DESIGN, SUPPLY, CONSTRUCTION, INSTALLATION, TESTING AND COMMISSIONING OF 2X25kV AC ELECTRIFICATION, SIGNALLING & TELECOMMUNICATION, E&M AND ASSOCIATED WORKS ON DESIGN BUILD LUMP SUM BASIS OF DADRI – KHURJA SECTION (APPROXIMATELY 47 ROUTE KM OF DOUBLE LINE) OF EASTERN DEDICATED FREIGHT CORRIDOR

SYSTEMS WORKS CONTRACT PACKAGE 105

RESPONSES TO PRE-BID QUERIES OF THE BIDDERS

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
693.	Page 465 of 1231 clause 5.2.2 (Table) Headway is mentioned as 13 mins	The feed may be coming from a section where Headway is 15 mins, thus performance loss will be there in case of N-1 scenario	The Provisions of the Bidding Document shall prevail. Please also refer Sub-Clause 5.1.5 & 5.1.7 Vol-2, Part-2 of the Bidding Document.
694.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 5.1.8 / Page No. 39 of 303 Second failure conditions (N-2) performance requirement: The N-2 conditions will not cause to overload the traction equipment. The Outcome of this study shall validate the rating and sizes of the Traction Equipment.	We assume that for N-2 case, we only have to suggest the headway of the train to be maintained. Sizing of the equipment will be done on the basis of the N-1 condition. Kindly confirm.	The provisions of the Bidding Document are self-explanatory and shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
695.	PS Elec Vol2 Clause 3.2 Design By Computer Simulation	For executing Tender simulation i.e. for finalising the ratings of Traction Transformer & Auto Transformer we require the following data for simulation: 1. Alignment Drawings including Detour area. 2. Gradient Data / Topography 3. Curvature Data. 4. Traction effort and Braking effort characteristics 5. Traction current and braking current characteristics 6. Rolling stock Current Limitation characteristics (If any) 7. Rail Resistance data. 8. Rolling Stock acceleration/deceleration factor details. The data is not provided in the bid document. Request you to kindly provide the same to conduct preliminary simulation for estimation purpose.	The available details have been given in Part-4, Reference documents. Please also refer item no. 3 of table 18.4.3 of Part 2, Vol. 2 of bidding document.
696.	PS Vol2 Electrification, Chapter 3, 3.2.4 (5) Voltage imbalance and THD imposed at PCC with IR's transmission line network at normal rated capacity as well as extended feed scenario in full load conditions and mitigation measures thereof, including sizing of mitigation equipment.	Please advise relevant Power Supply Authority for the same and specify the document / regulation to be considered to deciding PCC to avoid any issue at a later date. If the Point of Common Coupling (PCC) is known at this stage, please advise if the same is Grid Substation end or TSS end. Please confirm the existing short circuit level of feeding grid substation and approximate distance between grid substation and TSS which is one of the important factors for Power Quality Study. Technically Power Quality cannot be ensured without this information and thus required. If data is not available at this stage, data to be assumed / considered should be specified by the employer based on the available information.	Please refer Table 18.4.4 of Part 2 Vol. 2 of bidding document. For metering requirement, please refer item no. 4 of table 18.4.4 of Part 2, Vol. 2 of bidding document. For short circuit level, please refer item no. 3 of table 18.4.4 of Part 2, Vol. 2 of bidding document**.**
697.	PS Vol 2 Electrification, Chapter 6, 6.7.1 For connectivity to the grid substation of power supply authorities, following power quality limits have been laid at the point of common coupling (PCC).		

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
698.	PS Vol2 Electrification, Chapter 6 6.1.3 (2) (b) Incoming Metering Bays with Check meters, Metering CT, PT and the associated insulation, protection and monitoring arrangement as per IR/PGCIL specifications with required communication ports on the 132kV incoming side in a separate cubicle at the TSS which should have communication with OCC through SCADA.	Please clarify that main metering and associated CT, PT, LA for incoming lines and main metering room at TSS are excluded from Present scope of work since the same is not mentioned in the scope.	Please refer Item no. 4 of table no 18.4.4 of Part 2, Vol. 2 of bidding document. Provision of bidding documents are self-explanatory and shall prevail.
699.	PS Vol2 Electrification, Chapter 3, 3.3.1 (1) v (c) Auto-Transformers shall be provided at the TSS (as required as per design) and at SSP's.	If bidder design is with V-Connected Traction transformer scheme and simulation shows that Auto transformer requirement is not required in Traction Substation, then this line item will not be required. Please confirm that this understanding of "as required" is correct.	Provisions of bidding document are self-explanatory and shall prevail.
700.	PS Vol2 Electrification, Chapter 6, 6.9.8 (a) 132kV Loop in loop out Transmission Line Protection as required: - Differential Protection a special protection for compensation for phase difference between primary & Secondary line current	Line differential protection may not be feasible for longer line length as it needs control cabling between sending & receiving end. Please confirm that DFCC has a right of way for laying control cable for the same and the control cable is not in the scope of bidder/contractor if line differential is considered. Thus request employer to change differential protection with distance protection in technical specifications as that is the appropriate and feasible option.	Provisions of bidding document are self-explanatory and shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
701.	PS Vol2 Electrification, Chapter 6, clause 6.1.4 (1) Circuit breakers for 2x25kV AT system with protection relays as required to automatically isolate faulty section/equipment, control relay panel and CT's, PT's as per application duty of Max. 60kV or Max. 30kV rated voltage, and suitable BIL in conformance to EN 50124-1.	Since the System is designed for 2 X 25 KV, the standard rated nominal voltage (Un) of 25 KV & rated insulated voltage (Unm) of 27.5kV is acceptable and available. Beside that there is no Un or Umn of 30 KV specified in EN 50124-1. Important consideration should be BIL of System voltage and 95kVrms & 250kVp is a standard BIL as per international practice. Thus request you to kindly amend your clause to "control relay panel and CT's, PT's as per application duty of Max. 55kV or Max. 27.5kV rated voltage" which is aligned with EN Standard and International Practices.	Provisions of bidding document shall prevail.
702.	PS Vol2 Electrification, Chapter 6, clause 6.5 Table 6.5.1 Design short circuit levels for 132kV – 10000MVA	Based on MVA levels provided, Calculated fault level for 132 kV is 43.74 kA. IEC-62271-1 recommended 31.5kA & 40kA for 132kV Equipment as per clause No. 4.5 (R10 series) Please amend the short circuit levels of: - 132kV equipment's as 31.5 kA (i.e. 7201MVA) or 40kA (i.e. 9145MVA) to align with IEC and the same was adopted in CP-104 So that bidders ensure equipment availability as per IEC.	Provisions of bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
703.	PS Elec Vol2, chapter 4, Clause 4.4.2 (5.a) Three years satisfactory performance on AC Traction system from one month prior to date of second stage of bid opening or later. (For circuit breaker and interrupters above 25kV, 25kV feeder wire, AEW, BEC as required and SCADA system, Three (3) years satisfactory performance on Power utilities shall also be permitted.)	Request you to kindly change the clause to: "Three years satisfactory performance on AC Traction system from one month prior to date of second stage of bid opening or later. (For circuit breaker and interrupters above 25kV & 132kV Current Transformer (CT), & 132kV Power Transformer (PT), 132kV Disconnector, 25kV feeder wire, AEW, BEC and SCADA system, Three (3) years satisfactory performance on Power utilities shall also be permitted)" This will enable execution and delivery of the Project in time without impacting the quality, performance or functionality of the system.	Provisions of bidding document shall prevail.
704.	PS Vol 2 Electrification, chapter 18, Table 18.4.1 (7) System Works Contractor (CP105) Shall coordinate with the civil contractor so that the BEC is installed while the formation work is in progress by the civil contractor and formation is not required to be excavated for laying of BEC	By the time CP 105 contractor mobilised for execution of E&B works, Most of the alignment will be constructed already. In that case, it is not possible for successful bidder to install BEC without excavation and the employer / DFCCIL has to provide hindrance free access as per Employer's obligations or an alternate arrangement which doesn't require any excavation should be accepted. Please incorporate these changes in the clause.	Please refer Addendum no. 10, S.No. 21.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
705.	Tender drawing: Typical arrangement on OHE Mast on Embankment (Drg No. GC/DFCC/OHE/EMBKT/TYP/501)	As per tender drawing "Typical arrangement on OHE Mast on Embankment", CP105 contractor has to provide earth riser for connection to every mast. BEC laid between track & Mast with 600 mm below earth on embankment and have to excavate at every mast location on the embankment for taking out the riser. In this scenario, methodology of compaction on embankment for that portion (i.e. manually or mechanised) to be ensured and DFCCIL/ Civil Package contractor must provide hindrance free access of embankment for timely completion of this task. If this is not feasible if Civil contractor has already completed their work, alternate proposal must be considered. Please incorporate appropriate changes in the clause.	Being design & built contract general/functional performance requirement have been specified. The detailed design is in the scope of the contractor. The provision of bidding document shall prevail.
706.	PS Vol2 Electrification, chapter 6, clause 6.3 (4) & Drg. No. GC/DFCC/OHE/EMBKT/TYP/501-1 The earth rods below the mat shall be copper clad steel as per IEEE80/IEC62561-2/ANSI/NIMA Gr-1-2007/EN 50522-2.	The earth rods below the mat shall be as per copper clad steel, but as per Tender drawing (BEC arrangement of OHE Mast on Embankment) earth rod is shown as 40mm GI Pipe. Please clarify the details of earth rod to be used. It is requested to confirm which type of electrode to be used and please amend this statement in drawing/particular specification accordingly.	Provisions of bidding document are self-explanatory and shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
707.	PS Vol2 Electrification, Chapter-7, Table 7.3.1 ….In case, the contractor proposes any other connection type transformer arrangement meeting performance requirement, the specification for such proposed transformer shall be prepared by the contractor on the lines of specification of scott connected transformer matching/ exceeding performance parameter creation without any limitation during the service life on the life cycle cost basis and submitted for approval of the engineer, whose decision shall be final and binding to the contractor.	Since this is a Design and Built Contract, everyone should be entitled to offer their own design as long as Employer Requirements and Specifications are met. It is not appropriate to compare one design with another as every design has its own pros and cons. Beside this, we would like to state that the clause itself is discriminatory in nature as it has been mentioned that bidders considering connections other than Scott will have to prove that their design is matching or exceeding performance than Scott, however bidders offering Scott connection is not required to prove that their design is matching or exceeding other connections, thus giving unfair advantage to bidders considering Scott. Thus we request you to delete this condition to provide level playing field as long as Employer requirements are met.	Provisions of bidding document are self-explanatory and shall prevail.
708.	Section III Evaluation and Qualification Criteria; 2.4 ** (A Bidder shall also be required to submit a certificate, from the developer / vendor of the software, that the simulation..….	Since generally Simulation Software Developer / Vendor sell their software to Engineering companies for them to use and they have no control over the Projects it is being used, it is not possible to get a certificate from Developer / Vendor.	Bidder's request not accepted. Provisions of Bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
709.	Clause 8.16 PS Part II Vol II The zinc coating for steel structures and parts shall be as per RDSO Specification no. ETI/OHE/13 (4/84) i.e. minimum coating of zinc shall be 610 gm / m², except for marine and chemically polluted areas. The polluted areas shall be id entified as a result of pollution mapping by the contractor a nd approved by the Engineer, where the zinc coating shall be 1000 gm/ m2. In cas e of need to use nonstandard SPS at special locations to be fixed to the steel structure, these shall be with clamps to avoid drilling of galvanized mast sections	This Clause shall be applicable for only steel structures and small parts of steel attachments on mast and not for OHE components. For OHE components, the Galvanisation for OHE components shall be in accordance with RDSO Specification ETI/OHE/13 or European Standard EN ISO 1461 where galvanisation zinc coating of lesser mass is allowed depending upon the thickness.	Please refer Addendum no. 10, Sr. No. 4.
710.	Part 4	Request DFCC to provide CAD version of all alignment and schematic drawings.	Bidder's request not accepted.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
711.	Clause 8.14.4 -2 PS Part II Vol II Setting distance of fixed structures shall not be less than that specified in SSOD for EDFC. This shall be however, subject to review by the Engineer. The location of traction masts shall be such that visibility of signals is not obstructed and shall be as indicated in ACTM. The OHE supporting masts/portals/drop arms shall be coordinated with signal locations to ensure clear signal visibility.	Can we design all the OHE masts (single cantilever/multiple cantilever/Portals/ TTC/ Structures) with a standard implantation of 3.00m as the SSOD of EDFC permits 2.825m implantation for structures. However, the implantation of structures in the visibility of signals will be designed such that the visibility of signals not obstructed and will be according to ACTM.	Provisions of bidding document shall prevail.
712.	Part 4 Yard plans	Kindly share the detailed OCS layout plan & drawings at IR merging locations.	Please refer item no. 1 & 2 of table 18.4.3 of Part 2, Vol. 2 of bidding document. Being design & built contract general/functional performance requirement have been specified. The detailed design is in the scope of the contractor. The provision of bidding document shall prevail.
713.	Part 4	Please provide the details of ROB, FOB, transmission lines and cross feeders of Indian railways with spanning over DFC line and angle of crossing, height etc. to estimate design work effectively.	This is an interface item please refer chapter 18 – interface management of Part 2, Vol. 2 of bidding document.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
714.	Clause 8.14.1 PS Part II Vol II Overhead equipment structures for the main line tracks shall be mechanically and electrically independent except where specifically approved by the Engineer. In station yards, having three or more tracks, generally, portals shall be erected as per yard plan. …	Can we use masts in between tracks in yard between mainline and loop line if the track centre is adequate to install mast with an offset of 2.825+curve allowance if any, as per standard schedule of dimensions for EDFC an implantation of 2.825m is allowed for individual structures without anchor or twin cantilever structures.	Provisions of bidding document are self-explanatory and shall prevail.
715.	Clause 8.18.1 d PS Part II Vol II Porcelain insulators as per RDSO specification No. TI/SPC/(OHE)/INS/0070 shall be provided at all locations except at polluted locations and LC Gates where insulators as per RDSO Specification TI/SPC/OHE/INSCOM/0070(04/07) shall be used. The locations where polluted zone type of insulators is to be installed shall be proposed after survey and shall be installed with the approval of Engineer.	Can we install composite insulators as per RDSO specification TI/SPC/OHE/INSCOM/0070 (O4/07) or as per any other International standards with Aluminium tube cantilevers as the Porcelain insulators will not be suitable for aluminium cantilevers.	Please refer Addendum no. 10, S. No. 5.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
716.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 3.2.3,S.no.1 Auxiliary Sub-station (ASS) at stations and depot adjacent or subsidiary to the main buildings as required for Auxiliary Power supply including HT/LT equipment room, additional DG room (in addition to the combined DG cum solar Room provided by CST contractor CP-302 at the station).An indicative plan of ASS is shown in drawing No.-GC/DFCC/ASS/506 included in the part-4	1. Please specify the chainage of ASS, further there are no indication of ASS in the ASS indicative drawing no. GC/DFCC/ASS/506. 2. Purpose of DG cum solar and additional DG is not clear. As per the Attachment 20.7 indicative scheme for auxiliary transformer supply system shows one DG with AMF. Please elaborate 3. We understand that DG room, as per indicative drawing GC/DFCC/ASS/506 also includes fuel Storage space.	Please refer Addendum no. 7, S.No. 54. Being design & built contract general/functional performance requirement have been specified. The detailed design is in the scope of the contractor.
717.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 3.2.4 The general requirement for construction of the control room building and ancillary building/rooms under the scope of the contractor (CP-105) has been described in chapter-17: Civil work of this PS. The contractor shall judiciously consider the location of Auxiliary sub-stations as per requirement of stations, Depots and other Buildings etc. not exceeding the voltage drop 3%.	Request to provide the Chainage details for ASS, Stations, Quarters and other ancillary buildings so as to specify the location of respective buildings.	Provisions of bid document are considered to be sufficient.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
718		As per Specification, Type-A Staff Quarters -48 Nos. and Type-B Quarters-07 Nos. , location of same is not mentioned in the PS. Please confirm from where the power supply to these Quarters to be provided.	Provisions of bid document are considered to be sufficient. Provisions of Bidding documents are sufficiently clear. Please refer to Para 3.2.4 of PS (E&M and associated works), Vol. 5, Part 2.
a.	Part 2 volume 2 Clause No 10.1.4 (g) Work stations (for Dadri – Khurja section) at OCC,	Bidder assumes that 2 work stations for Dadri to Khurja at OCC would be sufficient. Please confirm the same & also request DFCCIL to provide the specifications of the workstations.	Being design & built contract general/functional performance requirement have been specified. The detail is in the scope of the contractor. The provision of bidding document shall prevail.
719.	Part 2 volume 2 Clause No 10.1.4 (q) The SCADA system shall interface with Asset Management and Maintenance Planning System at OCC for acquiring real time fault details and equipment operation count.	Bidder understands that DFCCIL will provide Asset Management and Maintenance Planning System to interface with SCADA. Kindly confirm? Also request DFCCIL to issue IO list for both the systems since it is not covered in the RFP.	Please refer reply to query no. 345.
a.	Part 2 volume 2 Clause No 10.8.1 (3) (3) The SCADA system shall have levels of redundancy in its equipment and Configuration as necessary to meet the System Performance requirements.	Bidder understands that the DFCCIL does not require redundancy at IO card level? Please confirm. Redundancy will be provided as per 10.10.2 (47)	Please refer sub-clause 10.2.1 (a) Vol-2 Part-2 of the bidding document of adequate redundancy. Please also refer 10.2.1(J), 10.7.1(A), 10.8.1(4 to 6) also.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
b.	Part 2 volume 2 Clause No 10.10.2 (38)(4) The RTU shall be capable of communicating over IEC60870-5-104 with Control Center, IEC 61850 for interface with Relays, BCU, IEDs; IEC 60870-5-103 for interface with protection equipment; Modbus protocol for communication with Energy and Multifunction meters on Ethernet communication with Intruder Detection system and Access Control System.	As per latest standard IEC 61850 also covers all the protection equipment's. In this regard, we request DFCCIL to consider IEC 61850 communication protocol for protection equipment's as well. Please amend the clause accordingly.	Provisions of bidding document shall prevail.
c.	Part-2, Section-VI VOLUME 3: PARTICULAR SPECIFICATIONS - SIGNALLING WORKS 3.2.10 (4) The TMS of Bhaupur – Khurja section will be a computer based information storage cum retrieval system located in the Operational Control Centre (OCC) at Allahabad. The system shall be suitably extended/upgraded by the Contractor to collect and display signalling information of the CP 105 sections, New Khurja – New Boraki – Dadri (ICD) - Dadri area & New Boraki – WDFC on real time basis.	Based on input availability from adjacent sections of EDFC/WDFC, the indication is to be provided by WDFC system. It may be limited to Train identification/timetable info of approaching trains. The interface information between TMS CP105 - Other TMS (EDFC TMS to WDFC TMS) is based on the standard protocols. Please confirm.	Please refer response to query at S No. 403.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
720.	Part-2, Section-VI, Signaling Works 3.2.7(7) On the EDFC system, modern turnouts and derailing switches are programmed to be used. The turnouts shall be on 60 Kg rail, with thick web switches and weldable CMS crossings suitable for 25 tonne axle load and Speed potential of 100 Kmph on Main lines	Please confirm type of turnout to be used in EDFC line. Is it to be operated with single or double point machine which depends on length of stock rail? Please confirm scope of supply of back drive arrangement if required. Request to issue the drawings of turnouts to be used in CP105	Please refer response to query at S No. 424. Please refer Para 11.2 of PS - Signalling Works, wherein contractor has to interface with CST contractor (CP-302) for details/drawing of turnouts.
721.	Part-2, Section-VI, Signaling Works 3.2.8(11) The Contractor of CP 104 will also provide a UPS as per specification at Appendix 1 for Signalling and Telecommunication Equipment provided in OCC under CP 104. The responsibility for providing Power supply for additional equipment being provided under the Contract in OCC, lies with the Contractor. The Contractor can meet its contractual obligation by either providing new power supply or by suitable addition/augmentation of the Power supply provided under CP 104. The Contractor shall coordinate with the Contractor of CP - 104 for the same.	CP-104 shall provide the power supply details based on that Suitable modifications carried out by CP-105 please confirm.	Please refer response to query at S. No. 429.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
722.	Part-2, Section-VI, Signaling Works & The Power Supply for Signalling system shall be drawn from Main AC Distribution Panels/Boxes and terminated on Signalling AC Distribution Panel/Box from where it shall be distributed to all Signalling Equipment/Signalling Power Supply Equipment operating at 230 V AC.	From IPS power supply is distributed to relay racks/CT rack for further distribution to different signalling functions instead of separate distribution panel/box. Please confirm if this is acceptable to DFCCIL	Please refer response to query at S. No. 430.
723.	Part-2, Section-VI, Signaling Works 6.3.2.(9) The Safety Critical Signalling systems such as EI, MSDAC etc. using OFC system for communication shall use dark fibres exclusively for Signalling use.	Providing dark fibre will be under PS-Telecommunications works. Vol.4, Part 2. Please confirm since this is not clearly brought out in Vol 4 Part 2.	The provision of Optical fibre is covered under Para 5.3.3.1, 5.3.3.2, 5.3.3.3, 5.3.3.4 and 5.3.3.10 of PS Telecommunications works, Vol. 4, Part 2. In this regard, Bidder's attention is invited to Para 6.3.1(4) of PS-Signalling works, Vol. 3, Part 2.
724.	Part-2, Section-VI, Signaling Works 11.3 S. No (4) Shall identify and collect the S&T design documents of Khurja station as required to commission Khurja – New Boraki automatic section.	Alterations in Khurja station shall be carried out by CP-104. Please confirm.	Please refer response to query at S No. 461.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
725.	Part-2, Section-VI, Signaling Works 11.4 The Contractor shall liaison with designated authorities in Indian Railway to design Signalling and Telecom Arrangement for/at boundaries with Indian Railways. The design so finalised shall be submitted to Engineer for review. The contractor shall execute the so reviewed Signalling & Telecommunication arrangement for/at boundaries with Indian Railways.	Design changes and required cable laying shall be carried out by Indian Railways in their boundary. Please confirm the scope of work at Boundary.	Please refer response to query at S No. 462.
726.	Part-2, Section-VI, Signaling Works 11.5 The Contractor shall interface with the CTP 14 contractor of WDFC, for seamless integration of Signalling and Telecommunication system provided on the twin single lines connection to WDFC	Design changes and required cable laying shall be carried out by CTP-14 contractor. Please confirm the scope of work at boundary	Please refer response to query at S No. 463.
727.	ENGINERING SCALE PLAN OF NEW BORAKI WITH EDFC CONNECTION TO DADRI & WDFC(KM 1408/931) Dadri ICD yard connectivity. Boundary towards IR-ICD Dadri	As per the received ESP up to CH: 3800 (1412.731 Km) will be under the Scope of CP-105 and after that chainage lines mentioned in MAGENTA in ESP/YARD Plan is not under the scope of CP-105. Please confirm our understanding is correct.	Provisions of Bidding documents are sufficiently clear. Please refer Para 1.4.4(4) of PS- Signalling Works, for scope of Signalling works to be executed by CP-105 contractor in Dadri (ICD) Yard – Dadri Area.
728.	General Crank Handle Telephone	Please clarify whether Crank Telephone to be Provided. Also please clarify as part of whose scope (Signaling/Telecom) the Cable for this phone has to be provided. Also clarify if the telephone shall be provided as part of Telecom scope similar to other phones being provided by the Telecom.	The communication arrangement between the SM and the Location boxes housing Crank handle keys shall be provided by the Contractor under PS-Signalling Works. Please refer to Addendum no.10, S No. 23

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
729.	General Maintenance telephone (MTP) in location cases.	MTP socket shall be provided in all the location boxes and shall be taken in to Signalling cables along with other signalling functions.	Provision for using Maintenance Telephone shall be made in each Location box, as per scheme approved by the Engineer at design stage after award of the Contract.
730.	Part 3 General	Please confirm how the bidder will be compensated for expenses and cost impact, in the event of Contract extension acceptable to EDFC for no fault of this bidder. Confirm the conditions laid in Yellow book will be acceptable to EDFC.	Provisions of Bidding documents are sufficiently clear and shall be followed.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
731.	"[…] the prices shall be quoted by the Bidder entirely in Indian Rupees […]. A Bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country shall indicate […] the percentage of the bid price needed by him for the payment of such foreign currency requirement, limited to no more than three foreign currencies […]	1. We understand that the foreign currency portion converted to INR will be for evaluation purpose only. The Consortium members shall be allowed to invoice and receive payment in foreign currency for the value initially quoted in foreign currency using the same counter-value used on the Base Date. Thanks to confirm. 2. In case of a consortium composed by onshore and offshore companies, could you confirm that - Each member of the consortium will invoice for their respective portions in the respective currencies (i.e. INR for onshore consortium members and foreign currencies for offshore consortium members limited to a maximum of three foreign currencies) - DFCCIL shall pay directly to the respective bank account of each member of the consortium 3. It is a standard practice that payments to offshore suppliers/offshore consortium members are made through sight irrevocable and confirmed Letter of Credit. Could you clarify whether payments to offshore consortium members will be made through Letter of Credit? 4. For payments which would not be made through LC, could you clarify the timeline (number of days) between the date of invoice and the date of payment?	1. & 2. Provisions of the Bidding Document are sufficiently clear. It is confirmed that the conversion of foreign currency to INR is for evaluation purpose only. Individual JV/JVA members will not be allowed to raise the Invoice. The Invoice will be raised by the JV/JVA and payment of amount due in each currency shall be made into the Bank account of the Contractor (Sole/JV/JVA) or its individually authorized member(s), nominated by the Contractor in the payment country (for this currency) specified in the Contract, in accordance with Clause 14.7 of Particular Conditions of Contract. 3. Payment through Letter of Credit will not permitted. 4. Payment will be made in accordance with the Condition of Contract.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
732.	Part 1 Section IV Bidding forms, Form MOU Clause 16, Part 1 Section I ITB ,Clause 4 This MOU shall be construed under the laws of the Bidder's actual or intended country of Registration. Bidder can be a Joint Venture or association (JVA) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. All partners of Joint venture shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms, and JVA shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JVA during the bidding process and, in the event the JVA is awarded the Contract, during contract execution.	As per clause 4 of ITB we understand that Bidder can be an unincorporated joint venture having one authorized representative While clause 16 of Form MOU states about Bidder's actual or intended country of Registration. Both of these statements seem contradictory hence require clarification whether Unincorporated JV is allowed for this bid or JV needs to be incorporated Please clarify.	Unincorporated JV is allowed for the bid.
733.	PS Elec Vol2 Clause 3.3.2(p) (p) Obtaining statutory clearances including preparation of Documentation and submission of information asked for by statutory bodies e.g. Government of India, Ministry of Railways, Commissioner of Railway Safety, and Electrical Inspector to Govt. of India (EIG) as directed by the Engineer	Normally this work is dealt by Client, being a Govt. Body. Contractors are not entertained for direct. Contractor can support for required documents submission and site joint inspection support/clarifications. Please clarify	Provisions of bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
734.	Section IV Bidding Forms Form SUP Proposed subcontractors and Suppliers for Major items of the work **Column 4 :-** Approximate Value of proposed Subcontracting Items (in percentage of the approximate total value of the Contract)	As this is Technical Submission stage only which means that calculating the approximate cost of small subcontracting works will not be possible, we request you to waive off this requirement at this stage and it should be submitted with Second stage submission. We can declare in form SUP that "the Approximate Value of proposed Subcontracting Items will be submitted with second stage bid submission." Please confirm.	Bidder's request not accepted. Provisions of Bidding document shall prevail.
735.	Section IV Bidding Forms PRICE SCHEDULE 2.2.4 Apportionment of Contract Price for Payment of Cost Centre TRAIN MANAGEMENT SYSTEM (TMS) AND SERVICE AND DIAGNOSTICS SYSTEM (S&D) Note 1 : Payment will be made on completion of each Payment Stage as per weightage(s) given in this schedule	For various sub cost centres of Price Schedule 2.2.4, there may be phased delivery at project stage, therefore we would request you to allow the payment to contractor on pro-rata completion of each payment stage : We request you to replace the Note 1 by following, which would help to improve the Project Cash Flow. :- "Payment will be made on Pro-rata completion of each Payment Stage as per Weightage given in this schedule."	Bidder's request not accepted. Provisions of Bidding document shall prevail.
736.	Section IV Bidding Forms PRICE SCHEDULE 2.3.1 Apportionment of Contract Price for Payment of Cost Centre DESIGN AND DOCUMENTATION 2. Payment will be made on completion of each Payment Stage as per weightage(s) given in this schedule.	For various sub cost centres of Price Schedule 2.3.1, there may be phased delivery at project stage, therefore we would request you to allow the payment to contractor on pro-rata completion of each payment stage : We request you to replace the Note 2 by following, which would help to improve the Project Cash Flow. :- "Payment will be made on Pro-rata completion of each Payment Stage as per Weightage given in this schedule." Project Cash Flow.	Bidder's request not accepted. Provisions of Bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
737.	Section IV Bidding Forms PRICE SCHEDULE 2.3.3 Apportionment of Contract Price for Payment of Cost Centre TELECOM WORKS AT OPERATIONAL CONTROL CENTRE (OCC) 1. Payment will be made on completion of each Payment Stage as per weightage(s) given in this schedule.	For various sub cost centres of Price Schedule 2.3.3, there may be phased delivery at project stage, therefore we would request you to allow the payment to contractor on pro-rata completion of each payment stage : We request you to replace the Note 1 by following, which would help to improve the Project Cash Flow. :- "Payment will be made on Pro-rata completion of each Payment Stage as per Weightage given in this schedule." Project Cash Flow.	Bidder's request not accepted. Provisions of Bidding document shall prevail.
738.	Section IV – Bidding Forms / Page No 127/1231 Price Schedule 2.0 – Apportionment of Contract Price for Payment according to Cost Centres 2.1 Electrical Works : 50% - 60% 2.2 Signalling Works : 20% - 30% 2.3 Telecommunication Works : 15% - 30%	We request DFCC to revise the Price Schedule 2.0 – Apportionment of Contract Price for Payment according to Cost Centres to 2.1 Electrical Works : 55% - 75% 2.2 Signalling Works : 20% - 35% 2.3 Telecommunication Works : 05% - 20%	The percentage range quoted by the Bidder is not the same as what is given in the Bid documents. Bidder's request not accepted. Provisions of Bidding documents shall prevail.
739.	Section IV – Bidding Forms/ Page No 128-170/1231 Price schedule 2.1.7, 2.1.8, 2.2.4, 2.2.5, 2.2.6, 2.3.1, 2.3.3, 2.3.5, 2.3.6, 2.3.7 Payment will be made on completion of each payment stage as per weightage (s) given in this schedule	Price schedule 2.1.7, 2.1.8, 2.2.4, 2.2.5, 2.2.6, 2.3.1, 2.3.3, 2.3.5, 2.3.6, 2.3.7 Request DFCC to revise the condition to Payment will be made on Pro Rate completion of each Payment stage as per weightage (s) given in the schedule.	Bidder's request not accepted. Provisions of Bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
740.	Section IV – Bidding Forms/ Page No 139/1231 Price Schedule 2.1.6 Payment Procedure: Review and acceptance of Installation Test Report by the Engineer	Price Schedule 2.1.6 Bidder request DFCC to revise the payment procedure with separate line item for Supply and Installation scope.	Bidder's request not accepted. Provisions of Bidding document shall prevail.
741.	Section IV – Bidding Forms/ Page No 128-170/1231 Price Schedule 2.1.1, 2.1.8, 2.2.1, 2.2.6, 2.2.7, 2.3.1, 2.3.5, 2.3.8 Payment Note : Adjustment to contract price pursuant to GCC 13.8 shall NOT be applicable to the payments of works executed under this Cost Centre/Price Schedule	Price Schedule 2.1.1, 2.1.8, 2.2.1, 2.2.6, 2.2.7, 2.3.1, 2.3.5, 2.3.8 Bidder request DFCC to revise the payment note Adjustment to contract price pursuant to GCC 13.8 shall be applicable to the payments of works executed under this Cost Centre/Price Schedule. Above price schedule activities requires labour and services.	Bidder's request not accepted. Provisions of Bidding document shall prevail.
742.	Particular Conditions – Appendix to Tender Annexure – I Page No 1216/1231 Indices procured from Employer's Country Cement & Lime : 1309030000 Steel (Long) : 1310010200 Electrical Accessories : 1311080000 Electrical Machinery : 1311070000 Communication Equipment : 1311120000	Based on Government of India Ministry of Commerce and Industry, Press Release dated May 12, 2017 Revision of Base Year of All India Wholesale Price Index (WPI) from 2004-05 to 2011-12. Tender document specified codes not available in the latest released codes. Bidder request DFCC to revise the indices codes based on latest code released.	The new WPI (2011`-12) is under review. The applicable codes once determined will be issued to the Bidders through Addendum at appropriate stage.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
743.	Section IV – Bidding Forms/ Page No 134/1231 Price Schedule 2.1.3, sub cost centre 2.1.3.3 Supply of Auto Transformer and 25KV/240V Aux Transformers as required at both the TSSs.	Bidder understands that Supply of Auto Transformer may not be required in case of V connected transformer solution. Please confirm whether payment can be received against the respective weightage.	Please refer Addendum no. 10, S.No.2
744.	Section IV – Bidding Forms/ Page No 136/1231 Price Schedule 2.1.4, sub cost centre 2.1.4.7 Payment procedure specified as Review and acceptance of system acceptance test report by the engineer"	Price Schedule 2.1.4, sub cost centre 2.1.4.7 Bidder request DFCC to revise the Payment procedure payment to be made based on Installation & Test Report	Bidder's request not accepted. Provisions of Bidding document shall prevail.
745.	Section IV – Bidding Forms/ Page No 142/1231 Price Schedule 2.1.8 sub cost centre 2.1.8.2 Payment procedure specified as "issue of taking over certificate by the engineer"	Price Schedule 2.1.8 sub cost centre 2.1.8.2 Bidder request DFCC to revise the Payment procedure based on Readiness and commercial use of the system.	Bidder's request not accepted. Provisions of Bidding document shall prevail.
746.	Section IV – Bidding Forms/ Page No 145-150/1231 Price Schedule 2.2.2 sub cost centre 2.2.2.12 Supply and installation of Earthing, Surge Lighning protection equipment etc. Price Schedule 2.2.3 sub cost centre 2.2.3.11 Supply and installation of Earthing, Surge Lighning protection equipment etc.	Price Schedule 2.2.3 sub cost centre 2.2.3.11 Price Schedule 2.2.2 sub cost centre 2.2.2.12 Bidder request DFCC to revise the payment procedure based on supply & Installation separately	Bidder's request not accepted. Provisions of Bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
747.	Section IV – Bidding Forms/ Page No 149/1231 Price Schedule 2.2.3 sub cost centre 2.2.3.13 Payment Procedure: Acceptance of civil work by the engineer	Price Schedule 2.2.4 sub cost centre 2.2.4.9 Bidder request DFCC to revise the payment procedure based on civil progress in stages.	The clauses referred by the Bidder and for which clarification are sought are not the same. However, Bidder's attention is invited to Note 2 under Price Schedule 2.2.3 which pertains to sub cost centres 2.2.3.13 & 2.2.3.14. Provisions of Bidding document shall prevail.
748.	Section IV – Bidding Forms/ Page No 152-153/1231 Price Schedule 2.2.4 sub cost centre 2.2.4.13, 2.2.4.14, 2.2.4.15, 2.2.4.16 Supply and installation of Earthing, Surge and Lightning Protection Equipments etc.	Price Schedule 2.2.4 sub cost centre 2.2.4.13, 2.2.4.14, 2.2.4.15, 2.2.4.16. Bidder request DFCC to revise the payment procedure Supply and installation scope in price schedule separately.	Bidder's request not accepted. Provisions of Bidding document shall prevail.
749.	Section IV – Bidding Forms/ Page No 156/1231 Price Schedule 2.2.6 sub cost centre 2.2.6.2 Payment procedure specified in tender document as issue of taking over certificate by the engineer	Price Schedule 2.2.6 sub cost centre 2.2.6.2 Bidder request DFCC to revise the Payment procedure based on Readiness and commercial use of the system	Bidder's request not accepted. Provisions of Bidding document shall prevail.
750	Section IV – Bidding Forms/ Page No 167/1231 Price Schedule 2.3.5 sub cost centre 2.3.5.2 Payment procedure specified in tender document as issue of taking over certificate by the engineer	Price Schedule 2.3.5 sub cost centre 2.3.5.2 Bidder request DFCC to revise the Payment procedure based on Readiness and commercial use of the system.	Bidder's request not accepted. Provisions of Bidding document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
751.	Section IV – Bidding Forms/ Page No 153/1231 Price Schedule Notes section point no 3, Item 2.2.4.14 will be deemed to have been executed after successful integrated testing and commissioning.	Price Schedule Notes section point no 3, Bidder request DFCC to revise the Item 2.2.4.14 to be replaced with 2.2.4.15 & 2.2.4.16	Bidder's request not accepted. Provisions of Bidding document shall prevail.
752.		Location of BTS of Mughal Sarai to Ghaziabad (IR) MTR system on CP-105.	The information/details may be obtained by the Bidder/Contractor. Please refer Clause ITB-7.2 of the Bidding Document. Also, please refer Chapter 17 of PS/Telecommunication Works.
753.		Details of Power Supply at IR's (Ghaziabad-Mughal Sarai) along with the system design of all power supply and MTR system.	The information/details may be obtained by the Bidder/Contractor. Please refer Clause ITB-7.2 of the Bidding Document. Also, please refer Chapter 17 of PS/Telecommunication Works.
754.		Detailed status of Ghaziabad-Mughal Sarai MTR system of IR.	MTRC work of IR is being executed by IR and the work is in progress. Further, information/details may be obtained by the Bidder/Contractor. Also, please refer Clause ITB-7.2 of the Bidding Document. Also, please refer Chapter 17 of PS/Telecommunication Works.
755.		We may require OFC (min 8 fibre) from New Boraki to carry all the network traffic of CP-105. Kindly confirm that these fibres will be provided by concerned contractor to OCC at Allahabad.	The requirement of dedicated fibre from New Boraki to OCC is not clear. Provisions of Bidding document are sufficiently clear. Please refer to Clause 5.3.4.7, 6.3.2 and 6.3.4 of PS/Telecommunication Works.

<table>
<tr><th>Sl. No.</th><th>Reference to Bid Documents</th><th>Clarification Sought by the Bidders</th><th>DFCC's Response</th></tr>
<tr><td>(1)</td><td>(2)</td><td>(3)</td><td>(4)</td></tr>
<tr><td>756.</td><td>Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.9.1
Point- 7: A chargeable failure in the RAM Demonstration is defined as any relevant failure that requires repair or replacement of any subsystem or vehicle component. Chargeable failures also include intermittent failures, unverified failures, and software failures.</td><td>As per Contractor understanding the chargeable failure will be the service failure as defined in Part 2/ Section VI/ Volume-2/ PS/ CH 14/ 14.2 / Point (4), for RAM demonstration to meet the RAM targets which is in MTBSAF.</td><td>Please refer Addendum no. 10, S. No. 26.</td></tr>
<tr><td>757.</td><td>Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.13.3
Point s:
(3) System Operating Safety Plan;
(4) System Operating Plan;</td><td>As per Contractor understanding the requirements from these two document have been fulfilled in Safety plan and OSHA as per their Particular specification; which covers the safety requirements towards operation.</td><td>Please refer Addendum no. 10, S. No. 25.</td></tr>
<tr><td>758.</td><td>Part 2/ Section VI/ Volume-2/ PS/ CH 14/ 14.5.13
Point 13: Operation Safety Case
<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Document Description</th><th colspan="4">Plan Development Stage</th><th rowspan="2">Remarks</th></tr>
<tr><th colspan="2">Design Stage</th><th>Manufacture/ Construction h/Installation</th><th>Testing/ Trial Run Stage</th><th>Warranty Stage</th></tr>
<tr><th></th><th></th><th>PRELIM</th><th>FINAL</th><th></th><th></th><th></th><th></th></tr>
<tr><td>13</td><td>Operational Safety Case</td><td>P</td><td></td><td></td><td>P</td><td></td><td>Second report shall be submitted within 7 days after the completion of safety validation test.</td></tr>
</table>
</td><td>As per Contractor understanding and experiences with EN standards, the Operation Safety Case (OSC) will be deliverable before the start of Operation service only and bidding document doesn't detail about it.</td><td>Please refer Addendum no. 10, S. No. 28.</td></tr>
</table>

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
759.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.2 Reliability Requirements Point (4) Redundant equipment/module/component shall change seamlessly when active part fails. If changeover has a finite time, contractor shall show that its system shall not obstruct the train operation. 14.3 AVAILABILITY Point (10) Switchover between redundant equipment, or between redundant routings, shall occur automatically and immediately upon failure and shall be transparent to the users. Toggling in switchovers shall be prevented.	(1) Referred both the clauses are contradicting, Please confirm which shall need to refer for designing. (2) As per contractor understanding, the Reliability & Availability shall complied to the N-1 design requirement for RAM demonstration.	(1) There is no contradiction between the two clauses. Both the clauses should be referred for designing. (2) The clauses referred pertain to redundant equipment. Bidder's query is not relevant to the referred clauses.
760.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.3 AVAILABILITY Point (14) Degraded performance or loss of any software or hardware dependent function of any end equipment shall be taken as unavailability.	(1) Please elaborate the referred clause as it is contradicting the Point 7 of the same Clause 14.3 as well as the concept of redundancy. Please confirm. (2) As per Contractor understanding, the mentioned "degraded performance shall be refer to the N-2 condition only".	(1) Please refer Addendum no. 10, S. No. 27. (2) In this regard Bidder's attention is invited to clause 5.1.4 of Part 2, Section VI, Vol. 4, which describes the Normal feeding scenario.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
761.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.4 MAINTAINABILITY Point (16) Maintainability Demonstration iv. The maintenance actions shall be distributed among the equipment of each test group in proportion to their expected failure occurrence and in accordance with the MTBF.	Contractor would like to rephrase the requirement in point (iv)- *"The maintenance actions shall be distributed among the equipment in proportion to their expected failure occurrence and in accordance with the MTBF*." As didn't get the details and expectation from Client about test groups.	The Provisions of the Bidding document are sufficiently clear. The Test group and maintenance actions shall be finalized with the approval of the Engineer.
762.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.11 Point (2) : The testing procedures shall ensure that all the critical failure modes as identified during the FMECA / FMEA activity are addressed through proper test cases inclusion. A traceability matrix shall be developed such that these critical failure modes are traced back to the corresponding test cases. All failure modes shall be considered as critical failure modes unless the Contractor demonstrates by a sensitive analysis or other means that the impact of a failure mode on reliability and maintainability will be insignificant.	As per Contractor understanding, it is not a component R&D tender. Thus, on sub- system level the FMECA will be performed as the EN or IEC STANDARDS (whom so ever applicable).	The Contractor is not required to perform FMECA below the Equipment level. The modality for performing FMECA at system/ sub-system level shall be decided with the approval of the Engineer after award of contract.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
763.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.4 MAINTAINABILITY Point (4): Quantitative Maintainability assessments to all significant functional levels of the system, subsystems or equipment shall be allocated. Maintainability analyses during engineering, development and testing shall be used to evaluate the degree of achievement of the maintainability requirements. The Contractor shall identify the standards by which these allocations are made.	The Contractor would like to ask that for Maintainability allocations, can we identify values from the returns of experiences and benchmarks from their past experience.	Provisions of Bidding document are sufficiently clear. The Contractor shall identify the standards by which these allocations are made with the approval of the Engineer.
764.	Part-2, Section-VI VOLUME 3: PARTICULAR SPECIFICATIONS - SIGNALLING WORKS 1.4.1 (5) "Design and Implementation of a Train Management System with associated power supply and its seamless integration with the Train Management System (TMS) being provided under Contract Package CP-104 for supervision, management and monitoring of train traffic and its power supply system. This shall include provision of Video Wall Display at OCC for Signalling and SCADA system of Khurja-Dadri section. This shall also include undertaking all modifications/augmentation in TMS and associated power supply being provided under CP 104.	In reference to the above response & adjoining clause; the bidder understands that the "TMS Servers" provided in CP-104 will also be enhanced for this section & no separate servers are required to be provided under CP-105. Please confirm	Provisions of Bidding documents are sufficiently clear. Bidder's understanding is however confirmed.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
765.	Part-2, Section-VI VOLUME 3: PS - SIGNALLING WORKS New sub Para 3.2.6 (4) The CST Contractor of CP -302 may design and provide turnouts with back drive arrangement. The safety of the integrated system, including point machine, ground connections and back drive, if any shall be the responsibility of the Contractor. The Contractor shall arrange for independent safety assessment of the integrated system	Bidder wishes to understand which RDSO standard needs to be referred for the assessment of the safety of the integrated system, including point machine, ground connections and back drive?	The Indian standards - RDSO/IRS, manuals, schedules drawings and European standards, to be used for design of the Signalling system are listed in Chapter 5 of PS (Signalling), Vol 3 Part 2 Section VI. The Contractor is expected to design a safe Signalling system, which includes interlocking of Points as well, using the applicable standards. The RDSO/IRS specs for individual items - point machines, ground connections etc. as available and relevant provisions of Indian Railway Signal Engineering Manual and P Way Manual shall have to be considered during safety assessment of the integrated system.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
766.	3.2.5(2)(h) The Track vacancy detection system in the Station section at New Boraki Junction station shall have Main and Supervisory system on the continuous stretch of UP & DN Main lines, including extended UP & DN lines up to the Point zone controlling movement to/from Dadri ICD yard-Dadri area. The Supervisory system shall have a track section for every Main system track section. In case the track section of the Main system fails with its corresponding track section of Supervisory system showing clear or vice versa, it will automatically reset the failed track section. All the other lines/portions of the New Boraki Junction Station section shall have only Main system with suitable resetting arrangement	Please clarify if we can provide one supervisory track section for every two main track sections in New Boraki Junction area and the extended UP & DN lines up to the Point zone controlling movement to/from Dadri ICD yard-Dadri area	Bidder's request not accepted. Provisions of amended clause 3.2.5(2)(h) of PS (Signalling) are sufficiently clear and shall prevail.
767.	3.2.5(2)(I)(i) a. A suitable resetting scheme shall be designed by the contractor for manual resetting of axle counter track sections at station and block sections. This shall be achieved through a mix of system design and the operating procedures. The scheme should avoid, to the extent possible physical verification of track at site, without affecting safety.	Please clarify if line verification can be eliminated in view of the supervisory track section being provided in station area	Suitable manual resetting scheme shall have to be designed by the Contractor and approved by the Engineer after award of contract. Wherever the Contractor is able to demonstrate to the Engineer and gain his acceptance on manual resetting scheme without physical verification at site, the Line verification box for resetting of such track sections need not be provided. Please also refer response to query at Sr. No. 6.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
768.	Part 4 yard plans	For all the yards, Please provide the locations in yard where the TC is higher than or lower than 6 m between two tracks.	Bidder may please refer to 'New Boraki Yard plan' provided under Part 4 – Reference documents, for track centre details.
769.	Part 4 yard plans	If the track centre between two tracks in yard is higher than 6.25. Single mast will be used between two tracks. Please confirm.	Bidder may please refer to Clause 8.14 of Part 2, Section VI, Vol. 2. Provisions of Bidding document are self-explanatory & shall prevail.
770.		Is there any area in the project length where TC between IR and EDFC is less than 6.25m? Please provide.	Bidder may please refer to 'New Boraki Yard plan' provided under Part 4 – Reference documents, for track centre details.
771.		BEC can be laid along the track on the outer boundary of track or it has to be laid in between the running rails. Please confirm.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. The Provisions of the Bidding Document shall prevail.
772.		Please provide the list of track crossing pipes, civil structures, permanent structures, transmission tower or pier in close proximity to project alignment.	Bidder is expected to survey the section in accordance with the clause 7.2 of the ITB, Part 1,Section I.
773.	Bridges, FOB and ROB	Earthing Scope and diameter of bars/rod to be use bridges, FOB and ROB. Please confirm.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. The Provisions of the Bidding Document shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
774.		Classification of transmission lines crossing which are below 33kV and above 33kV along with their chainages.	It is not clear why the particular information is required by the Bidder. However, if required, the Bidder may survey the section in accordance with the clause 7.2 of the ITB, Part 1, Section I.
775.	Clause 8.16 PS Part II Vol II The zinc coating for steel structures and parts shall be as per RDSO Specification no. ETI/OHE/13 (4/84) i.e. minimum coating of zinc shall be 610 gm / m², except for marine and chemically polluted areas. The polluted areas shall be identified as a result of pollution mapping by the contractor and approved by the Engineer, where the zinc coating shall be 1000 gm/ m2. In case of need to use nonstandard SPS at special locations to be fixed to the steel structure, these shall be with clamps to avoid drilling of galvanized mast sections	This Clause shall be applicable for only steel structures and small parts of steel attachments on mast and not for OHE components. For OHE components, the Galvanisation for OHE components shall be in accordance with RDSO Specification ETI/OHE/13 or European Standard EN ISO 1461 where galvanisation zinc coating of lesser mass is allowed depending upon the thickness.	Please refer Addendum No. 10, S. No. 4.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
776.	Clause 8.14.4 -2 PS Part II Vol II Setting distance of fixed structures shall not be less than that specified in SSOD for EDFC. This shall be however, subject to review by the Engineer. The location of traction masts shall be such that visibility of signals is not obstructed and shall be as indicated in ACTM. The OHE supporting masts/portals/drop arms shall be coordinated with signal locations to ensure clear signal visibility.	Can we design all the OHE masts (single cantilever/multiple cantilever/Portals/ TTC/ Structures) with a standard implantation of 3.00m as the SSOD of EDFC permits 2.825m implantation for structures. However, the implantation of structures in the visibility of signals will be designed such that the visibility of signals not obstructed and will be according to ACTM.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. The Provisions of the Bidding Document shall prevail.
777.	Clause 8.14.4 -2(a) PS Part II Vol II The minimum setting of structures on curves shall be increased by the figures for curve allowance being taken from the schedule of dimensions for DFC Eastern corridor	Standard Schedule of dimensions for DFC for Eastern corridor Annexure 1 shows extra Lateral clearances on curves for Radius of Curve of 1750m or less. EDFC to confirm whether curve allowance to the OHE masts shall be given to the for the curve track with radius above 1750m.	The Provisions of Bidding document are self-explanatory & shall prevail.
778.	Clause 8.14.1 PS Part II Vol II Overhead equipment structures for the main line tracks shall be mechanically and electrically independent except where specifically approved by the Engineer. In station yards, having three or more tracks, generally, portals shall be erected as per yard plan. …	Can we use masts in between tracks in yard between mainline and loop line if the track centre is adequate to install mast with an offset of 2.825+curve allowance if any, as per standard schedule of dimensions for EDFC an implantation of 2.825m is allowed for individual structures without anchor or twin cantilever structures.	The Provisions of Bidding document are self-explanatory & shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
779.	Clause 8.18.1 d PS Part II Vol II Porcelain insulators as per RDSO specification No. TI/SPC/(OHE)/INS/0070 shall be provided at all locations except at polluted locations and LC Gates where insulators as per RDSO Specification TI/SPC/OHE/INSCOM/0070(04/07) shall be used. The locations where polluted zone type of insulators is to be installed shall be proposed after survey and shall be installed with the approval of Engineer.	Can we install composite insulators as per RDSO specification TI/SPC/OHE/INSCOM/0070 (O4/07) or as per any other International standards with Aluminium tube cantilevers as the Porcelain insulators will not be suitable for aluminium cantilevers.	Please refer Addendum No. 10, S. No. 5.
780.	Vol-5 Particular Specifications E&M and Associated Works, clause no.17.22. **Ventilation** (1) The rooms must be sufficiently ventilated. In the control room, where staffs are likely to be present constantly, pleasant climatic parameters shall be maintained. (2) The rooms where switchgears are installed, the maximum relative humidity should not exceed 70%. The maximum ambient temperature inside the room, averaged over 24 hours shall not exceed 35 degree C.	We understand that Control Room Buildings shall be provided with Ventilation and there is no requirement of Air Conditioning.	Please refer 'Attachment 20.4" of Part 2 Section VI Vol 5, for Air conditioning requirement. The Provisions of the Bidding Document are self-explanatory and shall prevail.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
781.	PART-2, Section VI Vol-3 2.2.6(1)(h) The gateman shall be provided with audio visual 'Train Approach Warning' indication from a suitable distance (approximately 8 km) on DFCCIL lines, as per approved GWR by IR depending on the gate position. When the train reaches at the approach warning track section in rear of the gate, Audio visual warning indication and buzzer should start sounding in the gate-hut intimating the gateman of the approach of a train. The gateman will close the gate and clear the gate signal provided the relevant track sections ahead are clear. When the lowering of the booms takes place, hooter shall sound to warn the road users of an approaching train. Also, the road signals shall start displaying a flashing red light towards the road users, which shall turn to steady red when the booms are fully lowered and positive boom locking is proved.	In absolute block sections gates are dead approach locked as per existing normal practice, please confirm it is necessary to provide approach locking with track sections as this will impact the Bill of quantities significantly.	The reference text is not part of the bid documents. The interlocking of LC gates is not in the scope.
782.	Part 2, Section VI, Volume-4, Clause 12.2.2, Page 999/1231 Provision of suitable Earth Leakage Detector and Alarms shall be made individually at each location (OCC, Station, Auto Location Huts, GSM-R Locations etc.)	Please note that an Earth Leakage detector is connected at the (-48VDC) output of the SMPS battery charger. For taking -48VDC the positive polarity of the battery charger is earthed with the telecom load. That means an Earth leakage detector will always give false alarm. Even if some of the feeders are not earthed the also it will give this alarm. You are requested to remove this requirement that leads to false alarms generation or amend the clause suitably.	Provision of Bidding Document shall prevail. Engineer will determine the requirement of suitable Earth Leakage Detector during Design Stage.

Sl. No.	Reference to Bid Documents	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
783.	Part 2, Section VI, Volume-4, Clause 12.3.7, Page 999/1231 The following data shall apply to 48 V DC Battery Backup System: (1) Input Voltage Range (Single phase): 230 V AC (+10 %, - 20%) (2) Input frequency: 50 Hz +/- 5% Output Current: As required for each location	As per Clause no. 12.3.4 of PS Telecommunication Compliance to specification RDSO/SPN/TL-23/99 ver. 4.0 is required. The AC voltage range specified in this specification is 165V-260VAC, Frequency 50Hz, +/-2Hz (means 48 Hz – 52 Hz). Please amend the clause accordingly.	Provision of Bidding Document shall prevail. Please also refer Clause 1.4 of PS/Telecommunication works.