

Request For Proposal (RFP) Inviting Authority: Superintending Engineer, North Bengal Mechanical & Electrical Circle, Irrigation & Waterways Directorate, Government of West Bengal

Name of Project : "Remote monitoring and control of Teesta Barrage and Head Regulator Gates of two off-taking canals at both ends comprising design planning supply installation testing trial commissioning, operation, training and five years extended O & M warranty through a state-of-the-art communication based Supervisory Control and Data Acquisition (SCADA) systems including repair, maintenance & overhauling of electro-mechanical barrage components, rust removal treatments and epoxy painting of gates and other structural steel members located at Gazoldoba within P.S Mal & Rajgunj in District Jalpaiguri of West Bengal under Teesta Barrage Project, Irrigation & Waterways Department, Government of West Bengal"

e-RFP No: WBIW/SE/NBMEC/RFP 01(e)/2016-17

Bidder Name :

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this RFP. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
					13	54	55
1	Opening of the Central Gear box cover, removing the existing Gears from their Housing, cleaning the Gears, Pinions, Shafts, Bearings & all other ancillary components by suitable means / media to remove old Gear Oil/ Grease, rust and foreign contaminants and then Greasing & Lubricating all the Bearings with suitable Volume Pumps by application of adequate quantity @3kg of Servo Gem EP-2 or equivalent Grease, filling up the Gear boxes with Servo Gear HP 140 or equivalent Gear Oil to maintain adequate Oil Level, refitting the covers to correct alignment position including replacement of damaged nuts, bolts & washers with new ones of BIS specifications, replacement of new Gasket/ Oil Seals for making the Gear box Oil leak proof as one complete job for each of the Central Gear boxes of the 45 no of Teesta Barrage Main Gates and each of the 17 no. of Head Regulator Gates of TMLC & TJMC as per desired Technical Specifications and Standards in the RFP including disposal of the replaced parts as per EPC Agreement to the satisfaction of E.I.C.	ITEM1	1.000	Complete Job		0.00	NR Zero Only
1.01	For Teesta Barrage Main Gates @ 1 no. of Gear Box per Gate (estimated requirement of Gear oil = 10 Litrs/ Gear box) QTY- 45 (Forty five) JOBS	ITEM2					
1.02	For Head Regulator Gates of TMLC & TJMC @1 no. of Gear box per gate (estimated requirement of Gear oil = 8 Litrs/ Gear box) QTY - 17 (Seventeen) JOBS	ITEM3					
2	Supply fitting & fixing of new Driving Shafts,1st & 2nd Reduction Gears as per desired Standards & Specifications in the RFP including thorough repair and maintenance of Central Gear box as per drawing and disposal of old parts as per EPC-Agreement to the satisfaction of E.I.C. .	ITEM4	1.000	Job		0.00	NR Zero Only
2.01	For Teesta Barrage Main Gates. QTY- 7 (Seven) JOBS	ITEM5					
2.02	For Head Regulator Gates of TMLC & TJMC. QTY-5 (Five) JOBS	ITEM6					
3	Opening of end Gear box cover, removing the existing Gears from their Housing, cleaning the Gears, Pinions, Shafts, Bearings & all other ancillary components by suitable means / media to remove old Gear Oil/ Grease, rust and foreign/external contaminants and then Greasing lubricating all the Bearings with suitable Volume Pumps with adequate quantity of @3kg Servo Gem EP-2 or equivalent Grease, filling up the Gear Boxes with adequate quantity of Servo Gear HP 140 or equivalent Gear Oil to maintain adequate Oil level, refitting the cover in correct alignment including replacement of damaged nuts, bolts & washers by new ones as per BIS specification, replacement of new Gasket/ Oil Seals for making the Gearbox Oil leak proof, for two end Gear Boxes as one complete job of each of the 45 no. of Teesta Barrage Main Gates and 17 no. Head Regulator Gates of TMLC & TJMC as desired in the Technical Specifications and Standards of the RFP including disposal of old parts as per EPC-Agreement to the satisfaction of E.I.C.	ITEM7	1.000	Job		0.00	NR Zero Only
3.01	For Teesta Barrage Main Gates @2 nos. of end Gear Boxes per gate (estimated Quantity of Gear oil = 15 Ltrs/ Gear box) QTY - 90 (Ninety) JOBS	ITEM8					
3.02	For Head Regulator Gates of TMLC & TJMC @2 nos. of end Gear Boxes per gate (estimated Quantity of Gear oil = 10 Ltrs/ Gear box) QTY - 34 (Thirty four) JOBS	ITEM9					
3.03	Supply of (Make-SKF/FAG) Bearing 6217 Z TYPE for fitting and fixing in end Gear Boxes as per drawing and specification to the satisfaction of E.I.C (Manufacturer's Test Certificate required) QTY - 108 (One hundred eight) JOBS	ITEM10					
3.04	Supply fitting & fixing of Oil Seals (SKF/GACO/OMCO 84/120/18 or equivalent) for end Gear Boxes complete as per Technical specifications and Standards of the RFP to the satisfaction of E.I.C QTY - 90 (Ninety) JOBS	ITEM11					
3.05	Dismantling the Driving Shaft from Central Gear Box to end Gear Box and taking out the Driving Pinion Shaft after dismantling by removing the end Gear Box cover and all other components by suitable tools machines & equipments inclusive of all arrangements as per direction of EIC . QTY-90(Ninety) JOBS	ITEM12					
3.06	Taking out the old damaged Oil Seal and Bearing 6217 (2 Nos. Z Type) from the Pinion Shaft after dismantling/removing the Flange Coupling fitted with the Pinion Shaft by heavy duty Jacks or hydraulic/pneumatic Jacks or other suitable means as per direction to the satisfaction of EIC. QTY-90 (Ninety) JOBS	ITEM13					
3.07	Refitting of special Double Leaf type new Oil Seal (SKF/GACO/OMCO 84/120/18 or equivalent), 2 no. of Z Type Bearing 6217 (Make-SKF/FAG) and Flange Coupling with the Pinion Shaft after inserting packing and polishing of seal joints of the Shaft in accurate position and alignment as per drawing to the satisfaction of the E.I.C QTY-90 (Ninety) JOBS	ITEM14					
3.08	Re-assembly of Pinion after fitting of new Oil Seal bearing Shaft including joining of Driving Shaft end Gear Box cover and other accessories to complete the full job as per drawing to the satisfaction of E.I.C QTY-90 (Ninety) JOBS	ITEM15					
4	Opening of each Rope Drum cover, thorough cleaning of entire rope drum hoist, Bearings and other components and Greasing by application of Servo Gem EP-2 or equivalent of adequate quantity (@2kg), cleaning thoroughly of all foreign particles/contaminants from Wire Ropes with suitable/approved thinner and applying 2 coats of Servo Coat 140 or equivalent , then refitting the same in correct /accurate alignment including replacement of all nuts bolts washers and Grease Nipples of BIS specifications as one complete job for 45 no Teesta barrage Main Gates, 13 no TMLC & 4 no TJMC Head Regulator Gates as per Technical Specification and Standards desired in the RFP & satisfaction of E.I.C.	ITEM16	1.000	Job		0.00	NR Zero Only
4.01	For 45 no.Teesta Barrage Main Gates QTY-90 (Ninety) JOBS	ITEM17					
4.02	For 17 no. Head Regulator Gates of TMLC & TJMC QTY -34 (Thirty four) JOBS	ITEM18					
4.03	Supply & fitting of Gland Packing Rope made of approved quality Jute of square shape & size : 30 x 30 x 30 mm, (as per Sample Specimen ) for Rope Drum Washers of Teesta barrage Main Gates QTY-323 (Three hundred twenty three) R/M	ITEM19					
4.04	Opening of Rope Drum cover for removal of old damaged Bearing 21318, re-fitting with new Bearings (Bearing Make: SKF/FAG (supplied as per desired Technical Specifications and Standards in the RFP in correct/accurate alignment, reassemble and refitting in correct position as per drawing to the satisfaction of E.I.C. QTY-54 (Fifty four) JOBS	ITEM20					
5	Maintenance of 8 nos. of Guide Roller / Side Load Roller assemblies of each of 45 no. of Teesta barrage Main Gates, checking for free rotation of each roller, adequate greasing to make the rotations smoother, dismantling / takingout all Jammed Rollers and checking all its components, Bearings by part and fitting of new Bearings and Seals as required by Engineer-in-Charge, fitting, fixing etc complete including supply of spares like Grease Nipples, nuts, bolts, o-rings as per BIS specifications and other damaged parts with adequate Greasing and refitting in correct alignment to ensure free rotation of Roller Assembly and ensure easy/smooth movement of all gates as per Technical Specification and Standards desired in the RFP and drawing to the satisfaction of E.I.C.	ITEM21	1.000	Job		0.00	NR Zero Only
5.01	Checking of each Guide Roller for free rotation after adequate Greasing including replacement of the Grease Nipples for the Teesta Main Barrage Gates as per direction of EIC. QTY -270 (Two hundred seventy) JOBS	ITEM22					

5.02	Checking and dismantling of Load Roller and refitting the same after through maintenance including replacement of all jammed/damaged Bearings for Teesta Barrage Main Gate for 45 Nos gates as per direction of the EIC. QTY -90 (Ninety) JOBS	ITEM23				
5.03	Supply of Bearing 32224 Z Type of SKF/FAG Make for Teesta Barrage Gate Load Rollers as per desired Technical Specifications and Standards of the RFP to the satisfaction of E.I.C (Manufacturer's Test certificate mandatory) QTY -330 (Three hundred thirty) NOS	ITEM24				
5.04	Supply of Shaft/ Pin material : AISI-410/EN-56D, Size : 70mm OD, Length : 411 mm (one end threaded for 46 mm length) 53 mm in dia. as per drawing and satisfaction of E.I.C (Test for Chemical Analysis is required to be performed during execution of the work) QTY -150 (one hundred fifty) NOS	ITEM25				
5.05	Supply and fixing of Sleeve : Material : EN-9 or BS/970/55, size of OD-133 mm, Bore dia 70 mm , 251 mm length as per drawing to the satisfaction of E.I.C (Test Certificates for Chemical Analysis are to be performed by the contractor during execution of work). QTY - 180 (one hundred eighty) NOS	ITEM26				
5.06	Supply and fitting of Sleeve Ring : Hard Chromium Plate as per IS: 226/2062, OD 133 mm, ID 127 mm, Thk. 29 mm ss per drawing and satisfaction of EIC. QTY -90 (Ninety) JOBS	ITEM27				
5.07	Supply and fitting of Bearing Cover : Material : HDCl (IS-210) as per sample specimen, with Lock Plate and 16 no. Bolts as per drawing and specifications to the satisfaction of EIC. QTY - (Fifty) 50 NOS	ITEM28				
5.08	Supply and fitting of Round Nut (for Sleeve) :OD-155 mm, L=55 mm, Material : Phospher Bronze/Hard Chromium as per Drawing and specifications to the satisfaction of EIC. QTY -90 (Ninety) JOBS	ITEM29				
5.09	Supply and fitting of Spacer : Material : HDCl (IS-30), size : 215 mm OD, 10 mm (t), 38 mm length as per drawing to the satisfaction of E.I.C. QTY -90 (Ninety) JOBS	ITEM30				
5.10	Supply and fitting of M.S Hex Nuts & Washers (Plain) (for PIN/Shaft EN-56D/AISA 410) Size of Nut : Hex to Hex : 96 mm, Flat to Flat : 80 mm, Thk : 33 mm, Bore : 52 mm as per IS-2062; Washers 150mm OD, 55 mm Bore, 6 mm thk as per IS-226 and drawing to the satisfaction of E.I.C. QTY -90 (ninety) JOBS	ITEM31				
5.11	Supply and fitting of Lock Plate : Material : MS :IS-226, Width : 100 mm, Length : 135 mm, thk : 10 mm, Length of opening : 90mm x 57 mm with 5/8" dia Spring Washers @ 16 Nos. per Roller as per drawing to the satisfaction of EIC. QTY -90 (Ninety) JOBS	ITEM32				
5.12	Supply and fitting of Hex Screws & ST Spring Washers for Locking Plate as per specification contained in IS 1364 & IS 3063; Size: M12 x 24 mm long as per drawing to the satisfaction of EIC. QTY -180 (One hundred eighty) NOS	ITEM33				
5.13	Supply of Oil Seal of Make GACO/SKF/OMCO, CR120 X 160 X 12, HM \$SRG (nitrile material) or equivalent; MIS 54 to the satisfaction of EIC. QTY -330 (three hundred thirty) JOBS	ITEM34				
5.14	Supply fitting & fixing of Grease Nipples of 3/8" dia conforming to BIS Specifications to the satisfaction of E.I.C QTY -90 (Ninety) JOBS	ITEM35				
5.15	Supply and fitting of MS Grub Screw : (1/8" x 1") Long BSW Thread/M16 x 25mm Long as per IS-2388 specifications of Make : Unbreakoch/ TVS or equivalents per Technical specification in the BIS and satisfaction of EIC. QTY -90 (Ninety) JOBS	ITEM36				
5.16	Supply and fitting of Spring Wires : 16 SWG as per Technical specification in the BIS and satisfaction of EIC. QTY -90 (Ninety) JOBS	ITEM37				
5.17	Supply and fitting of Hex Screws of Unbreakoch/ TVS Make or equivalent, 5/8" dia., 1/4" Length (HT)M16 x 50 mm long(BIS-1364) with 5/8" dia Spring Washers(BIS-3063), @ 16 Nos. per Roller ss per drawing and to the satisfaction of EIC. QTY - 2432 (Two thousand four hundred thirty two) JOBS	ITEM38				
5.18	New fabrication, supply, installation, fitting & fixing of bottom Roller Bogie Frame as per Technical Specifications & Standards in the RFP by removing the existing old damaged Roller Bogie Frame for Teesta Barrage Main Gates and as per drawing including disposal of old ones as per EPC Agreement, to the satisfaction of EIC. QTY -10 (Ten) JOBS	ITEM39				
6	Complete Maintenance of Equalizer Pulley of Teesta Barrage Gates ( 4 nos. per Gate) of 45 no. Teesta Barrage Main Gates, 17 no. TMLC & TJMC Head Regulator Gates by thorough cleaning of Equalizer Assembly and other components, adequate Greasing by Servo Gem - EP2 or equivalent of adequate quantity (@2kg) including replacement of damaged spare parts and Grease Nipples for smooth functioning of Equalizer Pulley as one complete job for each of the 45 no. Teesta Barrage Main Gates, 13 no. TMLC & 4 no. TJMC Head Regulator Gates including adjustments, alignments as per drawing and to the satisfaction of E.I.C.	ITEM40	1.000	JOB		0.00 INR Zero Only
6.01	Maintenance of Equalizer Pulley for Teesta Barrage Main Gates for all 45 no. Of Teesta Barrage Gates. QTY -45 (Forty five) JOBS	ITEM41				
6.02	Maintenance of Equalizer Pulley for 17 nos. H/R Gates of TMLC & TJMC. QTY - 17 (Seventeen) JOBS	ITEM42				
6.03	Replacement of Wire Ropes of Rope dia. 40mm, 6/36 construction steel wire ropes, Galvanized Medium type (Z); 180Kg/mm <sup>2</sup> quality, 45m x 4 for each Gate, including clamping at both ends as per requirement for Teesta Barrage Main Gates after dismantling of old and damaged wire ropes from Gate hinge and counter weight, refixing new Wire Ropes at Gate hinge and counter weight with adequate lubrication by applying adequate quantity of Servo Rope Compound, checking alignment of Gate after fixing of Wire Ropes to be done after locking of counter weight and removal of Jacking Sling after the completion of work all as per BIS to the satisfaction of E.I.C. QTY -5 (Five) JOBS	ITEM43				
7	Replacing the bottom & side Rubber Seal for each of the 45 no. of Teesta Barrage Main Gates and 13 no. TMLC & 4 no. TJMC Head Regulator Gates and dismantling the existing worn out damaged Rubber Seals by suitable means (cutting screw, power cutting wheel etc.) cleaning the Seal base and MS Flats by chipping, scrapping, grinding mending etc. as necessary and fitting, fixing of the new Rubber Seals in position in correct position and alignment by bolting etc. to make it water tight including all other precautionary measures as necessary to safely complete the job as per drawing and BIS Code & satisfaction of E.I.C.	ITEM44	1.000	JOB		0.00 INR Zero Only
7.01	Supply of entire bottom Rubber Seal for 45 no. Teesta Barrage Main Gates as per BIS : 11855-1986 of sizes 18.5 M x 89 mm x 24 mm as per desired Technical Specifications & Standards of RFP to the satisfaction of EIC. QTY - 833 R/M	ITEM45				
7.02	Supply of Bottom Rubber Seal for 17 no. Head Regulator Gates of TMLC & TJMC ( each size 6.40 M X 60 mm x 25mm ) as per drawing and BIS specifications to the satisfaction of EIC. QTY - 109 R/M	ITEM46				
7.03	Supply of Side Rubber Seal for 12 no. under sluice of Teesta Barrage Gates as per specifications in IS code no: 11855-1986 (size 78 M X 75mm X 20 mm THK) to the satisfaction of EIC QTY - 164 R/M	ITEM47				
7.04	Supply of Side Rubber Seal for 33 nos. spillway Gates as per specifications in IS : 11855-1986 (size 78 X 75 X 20THK) to the satisfaction of EIC [As per Drawing] QTY - 360 M	ITEM48				
7.05	Supply of Side and Top Rubber Seal for 17 no. Head Regulator Gates of TMLC & TJMC, MNS (P -Type) Neoprene rubber seal of size 105mm (J) x 45mm(D) x 12(t) mm (Conforming to IS 15465:2004) Corner Rubber seal Size:220 x 50THK x 245 mm long as per drawing to the satisfaction of EIC. QTY - 313 R/M	ITEM49				
7.06	Supply of M16 dia. 75 mm long M.S Bolts along with nuts spring washers and plain Washers as per BIS specifications for fixing Bottom and Side Rubber Seal of 45 no. Teesta Barrage Main Gates and 17 nos.H/R Gates' Top Rubber Seal of Stanards in the RFP of Make:Unbreakoch/TVS or equivalent]. QTY - 5.8 MT	ITEM50				
7.07	Supply of new MS strips in place of damaged and worn out strips, fixing new Rubber Seal on Teesta Barrage Main Gates and Head Regulator Gates of Size: 50mm (W) x 12 mm(THK) x 2500 mm long conforming to BIS specifications as per directions and satisfaction of EIC QTY - 2 (Two) MT	ITEM51				
7.08	Complete Labour charges for replacing the Bottom rubber seals of 45 no. Teesta Barrage Main Gates conforming to BIS: 11855-1986 of size 18.5 M x 89 mm x 24 mm including disposal of old ones as per EPC-Agreement to the satisfaction of EIC QTY - 833 R/M					

7.09	Complete Labour charges for replacing Bottom rubber seals for 17 nos. Head Regulator Gates of TMLC & TJMC including disposal of old ones as per EPC-Agreement as per directions and satisfaction of EIC QTY - 109 R/M	ITEM53					
7.10	Complete Labour charges for Changing of Side Rubber Seal for 12 no. Undersluice Gates of Teesta Barrage as per IS 11855-1986 including disposal of old ones as per EPC-Agreement as per directions and satisfaction of EIC QTY - 154 M	ITEM54					
7.11	Complete Labour charges for changing of Side Rubber Seal for 33 nos. Spillway Gates of Teesta Barrage as per IS 11855-1986 including disposal of old ones as per EPC-Agreement as per directions and satisfaction of EIC QTY - 360 R/M	ITEM55					
7.12	Complete Labour charges for replacing Side & Top Rubber Seals for 17 nos. H/R gates of TMLC & TJMC including disposal of old ones as per EPC-Agreement as per directions and satisfaction of EIC. QTY - 313 R/M	ITEM56					
8	Complete Maintenance of spring loaded guide shoes, supply and fixing of new Guide Springs(EN 45A), Guide Rod $\phi$ 30 (IS : 226), Pipe bore $\phi$ 32 (IS : 1239) as per existing sample specimen and drawing for total 45 nos. of Teesta barrage Main Gates, 17 no Head Regulator Gates, ( 4 nos for each gate). Counter weight Guide Shoes, Seal Beam Base, floor with fire bricks stones, Dial Indicators, expansion joints all complete as per drawing to the satisfaction of E.I.C.	ITEM57	1.000	Job			0.00 INR Zero Only
8.01	Repair & maintenance of Spring Loaded Guide Shoes with supply and fixing of new Guide Spring(EN 45A), Guide Rod $\phi$ 30 (IS 226), Pipe Bore $\phi$ 32 (IS 1239) as per existing sample specimen and Drawing for total 45 nos. of Teesta Barrage Main Gates as per direction and to the satisfaction of E.I.C. (4 nos. in each gate)	ITEM58					
8.02	Repair & maintenance of Spring Loaded Guide Shoes along with supply and fixing of new Guide Spring(EN 45A), Guide Rod $\phi$ 30 (IS 226), Pipe Bore $\phi$ 32 (IS 1239) as per existing sample specimen and drawing for 13 no. TMLC & 4 no. TJMC Head-Regulator Gates as per direction and to the satisfaction of E.I.C.	ITEM59					
8.03	Repair & maintenance of Counter Weight Guide Shoes and Guide Channel of Teesta Barrage Main Gates as per drawing to the satisfaction of EIC. QTY - 45 JOBS	ITEM60					
8.04	Repair & maintenance of Seal Beam base floor of Teesta Barrage Main Gates and Head Regulator Gates with Fire bricks stone as per direction and satisfaction of E.I.C. QTY - 1 JOB	ITEM61					
8.05	Supply, fitting & fixing of Dial Indicator cover with all its parts for each Teesta Barrage Main Gate with all arrangements complete to the satisfaction of EIC. QTY - 45 JOBS	ITEM62					
8.06	Maintenance of expansion joints of two no. horizontal Main Girders of Steel Super Structure of TLMC & TJMC Head Regulator Gates for smooth functioning as per direction to the satisfaction of EIC. QTY - 1 JOB	ITEM63					
9	Two no. of Plummer Block washing cleaning adequate lubricating Greasing for smooth rotation of Shaft, repair of damaged worn-out mis-aligned vibrating Plummer blocks including replacement of all requisite components/spares i.e GM Bush, Oil Seal etc, adequate lubrication for smooth function as one complete job for each of the 45 no. Teesta Barrage Main Gates as per drawing to the satisfaction of E.I.C.	ITEM64	1.000	Job			0.00 INR Zero Only
9.01	Checking of each Plummer block, washing, cleaning, adequate lubrication, Greasing for smooth Shaft Rotation for all 45 no. Teesta barrage Main Gates as per direction and to the satisfaction of EIC. QTY-90 JOBS	ITEM65					
9.02	Repair of damaged worn-out mis-aligned vibrating Plummer blocks including complete replacement of all requisite components/spares with adequate lubrication for smooth functioning for 45 nos. Teesta barrage Main Gates to the satisfaction of EIC. QTY -20 JOBS	ITEM66					
9.03	Supply of new Plummer block GM bush for 45 no. Teesta Barrage Main Gates as per specimen sample with each job consisting of two no. GM bushes as per IS code and Technical Specification & Standards of the RFP QTY -45 JOBS	ITEM67					
9.04	Supply of new Oil seals (Make:GACO/OMCO/SKF) with fittings fixings for 45 no. Teesta Barrage Main Gates, as per sample specimen with each job consisting of four no. Oil Seals as per direction to the satisfaction of EIC. QTY -45 JOBS	ITEM68					
10	Supply including fitting fixing complete of different types and categories of Bearings:-	ITEM69					
10.01	Bearing 21318 NK/C3 (SKF/ FAG Make) for Rope Drum (Manufacturer's Test Certificate required)	ITEM70	108.000	No			0.00 INR Zero Only
10.02	Bearing 6308 NK/C3 (SKF/ FAG Make) for Motor of Central Gear box. (Manufacturer's Test certificate required).	ITEM71	108.000	No			0.00 INR Zero Only
10.03	Bearing 6218 NK/C3 (SKF/ FAG Make) for Central Gear Box.(Manufacturer's Test certificate required).	ITEM72	108.000	Nos			0.00 INR Zero Only
10.04	Bearing 6310 NK/C3 (SKF/ FAG Make) for Central Gear Box.(Manufacturer's Test certificate required)	ITEM73	54.000	No			0.00 INR Zero Only
11	Operational use of Gantry Crane including POL, running repair & maintenance before and during use, replacement of spares as required and as per direction of E.I.C (Already installed Teesta Barrage Gantry Crane would be provide for the project work free of rent or hire charges)	ITEM74	45.000	Job			0.00 INR Zero Only
12	Carriage of Stop Log units of Teesta Barrage by suitable maneuvering from pier position and placing the same (7 nos. per unit) in required positions to stop flow of water through a bay of the Barrage Gate and withdrawal of Stop Log units/ from the groove and placing over the suitable piers after completion of Gate repairs or for sand blasting- painting works with all arrangements, scaffolding, staging platforms, with machineries labours etc. complete.	ITEM75	1.000	Job			0.00 INR Zero Only
12.01	For 45 nos. of Teesta barrage Main Gate works. (Installed Gantry Crane of maxm. 20 MT capacity may be provided free of rental charges and used for after all sorts of manoeuvring during repair, maintenance by the user contractor) Fuel power, other lubricants, running repair, maintenance, all fittings operators etc to be borne by the user) QTY-45 JOBS	ITEM76					
12.02	For 17 no. of Head Regulator Gates works of TMLC & TJMC. (Installed Mono Rail of maxm. 4 MT capacity may be provided free of rental charges and used for after all sorts of manoeuvring during repair, maintenance by the user contractor) Fuel power, other lubricants, running repair, maintenance, all fittings operators etc to be borne by the user) QTY -17 JOBS	ITEM77					
13	Repair & maintenance of Jack Sling, changing of Paddle Bearings all complete for safe and counter weight locking as per direction to the satisfaction of EIC.	ITEM78	8.000	Nos.			0.00 INR Zero Only
14	Locking the Counter Weight at both the ends with Jack Sling by ensuring safety, protecting from damages to Gates and other civil structures, providing skilled labours and necessary Tools and Tackles and arranging scaffolding as necessary before dismantling the Housing equipment & unlocking the counter weight by dismantling the Jacking Sling and after complete repair, refitting the hoist as necessary with all arrangements of scaffolding for changing of Oil Seal & Bearings, cleaning of Rope etc. as per direction and to the satisfaction of EIC.	ITEM79	45.000	Job			0.00 INR Zero Only
15	Repair of Bottom Stop Log segments by lifting from its Sill Beam position & carrying to the Gavage Bay( one end only) from the pier position by placing it suitably on wooden platforms, dismantling all damaged and worn out ISA angles, MS Flat Plates from the paddles of Stop Logs by suitable means, and supplying, fixing of new ISA angles, Flats, plates as per IS Specifications in correct position & alignment by riveting and welding as required for its fixing, including all labours, hire of Tools & tackles like gas cutter, welding set, pneumatic compressor and all other T&P as necessary to complete the job to the satisfaction of the E.I.C	ITEM80	3.000	Job			0.00 INR Zero Only
16	Replacement of suitable Side and Bottom Rubber Seals of 31 No. Of Stop Log Units of Teesta Barrage Main Gates by new ones as per direction of E.I.C conforming to IS codal Specifications and drawing ( Lab Tests as per BIS is required before use) to the satisfaction of EIC.	ITEM81	31.000	Job			0.00 INR Zero Only

16.01	Dismantling/taking out all the existing old Rubber Seals from the Stop Log units by chipping with chisels, cutting with gas cutter as necessary cleaning the seal grooves and flats by chipping, scraping, grinding etc. and fixing of suitable new Rubber seals( Lab Tests as per BIS is required before use) in position and alignment by bolting or desired connections to make it water tight as per BIS including arranging all labours, Gas Cutters & other Tools and Tackles, scaffolding and other precautionary measure as necessary to complete the job and disposal of old ones as per EPC-Agreement. Application of approved variety of primer (2 coats) embedded steel zones should be done for the seal plate and arranging of wooden fixtures as required to the satisfaction of E.I.C QTY(Bottom Rubber Seal.) - 620 R/M	ITEM82					
16.02	Supply of Bottom Rubber Seal( Lab Tests as per BIS is required before use) for 31 nos. Stop Log units as per IS : 11855-1986 of size 20.0 M x 89 mm x 24 mm. as per Drawing as required to the satisfaction of E.I.C QTY - 620 R/M	ITEM83					
16.03	Labour charges for refitting Bottom Rubber Seal for 31 nos. Stop Log Gates as per IS : 11855-1986, of size 20.0 M x 89 mm x 24 mm QTY - 620 R/M	ITEM84					
16.04	Transportation of each segment of Stop Log from its pier to suitable working site near the Stair-way of Teesta barrage on wooden platform to be provided by bidder and placing the same back to the pier position after replacing the worn out Rubber seals complete to the satisfaction of E.I.C. QTY - 28 JOBS	ITEM85					
16.05	Supply including fitting fixing complete of seasoned original seasoned Sal (Siliguri / Malaysian variety) Wooden block of Teesta barrage Stop Logs as per Drawing after application of primers & water proof paints of approved variety as per direction of E.I.C. QTY - 3.471 CUM	ITEM86					
16.06	Supplying of M.S Nuts and Bolts with Washers as per BIS Specifications for fixing of wooden blocks at Stop Log units in accordance with drawing directions and satisfaction of E.I.C. Up stream side :Size :Φ = 3/4", 9" (L), as per Drawing QTY - 248 NOS	ITEM87					
16.07	Supplying of M.S Nuts and Bolts with Washers as per BIS Specifications for fixing of wooden blocks at Stop Log units in accordance with drawing direction and satisfaction of E.I.C. Down stream side : Size :Φ = 3/4", 6" (L), as per Drawing. QTY - 496 NOS	ITEM88					
16.08	Dismantling of old and damaged Wooden Blocks from Stop Log by unscrewing/ cutting the bolt connections and refixing the wooden block in proper position to correct size and shape by drilling to correctly match the holes of the gates (work should be done during replacing of rubber seals of Stop Logs) including all labours, tools and tackles necessary to the satisfaction of E.I.C QTY - 31 JOBS	ITEM89					
17	Supply of 2 no. of bottom Stop Log segments & 2 no. Intermediate Stop Log segments made of Factory/Workshop fabricated MS structural steel members of Make: SAIL or equivalent of desired technical specifications, standards and thickness as per the existing specimen of Stop Log Gates including carriage to site, application of 2 or 3 coats of painting with approved Primer and Epoxy paints, supply fitting fixing of Rubber Seals on sides and bottom & conforming to BIS specifications all complete, as per drawing to the satisfaction of E.I.C	ITEM90	4.000	Job			0.00 INR Zero Only
18	Repair & restoration of damaged Stop Log rests on each pier by suitable means- removing damaged and welding of additional ISMC, making holes of 30 mm dia for locking arrangement with MS pin of the hinge for placing the Stop Logs in correct position and alignment to the satisfaction of the E.I.C.	ITEM91	90.000	Nos.			0.00 INR Zero Only
19	Overhauling/ complete servicing of Driving Motor with all rectifications of connections and terminal wires, alignment checking, adjusting, Load Testing for smooth functioning for Motors of each of the 45 nos. Teesta Barrage Main Gates as per direction and to the satisfaction of E.I.C.	ITEM92	45.000	Job			0.00 INR Zero Only
20	Overhauling/ complete servicing of Driving Motor, checking of connections and terminal wire, alignment, adjusting, Load Testing for smooth functioning for Motors of each of the 17 no. Head Regulator Gates of TMLC & TJMC as per direction and to the satisfaction of E.I.C.	ITEM93	17.000	Job			0.00 INR Zero Only
21	Supplying and fixing of new Limit Switches ( Make: Telemecanique/BCH) suitable for functioning for each gate of total 45 nos. of main gates and 13 nos. TMLC & 4 nos. TJMC head regulator gates in place of existing one as per direction as per desired specifications to the satisfaction of E.I.C	ITEM94	62.000	Job			0.00 INR Zero Only
22	Supplying, fitting fixing of new ACEM brake system as per desired specifications and suitable adjustment for each gate for total 45 nos. of main barrage gates and 13 nos. TMLC & 4 nos. TJMC head regulator gates as per direction and to the satisfaction of E.I.C.	ITEM95	62.000	Job			0.00 INR Zero Only
23	Supplying and fixing of 35 sq mm, 2 core unarmoured cable as per desired Technical specifications & standards of RFP for working voltage of above 2000 V, conforming to IS: 7098 (part 1)/ IS -1554 (part 1) For Teesta Barrage Site Lighting /Power Distribution Cable Length for Main Barrage TMLC HR and TJMC HR	ITEM96	4980.000	R/M			0.00 INR Zero Only
24	Finishing the end XLPE/ PVC armoured cables ( Make: Finolex/Havells/Nicco/Gloetner or equivalent) of high protection markings of IP65 or above by crimping method including supply and fixing solderless socket (Dowels make) tapes, anticorrosive paste & jointing material (2 Core, 35 sqmm) as per desired specifications to the satisfaction of the E.I.C	ITEM97	92.000	Set			0.00 INR Zero Only
25	Supply and laying of Power Cables ( Make: Finolex/Havells) as per protection standards (IP 65 or above) from Teesta Barrage Main DB box through the Trestle bridge through prefixed Sheet metal rails after proper socketing fixing complete as per direction of E.I.C. 1. 150 sq mm 3.5 core armoured Al cable (For last 4 nos DB boxes) ..... QTY- 1000 R/M 2. 90 sq mm 3.5 core armoured Al cable (For first 4 nos DB Boxes) ..... QTY- 500 R/M	ITEM98	1.000	Job			0.00 INR Zero Only
26	Supply installation trial and complete commissioning of one silent type DG set of 30 KVA for the Gantry Crane as per desired Specifications with Warranty to replace the old DG set for smooth running/operation of the GantryCrane including disposal by carriage of old one as per EPC-Agreement to the satisfaction of E.I.C. (Make: Ashoke Layland/Kirloskar/Mahindra)	ITEM99	1.000	Job			0.00 INR Zero Only
27	Vernishing heating KW/HP:-55 V : 440V, Amp : 6 A, 3-Phase, Insulation : B, Rating S1, Frame size : 132S, Electric Motors with minimum 2 L. Vernish per Motor. after dismantling/taking out the Motor from its Plate and refitting in position after complete overhauling thorough sevicng and checking Motor operation, powerLoad, including all spares,nuts, bolts & washers connecting Motors with Panel board inclusive of transportation costs to and from Workshop as per Technical Specifications and satisfaction of E.I.C	ITEM100	3.000	Job			0.00 INR Zero Only
28	Supply and fixing of 5 mm thk transparent acrylic sheets conforming to BIS for Windows of Gantry Crane operators cabin as directed by EIC.	ITEM101	20.000	SQ M			0.00 INR Zero Only
29	Supply and commissioning of KW/HP:1.5/2.0, Volt: 400/440V, Amp: 4.3 A, 3-Phase, Insulation: B, RPM : 685/750, Rating 1HR, Frame size : 112M/ K190L Induction Motor ( Make: Siemens or equivalent) disposal of old ones as per EPC-Agreement to the satisfaction of E.I.C	ITEM102	3.000	Job			0.00 INR Zero Only
30	Supply & installation of steel wire rope of 20 mm dia. construction of 6x37, Steel core,1960 Tensile designation conforming to IS 2266:2002(Table no-3) to the satisfaction of E.I.C	ITEM103	40.000	R/M			0.00 INR Zero Only
31	Supply and fixing Bearings of different sizes(as per existing specimen and specification) including Oil seal with complete overhauling of all moving parts and adequate Greasing with Servo Gem EP-2 after dismantling all parts and collecting Bearing sample to complete the job to the satisfaction of E.I.C.	ITEM104	1.000	Job			0.00 INR Zero Only
32	Supply and fixing the 5 mm transparent acrylic sheet for windows for the crane operator cabin of Mono Rail Crane both for TMLC & TJMC to the satisfaction of the E.I.C	ITEM105	2.000	Job			0.00 INR Zero Only
33	Supply including fitting fixing complete of KW/HP 1.5/2.0, Volt: 400/440V, 3-Phase, Insulation: B ( of Make: GE/ Kirloskar or equivalent, Model No: K190L) Induction Motor for LT movement of Mono Rail Crane for Head Regulators of Teesta Barrage	ITEM106	2.000	Job			0.00 INR Zero Only
34	Supply including fitting fixing complete of KW/HP:4.0/5.0, Volt: 400/440V, 3-Phase, Insulation : B (of Make: Kirloskar/GE or equivalent, Model No: K1-132M) Induction Motor for HT movement of Mono Rail crane for Head Regulators of Teesta Barrage	ITEM107	2.000	Job			0.00 INR Zero Only
35	Supply of Carbon Block pieces of traingular cross section of dimensions 60 x 60 x 60, Thickness : 45mm with a hole of 10 mm dia in the middle for fixing bolts as per BIS to the satisfaction of E.I.C	ITEM108	100.000	Nos			0.00 INR Zero Only
36	Complete removal of one old fully damaged Stop Log segment embedded in Teesta Barrage Main Gate No. 7 by suitable means/method after clearing accumulated debris/mud/silt under water, submerged under water cutting to dismantle the Stop Log segment and complete dispoal as per EPC-Agreement to the satisfaction of E.I.C	ITEM109	1.000	Job			0.00 INR Zero Only
37	Thorough repair, restoration including replacement of 6MM thk MS Chequered Plates on Hoist bridge of Teesta Barrage as per BIS to the satisfaction of E.I.C	ITEM110	1.000	Job			0.00 INR Zero Only

37.01	Supply of 6 MM Thk MS chequered Plate of reputed brand make as per BIS for repair of Teesta Barrage Hoist Bridge. QTY - 5228 KG	ITEM11					
37.02	Removal & taking out of old damaged portions of Chequered Plate by Gas cutting method and high quality appropriate welding as per BIS of new Chequered Plate pieces in position to fabricate Chequered Plate on hoist bridge including supplying of all labours, welding machine, Gas Cutting set necessary with adequate safety and protection as per direction to the satisfaction of E.I.C QTY - 269 M	ITEM12					
37.03	Cutting of MS Chequered Plate my machines to required dimension for fitting to replace the damaged Chequered Plate pieces by suitable Gas Cutting method as per direction and satisfaction of EIC. QTY - 269 M	ITEM13					
37.04	Surface preparation by manual and power tools of MS Chequered Plates as per Specifications in BIS and directions of E.I.C. QTY - 206 SQM	ITEM14					
37.05	Supply of high built Zinc Phosphate Primer of approved specifications and applying two coats (of 45 micron DFT per coat) with mixing ratio generally in proportion 3 : 1 ( base : Hardener) over prepared surface for application of primer in Steel Superstructure exposed to atmosphere including cost of all materials, labour, scaffolding, staging complete as per direction of EIC. QTY - 206 M	ITEM15					
37.06	Transportation of necessary materials and welding DC set and others tools tackles from Siliguri to worksite of Teesta Barrage including loading & unloading. QTY - 1 JOB	ITEM16					
38	Repairing of Wheels of Gantry crane and replacement of damaged bearing rewinding of 6.5 HP Hoist Motor at Teesta Barrage Site.	ITEM17	1.000	job		0.00	NR Zero Only
38.01	Opening the wheels of gantry crane with the help of Hyd jack, including cleaning the assembly by suitable quantity of diesel and greasing the same by supplying 500 gms (approx) of Servo Gem EP-2 or equivalent. Refitting the wheel assembly after necessary cleaning and greasing. Checking the movement by operating the crane. This work should be done with necessary safety measures ensuring no damage to any mechanical structure of the barrage. QTY - 3 JOB	ITEM18					
38.02	Opening the wheels of Gantry Crane with hydraulic jack, including cleaning the Assembly by adequate HSD and Geasing by applying 500gm (approx) of Servo Gem EP-2 or equivalent, refitting the Wheel Assembly after necessary replacement of damaged Bearing (SKF/FAG 30224 J2) and greasing. Checking the movement by operating the crane. The work should be done with necessary safety measures ensuring no damage to any mechanical structure of the barrage. QTY - 1 JOB	ITEM19					
38.03	Supplying of Bearing 30224 J2 (Make : SKF/FAG) as per required specifications including fitting fixing complete to the satisfaction of E.I.C QTY - 1 NO	ITEM20					
38.04	Opening the enclosure of the 3 phase sq cage Induction Motor taking out the damaged/ worn out rotor winding from the slots of the rotor properly. QTY - 1 JOB	ITEM21					
38.05	Winding the stator coil of AC 3phase sq cage motor, 6.5 Hp, 1440 RPM, 415 Volt, Y connected 13.0 Amp, Make : MEC, speed : 3.5M/ min, wt carrying capacity : 5T, rating : 40 by supplying 8.0 kgs of new I9 SWG) super enamelled copper wire incl. providing proper insulation as per IS specification, varnishing heating, properly incl. fitting testing complete. QTY - 1 JOB	ITEM22					
38.06	Reassembling both rotor and stator after core fitting including testing commissioning complete to the satisfaction of E.I.C. QTY - 1 JOB	ITEM23					
38.07	Transportation charge of the above alternator (including loading, unloading at both ends) from Teesta Barrage Site to Siliguri Co's workshop and back to Site after proper repairing. QTY - 1 JOB	ITEM24					
39	Supplying and fitting fixing of New Gantry Crane Carrier in place of old one at Teesta Barrage as per drawing and design and to the satisfaction of E.I.C	ITEM25	1.000	Job		0.00	NR Zero Only
39.01	Supplying and fixing the new Gantry crane Carrier by supplying and fixing MS channels of proper dimensions (as given in drawing), and jointing them by welding, making holes where necessary for fixing nuts and bolts, fixing of wooden blocks with the channels by proper size nuts and bolts to T.B Site and fixing the same with gantry crane, fixing the existing hooks of gantry crane to the carrier maintaining proper safety measures, testing of the carrier on load as per direction and to the satisfaction of the EIC. QTY - 1 JOB	ITEM26					
39.02	Supplying and fixing of seasoned sal Wooden block For Gantry Crane Carrier. Volume = 0.147 Cum QTY - 1 JOB	ITEM27					
39.03	Supply and application by airless machine sprayer Zinc based Primer of Berger Epilux 4 ZR HB Primer Z90-Grey/Blue or equivalent in Asian Paints, Shalimar, Dulux Make containing not less than 85% zinc on dry film, using approved thinner for particular paint as per IS code 14177 and applying 2 (two) coats each of 40 micron D.F.T for a total DFT of 80 micron, over prepared surfaces for application of primer on Gates and Stop Logs and other embedded components of Teesta Barrage Main Gates. Including all materials, labour, scaffolding, staging, tools & Tackles adopting adequate safety, providing D.F.T meters having valid authorised calibration certificate of Test Institute as per direction to the satisfaction of E.I.C. QTY- 60 Sqm	ITEM28					
39.04	Supplying & applying of solventless High Build Coaltar epoxy paint (Berger BR Epoxy HB GF Coating Black or equivalent Asian paint, Shalimar, Dulux etc. approved by E.I.C.) with 2 (two) coats of 150 microns D.F.T. per coat ( these should be applied at an interval of 24 hours and also to achieve total dry film thickness including primer coating not be less than 300 micron) over primer coat on gates and stoplogs and other exposed embedded components of Teesta Barrage main gates. Including cost of materials, labour, scaffolding, staging, tools etc and all other incidental charges with providing adequate safety measure for workmen and also provide D.F.T. meter with latest calibration certificate issued from reputed institute for checking as per direction and to the satisfaction of E.I.C. (Manufacturer approved thinner for particular paint to be used only) [IS code 14177 ]. QTY - 60 Sqm	ITEM29					
39.05	Providing suitable ( not below 25 MT capacity ) Crane as per actual site requirements for all loading unloading works of all components of Gates, the complete Gantry Crane carrier including PoL, crane operators charges all complete QTY - 2 NOS	ITEM30					
39.06	75 mm. dia bullah/bamboo posts, plates, rafters, ties etc. fitted and fixed complete with coir ropes or nails with digging of hole and repacking to original condition as per requirement as directed by the E.I.C QTY - 50 R/M	ITEM31					
39.07	Trailers and Trucks of adequate load carrying capacity for transportation to and from Project site to workshop etc of all materials & equipments, Stop Logs, carrier channels of Gantry Crane, old worn out materials, disposable items, spares . QTY - 1 JOB	ITEM32					
40	Supply and erection of new Panel Boards for Gantry Crane of Teesta Barrage including replacement of old damaged contactor panels, Main Switches, Push button Switches, Drum Controller System and all other necessary components for smooth operation of Gantry Crane and testing it in no load and full load conditions including tightening of all electrical joints checking of cables for smooth operation as per design and drawing to the satisfaction of E.I.C (Make: Siemens/ L&T/Schnieder Electric or equivalent)	ITEM33	1.000	JOB		0.00	NR Zero Only
41	Supply and erection of new Panel Boards for Mono Rail Crane of Head Regulators including replacement of old damaged Contactor Panels, Main Switches, Push Button Switches, Drum Controller System and all other necessary components for smooth operation and testing it in no load and full load conditions including tightening of all electrical joints checking of cables for smooth operation as per design and drawing to the satisfaction of E.I.C. (Make: Siemens/ L&T/Schnieder Electric or equivalent.)	ITEM34	2.000	JOB		0.00	NR Zero Only
42	Supply and installation of Power Distribution DB boxes for feeding power to individual Gates (6 Nos / DB box) 4 Nos for Head Regulator Gates, 8 Nos for Teesta Barrage Main Gates as per Technical Specification & Standards of the RFP, 3 no HRC Fuses of capacity 25A, for each Gate and the DB box made by 2 mm thk CRC MS sheet with proper powder coating paint and with double door with locking arrangement, One no TP isolator (63A) for main incomer supply, six nos Copper Bus bars for feeding power to individual gates, all connection must be made by 10 sq mm single core Copper cable after proper cable socketting and insertion of cable lugs etc complete to the satisfaction of E.I.C (Make: Siemens/ L&T/Schnieder Electric and as per RFP)	ITEM35	12.000	JOB		0.00	NR Zero Only

43	Individual Gate Panel Cable from DB Box to Gate Panel with 16 sq mm, 4 Core, Armoured PVC Insulated and sheathed of Make Havells/ Finolex or equivalent as per direction and satisfaction of E.I.C	ITEM136	2050.000	R/M		0.00	NR Zero Only
44	Supply fitting and fixing of perforated Electrical Power Cable Tray as per requirement for laying of different sized Power cables of individual Gates as per desired specifications and standards to the satisfaction of E.I.C	ITEM137	2500.000	R/M		0.00	NR Zero Only
45	Supply and installation of a new silent type DG set of capacity 100 KVA for entire power supply from Teesta Barrage Power House with all connections and wirings, casings, fittings complete commission and connected with auto transfer system chane over switch of Make: Ashoke Layland/Kirloskar/Mahindra or equivalent as per direction and satisfaction of E.I.C	ITEM138	1.000	Job		0.00	NR Zero Only
46	Auto-Transfer system with 3 source change over from 3-Phase AC power supply of WSEDCCL to newly procured DG set power and existing DG Set by installation of converter, suitable change over switches of Siemens/ABB/Mitsubishi Electric/Schneider Electric/L&T or equivalent reputed brands) including all necessary sub-components retrofitted commissioned to the satisfaction of E.I.C	ITEM139	1.000	Job		0.00	NR Zero Only
47	<b>B ) Automation system &amp; other equipments sub component:</b> Supply & complete installation of all sensors, telemetry, data acquisition system, their installation for Local Control Panel as per the Technical Specifications & Standards of the RFP for all Gates of Teesta Barrage and both end canal Head Regulator Gates ( TLMC & TJMC) with mounts frames & fixtures to the satisfaction of E.I.C .	ITEM140	62.000	Each Set		0.00	NR Zero Only
48	Supply, Testing, Commissioning to SCADA Software its integration with all hardware and software to be applied in operation of Teesta Barrage & Head Regulator Gates as per the Technical Specifications & Standards desired in the RFP suitably designed for installation of an industrial grade computer work station comprising the Master Controller Server to interface with discrete PID controllers such as Programmable Logic Controller to interface most appropriate highest quality interfacing devices to acquire data from the Data Loggers and operator Remote Control Panel equipments from Master Controller Server on an open protocol such as MODBUS and PROFIBUS with desired speed - Master Controller Server at the Barrage Control Room at Teesta Barrage at Gazoldoba with the System should be capable to run SCADA or compatible software with all maximum potential functionalities with interface terminal for operator control and monitoring system-Master controller should have the facility of storing the data in local drive and communicate through suitable communication devices with antenna and tower etc for INSAT/VSAT and GSM/GPRS to remote locations, and at about 2 km US of Teesta Barrage and with programmable inputs to collect sms text messages on river inflow on real time basis from TLDP-IV of NHPC through GPRS or any suitable communication mode with Master Controller; upto 110 inch diagonal LED One single screen monitoring screen/video wall interfaced with Master Controller to view the all the parameters and status of the system in text and graphical display, One Laptop (7 4th Gen) with all allied software and hardware accessories, OS of computer Windows 10 or equivalent compatible, LASER digital scanner cum printer, UPS, Modem, Routers/Ethernet Switches, RAM and Hard Disc Drive, Antenna, USB ports etc. with all fittings and fixtures complete as per Technical Specifications & Standards of the RFP.	ITEM141	1.000	Job		0.00	NR Zero Only
49	Supply and Installation of Industrial grade computers to monitoring stations at Teesta Sech Bhawan office, Siliguri and North Bengal Centralised Flood Monitoring Station at Jalpaiguri Towns capable to interface with Master Controller Server control remotely, all the functionalities with interface terminal for operator control and monitoring system having the specialties communicated throw, suitable communication devices with antenna and tower for INSAT/VSAT and GSM/GPRS to Master Controller Server at the BCR at Teesta Barrage at Gazoldoba; upto 110" diagonal LED single screen monitoring screen/ single screen Video Wall interfaced with computer to view the all the parameters and status of the system in text and graphical display as directed by the EIC- Laptops (7 4th Gen) with all allied software and hardware accessories, OS Windows 10 or suitable SCADA compatible OS with future adaptability, LASER digital scanner cum printer, UPS, Modem, Routers/Ethernet switches, RAM and HDD, Antenna, USB ports etc. including Storage of data in encrypted data base and secured Firewall network from all viruses and malwares with disaster recovery facility with provision for secured data Storage systems (Local non volatile memory, web clouds, proprietary data storage agencies link Google, Red- Hat, etc. as per Technical Specifications & Standards of the RFP	ITEM142	2.000	Each station		0.00	NR Zero Only
50	Supply installation for remote monitoring and control (using Remote Terminal Units-RTUs ) of all barrage gates and both end head regulator gates with proper interfacing devices to integrate entire hardware and software with RTUs at Teesta barrage and head regulators with housing panels and connectivity (Redundancy in wiring-Ethernet/OCF) to master controller. As for the commands from master controller RTUs should operate the motor control panel and set the gate position, for that required relays and control devices should be provided with local display of gate position. Motor control panel should have additional manual operation provision. Motor protection devices like (over load) OLR, SFP, Timer etc with local display and "Variable Frequency Drive" facility on Motor status interfaced with master controller for log and monitoring of motor status and local audio/flash light indication of motor failure, panel trip (MCB, Switchgears etc.). Also to have independent GSM /GPRS/SMS information transmission to authority. Local display unit (LED) to indicate gate position and status. Separate independent facility authenticated either by password/ biometric lock to connect from master Control. INSA/VSAT satellite communication and Burglar Warning Alarm. Redundancy in Wiring IP65 protection and the PLC installed at BCR as per Technical Specifications & Standards of the RFP	ITEM143	1.000	Job		0.00	NR Zero Only
51	INSAT (under ISRO) VSAT ( 2nd choice) communication module and antenna, mounts etc. as per Technical Specifications & Standards of the RFP with dedicated bandwidth, bandwidth licenses / all charges/rents of service providers; Transmitter & Receiver for voice & data transmission to and fro from BSR and other two monitoring stations to facilitate communication through dedicated web site with WEB Navigator V:7.0 ( 1 server 3 client) and additional backup communication module in wireless/OCF,wifi, GSM/GPRS, ethernet connectivity with accessories like wiring Housing, mounts, Antenna,IOT,Routers,SIM etc. complete to the satisfaction of E.I.C	ITEM144	3.000	Per station		0.00	NR Zero Only
52	Supply & installation of a communication system as desired in the Technical Specifications & Standards of the RFP through which Emergency Alarm System and SMS to dedicated mobile phone numbers interfaced with the INSA/VSAT (with band width licenses) and GSM/GPRS communication system for BCR, Siliguri & Jalpaiguri (1 server 3 client) with all charges, licences and rental charges complete.	ITEM145	1.000	One Set		0.00	NR Zero Only
53	Supply & installation of Ultrasonic / RF-RADAR (Non-contact type) Water Level measuring sensors at Teesta Barrage and both end Head Regulator gates as desired in the Technical Specifications & Standards of the RFP including all necessary accessories mounts and platforms, power backups and connection up to data logger so that signal data should available up to Master Controller Server at the Barrage Control Room at Teesta Barrage at Gazoldoba	ITEM146	15.000	One Set		0.00	NR Zero Only
54	Supply & installation of two side looking ADCP for canal discharge measurement and one down looking (boat mounted) ADCP for river discharge measurement - Acoustic Doppler Current Profiler as per Technical Specification & Standards Chapter of the RFP given integrated with SCADA as per Technical Specifications & Standards of the RFP.	ITEM147	1.000	Job		0.00	NR Zero Only
55	Supply & installation of silt content measuring transducer with floating platform, civil works including mounts, connectivity with master controller for measurement of silt content in river and both end canal offtakes as per Technical Specifications & Standards of the RFP.	ITEM148	1.000	One Set		0.00	NR Zero Only
56	Supply and installation of gate opening sensors as detailed in the Technical Specifications & Standards of the RFP ( Shift Encoder/ Hall effect/ Ultrasound Type) with suitable coupling for gate position (Opening/Closing) integrated with measurement of Teesta Barrage main gates & Head Regulator gates of TLMC and TJMC integrated with Master Controller as per Technical Specifications & Standards of the RFP.	ITEM149	62.000	One Set		0.00	NR Zero Only
57	Supply, installation, testing, commissioning and integration with system at Master Controller Server at the Barrage Control Room One Flood Warning Alarm System as detailed in the Technical Specification & Standards Chapter of the RFP installed at river bank at about 2 km upstream of Teesta Barrage confluence of Leesh & Gheesh or as per direction of Engineer-in-charge suitably mounted and secured by civil works including fencing for polling information every 15 minutes to Barrage Control Room at Teesta Barrage suitably equipped with one 280 Watt Solar Panel with Battery, One Ultra sonic or Radar (RF) based water level sensor alongwith 2.5 Ks RF Transmitter and Receiver with amplifier if needed, in IP 65 enclosure and installed against vagaries of nature with Data communication throw media INSA/VSAT and GSM/GPRS to Master controller, SMS to authorities and Flood warning alarm as specified and real time blinking display on Monitors of BCR two other Stations.	ITEM150	1.000	Job		0.00	NR Zero Only
58	Supply of Digital Automatic Rain Gauge system at Teesta Barrage Control Room (BCR) as desired in the Technical Specifications & Standards of the RFP, INSA/VSAT/GSM/GPRS data communication including installation with all civil works along with pipes, mast, tower & ARG enclosure complete and to the satisfaction of EIC.	ITEM151	1.000	One Set		0.00	NR Zero Only
59	Supply & Installation of Power junction boxes, Power DB, cable accessories and hardware as per Technical Specifications & Standards of the RFP to the satisfaction of EIC.	ITEM152	1.000	Job		0.00	NR Zero Only

60	Supply, laying & installation with all civil works, Housing etc of Copper power cable and control cable along with Optical Fibre cable/ Ethernet cable with suitable IP protocol as per Technical Specifications & Standards of the RFP with connector for installation and data transmission system.	ITEM153	2000.000	R/M		0.00	INR Zero Only
61	Civil works and furnitures required for renovation and remodeling of Teesta Barrage control room and two other monitoring stations at Siliguri and Jalpaiguri ( all equipments of the Master controller at BCR is required to be installation of Automation & Remote control panel system with all furniture, equipments and fixtures as per SCADA Room cum BCR GAD Plan), and Godrez Interio or equivalent Furnitures (1) BCR: 4 tables, 12 revolving chairs, 2 computer tables (2) Siliguri: 2 tables, 6 revolving chairs, 1 computer table (3) Jalpaiguri: 2 tables, 6 revolving chairs, 1 computer table	ITEM154	3.000	Per stations/BCR		0.00	INR Zero Only
62	Supply, Erection and commissioning of Solar power system upto maximum 10 KVA or minimum 72 hrs backup without sunshine to run all the panels and provide lighting arrangement at the BCR 24X7. The Solar Panels shall be provided in anodized aluminum frame with tubular batteries, preferably Power Solar Panel of TATA or equivalent make and Batteries of EXIDE make or equivalent make as approved by E.I.C after due consideration of performance of equipment. Solar panel should conform to IEC- 61730, 61215 and 61701 and as per Technical Specifications & Standards of the RFP.	ITEM155	1.000	Job		0.00	INR Zero Only
63	Supply & Installation of split-type Air conditioning system each of 3 ton capacity electric saver with 5-star rating of Hitachi/LG/ Samsung or equivalent reputed brand (2 nos at BCR) including civil and complete electrical, overall wiring works as per Technical Specifications & Standards of the RFP	ITEM156	4.000	Per set		0.00	INR Zero Only
64	Operation of all 62 Nos. Teesta barrage and both end canal head regulator gates as per direction and instruction of the E.I.C from time to time and guidelines for operation through remote control system during 1st year (12 months) post commissioning, including hire charges for INSAT/IS/PPRS from service providers, Contractors/Manufacturers Guarantee for replacement of any defective spares, equipments, components, accessories of entire project work during the such period and providing security against theft or pilferage to ensure uninterrupted operation (Guards, Operator, Mechanic, Helper in three shifts per day x 365 days) as per EPC Agreement.	ITEM163	12.000	Month		0.00	INR Zero Only
64.01	Operation & Maintenance of all 62 nos. Teesta barrage and both end canal head regulator gates as per direction and instruction of the E.I.C issued from time to time and guidelines for operation through remote control system including safety & security of automation equipments only and its installations, providing warranty period repair of all spares, equipments, components, accessories & installations of entire automation system( Remote control and other equipments) only during such period from 2nd year to 6th year of extended warranty defect liability period for five years as detailed under clause 7.5, 18, 19, 20, 21, 28 (Guards, Operator, Engineer, Assistant in three shifts per day per year for 5 years ) of the Technical Specification & Standards of the RFP.	ITEM164					
65	At the successful completion of 1st year of extended warranty period	ITEM165	12.000	Month		0.00	INR Zero Only
66	At the successful completion of 2nd year of extended warranty period	ITEM166	12.000	Month		0.00	INR Zero Only
67	At the successful completion of 3rd year of extended warranty period	ITEM167	12.000	Month		0.00	INR Zero Only
68	At the successful completion of 4th year of extended warranty period	ITEM168	12.000	Month		0.00	INR Zero Only
69	At the successful completion of 5th year of extended warranty period	ITEM169	12.000	Month		0.00	INR Zero Only
70	Trainings of Teesta Barrage project authorized operators/engineers as detailed in the Technical Specifications (Type of trainings and session periods) of the RFP on entire remote control system of operation and other equipments and training to deal with emergent situation along with submission of 4 sets of O&M Manual on Gate operation both in soft copies (DVD) as well as hard bound paperback booklet forms as durable documentation as desired by the E.I.C	ITEM170	15.000	no of training session		0.00	INR Zero Only
71	Supply, installation, commissioning and trial-run of PTZ Night vision Cameras of Sony/Cannon brand with NVR GW Security 16CH independent PoE 10MPixel NVR 4TB Network Security System with 12 HD 1920P 2.8 12mm Manual Varifocal Lens 64PCs IR LED Waterproof IP Cameras or equivalent of 25GB storage of recording with 240° rotation screen resolution compatible to with stand high environments for 24 X 7 monitoring as per Technical Specifications & Standards of the RFP.	ITEM171	4.000	nos		0.00	INR Zero Only
72	C ) Anti Rust treatment and Painting of MS structural members: Surface preparation with proper protection as per specified standard as laid down in para 4.2.1 of IS code :14177 for painting of Teesta main barrage gates, stop logs & exposed embedded parts of main barrage gates (covering wire ropes and other lubricating points by suitable protective measure) by sand blast cleaning (SA : 2.5 STD/ requirements given in IS :1477, part-1 :1971) including hire charges of compressor, abrasive storage hopper, supply or best quality core sand and all other necessary materials including taxes and scaffolding wherever necessary and all other incidental charge ( description of finish Milli-scale, rust paint and foreign matter is removed completely. Any remaining traces are visible only as slight stains or discoloration in the form of spots or stripes) (ISO 8501-1)] as to remove oil, grease, old painting, dust, rust etc. by use of required suitable material/ solvent to the extent necessary with adequate protective measure for workforce and other parts such as gearbox, roller, bearings etc. as per direction and upto the satisfaction of E.I.C (DFT meter should also be provided by the agency to check the surface roughness after cleaning as per specified standard) (Blast cleaning should be performed with sand/ grit/ shot as per requirements given in IS : 1477 (Part-1) :1971). For Gates Stop logs and exposed embedded parts as per direction and satisfaction of E.I.C	ITEM172	30079.000	Sqm.		0.00	INR Zero Only
73	Surface preparation with proper protection for painting of Hoist bridge and hoisting components etc. of Teesta Main Barrage by hand tool cleaning (wire brushing, chipping, scraping etc. with use of scrapper, abrasive pads, chisels, knives, chipping hammer etc.) mechanical cleaning, and/ or power tools cleaning (pneumatic or electrically operated tools such as impact cleaning tools, rotary cleaning tools, rotary impact cleaning tools etc.) and grinding and also by use of solvent to the extent necessary as and when required in accordance with St 2 as to clean the surface off any rust, moisture, loose/ perished paints, remove oil, grease, dust, scales etc. with cost of materials, labours, scaffolding, staging and all other incidental charges with adopting adequate protective measure for workforce and other parts such as gear box, roller, bearing etc. as per direction and as per satisfaction of E.I.C [IS code 14177:1994 to be followed] For the Teesta Barrage Hoist bridge and hoisting components	ITEM173	39628.000	Sqm.		0.00	INR Zero Only
74	Supplying of Zinc rich primer [ Berger Epilux 4 ZR HB Primer 290-Grey or equivalent Asian Paints, Shalimar, Dulux ( containing not less than 85% zinc on dry film) etc. approved by E.I.C.] and applying 2 (two) coats of 40 microns D.F.T. per coat to give a total dry film thickness of 80 micron over prepared surface fit for application of primer on gates and stop logs and other embedded components of gates of Teesta main barrage gates as necessary including cost of materials, labour, with all scaffoldings, tools, equipments, machineries, safety and precautions., staging, tools etc and all other incidental charges with providing adequate safety measure for workmen and also to provide D.F.T. meter with latest calibrated certificate issued from reputed institute for checking as per direction and up to the satisfaction of E.I.C. [Application method: Airless or conventional spray] (Manufacturer approved thinner for particular paint to be used only) [ IS code 14177 ]. For Gates Stop Logs and exposed embedded parts as per direction and satisfaction of E.I.C	ITEM174	30079.000	Sqm.		0.00	INR Zero Only
75	Supplying & applying of solventless Coaltar epoxy paint (Berger BR Epoxy High Build GF Coating Black or equivalent Asian paint , Shalimar, Dulux etc. approved by E.I.C.) with 2 (two) coats of 150 microns D.F.T. per coat (these should be applied at an interval of 24 hours and also to achieve total dry film thickness including primer coating not be less than 380 micron) over primer coat on gates and stoplogs and other exposed embedded components of Teesta Barrage main gates including cost of materials, labour, scaffolding, staging, tools etc and all other incidental charges with providing adequate safety measure for workmen and also provide D.F.T. meter with latest calibration certificate issued from reputed institute for checking as per direction and upto the satisfaction of E.I.C. ( Manufacturer approved thinner for particular paint to be used only) [ IS code 14177 ]. For Gates Stop logs and exposed embedded parts as per direction and satisfaction of E.I.C	ITEM175	30079.000	Sqm.		0.00	INR Zero Only

76	Supply of zinc phosphate primer ( Berger Epilux 610 Primer Red Oxide/Grey or equivalent Asian paints, Shalimar, Dulux etc. approved by E.I.C.) and applying 2 (two) coats of 45 micron D.F.T. per coat over prepared surface fit for application of primer on hoist bridge and hoisting components etc. of Teesta main barrage gates including cost of materials, labour, scaffolding, staging, tools etc. including all other incidental charges with providing adequate safety measure for workmen and also provide D.F.T. meter with latest calibration certificate issued from reputed Recognised institute for checking as per direction and up to the satisfaction of E.I.C. ( Manufacturer approved thinner for particular paint to be used only) [IS 14177:1994]. For Hoists and supporting structures as per direction and satisfaction of E.I.C	ITEM176	39628.000	Sqm.		0.00	INR Zero Only
77	Supplying and applying of finished paint consist of one coat of alkyed based micaceous iron oxide paint (Berger EPILUX 4 HB MIO Grey/Blue or equivalent)at dry film thickness of 65 micron followed by two coats of synthetic enamel paint(Berger BR Torpedo GREY/Blue or equivalent) of approved shade conforming to IS 2932: 1974 to give dry film thickness of 25 micron per coat of synthetic enamel ( Berger, Asian paints, Shalimar etc. approved by EIC ) [ Total dry film thickness of all the coats including primer coat should not be less than 205 micron] over primer coat on hoist bridge and hoisting components of Teesta Barrage main gates including cost of materials, labour, scaffolding, staging , tools etc. including all other incidental charges providing adequate safety measure for workmen and also provide D.F.T. meter with latest calibration certificate issued from reputed institute for checking as per direction and up to the satisfaction of E.I.C. ( Manufacturer approved thinner for particular paint to be used only)[ IS code 14177:1994]. For Hoists and supporting structures of Barrage as per direction and satisfaction of E.I.C	ITEM177	39628.000	Sqm.		0.00	INR Zero Only
78	Miscellaneous structural Steel surface repair works including replacement of members, preparation of surface, welding, fitting fixing etc complete before Painting as per direction and satisfaction of E.I.C	ITEM178	1,000	job		0.00	INR Zero Only
Total in Figures						0.00	INR Zero Only
Quoted Rate in Words						INR Zero Only	