

Reply to pre-bid queries for rebidding of NCB No. JP/EW/1B/E2

DESIGN, DETAIL ENGINEERING, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 25 KV AC TACTION (RIGID OHE), 33 KV AUXILIARY SUB STATIONS (ASS), ASSOCIATED CABLING AND SCADA SYSTEMS FOR UNDERGROUND CORRIDORS OF JAIPUR MASS RAPID TRANSPORT SYSTEM PROJECT PHASE-1B. PRE-BID QUERIES.

S. no	Reference Clause	Description as per issued document	Bidder's queries	Query reply
1	Section 3 >> Evaluation & Qualification Criteria>> 2.3.3>>Financial resources>> Note	NOTE: The entries made under clause 2.3.2 and 2.3.3 and Section-4 (FIN-1 to FIN-5) shall have cross references to submitted financial statements. The above Statements shall also be certified by Chartered Accountant.	We request you to allow the certification of forms FIN-1 to FIN-5 by authorized Signatory of Entities participating in this Bid. Please confirm that Certification by Finance Director / VP Finance / CFO of respective bidding entities will suffice this requirement	Please follow bid conditions.
2	Section 4 >> Bid forms >> Pricing Schedules		Kindly provide Price Schedule and Cost Centre Sections in excel format.	The Softcopy of Volume – II, Section 4 (Schedule of Prices) and PDF copy of Volume – III Section – 6 (Bid Drawing) have been mailed to all the prospective bidders who have purchased the bid documents. However if any discrepancy found in softcopy and hardcopy issued by JMRC then hardcopy will prevail.
3	Contract Package>>Pricing Document>>G. Terms of Payment (for only Milestone works)>> Clause 6.	No amount will be certified or paid until the Employer has received, and approved, the Performance security and the parent Company Undertakings and Guarantees in accordance with Sub-Clause 4.2.	We propose to submit a comfort letter from our Parent Company instead of Parent Company Guarantee and Parent Company Undertaking. Same process has been followed in other projects of India recently: GSO1A & GS01 Contracts of Delhi Metro and LKRSO1 Contract of Lucknow Metro etc./.) Kindly confirm that Comfort Letter from parent Company will suffice in place of PCG and PCU.	Please follow bid condition

4	Section 8>>Special Conditions of Contract>>Clause 6>> Sub clause 11.1>>Contract Price.	A. Custom Duty & Excise Duty.	Will the Custom Duty be fully exempted for this project or exemption will be taken as Project Import benefit under chapter 98.01. Kindly confirm?	Please follow bid conditions.
5	8. SCC – Sub clause 13	Advance Payment:- The advance shall be paid interest free against acceptable bank guarantee. Total advance payment shall be 10% of the Accepted Contract Amount. The first installment shall be five percent (5%) payable within 21 days from the date of receipt o guarantees acceptable to the Employer. The second installment shall be five percent (5%) payable on submission of proof of utilization of the first installment for the works and the Employer is satisfied that the utilization has been done in purposeful manner and contractor has achieved the Key dates of detailed Engineering and submitted the technical proposal of major equipment. Advance shall be payable in the currencies and proportions in types and proportions of the currencies mentioned BOQ.	We request you to consider that Mobilization advance should be paid only in one installment which is 10% of the Fixed Lump Sum Price of the contract.	Please follow bid conditions.
6	Section 4>>Bidding Forms>> Price Schedules PREAMBLE>> Clause 10 Section 4>> Bidding Forms >> Price Schedules PREAMBLE >> Clause 6	“The bidder can quote the bid price against each item in INR or in Foreign Currency/Currencies or in a combination of both as indicated in Section 2 – (Bid Data Sheet). The bidder is advised to read the BOQ provisions carefully and quote the price accordingly. Each column of the currency is to be quoted independently and no inter conversion of currency is required”. Payments will be made to the contractor in the currency or currencies indicated under each and respective items.	Kindly confirm whether the Indian entity will receive the payments in the foreign currency or in equivalent INR based on prevailing exchange rates on the date of payment.	Please follow bid conditions.
7	Section 1>> ITB >> Clause 18.4 Section 2>> BDS >> Clause ITB 18.4(a)(i)	In the Schedules, Bidders shall give the required details and a breakdown of their prices as follows: (a) Plant to be Supplied from Abroad (Schedule No.1): (i) the price of the plant shall be quoted carriage and insurance paid (CIP) named place of destination basis specified in the BDS. The Incoterm for quoting plant to be supplied from abroad is: N/A	We request you to allow High Seas Sale Incoterm for quoting the plant to be supplied from abroad.	Please follow bid conditions.

8	Sub Clause Change in Laws and Regulations 36.1	If, after the date 28 days prior to the date of Bid submission in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated, or changed, which shall be deemed to include any change in interpretation or application by the competent authorities, that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with the SCC, pursuant to GCC Sub clause 11.2. Cess etc. till completion of the contract including extended period of completion, if any.	Please confirm that change in Laws is applicable for Any New Taxes, Duties, levies cess etc as well as for any rate change for existing taxes, duties, levies, cess. Which means contract price shall be adjusted in respect of the variation in the rates of existing taxes, duties, levies, cess etc. as well as introduction of the New Taxes, Duties, levies cess etc.	Please follow bid conditions. Please also refer para (c) ((2) of clause 6 (Contract Price) under Section 8 (SSC)
9	TS/Part 1 ROCS Page 28 of 140>> Chapter 4/4.12/4.12.1.1	System availability to ensure that the reliability of the Systems does not jeopardize the reliability of services of the MRTS.	Please elaborate the referred tender condition. If the JP/EW/1B/E2 is the extension and continuation of existing line then the failure of OHE in 2.5 Km section may or may not affect the section, which will depend on the civil structure of the tunnel.	Please follow bid conditions.
10	TS/Part 1 ROCS Page 28 of 149>> Chapter 4/4.12/4.12.1.4	Figure for service availability are specified in 'failures per annum in each of the four classes of severity of failure. Both reliability and maintainability in terms of time to restore service or implement mitigation measures to work around the occurrence of a fault are to be considered. The service availability targets include failure of the System power supplies, but exclude grid supply failures affecting multiple primary substations.	What are the "four classes of severity of failure"? In which clause "four classes of severity of failure" are mention please clarified for the reference?	Four parameters required to calculate the availability of service are- 1. MTBF 2. MTTD 3. MTTR 4. MTTF
11	TS/Part 1 ROCS Page 28 of 140>> Chapter 4/4.12/4.12.1.4	The service availability targets include failure of the System power supplies, but exclude grid supply failures affecting multiple primary substations.	What is the Service Availability Target for RIGID OHE?	Overall Service Availability Target shall be same as mentioned in TS of ASS i.e.99.95% . However, during

				revenue availability shall be maintained. hours,100% shall be
12	TS/Part 1 ROCS Page 29 of 140>>Chapter 4/4.14/4.14.1	The Contractor shall undertake maintainability analysis to assess the preliminary maintainability targets of the systems.	What are the preliminary maintainability targets of the systems? Please elaborate.	The preliminary maintainability targets of the ROCS systems shall be same as mentioned in TS of ASS.
13	TS/ASS Chapter (Protection)/11.2 11	11.2 Performances required The protection system shall deploy numerical relays and shall comply with a high performance standard regarding. 11.2.1 Reliability This criterion defines the mean time between failures (MTBF) WHICH HAS TO BE CALCULATED FOR ABOUT 10 YEARS. 11.2.2 Maintainability This criterion represents the mean time for repairing (MTTR) and has to be considered only by replacement of faulty function or sub assembly. The MTR does not exceed 2 hours not including the dead time to reach the site. 11.2.3 Availability This is expressed in terms of ratio using the formula $\frac{MTBF}{MTTR + MTBF}$ And has to represent a level of 99.95%	Are the referred RAM requirements for ASS protections only? Please clarify.	The RAM requirements are for the complete system.
14	TS/ASS chapter (protection)/11.2 11	11.2.2 Maintainability This criterion represents the mean time for repairing (MTTR) and has to be considered only by replacement of faulty function or sub assembly. The MTTR does not exceed 2 hours not including the dead time to reach the site.	Please clarify that referred MTTR is for protection system in ASS only not for complete ASS.	Referred MTTR is for complete system.
15	TS/Part 1 ROCS Page 33 of 140 Chapter 5/5.4	5.4.2.2 The system shall comply with all the relevant safety documentation of the Employer, including, but not limited to "Project Safety Manual" and any update thereof provided by the Engineer.	Please Elaborate the expectation from Project safety Manual.	Please follow the bid conditions.
16	Section B – Special Conditions of Contract. Page No. 951 12.1	The payment shall be made as per preamble of Bill of Quantities.	We request client to provide clear payment terms for individual milestone.	Please follow the bid conditions

17	Technical Specification (Rigid OHE) Page 609 1.3.3	The proposed capacities, ratings and number of equipment as a result of the design development shall be demonstrated by a proper design and simulation study and subject to review by the employer.	Please confirm we have to provide the offer as per quantity and ratings as provided in the tender document or we have to undertake simulation at bidding stage.	These are minimum size or ratings which are to be provided by the bidders .In case, higher size or rating is required as per simulation same shall be accounted for in the price and no variation shall be paid.
18	BOQ (ASS), Page No 147 Item 14	Before commencement of AMC, the bidder shall submit a bank guarantee equal to 10% of the AMC charges as applicable and valid up to one month beyond the AMC period.	<ol style="list-style-type: none"> 1) Please confirm the 8 yrs AMC will be considered for financial evaluation. 2) Also confirm whether cost for supplementary Bank guarantee price to be included in the original pricing. 	Please follow the bid conditions

S.N o.	Volume of Tender/Document section	Sub Section/ Drawing Heading	Clause No./ Drawing No.	Page/Drawing Sheet No.	Description of Item	Clarification Required by Contractor	Query Reply
19	Part 1 –RIGID OHE	Chapter 10 Design criteria of ROCS	10.3.1.10	Page 90 of 140	Rigid Overhead Contact System (ROCS):	<p>As no specific detailed technical specifications have been mentioned in the BID document about the type of system to be adopted.</p> <p>We may be allowed to implement the existing design followed by DMRC & same design drawings to be supplied by DMRC/JMRC</p> <p>For the ROCS,ASS & SSP</p> <p>Please confirm so that the Bid can be submitted accordingly.</p>	Please follow the bid conditions .
20	Part 1 –RIGID OHE	Chapter 10 Design criteria of ROCS	10.1.2	Page 84 of 140	Route Particulars	<p>a) Is the entire open route between Choti Chaupar and Badi Chapaur stations having Bore Tunnel or what is the break up if cut & cover type is also there?</p> <p>b) Total TKM of ROCS has not been given, according to our calculation it works out to be about 4.60 Tkm.</p> <p>Pl. Clarify because it is essential for submission of proper Bid.</p>	<p>a) Please follow the amended bid drawing as per volume –III and amended Statement –C of schedule of prices part-I Section-4 volume-2</p> <p>(Refer Addendum -2)</p>
21	Part 1 –RIGID OHE	Chapter 10 Design Criteria of ROCS	10.1.3	Page 84 of 140	Sectioning	<p>c) At clause 10.1.3 of chapter 10 (Design criteria of ROCS) it has</p>	<p>a) Please refer amended Bid drawings volume-III. (Refer Addendum -2)</p>

						<p>been mentioned that Conceptual schematic electrical Sectioning diagram is depicted in schematic supply diagram given in volume 5, tender drawings but volume 5, tender drawings does not form part of the Bidding documents purchased. Please supply copy of the same.</p>	
22						<p>d) As stated in your document that at departure ends of stations, normally IOLs with SS are provided but in the Track plan (Electrical sectioning diagram not supplied) no such arrangement has been shown at departure end of Chotti Chaupar station. Pl. clarify.</p>	<p>Please refer amended bid drawing volume-III. (Refer Addendum -2)</p>
23						<p>e) Normally, BOQ forms part of the Tender document but, ROCS BOQ has not been provided, a copy of the same may be given please.</p>	<p>Please refer Schedule of Prices,Section-4 vol-II.</p>
24						<p>f) The OCS work shall be executed with the help of conventional T & P, ladders and ladder Trolleys etc. However RRV & CMV to be supplied by JMRC.</p>	<p>Please follow the bid conditions.</p>

25	Part -1 – Rigid OHE	Chapter 10	10.3.1.19	Page 91 of 140	Indications Board	g) Are all Indication Boards to be Retro-reflective type or only the Location number plates are to be Retro-reflective? Please confirm.	Please follow the bid conditions.
26						h) It is assumed that the price of all types of spares, special tools, testing & diagnostic equipment & measuring instruments and requirement of staff for manning etc also to be included in the Bid price?	Please follow the bid conditions.
27						i) JMRC has to provide work sites free of cost for setting up SITE office and labour camp.	Work site at suitable location shall be provided by JMRC. Please refer para 3.8 of Chapter 3 of TS of Rigid OHE.
28	Part 1 –RIGID OHE	Chapter 2		Page 13 of 140	25KV Power Supply to Switching Stations (SSP) at Badi Chaupar	i) It is evident from the Track plan of the tender document that 5 OCS Isolating switches have been provided at Badi Chauper Metro station premises at the ‘Y’ siding, but it is not clear whether these are Circuit Breakers, Interrupters or Motor operated Isolators. Moreover, if these are CBs/Interrupters, are these to be installed in some SSP room at the	Please refer Schedules of prices for SSP location. For other details please refer TS of Bid documents.

						station? Please clarify	
29	Part 1 –RIGID OHE	Chapter 2	2.2.8	Page 13 of 140		<p>i) Where from is the 25 KV supply to be fed to this SSP? Is it from the nearest FP. Give chainage of both i.e. Badi Chaupar SSP & 25kV Feed tapping location.</p> <p>ii) The track plan does not show any IOL or Isolating switches at outgoing end of Chandpole station as well as at Choti Chaupar station. Please confirm.</p> <p>iii) Please spell out your requirements for Electrical sectioning of the OCS in addition to that of what has been shown at Badi Chaupar station.</p>	<p>Supply is to be taken from ROCS and Contractor is required to submit his own design</p> <p>Please follow the amended bid drawing. (Refer Addendum -2)</p> <p>Please follow the amended bid drawing. (Refer Addendum -2)</p>
30	Technical Specification Rigid OHE	Chapter 3, scope of work	3.2 (f)	Page 16 of 140	Cable support system	<p>1. It is assumed that the work of provision of Cable hangers/ supports/trays for 25kV, 33 kV cabling, earth conductors, control cables etc in the tunnels/station boxes SSP & ASS rooms is under Civil Contractor or E&M contractor's scope.Pl. Confirm.</p>	<p>Please refer clause no 10 of Appendix-E of TS for ROCS.</p>
31	Technical Specification,Part 1-	Chapter- 3, Scope of Work	3.7.3	Page 20 of 140	Items of work	<p>1. It is assumed that Supply</p>	<p>Please follow the bid conditions</p>

	Rigid OHE				excluded from contract	and installation of earth Mats & earthing Electrodes in ASSs & Tunnels is not in our scope.	
32						1. What is the exact extant of Modification work reqd. to be done at the existing Chandpole ASS for tapping supply by laying single core, 400sq.mm copper FRLSOH cables for the Chotti Chaupar ASS & this work will have to be done under power blocks	Please follow the bid conditions, however for any further clarifications, the contractor is advised to visit the site before quoting.
33	Part I, Bidding procedures	Section 3	2.5	Page 3 of 10	SCADA system	1. This will be sub-contracted to a reputed experienced agency full filling the laid down conditions specified as per Form EXP-3.	Please follow the bid conditions.
34	Volume II, Section 6	Chapter 2, Scope Of Work	1.1	Page 3 of 9		1. It is assumed that SCADA system need not be of particular make. If not, please specify & confirm	Please follow the bid conditions. Refer chapter 8 clause 8.1 of TS.
35		CHAPTER 8 D SCADA System Technical Specifications	3.2	Page 9 of 36		1. Apart from the two ASSs at each station, Is the Badi Chaupar Switching stations required to be provided with SCADA equipment/control & none else. 2. It is assumed that the RTUs are to be located at the ASSs for SCADA control of any switching station or way side switching equipment.	Please follow the bid conditions. Please follow the bid conditions. Please follow the bid conditions, however for any further

						3. It is assumed that no SCADA work is required to be done at Chandpole Metro station.	clarifications, the contractor is advised to visit the site before quoting.
36	Part III, Section 9		Page 9 of 19		General	<p>Guarantee for safe custody of materials purchased for the site work shall not be applicable for payments for materials procured by us for this project shall be released as & when claimed.</p> <p>1. What is 'Advance payment Guarantee' and what shall be the amount for this contract?</p>	<p>Please follow the bid conditions</p> <p>Please follow the bid conditions</p>

37		Part 2- Auxiliary substations (BOQ)	Item No. 14	page 9 of 21	AMC	1. In Part 2, Auxiliary substations, BOQ, item 14: AMC cost for Line Equipments we shall quote rate for 1 st year (after DLP) in the relevant price schedule. further extension shall be decided with mutual agreement after negotiation of rate	Please follow the bid conditions.
38		Part 2- Auxiliary substations (BOQ)	Item No. 14	page 9 of 21		<ul style="list-style-type: none"> It has also been mentioned that Staff for SCADA have to be provided for 24X7 for attending SCADA fault. Pl clarify 	Please follow the bid conditions.
39						<ul style="list-style-type: none"> How the tax exemption regulation of Ministry of Finance will work out. Clarification required. 	Please follow the bid conditions
40						<ul style="list-style-type: none"> During factory inspection who will bear the travelling and boarding expenses. 	Please follow the bid conditions
41	Section 6, Volume II, Technical Specifications	Chapter 19		Page 130 of 140	TRAINING	What is the app. Requirement of conducting training in India & Abroad, are we to include such costing in the Bid. It is felt that duration of foreign training is high.	Please follow the bid conditions
42					Modal Mock up required	Being a small work, provision of mock up modal may be deleted	Please refer Addendum -2
43					Training of ER staff	Man week may be elaborated for ROCS & ASS	Man week shall be as per schedule of prices.

44						Team for maintenance and supervision for ASS work may be classified as 1 team consisting of 1 Engineer, 1 supervisor & 2 skilled staff.	Please refer Addendum -2
45						Maintenance manual for ROCS work be as per BOQ or as Per TS. Pl. clarify	Please refer Schedule of prices.
46						Regarding 40 man month for supervising support of maintenance work. pl. clarify	Please follow the bid conditions
47						Design engineers to be deputed to site or not. pl. clarify.	Design engineers need not be deputed at site.
48						Working mode for ROCS/ASS training may be elaborated.	Please follow the bid conditions
49	BOQ ASS		Item No. 14	Page 9 of 21	AMC cost for Line equipments	Required AMC cost for line equipment may be classified whether for all or SCADA	The AMC cost of line equipment as per TS and Schedule of prices item 14 of ASS is for SCADA equipment only.

S. No	Volume of Tender/Document section	Sub Section/ Drawing Heading	Clause No./ Drawing No	Page/Drawing Sheet No.	Description of Item	Clarification Required by Contractor	Query Reply
50	BOQ ASS	Aux. Feeding	Item No. 3.2	Page 5 of 21	DC-UPS	In ASS room DC-UPS is also required	Please follow bid conditions.
51	BOQ ASS	Cables from Switching Station equipments to RTU	Item No. 3.4	Page 6 of 21	Cables	For pilot wire protection which type of cables are required means copper or OFC between two stations.	Please follow bid conditions.
52	Technical Specification ASS	Chapter 8A Aux. Network (Underground)	Item No. 2	Page 8 of 64	33 KV modification work	In existing ASSs of Chand pole 33KV, GIS/VCB panels and relays for pilot wire and O/C, earth fault is available. What modification is required	Please follow the bid conditions, however for any further clarifications, the contractor is advised to visit the site before quoting.
53	Technical Specification ASS	Chapter 8A Aux. Network (Underground)	Item No.3.3.6	Page 10 of 64	Cable tray	Inside ASS room cellar who will provide the cable tray for HT, LT and C&M cables. E&M contractor is supposed to provide.	Please follow bid conditions
54	Pricing Document	Statement E; Section-Miscellaneous	Milestone No.A4	Page 29 of 44	Design Submission Programme	In design submission programme, it is mentioned in ROCS BOQ only. It means ROCS design scope only .For 33kV Aux system design is not in our scope.	Please follow bid conditions.
55	Technical specification ASS	Chapter Maintenance & Training 6,	Item No. 3.5	Page 9 of 10	Man weeks of employers personnel's for Off-Shore training at Contractors works	For 33Kv ASS equipments. All the equipments will be purchased from India. Hence Off shore training is not required..	Please follow the bid conditions.

56	Section 6 – Employer’s requirement, Volume I – General Specifications	Chapter 15	Item No. 15	Page GS 15-8 of 6	Site establishment and Attendance.	The employer will provide the site office and storage space for the contractors free of cost.	Work site at suitable location shall be provided by JMRC. Please refer para 3.8 of Chapter 3 of TS of Rigid OHE.
57	Section 6 – Employer’s requirement, Volume I – General Specifications	Chapter 15	Item No. 15.6	Page 15-9 of 6	Site Facilities for the Employer’s Representative	It is not clear what type of facilities will be provided for employer even in appendix 7 it is not applicable.	It is not applicable for this contract.
58	Technical Specification ASS	Chapter 8A Aux. Network (Underground	Item No. 6.7.3	Page 33 of 64	Sheath Voltage Limiter	SVL and cross bonding of 33kV cable is required.	Please follow the bid conditions.

Sl. No	Tender Volume	Ref Clause/ Chapter	Bid Condition	Query / Clarifications	Query Reply
59	Section-8 SCC	Sub clause 26.2 and 52	Extension of Time with Cost Compensation	<p>Based on past experiences, Metro projects are usually delayed due to which the Contractor has to incur additional costs . In view of this, we request you to consider including a provision for extension of time with cost compensation for such delays that are not attributable to the Contractor.</p> <p>In doing so:</p> <ul style="list-style-type: none"> - Contractors' will not factor in huge risks in pricing on account of delay. Thus, in effect Employer will be will able to execute project at lower overall project costs. -Employer and Contractors' will together ensure timely completion of project. Thus, there will be no financial impact on either party. <p>However, maximum limit for cost compensation in such cases may be capped at 20% of the Contract Value.</p>	Please follow the bid conditions,
60	Section-8 SCC	S.No-8 Subclause-13	b. Advance Payment	As per referred clause, 10% advance shall be paid to contractor. We request you to change advance payment to 20% considering team mobilization and office and site store in Jaipur only for extension project.	Please follow the bid conditions,
61	Section-8 SCC	Sl. No 33 Additional Clause	Retention Money.	Considering volume of work and to maintain cash flow we request you to delete retention money clause.	Please follow the bid conditions,
62	Section-1 ITB	BOQ	Price Variation	We request you to allow price variation as per IEEMA for supply material.	Please follow the bid conditions,

63		<p>Technical Specifications Clause 7.1.5 Annexure-A & Clause 6.7.1</p>	<p>25kV GIS Rated Voltage 52kV</p>	<p>As per clause 6.7.1, maximum voltage for 25kV AC equipments is mentioned as 27.5kV.</p> <p>Whereas as per Annexure-A of clause 7.1.5 rated voltage for 25kV GIS is 52kV.</p> <p>We would like to highlight that 25kV GIS asked in tender is for SSP application and voltage can never be higher than 27.5kV.</p> <p>52kV is series I standard rated voltage for conventional three- phase AC systems and is defined as Phase to Phase Voltage. The related phase to earth voltage is 30.02kV.</p> <p>EN 50163 (also mentioned in clause 6.7.1 above), defines in chapter 4.1 a highest permanent voltage of 27.5kV as phase to earth Voltage for 25kV AC Railway Systems.</p> <p>Higher voltage stress can only occur when two 27.5kV voltages with different phase angles are present, i.e. between two separately fed sections with transformers differently connected to HV network. In such a configuration, interlocking of the switching devices between both Voltage systems shall be used to effectively limit permanent voltage stress across the open contact gap of a single switching device.</p> <p>Moreover, for SSP application two voltages can never appear across CB.</p> <p>Internationally for 25kV GIS rated Voltage requirement is 27.5kV and also in India Navi Mumbai, Nagpur Metro have accepted GIS with rated voltage of 27.5kV.</p> <p>In view of the above we request you to change rated voltage to 27.5kV.</p>	<p>The panel should be suitable for 27.5 KV Traction system with minimum BIL of 200 KV.</p>
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64				<p>It has been noticed that cost of minimum quantity of contract spares has been mentioned at the following two places in the tender documents.</p> <ol style="list-style-type: none"> 1. Item 18.2 (Contract Spares as per table 18.2.1) Minimum quantity of contract Spares at Page126 of 140. 2. Statement F(Unit prices of Additional Quantities a spare Page 40 of 44 of bids Submission part 1 section 4 volumne-2 <p>It has been observed from these two statement for quantity of spares mentioned as different i.e. one statement OCS spares have been mentioned as 0.5 track kilometres whereas, in the statement F it has been mentioned for 1 KM and so on.</p> <p>Kindly clarify at the earliest, the exact quantity of spares to be supplied and the cost included in the bid.</p>	<p>These two are separate items</p> <ol style="list-style-type: none"> (i) Contract Spares are to be provided as per chapter 18 of TS for ROCS , Table 18.2.1 and milestone no C of Cost center C-Spares of Schedule of Prices (ii) Statement F of Schedule of Prices consists of unit prices of items for additional quantities which is to be quoted separately as provided in the bid.
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s. no	Reference Clause	Description as per issued document	Bidder's queries	Query reply
65	5.1	CODES & STANDARDS	Kindly note that Offered 33 kV GIS shall conform to IEC 62271-100,102,200 and IEC 61869 for Instrument transformers.	The offered equipments should conform to latest edition of relevant IEC.
66	'5.1	Switchgear Rating	36kV, 1250A, 25kA/Sec	Please follow the bid conditions.
67	1.2.2	Design Ambient	40 degC as design ambient. Pls confirm.	Please follow the bid conditions.
68	'10	Feeder Qty:	Protection CB Incomer: 1250A Qty: 8 Protection CB Tie Feeder: 1250A Qty: 2 Transformer Protection CB : 630A Qty:4	Please follow the bid conditions.
69	5.2.1	All non-welded assemblies shall be assembled by means of bolts and nuts with mandatory use of lock-washers. All panels, separating partitions and accessories shall be mounted in such a way so as to withstand indefinitely the vibrations transmitted, in particular by the resetting mechanism of the circuit-breakers and their actuation.	As per IEC 62271-200 we shall provide our type tested design.	Please follow the bid conditions.
70	Drawings	Cable Runs	Cable Runs 1RunsX 1 coreX400 sq.mm for all ring feeders i.e. Prot. CB IC/Prot. CB Tie Feeder 1RunsX 1 coreX95 sq.mm for all Transformer Prot. CB feeders	Please refer clause no 4.1.1 of schedule of prices explanatory notes of BOQ.
71	Drawings	Interlinking between ASS-1 & ASS-2:	Protection CB Tie Feeder: 1250A of Qty 2 shall have separate VCB Panel & Disconnecter with Bus PT on each shall be connected via cable having cable runs same as Protection CB Incomer 630A interlinking between ASS-1 & ASS-2. Bus PT with manual disconnecter considered & PT ratio burden & VA burden shall be confirmed during detailed engineering.	Please follow the bid conditions, however, same can be worked out during detail engineering.
72	5.2.1	All non-welded assemblies shall be assembled by means of bolts and nuts with mandatory use of lock-washers. All panels, separating partitions and accessories shall be mounted in such a way so as to withstand indefinitely the vibrations transmitted, in particular by the resetting mechanism of the circuit-breakers and their actuation.	As per IEC 62271-200 we shall provide our type tested design.	Please follow the bid conditions.
73	5.3. vi)	Suitable means of expansion should be provided in the metal enclosure and pipeline to absorb the actual thermal expansion and contraction of SF6 equipment and to	Suitable means of expansion should be provided in the metal enclosure and pipeline to absorb the actual thermal expansion and contraction of SF6 equipment and to facilitate the alignment of switchgear assembly.	Please follow the bid conditions.

		facilitate the alignment of switchgear assembly.		
74	5.3. vii)	GIS should be of modular design, and it should be possible to add feeder panel if required.	Noted. Siemens GIS pre design feature for future extension ready switchgear can be offered which enable to add future feeder.	Please follow the bid conditions.
75	5.3. xi)	The height of the instrument panel above floor level shall not exceed 2,000mm unless otherwise reviewed without objection by the Engineer who may require the Contractor to provide, at its own cost, suitable means for easy access to the instrument panel.	Total Height of Switchgear panel shall be 2700 mm; Width: 600 mm & Depth: 1625 mm	Please follow the bid conditions.
76	5.3.1	The endurance class of Electrical, Mechanical & restrike performance operations of all breakers, earth switch isolator etc needs to mentioned in the GIS equipment proposal.	Electrical-E2, Mechanical-M2 Restrike performance operations-C2	Please follow the bid conditions.
77	5.3.1.2.5	All circuit-breaker operating mechanisms shall be fitted with an electrical shunt trip release coil.	All circuit-breaker operating mechanisms shall be fitted with an electrical shunt trip release coil.	Please follow the bid conditions.
78	5.3.1.2.7	Operating Mechanism DC Supply(110V) Voltage Ranges: <ul style="list-style-type: none"> • Closing solenoids 85 to 120% of rated voltage • Spring charging motor 85 to 120% of rated voltage • Closing release coil 85 to 120% of rated voltage • Shunt trip release coil 70 to 120% of rated voltage 	Closing solenoids 85 to 110% of rated voltage Spring charging motor 85 to 110% of rated voltage Closing release coil 85 to 110% of rated voltage Shunt trip release coil 70 to 110% of rated voltage	Range specified in the latest IEC 62271 shall also be acceptable
79	5.3.1.2.10	A proven positively-driven mechanically-operated indicating device shall be provided to show whether a circuit breaker is in the open or closed position.	Mimic shall be provided show whether a circuit breaker is in the open or closed position in front of the panel.	Please follow the bid conditions.
80	5.3.1.4.1	All live conductors shall be inside SF6 gas insulating medium & in a chamber with no gas handling requirement at site (prefilled at works).	1. We confirm post commissioning of GIS there shall be no gas handling at site under normal operating conditions. 2. Our design also ensures that all live parts including bus bar and bus bar joints are completely inside SF6 gas insulation making it safe for operation and touch proof. Hence our design justifies the true definition of GIS wherein no inter panel connection should be outside SF6 gas. 3. As busbar compartment is thorough, gas filling in busbar	Preferably no gas handling shall be required at site. (Refer Addendum -2)

			compartment shall be done at site	
81	5.3.1.4.7	All special tools and equipment for installation, testing, commissioning, operation and maintenance of the GIS shall also be supplied by the Contractor. These include a suitable sized gas handling unit mounted on a trolley for purging, refilling and other gas works. The trolley shall be able to retain the SF6 gas purged from any gas zones of the GIS.	If Complete Erection, Testing & commissioning is in Siemens scope of supply, then same shall be given on a returnable basis during ETC.	Please follow the bid conditions.
82	5.3.1.5	Switchgear Interlocking: An electrical or a mechanical key interlocking system shall be provided whereby it is not possible to apply an earth to a section of the bus bar until all circuit breakers which can feed that section are locked open.	Bus earthing at each bus section is not considered. Pls clarify	The interlocking requirements are indicative subject to approval of Engineer In Charge considering operational and maintenance safety.
83	5.3.1.5.3	The earthing devices shall be provided with interlocks to ensure correct operation in conjunction with the associated circuit breaker.	Please note that earthing is part of 3 position disconnecter which is interlocked with Circuit Breaker which promotes safe operation.	The interlocking requirements are indicative subject to approval of Engineer In Charge considering operational and maintenance safety
84	5.3.1.5.5	It shall not be possible to return to the service position and close the circuit breaker until the electrical tripping is again operative.	Siemens GIS uses fixed type Circuit Breakers. Kindly accept.	Please follow the bid conditions
85	5.3.1.5.6	Where interlocking over a distance is required, two independent criteria shall be used, e.g. absence of a voltage and remote feeding circuit breaker open. Indication of the remote condition shall be by single purpose circuit, care being taken that the conductors used are adequately screened and shielded to minimize both transverse and longitudinal voltages resulting e.g. from electromagnetic induction, differences in earth potential or other causes. The Contractor shall ensure that voltages dangerous to personnel or harmful to correct operation shall not arise.	We understand this clause necessitates Castle Interlock between Transformer feeder, transformer & LV Breaker in line with DMRC Projects. If yes, Kindly confirm. If not pls clarify.	The interlocking requirements are indicative subject to approval of Engineer In Charge considering operational and maintenance safety
86	5.3.1.5.7	When there is provision for isolation of sections of cable between two "either-or"	We understand this clause necessitates Castle Interlock between Transformer feeder, transformer & LV Breaker in	The interlocking requirements are indicative subject to

		interlocked circuit breakers, a key-operated 8over-ride shall be provided to permit both circuit breakers to be closed at the same time provided that the circuit between them is open. It shall not be possible to restore the connection without tripping one of the two circuit breakers and releasing the key.	line with DMRC Projects. If yes, Kindly confirm. If not pls clarify.	approval of Engineer In Charge considering operational and maintenance safety
87	5.3.1.5.8	The mechanical closing button of circuit breaker shall be interlocked with the closing conditions of the circuit breaker such that operation of the mechanical closing button shall be prohibited if the closing conditions of the circuit breaker are not fulfilled.	Mechanical Push button shall be used as a emergency push buttons. We shall be providing flap over push button which facilitates locking and prevents accidental closing.	The interlocking requirements are indicative subject to approval of Engineer In Charge considering operational and maintenance safety
88	5.3.1.7.5	The individual GIS panel should be with an PT isolation arrangement to conduct all the after installation test on H.T cabling system as per requirement of standards.		Please follow the bid conditions.
89	5.3.1.10	Back side cover shall be required to be provided if no maintenance is recommended from the rear portion of GIS	Switchgear Internal Arc Classification (IAC)-IAC AFLR with rear wall shall be provided.	The accessibility of the offered switching shall be decided as per IEC 62271-200 based on its location . Classified sides offered should include FLR as per IEC 62271-200.
90	5.3.1.13	Potential Transformers(PT's)	<ul style="list-style-type: none"> • Plug in type Line PT in all ring feeders • Bus PT with manual disconnecter qty as per SLD/BOQ attached PT Specifications shall be in line with past supply of DMRC Projects.	Please follow the bid conditions.
91	5.3.1.12	Current Transformer specification: The class of all protection CTs shall be PS class. The burden of the CT core shall be of 15 VA.	CT Specifications shall be in line with past supply of DMRC Projects. Detailed specs shall be confirmed during detailed engineering.	Please follow the bid conditions.
92	5.3.1.13	Voltage Transformer specification: The nominal VT ratio shall be 33kV/110V. The burden of the VT core shall be of 50 VA. For protection and measurement applications, the VTs shall be of dual Class 3P/0.5. The burden of VTs shall be decided by the Contractor with a margin of 40% for future	Detailed specs shall be confirmed during detailed engineering.	Please follow the bid conditions.

		additions of instrumentations.		
93	Generic	Mechanical life of vacuum interrupter	We have considered 10,000 operating cycles of Vacuum interrupter. Pls confirm.	Please follow the bid conditions.
94	'11	Numerical relay	Please note that we shall consider relay in our scope of supply; as per specs meeting protection functions & protocols mentioned in the Technical specifications.	Please follow the bid conditions.
95	1.1	SCADA	Please note Integration of Numerical relays with SCADA is in Siemens scope or not.	Please follow the bid conditions. It is clarified that integration of Numeric relays are in the scope of contract.
96	ITB 4.1	A Bidder may be a natural person, private entity, or government-owned enterprise subject to ITB 4.5 - or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of Joint Venture	Also Consortium is allowed for Bidding, accordingly "Joint Venture or Consortium" shall be applied wherever only "Joint Venture" is written as eligible Bidders. Request for clarification for the same has been asked by some prospective bidders during pre-bid meeting.	Consortium may be allowed subjected to that all other requirements like jointly and severally liable, minimum experience and all other eligibility criteria's are fulfilled by each consortium member or partner and this project specific agreement as per bid document has to be provided.