

**Supply , Erection, Testing & Commissioning of Construction Water Sysytem Talcher Fertilizers Limited, Odisha (India)**

**NIT No.: PNP/PC-150/E/103/NCB**

**Reply of Bidder's Queries [LOT-1] dt. 04.07.2018**

Sl. No	Reference of Bidding Document				Bidder's Query	OWNER/CONSULTANT REPLY
	Sec No	Page no.	Clause No-SI No	Subject		
<b>A</b>	<b>MECHANICAL AND CIVIL WORKS</b>					
1	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	492 of 492			Given drawing is not readable and it is hand sketch.  Plesae provide scale drawing duly indicating location of River water intake pump house, construction water pond and pipe routing.  Also provide soil investigation report of proposed pipe route and site grading drawing.	<b>New map and Tentative drawing will be provided,However Bidders are requested to visit site before submission of Quotation. Old soil investigation report will be provided for reference purposes,However soil investigation for Pipeline work is in contractor scope of work. Amendment shall be issued</b>
2	Drawing: Plan of intake well & pump house	486 of 492	--	--	In the referred drawing, details of section A-A are not given. Please provide.	<b>Detail drawing will be provided. Amendment shall be issued</b>
3	General	--	--	--	We have indicateedthelocations of River water intake pump house and Construction water pond in attached Google map. Please check and confirm whether our understanding is correct or not.	<b>Noted ,ok</b>
4	NIT - Part II - Section 2.1 - Technical specification of civil, structural and allied works	256 of 492	3.2 3.2.1	<b>FILLING</b> Back filling of excavations in trenches, foundations and elsewhere shall consist of one of the following materials approved by Engineer-in-Charge. i. Soil ii. Sand iii. Moorum iv. Hard-core	SOR calls for filling with sand / soil, whereas Specification calls for filling of material with sand/ soil / moorum / hard core / stone gravel. Both the clauses are contradicting with each other, hence clarify the type of material to be considered for filling after laying the pipeline.	<b>Schedule of Rates for Laying of Steel pipeline &amp; Associated works (Mechanical works) page no -451 of 492-clause 5.0 to be followed.</b>
	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	451 of 492	5	<b>BORROWED LOCAL/FOREIGN SELECT SOIL FOR BACKFILLING</b> Additional work over and above item 1.0 for supply of specified and approved quality of borrowed local soft graded soil / sand in place of available excavated material and / or other suitable soil as per applicable standards / specifications, including backfilling of		
5	NIT - Part II - Technical - Section 2.1	262 of 492	<b>9</b> <b>9.1.1 (ii a)</b>	<b>Painting on Structural steel</b> Painting systems to be used are indicated below: <b>Epoxy Painting:</b> Primer P1- 2 coats + finish paint FP1 (2 coats) where P1 is epoxy polyamide cured zinc chromate primer having DFT of 35 micron per coat and FP1 is epoxy polyamide cured finish paint having DFT (Dry Film Thickness) of 35 micron per coat. Equivalent product chart for approved paint manufactures for primer P1 finish paint FP indicated above is enclosed.  <b>Refer the specification.</b>	Painting to be considered for structural steel are contradicting in all the three clauses, however we are considering the painting as mentioned in the SOR, i.e 2 coats of chlorinated rubber based high build Zinc phosphate primer and 2 coats of chlorinated rubber based paint. Please confirm.	<b>All painting works related to Pipelines structurals &amp; Equipments shall be as per TS-2001 as attached in NIT.</b>

	NIT - Schedule of Rates for Civil, structural and other allied works at Talcher fertilizer complex at Talcher, Odisha.	438 of 492	E E-01	Supplying, de-rusting by shot blasting fabricating, erecting, hoisting and fixing in position structural steel work in rolled steel joints, channels, angles tees, flats, plates, lattice members built up / compound sections in columns, portals, girders, beams, bracings, trusses, Purlins, rafters, staircase, steps, hand-railings, walkway, toe plates, side walling, trestles. Conveyor gantries, screens etc. including gusset plates, anchor plates etc., including site and shop fasteners, riveting, bolting, welding at shop or work site at all heights etc. & epoxy painting complete as per drawing and direction of Owner / Consultant. (All material supply is in contractor's scope including paints (As per TS). (only TATA/SAIL/JSW/RINL make steel to be used)  a). <b>With providing and applying two coats of chlorinated rubber based high build zinc phosphate primer of approved brand and manufacture compatible to chlorinated rubber paint at a dry film thickness of 50 micron per coat on structural steel work after preparation of surfaces</b>		
	NIT - Part II - Section 6.1 - Painting Specification	407 of 492	5 1.	<b>Coating system selection</b> Coating Systems for Structures Piping and Equipment 1. Structural Steel work with operating temp. Up to 90 C (Steel structures, Piping support, uninsulated CS piping, flanges, valves, stairways, walkways etc. except grating). <b>Primer:</b> ONE coat of two pack zinc rich epoxy Primer meeting SSPC Paint 20 level 1 Finish coat: one coat of two packs. Polyamide Cured Epoxy. <b>Refer the clause.</b>		All painting/Coating works related to Pipelines structurals & Equipments shall be as per TS-2001 as attached in NIT.
6	NIT - Tender Document - Section - I - Invitation for Bid	6 of 492	2 (E)	<b>COMPLETION PERIOD</b> - 05 (Five) Months from date of issuance of 'FAX OF ACCEPTANCE'	Completion period is contradicting in the two clauses, hence kindly clarify the completion period to be considered.	<b>Completion Period shall be 05 (Five) months as per point no. E of section -1. Amendment shall be issued</b>
	NIT - Part II - Section 6.0 - 2.0 Annexure to Technical specification	315 of 492	3.0	<b>Annexure- 3.0 - Time Schedule</b> Laying of Pipeline & Associated Works for Construction water arrangement as described in scope of works under		
7	NIT - Section V - Special Conditions of contract	202 of 492	58	<b>Terms of Payment</b> Refer the specification	Both are contradicting regarding payment terms. Please clarify which one to be considered.	<b>Payment Terms shall be as per clause no. 58.0 of Section V ( Special Conditions of contract) . Amendment shall be issued</b>
	NIT - Part II - Section 6.0 - Annexure 5 - Terms of payment	319 of 492		<b>Terms of Payment</b> Refer the specification		
8	NIT - Part II - Section 6.1 - Insulation Joint	392 of 492	1	<b>Technical Specification of Insulation Joint:</b> 1. 6" x SCHHEAVY x BE - <b>Qty 04 nos.</b>	Quantity of 150NB Insulation joint are contradicting in Technical specification and SOR, however we are considering the quantity as per SOR. Kindly confirm.	<b>Schedule of Rates for Laying of Steel pipeline &amp; Associated works (Mechanical works) page no -454 of 492-clause 9H to be followed.</b>
	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	454 of 492	9H	<b>INSULATING JOINT</b> 6" SCH HEAVY x BE, INSULATING JOINT- ASME B 31.3 - <b>Qty 2 Nos</b>		
9	NIT - Part II - Technical Section 6.0 - Scope of Work and Technical specification	339 of 492	8.2-SI.No.1	Road Crossing 10Nos(40mtrs) - HDD	From the referredd clauses we understood that there will be 10 nos road crossing of width 3 to 4 m. Pleaseconfirm	<b>Confirmed</b>



14	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	453 of 492	7.2	INSTALLATION OF VALVES etc.  6" GATE VALVE,300#	We understood that the counter flanges, fasteners and gaskets for 6 Inch Gate valves are also free issued along with the valves by client, and hence the rates quoted under the item shall be only erection price of valve. Please confirm.	<b>6 Inch Gate valves are not free issue materials ,Supply is also in the scope of Bidders(Mentioned SOR Item no-9(e))</b>
15	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	452, 463 of 492	9.0  a	Complete works of supply of pipes for 6", (below mentioned length), flanges, fittings & valves for underground installation including all taxes, duties (EXCEPT GST transportation and inspection charges but not limited to, the following items in accordance with, relevant specifications & drawings indicated in job specification under this technical documents and instructions of Engineer-in-charge and as per all provisions of the CONTRACT. - Handling including lifting, transportation from Contractor Stores to CONTRACTOR's workshop for fabrication and/ or to work site for field fabrication and erection for all piping items supplied by Contractor. <b>PIPELINES &amp; ITS FITTINGS :</b> <b>PIPE</b> <b>6" ,3LPE COATED PIPES IS 1239 (ERW),HEVY BE</b> 2" , PIPES IS 1239 (SMLS),HEVY BE - 6 Mtr. 1.5" , PIPES IS 1239 (SMLS),HEVY BE - 6 Mtr. 1" , PIPES IS 1239 (SMLS),HEVY BE - 2 Mtr. 0.754" , PIPES IS 1239 (SMLS),HEVY BE - 2 Mtr.	From the description we understood that 3LPE coating is to be provided for only 150NB pipe size, and hence provide the painting to be considered for the remaining pipe sizes, as the painting specification consists of different coating materials with different temperature zones.  Also the piping construction for 2", 1.5", 1", 0.754" are mentioned as SMLS, whereas in general practice IS 1239 pipes are mostly available with ERW construction, hence kindly check and confirm the type of construction to be considered.	<b>For point no-01 Bidders understanding is ok.2-For construction for 2", 1.5", 1", 0.754" Piping SOR requirements shall be fulfilled..</b>
16	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	453 of 492	9E	<b>VALVES</b> 6"-Check Valve, CHV211, 300# A216Gr WCB, RF. 6"-Gate Valve, GAV211, 300# A216Gr WCB, RF 2"-Gate Valve, GAV211, 300# - A216Gr WCB,13%Cr. 1"-Gate Valve, 800#GAV201,A105,SW 3/4"-Gate Valve, 800#GAV201,A105,SW 3/4"-Glob Valve, 800# GLV201,A105,SW 1"-Glob Valve, 800# GLV201,A105,SW	We understood that the mating / counter flanges, bolts, nuts and gaskets required for valves are covered under SI No 9g, 9L and 9M. Hence we are quoting only supply and erection price of valves. Please confirm.	<b>Confirmed</b>
17	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	455 of 492	11.0	<b>SUPPLY &amp; INSTALLATION OF FIELD INSTRUMENT</b> Supply, Installation of Pressure Gauges and their accessories inclusive of supply of necessary piping materials and all necessary valves & fittings, plugs etc & hydraulic testing, calibration as per installation standard.	Datasheet / Specification of pressure gauges is not provided in the tender specification, hence kindly provide the same.	<b>It will be provided. Amendment shall be issued</b>
18	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	455 of 492	11.2	11.2 WATER FLOW METER, WITH TOTALIZER 0-100 m3PH - Qty 1 Nos	Quantity of water flowmeter is stricken off in SOR, hence kindly clarify the scope of flow meter.  If the same is to be considered, provide the datasheet / Specification of water flowmeter.	<b>Quantity of water flowmeter is 01(One). Amendment shall be issued</b>
19	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	455 of 492		Erection, commissioning & installation for above Instruments	SOR calls for Erection, commissioning & installation for above Instruments, whereas the above instruments in SOR are pressure gauge and water flow meter. Supply and erection of pressure gauge are already covered under SI No 11.10 and 11.1, and scope of water flow meter is not clear. Hence clarify the items for which erection, commissioning is to be considered and provide the breakup of the same.	<b>Erection, commissioning &amp; installation for Instruments i.e pressure gauge and water flow meter.</b>

20	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	456 of 492	14.1	<b>STRUCTURAL WORKS</b> Supply, fabrication and erection of all types of pipe supports like clamps, saddle, guide stops, cradles, turn buckles, anchors, T-posts; stockade/ trestle and pipe bridge for overhead piping; frames for canopy, approach ladders and platforms, crossover, cable tray supports, Crash barrier and Base frame modification of Pump Intake etc. including painting <b>suitable for highly corrosive area</b> as per specification labour and supervision & complete work as per drawings, specifications and instruction of Engineer-in-charge. (Bolts, nuts, washers, Uclamps etc. for supporting shall be supplied by the Contractor within the rates quoted. These items will not be measured and paid separately). The work is to be completed in all respect as per scope of work and specification.	SOR calls painting as per highly corrosive area, whereas the painting system mentioned in page No 407 of 492 consists of different temperature zones, hence clarify the painting to be considered for pipe supports.	<b>For painting TS-2001 to be followed.</b>
	NIT - Part II - Section 6.1 - Painting Specification	407 of 492	5.0	<b>COATING SYSTEM SELECTION</b> Coating Systems for Structures Piping and Equipment Refer the specification.		
21	NIT - Part II - Section 2.1 - Technical specification of civil, structural and allied works	256 of 492	3.2 3.2.1	3.2 FILLING 3.2.1 Back filling of excavations in trenches, foundations and elsewhere shall consist of one of the following materials approved by Engineer-in-Charge.		<b>Schedule of Rates for Laying of Steel pipeline &amp; Associated works (Mechanical works) Clause 1.0 &amp; 5.0 to be followed</b>
	NIT - Schedule of Rates for Laying of Steel pipeline & Associated works (Mechanical works) at TFL, Talcher.	451 of 492	5	<b>BORROWED LOCAL/FOREIGN SELECT SOIL FOR BACKFILLING</b> Additional work over and above item 1.0 for supply of specified and approved quality of borrowed local soft graded soil / sand in place of available excavated material and / or other suitable soil as per applicable standards / specifications, including backfilling of excavated trench for specified length after laying and padding of pipeline, including local transportation of such special backfill material over all distances, complete.		
22	NIT - Tender specification				Sub vendor list is provided only for vertical turbine pumps, hence kindly provide the vendor list for pipe, fittings, valves, Insulation joints, 3LPE coating, Instruments and Civil works.	<b>It will be provided. Amendment shall be issued</b>
23	ITB	34	33	Compensation for Extended Stay after Grace Period of 1/5th of Schedule time of Completion		<b>Not required</b>
24	3.0 Job Specification	327	3.2.2	Statutory Approvals	Role of Contractor is required to be known with tentative duration	<b>All Statutory Approval is in scope of Contractors, However Necessary assistance will be provided by Owner/Consultant.</b>
25	3.0 Job Specification	329	3.2.3.3	Soil Investigation/Survey	(1) Whether permission is required for Soil Investigation/Survey Work, (2) Whether different Authorities are involved for different cases for Statutory approval, (3) Whether any Authorised Vendor is required for Soil Investigation/Survey Work, (4) When can we conduct Soil Investigation/Survey ?	<b>1-Soil Investigation/Survey is in the scope of Contractors. 2-No Authorities will be involved for different cases for Statutory approval. All Statutory Approval is in scope of Contractors. 3-Credential of Vendor to be submitted to Owner for Approval. 4-As per project schedule</b>

					(5) What will be supporting arrangement of the Main Pipe through its length from Intake point to Talcher Fertilizer Plant ?	Supporting arrangement of the Main Pipe line shall be as per Job specification/Technical Specification of Tender documents.
<b>B</b>	<b>Electrical Works</b>					
1	SCHEDULE OF RATES - ELECTRICAL WORKS	1 of 22 to 22 of 22	--		We understood that all Electrical works given under this schedule of rates are for intake water pump house. Please confirm. If these works for pump house please provide pump house layouts.	General layout showing Pump House, Existing Substation and tentative location of DG shall be provided. However, Bidder shall visit Site to collect all data and understand scope of work, before submitting the bid. Amendment shall be issued
2	PC150/E/103/P-II, Sec-1.0 PROJECT DESCRIPTION	5 of 6	Cl.3, (i)	i) Laying of Pipeline:- A new underground(UG) pipeline of approx.13 Km (from Brahmi River Intake Facility point to TFL's existing construction water pond within the project premise) shall be laid, alongside the existing abandoned Water supply lines (4"NB) in the same ROU, at an approximate depth of 1.0 Mtr below FGL.	Please provide plot plan indicating pipe routing from Brahmi river intake facility point to TFL's existing construction water pond.	ROU Route map has been attached with Amendment - 1 dated 30.06.2018. However, Bidder shall visit Site to collect all data and understand scope of work, before submitting the bid.
3	PC150/E/103/P-II, Sec-1.0 PROJECT DESCRIPTION	6 of 6	Cl.3, (v)	v) Power supply to run the pump shall be met by supplying and installing a DG set and associated power supply network of required rating .	Location of DG set is no-where mentioned in the plot plan. However we presume that location of DG set is inside the River intake pumphouse. Please confirm.	DG Set shall be placed outside the Pump House. General layout showing Pump House, Existing Substation and tentative location of DG shall be provided.
4	PC150/E/103/P-II, Sec-1.0 PROJECT DESCRIPTION	6 of 6	Cl.3, (vi)	vii) Battery Bank/UPS to be considered for smooth operation of Cathodic Protection System.	In the Doc. No: PC150-TS-0817, TECHNICAL SPECIFICATION CATHODIC PROTECTION POWER SUPPLY MODULE (CPPSM), no where mentioned about the scope of UPS/Battery bank. Please provide specifications and data sheet of UPS system incase if we have to provide UPS for CP system	1 No. 63 A Power feeder shall be made available in existing SGP Substation inside Fertilizer Plant for Cathodic Protection Equipment. Tapping of Power from this feeder shall be in scope of Bidder.
5	SCHEDULE OF RATES - ELECTRICAL WORKS	10 of 22	7.1 & 7.2	7. CABLE RACK (PREFABRICATED LADDER TYPE GI CABLE TRAYS) & ACCESSORIES: Supply of GI ladder type Cable trays and their accessories i.e. coupling plate etc. As required, as per Technical Specification PC150/E/103/P-II/Sec 5.0. This include Cable Trays straight run, horizontal bends, vertical (inside/outside) bends, Tees. Reducer, Cross etc. - Quantity-Lumpsum	Please provide cable schedule and cable tray routing to workout the cable tray quantities for supply and installation.	General layout showing Pump House, Existing Substation and tentative location of DG shall be provided. Cable Route between DG Set to Existing Substation and Substation to Pump House shall be developed by Bidder. The same is to be quoted in Lumpsum.
6	SCHEDULE OF RATES - ELECTRICAL WORKS	11 of 22	8.1	Supply of 415 V Lighting sub Distribution Board 12-way wall mounted Sheet enclosed Hose & Weather Proof Lighting Sub Distribution Board in IP55 degree of protection having 1 No. Incoming (63 A TP & Switched Neutral Isolator switch) and 3nos feeder circuit of 63A DP MCB having 12 Nos. outgoing of 16 A DP MCB (i.e. 4 nos. 16 A DP MCB per circuit), as specified in Technical Specification PC150/E/103/P-II/Sec 5.0	Referred clauses are contradicting on the requirement of outgoing feeders.  However we are considering No.of circuits as per Schedule of rates and Drawing No: PC150-1204. Please confirm.	SOR and clause 7.6.4 of Technical Specification - Electrical System as well as Typical SLD of LDB shall prevail.
	TECHNICAL SPECIFICATION ELECTRICAL SYSTEM	17 of 69	7.5.2	Incomer feeder shall be provided with 63A TP and Switched Neutral SFU and 3 nos. feeder circuit of 63A DP MCB having 9 Nos. outgoing of 16 A/25 A DP MCB (i.e. 3 nos. 16 A/ 25 A DP MCB per circuit).		
	Drawing No: PC150-1204	1 of 1	--	Typical Single line diagram of Lighting Distribution Board (12-ways)		

7	SCHEDULE OF RATES - ELECTRICAL WORKS	12 of 22	9.2	Installation, connection, testing and commissioning of pre-wired fluorescent/ LED/ HPMV / Sodium vapour Lighting fixtures along with integral /non- integral control gears, lamps, tubes, chokes, starters, condensers, mounting accessories, including cable glanding, crimping of lugs on cable conductor & connecting cables at fixtures, earthing, junction boxes, etc. <b>including supply of all connecting materials like clamps, supports, conduits, down rods etc.</b> as required as well as transportation from store to site of erection with all labour and material to make installation complete in all respect as per approved drawings, specifications and directions of engineer-in-charge. The rates shall be valid for all mounting heights.	Please provide the requirement of these lighting fixtures (ie., For pumphouse area or electrical room etc.). Also provide electrical equipment and pump house drawings enabling us to workout materials like clamps, supports, conduits, down rods etc.	<b>Refer clause 7.6.4 of Technical Specification - Electrical System.</b> <b>General layout showing Pump House, Existing Substation and tentative location of DG shall be provided. Bidder shall visit Site to collect all data and understand scope of work, before submitting the bid.</b> <b>Amendment shall be issued</b>
8	SCHEDULE OF RATES - ELECTRICAL WORKS	13 of 22	10.1	Supply of 25A, 230V, 1Ph & N 4 Way type hose proof & weatherproof Junction Boxes in cast aluminium (LM6) enclosure with IP-65 degree of protection and suitable for 3Cx2.5 sq.mm(Cu) cable with cable glands, terminal blocks and threaded plug of suitable size for easy termination of cables and as specified in <b>Technical Specification EM140--143-TS-0812.</b>	We have not found referred Technical Specification EM140--143-TS-0812. in the given tender details. Please provide.	<b>Technical Specification EM140--143-TS-0812 shall be read as Technical Specification - Electrical System (Doc. No. PC150/E/103/P-II/Sec 5.0, Rev. 0).</b> <b>Amendment shall be issued</b>
9	SCHEDULE OF RATES - ELECTRICAL WORKS	14 of 22	12.1	Supply of 3.8M, 100mm dia. heavy G.I. Pipe earth electrode having 100 micron zinc coating for earthing as per <b>Technical Specifications EM140-143-TS-0812.</b> The hot dip galvanizing (minimum Zinc coating of 610 gms/ sq. M as per IS-2629) shall be done after all fabrication. The electrodes shall be made from one piece length of pipe.	We have not found referred Technical Specification EM140--143-TS-0812. in the given tender details. Please provide.	<b>Technical Specification EM140--143-TS-0812 shall be read as Technical Specification - Electrical System (Doc. No. PC150/E/103/P-II/Sec 5.0, Rev. 0).</b> <b>Amendment shall be issued</b>
10	SCHEDULE OF RATES - ELECTRICAL WORKS	16 of 22	14.1 (D) & (E)	Supply of G. I. pipes; Medium Class as per IS 1239 (part-1) of following sizes : D. 150mm NB - <b>Units - Mtrs; Quantity - U.R</b>	From the referred BOQs Quantities are indicated as "U.R". We understood that we have to provide Unit Rate for the same. Please confirm.	<b>U.R. shall be replaced with quantity as below :</b>  <b>Item 14.1</b> D. 150mm NB - Units - Mtrs, Quantity - 5 E. 200mm NB - Units - Mtrs, Quantity - 5  <b>Item 14.2</b> D. 150mm NB - Units - Mtrs, Quantity - 5 E. 200mm NB - Units - Mtrs, Quantity - 5. <b>Amendment shall be issued</b>
			14.2 (D) & (E)	Installation of G. I. pipes of following sizes----- D. 150mm NB - <b>Units - Mtrs; Quantity - U.R</b> E. 200mm NB - <b>Units - Mtrs; Quantity - U.R</b>		
11	SCHEDULE OF RATES - ELECTRICAL WORKS	16 of 22	15.1	CABLE TRENCH MATERIAL & ACCESSORIES: Supply of Fine river sand and Class B 9"x 4.5" x 3" bricks for cable trenches as required - <b>Units - lumpsum; Quantity - 1</b>	Please provide cable routing drawing enabling us to workout the cable trench quantity.	<b>Cable Route between DG Set to Existing Substation and Substation to Pump House shall be developed by Bidder.</b> <b>Hence the same is to be quoted in Lumpsum.</b>
			15.2	Excavation of soft soil and back filling of trenches for cables and earth strips etc. following types of soil except rocks for a maximum depth of 1.25 m for cables / 0.6 mtr. for earth strips including shoring, strutting, dewatering, consolidation and disposal of surplus earth upto 100 m leads including all labour and materials to complete installation in all respect: <b>Units - lumpsum; Quantity - 1</b>		
		17 of 22	15.3	Spreading of approved fine river sand approved first class bricks of 4 inch thickness in cable trenches and including all labour and materials to make the installation complete in all respect as per approved drawings, specifications and directions of Owner's Engineer-in-charge.		

12	SCHEDULE OF RATES - ELECTRICAL WORKS	17 of 22	16.4	Fixing of shock treatment chart written in English, Hindi and Local language duly framed and approved by engineer-in-charge.	Quantity of referred BOQ is not given. Please provide.	Quantity of referred BOQ shall be as below :  Item 16.4 : Unit - No., Quantity - 1. Amendment shall be issued
13	SCHEDULE OF RATES - ELECTRICAL WORKS	18 of 22	16.9	Supply of Cable route markers of Round shape made of MS of dia 200mm with suitable engraving as of LT/ Control/ Data Cable jointed with angle of 30X30X5 mm	From the referred BOQs Quantities are indicated as "U.R". We understood that we have to provide Unit Rate for the same. Please confirm.	Quantity of referred BOQ shall be as below :  Item 16.9 : Unit - No., Quantity - 1. Item 16.10 : Unit - No., Quantity - 1. Amendment shall be issued
			16.10	Grouting and Installation of Cable Route Marker		
14	SCHEDULE OF RATES - ELECTRICAL WORKS	18 of 22	16.13	Supply of 240V room lighting boards along with required wiring (concealed in PVC conduit / on wall) having following features:- 1no Switch & Socket for 5 / 15 Amp 2nos 5 Amp switches with regulators for ceiling Fan 4 nos 5 Amp switches for lighting	Please provide specifications of Room lighting boards.	The specification of room Lighting Board shall be submitted by Bidder during execution stage and same shall be reviewed/approved by TFL/PMC.
15	SCHEDULE OF RATES - ELECTRICAL WORKS	21 of 22	18.1	Removal of power & control cable from existing overhead cable rack / cable trench / pipe after disconnecting at both ends, rolling in a proper manner on Cable Drums and transporting the same to safe place as directed by Owner's Engineer-in-charge.	Please provide cable routing drawings and details enabling us to workout the required cable quantity to remove from the existing cable racks and trenches.	Quantity of referred BOQ shall be revised as below "  Item 18.1 : Unit - Mtr, Quantity - 40. Amendment shall be issued
16	SCHEDULE OF RATES - ELECTRICAL WORKS	21 of 22	19	Dismantling of Existing abandoned HT Switchboard and transporting the same to safe place as directed by Owner's Engineer-in-charge	Please provide existing HT switch board details and drawings which are to be dismantled for our reference.	Quantity of referred BOQ shall be revised as below "  Item 19.1 : Unit - Te, Quantity - 0.5. Amendment shall be issued
17	SCHEDULE OF RATES - ELECTRICAL WORKS	21 of 22	20	Dismantling of existing MS frame supports , brackets made of channel, angles, flats etc. and transporting the same to safe place within plant area as directed by Engineer-in-charge	Please provide details and drawings of supports and structurals which are to be dismantled.	Quantity of referred BOQ shall be revised as below "  Item 20.1 : Unit - Te, Quantity - 0.1. Amendment shall be issued
<b>C</b>	<b>Cathodic Protection System</b>					
1	SCHEDULE OF RATES FOR TCP & PCP OF U/G STEEL PIPELINE NETWORK	4 of 4	--	Schedule of Rates For Temporary & Permanent Cathodic Protection System	In the referred CP system Please clarify the following: 1. Location of TRU to be installed. 2. Scope & Source of Power supplies for Transformer Rectifier units (TRUs). 3. Soil condition and resistivity reports. 4. Please provide duly indicating the Railway crossings, HT lines, Road crossing etc in the pipe routing layout.	1. Location of TRU may be considered at end of Pipeline at Fertilizer Plant. 2. 1 No. 63 A Power feeder shall be made available in existing SGP Substation inside Fertilizer Plant for Cathodic Protection Equipment. Tapping of Power from this feeder shall be in scope of Bidder. 3. Soil Report of existing fertiliser Plant shall be provided. However, Bidder shall arrange soil survey, as required at his own cost. 4. Railway Crossing : 2 Nos. Road Crossing : 10 Nos. HT Lines : 2 Nos. Amendment shall be issued
2	TECHNICAL SPECIFICATION – IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM FOR PIPELINES (PC150-TS-0819)	37 of 49	7.2	CP Transformer Rectifier Unit / CPPSM:  For more details refer: 4002-TS-0823 & 4002-TS-0824	Referred details 4002-TS-0823 & 4002-TS-0824 are not found the tender document. Please provide.	4002-TS-0823 & 4002-TS-0824 shall be read as PC150-TS-0818 & PC150-TS-0817. Amendment shall be issued