 95 sq.mm	6	Nos	31.00	186.00
b	35 sq.mm	12	Nos	12.00	144.00
7	COPPER EARTH PLATE: Supplying & erecting funnel type earthing having earth plate of following size burred in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanized Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification Size: - with 30 x 30 x 0.35 cms. Copper earth Plate	6	Nos	2700.00	16200.00
8	EARTH PIT: Providing and erecting Pipe type earthing with 40 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed. (1 nos each for panel, 1 no each for motor)	6	Nos	960.00	5760.00
9	GI STRIP: SITC of 50mm(w) x 6mm(T) etc. sizes as required, HOT deep GI Strip including supply & fixing using GI spacers, saddles when laid inside the building and inclusive of excavation & refilling of earth when laid outside the building & interconnection	50	kg	90.00	4500.00

	with earth pit & all electro-mechanical equipment. (50x6 G.I Strip wt.2.36 kg/m, 2.36x21 m. = 49.56 kg.)				
10	<p>MAIN WIRING:</p> <p>SITC of Main & Outlet points wiring with 1.1 kV Grade FRLS PVC insulated ISI marked flexible stranded copper conductor wires with medium class min. 25mm dia. Rigid PVC Pipe and accessories to be erected concealed in/to be run on surface /wall/ ceiling with following sizes as mentioned below. The unit rate wiring shall be with connector, PVC junction box, wire holder, ceiling rose, Angle holder, switch, switchboard brass chromium/cadmium plated machine screws, phase and neutral wires, green earth continuity wires etc. as required to complete wiring from LDB panel to the final outlet termination points. The wiring shall be as per IS :732, IS :4648 and as per tender specification / IS.</p> <p>(C) with ovel conduit / PVC casing capping double lock type</p> <p>SITC of Main wiring with 3 wire 1.5 Sq.mm</p>	70	m	84.00	5880.00
b	SITC of Main wiring with 3 wire 2.5 Sq.mm	60	m	106.00	6360.00
c	SITC of Main wiring with 4 wire 1.5 Sq.mm	50	m	95.00	4750.00
11	<p>POINT WIRING:</p> <p>Point wiring for Light/ Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length , in below type of pipe erected with 6A Modular type switch/ bell push & accessories and earth continuity of following type, erected on PVC/ Metallic/ Wooden box, single mounting base frame covered with extrude/ metallic/ white front plate modules erected on/ in wall/ ceiling as per pipe erected, with necessary Lamp holder/ ceiling rose/ H.D. Connector as directed.</p> <p>a. With medium class Rigid PVC pipe and accessories erected flushed on wall/ ceiling, cat III (For led tube light, celling fan, ex. fan)</p>	13	Nos	489.00	6357.00
12	<p>POINT WIRING:</p> <p>Point wiring for 5/15A Individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin Plug erected on PVC / Metallic/Wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with</p>	6	Nos	519.00	3114.00

	<p>following type of accessories.</p> <p>1. For 6A plug and 6A switch with 2-1.5 sq.mm Cu. wire from nearby mcb board</p> <p>a. with medium class rigid PVC pipe and accessories erected flushed on wall/ ceiling complete.cat- III (for external light)</p>				
13	<p>POINT WIRING:</p> <p>Point wiring for 5/15A independent PLUG with following size mains earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multistrand copper wires, in following type of pipe to be erected concealed in /flushed on wall/ceiling, complete with ISI marked 3 / 5 Pin socket and tissino type switch erected with earth continuity connection erected on Metal / PVC box covered with 3 mm thick PC(Polycarbonate) / Acrylic sheet.</p> <p>(A) for 2-4 sq.mm Cu. Mains with medium class Rigid PVC pipe & accessories</p>	6	Nos	665.00	3990.00
14	<p>LED TUBELIGHT:</p> <p>Supplying and erecting LED Indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet steel confirming to IS 513/CRCA/aluminium dia cast powder coated and high U.V & corrosion resistance with diffuser with company mark/name 120 to 300 V, Power Factor more than 0.9, THD < 10%, CCT 3000 K to 6500K, Luminaire efficacy > 85 lumens/watt. LED efficiency - 110 lumens/watt, LED driver efficiency > 85%. CREE/ OSRAM/ PHILIPS Lumileds/ NICHIA/ SEOUL/ Bridge Lux (U.S.A.) make LED used for luminaire. (Fittings required LM-79 & LM-80 certificates).</p> <p>Tube Light with integral driver of following type.</p> <p>1. 18-20 Watts, Surge-2KV, IP-20, 4 feet- cat-III (for PS indoor use)</p> <p>(6 nos in panel room & 2 nos in store room)</p>	8	Nos	345.00	2760.00
15	<p>LED STREET LIGHT:</p> <p>Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V Power Factor more than 0.95, THO < 10 %, CCT</p>	6	Nos	5753.00	34518.00

	3000 K to 5700K, Uniformity ratio >0.45, Luminaire efficacy > 100 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings. The Engineer in charge may select any wattage capacity between the ranges shown.) [A] Street Light (IP-65), Surge protection -4KV integral and, Light must have 440VAC line supply with over-voltage protection. 70-Watt Street Light (IP-65), Surge -4KV Cat-II (4 nos on pole & 2 nos on pipe mount on wall)				
16	GI PIPE FOR MOUNTING OF STREET LIGHT: SITC of 'B' class galvanized iron pipe 32 mm outside dia 45 cms long duly welded on 20 cms x 20 cms x 3 mm thick M.S. base plate, erected on wall or corner for mounting luminaire with necessary hardware materials duly painted for wall mounting indoor flood light fixtures on wall of buildings.	2	Nos	400.00	800.00
17	POLE: Supplying & erecting Steel tubular pole (Swaged) conforming to IS - 2713 (Part-II) 1980. Manufacturing process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles is as below. (Pole as per IS code 410-SP-4 with 300 X 300 X 4 mm base plate.) 7.5-meter-long swaged Steel tubler pole.	4	Nos	8465.00	33860.00
18	POLE FOUNDATION: Providing M-20/1:2:4 Cement concrete foundation & 70% PCC from bottom including excavation for the pole of size 60 x 60 x 120 cms. Deep in below ground level with plinth of 45 cms x 45 cms high upper ground level with necessary curing and finishing in approved manner (for 7.5 & 8/8.5 mtr pole)	4	Nos	1510.00	6040.00
19	POLE BOXES: Supplying & erecting Sintex or approved make SMC press molded composite FRP (plastic) loop-in, loop-out box completes with bakelite connector strip 4 way & hinged doors having locking arrangements with mounting clamp with nuts, bolts & washers suitable for erection on pole with cable clamps & earth bolt of following size of box. b) 250 mm x 200 mm x 100 mm	4	Nos	600.00	2400.00

20	STREET LIGHT BRACKETS: Providing Street light pole bracket consisting of" B" Class MS. pipe of 4.2 cms. outside dia. complete with suitable MS sleeve tubing of required size and length suitable for 76.5mm/80mm/require size of pole top having nuts and bolts for fixing the brackets and having spread of 0.5 mtr. Length with 110 deg. with vertical plane and suitable welded stiffener reducer and nipple with check-nut complete painted with one coat of red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms. [A] Single Arm bracket 0.5 meter	4	Nos	525.00	2100.00
21	CELLING FAN: Providing and erecting Approved make 1200mm sweep ceiling fan, capacitor type, having double ball bearing 450mm down rod, canopies, shackle, rubber bush, blades, electronic speed regulator, suitable to operate on 230V,50Hz AC supply conforming to IS: 374/1979. Fan shall be painted with white colour.	4	Nos	1865.00	7460.00
22	EXHAUST FAN: Supplying & erecting single phase approved make industrial exhaust fan suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM and suitable to operate on 230V, 50 Hz AC supply conforming to IS: 2312. Size: - 380 mm dia, 1400 RPM (Cat-II)	1	Nos	3600.00	3600.00
23	FIRE EXTINGUISHER: SITC of following safety accessories complete with necessary fixing brackets, other accessories and tools etc. as required to complete the job. Supply & Erecting carbon dioxide (CO2) fire extinguisher of 6.5kg capacity with necessary clamps made from 50 x 6 mm M.S. Flat with nut & bolts grouted in wall complete.	2	Nos	10130.00	20260.00
24	FIRST AID BOX: Supplying stand first AID box with antiseptic cream, medicine for use on wound due burn, crepe bandage, gauge bandage, Band-aid adhesive tape for medicinal user, Scissors, anti-septic solution. (All above contents shall be of standard makes).	1	Nos	350.00	350.00
25	INSTRUCTION CHART: Providing and fixing printed instruction chart (First Aid) both in English and Gujarati and duly framed with front glasses, for treatment of person suffering from Electric shock with minimum 50" diagonally size.	1	Nos	150.00	150.00

26	FIRE BUCKET: Supplying Fire bucket round bottom of 9 litres capacity made out of 24-gauge G.I sheet with extra handle at bottom duly painted white inside and red outside with Fire mark, filled with dry-sand and kept on existing stand provided or hung on wall hook.	3	Nos	250.00	750.00
27	RUBBER MATTING: Supply and laying of 3 mm thick, 1000 mm wide Rubber Matting Class - A as per IS:15652 / IEC 61111 and with good electrical insulation property for 1.1 kV and as per site requirement. (For LV panel)	6	Sqmt	900.00	5400.00
28	HAND GLOVES: Providing pair of rubber hand gloves suitable for working on 11KV/22 KV power supply.	1	Nos	250.00	250.00

D PRICE SCHEDULE- D: INSTRUMENTATION WORKS

1	ELECTRO MAGNETIC FLOWMETER - SITC of Full Bore Electromagnetic flow meter with factory calibrated, Regular Power Operated, flanged connection, Flow sensor, Indicator, transmitter and totalizer with all accessories viz. surge arrestor, associated cables, cabinets, hardware, etc. complete as per following specifications: a) Flow Meter/ Sensor- DC pulsed type, IP 68 Protection, Flanged process connection as per IS 1538 or equivalent standard, SS304/ Metallic Alloy Flow Tube, SS316/ SS 316 L/ Hastelloy Sensor, SS316/ Hastelloy Grounding Ring/ Inbuilt Grounding Electrode, Neoprene/ Polyurethane/ Hard Rubber/ Rilsan lining, SS304/ Die Cast Aluminium/ Carbon steel with Anticorrosive Paint Coil Housing with Junction Box, CS flanges. b) Flow Transmitter/ Converter (Remote Field Mounted): Microprocessor based, Modular design, 2 line LCD for indication of actual flow rate, forward, reverse, sum totalizer display, $\pm 0.5\%$ accuracy at 0.3 to 4 m/sec velocity, 4 to 20 mA with HART/Modbus output, one scalable pulse, one status output, IP 67 protection, Die cast aluminium/ polycarbonate/ SS316 with Anticorrosive Paint/ PU finish with glass window enclosure, Inbuilt EEPROM and Data Logger, 20 meters cable length for sensor to transmitter communication etc. along with wall mounted/ stand mounted cabinet. (As per site conditions sensor cable) with required accessories, erection hardware, necessary mounting support etc. The control cable shall be required up to LT panel from Flow meter.	1	No	248799.00	248799.00
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	Size – 450 mm Nominal Bore - PN 1.6- (At delivery Header of P.S.)				
2	EXPANSION BELLOW - (for electromagnetic flowmeter) SITC of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods etc. of following MOC & pressure ratings. MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weld ends: IS 2062 Gr. B; Flanges: IS 2062 Gr. B (Drilling as per IS 1538 / IS 6392) & Limit Rods & Nuts: CS - IS 1367. complete of following dia including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete. Size – 450 mm-PN 1.6	1	No	20880.00	20880.00
3	FLOAT AND BOARD TYPE LEVEL INDICATOR - Design, Supply, Installation, Testing and Commissioning of Float & Board Type Level Indicator, guided construction, Full Range Travel, FRP/ SS316 MOC of Float and Guide Wire Rope, minimum 6" wide x aluminum powder coating with black graduations and numerical on calibrated gauge board, Red color pointer, protection conduit, Elbow pulley, Tensioner, Anchor, Rope Fastener, Gauge Brackets, Counter Weight for rope type probe, spacer between the probes, etc. complete with calibration of following sizes. Size - up to 6 m	1	No	17718.00	17718.00
4	PRESSURE MEASUREING SYSTEM - Design, Supply, Installation, Testing, Commissioning of Bourdon Type Pressure Gauge, $\pm 1\%$ accuracy, Direct bottom 1/2" NPT (M) process connection, IP 67, Glycerin filled, SS304 Case with Bayonet Type Bezel, SS316 L Bourdon Tube, SS 316 Movement material, Aluminium dial with black graduation on white background, Micro Zero adjustable pointer, neoprene gasket, blow out disc, shatter proof glass, SS tag plate etc. as per IS 3624. etc. complete as per specifications, datasheet and as directed by the Engineer-in-Charge. (i) 100 mm Dial size - Range - 0 to 10 kg/cm ²	3	No	1029.00	3087.00
E	<u>PRICE SCHEDULE- C: OPERATION & MAINTENANCE</u>				
1	Total O & M price for 05 years (Note: The Work of this schedule comprises of the supply	1	L.S.	3094850.00	3094850.00

	of all spare parts as required including the supply of all labour, materials, consumables, equipment, tools and tackles and comprehensive operation and maintenance of this work from the date of successful commissioning of the system. Etc. as per the tender document and volume II (E) Operation and Maintenance; scope and specification (Refer Preamble to price schedules for further details)				
	TOTAL =				2,29,59,228.00/-

4. PRICE SCHEDULE - F: ADDITIONAL ITEMS REQUIRED TO BE CARRIED OUT FOR SUCCESSFUL COMPLETION OF THE SYSTEM

Item No.	Description	Qty.	Unit	Rate (In Rs.)	Amount (In Rs.)
1					
2					
				Total =	
				Say...	

NOTE: -

1. The Bidder has to quote rate against each item individually as mentioned. No combined or break-up of price other than items indicated will be quoted.
2. Any information or details filled other than above shall not be considered for evaluation.
3. The details of all required mechanical tools, tackles & test equipment, mechanical mandatory spare parts, electrical tools & test equipment, instrumentation mandatory spare parts for operation & maintenance for pumping station are given in 'Technical Specification for Operation & Maintenance' volume.

5. PAYMENT SCHEDULE

Terms of Payment for Civil, Mechanical, Electrical and Instrumentation Works – Payment Schedule

5.1 PREAMBLE TO PAYMENT SCHEDULE

1. As mentioned in the Conditions of contract, the Contract being a turnkey contract on EPC basis, the provision of measurement will be applicable only for the assessment of value of work done for inclusion in any interim certificate for part payment to the Contractor. However, for item indicated for addition or reduction in quantity shall be paid or recovered as per the corresponding rate of corresponding item indicated on pro-rata basis. Such as Items of Price Schedule – A, any addition or deduction in quantity shall be paid or recovered as per the corresponding rate derived for the respective item.
2. The Schedule specifies the procedure for all such assessment of the items for interim payment specified in Price Schedule – A to E.
3. Each item of Price Schedule - A to E has been divided into broad components. The Employer's Representative shall assess the value of each component as indicated in paragraph 6 herein below.
4. Percentages are indicated against each component of each item of Civil works specified in Price Schedule - A, based on the Employer's best appreciation of the value of the component as related to the total costs of the concerned item as whole. A head titled (any other item(s)) is included in each breakdown of schedule. The tenderer shall at the time of tendering indicate any addition items which he considers necessary but cannot be covered by any of the heads indicated in the breakup.
5. The percentage breakup as indicated in the Schedule may differ from that corresponding to the tenderer's scheme and design and he should take this into account while quoting his prices for the items specified in Price Schedule – A to E.
6. The contractor shall after approval of his detailed designs and drawings furnish to the Employer's Representative an initial bill of quantities for all major items, to be reviewed and updated periodically with the Employer's Representative. This bill of quantities will be used for assessment of percentage progress of the component at any stage. Measurement shall be jointly taken by the Employer's Representative and the Contractor, mutually agreed and entered in the measurement books in the form and by the method approved by the Employer's Representative and signed jointly by both the parties.

5.2 PAYMENT SCHEDULE

Item No.	Description of Item	Percentage Payment to be released of respective item of Price Schedules of Quoted Price
A	CIVIL AND PIPELINE WORKS	PRICE SCHEDULE – A
1	R.C.C. PIPE	
	Manufacture & inspection completed at factory/ Plant & certificate issued by TPI or approving authority and Supply of pipe & transportation to work site etc.	60%
	Excavation for pipeline trenches in all strata including bedding etc.	5%
	Lowering, laying, jointing including all Field testing and Ultrasonic test.	20%
	Refilling of Trenches.	10%
	On Satisfactory completion of “C” value testing.	2%
	On Satisfactory trial run & commissioning including Hydro-testing.	3%
2	HR GATE	
	After the Construction up to 50% height	50%
	Completion of the construction	45%
	On Satisfactory trial run & commissioning including Hydro-testing	5%
3	CIRCULAR WELL	
	After the Construction up to 50% height	50%
	Completion of the construction	45%
	On Satisfactory trial run & commissioning including Hydro-testing	5%
4	MS PIPE (All Dia)	
	Manufacture & Supply of Spirally Arc welded M.S. pipes with necessary shop testing - On completion of Inside and Outside Coating of pipeline transportation to work site etc. (Except inside & outside coating for length of maximum 15 cm on both end of MS pipe)	60%
	Excavation for pipeline trenches in all strata including bedding etc.	5%
	Lowering, laying, jointing including all Field testing and Ultrasonic test.	20%
	Refilling of Trenches.	10%
	On Satisfactory completion of “C” value testing.	2%

	On Satisfactory trial run & commissioning including Hydro-testing.	3%
5	H.D.P.E Pipe (All Dia)	
	Manufacture & inspection completed at factory/ Plant & certificate issued by TPI or approving authority and Supply of pipe & transportation to work site etc.	60%
	Excavation for pipeline trenches in all strata's including bedding etc.	5%
	Lowering, laying, jointing including all Field testing etc. Complete	20%
	Refilling of Trenches.	10%
	On Satisfactory trial run & commissioning including Hydro-testing.	5%
6	BUTTERFLY VALVES (All Dia)	
	On receipt of material at work site in good condition	65%
	On erection of valves	30%
	On hydraulic testing and satisfactory trial run & commissioning.	5%
7	REFLUX VALVES (All Dia)	
	On receipt of material at work site in good condition	65%
	On erection of valves	30%
	On hydraulic testing and satisfactory trial run & commissioning.	5%
8	SLUICE VALVE (All Dia)	
	On receipt of material at work site in good condition	65%
	On erection of valves	30%
	On hydraulic testing and satisfactory trial run & commissioning.	5%
9	RCC Chamber	
	The payment shall be made on successful completion of the said work as per drawing.	90%
	On satisfactory trial run & commissioning	10%
10	AIR VALVE (All Dia)	
	On receipt of material at work site in good condition	65%
	On erection of valves	30%
	On hydraulic testing and satisfactory trial run & commissioning.	5%

11	WATER HAMMER CONTROL DEVICE	
	On Approval of Surge analysis, design & drawings for Surge Control Devices	2%
	On procurement and installation of required surge control devices with allied accessories on site of work	78%
	On completion of designing and construction of suitable size of RCC chambers as per the drawing	10%
	On successful completion of testing and commissioning of surge control devices	5%
	On commissioning of system & NOC from respective authority	5%
12	THRUST BLOCK	
	The payment shall be made on successful completion of the said work as per drawing on cubic meter Basis.	95%
	On commissioning of system & NOC from respective authority	5%
13	ENCASING	
	The payment shall be made on successful completion of the said work as per drawing on cubic meter Basis.	95%
	On commissioning of system & NOC from respective authority	5%
14	ROU /ROW	
	The payment shall be made on successful completion of the said work as per instruction.	60%
	On commissioning of system & NOC from respective authority	40%
15	PANAL ROOM & STORE ROOM	
	On completion of R.C.C & Masonry work up-to plinth level including excavation, filling etc. With any miscellaneous work.	20%
	On completion of RCC work and masonry work up to full height of room	20%
	On completion of inside & outside plaster, painting, doors windows, ventilators, flooring, staircase, water proofing treatment to terrace etc. with all miscellaneous works	40%
	On completion of all remaining works such as water supply, sanitary arrangement, electrification etc. With all miscellaneous works	20%
16	COMPOUND WALL & FENCING	
	On completion of construction with all miscellaneous works	90%

	On commissioning of system from respective authority	10%
17	MS GATE	
	On completion of construction with all miscellaneous works	90%
	On commissioning of system from respective authority	10%
18	SITE GREADING	
	Site grading, Gardening, Planting at pumping station	90%
	On commissioning of system & NOC from respective authority	10%
19	INTERNAL ROAD	
	On completion of construction with all miscellaneous works	90%
	On commissioning of system from respective authority	10%
20	ROAD CROSSING	
	The payment shall be made on successful completion of the said work as per drawing.	90%
	On commissioning of system & NOC from respective authority	10%
21	DISSIPATION STRUCTURE	
	The payment shall be made on successful completion of the said work as per drawing.	90%
	On satisfactory trial run & commissioning	10%
B	MECHANICAL WORKS	PRICE SCHEDULE – B
(i)	On procurement of materials at site of work in good condition	65%
(ii)	On installations of PM, valves, pipes, crane etc.	15%
(iii)	On completion of satisfactory testing & commissioning	10%
(iv)	On satisfactory running of the system	10%
C	ELECTRICAL WORKS	PRICE SCHEDULE – C
(i)	On procurement of materials at site of work in good condition	65%
(ii)	On installations of Electrical Equipment's, etc.	15%
(iii)	On completion of satisfactory testing & commissioning	10%
(iv)	On satisfactory running of the system	10%
D	INSTRUMENTATION WORKS	PRICE SCHEDULE – D
(i)	On procurement of materials at site of work in good condition	65%
(ii)	On installations of Equipment's / Instruments, etc.	15%

(iii)	On completion of satisfactory testing & commissioning	10%
(iv)	On satisfactory running of the system	10%
E	OPERATION & MAINTENANCE	PRICE SCHEDULE – E
(i)	On successfully completion of 1st Year	10%
(ii)	On successfully completion of 2nd Year	10%
(iii)	On successfully completion of 3rd Year	20%
(iv)	On successfully completion of 4th Year	30%
(v)	On successfully completion of 5th Year	30%

NOTE: The Proportionate payment will be released every month on satisfactory performance of O&M and on receipt of invoice along with all documents.