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 SAHNEWAL – PILKHANI SECTION (APPROXIMATELY 175 ROUTE KM OF SINGLE LINE) OF EASTERN DEDICATED FREIGHT CORRIDOR

SYSTEMS WORKS CONTRACT PACKAGE 304

RESPONSES TO PRE-BID QUERIES OF THE BIDDERS

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
1.	Part -1 / Section VI / Volume 2 / Particular Specification / Clause 5.1.5 / Page No. 36 of 334 Emergency Feeding Scenario is defined as "A first failure condition (N-1)	For traction simulation study under (N-1) scenario, we need to have the Curve & Gradient details of the adjoining section up to next TSS location, Chainage & Rating of Transformer installed at the adjoining TSS. Request to kindly provide the details as mentioned above.	Please Refer to Addendum No. 08, Sr. No 10,11 and 71.
2.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 5.1.8 / Page No. 37 of 334 Second failure conditions (N-2) performance requirement	For traction simulation study under (N-2) scenario, when both the TSS is under outage condition, we need to have the Curve & Gradient details of the adjoining section up to next TSS location, Chainage & Rating of Transformer installed at the adjoining TSS. Request to kindly provide the details as mentioned above.	Please refer to reply at Sr.No.1 above.
3.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 3.3.4 / Page No. 21 of 334. Proof Checking & Design Validation through an Independent agency as approved by the Engineer	Whether the Proof Checking & Validation agency shall also validate the Simulation results. Will the same agency can do the Simulation & Proof Checking or is it required to be different. Please clarify. We understand Proof Checking agency will only validate the detailed design prepared by the Contractor. Kindly clarify.	The provisions in the Bidding Document are self-explanatory and shall prevail.
4.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 4.2 / Page No. 23 of 334. DESIGN ENVIRONMENT	Maximum solar gain of metallic object under the sun: 1kW / sqm. Solar Radiation Gain (both direct from the sun and the contribution first reflected by the earth: 120W/m2. Please clarify which value is required to be used to calculate the temperature rise of the conductor.	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.
5.	Part -2 / Section VI / Volume 2 / Particular	We assume that Inception report will only provide the approach	The provisions in the Bidding

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Specification / Clause 4.6.1 / Page No. 28 of 334. Preliminary Design: The Inception Report and Simulation Study Reports along with sufficiently detailed drawings and documents shall be submitted for the purpose of review and approval of the Engineer. The approved inception report and traction simulation report shall then form the basis for the designs.	to the design. On the basis of the Inception report & Traction power Simulation report, the detailed design & drawings can be carried out. Kindly confirm.	Document are self-explanatory and shall prevail.
6.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 5.1.8 / Page No. 37 of 334. **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 Power Supply System of CP-304.	We understand 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 clarify.	Bidders understanding is correct. Also please refer addendum no. 08 SN-09.
7.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 5.2.2 / Page No. 38 of 334. Ratio of normal to long haul train is 15:85. For 6500 T - 1 train (Normal) For 13000 T - 5 trains (Long haul)	We understand that for the traction power Simulation, we have to do the ratio of Single Haul: Double Haul as 1:5. Kindly confirm.	The Provisions of the Bidding Document shall prevail.
8.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 5.2.2 / Page No. 38 of 334 All trains shall be fully loaded.	Normally in other EDFC projects, the clause is given as: In DN direction 30% trains shall be fully loaded (6500T) and 70 % Trains shall be Empty Trains (1650T). Kindly requesting you to amend the clause accordingly.	The Provisions of the Bidding Document shall prevail.
9.	Part -2 / Section VI / Volume 2 / Particular Specification / Table 6.3.1 / Page No. 47 of 334. **Table 6.3.1 Maximum Earth Resistance**	Maximum earth resistance for SP and SSP is specified as 0.5 ohms in Volume II, Table 6.3.1. We would request to revise it to 2.0 ohms as per the Indian Railways Manual of AC Traction, Volume II, Part II, Paragraph.5.	The Provisions of the Bidding Document shall prevail.

<table>
<tr><th>Sr No.</th><th>Reference to Bid Document</th><th>Clarification Sought by the Bidders</th><th>DFCCIL's Response</th></tr>
<tr><td>(1)</td><td>(2)</td><td>(3)</td><td>(4)</td></tr>
<tr><td></td><td><table><tr><th rowspan="2">Location</th><th>Earth resistance (ohms)</th></tr><tr><th>Total Earth system</th></tr><tr><td>TSS</td><td>0.5</td></tr><tr><td>SSP</td><td>0.5</td></tr><tr><td>SP</td><td>0.5</td></tr><tr><td>Other Locations</td><td>To meet the requirements of EN50122-1</td></tr></table></td><td>Please confirm that the maximum earth resistance for SP & SSP as well shall be acceptable within 2.0 ohms as per Indian Railway standards.

Kindly note that the value of Earth resistance has been revised to 2.0 ohms for SP and SSP locations in other DFCC E&M tenders.</td><td></td></tr>
<tr><td>10.</td><td>Part -2 / Section VI / Volume 2 / Particular Specification / Table 7.3.2 / Page No. 63 of 334.

Rated secondary voltage: 55kV/ 2x27kV</td><td>We understand it should be 55kV/ 2x27.5 kV. Please confirm.</td><td>Yes, the bidder's understanding is correct.</td></tr>
<tr><td>11.</td><td>Part -2 / Section VI / Volume 2 / Particular Specification / Clause 7.5.5 / Page No. 65 of 334

The Traction Transformers shall be provided with Nitrogen Injection Fire Suppression system.</td><td>Please confirm whether Nitrogen Injection Fire Suppression system is required for the Auto Transformer also.</td><td>Yes, the bidder's understanding is correct.

Please Refer to Addendum No. 08, Sr. No 16.</td></tr>
<tr><td>12.</td><td>Part -2 / Section VI / Volume 2 / Particular Specification / Clause 6.1.4 / Page No. 43 of 334

Sub Sectioning Posts (SSP): 55 kV Auto Transformers; Standby Auto transformer is to be provided which can be connected to either side of the insulated overlap in case of failure of the existing Auto transformer</td><td>In the Simulation, we are already considering the failure of one AT, in which the adjacent AT will take the total load. If two AT's get failed, it will be N-2 condition which calls for reduced headway.
So, we do not understand the requirement for spare transformer.
Moreover, in the reference drawing provided for SSP, only 2 Auto Transformer is shown.

Kindly clarify. Request to amend the clause accordingly.</td><td>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.</td></tr>
<tr><td>13.</td><td>Part -2 / Section VI / Volume 2 / Particular Specification / Clause 6.1.5 / Page No. 43 of 334

Sectioning Posts (SP): 55kV Auto Transformers; Standby Auto transformer is to be provided which can be</td><td>In the Simulation, we are already considering the failure of one AT, in which the adjacent AT will take the total load. If two AT's get failed, it will be N-2 condition which calls for reduced headway.
So, we do not understand the requirement for spare transformer.
Moreover, in the reference drawing provided for SP, only 4</td><td>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</td></tr>
</table>

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	connected to either side of the Neutral Section in case of failure of the existing Auto transformer	Auto Transformer, 2 on each side of the Neutral section is shown. Kindly clarify. Request to amend the clause accordingly.	Document shall prevail.
14.	Part -2 / Section VI / Volume 2 Particular Specification / Clause 6.1.3 / Page No. 42 of 334. **Traction Substations (TSSs):** Auto transformers (as required by design); Standby Auto transformer is to be provided which can be connected to either side of the Neutral Section in case of failure of the existing Auto transformer	In the Simulation, we are already considering the failure of one AT, in which the adjacent AT will take the total load. If two AT's get failed, it will be N-2 condition which calls for reduced headway. So, we do not understand the requirement for spare transformer. Moreover, in the reference drawing provided for TSS, only 4 Auto Transformer, 2 on each side of the Neutral section is shown. Kindly clarify. Request to amend the clause accordingly.	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.
15.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 6.1.3 / Page No. 42 of 334 **Traction Substations (TSSs):** Auto transformers (as required by design); Standby Auto transformer is to be provided which can be connected to either side of the Neutral Section in case of failure of the existing Auto transformer	Contract condition calls for the V-connected transformer also. If V-connected transformer with center tapping is used, it may eliminate the Auto transformer at TSS. Whether AT at TSS is mandatory to be installed or it will depend on the outcome of the Simulation study. Kindly clarify.	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.
16.	Part -2 / Section VI / Volume 2 / Particular Specification / Clause 7.5.4 / Page No. 65 of 334. The Auto transformer capacity as indicated as above is minimum for inter-distance of 13-17 km between TSS and SSP or SSP and SP.	V-connected transformer can eliminate the Auto Transformer at TSS. In that case, the distance between AT will not be maintained 13-17 kms. Is it mandatory to keep AT between 13-17 kms or it will be the outcome of the Simulation Study? Please confirm.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. Please refer to sub-clause 3.3.1(v)(d), Vol.2, Part.2 of the bidding document. Also, Please Refer to Addendum No. 08, Sr. No 15.
17.	Part -2 / Section VI / Volume 2 / Particular Specification Table Clause 5.2.2 / Page No. 38 of 334.	We understand that if Train No.1 will stop at Station-1, and then Train No.2 will stop at Station-2.	The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Train Stoppage - At alternate Stations for crossing or any other reason etc.	Kindly confirm.	
18.	Part – 2 / Volume 2 / Particular Specifications / Clause No. 8.14. Structure/Uprights and their Foundations	Whether exposure of Foundation is allowed after maintaining the specified distance between center line of track and edge of foundation as per SOD. If exposure is allowed, then the permissible length provided shall be 400mm above ground level. Kindly confirm.	Being a design & build contract General/Funcational/Performance requirements have been specified. The detailed design is in the cope of the contractor. The provisions of the Bidding Document shall prevail.
19.	Part – 4 / Reference Documents. 1. Alignment Plans, Yard Plans and Building Plans	"New Jagadhari Workshop, New Sirhind, New MandiGovindgarh, New Khanna, New Chawapail, Jagadhari, Sirhind" Yard Alignment Drawing particulars are not visible. Kindly provide clear copies of the same.	May please collect from DFCCIL office.
20.	Part – 4 / Reference Documents. Electrical Drawings	Kindly provide a Typical General Arrangement Drawing for Major Bridges with necessary details for the provision of OHE Mast on Bridge Piers for Sahnewal – Pilkhani section	Earthing & Bonding of OHE structure along the Bridge Girders (RCC) & Piers are available under Part-4 reference document, Drawing No: *GC/DFCC/OHE/E&B/GIRDERS/TYP/603.*
21.	Part 2 / Section VI / Volume 3 / Clause 2.2.3 – (2) system requirements (c). wherever the interlocking equipment is located, a display unit is required to show the state of railway under control.	For the display unit, whether we can consider MTC (networking) at every location of interlocking equipment or TMS display unit to be considered. Kindly clarify.	The provisions of the Bidding Document shall prevail.
22.	Part 2 / Section VI / Volume 3 / Clause 2.2.3 – (4) Interlocking design (f). The system shall have provision for accommodating additional 25% of the I/Oused as minimum spare provision, including corresponding processor capacity for future use.	Whether 25% of slot spare shall be considered (as per RDSO standards) or we need to consider an 25% spare in I/O bit usage. Kindly clarify.	Under this clause, the Bidder need not provide additional 25% I/O cards but shall only keep provision for accommodating the same. However, the Contract spares shall be provided as per Item 4 of Table at Para 9.2.7(2). Please also refer Addendum No. 08, Sr. No. 33.
23.	Part 2 / Section VI / Volume 3 / Clause 2.2.4 – (1) system requirement (a).	Is it a centralized operation with distributed architecture or we need to control the yard from different locations.	Under this Clause, the control of the yard can be from different

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	For reasons of operational availability, a distributed control capability is required on the section.	Kindly clarify.	locations. Also refer Clause No. 2.1.4 of PS Signaling.
24.	Part 2 / Section VI / Volume 2 / Particular Specifications–2x25kV / AC Traction Electrification and Associated Works / Clause No: 18.4.3. Interface with Indian Railways 1) Items of interface With Railways Interfacing with Indian Railways will be required for a. Power Supply Interface at Junction stations and line connecting to IR, b. Data / Details Required for Simulation Studies, c. OHE layout including provision of Neutral section and OHE interface point between DFCC and IR d. Earthing of existing metallic structures of Railways in parallelism with DFCC Line 2) Information Exchange The System Contractor (CP 304) shall share the system information and system design to establish compatibility with existing Indian Railway system 3) Interface requirements The Interface requirements are described in Table –18.4.3.	The interface works with IR at Junction Stations will require Traffic blocks as well in addition to Power Blocks. We understand that the permission for traffic blocks from IR shall be obtained by DFCCIL similar to Power blocks and any cost towards the same shall be borne by DFCCIL. Kindly confirm.	The provisions in the Bidding Document are self-explanatory and shall prevail.

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<tr><td>(1)</td><td>(2)</td><td>(3)</td><td>(4)</td></tr>
<tr><td>25.</td><td>Bid Document / Section IV. Bidding Forms/ PRICE SCHEDULE 2.1 / ELECTRICAL WORKS – COST CENTRE 2.1

<table>
<tr><th>Price Schedule</th><th>Price Schedule No.</th><th>Cost Centre</th><th>Weightage of Cost Centre 2.1 (%)</th><th>Cost</th></tr>
<tr><td>(1)</td><td>(2)</td><td>(3)</td><td>(4)</td><td>(5)</td></tr>
<tr><td rowspan="10">2.1 [ELECTRICAL WORKS]</td><td>2.1.1</td><td>Surveys, Investigations, Studies, Design & Documents, O & M Manuals and As Built Drawings, Training of Staff</td><td>5</td><td rowspan="10">% as applicable for Cost Centre 2.0 of Apportionment of Contract Price</td></tr>
<tr><td>2.1.2</td><td>OHE Works</td><td>38</td></tr>
<tr><td>2.1.3</td><td>Traction Sub Station (TSS) Works</td><td>23</td></tr>
<tr><td>2.1.4</td><td>Sectioning Post (SP) Works</td><td>2.5</td></tr>
<tr><td>2.1.5</td><td>Sub-Sectioning Post (SSP) Works</td><td>15</td></tr>
<tr><td>2.1.6</td><td>SCADA Works</td><td>1.5</td></tr>
<tr><td>2.1.7</td><td>E&M Works</td><td>7</td></tr>
<tr><td>2.1.8</td><td>Supply of Contract Spares and Special Tools & Instruments</td><td>4</td></tr>
<tr><td>2.1.9</td><td>Integrated Testing, Commissioning and Final Taking over of Works</td><td>4</td></tr>
<tr><td></td><td>Total</td><td>100%</td></tr>
</table></td><td>Based on our experience in similar Design & Build projects, we would like to bring to your notice that weightages assigned for 2.1.8 Supply of Contract spares and Special tools & Instruments and 2.1.9 Integrated Testing, Commissioning and Final Taking over appears to be very high as against the standard weightages given in other similar projects of approximately 1.5% for these two items. This might affect Contractor's cash flow adversely, as the price against these two items will be paid to the contractor only during final milestones.

In view of this, we suggest to revise the schedule as shown below:

2.1.8 Supply of Contract spares and Special tools & Instruments - 1%

2.1.9 Integrated Testing, Commissioning and Final Taking over – 0.5%. The remaining weightage shall be distributed proportionally among schedules 2.1.2 to 2.1.5.</td><td>The Provisions of the Bidding Document shall prevail.</td></tr>
<tr><td>26.</td><td>Part 2, Section VI, Volume 5 Particular Specifications – E&M and Associated Works / Clause No: 4.2.2 - (1) (e)

Each Auxiliary Power Sub-station shall have One step down transformer of adequate capacity. The Contractor shall consider Capacity of the 11kV/0.433 kV Transformer and other power equipment suitable to meet the power requirement with minimum 20% future load requirement. The transformer rating for all the stations shall be maximum of two types only. The contractor shall provide at least one transformer of each rating / capacity as spare. If there is same rating/capacity distribution transformer at all the Auxiliary Power sub-stations, the spare shall not be less than two nos.</td><td>Please provide Transformer loading details for auxiliary transformer including 20% for future loading.

Also provide permissible transformer losses.</td><td>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.

Please refer Sub Clause 9.3.4 Vol-2 and Clause 5.3(4), Vol-5, Part-2 of the Bidding Document.</td></tr>
</table>

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
27.	Part 2 / Section VI / Volume 2 / Particular Specifications–2x25kV / AC Traction Electrification and Associated Works / 4.4.2 Proven Design and Cross acceptance criteria / Clause No: (2) The System, including all Sub-systems and Equipment shall generally be of approved RDSO/ CORE design/specifications, wherever applicable.	Kindly allow for the procurement of materials from PGCIL/SEB approved vendor when the material is not covered by RDSO/CORE.	The provisions in the Bidding Document are self-explanatory and shall prevail.
28.	Part 2 / Section VI / Volume 2 / Particular Specifications–2x25kV, AC Traction Electrification and Associated Works / 8.4 OHE CONDUCTORS / Clause No: 3 (b) The contact wire shall be continuous, i.e. splicing or jointing of the conductors is not permitted between terminations or between cut-in insulators. Splices are primarily used during maintenance and shall not be used in the contact wire and /or catenary wire by way of installation or repair unless approved by the Engineer.	Thefts are common in lengthy section. Restrictions on "Splice not acceptable in new installation" should be relaxed. Request you to amend the tender clauses accordingly.	The provisions in the Bidding Document are self-explanatory and shall prevail.
29.	Part 2 / Section VI / Volume 2 / Particular Specifications–2x25kV / AC Traction Electrification and Associated Works / 8.2 FACTORS GOVERNING DESIGN OF OHE / Clause No: 8.2.1 The Contractor shall design the OHE & Traction Return Supply system considering the Track formation Data. Track Formation shall be constructed by CST contractor. The soil properties mentioned by CST contractor shall be considered by the contractor (CP-304) for design including the improvement in Soil conductivity needed.	Kindly confirm the soil to be used for embankment and their Soil bearing capacity.	Please refer to Sr.no 9 sub-clause 1.3.4, Vol-1, Part-2 of the Bidding Document at page 205 of 1309. The provisions in the Bidding Document are self-explanatory and shall prevail.
30.	Part 2 / Section VI / Volume 5 Particular Specifications – E&M and	Kindly share the Data for High flood level at TSS; SSP; SP and Parallel alignment & Detour alignment area with respect to	This is in the scope of contractor to collect the data from Irrigation

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(1)	(2)	(3)	(4)
	Associated Works / 17.6 DRAINAGE / Clause No: 17.6.2 Drainage in the substation and switching posts shall be provided as per the best engineering practices, so as to prevent surface flooding and pooling of water.	Existing ground level.	Department of State Government/CST Contractor.
31.	Bid Document / Section IV. Bidding Forms / Form LOP The Form LOP is addressed to: The Managing Director 5th Floor, PragatiMaidan Metro Station Building, New Delhi – 110 001 However, as per ITB 19.1, For First Stage Technical Proposal, for submission purposes only, the Employer's address is: Dedicated Freight Corridor Corporation of India Limited, Metro Station Building Complex, PragatiMaidan 4th Floor, Room No. 432, New Delhi, 110001 India Attention: Mr. S. K Gupta, Group General Manager /Elect-IV/EC Telephone: +91 11 23370526 Facsimile number: + 91 11 2345 4701 Electronic mail address: sanjaykgupta@dfcc.co.in	Kindly clarify, whether the Form LOP has to be addressed to The Managing Director OR to GGM/Elect-IV/EC.	The provisions in the Bidding Document are self-explanatory and shall prevail.
32.	Bid Document / Section IV. Bidding Forms / Form CU: Copyright Undertaking The Form CU is addressed to: The Managing Director Dedicated Freight Corridor Corporation of	Kindly clarify, whether the Form CU has to be addressed to The Managing Director OR to GGM/Elect-IV/EC.	The provisions in the Bidding Document are self-explanatory and shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	India Limited, PragatiMaidan Metro Station Building New Delhi – 110 001 However, as per ITB 19.1, the For First Stage Technical Proposal, for submission purposes only, the Employer's address is: Dedicated Freight Corridor Corporation of India Limited, Metro Station Building Complex, PragatiMaidan 4th Floor, Room No. 432, New Delhi, 110001 India Attention: Mr. S. K Gupta, Group General Manager /Elect-IV/EC Telephone: +91 11 23370526 Facsimile number: + 91 11 2345 4701 Electronic mail address: sanjaykgupta@dfcc.co.in		
33.	Volume – 1 / Section – II: BDS / ITB 30.1 (b) For the purpose of conversion of foreign currency in to local currency i.e. Indian Rupees (INR) or vice versa, Bidders shall use the Reference Rates of Foreign Currency published by Reserve Bank of India (www.rbi.org.in), on the Base Date (28 days prior to the last date of second stage bid submission)	For the purpose of conversion of foreign currency in to local currency i.e. Indian Rupees (INR) or vice versa, we would request DFCCIL to provide a specific date of conversion. This would help us to avoid re-working and preparation of CA Certificates for some of the Tender Forms (such as Form CCC, Form Fin-3.3 - Financial Resources, etc.) in case of any extension of bid submission date.	Request not accepted. The Provisions of the Bidding Document shall prevail.
34.	Bid Document / Section IV / Bidding Forms. Form SUP - Proposed Subcontractors and Suppliers for Major Items of Works	The Bidder is being asked to furnish the "Approximate Value of proposed Subcontracting Items (in percentage of the approximate total value of the Contract)". Since the first stage of Bidding is a Technical submission stage, this data may not be required to be furnished as the same can be calculated only at the time of Stage II: Financial bid submission. Hence, we request DFCCIL to remove this requirement and modify the Form suitably.	Request not accepted. The Provisions of the Bidding Document shall prevail.

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35.	Section I Instructions to Bidders / Clause 45 / Conversion to Single Currency For evaluation and comparison purposes, the currency (ies) of the bid shall be converted into a single currency as specified in the BDS.	As mentioned, in the referred clause there is no information available on the conversion to single currency for bid evaluation purpose. Kindly provide the same.	As per ITB 30.1 of Section II, Bid Data Sheet, Part – I of the Bidding Document, the currency of the Bid, in which the Bidder shall quote the Bid price is INR only. ITB 30.1 also covers the procedure for conversion of foreign currency into INR and vice-versa.
36.	General Details and Drawings of FOB, RUB, ROB, major and minor bridges.	Kindly provide us the details of FOB, RUB, ROB and major and minor bridges details for effective design review.	Refer Alignment Plans in Part-4, Reference Document
37.	Part 2 / Section VI / Volume 5 Particular Specifications – E&M and Associated Works / Clause No: 4.6.1 The Contractor (CP-304) shall develop detailed design and drawings for E&M and associated works including those for combined services.	Kindly clarify the format to be followed for combined services drawing i.e., 2D or 3D.	Refer clause 16, Appendix-2, Vol-1, Part-2 of the Bidding Document. The provisions in the Bidding Document are self-explanatory and shall prevail.
38.	Part 2 / Section VI / Volume 5 Particular Specifications – E&M and Associated Works / Clause No: 6.2.15 - 1 C) The distribution boards shall serve the distribution of electrical power to lighting system, socket outlets, machinery/motors, etc. The loads shall be connected either directly to these boards or via sub-distribution boards.	The No. of points to be considered per circuit is not mentioned. Kindly provide the required information.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. The number of points per circuit shall be as per Clause 8.5(5) at page 1180 of 1309. The Provisions of the Bidding Document shall prevail.
39.	Part 2 / Section VI / Volume 5 Particular Specifications – E&M and Associated Works / Clause No: 15.1 - (3) In addition to the above, 10 Nos. of Air conditioners of 1.5 T capacity shall be provided at IMD's at location to be decided	The air conditioners to be provided shall be of Split type or VRV type. Kindly clarify.	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

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(1)	(2)	(3)	(4)
	by the Engineer.		Document shall prevail.
40.	Part 2 / Section VI / Volume 5 Particular Specifications – E&M and Associated Works / Clause No: 15.3.3. The contractor shall provide the requisite capacity air-conditioning system to achieve the Room temperature of 21 +/- 2 Degree Celsius at highest climatic/ ambient conditions.	As per ASHRAE 62.1, normal room temperature considered is 24 degree C (+/- 1). Kindly clarify	The provisions in the Bidding Document are self-explanatory and shall prevail.
41.	Part 2 / Section VI / Volume 1 General Specifications / Clause No: 3.7.2. The simulation study may involve a number of iterations to optimize the Solution.	Since the Simulation Study is a time bound process and done by some international expert, number of iteration in the Study will lead to the delay in design. So, it has been suggested that the Simulation Scenario, boundary conditions and the output format will get approved from the Engineer before conducting the study. Kindly clarify.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. The provisions in the Bidding Document are self-explanatory and shall prevail.
42.	Part 2 / Section VI / Volume 2 / Particular Specifications–2x25kV / AC Traction Electrification and Associated Works / 13.2 CONTRACT SPARES / Table 13.2.1 Aerial Earth Wire and BEC	Since installation of BEC will be the outcome of Simulation Study, Kindly clarify if the study eliminates BEC, then also is it required to be provided.	The provisions of the Bidding Document hall prevail.
43.	Part 1 / Section II / Bid Data Sheet / ITB 29.8 The bidders may note that this DFCC project being funded by the World Bank, qualifies for exemption from payment of Customs Duty and Excise Duty on goods supplied / intended to be supplied to the project in terms of Government of India's Notification no. 84/97 – customs dated 11.11.1997 and Central Excise Notification no. 108/95-C E Dated 28.08.1995 (read with all subsequent amendments including amendment dated 01.03.2008) respectively.	In view of implementation of GST from July 1st, 2017, request you to kindly clarify on the changes in taxation for this project and revise the clauses accordingly.	As per the new Tax regime, there is no Excise Duty with effect from 1st July 2017. As such, the Clause would now stand modified as per Addendum No. 08 , Sr. No 2.. At present, there is no notification from Govt. of India regarding exemption of GST for this Project. The Bidders are Requested to refer to Addendum No. 08 , Sr. No. 2 in this regard.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
44.	Part-2 / Section VI / Volume-4 / Clause: 4.6.2 Unless otherwise specified, all indoor Telecommunication Equipment installations shall be designed for operation continuously in environmental temperatures range of -5°C to +55°C	Typically Telecom Switching equipment is installed in air-conditioned environment and supported temperature rating is from 0 to +40°C. IT equipment (Servers etc.) operates at +35°C. We kindly request you to modify the temperatures range to 0 to +40°C for Indoor equipment.	Provisions of Bidding document shall prevail.
45.	Part-2 / Section VI / Volume-1 / Clause: 2.16.5 (1) Class B1: Equipment Rooms with air-conditioning with possibility of failure of air-conditioning for duration of 2 hours or more at a time.	Kindly specify the upper limit on duration of failure of air-conditioning equipment.	Provisions of Bidding document shall prevail.
46.	Part-2 / Section VI / Volume-1 / Clause: 2.16.5 (2) Requirements for Class A: Temperature Min 5°C to Max 35°C, Humidity Minimum 0%, Nominal 65%, Maximum 95% (Non Condensing)	Typically Telecom and IT infrastructure rooms are air-conditioned such that humidity is well maintained much below the specified 95%. IT equipment being installed in Equipment room typically support 80% humidity. Hence, we kindly request you to reduce the 95% Humidity limit clause to 80% Non-Condensing.	Provisions of Bidding document shall prevail.
47.	Part-2 / Section VI / Volume-1 / Clause: 2.16.5 (2) Requirements for Class B1: Temperature Min -2.5°C to Max 45°C, Humidity Maximum 100% (Non Condensing)	Class B1 is defined as Air-conditioned Telecom Equipment Room. Hence, Humidity in the equipment room is well controlled. In addition, none of the Telecom and Switching equipment meant for deployment in Indoor Telecom Equipment Room support 100% Humidity (meant for Outdoor or Buried environment – Class-C and Class-D respectively). Hence, we kindly request you to reduce the Maximum Humidity requirement to 90% Non-Condensing for Air-conditioned rooms.	Provisions of Bidding document shall prevail.
48.	Part-2 / Section VI / Volume-4 / Clause: 5.5.3.3 (1) Flexible Access Multiplex Equipment shall conform to ITU-T Rec. G.703, G.704, G.706, G.707, G.708, G.709, G.711, G.732 and G.823.	Kindly note that the following standards: ITU-TG.707, ITU-T G.708 and ITU-T G.709 are applicable to SDH equipment. Hence, they may be removed as requirements from Flexible Access Multiplex Equipment.	Only applicable standards shall be used for Flexible Access multiplexer while designing the Telecom System.
49.	Part-2 / Section VI / Volume-4 / Clause: 5.5.3.3 (8) The optical line interfaces shall conform to ITU-T Rec. G.957	The Flexible Access Multiplexer is required to interface with SDH equipment at E1 level (Electrical interface). Similarly, it is required to provide sub-2Mbps interfaces (Voice interfaces, RS232, etc.). All of these are Electrical interfaces. Hence, there is no requirement for Optical Interfaces and requirement for	Only applicable standards shall be used for Flexible Access multiplexer while designing the Telecom System.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		ITU-T G.957 is not relevant. Kindly clarify under what circumstances, this standard will be applicable for Flexible Access Multiplexer.	
50.	Part-2 / Section VI / Volume-4 / Clause: 5.5.3.3 (6) Adequate numbers of Primary Multiplexers shall be provided so that there is no loss of Communication at any point of time.	Normally, loss of communication is prevented by building Controller card and Power supply redundancy in the equipment. Kindly clarify how "Adequate number of Primary Multiplexers" shall be computed.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
51.	Part-2 / Section VI / Volume-4 / Clause: 5.5.3.3 (7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	Kindly confirm that "1+1 protection for all channel level (VF, Data, etc.) with Automatic Switchover" corresponds to SNCP equivalent functionality at the E1 backhaul link.	Provisions of Bidding Document are sufficiently clear. Please refer Clause 5.3.7.7 of PS/Telecommunication Works, Part 2, Section VI, Vol.4
52.	Part-2 / Section VI / Volume-4 / Clause: 5.3.5.6 Flexible Access Multiplexer or Primary Order Multiplexer shall have minimum 50% spares for all types of Channel Circuits (Minimum 1 for all types of Channel Circuits).	Kindly clarify the meaning of 50% spares for all types of channels – whether the contractor required to provide 50% spare channels between nodes at the backhaul link.	The Bidder/Contractor is required to provide 50% spare channels between Nodes.
53.	Part-2 / Section VI / Volume-4 / Clause: 5.3.3.2 The First Network shall be formed by two optical fibre cables 24F (min),preferably one laid along the up-track and the other laid along the down-track ensuring route diversity, from Sahnewal to Pilkhani and terminated on Optical Distribution Frames (ODFs) in TERs at Stations. Employer shall hire from M/S RCIL required STM-16 Bandwidth for the section between Pilkhani POP of RCIL and Khurja POP of RCIL. All works from New Pilkhani TER to RCIL POP at Pilkhani shall be carried out by Contractor. Further all works from M/s RCIL POP at Khurja to TER at New Khurja station shall be carried out by the Contractor.	Kindly clarify if "All Works" include Augmenting / installing RCIL Equipment. Also kindly clarify the interface point and scope of work of the contractor and RCIL respectively.	Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
54.	Each SDH Node of the First Network shall be at least STM-16 level or higher in the SDH hierarchy. The exact level of SDH Node in SDH hierarchy shall be determined by the Contractor to meet the bandwidth requirements for sub-systems under this Contract with 50% Spare Capacity. SDH Node of First Network shall be equipped with minimum 2XSTM-16o and 4XSTM-4o Interfaces. For providing connectivity between New Pilkhani station and RCIL POP at Pilkhani, STM-16 nodes shall also be required to be provide that RCIL POP at Pilkhani by the contractor. This STM -16 nodes shall be integrated with RCIL equipment at RCIL POP at Pilkhani for carrying over the STM-16 traffic to RCIL POP at Khurja. Further STM -16 Nodes shall also be required to be provided by the contractor at RCIL POP at Khurja. These STM-16 nodes shall be integrated with RCIL equipment at RCIL POP at Khurja and with STM-16 nodes provided at New Khurja station under Contract Package CP-104 & Contract Package CP-105. These SDH nodes of RCIL POP at Khurja and New Khurja station shall be connected to each other in redundant architecture with linear multiplex section protection or SNCP by extending ring being provided under Contract Packages CP -104 & CP-105. With above integration it shall be possible to make provisioning of VC4 and VC12 across SDH node provided under this Contract as well as under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of various systems/subsystems under this contract.	Kindly clarify if it is necessary to provide the STM-16 Nodes at RCIL POP at Pilkhani and Khurja. Instead it may be possible to extend the connectivity over Optical fiber link from New Pilkhani and New Khurja. Also clarify whether it is necessary to provide STM-16 Nodes at RCIL POPs. Kindly share clear interface requirements between RCIL and the contractor in terms of power availability, Air-conditioning, Rack space, etc.	Provisions of Bidding Document are sufficiently clear. Employer will ensure power availability, Air-conditioning, Rack space, etc. at RCIL POP to the successful bidder.
55.	Part-2 / Section VI / Volume-4 / Clause: 5.3.9.13 (2) The NMS shall allow the user to configure	Most of these features correspond to NMS of an SDH equipment.	Only applicable functions shall apply to NMS of Flexible Access multiplexer while designing the

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	all existing and new circuits with the following functions: (a) frame position allocation (b) interface port allocation; (c) low speed (64 kbps & lower) interface cards configuration; (d) lower order multiplex time slot allocation and routing; (e) higher order multiplex/cross-connect switch configuration; (f) logging of circuit routing data logged into configuration database; (g) operator's configuration checks function prior to main and backup database update; and (h) the OFC links from junction stations to the adjacent station of IR	Kindly clarify whether all of these configuration also apply to NMS of Flexible Access Multiplexer.	Telecom System.
56.	Part-2 / Section VI / Volume-4 / Clause: 5.3.9.13 (2) The NMS shall allow the user to configure all existing and new circuits with the following functions: (a) frame position allocation (b) interface port allocation; (c) low speed (64 kbps & lower) interface cards configuration; (d) lower order multiplex time slot allocation and routing; (e) higher order multiplex/cross-connect switch configuration; (f) logging of circuit routing data logged into configuration database; (g) operator's configuration checks function prior to main and backup database update; and **(h) the OFC links from junction stations to the adjacent station of IR**	SDH NMS cannot monitor the OFC links from junction stations to the adjacent station of IR unless there is an SDH connectivity established. Kindly clarify the type of monitoring required.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
57..	Part-2 / Section VI / Volume-4 / Clause: 9.1.2 This Synchronized Time Information shall	Kindly clarify the location of offices since there is no mention of "Offices" in Clock Schedule mentioned in PS Clause 9.3.5	The location of offices shall be decided by the Engineer.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	be used to synchronize slave clocks which shall be located at Stations, Depots & Offices in Sahnewal – Pilkhani of EDFC Phase-III.		
58.	Part-2 / Section VI / Volume-4 / Clause: 9.5.3.9 The Master Clock System shall be capable of working from 230 Volts +/- 10% AC 50 Hz Power Supply.	The Master Clock Unit and Sub-Master Clock Units will be deployed in the TERs and stable battery backed up -48V DC supply is present at TER. Therefore, DC may be permitted as a source for Master Clock System. Similarly, the Clocks may be powered by POE. Kindly request you amend the clauses accordingly.	Provisions of Bidding document shall prevail. Also refer Addendum No. 08, Sr. No. 58.
59..	Part-2 / Section VI / Volume-4 / Clause: 13.3.6 Provision of Lighting, Power Outlets, Fans, Ventilator and Air-Circulation shall be made in accordance with Interface Requirements as mentioned in Chapter-10 of General Specification.	Kindly clarify E&M interfaces involved.	Please refer Part 2, Vol.5: E&M and Associated Works of Bid Document.
60.	Part-2 / Section VI / Volume-4 / Clause: 13.3.13 Smoke and Fire Detection System as per details in Chapter- 4 of this Particular Specification shall be provided in Telecom Equipment Rooms and Telecom Power Supply Equipment Rooms, with facility of Alarm Generation at station and OCC.	Kindly clarify E&M interfaces involved.	Please refer Part 2, Vol.5: E&M and Associated Works of Bid Document.
61.	Part-2 / Section VI / Volume-4 / Clause: 13.7.6 Outdoor Signalling Cables and Outdoor Telecommunication Cables shall not be laid in same trench. If it is inescapable to lay Signalling Cables and Outdoor Telecommunication Cables in same trench, suitable separation shall be provided between the two as per the requirement of PS-Signalling Works, IRSEM and Indian Railway Telecommunication Manual and approved by the Engineer	Most of the time, separate trenches for Signaling and Telecom are not feasible due to lack of space availability. Hence, It is suggested that to maintain uniformity across project, the outdoor Signalling and Telecom Cables in same trench may be permitted at all locations. Kindly confirm.	Provisions of Bidding document shall prevail. Also Please refer Part 2, Vol.3: Signalling Works of Bid Document.
62.	Part-2 / Section VI / Volume-4 / Clause: 6.4.3.3 To improve the availability of Data	Resilient Ethernet Protocol is CISCO proprietary protocol and is not an open standard protocol. Hence this requirement is in conflict with requirement mentioned in Clause 4.1.2 (2).	Please refer Addendum No. 08, Sr. No. 45.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Networking System various measure such as **Resilient Ethernet Protocol**, Pseudo wire Redundancy, Link Aggregation (IEEE 802.3ad) on Network/Access Ports, Rapid Spanning Tree Protocol (IEEE 802.1w), Multiple Spanning Tree Protocol (IEEE 802.1s), MPLS-TE Fast Reroute etc. as required shall be implemented.	Kindly clarify.	
63.	Part-2, Vol-4, General	We understand that wherever upgradation/ augmentation/ reconfiguration of existing system installed by other contractors is permitted as per respective clauses in the PS Telecom, provision of upgradation/ augmentation/ reconfiguration shall be treated as equivalent of supply of the respective item. Please confirm.	Provisions of Bidding document shall prevail.
64.	Part-2, Vol-4, 5.3.3.2 The First Network shall be formed by two optical fibre cables 24F (min), preferably one laid along the up-track and the other laid along the down-track ensuring route diversity, from Sahnewal to Pilkhani and terminated on Optical Distribution Frames (ODFs) in TERs at Stations. Employer shall hire from M/S RCIL required STM-16 Bandwidth for the section between Pilkhani POP of RCIL and Khurja POP of RCIL. All works from New Pilkhani TER to RCIL POP at Pilkhani shall be carried out by Contractor. Further all works from M/s RCIL POP at Khurja to TER at New Khurja station shall be carried out by the Contractor.	We understand that availability of bandwidth between Pilkhani POP of RCIL and Khurja POP of RCIL will be 100%. Kindly confirm.	Provisions of Bidding Document are sufficiently clear. Also Please refer clause 5.1.3 of PS Telecom.
65.	Part-2, Vol-4, 5.3.3.3 The Second Network shall be formed by two optical fibre cables 24F (min), preferably one laid along the upside-track and the other laid along the downside-track ensuring route diversity, from Sahnewal to Pilkhani and terminated on ODFs in TERs at Stations, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, LC Gates, Staff Quarters and any other	We understand that the OFC doesn't have to be terminated at all Staff Quarter locations and it may be terminated as per the actual requirement. Kindly confirm. Also, please confirm whether all Second Network locations where OFC is terminated need to be equipped with SDH or not.	Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	location as required. Locations of termination of optical fibre cables of Second Network can be clubbed based upon design of other Systems/Sub-systems under this Contract while meeting overall Telecommunication Requirements.		
66.	Part-2, Vol-4, 5.3.3.4 In addition to SDH Network, optical fibres shall also be used for Data Networking System, as stipulated in Chapter-6 and Signaling Systems, as required.	We understand that the Fibers may be used for SCADA or other intra-Telecom usage also. Please confirm.	Provisions of Bidding Document are sufficiently clear. Please refer clause 5.3.4.3 of PS Telecom.
67.	Part-2, Vol-4, 5.3.3.5 At least 25% of fibres within each cable shall be reserved as spares for future use.	We understand that except the 25% spare fibres as mentioned in the clause, the remaining fibres in the cable may be used for intra-telecom usage. Please confirm.	Provisions of Bidding Document are sufficiently clear.
68.	Part-2, Vol-4, 5.3.4.3 The Second Network shall carry all Voice (including Emergency Communication) and Data (including Traction Power SCADA and Video Surveillance System) Communication between all Stations and LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMD, IMSDs, Staff Quarters & etc. Second Network shall also carry all Signal Control Information, Track Vacancy Detection Information and other Vital & Safety Related Information between all Stations, Auto Section Locations, LC Gates and Interfacing IR Stations,. All Vital & Safety Related System using OFC System shall be implemented as per EN-50159.	Is VSS data to be carried over SDH? Is it necessary that Traction Power SCADA data is carried over SDH? Please Confirm	Provisions of Bidding Document are sufficiently clear.
69.	Part-2, Vol-4, 5.3.5.9 Ethernet Connections for each application need to be implemented through Ethernet Virtual Private Line Service.	Please confirm if the same can be done through EVPL/EPL/ELAN.	Provisions of Bidding document shall prevail.
70.	Part-2, Vol-4, 6.3.1 WAN shall be created using Layer-3 Switches equipped with minimum 4 Nos. 10GigE Fibre Ports for backbone	The clause mentions "… Stations, all Stations, …." Please clarify the same. It is possible to extend the WAN to IMD, IMSD and TSS by means of Layer-2 Switches placed at IMD, IMSD and TSS	Please refer Addendum No. 08, Sr. No. 44. Being a Design build contract, the

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	interconnections. WAN shall connect OCC, **Stations, all Stations,** IMD and IMSDs, in Ring Topology using Optic Fibre Cable. Further WAN shall connect TSSs with nearest stations in Redundant Linear Topology using Optic Fibre Cable. Locations of Layer-3 Switches can be clubbed based upon design of other Systems/Subsystems under this Contract while meeting overall Packet Data Communication Requirements.	locations and connecting them to the Layer-3 Switches at nearby Station by means of Second Network Optical Fiber Cable. We understand that it is allowed to extend WAN to IMD, IMSD and TSS locations in this manner and it is not mandatory to provide Layer-3 switches at TSS and IMSD. Kindly confirm the same.	design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
71.	Part-2, Vol-4, 6.3.3 Layer-3 Switches at OCC shall be integrated with Layer-3 Switches at OCC being provided under contract Packages CP-104, CP-105 and CP-203 using 10GigE Fibre Ports with 1+1 Protection.	From the PS of DNS, it is not clear how CP-304 DNS WAN ring, comprising of Stations, Depots and TSS, will be extended to OCC. As per PS-Clause 5.3.3.2, Employer shall hire from M/S RCIL required STM-16 Bandwidth for the section between Pilkhani POP of RCIL and Khurja POP of RCIL. But no such provision is mentioned in PS for DNS WAN. Kindly clarify the same.	The provisions of the Bidding Document are sufficiently clear.
72.	Part-2, Vol-4, 7.3.4 The PBXs shall have connection to the Public Switched Telephone Network (PSTN). This shall allow pre-selected extensions to access the PSTN or vice versa.	The bidder will ensure that provision will exist to support connection from PSTN to the PBXs. However, please clarify who will provide the PSTN connection and who will bear the initial and recurring cost pertaining to these connections.	Only PSTN connection shall be provided by the Employer.
73.	Part-2, Vol-4, 7.3.5.13 The Administrative Telephone Network shall have the capacity of ringing up to minimum of three telephone sets connected in parallel.	This is feasible only for Analog phones. Please clarify if the same may be used for this purpose.	Please refer Addendum No. 08, Sr. No. 48.
74.	Part-2, Vol-4, 7.3.7.6 Indian Railway Telephone Network shall be integrated with Direct Line Communication System, so that one touch dialling can be done from Direct Line Console to important Operation Locations of Indian Railway as decided by the Engineer.	Telephony of CP-304 is being integrated with CP-104, CP-203, CP-105, CP-305. Also, CP-104 is being integrated with IR. It is suggested that all calls to IR may be carried over the IR Telecom network once handed over to IR on that interface. Please confirm the same.	Provisions of Bidding document shall prevail. Also refer clause 17.3.4 of PS/ Telecommunication Works.
75.	Part-2, Vol-4, 7.3.8.2-1 Break-in	Please note that Integration and interoperability depends on both sides supporting the feature in a standard manner, wherein the standard shall ideally be an International standard	The successful bidder shall coordinate with the contractor of CP-104, CP-203 and CP-105 for

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		such as ITU, Indian Standard or an establish industry standard. Therefore, please confirm that the integration responsibility and feature transparency requirement shall be a joint responsibility.	successful implementation of the feature. Also refer clause 17.3.4 of PS/ Telecommunication Works.
76.	Part-2, Vol-4, 7.4.3.4 The Telephone Network Management System shall be considered unavailable if any functions provided by the Telephone Network Management System cannot be properly exercised. The availability of the Telephone Network Management System shall be better than 99.995%.	Availability target of Telephony system NMS in other contract packages are at 99.95% (CP-104, CP-105). Please confirm if NMS in this package is required to have availability target of 99.995%. If so, it may not be feasible to upgrade the NMS and provide an integrated Telephony NMS.	Please refer Addendum No.08, Sr. No. 50.
77.	Part-2, Vol-4, 7.5.4.11 The VRS shall comply with the following specifications: 1. wow and flutter: < 0.8% peak 2. frequency response: frequency response 3. Signal to noise ratio: >42 dB; 4. Cross talk immunity: >60 dB at 1 KHz; 5. Distortion: < 3% 6. Automatic gain control level: +3 dB in recording level for all input	These specifications pertain to Analog type of Recorders, especially those based on Tape. Herein, the VRS system is required to be a Digital system (PS Clause 7.5.4.1). Hence, these requirements are not applicable and shall be removed or suitably modified for a digital recording system.	Provisions of Bidding document shall prevail.
78.	Part-2, Vol-4, 9.5.3.8 The Slave Clocks shall be manufactured to be used in non-air-conditioned environment with high humidity exposure.	Please highlight what is the Range of 'High Humidity' expected ?	Please refer to Clause 2.17 of General Specifications of Bidding Document for climatic conditions of the locations where Slave Clocks are to be installed.
79.	Part-2, Vol-4, 11.5.2.1.1 **9: Shutter Speed:** 1 to 1/1,00,000	The Shutter speed of 1/100,000 may not be possible. We suggest the same to be modified as 1/10,000 (100 uSec)	Only applicable technical specifications shall be used while designing the Telecom System.
80.	Part-2, Vol-4, 11.5.2.2.3 Part-2, Vol-4, 11.5.2.3.2 **4: Video I/P:** S-Video, Video/Composite Video, PC Analogue Input (RGB, D-Sub), HDMI, SVGA, VGA	Many of these inputs are no more available in the new generation monitors. The supported Video interface is HDMI or DVI. Video I/P shall be as required for system working instead of all of these. Kindly confirm the same.	Only applicable features shall be used while designing the Telecom System. Please refer Addendum No.08, Sr. No. 59.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	4: Video I/P: S-Video, Video/Composite Video, PC Analogue Input (RGB, D-Sub), HDMI, SVGA, VGA		Please refer Addendum No.08, Sr. No. 60.
81.	Part-2, Vol-4, 13.3.1 Telecommunication Equipment Room at Stations, IMD, IMSDs, Residential Colonies, Club/Institute and Guest House will be constructed by CST Contractor to install the Telecommunication Equipment.	We understand that If the requirement of telephone at Residential colonies, Club/Institute and Guest House is being fulfilled through PIJF cable from nearest station, there is no requirement to construction / setup a TER at these locations. Kindly confirm.	The provisions of the Bidding Document are sufficiently clear and shall prevail.
82.	Part-2, Vol-4, 13.3.2 Telecom Power Supply Equipment Rooms at Stations, IMD, IMSDs, Residential Colonies, Club/Institute and Guest House will be constructed by CST Contractor to install the Telecom Power Supply Equipment.	We understand that If the requirement of telephone at Residential colonies, Club/Institute and Guest House is being fulfilled through PIJF cable from nearest station, there is no requirement to install Telecom Power Supply Equipment at these locations. Kindly confirm.	The provisions of the Bidding Document are sufficiently clear and shall prevail.
83.	Part-2, Vol-4, 13.3.3 Telecommunication Equipment Room/Telecom Power Supply Equipment Room at Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs and any other location as required shall be constructed by Contractor as stipulated in Particular Specifications-Building & Structure Works. These rooms shall be preferably be co-located with the signaling Equipment Room/Signaling Power Supply Equipment Room. At these co-located locations a common S&T Power Supply Equipment Room for housing signaling Power Supply Equipment as well as Telecom Power Supply Equipment shall be provided with the approval of the Engineer.	We understand that if the requirement of telephone at Interfacing IR stations is being fulfilled through PIJF cable from nearest station, there is no requirement to construction / setup a TER (13.3.1) and TPSER (13.3.2) at Interfacing IR stations? Kindly confirm and also confirm the scope for provision of Air-conditioning.	The provisions of the Bidding Document are sufficiently clear and shall prevail. For air conditioning, Please refer Part 2, Vol.5: E&M and Associated Works of Bid Document.
84.	Part-2, Vol-4, 17.1.8 Contractor shall liaison with designated authorities in Indian Railway to design Telecom Arrangement for/at boundaries with Indian Railways. The contractor shall	We understand that any extension of Telecom to IR shall end at the boundary of DFCCIL / IR boundary and further extension will be carried out by IR, especially any excavation near the IR tracks / IR yard outside the DFCCIL boundary. Please confirm.	The provisions of the Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	execute the so approved Telecom Arrangement for/at boundaries with Indian Railways.		
85.	Part 2, section VI, Volume 3, Particular Specifications Signalling Works. Para 2.2.5 - (2)- (i) i) The Supervisory system, where used, shall have a separate Evaluator from the Main system. (ii) A standby Evaluator with complete programming and configuration shall be provided for every evaluator at Stations and Block Sections with arrangement for switch over using a single switch. After every change over, the track sections shall go in error state and shall have to be reset as per manual resetting procedure.	The Supervisory system, where used, shall have a separate Evaluator from the Main system. However the evaluators are 2 out of 3 in architecture so does not require to have standby Evaluator. Please Clarify.	Provisions of Bidding Document shall prevail. Please also refer Addendum No. 08, Sr. No. 35.
86.	Part 2, section VI, Volume 3, Particular Specifications Signalling Works. Para 2.2.6 - (2)- (e) (e) Separate power supply for IR and DFC shall be provided at all LC gates. Power supply shall be separate for IR and DFC equipment for maintainability. To achieve this, two separate IPS systems shall be supplied and installed. Construction of Signalling Equipment Room and Signalling Power Supply Equipment Room for DFC are in the scope of present contract.	Separate IPS is provided for LC gates of IR and DFCC in Block Section. Whether Separate IPS is required for LC gates of IR in Station Section also. Please Confirm.	The provisions of the Bidding Document are sufficiently clear.
87.	General	Kindly confirm if one V-type traction transformer fails in one TSS, can we use the second transformer to provide power to the feeding zone between two SPs as per sound design practice used on 2x25 kV electrification projects overseas? We understand that this is better than extending the feeding zone from an adjacent TSS since train performance will be reduced as per EN 50388.	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.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
88.	General	Kindly confirm if one V-type traction transformer fails in one TSS, can we use the OFAF rating of the second transformer in the same TSS (or the OFAF rating of one transformer in the adjacent TSS) to provide power to the corresponding feeding zone on a continuous basis?	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.
89.	General	Kindly confirm whether bidder can provide two V-type traction transformers in all TSS with sufficient "spare capacity" to provide power to the corresponding feeding zone under outage conditions of one transformer in the same TSS or outage of an entire TSS? If this is acceptable, we can offer to use the ONAF rating of the transformer in lieu of the OFAF rating. We believe that this solution is better than providing 3 transformers in alternate TSS, since DFCC will not benefit from the spare transformer in case of outage of one transformer in the adjacent TSS where only 2 transformers are provided? We note that the philosophy adopted on all 2x25 kV electrical projects overseas is to provide two traction transformers with sufficient spare capacity at all TSS.	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.
90.	2.2.2 (1) (g) Calling-On signal shall be provided below all main Signals except Last Stop Signal.	We shall provide Calling on Signal below Home Signal – UP and Down directions. Whether it shall be provided below all starters? Please confirm	Provisions of bidding document are sufficiently clear.
91.	2.2.3 (4) (f) - Interlocking design The system shall have provision for accommodating additional 25% of the I/O used as minimum spare provision, including corresponding processor capacity for future use.	Does this mean that Tenderer has to include cost of 25% of Input & Output Boards used in a particular station as "spares provision".	Under the clause, the Bidder need not provide additional 25% I/O cards but shall only keep provision for accommodating the same. However, the Contract spares shall be provided as per Item 4 of Table at Para 9.2.7(2). Please also refer Addendum No. 08, Sr. No. 33.
92.	2.2.4 (1) (b) - Control System There shall be a Control terminal in Hot Standby mode provided at every Station with the Station Master. The Control terminal provided with the Station Master at	As Absolute block system is the scope of work, we can only display a particular station territory along with the distant signals on either side of the Home Signal of that particular station. i.e. UP & Down Side. Please confirm if our understanding is correct.	Bidder understanding is correct.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	the Station shall be used to control the Station yard and Block Section, under control of the said Station Master. The display on the Control terminal shall however, include not only the current state of railway under control of the Station Master but shall also include further display for the Block Sections on both sides of the Station. The complete display shall be available on the Control Terminal without scrolling. Multiple terminals shall be used, as required for proper display.	Wherever LC gates in block section are interlocked, the display shall be provided in a station which is controlling the concerned gate. Please confirm.	
93.	2.2.5 (1) (b) - Track Vacancy Detection System Technical requirement The track vacancy detection technique shall use Digital Axle Counter Technology as a primary means of train detection. Where required, a secondary means of track vacancy detection can be used to supplement the primary means with the approval of the Engineer.	Is DC track circuit is secondary means of track vacancy detection which can be used to supplement the Primary means of detection, which is MSDAC.	Train detection shall be done using DAC. If for any reason it is not possible to provide train detection using DAC for some portion of the line/yard, any other means of train detection can be used with the approval of the Engineer.
94.	2.2.5 (2) (g) - The track-vacancy detection system in the station section on main line shall have Main system and Supervisory system. The Main and Supervisory systems shall be provided on different rails.	We understand that only Main lines shall have Main and supervisory system. The Loop lines of stations shall not need supervisory track sections. Please confirm.	Bidder understanding is correct.
95.	2.2.5 (2) (h) (i) (ii) - Detection Points and Track sections (i) Evaluators A standby Evaluator with complete programming and configuration shall be provided for every Evaluator at Stations and Block Sections with arrangement for switch over using a single	Whether the CPUs duly programmed only required for "Standby Evaluator" or it will have complete set of hard ware similar to that of Main Evaluator. i.e CPU, Power supply and I/o cards etc.	Please refer Addendum No. 08, Sr. No. 35.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	switch. After every change over, the track sections shall go in error state and shall have to be reset as per manual resetting procedure.		
96.	2.2.5 (3) (i) (a) - Resetting Arrangement **(i)** Manual Resetting A suitable resetting scheme shall be designed by the contractor for manual resetting of axle counter track sections at stations 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.	We are not required to design the circuits using Line Verification boxes for all track sections employed. Please confirm. Accordingly, the materials supply shall not include Line Verification boxes.	Please refer to Addendum no. 08, S. No. 36.
97.	2.2.6 (1) (e) - Railway Crossings (1) System requirements Single set of electrically operated common lifting barriers shall be provided outside the Indian Railways and DFCCIL tracks so as to protect both IR as well as DFCCIL tracks by one set of lifting barriers. In case the distance between IR and DFCCIL tracks is such that a single set of barriers is considered unsafe or operationally unmanageable, the provision of two separate set of barriers may become necessary. Such provision of two sets will also be deemed to be part of the work and shall not attract any extra payment. Decision of providing two separate set of barriers, shall be taken by the Engineer on the basis of local conditions.	Kindly provide the distance between DFCC track and IR track where the LC gates are involved to enable us decide whether single barrier is required or 2 sets of barriers is required.	Bidder Attention is invited to clause 7.2 of ITB Part – I sec.1.the Bidder may also Refer to the details available in Reference document under Part -4.
98.	2.2.6 (1) (n) Arrangement for fixing of Safety chain and	Does this mean that supply of safety chain and hand operated sliding boom is in the scope of supply of contractor / Tenderer?	Bidder's understanding is Correct.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	hand operated Safety boom (Sliding boom) shall be provided for use in case of failure of lifting barriers. Indication for fixing of safety chain and hand operated boom shall also be provided on the panel of Station Master.		
99.	2.2.7 (2) (b) - Points and Point machines (2) Technical requirements Provision shall be made for individual manual operation of each point. Electrical Power shall get disconnected from the point drive under manual (crank handle) operation.	Whether points shall be operated centrally from Relay room (or) locally operated?	Query not clear. However, it is clarified that all the point operations will be done from Control Terminal provided with the Station Master.
100.	5.3.2 (5) - Cable core allocation A separate cable shall be used for operation of each point/crossover.	Can we combine the cable for point detection along with its 'operation cables".i.e Operation and detection for each end in a single cable.	Please refer to Addendum no. 08, S. No. 39.
101.	5.3.2 (7) Cables for main and supervisory track vacancy detection systems shall be separate	Whether each of the following functions need separate Quad cable: (a) UP detection points (DP) – separate 4 quad (b) DN detection points (DP) – separate 4 quad (c) UP Supervisory DP – separate 4 quad (d) DN Supervision DP – separate 4 quad	Provisions of Bidding document are sufficiently clear. Also, refer to provisions of Para 2.2.5 (2)(j)(i).
102.	5.3.7 (5) - Cable laying underground Signalling cables shall not run with cables carrying high voltages or heavy currents and shall conform to the requirements specified in BS 7671.	We understand the specification BS 7671 is related to General electrical system which will handle high and very high voltages. Basically this specification tells about safety to handle high voltages. Accordingly we understand that signalling cables shall not run parallel to High voltage cables as per this BS 7671 spec. This is the only requirement to be complied. Please confirm.	Understanding of Bidder is correct. Provisions of Bid Document shall prevail.
103.	9.2.1 (1) and (2) - Supply of spares: The Spare Parts to be supplied by the Contractor shall consist of: (1) Commissioning Spares (as hereinafter defined); (2) Defects Liability Spares (as hereinafter	What is %age of items to be supplied for Commissioning spares and Defects Liability Spares?	Please refer to provisions of Para 9.2.2, 9.2.3 and 9.2.4 of the Bidding document, which are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	defined)		
104.	PS 5.2.20 (1) - All cable entry points in the Equipment room, battery room, SM's room, location boxes, junction boxes etc. shall be sealed using modular based cable and pipe sealing system based on 'multi-diameter' technology as per RDSO specification circulated vide letter no.STT/OFC/Misc/263/Vol. XIV dated 03.01.2008. The modules shall be made of low smoke index, halogen free cross linkable rubber compound based on EDPM (Ethylene-Propylene DieneTerpolymer).	Please confirm its use is limited to SER only or in all places like as highlighted in yellow as it is too costly	Provisions of Bidding document are sufficiently clear.
105.	5.1.1 The OFC System shall be a highly reliable system since it shall be the primary means of communications between OCC	Please suggest the number of SDH Nodes to be considered in the BOM. Also indicate the number of SDH nodes i.e. STM-16 to be considered in First network and STM-4 to be considered in Second network.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
106	5.1.3 The OFC System shall be capable to transport all of the user communication requirements. The OFC System shall provide sufficient bandwidth to cater for the communication requirements of various systems under this Contract as well as outside this Contract and shall provide an additional spare bandwidth of at least 50% of the total used bandwidth for future system expansion.	As per the clause, you require 50% Spare bandwidth. We are proposing STM-16 for First network and STM-4 for second network. Kindly clarify the Bandwidth is required in terms of STM-16 / STM-4 or in terms of number of SDH Ports.	Provisions of Bidding Document are sufficiently clear.
107	5.5.1.1 (6) Optical link budget calculations for all the transmission links;	Please indicate the distance between the stations i.e for the first network (STM-16) and for the second network (STM-4). Distances are required to calculate the link engineering.	Please refer Part 4 of the Bidding Document.
108.	5.5.1.1 (10) The details of the synchronisation network design and a synchronisation plan which describes the fall back arrangement,	Request you to please provide the indicative network diagram with provision of First network and second Network.	Bidder/Contractor has to propose his own design and equipment based on requirements given in the Bidding Document.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
109.	5.5.3.3(7) (7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	It is mentioned in the tender document, Clause no. 5.3.7.7. that The Flexible Access Multiplex Equipment shall be provided with 1+1 Redundancy for E1Channels. 1+1 redundancy for voice and data is not feasible in case of Flexible Access Multiplexer. Neither it is required as per the requirement. Both the statement are contradictory. Request you to Kindly amend or delete this clause from tender.	Provisions of Bidding document shall prevail.
110.	5.5.3.3(10 e) Nx64 kbps synchronous data interfaces complying with ITU-T Rec. V.11 and V.35 interface; etc.	V.35 etc interfaces is not required in DFCCIL requirement. Kindly amend or delete this clause from tender.	Provisions of Bidding document shall prevail.
111.	5.5.3.4(4) The NMS shall be equipped with a proven real-time, multi-tasking operating system to support centralized network management of the OFC equipment …..	Network management System for the SDH and PDH are different with Different hardware and different software.	Bidder has not referred to correct Para, which in this case is 5.5.3.4(3) instead of 5.5.3.4(4) Network management System for the SDH and PDH can be on same hardware or on different hardware.
112.	Laptops for maintenance	Can we provide the same laptops loaded with different sub-system management software.	Provisions of Bidding document shall prevail. Please refer Clause 7.5.5 of PS/Telecommunication Works.
113.	Redundancy of NMS	Redundancy of NMS for each sub-system is required. But there is not backup OCC. Can we proposed single NMS for each sub-system	Provisions of Bidding document shall prevail.
114.	6.1.9 At Junction Stations & Crossing Stations, Wi-Fi Facility, compliant with IEEE 802.11g Standards shall be provided for WAN Connectivity to users (which also include drivers of passing trains) via Wireless Enabled Devices and Equipment. A minimum of 10 simultaneous users may use the Wi-Fi Connectivity at Stations. This Wi-Fi Facility shall as a minimum cover Station	1. Kindly provide the inputs whether you need Licensed band and Unlicensed band for wifi. 2. Kindly provide the central point on which coverage of 500 meters is required. 3. Please provide the total distance for wi-fi coverage on platform, and both sides of platform also.	Unlicensed band shall be used for wifi facility. From center of station building. Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Buildings and EDFC Tracks up to 500 meters in both directions		
115.	Chapter-11 VIDEO SURVEILLANCE SYSTEM REQUIREMENTS	What would be the backbone network for CCTV System.	It should be provided using Data networking System.
116.	9.1.3 The synchronized time information shall be provided to other interfacing systems via the OFC System. Synchronization of the time information of other systems shall be achieved by means of the Network Time Protocol (NTP)	Kindly clarify how synchronization of OFC equipment is provide from NTP based clock.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
117.	Chapter-10 VHF Communication system	Kindly provide the location of installation of tower.	Provisions of Bidding Document are sufficiently clear. Please refer clause 10.1.1.3 of PS Telecom.
118.	Chapter-10 VHF Communication system	Kindly provide the technical specifications i.e. safety factor, overturning factor etc for VHF Towers.	Being design build Contract, the Contractor has to propose his own design and equipment based on specifications provided in the Bidding Document.
119.	12.2.2 Provision of suitable Earth Leakage Detection and Alarms shall be made individually at each location (OCC, Station, Auto Signal Location, LC Gate Location, etc.).	Earth leakage detection is not required in Telecom equipment's i.e equipment running on -48VDC are already earthed. Hence this will always give a False alarm. Request you to Kindly amend or delete this clause form tender.	Wherever -48V DC is not being used, earth leakage detector and alarm shall be provided.
120.	5.3.9.11(7) A summary alarm shall be provided at the rack top to indicate the alarm status of any element within the rack. The summary alarm shall be reset automatically upon the alarm is cleared.	Summary alarm is not feasible. Kindly amend the clause.	Please refer Addendum No. 08, Sr. No. 42.
121.	Clause No. 5.1.8 , page 480 of 1309 extended feed (N-2) Scenarios over feeding zone;	Kindly clarify the N-2 Scenario? We request you to provide data for carrying out simulation for N-2	Please refer our reply at Sr. No.1.
122.	General	Kindly provide the Location/point of feeding from/ to IR for	Please refer Table 18.4.2, 18.4.3

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Interface arrangement of adjacent Section of IR and Khurja	simulation study.	and 18.4.5 of Chapter-18 , Vol-2, Part-2 of the Bidding Document. The Provisions of the Bidding Document shall prevail.
123.	Clause no. 7.1.5 page no. 502 of 1309 Area of the TSS (table)	We assume length 160m along the rail. Kindly clarify?	Your understanding to assume 160m length along the rail is correct.
124.	General Future Bay	We assume that the future bay work for Auto Transformer is not under CP-304 contractor. Kindly Confirm?	Please refer sub Clause 6.1.2, Chapter 6, Vol-2, Part-2 of the Bidding Document. This is also clearly indicated in the reference drawings under Part-4 of the Bidding Document. The provisions in the Bidding Document are self-explanatory and shall prevail.
125.	General Arrangement Drawing The size of the Transformer for 220/132 kV is provided as 150 MVA	Is this load of the value is final or depend upon the existing load	The Provisions of the Bidding Document shall prevail.
126.	Clause no 3.3.5 page no. 465 of 1309 132 kV Transmission line from Jagadhari TSS to IR's transmission line network.	We consider the line protection equipment are also excluded	Please refer sub-clause 6.9.8, Vol.2, Part-2 of the bidding document. The Provisions of the Bidding Document shall prevail.
127.	Power supply diagram Isolator is provided to the main line.	We consider the Isolator need to be provided for the loop line. Kindly Confirm	Sectioning Switch (SS) is to be provided in main line as required. Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
128.	Control Room Building For JAGADHARI TSS The Area for the Open Space is shown as 145 x100 meters	We consider the Area shown is misprinted . In tender document 160x120 meters. Kindly Clarify	Please Refer to Addendum No. 08, Sr. No. 73.
129.	clause 3.3 (4) Page 457. 25 kV AC cable/ overhead connections from TSSs/ SPs/ SSPs/ SS /ATS (if any) as required to OHE.	We consider it should be conductor and not cable kindly clarify?	The provisions in the Bidding Document are self-explanatory and shall prevail.
130.	**SP/SSP SLD**	**1. Coupling Circuit Breaker at incoming side** There are two feeders (separate for each transformer) & each transformer is sized for full load. Case-1 In normal scenario both feeders are available & coupler is open. In case of transformer fault, 220kV/132 kV CB feeding to Transformer will trip & isolate faulty transformer. In case of line (Grid to TSS) fault, Grid CB will trip & isolate faulty Line. Case-2 In case of failure of one feeder/transformer (N-1 criteria i.e. single failure) another transformer can cater full load. Case-3 One feeder & transformer of another feeder failure is N-2 criteria i.e. two failure simultaneously is very rare. Generally System is designed for N-1 criteria. In this case feed can be extended by closing isolators. Hard wired (2/3 i.e out of three only 2 can be closed) interlocking can be provided between coupling Isolator& 220kV/132 kV CBs feeding to Transformers.	Request not Accepted. The Provisions of the Bidding Document shall prevail.
		Since 220kV/132 kV CB feeding to Transformer will trip & isolate faulty transformer therefore Coupling CB does not add any value. There is no requirement of on load operation of coupling CB. Coupling Bus	

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		fault will be cleared by grid CB. If this CB is considered for protection of small section of coupling Bus Bar, which is not required, then no CT & PT is shown in tender drawing to be used protection. In our view only 220/132 kV one triple pole isolator is required for coupling. **2.Coupling Circuit Breaker at 25 kV Bus bar** Each Transformer is designed to cater full load. As per tender specifications, one transformer will be Spare/ stand by. In normal scenario coupler will be always open. Coupler is required when both the transformers are on load, which is not as per tender specifications, to isolate feed of both the transformers. (Coupler will be in open position). When both the transformer are on load capacity of Transformer can be reduced. Please confirm whether both transformers can share load. If not then coupler is to be deleted. If coupler is to be provided then PT at Bus bar side are to be provided for interlocking to prevent paralleling of Transformers Stand by Auto Transformer is Shown in SP, We consider that Single Auto Transformer is capable of withstanding the load of both the section at failure condition or in failure condition. Kindly clarify.	
131.	Part – 3, Particular Conditions Sub clause 1.1.3.7 (appendix to Tender) Defect Notification Period	Defect Notification Period may please be reduced to 1 year form 2 years as mentioned.	Request not accepted. The Provisions of the Bidding Document shall prevail.
132.	Part – 3, Particular Conditions Sub-Clause 1.1.6.10 General Clauses Act 1897 Insert the following Sub-Clause 1.1.6.10: "Any word or expression used in this	Bidder request to clarify ordinary English meaning mean English Dictionary meaning or Technical Dictionary meaning or whichever applicable.	Unless otherwise specified the meaning of the English words refers to the ordinary English meaning and not the meaning included in the technical dictionary.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Contract shall, unless otherwise defined or construed in this Contract, bears its ordinary English meaning and, for these purposes, the General Clauses Act 1897 shall not apply."		
133.	Part – 3, Particular Conditions Sub- clause 1.9 Errors in Employer's Requirements (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.	Profit may be considered @ 15% for calculation purpose.	Request not accepted. The Provisions of the Bidding Document shall prevail.
134.	(iii) the matters described in sub-paragraphs (a) and (b) above to the extent under paragraph (ii) above."	This Clause is not clear. We request to kindly clarify this clause.	Item (iii) means that if the answer to the question at (i) is in the affirmative, then based on Engineer's assessment at (ii) as to what extent the Contractor could not have reasonably discovered the error earlier, the extent to which the extension of time is justified (as highlighted at a) and the extent of payment (as highlighted at b), shall be determined by the Engineer.
135.	Part – 3, Particular Conditions New Sub- clause 1.15 Inspections and Audits by the Bank **Add New Sub-Clause 1.15:** "The Contractor shall permit, and shall cause its Subcontractors and sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and all accounts and records relating to the performance of the Contract	Bidder request to add "except Company's internal financial documents"	Request not accepted. The Provisions of the Bidding Document shall prevail.

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(1)	(2)	(3)	(4)
	and the submission of the Bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 1.16 [Fraud and Corruption] which provides, inter alia, that acts intended to		
136.	Part – 3, Particular Conditions **Sub- clause 2.1-Right of Access to Site** Replace the words "Performance Security" with "Performance Security and ESHS Performance Security"in the last line of the 1st Paragraph.**Insert** 'Formation, Track' between the words 'plant' and 'or' in 5th line of paragraph 1.**Delete the contents of Sub-Clause (b) in para 3 and replace with:-**"Payment of any such cost plus reasonable profit subject to a maximum of Rs.2000.00 (Two Thousand) per day for every km. For length less than a kilometre pro-rata amount shall be calculated provided further that if such delay in handing over does not affect the execution of Permanent Works under this Contract, provisions under para 2.1(b) of this sub- clause shall not apply.	Bidder find that the maximum ceiling of Rs. 2000/- (Two Thousand) per day for every KM and its prorata is very less now a days. Nothing would be compensated with this amount for the performance of this clause. Bidder request to consider the actual cost plus profit (15%) on such delay applicable for this clause.	Request not accepted. The Provisions of the Bidding Document shall prevail.
137.	Part – 3, Particular Conditions, Sub-Clause 4.2 (Appendix to Tender) Amount of Environmental, Social, Health and Safety (ESHS) Performance Security	Bidder request to waive the amount of security deposit towards ESHS	Request not accepted, the provisions in the Bid Document shall prevail.
138.	Part – 3, Particular Conditions, **Sub-clause 4.4 Subcontractors**	Bidder request to consider the subcontract value from 30% to 40% of accepted contract amount.	Request not accepted. The Provisions of the Bidding

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(1)	(2)	(3)	(4)
	"**Delete the first line of Sub-Clause 4.4 and substitute with the following:** "The Contractor shall not subcontract Works of value more than 30% of the Accepted Contract Amount in addition to the Works for which Specialized Subcontractor(s) are named in the Contract." Add the following at the end of the Sub-Clause: "The Employer at his discretion may permit the replacement of Specialized Subcontractors, named in the Contract, provided new Specialized Subcontractor(s) have required qualification."	Bidder request to clarify whether Engineer or Employer will give consent for the new Specialized Subcontractor apart from the approved list.	Document shall prevail. The Contractor can submit a request for replacement of a specialised sub – contractor during execution of the project. In addition, the Contractor can also approach the Engineer for induction of new sub – contractors for the works to an extent of 30% of the Accepted Contract Amount.
139.	Part – 3, Particular Conditions, **Sub-clause 4.7 Setting Out** **Delete paragraph 2, 3 & 4 of Sub-clause 4.7 and substitute with the following:** "Accuracy of these specified items of reference shall be deemed to have been verified by the Contractor. Accordingly, the Contractor shall have no right to claim towards time or cost caused due to errors in these specified items of reference."	Bidder request to consider the Contractor's losses (time plus cost) for the delay if suffered by the contractor due to default of Employer in setting out.	Request not accepted. The Provisions of the Bidding Document shall prevail.
140.	Part – 3, Particular Conditions **Sub-Clause 4.10** **Site Data** Add at the end of **paragraph 1 of Sub-Clause 4.10.** "Accordingly, the Contractor shall have no claim in this regard." **In paragraph 2 of Sub-Clause 4.10.**	Bidder request to consider the losses to be suffered for the delay, if any, by the contractor on account of non-availability of site data from the employer	Request not accepted. The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Delete the words "To the extent which was practicable (taking account of cost and time)". **Start** the word "'the' with a capital letter." **Delete** "To the same extent" from the fourth line and **Start** the word "the" with a capital letter.		
141.	Part – 3, Particular Conditions **Sub-Clause 4.11 Sufficiency of the Accepted Contract Amount** DFCC project being funded by the World Bank, qualifies for exemption from payment of custom duty and Excise duty on goods supplied/intended to be supplied to the Project in terms of Government of India's Customs notification no. 84/97 – customs dated 11.11.1997 and Central Excise Notification no. 108/95-CE dated 28.08.1995 (read along with all subsequent amendments) respectively, provided the goods brought in to the project are not withdrawn by the supplier or the Contractor.Under various notifications of the Department of Excise and Customs, Government of India, goods brought in to the project funded by the International Bank of Reconstruction and Development (IBRD) and / or awarded after conducting process under the International Competitive Bidding are exempt from Customs and Excise duties and / or are eligible for Deemed Export Benefits, provided the said goods are not withdrawn by the supplier or Contractor.	As GST has been implemented, hence excise duty is no more applicable. We request to kindly clarify whether this project is exempt from payment of GST. If GST is exempt, please clarify that what is the time period for getting the 'Exemption Certificate " for both GST and deemed exports from the employer so as to procure the materials at the earliest.Also it is presumed that there will be no service tax applicable for the project.	The Bidder's presumption is correct; there will be no service tax applicable for the project. As per the new Tax regime, there is no Excise Duty with effect from 1st July 2017. Also, at present, there is no notification from Govt. of India regarding exemption of GST for this Project. The Bidders are requested to refer to Addendum No. 08 (S. No. 68) in this regard.
142.	Part – 3, Particular Conditions	Bidder feel that the employer should consider the	Request not accepted. The

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Sub-clause 4.12 Unforeseeable Physical Conditions (b) the Contract Price shall not be adjusted to take account of any unforeseen physical conditions."	compensation towards the delay arising out of the unforeseen physical condition for which contractor is not responsible. Contractor should be entitled for additional time and cost for the same.	Provisions of the Bidding Document shall prevail.
143.	Part – 3, Particular Conditions Sub-clause 5.1 General Design Obligations **Last paragraph:** ..... If and to the extent that (taking account of cost and time) an experienced Contractor exercising due care would have discovered the error, fault or other defect when examining the Site and the Employer's Requirements with reference to purpose, scope, design and/or other technical criteria for the works before submitting the Tender, the Time for Completion shall not be extended and the Contract Price shall not be adjusted."	Bidder request to consider the time and cost compensation, if contractor could not foresee during examination at site.	Request not accepted. The Provisions of the Bidding Document shall prevail.
144.	Part – 3, Particular Conditions **Sub-Clause 8.2 Time for Completion** **Delete this Sub-Clause and substitute with the following:** "Whole of the Works shall be completed within 900 (Nine Hundred) days from the Commencement Date. **Milestone-1: 350 (Three Hundred Fifty) days from the**	Bidder request to Clarify whether Employer will take **over the work on milestone basis.** Also, bidder request to confirm at which date Employer would hand over the site in totality to the contractor.	Provisions of Bidding document are sufficiently clear. The Employer will not take over the work on milestone basis. Bidder's attention is also invited to provisions of Chapter 10, Interface Management of General Specifications, Part – 2 which specifies responsibility of the Contractor for coordination with 'Other contractors' for all his interface requirements, including access dates. For Access schedule please refer to Addendum No. 08, S. No. 70

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
145.	Part – 3, Particular Conditions **Sub-Clause 8.3 Programme** **Insert the following after 1st sentence in paragraph 1:** "Each programme shall take into account the progress of the Works under execution of Civil Works Contract Package 301 of the same section under the same Project [Eastern Dedicated Freight Corridor Project-3]." **Delete paragraph 3 of Sub- Clause 8.3** "The Contractor shall …… [Variation Procedure]."	Bidder wish to clarify that delay in execution of the Civil Contract-work may delay of this contractor's work. Therefore contractor would be entitled for time and cost compensation.	The Bidder is requested to refer to Clause 2.1 – Right of Access to the Site of Part – 3 of the Bidding Document wherein the compensation in this regard has been identified.
146.	Part – 3, Particular Conditions **Sub Clause 8.8 Suspension of Works** **(b)** necessary for proper execution of Works or by reasons of weather condition or by some default on the part of the Contractor;	Bidder's observation is that the contractor is no way responsible for the suspension caused by weather condition , Bidder feel that the contractor should be entitled for additional cost for suspension of work, if any, caused by weather condition as this will come under the force majeure (clause 19.1) of GCC.	Request not accepted. The Provisions of the Bidding Document shall prevail.
147.	Part – 3, Particular Conditions **Sub-Clause 10.2 Taking Over of Parts of the Works** Delete the Sub-Clause 10.2 in its entirety.	Please confirm that what clause under the contract will be applicable if the Employer use any part of the work prior to issue of taking over certificate.	It is not likely for the Employer to use any part of the work prior to issue of the *"taking over certificate*". However, in the unlikely event of any such exigency, the line of action would be mutually decided between the engineer and the contractor.
148.	Part – 3, Particular Conditions Sub-Clause 13.5 (Appendix to Tender) Provisional Sum	In this clause it is mentioned that no provisional sum is payable where as in Sub-Clause 14.2 (a) it speaks about Provisional Sums. Bidder request to clarify.	In the present contract, the value of the provisional sums is zero. As such, Sub – Clause 14.2 (a) should be read treating the provisional sums as zero.
149.	**Sub-Clause 14.9 Payment of Retention Money** **Delete first para of Sub-Clause 14.9 and substitute with the following:**	Bidder request to waive this retention clause	Request not accepted. The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	A retention amounting to 10 (ten) per cent of the value of the work done shall be deducted by the Engineer in the first and following Interim Payment Certificates, until the amount so retained reaches a limit of retention money of 5 (five) percent of the Contract Price.		
150.	**Sub-Clause 16.2 Termination by the Contractor** **Delete the Sub-Clause 16.2 (d)** **Delete the following words from 16.2 (e)** " or Sub-clause 1.7 [Assignment]"	This clause 16.2 (d) has been deleted. But bidder request to clarify whether Contractor is entitled to terminate the work in case employer substantially fails to perform its obligation	The contractor is not entitled to terminate the work in such a case.
151.	Part – 3, Particular Conditions **Sub-Clause 17.3 Employer's Risks** **Sub-paragraph (h) - Delete**	Bidder's request not to delete this clause	Request not accepted. The Provisions of the Bidding Document shall prevail.
152.	Part – 3, Particular Conditions **Sub-Clause 18.5 Professional Indemnity Insurance** **Add the following new Sub-Clause:**"The Contractor shall obtain the professional indemnity insurance, to cover the risk of professional negligence in the design of the Works carried by him, for the amount(s) stated in the Appendix to Tender and the insurance shall be maintained in full force and effect from the Commencement Date of the Works until 03 (three) years after the expiry of the Defects Notification /Extended Defects Notification Period. The insurance policy is required to indemnify the Employer as joint insured and the cover shall apply separately to each insured as though a separate policy had been issued for each of	Time period may please be reduced from 03 (three) years to 1 (one) after the expiry of defect notification period.	Request not accepted. The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	the joint insured.The Engineer will not certify any Payment Certificate until the Contractor has provided evidence of this insurance.		
153.	Part – 3, Particular Conditions **Sub Clause 20.6 Arbitration** **Delete Sub-Clause 20.6 and substitute with the following:** **"**Any dispute not settled amicably and in respect of which the DAB's decision (if any) has not become final and binding shall be finally settled by arbitration. Unless otherwise agreed by both parties, arbitration shall be conducted as follows:.....	Bidder feel that Arbitration process will be as per the Amendment Act 2015 of Arbitration & Conciliation Act 1996. Please clarify.	Please refer to Addendum No. 08, S. No. 69.
154.	**Part -1** **Section-IV- Bidding Forms-Price Schedule 2.0 - Apportionment of Contract Price for** **Payments According to Cost Centres** Apportionment of Contract Price for Payment according to cost centres.	We request to kindly **revise the weightage of cost centre** for following as under:- 2.1 – Electrical Works – 2.1.9 -Integrated Testing,Commissioningand Final Taking over of Works – **2.5%** 2.2- Signalling Works -2.2.7- Integrated Testing & Commissioning and FinalTaking-Over- **2.5%** 2.3- Telecommunication Works -2.3.7- Integrated Testing & Commissioning and Final Taking-Over – **2.5%**	Request not accepted. The Provisions of the Bidding Document shall prevail.
155.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-7- Telephone System-Clause 7.5.4.1-Pg 64 of 162 The VRS shall provide recording of stipulated voice conversations over Telephone System and Mobile Train Radio Communication System.	Kindly confirm if new VRS system needs to proposed for CP 304 or existing VRS system of CP-104, CP-105 & CP-203 can be expanded to cater to CP 304 requirement as well. Please confirm the subscriber count and Active subscriber ratio in case new VRS system needs to be proposed.	Refer Clauses 7.3.9.1 & 7.3.9.2 of PS/Telecommunication Works.
156.	Part 2, Section VI, Volume 4 Particular	We understand VRS system for GSM-R package is	Please refer Addendum No. 08,

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Specification Telecommunication Works-Chapter-7- Telephone System-Clause 7.5.4.1-Pg 64 of 162 The VRS shall provide recording of stipulated voice conversations over Telephone System and Mobile Train Radio Communication System.	independent of other packages. This is applicable on the all packages CP-104, CP-105, CP-203 & CP-304. Kindly confirm.	Sr. No. 52.
157.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS-8.2.6 Scope of Supplies-8.2.6.1, Point 2-Pg 65 of 162 Network and Switching Sub-system (NSS) and its Sub system including Intelligent Network (IN) as per latest EIRENE Standards (FRS & SRS).	Kindly confirm if IN needs to be supplied as part of CP-304 package. If yes, please provide detailed dimensioning parameters for the IN dimensioning	Bidder's understanding is correct. Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
158.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS-8.2.6 Scope of Supplies-8.2.6.1, Point 4-Pg 65 of 162 General Packet Radio Service (GPRS) : Hardware & Software	Kindly confirm GPRS needs to be supplied as part of CP-304 package. If yes, please provide detailed dimensioning parameters and sub components to be provided as part of GPRS network (SGSN, GGSN, FW, DNS, DHCP etc)	Bidder's understanding is correct. Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
159.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS-8.2.6 Scope of Supplies-8.2.6.1, Point 5-Pg 68 of 162 Short Message Service Center (SMSC):	Kindly provide Number of subscribers, BHSM, Storage requirements for SMSC dimensioning.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Hardware & Software;		
160.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works- CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS- 8.3.6 Mobile Equipment- Clause 8.3.6.5-Point-3, Pg No. 70 of 162 The following call related services are to be supported for each type of mobile radio: Restriction of display of user identity	This is a network feature and should be removed from mobile handsets	Provisions of Bidding Document shall prevail.
161.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works- CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS - 8.5.1-Pg 80 of 162 Voice Recording System (VRS) interfaced to above Network Sub-Systems (NSS) for recording voice communications taking place on RDC, Cab Radio and OPH. All voice communications of Radio Dispatcher Console, Cab Radio and Operation Radio shall be recorded by the Voice Recording System (VRS) being providedunder this Contract. The Contractor shall be responsible forintegration/reconfiguration, of Voice Recording System (VRS) being provided under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of this contract.	We understand VRS need not be supplied as part of Package 304 supply. Existing VRS needs to be integrated with new Network elements being proposed as part of Package 304. Kindly confirm	Please refer Addendum No. 08, Sr. No. 55.
162.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works- CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS - Clause 8.6.4-Pg 88 of	We understand complete new MTRC system needs to be proposed for CP-304 package. Kindly confirm	Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	162 Wherever the equipment of MTRC System being provided under Contract Packages CP-104, CP-105 & CP-203 are being upgraded/augmented/reconfigured, this upgradation/augmentation/reconfiguration shall not in any way utilize available provision of expansion.		
163.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.1.1-Pg 26 of 162 The OFC System shall be a highly reliable system since it shall be the primary means of communications between OCC,	Please suggest the number of SDH Nodes to be considered in the BOM. Also indicate the number of SDH nodes i.e. STM-16 to be considered in First network and STM-4 to be considered in Second network.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
164.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.1.3-Pg 26 of 162 The OFC System shall be capable to transport all of the user communication requirements. The OFC System shall provide sufficient bandwidth to cater for the communication requirements of various systems under this Contract as well as outside this Contract and shall provide an additional spare bandwidth of at least 50% of the total used bandwidth for future system expansion.	As per the clause, you require 50% Spare bandwidth. We are proposing STM-16 for First network and STM-4 for second network. Kindly clarify the Bandwidth is required in terms of STM-16 / STM-4 or in terms of number of SDH Ports.	Provisions of Bidding Document are sufficiently clear.
165.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.5.1.1 (6)-Pg 36 of 162 Optical link budget calculations for all the	Please indicate the distance between the stations i.e for the first network (STM-16) and for the second network (STM-4). Distances are required to calculate the link engineering.	Please refer Part 4 of the Bidding Document.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	transmission links;		
166.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.5.1.1 (10)-Pg 36 of 162 The details of the synchronisation network design and a synchronisation plan which describes the fall back arrangement,	Request you to please provide the indicative network diagram with provision of First network and second Network.	Bidder/Contractor has to propose his own design and equipment based on requirements given in the Bidding Document.
167.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.5.3.3 (7)-Pg 38 of 162 (7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	It is mentioned in the tender document, Clause no. 5.3.7.7. that The Flexible Access Multiplex Equipment shall be provided with 1+1 Redundancy for E1Channels. 1+1 redundancy for voice and data is not feasible in case of Flexible Access Multiplixer. Nither it is required as per the requirement Both the statement are contradictory. Request you to Kindly amend or delete this clause from tender.	Provisions of Bidding Document shall prevail.
168.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.5.3.3 (10e)-Pg 39 of 162 Nx64 kbps synchronous data interfaces complying with ITU-T Rec. V.11 andV.35 interface; etc.	V.35 etc interfaces is not required in DFCCIL requirement. Kindly amend or delete this clause from tender.	Provisions of Bidding Document shall prevail.
169.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-Chapter-5-Clause 5.5.3.4 (4)-Pg 39 of 162 The NMS shall be equipped with a proven real-time, multi-tasking operating system to support centralised network management of the OFC equipment …..	Network management System for the SDH and PDH are different with Different hardware and different software.	Network management System for the SDH and PDH can be on same hardware or on different hardware.
170.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works	Can we provide the same laptops loaded with different sub-system management software.	Provisions of Bidding Document shall prevail. Please refer Clause 7.5.5 of PS/Telecommunication Works.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Laptops for maintenance.		
171.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works Redundancy of NMS	Redundancy of NMS for each sub-system is required. But there is not backup OCC. Can we proposed single NMS for each sub-system	Provisions of Bidding Document shall prevail.
172.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 6 - DATA NETWORKING SYSTEM-Clause 6.1.9-Pg 41 of 162 At Junction Stations & Crossing Stations, Wi-Fi Facility, compliant with IEEE 802.11g Standards shall be provided for WAN Connectivity to users (which also include drivers of passing trains) via Wireless Enabled Devices and Equipment. A minimum of 10 simultaneous users may use the Wi-Fi Connectivity at Stations. This Wi-Fi Facility shall as a minimum cover Station Buildings and EDFC Tracks up to 500 meters in both directions	1. Kindly provide the inputs wether you need Licensed band and Unlicensed band for wifi. 2. Kindly provide the central point on which coverage of 500 meters is required. 3. Please provide the total distance for wi-fi coverage on platform, and both sides of platform also.	Unlicensed band shall be used for wifi facility. From center of station building. Provisions of Bidding Document are sufficiently clear.
173.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 11 - Pg 101 of 162 VIDEO SURVEILLANCE SYSTEM REQUIREMENTS	What would be the backbone network for CCTV System.	It should be provided using Data networking System.
174.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 9 - MASTER CLOCK SYSTEM-Clause 9.1.3-Pg-91 of 162 The synchronized time information shall be provided to other interfacing systems via the OFC System. Synchronization of the time information of other systems shall be	Kindly clarify how synchronization of OFC equipment is provide from NTP based clock.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	achieved by means of the Network Time Protocol (NTP)		
175.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 10 - Pg 96 of 162 VHF Communication system	Kindly provide the location of installation of tower.	Provisions of Bidding Document are sufficiently clear. Please refer clause 10.1.1.3 of PS Telecom.
176.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 10 - Pg 96 of 162 VHF Communication system	Kindly provide the technical specifications i.e. safety factor, overturning factor etc for VHF Towers.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
177.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works-CHAPTER 12 - 48 V DC BATTERY BACKUP SYSTEM REQUIREMENTS-Clause 12.2.2-Pg 114 of 162 Provision of suitable Earth Leakage Detection and Alarms shall be made individually at each location (OCC, Station, Auto Signal Location, LC Gate Location, etc.).	Earth leakage detection is not required in Telecom equipments i.eequiments running on -48VDC are already earthed. Hence this will always give a False alarm. Request you to Kindly amend or delete this clause form tender.	Wherever -48V DC is not being used, earth leakage detector and alarm shall be provided.
178.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works- Chapter-5-Clause 5.3.9.11 (7)-Pg 33 of 162	Summary alarm is not feasible. Kindly amend the clause.	Please refer Addendum No. 08, Sr. No. 42.
179.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.7.10 (b)- Page 101 of 334 Shall support Ethernet IEE802.3, X.21, Ethernet and RS232, GPRS physical layers;	This Clause is contradictory as IEC 60870-5-104 is supported over Ethernet IEC 802.3 only. It does not support RS232/X.21 or GPRS layers. We request to kindly amend this clause.	Please Refer to Addendum No. 08, Sr. No. 19 .
180.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC	RTU at TSS location is capable of reporting data to multiple masters (more than 2) without any requirement of any	Requirement of gateway is not mandatory subject to RTU

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Traction Electrification and Associated Works-Clause 10.9.2.5 (b)- Page 106 of 334 Local Interface Unit (LIU) in TSS	additional gateway. We request to kindly confirm whether Gateway is required to be incorporated.	supporting communication with two masters and one Local workstation, which serves as LIU.
181.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.10.2 4(a) (iii)- Page 110 of 334 Used point of each type in an RTU. (Number of point used of a particular type of point)	There is no such facility in IEC 60870-5-104 protocol. We request to kindly delete this clause	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.
182.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.10.2 4(a) (iv)- Page 110 of 334 Event reporting details which include windows time and de-bouncing time.	There is no such facility in IEC 60870-5-104 protocol. We request to kindly delete this clause	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.
183.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.10.2.8- Page 111 of 334 Communication Failures	In IEC 60870-5-104 protocol, there are no timeout errors or CRC errors. CRC errors are applicable on serial protocols. IEC 60870-5-104 protocol has inherent time management which on expiry closes the connection. There is no concept of "Retry". Please clarify	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.
184.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.10.2.9(d)- Page 111 of 334 There shall be means to indicate & give alarm in case an intrusion event occurs either through a connection or a peripheral device	We request to kindly delete this clause	The provisions in the Bidding Document are self-explanatory and shall prevail.
185.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.10.2.19(c)(1)- Page 114 of 334 The Tabular Display shall support the following features (i) On line configurable	Online configuration and modification is not supported. We request to kindly delete this clause.	The provisions in the Bidding Document are self-explanatory and shall prevail.
186.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC	No message can be displayed on RTU in case command is attempted on a device under power block.	The provisions in the Bidding Document are self-explanatory

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Traction Electrification and Associated Works-Clause 10.10.2.20(a)- Page 115 of 334 Power block for maintenance or inspection shall be granted by the operator / controller in the OCC in pursuance of an approved written down procedure that enables identification of all the authorized and trained personnel granting the block i.e. (the controller of the authorized person requesting the block through a system of passwords & interlocks) and the recipients of the permit to work and precautions to be observed. The Power block shall not be able to be cancelled & section energized unless the permit has been returned by the recipients and the block is cancelled by the person who was granted the block. In case a tele-command is attempted, for energizing the device/ section under block, the command shall be aborted and a hazard message at the OCC and the RTU shall get generated	We request to kindly amend this clause.	and shall prevail.
187.	Part 2, Section VI, Volume 2,Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.10.2.34(a)(iv)- Page 120 of 334 TASE.2	We request to kindly confirm whether TASE.2 is required.	Please Refer to Addendum No. 08, Sr. No 20.
188.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.11.(2)(b)- Page 121 of 334 Workstation specification	PS2 ports are no longer available. For wireless mouse and keyboard, same are not required. We request to kindly amend this clause.	Please Refer to Addendum No. 08, Sr. No 21.
189.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.12.(4)(c)- Page 128 of 334	RTU firmware is not stored on removable flash disk. It is stored on NAND flash and can be upgraded using the USB port available on CPU. We request to kindly amend this clause.	The provisions in the Bidding Document are self-explanatory and shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	In order to provide for easy upgrading and/or correction, the RTU software shall be stored on a removable flash memory card. In addition, it is required for the RTU to perform the following tasks remotely		
190.	Part 2, Section VI, Volume 2, Particular Specifications–2x25kV, AC Traction Electrification and Associated Works-Clause 10.12.(14)(d)- Page 131 of 334 The RTU shall have one MMI port which may also be used for configuration purpose.	The RTU does not require any separate MMI port for configuration or diagnostics. Same is carried out through LAN port without affecting existing operations. We request to kindly amend this clause.	The provisions in the Bidding Document are self-explanatory and shall prevail.
191.	Section III:Evaluation and Qualification Criteria 2.2 Financial Resources	We understand that Only audited financial statements of latest 5 years (2012-2016) needs to be submitted and forms FIN 3.1 and FIN 3.2 with updated information need not required to be submitted. Kindly clarify.	It is clarified that Forms FIN 3.1 and FIN 3.2 are not required to be submitted with the Bid.
192.	Part 3, Section VIII, Particular conditions 1.7 Assignment	Kindly retain sub clause 1.7 as given in FIDIC Yellow Book	Request not accepted. The Provisions of the Bidding Document shall prevail.
193.	Part 3, Section VIII, Particular conditions 1.9 and 5.1 Errors in Employer's requirements- to be understood with reference to "purpose, scope, design and/or other technical criteria for the works"	Please define the "purpose" of the works with reference to the use of the term "purpose, scope, design and/or other technical criteria for the works"	The attention of the Bidder is invited to Para 1 and its sub – paras of Chapter – 1 of Volume 1, General Specifications, Part – 2 of the Bid Document which clearly bring out the purpose and the scope of the work.
194.	Part 3, Section VIII, Particular conditions 2.1 Right to access to site:	Kindly retain Sub-Clause 2.1 as given in FIDIC Yellow book	Request not accepted. The Provisions of the Bidding Document shall prevail.
195.	Part 3, Section VIII, Particular conditions 4.7 Setting out	Kindly retain Sub-Clause 4.7 as given in FIDIC Yellow book	Request not accepted. The Provisions of the Bidding Document shall prevail.
196.	Part 3, Section VIII, Particular conditions 4.1 Site Data	Kindly retain Sub-Clause 4.10 as given in FIDIC Yellow book	Request not accepted. The Provisions of the Bidding Document shall prevail.
197.	Part 3, Section VIII, Particular conditions 4.12 Unforeseeable Physical Conditions:	Kindly retain Sub-Clause 4.12 as given in FIDIC Yellow book	Request not accepted. The Provisions of the Bidding Document shall prevail.
198.	Part 3, Section VIII, Particular conditions	Please define purpose.	For the definition of "Purpose",

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	5.1 General Design Obligation	We request modification to following clause: - Para 2, 2nd sentence : " The Contractor undertakes that the designers shall be available to attend discussions with the Engineer at all reasonable 9times, until the expiry date of t11he relevant Defects Notification Period."- Siemens design personnel will be available for the meetings but not necessarily the same personnel We request to delete the following requirements / clauses : - Para 4, 2nd sentence : "If and to the extent that (taking account of cost and time) an experienced contractor exercising due care would have discovered the error, fault or other defect when examining the Site and the Employer's Requirements before submitting the Tender, the Time for Completion shall not be extended and the Contract Price shall not be adjusted.	please refer to the response for query no. 193. Request not accepted. The Provisions of the Bidding Document shall prevail.
199.	Part 3, Section VIII, Particular conditions 8.8 Suspension of works	Please delete the last paragraph of PC 8.8	Request not accepted. The Provisions of the Bidding Document shall prevail.
200.	Part 3, Section VIII, Particular conditions 10.2 Taking over of parts of the works	Kindly retain Sub-Clause 10.2 as given in FIDIC Yellow book	Request not accepted. The Provisions of the Bidding Document shall prevail.
201.	Part 3, Section VIII, Particular conditions 13.3 Variation Procedure: No price adjustment for Variations	Please allow price adjustment on Variations to the extent allowed in respective Price Schedules	Request not accepted. The Provisions of the Bidding Document shall prevail.
202.	Part 3, Section VIII, Particular conditions 15.3 Valuation at the date of termination	Kindly retain the clause 15.3 of FIDIC Yellow Book	Request not accepted. The Provisions of the Bidding Document shall prevail.
203.	Part 3, Section VIII, Particular conditions 16.2 Termination by the contractor	Kindly retain Sub-Clause 16.2 as given in FIDIC Yellow book	Request not accepted. The Provisions of the Bidding Document shall prevail.
204.	Part 3, Section VIII, Particular conditions 17.3/18.2Employer's risks/ Insurance of works and Contractor's equipment	Kindly retain Sub Clause 17.3(h), 18.2 sub-para 4(d) as given in FIDIC Yellow Book	Request not accepted. The Provisions of the Bidding Document shall prevail.
205.	G.C.C. - FIDIC Yellow Book 1999 1.10 Employer´s Use of Contractor´s Documents	We request to delete sub-paragraph (b) and substitue: b) entitle the Employer´s Personnel in proper possession of the relevant part of the Works to copy, use the Contactor´s Documents for the purposes of completing, operating, maintaining the Works	Request not accepted. The Provisions of the Bidding Document shall prevail.
206.	G.C.C. - FIDIC Yellow Book 1999	Please confirm the nature of the confidential information that	This would include any information

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	1.12 Confidential details	may be required.	which the Engineer may reasonably require in order to ensure the Compliance of the Contractor with the provisions of the Contract.
207.	G.C.C. - FIDIC Yellow Book 1999 1.13 Compliance with Law :	We request to Insert at the end of Sub-Clause 1.13: However, the Contractor shall submit, in good time, the details of Goods to the Employer, who shall then promptly obtain all import permits or licences required for these Goods.	Request not accepted. The Provisions of the Bidding Document shall prevail.
208.	G.C.C. - FIDIC Yellow Book 1999 2.2. Permits, Licences or Approvals	The Contractor shall be responsible to get only those Permits, Approvals or License which are required in the Contractor's name for the performance of this Contract. Please confirm. Further, we request DFCCIL to issue the necessary Road Permit/Octroi Exemption Certificate, if applicable for transporting the project related material / equipments in the respective states	Request not accepted. The Provisions of the Bidding Document shall prevail.
209.	G.C.C. - FIDIC Yellow Book 1999 2.5 Employers' claim	We request you to Insert in paragraph 2, behind the words "as soon as practicable": and not later than 28 days	Request not accepted. The Provisions of the Bidding Document shall prevail.
210.	G.C.C. - FIDIC Yellow Book 1999 4.1 Contractor's General Obligations:	We request you to delete paragraph 1, 2nd sentence containing the condition "Fit for purpose" since such a phrase is open to interpretation.	Request not accepted. The Provisions of the Bidding Document shall prevail.
211.	G.C.C. - FIDIC Yellow Book 1999 4.1 Contractor's General	We request to delete the following words in paragraph 3 of Sub-Clause 4.1. (although not mentioned in the Contract).	Request not accepted. The Provisions of the Bidding Document shall prevail.
212.	G.C.C. - FIDIC Yellow Book 1999 4.3 Contractor's Representative	We request to delete following two paragraphs : Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.	Request not accepted. The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.	
213.	G.C.C. - FIDIC Yellow Book 1999 4.5 Nominated Subcontractors	We request to delete Sub-Clause 4.5.	Request not accepted. The Provisions of the Bidding Document shall prevail.
214.	G.C.C. - FIDIC Yellow Book 1999 4.6 Co-operation	We request to delete Sub-Clause 4.6 and substitute: The Contractor shall, in accordance with the Engineer's instructions, afford to other contractors engaged by the Employer to work on the Site and persons lawfully upon the Site all reasonable opportunities for carrying out their work provided that the same shall not obstruct or disturb the progress of the Works and, when leaving his area of work, clean-up such part of the Site. The Contractor shall also afford such opportuni-ties to the employees of the Employer. If the Contractor, on the written request of the Engineer, makes available any Con-tractor's Equipment or provides any other service, the Employer shall pay the Con-tractor accordingly. The amount to be paid shall be certified by the Engineer and added to the Contract Price.	Request not accepted, the provision in the Bidding Document shall prevail.
215.	G.C.C. - FIDIC Yellow Book 1999 4.13 Rights of way and facilities	Kindly delete this clause.	Request not accepted. The Provisions of the Bidding Document shall prevail.
216.	G.C.C. - FIDIC Yellow Book 1999 4.15 Access Route	Delete paragraph 1, 1st sentence. Delete paragraph 2, including sub-paragraphs (a) to (e), and substitute: However, if the Contractor encounters non-suitability or non-availability, for the use required by the Contractor, of access routes, gives a notice to the Engineer as soon as practicable describing the relevant circumstances, and suffers delay and/or incurs Cost due to these circumstances, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to: (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and (b) Payment of any such Cost, which shall be included in the Contract Price.	Request not accepted. The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
217.	G.C.C. - FIDIC Yellow Book 1999 4.19 Electricity, Water and Gas	We request to delete paragraphs 1 and 2 and substitute: The Employer shall be responsible for the provision of all power, water and other ser-vices the Contractor may reasonably require. The Contractor shall be entitled to use for the purposes of the Works and for the accommodation of the Contractor's and his Subcontractor's Personnel such supplies of electricity, water, gas and other services, the details and prices of which are given in the Employer's Requirements.	Request not accepted. The Provisions of the Bidding Document shall prevail.
218.	G.C.C. - FIDIC Yellow Book 1999 4.22 Security of the Site	It is requested to modify sub-paragraph (a) as under: " the Contractor Employer shall be responsible for keeping unauthorised persons off the Site, and"	Request not accepted. The Provisions of the Bidding Document shall prevail.
219.	G.C.C. - FIDIC Yellow Book 1999 11.1.1.3.7 Defects Liability	We understand that the Defects Liability period and the Defects Notification period as mentioned in cl. 1.1.3.7 (pg. 4 of FIDIC Yellow Book) are the same. Please confirm.	Yes, it is confirmed.
220.	G.C.C. - FIDIC Yellow Book 1999 15.2 Termination by employer	We reuquest, at the end of paragraph 2 ("… may by notice terminate the Contract immediately."), add: In any case, and notwithstanding the above, Employer's right to terminate the Con-tract hereunder shall be subject to the express proviso that the Employer cannot reasonably be expected to remain bound by the Contract. Delete paragraph 3 ("… shall not prejudice any other rights …") and substitute: The Employer's election to terminate the Contract shall be in lieu of and to the exclusion of any rights of the Employer, under the Contract or otherwise, other than pro-vided in Sub-Clause 15.4 [Payment after Termination].	Request not accepted. The Provisions of the Bidding Document shall prevail.
221.	G.C.C. - FIDIC Yellow Book 1999 15.5 Employer's Entitlement to Termination	Insert at the end of Sub-Clause 15.5: The Employer shall also pay to the Contractor the amount of any loss of profit or other loss or damage resulting from this termination.	Request not accepted. The Provisions of the Bidding Document shall prevail.
222.	G.C.C. - FIDIC Yellow Book 1999 17.6 Limitation of Liability	The clause provides for liability being capped to "Accepted" contract value. Does this mean total contract value, please clarify	The total liabilities of the Contractor shall not exceed the Accepted Contract Amount as indicated in the Contract

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
			Agreement.
223.	Form FIN 3.3, Section IV, Bidding Forms Table for Financial Resources	We understand that we have to indicate the details of proposed sources of financing by way of Solvency Certificate. Kindly confirm our understanding.	Source of financing means working capital derived from the Latest Audited Balance Sheet submitted by the Applicant and project specific Line of Credit allowed by a commercial bank. The Solvency Certificate from a bank is not a source of financing.
224.	Form CCC, Section IV, Bidding Forms Form CCC	We request you to retain the format provided during Pre-qualification stage for form CCC.	Request not accepted.
225.	ITB 29.8 of Bid Data Sheet and Sub-Clause 4.11 of Particular Conditions	With the introduction of GST from 1st July, 2017, we understand that the benefit of deemed export benefit would be continued only to the extent of Basic Customs Duty& Customs Cess. However, all other taxes applicable under GST Act would continue to remain applicable. Accordingly, Contractor would charge appropriate GST while raising invoice on DFCC. Similarly, please clarify that for offshore supplies, DFCC would be required to be clear goods under its own IEC and GSTIN, if any. For offshore supplies as well IGST would be payable in the name of DFCC. Please also clarify whether IGST So payable by DFCC is to be included in the contract price since payment of IGST upon customs clearance is a tax assessed on and payable by DFCC.	Since the contract price is inclusive of duties, taxes and other levies payable by the Contractor under the contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the total Bid Price submitted by the Bidder as per ITB 29.8 of Bid Data Sheet. With introduction of GST from 1st July, 2017, the contract price will include GST. In regard to the exemption of the Custom Duty and Custom Cess, the attention of Bidder is invited to the last sub – para of ITB 29.8 of Addendum No 08 S.No. 2. The Bidder has to clear the offshore supplies under its own IEC and GSTIN.
226.	ITB 29.8 of Bid Data Sheet and Sub-Clause 4.11 of Particular Conditions	Under GST Act, similar exemption with respect to services provided for the project does not exist and accordingly, GST would be as well applicable on the services portion of the contract. It is requested to modify the clause suitably considering GST in force since July 1, 2017.	The Bidders are Requested to refer to Addendum No. 08, S. No. 2 and 68 in this regard.
227.	Part – 3, Particular Conditions	Since GST is the applicable law in force for the purpose of	Contract Conditions are amply

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Sub clause 14.1- Contract Price	indirect tax levy. Contract price would be required to be considered in accordance with the customs law and GST law. A confirmation to this effect would be highly appreciated.	clear in this regard.
228.	Part – 3, Particular Conditions Sub clause 14.2- Advance Payment	Since the contract price is inclusive of all indirect taxes applicable for the project, 10% advance would be of the total contract price including the Taxes and Duties included in the contract. This is also in line with provisions under GST law which requires payment of GST on receipt of advance. Please confirm correctness of our understanding.	The Contract Price for the purpose of this clause is the Accepted Contract amount as included in the Agreement between the Contractor and the Employer.
229.	Part – 3, Particular Conditions Sub clause 14.1- Contract Price	Various State GST legislations provide for the road permits / way bills for facilitating the entry of goods into the DFCCIL site in the respective State. It is our understanding that all required road permits/ way bills etc would be issued by DFCCIL. Please confirm the same.	Obtaining of any road permits / way bills which may become necessary for successful execution of the work shall be the responsibility of the Contractor.
230.	Part – 3, Particular Conditions Sub clause 14.1- Contract Price	We have the experience of executing Turnkey Design and build lump sum contracts funded by World Bank / JICA / Other Multilateral funding agencies wherein High Sea Sales are permitted and payments are made through LC. This is a standard industry practice in order to clear goods in the name of ultimate consumer of the goods. The mode of this transaction would be as follows: The bill of lading will be endorsed in the name of DFCCIL and ownership is transferred on high seas. Also, a high sea sale agreement is executed between DFCCIL and Contractor. The material is issued by DFCCIL to the contractor for the purpose of installation. The responsibility towards custody of such materials lies with contractor till the Taking over Certificate is issued by the Employer. The above high sea sale transaction shall enable the DFCCIL to avail Custom Duty exemptions. Please confirm whether Contractor can sale the imported goods on High Sea Sale basis to DFCCIL.	The Employer will not involve itself for purchase of goods in the High Seas. As such, the ownership of the goods will lie with the Contractor who will also be responsible for payment of any duty(ies) for release of the goods
231.	Part – 3, Sec VIII Particular Conditions Sub Clause 14.9	It is requested to modify the clause as under: "A retention money amounting to 5 (five) per cent of the value of the work done shall be deducted by the Engineer in the first and following Interim Payment Certificates, until the amount so retained reaches a limit of retention money of 5 (five) percent of the Contract Price."	Request not accepted. The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
232.	Part – 1, ITB 30.1 of Bid Data Sheet	In line with the practices followed in many Design and Build Turnkey projects funded by World Bank/ JICA / Other Multilateral funding agencies, we request to permit as follows: Each member of the consortium will invoice for their respective portions in the quoted currenciesunder the covering letter of lead member of consortium enclosing the invoices mentioning therein respective account nos. It is requested to disburse payments directly each member of the consortium for their respective scope as per the designated accounts. A clear billing breakup identifying the details of currency vise split up among the various members of by the consortium shall be submitted along with second stage financial submission. Issuance of TDS certificate in favour of the individual consortium Members. Kindly confirm as these are standard practices in Design & Build andMultilateral funded projects and moreover they are in line with RBI, FEMA, FERA and other financial regulations.	The provisions of the Bidding Document are self-explanatory and shall prevail. In this regard, please also refer to Clause 14.7 of Particular Conditions of Contract which allows payments of the amount due in each currency to 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.
233.	Part – 3, Particular Conditions G.C.C. - FIDIC Yellow Book 1999 & Section VIII. Particular conditions Clause no 18.3	Kindly request you to have an aggregate limit for this liability or restrict the number of occurrences. It is impossible to have an insurance cover for unlimited liability. This clause mentions that the insurance policy shall be in the joint names of the parties. Our proposal is to include DFCCIL as an additional insurer. Please confirm.	Request not accepted. The Provisions of the Bidding Document shall prevail.
234.	Part – 3, Particular Conditions Sub Clause 18.2 (d) Appendix to Tender	It is requested to replace the word zero deductibles to minimum deductibles since such policy is not available and as per industry practice, the policy with minimum deductible is allowed.	Request not accepted. The Provisions of the Bidding Document shall prevail.
235.	Part – 3, Particular Conditions Sub Clause 4.2 & Appendix to tender ESHS Performance Security	A requirement for submission of Performance Security already exists. The insertion of ESHS submission is an additional requirement. In light of the 10% PBG and 5% retention already available in the contract provisions, it is requested to delete the additional PBG on EHS.	Request not accepted. The Provisions of the Bidding Document shall prevail.
236.	Part – 3, Particular Conditions	Kindly Confirm on applicability of	The contract revenue from

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Sub clause 4.11 of Particular Conditions	following Taxes/CESS: • Withholding Tax on Off shore payment • Building and other construction works.	Building and other construction work arising to a foreign company is taxable in India and subject to TDS in India.
237.	Part – 1, Section –I –ITB Clause 4.1	In line with the practices followed in many Design and Build Turnkey projects funded by World Bank/ JICA / Other Multilateral funding agencies, we request to permit the proposed consortium wherein the members will have clear split among them with respect to scope of work & quoted prices. In this context, it will be the bidders responsibility to provide the clear cut scope split amongst them. Kindly confirm.	Request not accepted. The Provisions of the Bidding Document shall prevail.
238.	Part – 3, Particular Conditions Appendix to Tender GCC 14.2	Request to confirm the "Mobilization Process" since the definition is not provided in the tender document	Engineer will decide the activities which should have been completed to conclude that the Mobilization Process has commenced.
239.	ITB 7.2 & PC clause 1.9	Request for clarification on the definition of "reasonable profit"	The provisions of the Bidding document are sufficiently clear.
240.	Part – 1, ITB Clause no. 14.1	Request to clarify our understanding as below: The certificate of origin shall be provided only for off-shore supplies. For off-shore services and local supplies self-declaration will be provided by contractor.	This clause will apply to all offshore supply of material, equipment and services.
241.	Part 2, Sec – VI, Vol -2, PS, Ch-2, 2.2, 451 of 1309 Power Supply Arrangement - Eastern Freight Corridor	Kindly share the last 220kV & 132kV Incoming and Outgoing T/L Tower location for both TSS at Jagadhari&Sirhind along with incoming & Outgoing T/L direction wrt TSS Layout.	Please refer Sub Clause 18.4.4. Chapter 18, Vol-2, Part-2 of the Bidding Document. Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.
242.	Part 2, Sec – VI, Vol -2, PS, Ch-2, 2.2.2, 451 of 1309 Power Supply Arrangement – Jagadhari RSS cum TSS	Kindly clarify whether Equipment for 220kV Outgoing Bay is to be considered by CP-304 contractor or not. In Schematic same is not shown.	Please Refer to Addendum No. 08, Sr. No 72.
243.	Part 2, Sec – VI, Vol -2, PS, Ch-2, 2.2.3 (a), 451 of 1309	Kindly clarify whether Equipment for 132kV Outgoing Bay is to be considered by CP-304 Bidder or not and if same is to be considered it is for only Two future outgoings for Indian	All the Four (4) 132 kV Outgoing bays are in the scope of CP-304 contractor.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Power Supply Arrangement – Jagadhari RSS cum TSS	Railways or all four 4 Outgoing lines as shown in schematic diagram. Scope clarity for 132kV Outgoing line to Meerut is required.	However, Please also Refer to Addendum No. 08, Sr. No 72.
244.	Part 2, Sec – VI, Vol -2, PS, Ch-3, 3.3.2 (o), 460 of 1309 Fees paid to Regulatory bodies	It is mentioned that the any fee related to any regulating body fior taking necessary approval has to be borne by CP-304 contractor, Kindly clarify whether such fees are refundable in nature upon submission of payment receipt.	The Provisions of the Bidding Document shall prevail.
245.	Part 2, Sec – VI, Vol -2, PS, Ch-6, 6.1.3 (4-b), 484 of 1309 Outgoing Bay with CB & Isolators as per indicative arrangement	As per Jagadhari TSS Schematic, No outgoing line and equipment for outgoing line has been shown. Kindly clarify whether the above is in the scope of CP – 304.	Please refer our reply at Sr. no. 243.
246.	Part 2, Sec – VI, Vol -2, PS, Ch-6, 6.3 (4), 490 of 1309 Design of Earth System	It is mentioned that "Earth rods below the mat shall be copper clad steel and all Earth mat joints shall be exothermic". Please note that using MS for main earth mat and Cu clad MS earth Rod below main earth mat is not advisable due to two dissimilar metals. As per IEEE-80 joints of earth rod shall be exothermic type where as joint with earth mat and earth mat joints can be achieved by various other methods such as welding in case of MS. Kindly confirm the MS rod and Welding of the same instead of exothermic joints for earthing system as a whole.	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.
247.	Part 2, Sec – VI, Vol -2, PS, Ch-7, 7.1.5 Table 7.1.1, 502 of 1309 Plot Size – Jagadhari TSS	Plot area mentioned in Table 7.1.1 is 160 x 120 m whereas in drawings, the plot area is mentioned as 145 x 100 m. Kindly confirm the actual area to be considered.	Please Refer to Addendum No. 08, Sr. No 73.
248.	Part 2, Sec – VI, Vol -2, PS, Ch-7, 7.2.3, 502 of 1309 Check Metering Equipment	Kindly confirm the location is it at TSS end or GSS end.	Please refer Item no. 4, Table - 18.4.4 , Chapter 18, Vol-2, Part-2 of the Bidding Document.
249.	Part 2, Sec – VI, Vol -2, PS, Ch-7, 7.3.1, 503 of 1309 220/132kV Power Transformer	Losses for 220/132kV Power Transformer are not defined. Kindly confirm the maximum losses.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. Please refer to sub-clause 7.3.13, vol.2 Part-2 of the bidding document. The provisions in the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
250.	Part 2, Sec – VI, Vol -2, PS, Ch-7, 7.3.2, 504 of 1309 Transformer transportation with N2 cushion	Due to safety hazard dry Air filled transportation is proposed in place of Nitrogen. Kindly confirm the acceptability of same.	The Provisions of the Bidding Document shall prevail.
251.	Part 2, Sec – VI, Vol -2, PS, Ch-7, 7.3.3, 504 of 1310 Cooling pump and accessories shall be provided by the Employer in future.	Kindly clarify.	The Provisions of the Bidding Document shall prevail.
252.	General	Detailed specification of 220/132kV is not given.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. Please refer to sub-clause 7.3.13, vol.2 Part-2 of the bidding document.
253.	Part2, Section VI, Vol-2, Chapter 8, Cl 8 Insulation over catenary and Feeder wire under all the Bridges, FOBs, ROBs and Over-line structures.	The location and length of all the bridges may please be provided.	Please refer Alignment Plans in Part-4, Reference Document.
254.	Part2, Section VI, Vol-2, Chapter 8, Cl 8.2.6 OHE structures on bridges	The location, cross section, length of these bridges may be provided.	Please refer item no. 11, Table no. 18.4.1, Vol. – 2, Part – 2 of the Bidding Document
255.	Part2, Section VI, Vol-2, Chapter 8, Cl 8.4 OHE Conductors – Contact wire	Contact wire will be AC type or BC Type may please specified. (Round bottom or Flat bottom)	The Provisions of the Bidding Document are self-explanatory and shall prevail.
256.	Part2, Section VI, Vol-2, Chapter 8, Cl 8.10.1 The cantilever assembly shall conform to EN 50119. The contractor may adopt the cantilever assembly conforming to RDSO / IR specifications/ design, if it meets the functional requirements of the project. In case the contractor offers any new Cantilever Assembly design, the same shall meet the proven design criteria as per	Considering the minimum sizes of conductor to be considered as per the bidding document, it is requested to modify the clause as under: "The cantilever assembly shall conform to EN 50119. "	The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	clause 4.4.2 of chapter 4 of this specification. Cantilever made of fiber shall not be used.		
257.	Part2, Section VI, Vol-2, Chapter 8, Cl 8.10.3 The proposed cantilever frames will sustain the normal and worst case loading conditions with a factor of safety not less than 2.5.	As per EN 50119, Cl 6.3, (Table 14) " Types of Structures and related load cases" only have to be considered. In view of the above, It is requested to delete the safety factor requirement of 2.5 from cantilevers.	The Provisions of the Bidding Document shall prevail.
258.	Part2, Section VI, Vol-2, Chapter 8, Cl 8.10.4 The cantilevers shall be designed such that they can be pre-assembled off site for delivery to site. FEA (Finite Element Analysis) of the Cantilever Assemblies shall be carried out and got approved from the Engineer.	Kindly elaborate.	The provisions in the Bidding Document are self-explanatory and shall prevail.
259.	Part2, Section VI, Vol-2, Chapter 8, Cl 8.4 OHE Conductors – Contact wire	As per EN 50119, the maximum temperature rise is 80DegC, whereas the specification requires 100DegC. Kindly clarify.	The Provisions of the Bidding Document shall prevail.
260.	PS 2.2.6(1)(b) There are 32 level crossing gates in New Pilkhani – Sahnewal section. 25 of these LC gates are situated in Block Sections and rest 7 LC gates are in the Station Sections of Indian Railways stations. All the 32 LC gates shall be required to be interlocked. The details of these level crossings are available at Appendix-8 of GS, Vol.1, Part 2, Section VI.	As per the Para no 2.2.6 (1) (b) There are 32 LC gates in New Pilkahani –New Sahnewal section. Out of this 7LC gates are in the station section of IR.SO please provide details for the LC gate no for IR , Location ETC.	Please Refer clause 7.2 of ITB Part –I sec.1.and also refer document under Part -4.
261.	PS 2.2.6(1)(i) Another warning buzzer shall also sound when the train reaches a suitable Distance (approximately 4 km in rear of the gate) (approach locking track section) on	As per the Clause PS 2.2.6(1)(i) As contractor will have to get approval for LC gates by IR, in view of the fact that we will select the interlocking system EI or Relay based which is most suitable for existing IR installation. Please confirm	Electronic Interlocking System shall be used at LC Gates.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	DFCCIL lines as per approved GWR by IR. At this stage, if the gate is in closed position, track locking of the booms shall take place so that the booms cannot be opened thereafter till the passage of the train from the level-crossing. The route will get automatically released with the passage of train past the nominated track sections ahead of the gate signal. The gateman will then be free to open the gate.		
262.	All	Normal Breaking distance of Freight train is not mentioned in the Tender Contract. Please inform.	The system shall be designed to operate correctly and safely for 25 tonne axle load operating at train speed of up to 100 Kmph which inter-alia provides braking distance of more than Two kilometre.
263.	2.2.6(1)(c) For the 32 LC gates to be interlocked, Gate Huts including Signalling Equipment Room and Signalling Power Supply Equipment Room for IR are being constructed under Contract Package 301. However Construction of Signalling Equipment Room and Signalling Power Supply Equipment Room at all LC gates for DFC lines are in the scope of this contract. The IR gateman will operate the LC gates from the new gate lodges as per 'Working methodology for LC gates' at Appendix 1.	In the drawing no. GC/DFCC/GL/505/R1 Only SER and gateman's Cabin is Shown. Battery room is missing. Who will construct it? Please confirm (Please note battery room is also not shown IR building)	Battery room shall be considered as Part of Signalling Power Supply Equipment Room.
264.	2.2.6(1)(n) Arrangement for fixing of Safety chain and hand operated Safety boom (Sliding boom) shall be provided for use in case of failure of lifting barriers. Indication for fixing of safety chain and hand operated boom shall also be provided on the panel of Station Master. An arrangement shall be provided for taking 'OFF' the relevant gate signal when the safety chain and	When the safety chain and hand operated boom is properly locked and detected by system, in this case gate signal shall display YELLOW aspect- As per the latest Railway board Circular while using sliding boom no need to down grade the aspect to yellow. Please clarify	The system shall be designed as per provisions of IRSEM and G&SR with latest amendments.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	hand operated boom is properly locked and detected by the system. In this case, the gate signal shall display 'YELLOW' aspect.		
265.	1.3.1 General specification , Volume 1 Station Buildings, Depots, Staff Quarters, Residential Quarters and Service Buildings- The list of Station Buildings, Depots, Staff Quarters and Service Buildings falling in the Sahnewal – Pilkhani section and connecting IR stations	In Engineering plan DFCC scope of New Sarai Banjara is not clear from Drawing and Blue lines(DFCC work) are overlapped by red lines(IR work) Please clarify.	In Engineering Plan, no overlap of DFCC and IR lines has been found.
266.		In Engineering plan for New Pilkhani Blue color highlighted marking details are not Provided. Please clarify.	There is no Blue Color in the ESP. There is Purple color which has been referred in S. No. 12 of the Notes.
267.		New Jagadhari Workshop, New Shirhind, New MandigovindGarh, New Chawapail and New Khanna ESP Drawings are not Clear.	May please collect ESP drawings from DFCCIL office.
268.	2.2.6(2)(h) The Common Indication Panel for IR and DFCC lines shall be a Domino Type Control cum Indication Panel (CCIP), provided as per RDSO specification RDSO/SPN/186/2004 and procured as per Para 4.2 of this specification.	Page 957 Appendix 6 Signaling system Architecture, it is shown CCIP in the station Section gates .Please confirm whether the CCIP required in station section gates?	The system shall be designed as per provisions of IRSEM and G&SR with latest amendments.
269.	2.2.1(2) Absolute block/Slot working on single line connections between DFCCIL and IR stations shall be provided using Solid State Block proving by Axle Counter as per RDSO spec. RDSO/SPN/175/2012 version 3 or Latest or Block proving by Axle Counter using UFSBI as per RDSO spec. IRS: S105/2012. Wherever provision of Absolute Block working, as described above, is not operationally feasible, provision of Slot working, with all necessary safety features	As per the mentioned para and Page 957 Appendix 6 Signaling system Architecture, we have to provide UFSBI for block section. Can we replace UFSBI working by using our own interlocking system by keeping the same logic? Please confirm	Request not accepted. The provisions of the Bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	and counters, shall be considered.		
270.	2.2.3.(3)(c) The System design shall ensure that required integrity of safety related vital information is maintained during communication between EI and EI/Object Controllers and between EI and TMS at OCC. In this regard, the requirements for transmission of vital safety information, as laid down in RDSO/SPN/144/2006 and EN 50159 shall be followed.	Fail safe communication. Is required between TMS & EI as per 2.2.3(3) (c). But diagram at page no 957, Appendix -6 Signaling system architecture shows gate communication is through Data logger. Please clarify whether any information about the gate (in the block section) is Required for TMS?	The Signaling system architecture at Page no. 957 is an indicative diagram. However it is clarified that information about the Gate in block section shall be required for TMS.
271.	2.2.3 3)Technical requirements While the TPWS is not required to be installed by the Contractor but the Contractor should provide a socket/ termination board at all Signal posts. He should also demonstrate the ability of the system to permit the up gradation for incorporating TPWS at a later date. For this purpose the Contractor would be called upon to conduct the trials as identified in Annexure "C" of Appendix 3.	Please clarify if the socket/termination board is required for providing power supply to TPWS trackside equipment (LEU).	Please refer to Addendum no. 08 S No. 28 & 32.
272.		As mentioned TPWS is not required to be installed by the contractor – please clarify if the 01 set of onboard and 10 set of trackside are to be included in scope of work in this contract?	Please refer to Addendum no. 08 S No. 28 & 32.
273.		The trackside element LEU can control Balise up to 2.5 km only, thus if the distance between signal and relay room is more than 2.5 km what provision shall be made in the present contract. Does the contractor have to provide any additional contacts near location box at signal base in case the signal is at greater distance than 2.5km or spare cores for picking up of repeater ECPR from ECR at relay room	Please refer to Addendum no. 08 S No. 28 & 32.
274.		What is railway understanding asking for the Socket/termination board at signal post.	Please refer to Addendum no. 08 S No. 28 & 32.
275.		Since the trackside TPWS equipment (LEU) requires input from Interlocking - ECR input which are located in Relay room and not at signal post. Thus no additional effort is required in this tender. The	Please refer to Addendum no. 08 S No. 28 & 32.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		TPWS contract scope will have to include interfacing from these ECR relays.	
276.		How to demonstrate the ability of the system to permit up gradation.	Please refer to Addendum no. 08 S No. 28 & 32.
277.		Please rephrase the tender clause according to above requirements.	Please refer to Addendum no. 08 S No. 28 & 32.
278.	Annexure C of Appendix 3 Duration of field trail	Please provide the understanding of 01 set of On Board – Is this for 1 locomotive or 1 EMU Also provide the understanding of 10 set of Trackside –is this for 10 Signals/10 LEU etc?	Please refer to Addendum no. 08 S No. 28 & 32.
279.		Which specification for TPWS shall be followed and what are the performance requirements	Please refer to Addendum no. 08 S No. 28 & 32.
280.	Part 2, Section VI, Volume 3 Particular Specifications Signalling Works Clause no. 2.3.3 pg no. 792 While the TPWS is not required…… should also demonstrate the ability..... TPWS at a later date	What kind of provisions we need to have in software, hardware, installations other than provision of socket/ termination board at all Signal posts	Please refer to Addendum no. 08 S No. 28 & 32.
281.	Part-2, Volume 3, PS- Signalling work, 2.2.5.2.g The track-vacancy detection system in the station section on main line shall have Main system and Supervisory system.	Is Supervisory TVD System (double Detection) required for the Block section?	HASSDAC (Dual Detection) TVD System shall be used for block section /link lines.
282.	7.5.4.1 The VRS shall provide recording of stipulated voice conversations over Telephone System and Mobile Train Radio Communication System.	Kindly confirm if new VRS system needs to proposed for CP 304 or existing VRS system of CP-104, CP-105 & CP-203 can be expanded to cater to CP 304 requirement as well. Please confirm the subscriber count and Active subscriber ratio in case new VRS system needs to be proposed	Refer Clauses 7.3.9.1 & 7.3.9.2 of PS/Telecommunication Works. Also, please refer Addendum No. 08, Sr. No. 52.
283.	7.5.4.1 The VRS shall provide recording of stipulated voice conversations over Telephone System and Mobile Train Radio Communication System.	We understand VRS system for GSM-R package is independent of other packages. This is applicable on the all packages CP-104, CP-105, CP-203 & CP-304. Kindly confirm	Please refer Addendum No. 08, Sr. No 52.
284.	8.2.6.1, Point 2	Kindly confirm if IN needs to supplied as part of CP-304	Bidder's understanding is correct.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Network and Switching Sub-system (NSS) and its Sub system including Intelligent Network (IN) as per latest EIRENE Standards (FRS & SRS).	package. If yes, please provide detailed dimensioning parameters for the IN dimensioning	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
285.	8.2.6.1, Point 4 General Packet Radio Service (GPRS) : Hardware & Software	Kindly confirm GPRS needs to be supplied as part of CP-304 package. If yes, please provide detailed dimensioning parameters and sub components to be provided as part of GPRS network (SGSN, GGSN, FW, DNS, DHCP etc)	Bidder's understanding is correct. Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
286.	8.2.6.1, Point 5 Short Message Service Center (SMSC): Hardware & Software;	Kindly provide Number of subscribers, BHSM, Storage requirements for SMSC dimensioning.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
287.	8.3.6.5, Point 3 The following call related services are to be supported for each type of mobile radio: Restriction of display of user identity	This is a network feature and request to remove from mobile handsets	Provisions of Bidding Document shall prevail.
288.	8.5.1, Point 6 Voice Recording System (VRS) interfaced to above Network Sub-Systems (NSS) for recording voice communications taking place on RDC, Cab Radio and OPH. All voice communications of Radio Dispatcher Console, Cab Radio and Operation Radio shall be recorded by the Voice Recording System (VRS) being provided under this Contract. The Contractor shall be responsible for integration/reconfiguration, of Voice Recording System (VRS) being provided under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of this contract.	We understand VRS need not be supplied as part of Package 304 supply. Existing VRS needs to be integrated with new Network elements being proposed as part of Package 304. Kindly confirm	Please refer Addendum No. 08, Sr. No. 55.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
289.	8.6.4 Wherever the equipment of MTRC System being provided under Contract Packages CP-104, CP-105 & CP-203 are being upgraded/augmented/reconfigured, this up gradation/augmentation/reconfiguration shall not in any way utilize available provision of expansion.	We understand complete new MTRC system needs to be proposed for CP-304 package. Kindly confirm	Provisions of Bidding Document are sufficiently clear.
290.	VolPg 280 of 1309 Cl 6.21.5 The Engineer shall require the Contractor to submit and install one copy of all the applicable software as used by the Contractor for the Design excluding the train and traction Power Simulation Computer Program, duly licensed in the name of Employer and the Engineer and in accordance with Employer's Requirements of this specification including in-house software program / worksheets developed by the Contractor, computer input and program logic prior to the acceptance of any computer output. The Contractor shall submit the same to the Engineer without any additional cost	Please confirm, the "the train and traction Power Simulation Computer Program" is not part of this requirement.	Yes, the bidders understanding is correct.
291.	Vol 1 Pg 294 of 1309 8. 15.1.8.15.2.8.15.3 TYPE TEST	Please confirm that type tests for equipment with comparable rating e.g. circuit breaker or current transformer or auxiliary transformer as required by international standard does not need to be repeated for DFCC project and content of test shall be in accordance to the relevant standard	The Provisions of the Bidding Document shall prevail.
292.	Vol2 pg 454 of 1309 Cl 3.1.3 The scope of work shall include any other associated Works related to satisfactory completion of the Work as defined above and under this specification	Please explain "other associated Works" Please provide examples.	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.
293.	Vol2 pg 455 of 1309	Please confirm that fault conditions are not to be considered in	Please refer Clause 8.20.1 and

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Cl 3.2.4(9) Rail accessible &Touch Potential within safe limits under Normal & Fault Conditions including configuring earthing and bonding for the entire system (including those on adjacent structure and IR lines running parallel to DFC alignment); determination of sizes / Intervals of interconnection between AEW and BEC as required and their connection to mast/earth-station and rail without any compromise in safety of public/ Railway maintenance personnel even in case of OHE Short Circuit Fault while ongoing discontinuity in rail track system due to hair crack(s) as well as discontinuity in AEW;	adjacent structures and IR lines. Please confirm that fault conditions as mentioned "discontinuity in AEW" OR "discontinuity in rail track system" are to be considered as single faults (n-1) on a healthy system. In case multiple faults are to be considered, please define in detail. Please define "discontinuity in rail track system"; how many discontinuities are there in one section (from TSS to SP) with two tracks / 4 running rails.	8.20.3 of Vol-2, Part-2 of the Bidding Document. The provisions in the Bidding Document are self-explanatory and shall prevail.
294.	Vol2 page 457 of 1309 3.3.1 (4) Execution of Cables, Cable containment system and feeder network . 25 kV AC cable/ overhead connections from TSSs/ SPs/ SSPs as required to OHE. All connections to across the track OHE from TSS/SSP/SP / shall be through Cables laid under the track (duly protected) obviating the need of the running of Overhead Cross feeders across the tracks and any need of both lines' power block for maintenance.	Please confirm all connections from TSS/SSP/SP to running rails or OHE are to be realized by power cables. Please confirm Overhead Cross feeders across the tracks are not to be considered at all. Please confirm that maintenance requirements are not subject to this chapter or confirm that "any needs" shall be read "needs in conjunction with power cables".	The Provisions of the Bidding Document shall prevail.
295.	Part 2 Section 6 volume 2 PS page no 456 of 1309 Clause No.3.3.1.1.V.a	As per clause for Jagadhari TSS Gantry for 220kV outgoing feeders to be connected with IR and gantry for termination of 132 kV transmission line of IR along with associated switchgear and outgoing feeder arrangement as required is in the scope of the bidder whereas per clause no. 3.3.5(1) (d) the item of work excluding from scope of work includes the gantry of TSS however shall be made by the contractor for termination of 220 kV incoming and outgoing feeders of PGCIL/IR/power supply authority. There is a contradiction in the scope of work as per Clause No.3.3.1.1.V.a and clause no. 3.3.5(1)(d) it is requested	This is no any contradiction between the clauses. The provision of gantry of the TSS is in the scope of CP-304 contractor.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		to amply clarify the scope of work	
296.	Vol 2 pg 464 of 1309 Cl No. 3.3.4 Proof Checking & Design Validation through an Independent agency	Please provide list of preferred agencies if any. Please define the design documents to be verified	The Provisions of the Bidding Document shall prevail.
297.	Vol 2 pg 494 of 1309 Cl No.6.9.8 The protection scheme shall meet to the requirements of EN 60076, EN 50119, IE Rules and ACTM and include the following protections as minimum but not limited to:	Please advise if a fully redundant protection system or only back-up over current protection is required for 132kV / 220kV protection system.	The provisions in the Bidding Document are self-explanatory and shall prevail.
298.	Vol 2 pg 494 of 1309 Cl. 6.9.8 (a) 220/132kV In-coming feeder from grid sub-station to TSS - Line differential protection as required - Under Voltage	Please confirm that both functions can be implemented in same relay, please clarify requirement for redundancy (if any) and back-up protection (if any) Please clarify who will provide Line differential protection at utility end and FO or pilot wire connection	The provisions in the Bidding Document are self-explanatory and shall prevail.
299.	Vol 2 pg 494 of 1309 Cl. 6.9.8 (e) Main Traction Transformer Protection - Over current Instantaneous / IDMT - Restricted Earth fault (REF) - Differential Protection	Please confirm the functions may be implemented in one protection relay Please confirm "Restricted Earth fault (REF)" may be not applicable depending on transformer vector group or may be part of Differential Protection	The Provisions of the Bidding Document shall prevail.
300.	Vol 2 pg 495 of 1309 Cl.6.9.8(f) 55/ 2x25kV LV side Transformer Protection - Over current Instantaneous / IDMT - Differential Protection	Please confirm LV side Transformer Differential Protection may be implemented in the "Main Traction Transformer Protection" relay	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.
301.	Vol 2 pg 503 of 1309 Cl 7.3 220/132 kV power Transformer. The referred clause salient feature of power	It is requested to please specify the vector group of the power transformer.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	transformer has been depicted but nowhere vector group of the power transformer has been indicated		of the contractor. The Provisions of the Bidding Document shall prevail.
302.	Vol 2 Pg 528 of 1309 8.20.4 part 5(Separate and Distinct Earth Station for Lightning Arrestor)Work shall be taken up according to the approved Earthing & Bonding Plan prepared by the contractor and shall include as under:	Please note that to minimize EMC effects of lightning impulses the earth path from surge arrester to earth shall be as short as possible and the earthing resistance shall be reasonably small. Please confirm that preferably the existing earth system shall be used and only if not available a Separate and Distinct Earth Station.	The provisions in the Bidding Document are self-explanatory and shall prevail.
303.	Vol 4 5.1.1 The OFC System shall be a highly reliable system since it shall be the primary means of communications between OCC…	Please suggest the number of SDH Nodes to be considered in the BOM. Also indicate the number of SDH nodes i.e. STM-16 to be considered in First network and STM-4 to be considered in Second network.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
304.	5.1.3 The OFC System shall be capable to transport all of the user communication requirements. The OFC System shall provide sufficient bandwidth to cater for the communication requirements of various systems under this Contract as well as outside this Contract and shall provide an additional spare bandwidth of at least 50% of the total used bandwidth for future system expansion.	As per the clause, you require 50% Spare bandwidth. We are proposing STM-16 for First network and STM-4 for second network. Kindly clarify the Bandwidth is required in terms of STM-16 / STM-4 or in terms of number of SDH Ports.	Provisions of Bidding Document are sufficiently clear.
305.	Vol 4: 5.5.1.1 (6 Optical link budget calculations for all the transmission links;	Please indicate the distance between the stations i.e. for the first network (STM-16) and for the second network (STM-4).Distances are required to calculate the link engineering.	Please refer Part 4 of the Bidding Document.
306.	Vol 4: 5.5.1.1 (10) The details of the synchronisation network design and a synchronisation plan which describes the fall back arrangement,	Request you to please provide the indicative network diagram with provision of First network and second Network.	Bidder/Contractor has to propose his own design and equipment based on requirements given in the Bidding Document.
307.	Vol 4: 5.5.3.3(7)	It is mentioned in the tender document, Clause no. 5.3.7.7. that The Flexible Access Multiplex Equipment shall be provided with	Provisions of Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	1+1 Redundancy for E1Channels. 1+1 redundancy for voice and data is not feasible in case of Flexible Access Multiplexer. Neither it is required as per the requirement Both the statement are contradictory. Request you to Kindly amend or delete this clause from tender.	
308.	Vol 4: 5.5.3.3(10 e) Nx64 kbps synchronous data interfaces complying with ITU-T Rec. V.11 andV.35 interface; etc.…	V.35 etc interfaces is not required in DFCCIL requirement. Kindly amend or delete this clause from tender.	Provisions of Bidding Document shall prevail.
309.	Vol 4: 5.5.3.4(4) The NMS shall be equipped with a proven real-time, multi-tasking operating system to support centralised network management of the OFC equipment …..	Network management System for the SDH and PDH are different with Different hardware and different software.	Bidder has not referred to correct Para, which in this case is 5.5.3.4(3) instead of 5.5.3.4(4) Network management System for the SDH and PDH can be on same hardware or on different hardware.
310.	Laptops for maintenance….	Can we provide the same laptops loaded with different sub-system management software.	Provisions of Bidding Document shall prevail. Please refer Clause 7.5.5 of PS/Telecommunication Works.
311.	Redundancy of NMS	Redundancy of NMS for each sub-system is required. But there is not backup OCC. Can we proposed single NMS for each sub-system	Provisions of Bidding document shall prevail.
312.	Vol 4: 6.1.9 At Junction Stations & Crossing Stations, Wi-Fi Facility, compliant with IEEE 802.11g Standards shall be provided for WAN Connectivity to users (which also include drivers of passing trains) via Wireless Enabled Devices and Equipment. A minimum of 10 simultaneous users may use the Wi-Fi Connectivity at Stations. This Wi-Fi Facility shall as a minimum cover Station Buildings and EDFC Tracks up to 500 meters in both directions	1. Kindly provide the inputs wether you need Licensed band and Unlicensed band for wifi. 2. Kindly provide the central point on which coverage of 500 meters is required. 3. Please provide the total distance for wi-fi coverage on platform, and both sides of platform also.	Unlicensed band shall be used for wifi facility. From center of station building. Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
313.	Vol 4: Chapter-11 VIDEO SURVEILLANCE SYSTEM REQUIREMENTS	What would be the backbone network for CCTV System.	It should be provided using Data networking System.
314.	Vol 4: 9.1.3 The synchronized time information shall be provided to other interfacing systems via the OFC System. Synchronization of the time information of other systems shall be achieved by means of the Network Time Protocol (NTP)	Kindly clarify how synchronization of OFC equipment is providing from NTP based clock.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
315.	Vol 4: Chapter-10 VHF Communication system	Kindly provide the location of installation of tower.	Provisions of Bidding Document are sufficiently clear. Please refer clause 10.1.1.3 of PS Telecom.
316.	Vol 4: Chapter-10 VHF Communication system	Kindly provide the technical specifications i.e. safety factor, overturning factor etc for VHF Towers.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
317.	Vol 4: 12.2.2 Provision of suitable Earth Leakage Detection and Alarms shall be made individually at each location (OCC, Station, Auto Signal Location, LC Gate Location, etc.).	Earth leakage detection is not required in Telecom equipments i.e. equipments running on -48VDC are already earthed. Hence this will always give a False alarm. Request you to Kindly amend or delete this clause form tender.	Wherever -48V DC is not being used, earth leakage detector and alarm shall be provided.
318.	Vol 4: 5.3.9.11(7) A summary alarm shall be provided at the rack top to indicate the alarm status of any element within the rack. The summary alarm shall be reset automatically upon the alarm is cleared.	Summary alarm is not feasible. Kindly amend the clause.	Please refer Addendum No. 08, Sr. No. 42.
319.	Part 2, Section VI, Volume 4; Clause 8.2.2 However in Sahnewal-Ambala-Khurja section of DFCCIL where the track alignment of DFCCIL is taking a detour from	In our opinion ….Sahnewal-Ambala-Khurja…should be replaced by Sahnewal-Ambala-Pilkhani	Bidder's understanding is correct.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Delhi-Ambala-Ludhiana section of IR and cannot be served by BSSs of Delhi-Ambala-Ludhiana section of IR, BSSs of DFCCIL shall be provided by Contractor.		
320.	Part 2, Section VI, Volume 4; Clause 8.2.3 NSS for MTRC system shall be provided by the Contractor. This NSS shall be provided at OCC at Allahabad or any other location as identified by the Engineer at the time of execution stage. This NSS shall be integrated with IR NSS located at New Delhi. This NSS shall have adequate capacity to cater for the requirement of entire EDFC MTRC system.	We understand that by the word "integrated" DFCCIL means "interoperable" as mentioned in clause 8.4.6.4 .Kindly clarify. Also please specify the Make, Model and Version of the NSS of Indian Railways located at New Delhi	Please refer Addendum No. 08, Sr. No. 53. The information/details may be obtained by the successful bidder.
321.	Part 2, Section VI, Volume 4; Clause 8.4.6.1 Intelligent Network (IN), Network Sub System (NSS) and Base Station Subsystem (BSS) being provided under this contract shall comply with the inter-operability requirements for mobile equipment (Cab Radio & Hand Portable as per EIRENE specifications) to be supplied under this contract, in use over Indian Railways and to be supplied for other GSM-R networks of DFCCIL.	Requirement is not clear, kindly elaborate	Please refer Addendum No. 08, Sr. No. 56.
322.	Part 2, Section VI, Volume 4; Clause 8.4.6.3	There is no requirement for hand portables To have inter-operability certificate from recognised/notified body.	Please refer Addendum No. 08, Sr. No. 57.
323.	Part 2, Section VI, Volume 4; Clause 8.5.1.1 (7) Short Message Service Centre (SMSC) interfaced to above Network Sub-systems (NSS) for exchange of text messages.	As requirement here is for Short Message Service Centre (SMSC) to be interfaced with R4 Network Sub-systems (R4-NSS) of CP-304, therefore it is recommended that there should be provision for supplying of new SMSC only. Please provide the SMSC equipment finalized for CP-104, CP-105 & CP-203	Provisions of Bidding Document shall prevail. The information/details may be

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	SMSC is being provided under this Contract. The Contractor shall be responsible for integration/reconfiguration of SMSC provided under Contract Package CP-104/ Contract Package CP-203:		obtained by the successful bidder.
324.	Part 2, Section VI, Volume 4; Clause 8.5.1.1 (6) Voice Recording System (VRS) interfaced to above Network Sub-Systems (NSS) for recording voice communications taking place on RDC, Cab Radio and OPH. All voice communications of Radio Dispatcher Console, Cab Radio and Operation Radio shall be recorded by the Voice Recording System (VRS) being provided under this Contract. The Contractor shall be responsible for integration/reconfiguration, of Voice Recording System (VRS) being provided under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of this contract. & Clause 8.3.17 All voice communications of Radio Dispatcher Console, Cab Radio and Operation Radio shall be recorded by the Voice Recording System (VRS) being provided under this Contract Package. The Contractor shall be responsible for supply or up gradation/reconfiguration, if required, of Voice Recording System (VRS) being provided under Contract Package-104, Contract Package CP-105 & Contract Package - 203.	As requirement here is for Voice Recording System (VRS) to be interfaced with R4 Network Sub-systems (R4-NSS) of CP-304, therefore it is recommended that there should be provision for supplying of new VRS only. Please provide the VRS equipment finalized for CP-104, CP-105 & CP-203.	Please refer Addendum No. 08, Sr. No. 55. The information/details may be obtained by the successful bidder.
325.	Part-2, Vol-4, Cl: 4.6.2	Typically Telecom Switching equipment is installed in air-	Provisions of Bidding document

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Unless otherwise specified, all indoor Telecommunication Equipment installations shall be designed for operation continuously in environmental temperatures range of -5°C to +55°C	conditioned environment and supported temperature rating is from 0 to +40°C. IT equipment (Servers etc.) requires even more stringent +35°C. Hence getting all telecom equipment to support -5°C to +55°C is not practically feasible. This requirement may be restricted to only Outdoor installed equipment.	shall prevail.
326.	Part-2, Vol-1, Cl: 2.16.5 (1) Class B1: Equipment Rooms with air-conditioning with possibility of failure of air-conditioning for duration of 2 hours or more at a time.	Please specify the upper limit on duration of failure of air-conditioning equipment.	Provisions of Bidding document shall prevail.
327.	Part-2, Vol-1, Cl: 2.16.5 (2) Requirements for Class A: Temperature Min 5°C to Max 35°C, Humidity Minimum 0%, Nominal 65%, Maximum 95% (Non Condensing)	Typically Telecom and IT infrastructure rooms are air-conditioned such that humidity is well maintained much below the specified 95%. IT equipment being installed in Equipment room typically supports 80% humidity. Hence, 95% Humidity limit clause may be reduced to 80% Non Condensing.	Provisions of Bidding document shall prevail.
328.	Part-2, Vol-1, Cl: 2.16.5 (2) Requirements for Class B1: Temperature Min -2.5°C to Max 45°C, Humidity Maximum 100% (Non Condensing)	Class B1 is defined as Air-conditioned Telecom Equipment Room. Hence, Humidity in the equipment room is well controlled. In addition, none of the Telecom and Switching equipment meant for deployment in Indoor Telecom Equipment Room support 100% Humidity (meant for Outdoor or Buried environment – Class-C and Class-D respectively). Hence, the Maximum Humidity requirement may be reduced to 90% Non Condensing for Air-conditioned rooms.	Provisions of Bidding document shall prevail.
329.	Part-2, Vol-4, Cl: 5.5.3.3 (1) Flexible Access Multiplex Equipment shall conform to ITU-T Rec. G.703, G.704, G.706, G.707, G.708, G.709, G.711, G.732 and G.823.	Please note that the following standards: ITU-TG.707, ITU-T G.708 and ITU-T G.709 are applicable to SDH equipment. Hence, they may be removed as requirements from Flexible Access Multiplex Equipment.	Only applicable standards shall be used for Flexible Access multiplexer while designing the Telecom System.
330.	Part-2, Vol-4, Cl: 5.5.3.3 (8) The optical line interfaces shall conform to ITU-T Rec. G.957	The Flexible Access Multiplexer is required to interface with SDH equipment at E1 level (Electrical interface). Similarly, it is required to provide sub-2Mbps interfaces (Voice interfaces, RS232, etc.). All of these are Electrical interfaces. Hence, there is no requirement for Optical Interfaces and requirement for ITU-T G.957 is not relevant. Please clarify under what circumstances, this standard will be applicable for Flexible Access Multiplexer.	Only applicable standards shall be used for Flexible Access multiplexer while designing the Telecom System.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
331.	Part-2, Vol-4, Cl: 5.5.3.3 (6) Adequate numbers of Primary Multiplexers shall be provided so that there is no loss of Communication at any point of time.	Normally, loss of communication is prevented by building Controller card and Power supply redundancy in the equipment. Please clarify how "Adequate number of Primary Multiplexers" shall be computed.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
332.	Part-2, Vol-4, Cl: 5.5.3.3 (7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	Please confirm that "1+1 protection for all channel level (VF, Data, etc.) with Automatic Switchover" corresponds to SNCP equivalent functionality at the E1 backhaul link.	Provisions of Bidding Document are sufficiently clear. Please refer Clause 5.3.7.7 of PS/Telecommunication Works, Part 2, Section VI, Vol.4
333.	Part-2, Vol-4, Cl: 5.3.5.6 Flexible Access Multiplexer or Primary Order Multiplexer shall have minimum 50% spares for all types of Channel Circuits (Minimum 1 for all types of Channel Circuits).	Please clarify what is the meaning of 50% spares for all types of channels – Is the contractor required to provide 50% spare channels between nodes at the backhaul link?	The Bidder/Contractor is required to provide 50% spare channels between Nodes.
334.	Part-2, Vol-4, Cl: 5.3.3.2 The First Network shall be formed by two optical fibre cables 24F (min),preferably one laid along the up-track and the other laid along the down-track ensuring route diversity, from Sahnewal to Pilkhani and terminated on Optical Distribution Frames (ODFs) in TERs at Stations. Employer shall hire from M/S RCIL required STM-16 Bandwidth for the section between Pilkhani POP of RCIL and Khurja POP of RCIL. All works from New Pilkhani TER to RCIL POP at Pilkhani shall be carried out by Contractor. Further all works from M/s RCIL POP at Khurja to TER at New Khurja station shall be carried out by the Contractor.	Please clarify if "All Works" include Augmenting / installing RCIL Equipment? Please clarify the interface point and scope of work of the contractor and RCIL respectively.	The provisions of the Bidding Document are sufficiently clear.
335.	Part-2, Vol-4, Cl: 5.3.4.4 Each SDH Node of the First Network shall be at least STM-16 level or higher in the	Please clarify if it is necessary to provide the STM-16 Nodes at RCIL POP at Pilkhani and Khurja. Instead it may be possible to extend the connectivity over Optical fiber link from New Pilkhani and New Khurja.	Provisions of Bidding Document are sufficiently clear. Employer will ensure power

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	SDH hierarchy. The exact level of SDH Node in SDH hierarchy shall be determined by the Contractor to meet the bandwidth requirements for sub-systems under this Contract with 50% Spare Capacity. SDH Node of First Network shall be equipped with minimum 2XSTM-16o and 4XSTM-4o Interfaces. For providing connectivity between New Pilkhani station and RCIL POP at Pilkhani, STM-16 nodes shall also be required to be provide that RCIL POP at Pilkhani by the contractor. This STM -16 nodes shall be integrated with RCIL equipment at RCIL POP at Pilkhani for carrying over the STM-16 traffic to RCIL POP at Khurja. Further STM -16 Nodes shall also be required to be provided by the contractor at RCIL POP at Khurja. These STM-16 nodes shall be integrated with RCIL equipment at RCIL POP at Khurja and with STM-16 nodes provided at New Khurja station under Contract Package CP-104 & Contract Package CP-105. These SDH nodes of RCIL POP at Khurja and New Khurja station shall be connected to each other in redundant architecture with linear multiplex section protection or SNCP by extending ring being provided under Contract Packages CP -104 & CP-105. With above integration it shall be possible to make provisioning of VC4 and VC12 across SDH node provided under this Contract as well as under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of various systems/subsystems under this contract.	If it is necessary to provide STM-16 Nodes at RCIL POPs, please share clear interface requirements between RCIL and the contractor in terms of power availability, Air-conditioning, Rack space, etc.	availability, Air-conditioning, Rack space, etc. at RCIL POP to the successful bidder.
336.	Part-2, Vol-4, Cl: 5.3.9.13 (2) The NMS shall allow the user to configure all existing and new circuits with the	Most of these features correspond to NMS of SDH equipment. Does this entire configuration also apply to NMS of Flexible Access Multiplexer?	Only applicable functions shall apply to NMS of Flexible Access multiplexer while designing the Telecom System.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	following functions: (a) frame position allocation (b) interface port allocation; (c) low speed (64 kbps & lower) interface cards configuration; (d) lower order multiplex time slot allocation and routing; (e) higher order multiplex/cross-connect switch configuration; (f) logging of circuit routing data logged into configuration database; (g) operator's configuration checks function prior to main and backup database update; and (h) the OFC links from junction stations to the adjacent station of IR		
337.	Part-2, Vol-4, Cl: 5.3.9.13 (2) The NMS shall allow the user to configure all existing and new circuits with the following functions: (a) frame position allocation (b) interface port allocation; (c) low speed (64 kbps & lower) interface cards configuration; (d) lower order multiplex time slot allocation and routing; (e) higher order multiplex/cross-connect switch configuration; (f) logging of circuit routing data logged into configuration database; (g) operator's configuration checks function prior to main and backup database update; and (h) the OFC links from junction stations to the adjacent station of IR	SDH NMS cannot monitor the OFC links from junction stations to the adjacent station of IR unless there is an SDH connectivity established. Please clarify the type of monitoring required.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
338.	Part-2, Vol-4, Cl: 9.1.2 This Synchronized Time Information shall be used to synchronize slave clocks which	Please clarify the location of offices since there is no mention of "Offices" in Clock Schedule mentioned in PS Clause 9.3.5	The location of offices shall be decided by the Engineer.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	shall be located at Stations, Depots & Offices in Sahnewal – Pilkhani of EDFC Phase-III.		
339.	Part-2, Vol-4, Cl: 9.5.3.9 The Master Clock System shall be capable of working from 230 Volts +/- 10% AC 50 Hz Power Supply.	The Master Clock Unit and Sub-Master Clock Units will be deployed in the TERs and stable battery backed up -48V DC supply is present at TER. Therefore, DC may be permitted as a source for Master Clock System. Similarly, the Clocks may be powered by POE. Hence, these options may be permitted.	Provisions of Bidding Document shall prevail. Also refer Addendum No. 08, Sr. No. 58.
340.	Part-2, Vol-4, Cl: 13.3.6 Provision of Lighting, Power Outlets, Fans, Ventilator and Air-Circulation shall be made in accordance with Interface Requirements as mentioned in Chapter-10 of General Specification.	Responsibility of Telecom Contractor is not clear since E&M interface is not defined. Please clarify.	Please refer Part 2, Vol.5: E&M and Associated Works of Bid Document.
341.	Part-2, Vol-4, Cl: 13.3.13 Smoke and Fire Detection System as per details in Chapter- 4 of this Particular Specification shall be provided in Telecom Equipment Rooms and Telecom Power Supply Equipment Rooms, with facility of Alarm Generation at station and OCC.	Responsibility of Telecom Contractor is not clear since E&M interface is not defined. Please clarify.	Please refer Part 2, Vol.5: E&M and Associated Works of Bid Document.
342.	Part-2, Vol-4, Cl: 13.7.6 Outdoor Signalling Cables and Outdoor Telecommunication Cables shall not be laid in same trench. If it is inescapable to lay Signalling Cables and Outdoor Telecommunication Cables in same trench, suitable separation shall be provided between the two as per the requirement of PS-Signalling Works, IRSEM and Indian Railway Telecommunication Manual and approved by the Engineer	Most of the time, separate trenches for Signaling and Telecom are not feasible due to lack of space availability. Hence, It is suggested that to maintain uniformity across project, the outdoor Signalling and Telecom Cables in same trench may be permitted at all locations.	Provisions of Bidding document shall prevail. Also Please refer Part 2, Vol.3: Signalling Works of Bid Document.
343.	Part-2, Vol-4, Cl: 13.11.2.5 The earthing methods, design and details shall be submitted to the Engineer for review and approval.	Though mentioned in the PS Telecom, this shall be the responsibility of E&M contractor. Please clarify.	Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
344.	Part-2, Vol-4, Cl: 6.4.3.3 To improve the availability of Data Networking System various measure such as Resilient Ethernet Protocol, Pseudo wire Redundancy, Link Aggregation (IEEE 802.3ad) on Network/Access Ports, Rapid Spanning Tree Protocol (IEEE 802.1w), Multiple Spanning Tree Protocol (IEEE 802.1s), MPLS-TE Fast Reroute etc. as required shall be implemented.	Resilient Ethernet Protocol is CISCO proprietary protocol and is not an open standard protocol. Hence this requirement is in conflict with requirement mentioned in Clause 4.1.2 (2). Please clarify.	Please refer Addendum No. 08, Sr. No. 45.
345.	SHE Manual Clause 3, 3.1.1 MOU	is it a separate document or part of contractual agreement	This is part of Bid document.
346.	SHE Manual Clause 6.5, 6.5.1 No contractor shall engage SHE manpower from any outsourcing agencies in which case the effectiveness would be lost. All SHE manpower shall be on the payroll of the main contractor only and not on the payroll of any subcontractor or outsourcing manpower agencies etc. This condition does not apply to positions like traffic marshals who are engaged almost on a daily requirement basis.	We have a frame contract agreement with a business partner to provide professionals with requisite qualification, when deputed at site the safety officer's empowerment shall be ensured through an organization chart which will prescribe his reporting structure complying with contractual requirement will this be accepted? However the key persons like Chief SHE Manager, Electrical SHE Manager shall be on Company's direct roll	Provisions of Bidding document shall prevail.
347.	SHE Manual Clause 53.Felling of Trees The Employer shall arrange permission from the forest department for trees to be felled or transplanted. It is to be noted that permission of higher authority may be required for tree felling in case the same are within specially notified area.	Whose scope is the arrangement of permission if the tree felling is in special zone?	The Employer shall arrange permission.
348.	Environmental Management Framework Environment Assessment Procedures	Do we have to do a separate Environment Impact assessment for the Scope of work, or can we get the EIA from DFCC for the route	The contractor shall develop its own Environment Management Plan in accordance with Employer's EIA report.
349.		There is no interconnection between IR line to DFCC line for 3 stations namely; 'NEW SHAMBHU', 'NEW SHIR HIND', 'NEW CHAWA PAIL' but in your contract package it is mentioned that these are junction station.	The drawings of the stations are amply clear as in all the 3 stations mentioned by the Bidder, the proposed DFC Line have connections with the existing IR

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
			Line.
350.	Section II Bid Data Sheet ITB 30.2 Foreign currency requirements shall be indicated only in respect of those goods and services which the bidder expects to procure from offshore	Kindly confirm if payment can be made for such foreign currencies against sight irrevocable Letter of Credit as standard practice	The Payments will be made as per payment procedure after achieving the stage identified in Price Schedules provided in Section IV of the Part – 1 of the Bidding Document. The Bidder may please note that no payment shall be made against the Letter of Credit.
351.	Section II Bid Data Sheet ITB 30.1 The prices shall be quoted by the Bidder entirely in Indian Rupees (the name of the currency of Employer's country) and further referred to as "the local currency". A Bidder expecting to incur expenditures in other currencies for inputs to the Works… The rates of exchange as mentioned above shall apply for all payments under the Contract so that no exchange risk will be borne by the successful bidder.	We seek clarity on the number of days (time) between the date of invoice to date of receipt of payment for all non LC payments	Please refer to the reply at S. No. 350 which clarifies the issue.
352.	Section IV Bidding Forms Price Schedule 2.0 Apportionment of Contract Price for Payments According to Cost Centres	We request DFCCIL to keep the Permitted percentage range of contract price per cost centres& sub-cost centres to be kept flexible to make the offer competitive.	Request not accepted. The provisions of the Bidding Document shall prevail.
353.	Section IV Bidding Forms Price Schedule 2.0 to 2.3	We request DFCCIL to share with us the Excel soft copy versions of the price schedules	Request not accepted.
354.	Section IV. Bidding Forms PRICE SCHEDULE 2.2 & 2.3 As per given clause, supply portion is around 65%-75% of these cost centres& payment of supply will be made against delivery of material at site, thus impacting cash flow adversely.	We would request you to please amend payment for supply as below: Supply of Material- FAT/Dispatch- 40% Supply of Material- Receipt at site- 40% Erection- 15% System Acceptance- 5% This will lead to improvement in negative aspect of cash flow & same is widely accepted in industry	Request not accepted. The provisions of the Bidding Document shall prevail.
355.	Part 1, Chapter 3, Clause 3.15.2 Access to Site	Clear Access Dates, 1. Chainage wise access of Embankment, Track etc	Refer to Addendum No. 08, S. No. 70.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	The Contractor will be given access to the Site in accordance with the Contract. The Contractor shall manage the execution within allocated Right of Way (ROW).The Contractor shall coordinate with contractor of package CP-302 for the same	2. Access dates for Level crossing area etc 3. Access for Station building, IMD, IMSD etc Detail Civil Planning for work completion, as this contract will be dependent on Civil contractor work front provision	
356.	Part 2, Section VI, Volume 2 PS 10.2 (1) Remote monitoring and control of 220/132 KV TSS and IR arrangement	Does the Indian Railways (IR) permits to monitor and control there equipment's??	The provisions in the Bidding Document are self-explanatory and shall prevail.
357.	Part 2, Section VI, Volume 2 PS 10.2 (7) Monitoring of Power supply status of Auxiliary Transformers (AT's) Provided enroute through Traction Power SCADA system	Are these Signalling transformers which are provided in Auto hut locations?	The Provisions of the Bidding Document shall prevail.
358.	Part 2, Section VI, Volume 2 PS 10.2 (14) Operator work station at OCC for Sahnewal – Pilkhani section	Number of work station is not provided.	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.
359.	Part 2, Section VI, Volume 2 PS 10.2 (16) Separate Communication Server with 100% redundancy for Sahnewal - Pilkhani – Khurja section	What is the purpose of Server since Communication will be done through SCADA/FEP server separate communication is not required.	The Provisions of the Bidding Document shall prevail.
360.	Part 2, Section VI, Volume 2 PS 10.2 (18) Training Simulator with minimum 5 no training console at OCC for training of SCADA operator and maintenance staff. The training simulator setup includes minimum training RTU, Training server, Trainer console and Trainee console.	1) Why 5 no's of Training console are required? 2) Does DFCCIL require Training server in redundant configuration?	The Provisions of the Bidding Document shall prevail.
361.	Part 2, Section VI, Volume 2 PS 10.2	Need clarification on Proven SCADA system & auto-fault localization & isolation facilities.	The provisions in the Bidding Document are self-explanatory

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(22) Supply, installation, Testing & commissioning of a proven SCADA system with a proven performance with auto fault localization and isolation facilities,		and shall prevail
362.	Part 2, Section VI, Volume 2 PS 10.2.4 An indicative conceptual system configuration for the SCADA system Sahnewal – Pikhani section and Pilkhani to Khurja section is attached in the Drawing no GC/DFCC/TR/SCADA/701	This Drawing is not available with us.	The Drawing has been re-uploaded for CP-304. Earlier there was some error.
363.	Part 2, Section VI, Volume 2 PS 10.3.1 \ (a) Adequate redundancy in system such that any single point failure shall not degrade the system availability or performance of SCADA system in any way; the second level of failure shall be able to meet with crisscross redundancies.	Need clarification on second point failure. Single point failure is the feasible options. And what is Adequate redundancy is it 100% redundancy?	The provisions in the Bidding Document are self-explanatory and shall prevail
364.	Part 2, Section VI, Volume 2 PS 10.3.1 SCADA system shall incorporate hardware and software Multi-tier access control features as per the allowed level of command that prevents access by unauthorized persons with security features of password and finger touch/ face recognition; the unsuccessful login shall be alarmed and logged at OCC. Unsuccessful entry access to the SCADA rooms at TSS, SSP, and SP shall also be logged and alarmed at OCC	Is it an Intruder alarm ?	The provisions in the Bidding Document are self-explanatory and shall prevail
365.	Part 2, Section VI, Volume 2 PS 10.3.1 (j) In rare instances failure of a single item of equipment may be tolerated for a short period of time provided that only a small part of the overall system is affected and the occurrence does not take place more	In clause 10.3.1 (a) contract asks for Adequate redundancy and in 10.3.1 interpretation is different hence need clarification like can we consider 100% redundancy.	The provisions in the Bidding Document are self-explanatory and shall prevail

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	than once per year. However, redundancy shall be incorporated where failure cannot be tolerated even for short periods.		
366.	Part 2, Section VI, Volume 2 PS 10.4 (u) Interface management plan includes interfaces with other subsystem/Contractor/ other sections of EDFC.	Is interfacing required for specific APL sections?	The provisions in the Bidding Document are self-explanatory and shall prevail
367.	Part 2, Section VI, Volume 2 PS 10.5.1 (According to indicative designs, the location of the principal sites to be controlled and monitored is shown in the drawing no. GC/DFCC/TR/SCADA/701 included in the part 4 of the bid document)	This drawing is not available with us	The Drawing has been re-uploaded for CP-304. Earlier there was some error.
368.	Part 2, Section VI, Volume 2 PS 10.6.5 The SCADA system shall be integrated with the smart card based Access Control and maintenance locking off system provided in Traction P	Limited access to some places like OCC can be configured.	The Provisions of the Bidding Document shall prevail.
369.	Part 2, Section VI, Volume 2 PS 10.7.10 In 10.7.10 The SCADA system at OCC shall support data acquisition from RTU or the other IED over Ethernet based IEC 60870-5-104 In 10.9.2 (b) The Traction substation shall be provided with RTU capable of communicating with Bay controller units (BCU) or Intelligent Electronic Device (IED) over IEC61850 protocols.	The Sentences are contradicting. Two different standards are mentioned.	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.
370.	Part 2, Section VI, Volume 2 PS 10.12 10. Redundancy	Does DFFCIL want redundancy all the levels like in I/O cards as well?	The provisions in the Bidding Document are self-explanatory and shall prevail
371.	General Block diagram for Traction SCADA & Block diagram for Auxiliary SCADA (i.e Basic Architecture drawings)	Not available in the website	The provisions in the Bidding Document are self-explanatory and shall prevail

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
372.	Part 2, Section VI, Volume 5 PS 10.2 (17) The Auxiliary SCADA shall be based upon an open modular architecture approach, which compliant with the Open Software for Formulation Distributed Computing environment for distributed computing function and portable hardware platforms of different origin. The modular architecture shall permit expandability for future Non-Traction supply applications.	Need clarification or more details about the open modular architecture	The provisions in the Bidding Document are self-explanatory and shall prevail
373.	PART-2, SECTION VI, VOLUME – 3. clause1.2.4 It is an objective to install a system that will be designed to have a prolonged life cycle. As such, any of its sub-systems installed should be capable of midlife upgrade with minimal disruption to traffic operations. The equipment is expected to remain operational through wide range of environmental conditions along the proposed route.	For RDSO approved equipment mid-life upgrade will be provided as per RDSO guidelines, please confirm.	Bidder's understanding is correct.
374.	PART-2, SECTION-VI, VOLUME – 3 1.4.1(3) The alterations to existing signaling on IR station, due to DFCCIL single line connections or for implementation of absolute block / slot working shall be carried out by IR.	Necessary material for alteration e.g. relays, indoor cables, terminals and fuses, etc are not in system contractor scope (CP304), please confirm	The alterations to existing signaling on IR stations due to DFCCIL single line connections shall be carried out by IR. However implementation of absolute block / slot working between DFCCIL & IR shall be carried out by present contractor in co-ordination with IR.
375.	PART-2, SECTION-VI, VOLUME – 3.Cl 2.1.2 The designed life of Signalling sub system/equipment (except Maintenance -free batteries and cables) shall be a minimum of 15 years. The designed life of Signalling cables shall be at	Computers and IT systems will be provided with codal life as per RDSO guidelines	RDSO Provision / Guide lines for codal life of Signalling Sub System shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	least 25 years		
376.	PART-2, SECTION-VI, VOLUME – 3 2.1.5 The System shall be designed in such a manner that the failure of a single item of equipment shall not cause loss of overall system functionality. The use of redundancy, hot standby and cold standby shall be considered accordingly while meeting the system objectives.	Kindly clarify applicability of this clause specific to cables provision for signalling equipment. e.g.- No redundancy will be provided for signal feeding, point operation and detection, LC, CH control, etc functionality.	Provisions of Bidding Document are sufficiently clear. Also refer Clause 5.3.2 of PS Signalling.
377.	PART-2, SECTION-VI, VOLUME – 3 2.1.8 The system shall be designed to operate correctly and safely within a 25 kV AT feeding system environment and shall present no hazards to personal	Kindly confirm system shall be designed as for 25KV system or 2x25KV system	The system shall be designed to operate correctly and safely within 2x25 kV AC feeding system environment of DFCCIL and 25 kV ac feeding system environment of IR and shall present no hazards to personal.
378.	PART-2, SECTION-VI, VOLUME – 3 2.2.1(3) Station area shall be designed for maximum flexibility and shall be fully signalled in accordance with current IR practices	Kindly confirm which zonal railway practice shall be followed.	IR Practices as per IRSEM shall be followed.
379.	PART-2, SECTION-VI, VOLUME – 3 2.2.2(2) (b) The Main running signals shall be Multi unit Colour Light Signals as per RDSO spec. No. IRS: S26-64 and relevant RDSO drawings	Kindly confirm Main running signals shall be Multi unit Colour Light Signals as per RDSO spec. No. IRS:S26-64 or RDSO/SPN/194/2006	Provisions of Bidding Document are sufficiently clear.
380.	PART-2, SECTION-VI, VOLUME – 3 2.2.2(2) (c) All signals, Main or Subsidiary shall use Light Emitting Diode (LED) Signal lighting unit as per RDSO specification No.RDSO/SPN/153/2011	Kindly confirm all Main signals Light Emitting Diode (LED) Signal lighting unit shall be provided as per RDSO specification No.RDSO/SPN/153/2011 or RDSO/SPN/199/2010 Rev.1.0 as RDSO/SPN/153/2011 will be discontinued in future.	Please refer to Addendum no. 08, S. No. 31.
381.	PART-2, SECTION-VI, VOLUME – 3 2.2.2(2)(e)(vi)	Please confirm Emergency sockets shall be installed in station section in addition to block section signals	Emergency sockets shall be installed at every one Km in the

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Emergency sockets shall beinstalled on the Railway Electrification Mast as specifiedunder PS - Telecommunications Works Vol. 4, Part 2		section. Please also refer to Addendum no. 08, S. No. 49.
382.	PART-2, SECTION-VI, VOLUME – 3 2.2.3(4) (f) The system shall have provision for accommodating additional 25% of the I/O used as minimum spare provision, including corresponding processor capacity for future use	Only space is to be provided as spare for accommodating additional 25% of the I/O used or I/o bits to be provided as spares	Under the clause, the Bidder need not provide additional 25% I/O cards but shall only keep provision for accommodating the same. However, the Contract spares shall be provided as per Item 4 of Table at Para 9.2.7(2). Please also refer to Addendum no. 08, S. No. 33.
383.	PART-2, SECTION-VI, VOLUME – 3 2.2.5(2) (c) High availability Single Section Digital Axle Counter (HASSDAC) for block proving as per RDSOSpecification no.RDSO / SPN / 177 / 2012 version3 or latest and procured as per Para 4.2 of this specification shall be provided for Absolute Block working on the DFCC main line and also on Link Lines connecting DFCC Junction Stations with IR Stations, when Slot working is not used	In case of slot working to be provided what provision shall be made for train detection and what specification to be followed.	Please refer to Addendum no. 08, S. No. 34.
384.	PART-2, SECTION-VI, VOLUME – 3 2.2.5(2) (h)(j) The transmission between CentralEvaluator and Field units of Mainand Supervisory systems shall be in separate cables, preferably of different kinds, say OFC and quad	Few OEM axle counter system do not support OFC communication from DP to evaluator so for diversity is there a requirement to use different quad cables for main and supervisory system	Provisions of Bidding Document shall prevail.
385.	PART-2, SECTION-VI, VOLUME – 3 2.2.5(3) (I)(a) A suitable resetting scheme shall be	Please specify Line verification to be provided only for all track sections or only in point zones.	Please refer to Addendum no. 08, S. No. 36.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	designed by the contractor for manual resetting of axle counter track sections at stations 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		
386.	PART-2, SECTION-VI, VOLUME – 3 2.2.5(3) (I)(a) Provision shall be made to recordevery operation of resetting by non-resettable counter. The counter shall count, every time the resetting is done and shall not reset back on failure of control terminal /power supply	Only one counter will be provided to record every operation of resetting irrespective of track section	Provision of counters shall be as per relevant RDSO specifications of MSDAC/SSDAC.
387.	PART-2, SECTION-VI, VOLUME – 3 2.2.6(1) (c) For the 32 LC gates to be interlocked, Gate Huts including Signalling Equipment Room and Signalling Power Supply Equipment Room for IR are being constructed Under Contract Package 301. However Construction of Signalling Equipment Room and Signalling Power Supply Equipment Room at all LC gates for DFC lines are in the scope of this contract. The IR gateman will operate the LC gatesfrom the new gate lodges as per'Working methodology for LC gates' at Appendix 1.	If the LC gate is going to be controlled by IR gateman clarify the need for separate gate huts for IR lines and the DFCCIL Lines	There will be only one Gate Hut controlled by IR Gateman and constructed under CP-301. This Gate Hut will be common for DFCCIL & IR lines.
388.	PART-2, SECTION-VI, VOLUME – 3 2.2.6(1) (e) Single set of electrically operatedcommon lifting barriers shall beprovided outside the Indian Railways and DFCCIL tracks so asto	Please confirm for what distance separate boom to be considered for DFC and IR lines.	Refer clause 7.2 of ITB Part –I sec.1. Reference document under Part -4.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	protect both IR as well asDFCCIL tracks by one set of liftingbarriers. In case the distancebetween IR and DFCCIL tracks issuch that a single set of barriers isconsidered unsafe or operationally unmanageable, the provision oftwo separate set of barriers maybecome necessary. Such provision of two sets will also be deemed to be part of the work and shall not attract any extra payment. Decision of providing two separate set of barriers, shall be taken by the Engineer on the basis of local conditions.		
389.	PART-2, SECTION-VI, VOLUME – 3 2.2.6(1) (n) Arrangement for fixing of Safetychain and hand operated Safetyboom (Sliding boom) shall be provided for use in case of failure of lifting barriers. Indication for fixing of safety chain and hand operated boom shall also be provided on the panel of StationMaster. An arrangement shall beprovided for taking 'OFF' therelevant gate signal when thesafety chain and hand operatedboom is properly locked anddetected by the system. In thiscase, the gate signal shall display 'YELLOW' aspect.	Sliding boom is sufficient in degraded mode of operation. Kindly re confirm the need for provision of safety chain and its operating procedures	Provisions of Bidding Document shall prevail.
390.	PART-2, SECTION-VI, VOLUME – 3 2.2.6(2) (a) As all the Level Crossing gates areplanned to be replaced by RUB / ROB in future, the system design for interlocking of these LC gates shall be such that it requires minimum changes to initial design for the same and the change is implemented in a cost effective and time efficient manner	Kindly elaborate design requirement. Only design and materials to be considered with LC gates in present scope. Shifting of signal, DP's, etc. because of removal of LC gate is out of scope of this contract.	Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
391.	PART-2, SECTION-VI, VOLUME – 3 2.2.6(2) (h) The Common Indication Panel forIR and DFCC lines shall be aDomino Type Control cum Indication Panel (CCIP)	Kindly provide list of indications to be provided on CCIP panel.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
392.	PART-2, SECTION-VI, VOLUME – 3 2.2.6(2) (i) The Contractor shall carry out allwork, including laying of cablesbetween the new ELB and IR Control cum indication panel and DFCCIL CCIP and Operating panel, required for extension of interface / displays between DFCCIL and IR systems	In case, existing IR gate lodge to be dismantled, IR controlling relays and other signaling equipment's to be installed in new gate lodge are out of the scope of present contract, please Confirm.	Provisions of Bidding Document are sufficiently clear.
393.	PART-2, SECTION-VI, VOLUME – 3 2.2.7(1) (a) On the EDFC system, modernturnouts and derailing switches areprogrammed to be used. Theturnouts 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.	Provisions of Bidding Document are sufficiently clear. The supply of back drive is not in the scope of work of present contract.
394.	PART-2, SECTION-VI, VOLUME – 3 2.2.8(2) Time element relays electronic type conforming to IRS/BS/BRS or of the specification approved by the Engineer shall be used. When electronic time element relays are used these shall be two in numberand their contacts should be in series with each other.	In case relay required is not fulfilling RDSO specification(e.g.-3-30 sec), same will be provided with supplier specifications	Provisions of Bidding Document shall prevail.
395.	PART-2, SECTION-VI, VOLUME – 3 2.2.9(4)	Please re confirm what interface is required with CP-104	For this clause, no interface is required with CP-104.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	At other than OCC, the Contractorwill provide the Auto Change overSwitch (ACO) near / inside the S&T Power Supply Equipment room on which the power supplies from various sources viz. ATs of DFCCIL and IR, Local supply, DG set (as applicable) will be terminated. The Contractor shall coordinate with the contractor of CP-104 to draw the required supply for S&T system		
396.	PART-2, SECTION-VI, VOLUME – 3 2.2.9(7) The Power Supply for Signallingsystem shall be drawn from Main AC Distribution Panels / Boxes and terminated on Signalling AC Distribution Panel / Box from where it shall 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.	This clause refers to 230 V AC input supply to Signalling Power Supply Equipment's
397.	PART-2, SECTION-VI, VOLUME – 3 2.2.9(11) The battery backup shall be provided with VRLA maintenance free cells as per specification IRS: S 93/96(A) of suitable capacity and procured as per Para 4.2 of this specification.	For Batteries up to 500 AH RDSO specifications IRS:93/96(A) is referred and for batteries above 500 AH TEC specifications No.GR/TX/BAT- 001/04.JUNE 2011 is referred.	Please refer to Addendum no. 08, S. No. 37.
398.	PART-2, SECTION-VI, VOLUME – 3 2.2.9(12) Four numbers of spare cells of 2volt capacity along with a spare Cell charger for charging up to 6 cells at 10% of battery AH capacity shall be provided at each power supply location with the main supply	As per RDSO specifications, Five no. of 2V cells and spare cell charger of 2-12V, 5A 2no.s will be provided	Please refer to Addendum no. 08, S. No. 38.
399.	PART-2, SECTION-VI, VOLUME – 3 2.3.2(1)(g)(xiv)	Please confirm which other indications are to be Provided	Being a Design build contract, the design shall be proposed by the Contractor and approved by the

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	For providing real time status ofcomplete signalling system, Train Management System shall automatically acquire data pertaining to status of Signalling Functions / Equipment. Following indications in additions to those normally provided on Video Display walls shall be provided on various TMS terminal. Any other indications……..		Engineer at design stage after award of contract.
400.	PART-2, SECTION-VI, VOLUME – 3 3.5.3 The Signalling System shall be fault tolerant such that if failure of any sub-system is likely to adversely affect the train operation, the reliability shall be enhanced by providing redundancy in the system	Kindly clarify applicability of this clause specific to cables provision for signalling equipment. e.g.-No redundancy will be provided for signal feeding, point operation and detection, LC, CH control, etc functionality.	Provisions of Bidding Document are sufficiently clear. Also refer Clause 5.3.2 of PS Signalling.
401	PART-2, SECTION-VI, VOLUME – 3 3.8.7 Redundancy shall be used to enable any necessary preventativemaintenance to be carried out onoff-line systems during TrafficHours	Please elaborate and confirm applicability to which particular system / sub-system	Provisions of bid document are sufficiently clear.
402	PART-2, SECTION-VI, VOLUME – 3 5.3.2(5) A separate cable shall be used for operation of each point / crossover.	Please confirm acceptable voltage levels for point machine at field. As per RDSO specification point motor can work upto + / - 25%. Please confirm Aluminium cable can be used as power cable for point feeding.	Bidder's query is not clear. However, it is clarified that the design shall be based on the rated voltage. Only signaling cable shall be used for points operation. Please also refer to Addendum no. 08, S. No. 39.
403	PART-2, SECTION-VI, VOLUME – 3 5.3.22(6) Location boxes shall be rugged and free from ingress of rodents, insects, dust, moisture and water.	Please confirm specification for location boxes.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
404.	PART-2, SECTION-VI, VOLUME – 3 5.3.22(11) All location boxes shall be provided with 110	Kindly confirm cables for location boxes lighting can be clubbed with other functions or separate cables needs to be provided for this purpose.	Separate cable shall be used for location box lighting.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	V AC lighting arrangement with ON / OFF switch to assist maintenance / repair work undertaken during night.		
405	PART-2, SECTION-VI, VOLUME – 3 5.3.25(3) ELD provided should cover all the Signalling cables and power cables	Please confirm ELD channels needs to be provided for Indoor supply voltages.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
406	PART-2, SECTION-VI, VOLUME – 3 5.4.1(4) The Earthing and Bonding systemshall meet or exceed the requirements of IEEE 1100, NFPA 780, IEC 62561-7 and IEC 62305	Earthing arrangement fulfilling RDSO specification RDSO / SPN / 197 / 2008 will be provided.	Provisions of Bidding Document shall prevail.
407.	PART-2, SECTION-VI, VOLUME – 3 7.2.2(6) Design Templates for SignalInterlocking Plan, Route ControlTable, Detailed Design sheets etc	Please confirm only template of A3/A4/A2/A1 to be provided or actual typical design to be submitted	Provisions of bid document are sufficiently clear.
408.	PART-2, SECTION-VI, VOLUME – 3 7.2.2 (10),(11) and (12) Equipment proposal for Station, LC gate hut, Equipment sizing forStation, LC gate hut and Equipment layout Plan for Station, LC gate hut	Kindly clarify what is difference between the three. Same information can be provided in Room layout plans.	Provisions of bid document are sufficiently clear.
409.	PART-2, SECTION-VI, VOLUME – 3 9.2.7(2) 13 Contract spares Electric LiftingBarriers	Please re confirm 100% spares to be provided	Provisions of bid document are sufficiently clear.
410.	PART-2, SECTION-VI, VOLUME – 3 Appendix 1 WORKING RULES FOR LC GATE	Kindly provide LC gate working in between Pilkhani-Sahnewal section	Provisions of bid document are sufficiently clear.
411.	PART-2, SECTION-VI, VOLUME – 3 2.3.2 (1)(a) The TMS display components likeVideo	Based on input availability from adjacent sections/IR stations, the indication to be provided. It may be limited to Train identification / timetable info of approaching trains. Please confirm.	Provisions of Bidding document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Wall Display System at OCCand TMS Terminals in the OCC andother locations shall show real-timegeographical representation of the complete Signalling System of New Pilkhani-Sahnewal section, including Link line tracks connecting DFCCILJunction Stations to IR Stations. In order to show the signalling indications of boundary Sections / IR stations, the TMS shall interface with other systems at boundaries to get their status on the displays.		
412.	PART-2, SECTION-VI, VOLUME – 3 2.3.2(1) (j) It shall be possible for the TMS toSend / receive the Signalling indications of its section to / from TMS of other sections of EDFC, as per interface agreement at Para 2.3.10 (4) of this specification.	Based on input availability from adjacent sections / IR stations, the indication to be provided. It may be limited to Train identification / timetable info of approaching trains. Please confirm.	Provisions of Bidding document are sufficiently clear.
413.	PART-2, SECTION-VI, VOLUME – 3 2.3.2(4) (h) The system shall detect and resolve the following conflict situation. Sameplatform use, same route use,incompatible routes use and samesection use between two stations.no	TMS Does not have the signalling controls; automatic conflict resolve is not possible. Please Confirm.	Provisions of Bidding Documents shall prevail.
414.	PART-2, SECTION-VI, VOLUME – 3 2.3.2(5) (p) The user should be able to acknowledge, delete and retrieve Alarms.	Alarm can be hidden from the HMI display and not deleted from TMS Database. Please confirm	Provisions of Bidding Documents shall prevail.
415.	PART-2, SECTION-VI, VOLUME – 3 2.3.2(6) (f) The System shall be able to importa roster plan. Roster plan shallAssociate Duty No. to every trip, provide the sign on / sign off time, break time & counselling time for each duty	Roaster Plan import features depends on the Crew system configured	Provisions of bid documents are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	no. System shall also check for any conflict in the duty no. with respect to trips.		
416.	PART-2, SECTION-VI, VOLUME – 3 2.3.7(1) (g) The placement of Video Wall Display Panels, seating arrangement of the Controller's, viewing angle in vertical and horizontal plane etc. inside OCC shall be carefully planned. To ensure a user-friendly environment, an ergonomic study shall be performed by the Contractor to guarantee uniformity and consistency.	As OCC is common for all EDFC sections and designed as per the Ergonomic Study of EDFC 1, do this section need separate Ergonomic study please confirm	Provisions of bid documents are sufficiently clear.
417.	Part 2, Section VI, Volume 1 General Specifications / 2.16.5 (2) (a) Requirements for Class A	Most of the OEM's do not meet the Minimum Relative Humidity of 0% of Class A, please clarify on this.	Provisions of Bidding Document shall prevail.
418.	Part 2, Section VI, Volume 1 General Specifications / 2.16.5 (2) (b) Requirements for Class B	100% value is not technically feasible, please updated the parameter to 95%.	Provisions of Bidding Document shall prevail.
419.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 3.1.2 The System excluding battery cells shall be so designed as to have a minimum of 15 Years of Service Life operating continuously. The life of Valve Regulated Lead AcidBattery Cells shall not be less than 7 years. Further, the life of all the cables includingOptical Fibre Cables, Jelly Filled Telecom Quad Cable, Telephone Cables and RFCables shall not be lower than 25 years and life of Radio Towers/Mast shall not be less than 40 years.	Services Life of Battery cells for 7 years is not a commercially available product. Also please confirm whether Service Life indicates Service support?	Provisions of Bidding Document shall prevail.
420.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 4.5.1	All the considered Telecom Equipment's may not have the past history of installation in railway environment but they will meet all the performance and RAMS requirement. Please share your	Provisions of Bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(2) The offered equipment shall be field proven with past history of successful performance in railway environment. (3) All equipment shall be designed and constructed to operate without degradation in quality, performance or loss of function in the electromagnetic environment prevalent in a standard Heavy Freight Corridor Railway System.	concurrence.	
421.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.3.3 The Second Network shall be formed by two optical fibre cables 24F (min), preferably one laid along the upside-track and the other laid along the downside-track ensuring route diversity, from Sahnewal to Pilkhani and terminated on ODFs in TERs at Stations, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, LC Gates, Staff Quarters and any other location as required. Locations of termination of optical fibre cables of Second Network can be clubbed based upon design of other Systems/Sub-systems under this Contract while meeting overall Telecommunication Requirements.	Please clarify in the secondary network, TSS/SP/SSP location can be connected by linear architecture or separate OFC needs to be considered	Provisions of Bidding Document are sufficiently clear.
422.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.4.3 The Second Network shall carry all Voice (including Emergency Communication) and Data (including Traction Power SCADA and Video Surveillance System) Communication between all Stations and LC Gates, Interfacing IR Stations, GSM-R Locations,	Please clarify, do we need to provide SDH at all location or can it be provided based on the design requirement?	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	TSSs, SPs, SSPs, IMD, IMSDs, Staff Quarters& etc.		
423.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.4.3 Second Network shall also carry all Signal Control Information, Track Vacancy Detection Information and other Vital & Safety Related Information between all Stations, Auto Section Locations, LC Gates and Interfacing IR Stations,. All Vital & Safety Related System using OFC System shall be implemented as per EN-50159.	Please clarify whether Signalling Traffic are to be carried over SDH or fibre	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
424.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.5.6 Flexible Access Multiplexer or Primary Order Multiplexer shall have minimum 50% spares for all types of Channel Circuits (Minimum 1 for all types of Channel Circuits).	It is understood that Type of Channel circuits will be provided as per design requirement, or is it a must that all Type of Channel Circuits are to be provided.	Provisions of Bidding Document are sufficiently clear.
425.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.4.2.2 (3) The Contractor shall furnish for the following sub-systems/equipment, the reliability figures, MTBF Hours from the OEMs:- (1) SDH Node Equipment (2) Flexible Access Multiplexer or Primary Order Multiplexer (3) Network Management System	NMS Workstation MTBF may not be available for calculation and it is understood that we need to do Reliability for NMS Server level only. Please confirm.	Provisions of Bidding Document shall prevail.
426.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.4.4.2 The service life of the OFC System	Service life of 15 years for the COTS product is not feasible by most of the OEM. It is understood that equivalent models with same functionality can be considered during 15 years' service life. Please confirm.	Provisions of Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(equipment) shall not be less than 15 years. Service life of all types of cables shall not be less than 25 years.		
427.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.5.3.3 (1) (1) Flexible Access Multiplex Equipment shall conform to ITU-T Rec. G.703, G.704, G.706, G.707, G.708, G.709, G.711, G.732 and G.823.	G.707 standard is related to SDH and not relevant to Flexible Access Multiplex Equipment, Kindly amend the clause.	Only applicable standards shall be used for Flexible Access Multiplexer while designing the Telecom System.
428.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.5.3.3 (5) (5) Flexible Access Multiplex Equipment shall have in-built feature to provide details of performance data like AS, ES, SES, DM, etc. via NMS or via Laptop Service Terminal.	All the Performance parameter shall not be applicable; it will be based on the OEM specifications. Kindly consider.	Provisions of Bidding document shall prevail.
429.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.5.3.3 (7) (7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	Please confirm that VF will be achieved through channel level only and by means of SNCP equivalent configuration	Provisions of Bidding Document are sufficiently clear. Please refer Clause 5.3.7.7 of PS/Telecommunication Works, Part 2, Section VI, Vol.4
430.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 6.1.2 The Wide Area Network (WAN) shall provide sufficient bandwidth to cater for the Packet Data Communications requirements of various Sub-systems under this Contract. This Wide Area Network (WAN) shall also provide sufficient bandwidth to cater for the Packet Data Communications requirements of CP-304 for other applications such as	Please share the location of the servers for Freight Operation Information System (FOIS), Crew Management System (CMS) and Wagon Management System (WMS)	Details will be provided by the Engineer during Design stage.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Freight Operation Information System (FOIS), Crew Management System (CMS) and Wagon Management System (WMS).		
431	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 6.1.6 WAN shall be integrated with WAN provided under Contract Packages CP-104, CP-105 & CP-203 of EDFC to meet the requirements of this Particular Specifications.	Kindly share the product make/model for Contract Packages CP-104, CP-105 & CP-203 of EDFC.	The information/details may be obtained by the successful bidder.
432	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 6.5.1.3 Layer-3 Switches shall be capable of working with DC Power Supply with range of -40 to -54V. Power Supply Module shall be redundant and inbuilt in the switch.	Most of the OEMs are not support for DC supply of -40 to -54V range. Kindly revise the parameter to -42 to -54V	Provisions of Bidding Document shall prevail.
433.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 6.8.3 The Work Station for NMS at OCC shall include high quality colour printing facilities for report generation.	Additional printer for CP304 at OCC is requested for NMS? Please confirm	Provisions of Bidding Document shall prevail.
434.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.5.1 Administrative Telephone Network shall provide voice communication between OCC, Stations, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMD, IMSDs, Residential Quarters, Guest House and Club/Institute. Approximate requirements of Telephone Sets, which include Analogue Telephones as well as Digital Telephones,	Please provide the distance of residential Quarters, Guest House and Club/Institute from nearest Station to estimate the Cable BOQ.	Please refer Part 4 of the Bidding Document.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	are as given in Table below:		
435.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.7.8 (1) (1) Direct Line Telephone shall be provided in the other locations such as IR SectionalControl Centre, Interfacing Station Master Room of IR, LC Gates, Crew Control Rooms, Depot Control Rooms, Switching/Feeding Posts, TPC Maintenance Staff Rooms, Important Civil Engineering Maintenance & Work related Locations and Important S&T Maintenance & Work related Locations etc., to meet communication requirement as mentioned in Clause 7.3.7.1 above.	Please provide the location of Crew control room, Depot Control Rooms, Important Civil Engineering Maintenance & Work related Locations.	Details will be provided by the Engineer during Design stage.
436.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.8.8 If integration is done by providing new PBX, Telephony Server, Media Gateway and associated equipment at OCC:	To estimate the BOQ for integrating newly provided equipment/servers with existing one or to upgrade existing system, please provide Technical Specification, Protocol and technology used for PBX, Telephony Server, Media Gateway, IP Video Phones used under CP-104, CP-105 and CP-203 will be required. Please share the same.	Provisions of Bidding Document are sufficiently clear. Also Please refer clause 17.3.3 of PS Telecom.
437.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.8.9 (2) The Contractor shall be responsible and liable for upgraded PBX, Telephony Server, Media Gateway, Telephone NMS and other associated equipment during Defect Notification Period and during Service Life.	We understand that liability during Defect Notification period shall be limited to upgraded part only and not for the complete equipment. Please confirm.	Please refer to Clause 14.1 of General Specification of the Bidding Document.
438.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.8.11 PBX provided at New Chawa Pail station under this contract shall be integrated with	Please clarify the up-gradation of New Ekdil Station will fall under which contractor's scope.	Up-gradation of New Ekdil Station will fall under CP-304 contractor's scope.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	EPABX provided at New Ekdil station under Contract Package CP-104 with 2 PRI over E1 Links to connect IMD at New Chawa Pail station and IMD at New Ekdil station of CP- 104. The PBXs provided at New Ekdil station under Contract Package CP-104 shall be upgraded/augmented and reconfigured for providing above PRI over E1 link. Spare PRI available at PBX provided at New Ekdil station under Contract Package CP-104 shall not be utilised for meeting this requirement.		
439.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.9.2 A centralised Voice Recording System (VRS) is being provided at OCC, to record telephone conversations of all controllers at OCC and stations under Contract Package(s) CP- 104, CP-105 and CP-203. If feasible, Contractor may upgrade/augment the VRS provided under other contract packages of EDFC to meet the requirements of this Particular Specifications.	To analyse the up-gradation /augmentation requirement, please provide technical detail/specification of existing equipment/servers provided under VRS.	The information/details may be obtained by the bidder from successful bidder of Contract Package(s) CP- 104, CP-105 and CP-203.
440.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.3.10.1 A Network Management System with a workstation, system database, logging printers and mass storage devices shall be provided at the designated place as decided by the Engineer.	Additional printer for CP304 at OCC is requested for NMS? Please confirm. Kindly share the product make/model for the existing Network Management System	Provisions of Bidding document shall prevail. The information/details may be obtained by the bidder from successful bidder of Contract Package CP- 104.
441.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.2.2 However in Sahnewal-Ambala-Khurja	Please provide the BSS locations / co-ordinates for the CP304 section.	Bidder is expected to survey the section in accordance with the clause 7.2 of the ITB, Part 1, Section I.

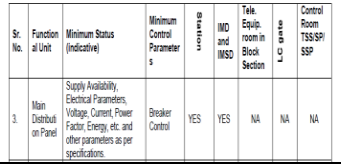
Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	section of DFCCIL where the track alignment of DFCCIL is taking a detour from Delhi-Ambala-Ludhiana section of IR and cannot be served by BSSs of Delhi-Ambala-Ludhiana section of IR, BSSs of DFCCIL shall be provided by Contractor.		
442.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.2.3 NSS for MTRC system shall be provided by the Contractor. This NSS shall be provided at OCC at Allahabad or any other location as identified by the Engineer at the time of execution stage. This NSS shall be integrated with IR NSS located at New Delhi. This NSS shall have adequate capacity to cater for the requirement of entire DFC MTRC system.	Please share the IR-NSS make/model with the software version for other contract for the integration. Is capacity to be considered for WDFC and EDFC? Also please share the other packages BSS system quantities including dispatcher.	Please refer Addendum No. 08, Sr. No. 53. The provisions of the Bidding Document are sufficiently clear. The information/details may be obtained by the bidder from successful bidder of Contract Package(s) CP- 104, CP-105 and CP-203.
443	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.2.5 The MTRC system provided under this Contract should be compatible with ongoing EDFC Contracts so that there is uninterrupted communication between various users. To achieve this compatibility, the Contractor shall work in close coordination with other contractors to incorporate integration of all new equipment with existing equipment.	Please share the MTRC make/model with the software version for other contract for the integration.	The information/details may be obtained by the bidder from successful bidder of Contract Package(s) CP- 104, CP-105 and CP-203.
444.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.3.17 All voice communications of Radio Dispatcher Console, Cab Radio and Operation Radio shall be recorded by the Voice Recording System (VRS) being	Please share the VRS make/model with the software version for other contract for the integration. Kindly provide the information as per the Appendix II format.	The information/details may be obtained by the bidder from successful bidder of Contract Package(s) CP- 104, CP-105 and CP-203.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	provided under this Contract Package. The Contractor shall be responsible for supply or upgradation/reconfiguration, if required, of Voice Recording System (VRS) being provided under Contract Package-104, Contract Package CP-105 & Contract Package -203.		
445.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.5.3.5 The coverage level shall be designed to provide satisfactory indoor and outdoor coverage in detour section for an operational radio and general purpose radio for all areas as specified, including indoor areas for which an extra margin shall be considered. Accordingly minimum coverage level of -78 dbm in outdoor terrain shall be available.	Please provide the minimum coverage level for indoor areas also.	The indoor coverage level should be -78dBm.
446.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 9.1.4 Whenever existing equipment of Master Clock System being provided under Contract Packages CP-104 is upgraded/augmented/reconfigured to meet the requirement of this Particular Specifications, the available provision for redundancy in existing equipment shall not be compromised and subsequent to upgradation/augmentation/reconfiguration they shall meet the Technical Requirement and Performance Requirement as stipulated in this Particular Specifications.	Kindly share the product make/model for Contract Packages CP-104 of EDFC.	The information/details may be obtained by the bidder from successful bidder of Contract Package CP- 104.
447.	Part – 1, ITB 29.8	While customs duty exemption is applicable after implementation of GST w.e.f July 1,2017 ,all taxes Excise Duty/VAT/CST/Entry tax/Service Tax have subsumed into	Since the contract price is inclusive of duties, taxes and other levies payable by the Contractor

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	The bidders may note that this DFCC project being funded by the World Bank qualifies for exemption from payment of customs duty and excise duty on goods supplied /intended to be supplied to the project in terms of Govt. of India notification no 84/97 customs dated 11.11.1997 and Central Excise notification no 108/95 C E dated 28.8.95 (read with all subsequent amendment including amendment dated 1.3.2008) . Service Tax Dept vide their notification no 25/2012 Service Tax dated 20.6.2012 has exempted services by way of construction, erection, commissioning or installation of original works pertaining to railways.	GST and hence GST will be charged on all our invoices Please confirm whether GST will be reimbursed on all the invoices submitted to DFC Since this is World Bank funded project , we would like to go for advance license . In such cases , we would like to know whether the names of our sub vendors supplying for this project would be included . Please confirm Further we need payment certificate to close advance license. Please confirm whether payment certificate will be issued	under the contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the total Bid Price submitted by the Bidder as per ITB 29.8 of Bid Data Sheet. With introduction of GST from 1st July, 2017, the contract price will include GST. The total bid price covers all the Contractor's obligations mentioned in or to be reasonably inferred from the bidding document in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation and completion of the Works as per ITB 29.1.
448.	Part – 3, Particular Conditions Sub- Clause 14.2 –Mobilization advance As per this clause mobilization advance is made .	With the implementation of GST w.e.f July 1,2017, GST is applicable on advance payment. Hence applicable GST amount to be paid along with advance amount which will be adjusted at the time of billing. Please confirm whether GST amount will be paid along with advance amount by DFC.	Advance would be part of the total contract price and will be inclusive of GST and Duties.
449	Part – 3, Particular Conditions Clause 13.3 Variation Procedure For varied works of items of due to variations as per sub-clause 1.1.6.9 .	Please confirm whether GST will be paid on price variation.	For determining the price to be paid for variation in terms of the procedure as at clause 13.3 of PCC, all applicable taxes to be paid by the contractor shall be taken into consideration.
450.	There will be interstate supplies to this projects , which will require road permits	Please confirm whether road permits will be issued by DFFC	Permits will not be issued by DFCCIL.
451.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 4.2.2 and Attachment 20.7 Each Auxiliary Power Sub-Station shall have one step down transformer of	1. We understand that there would be one Aux. power sub-station having one transformer at Each location of station which feed the stations, Depots, staff quarters, guest house and associated buildings and rating of transformer would be same for all Stations. 2. Request to provide clarification on Given below lines	Yes, the bidders understanding is correct.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	adequate capacity. The contractor shall consider capacity of 11KV/0.433 KV transformer and other power equipment suitable to meet the power requirement with minimum 20% future load requirement. The transformer rating for all stations shall be maximum of two types only. The contractor shall provide at least one transformer of each rating/capacity as spare. If there is same rating/Capacity distribution transformer at all the auxiliary power sub-station, the spare shall not be less than two nos.	extracted from clause no. 4.2.2 – *"The transformer rating for all stations shall be maximum of two types only. The contractor shall provide at least one transformer of each rating/capacity as spare. If there is same rating/Capacity distribution transformer at all the auxiliary power sub-station, the spare shall not be less than two nos."*	
452.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 8.5 (3) & (4) under the heading "Internal Wiring of service buildings, Quarters and Ancillary Buildings" (3) 20% of the wiring circuits shall be designed for emergency light for critical exit in the station area/depot area etc (fed by UPS) (4) 30% of the wiring circuits shall be designed for Essential light & fan loads in station area/Depot area etc. (Fed by DG)	We understand that the 20% wiring Circuit from UPS and 30% From DG would be applicable in Station & Depot Building only, not applicable on Quarters & Ancillary Buildings.	The Provisions of the Bidding Document shall prevail.
453.	Vol-5 Particular Specifications E&M and Associated Works, clause , clause no. 8.5 (12) under the heading "Internal Wiring of service buildings, Quarters and Ancillary Buildings" (12) Every room shall have power outlet for AC/Desert Cooler along with its controlling MCB.	Please provide more clarity on that, as per the Chapter-20, Attachment 20.1, there is no provision of such points indicated. There are some room indicated in the Junction/Crossing building where there is no requirement of AC/Desert cooler and size of the room itself is so small such as Record room (1450 X 2485).Requesting to Specify the room type in which this particular clause would be applicable such as offices, Rest rooms, Maintenance room etc.	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.
454.	Vol-5 Particular Specifications E&M and Associated Works, clause , clause no. 9.1.1, Illumination level, S.No.3	Kindly note there will be hardly available fixtures which compliant IP54 rating for indoor commercial application and all indoor commercial fixtures are widely available in range come	Please refer addendum no. 08 Sr. no. 76

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(3) All indoor fittings shall be as per IP-54 Compliant. All outdoor fittings shall be done as IP 65 Compliant seal safe or equivalent	with standard IP20 rating. Hence, we proposed to change the IP rating from IP54 to IP20 for indoor lighting.	
455.	Vol-5 Particular Specifications E&M and Associated Works, clause, clause no. 9.2, System Description, S.No. 2 & 3 (2) **Essential Lighting (DG Power)** The Lighting and Small power load is fed from DG/MLDB whose incoming power supply is hooked up by a DG power supply during main failure defined in terms of essential load. Min. 30% of lighting fixtures in all areas shall be essential light fixtures with minimum of one number in any enclosed room/Compartment. (3) **Emergency Lighting (UPS Power)** The Critical lighting and small power socket for computer is fed from UPS during main and DG failure defined in terms of Emergency load. Minimum 20% of lighting fixtures in all areas shall be very critical light fixtures with minimum of one number in any enclosed room/ compartment. Critical light fixtures shall be provided at all exit routes powered on UPS backed power Supply.	Specify the type (whether 6Amp socket or 16 Amp Socket) & percentage of Small power load on DG or 30% lighting fixtures includes 6Amp Socket only. Please confirm We understood that Critical area would be pertaining to Signalling & Telecom System and exit routes.	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.
456.	Vol-5 Particular Specifications E&M and Associated Works, clause, clause no. 9.11.2, Components S.no. 2(g) (g) Power Outlets shall be used for rail maintenance workshop areas, shall be surface mounted, weather proof, complete with plug and shall comply with IEC 60309-2. Weather proof outlets shall be rated IP65 as a minimum. The power outlets shall be as below lists : 63A, 3P+N+G, 415 V AC, Completed with Plug, Surface Mounted	As per the Matrix of requirements at various location indicated in attachments 20.1 (Schedule of electrical fixtures), requirement of three phase 63Amp socket is not mentioned. Hence, request to confirm the purpose and location of three phase 63Amp socket in the building.	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.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	16A, SP+N+G 230Vac completed with 2 edge Plugs, cord 3m , surface mounted.		
457.	Vol-5 Particular Specifications E&M and Associated Works, clause, clause no. 10.3.4, Control & Monitoring requirement of Auxiliary installations for Auxiliary SCADA 	As per S.no. 3 of 10.3.4 table, we understand that Supply availability of Main Distribution panel means checking the availability of supply at incomers not on Outgoing feeders. Hence, only incomer breaker controls would be considered. Similarly for Sub-Distribution Board, in which supply availability will be checked at Incomers only not on outgoing feeders.	The Provisions of the Bidding Document shall prevail.
458.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 12.2.1, Fire Alarm & Control Panel (FACP) S.no. (a) (a) The Fire Panel & control panel shall function as fully stand-alone panel as well as providing a communication interfaces to the central station. FACP shall have its own microprocessor, software and memory and should be listed as under UL. The FACP shall be capable of accepting up to 2-8 loops as required.	For small buildings such as IMSD, Telecom Equipment room in block section etc. provision of FACP capable of accepting up to 2-8 loops seems to be at much higher side. Hence, requesting to purpose Min. 2loop panel for small buildings. One loop can cater up to 99 Detectors & 99 devices .Hence 2 loops also more than sufficient for such small buildings.	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.
459.	Vol-5 Particular Specifications E&M and Associated Works, Chapter 15- Air Conditioning & Ventilation System	Please confirm type of AC requirement whether High wall Split AC or Window AC.	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.
460.	Vol-5 Particular Specifications E&M and Associated Works, Attachment 20.7: Indicative Scheme for Auxiliary Power Supply Scheme System	Please confirm the listed below points in reference to the indicative Scheme for Auxiliary Power Supply Scheme system: 1. Only Single HT incomer would be available and One HT Incomer Breaker, no Outgoing HT breaker Shown. Please confirm the scheme 2. No AT from DN/UP track for critical load shown in the	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.

Sr. No.	Functional Unit	Minimum Status (Indicative)	Minimum Control Parameters	SCADA	IMD and IMSD	Tele. Equip. room in Block Section	LC gate	Control Room TSS/SPI SSP
3.	Main Distribution Panel	Supply Availability, Electrical Parameters, Voltage, Current, Power Factor, Energy, etc. and other parameters as per specifications.	Breaker Control	YES	YES	NA	NA	NA

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		drawing 3. Street lighting up to how much KM approach road to be considered? 4. One No. ONAN transformer to be considered as per Scheme. 5. Is separate transformer for individual building to be considered In case location of IMD, IMSD, staff quarters & Guest house are far away from station?? please confirm.	The Provisions of the Bidding Document shall prevail.
461.	Crossing Station Building Plan Drg. No. - GC/DFCC/CS/201/REV.1 Junction Station Building Plan Drg. No. - GC/DFCC/CS/101/REV.1	Location of Auxiliary Substation is not marked on the station building plan. Hence, confirm the transformer Location	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor. Please refer para 3.2.3(5) and 3.2.5, Vol.5, Part-2 of the bidding document.
462.	Attachment 20.2 Typical type of fittings & Illumination level at various locations	Emergency lux is not given in the table. Hence, we suggest to include the same	Please refer to Note under Attachment 20.2 at Page 1244 of 1309 of the bidding document. The Provisions of the Bidding Document shall prevail.
463.	Vol-5 Particular Specifications E&M and Associated Works, Chapter-6 HT/LT Switchgears and their Enclosures	Please clarify the below Queries pertaining to panel Control Supply: a. Control Supply for HT/LT panel shall be provided by the inbuilt Battery or through UPS. b. Voltage level of Control Supply	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.
464.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 8.5 S.no. (6) (6) power circuit shall be designed for only one outlet per circuit	Considering the 16Amp Power Socket outlet per circuit will increase the DB size unnecessary. Hence, We proposed to follow the CPWD/NBC in which two nos. 16A outlets per circuit can be considered.	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.

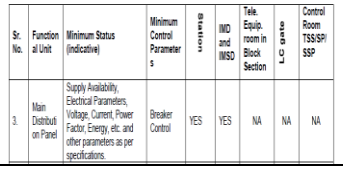
Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
465.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 4.2.2 Project Data parameters/Performance requirement	Please specify the Diversity factor for each E&M system to be considered while deciding the rating of 11KV/433V power Transformer. Hence, request to mention Diversity factor for Lighting, Small Power socket, AC load, Water pump, S&T load, etc. and overall diversity of buildings like Station, IMD, IMSD ,Staff Quarters ,Guest house etc.	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.
466.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 8.5 S.no. (5) (5) Not more than 800W connected load or more than 10 points on any single circuit shall be provided	It may be suggested that While designing DBs, efforts shall be made in such a way that each circuit shall have not more than 800 Watts connected load. However, In case of LED Points where load per point may be less, number of points may be suitably increased.	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.
467.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 11.1 S.no. (2) (2) The DG set shall be working as single unit for catering to mixed load comprising electrical power and for charging battery (Average Power factor of load being 0.8 lagging).The contractor shall properly calculate the backup power requirement at each place of installation and obtain approval from the engineer. The contractor shall provide DG sets of same rating for all stations/locations.	Please clarify; Can we consider separate DG for each location in case respective buildings are far away from the DG Supply location??	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.
468	Vol-5 Particular Specifications E&M and Associated Works, Chapter-15 Air Conditioning & Ventilation System	We understand that there is no AC requirement in IMSD	Yes, the bidders understanding is correct.
469.	Vol-5 Particular Specifications E&M and Associated Works, Chapter 20 ATTACHMENTS, Attachment 20.1 : Schedule of Electrical Fixtures-Junction Station	As there is no furniture layout, so we understand that the general purpose Switched socket outlet shall be provided as per the Attachment 20.1 & 20.5.Please confirm And if same is to be provided as per furniture layout, then	The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Schedule of Electrical Fixtures-Crossing Station Schedule of Electrical Fixtures-IMD Schedule of Electrical Fixtures-IMSD Schedule of Electrical Fixtures-Guest house Attachment 20.5 Scale of Fittings for Staff Quarters	request to share the furniture layout of respective buildings.	
470.	Vol-5 Particular Specifications E&M and Associated Works, Attachment 20.3 & 20.7 Attachment 20.3 : Power Supply Arrangement Attachment 20.7: Indicative Scheme for Auxiliary Power Supply System	As per Attachment 20.3, showing junction & Crossing Station shall have Aux. AT Supply but the same is not shown in the indicative scheme for auxiliary power supply system(Attachment 20.7). Please clarify.	The Provisions of the Bidding Document shall prevail.
471.	PS Vol2 Electrification 2.2.3 Page 454 220 kV to 132 kV using 150 MVA transformers at Jagadhari TSS cum RSS	Is separate control room required for such bay?	The Provisions of the Bidding Document shall prevail.
472.	PS Vol2 Electrification 3.2.1 Page 454 The average period assumed for determining the size of major equipment shall be as per EN50388	Although this standard specifies the value mean useful voltage to be maintained throughout the profile, the average period for simulation is not mentioned. Please provide the details.	The Provisions of the Bidding Document shall prevail.
473.	PS Vol2 Electrification 3.2.4 (6) Page 454 Voltage imbalance and THD imposed at PCC with power supply authorities at normal rated capacity as well as extended feed scenario in full load conditions	Please clarify PCC with power supply authorities means that PCC will be Grid Sub-Station end not at the Jagadhari TSS cum RSS.	The Provisions of the Bidding Document are self-explanatory and shall prevail.
474.	PS Vol2 Electrification 6.3 (5) SSP & SP earth resistance mentioned is 0.5 ohms.	According to IR AC Traction Manual – Vol II Part II, for switching stations the Resistance shall be 2 ohms. In CP -104 contract PS Resistance is 2 ohms Please clarify	The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
475.	PS Vol2 Electrification 6.5 Page 491 Table 6.5.1 Design Current Fault level not mentioned for 132kV, 220kV, and 25kV	Using capacity and voltage mentioned CP 304 specification Table 6.5.1, the fault level for 220kV comes out to be 52.48 kA & for 132 kV is 43.74 kA which seems to be quite high. Please confirmation the fault level value required.	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.
476.	Vol-5 Particular Specifications E&M and Associated Works, clause no.17.7.1 The Traction Sub-Station (TSSs), SSP and SP, the Contractor shall provide a road & rail system integrated with the transformer foundations to enable installation and replacement of any failed unit by spare unit located at site. **The contractor shall connect such Rail system to the adjoining Railway track** for easy transport of the Transformers and heavy equipment through rail transport as per requirement of ASTM. This system will enable the removal of any failed unit from its foundation to nearest road.	We understand that the track connecting Transformer foundation to location where spare unit is kept within the same TSS, SP/ SSP layout is to be connected and NOT to the DFCC /IR Track system. Please confirm.	Please refer to Addendum No. 08 at Sr. No. 66.
477.	Vol-5 Particular Specifications E&M and Associated Works, clause no.17.16.2 The TERs and Telecom Power Equipment Rooms are required to be designed so that there is proper ventilation and temperature inside the room does not raise much above ambient temperature. These rooms shall be dust resistant so that the performance of the equipment does not degrade during the rated life cycle.	We understand that no AC is required to be provided for TERs and Telecom Power Equipment Rooms. Please confirm .	Please refer sub-clause-15.1, Vol.5, Part-2 of the bidding document.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
478.	1. Drawing No.GC/DFCC/TSS/503-A and Drawing No.GC/DFCC/TSS/503-B 2. Drawing No.GC/DFCC/SP-SSP/504 3. Drawing No.GC/DFCC/TWD/501 4. Drawing No.GC/DFCC/S&T-ROOM/01/2015 Drawing No.GC/DFCC/CHAIN LINK FENCING/TYP-001	These drawings are not available with the tender document. Please provide the same	Electrical Drawings under Part-4 reference document for CP-304 has been re-uploaded on DFCCIL website and are now available. Earlier there was some error.
479.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 4.2.2 and Attachment 20.7 Each Auxiliary Power Sub-Station shall have one step down transformer of adequate capacity. The contractor shall consider capacity of 11KV/0.433 KV transformer and other power equipment suitable to meet the power requirement with minimum 20% future load requirement. The transformer rating for all stations shall be maximum of two types only. The contractor shall provide at least one transformer of each rating/capacity as spare. If there is same rating/Capacity distribution transformer at all the auxiliary power sub-station, the spare shall not be less than two nos.	1. We understand that there would be one Aux. power sub-station having one transformer at Each location of station which feed the stations, Depots, staff quarters, guest house and associated buildings and rating of transformer would be same for all Stations. Please confirm. 2. Request to provide clarification on Given below lines extracted from clause no. 4.2.2 – *"The transformer rating for all stations shall be maximum of two types only. The contractor shall provide at least one transformer of each rating/capacity as spare. If there is same rating/Capacity distribution transformer at all the auxiliary power sub-station, the spare shall not be less than two nos."*	Please refer the reply at S.No. 451
480.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 8.5 (3) & (4) under the heading "Internal Wiring of service buildings, Quarters and Ancillary Buildings" (3) 20% of the wiring circuits shall be designed for emergency light for critical exit in the station area/depot area etc (fed by UPS)	We understand that the 20% wiring Circuit from UPS and 30% From DG would be applicable in Station & Depot Building only, not applicable on Quarters & Ancillary Buildings. Please confirm .	Please refer the reply at S.No. 452

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(4) 30% of the wiring circuits shall be designed for Essential light & fan loads in station area/Depot area etc. (Fed by DG)		
481.	Vol-5 Particular Specifications E&M and Associated Works, clause , clause no. 8.5 (12) under the heading "Internal Wiring of service buildings, Quarters and Ancillary Buildings" (12) Every room shall have power outlet for AC/Desert Cooler along with its controlling MCB.	Please provide more clarity on that, as per the Chapter-20, Attachment 20.1, there is no provision of such points indicated. There are some room indicated in the Junction/Crossing building where there is no requirement of AC/Desert cooler and size of the room itself is so small such as Record room (1450 X 2485).Requesting to Specify the room type in which this particular clause would be applicable such as offices, Rest rooms, Maintenance room etc.	Please refer the reply at S.No. 453
482.	Vol-5 Particular Specifications E&M and Associated Works, clause , clause no. 9.1.1, Illumination level, S.No.3 (3) All indoor fittings shall be as per IP-54 Compliant. All outdoor fittings shall be done as IP 65 Compliant seal safe or equivalent	Kindly note there will be hardly available fixtures which compliant IP54 rating for indoor commercial application and all indoor commercial fixtures are widely available in range come with standard IP20 rating. Hence, we proposed to change the IP rating from IP54 to IP20 for indoor lighting.	Please refer the reply at S.No. 454
483.	Vol-5 Particular Specifications E&M and Associated Works, clause, clause no. 9.2, System Description, S.No. 2 & 3 (2) **Essential Lighting (DG Power)** The Lighting and Small power load is fed from DG/MLDB whose incoming power supply is hooked up by a DG power supply during main failure defined in terms of essential load. Min. 30% of lighting fixtures in all areas shall be essential light fixtures with minimum of one number in any enclosed room/Compartment. (3) **Emergency Lighting (UPS Power)** The Critical lighting and small power socket for computer is fed from UPS during main and DG failure defined in terms of Emergency load. Minimum 20% of lighting fixtures in all areas shall be very critical light fixtures with minimum of one number in any enclosed room/ compartment.	Specify the type (whether 6Amp socket or 16 Amp Socket) & percentage of Small power load on DG or 30% lighting fixtures includes 6Amp Socket only. Please confirm We understood that Critical area would be pertaining to Signalling & Telecom System and exit routes.	Please refer the reply at S.No. 455

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Critical light fixtures shall be provided at all exit routes powered on UPS backed power Supply.		
484.	Vol-5 Particular Specifications E&M and Associated Works, clause, clause no. 9.11.2, Components S.no. 2(g) (g) Power Outlets shall be used for rail maintenance workshop areas, shall be surface mounted, weather proof, complete with plug and shall comply with IEC 60309-2. Weather proof outlets shall be rated IP65 as a minimum. The power outlets shall be as below lists : 63A, 3P+N+G, 415 V AC, Completed with Plug, Surface Mounted 16A, SP+N+G 230Vac completed with 2 edge Plugs, cord 3m , surface mounted.	As per the Matrix of requirements at various location indicated in attachments 20.1 (Schedule of electrical fixtures), requirement of three phase 63Amp socket is not mentioned. Hence, request to confirm the purpose and location of three phase 63Amp socket in the building.	Please refer the reply at S.No. 456
485.	Vol-5 Particular Specifications E&M and Associated Works, clause, clause no. 10.3.4, Control & Monitoring requirement of Auxiliary installations for Auxiliary SCADA  Sr. No. / Functional Unit / Minimum Status (indicative) / Minimum Control Parameters / Location: IMD and IMSO / Tele. Equip. room in Block Section / LC gate / Control Room TSS/SP/SSP 3. / Main Distribution Panel / Supply Availability, Electrical Parameters, Voltage, Current, Power Factor, Energy, etc. and other parameters as per specifications. / Breaker Control / YES / YES / NA / NA / NA	As per S.no. 3 of 10.3.4 table, we understand that Supply availability of Main Distribution panel means checking the availability of supply at incomers not on Outgoing feeders. Hence, only incomer breaker controls would be considered. Similarly for Sub-Distribution Board, in which supply availability will be checked at Incomers only not on outgoing feeders. Please confirm .	Please refer the reply at S.No. 457
486	Vol-5 Particular Specifications E&M and Associated Works, clause no. 12.2.1, Fire Alarm & Control Panel (FACP) S.no. (a) (b) The Fire Panel & control panel shall function as fully stand-alone panel as well as providing a communication interfaces to the central station. FACP shall have its own microprocessor, software and memory and should be listed as under UL. The FACP shall be capable of accepting up to 2-8	For small buildings such as IMSD, Telecom Equipment room in block section etc. provision of FACP capable of accepting up to 2-8 loops seems to be at much higher side. Hence, requesting to purpose Min. 2loop panel for small buildings. One loop can cater up to 99 Detectors & 99 devices .Hence 2 loops also more than sufficient for such small buildings. Please confirm .	Please refer the reply at S.No. 458

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	loops as required.		
487.	Vol-5 Particular Specifications E&M and Associated Works, Chapter 15- Air Conditioning & Ventilation System	Please confirm type of AC requirement whether High wall Split AC or Window AC.	Please refer the reply at S.No. 459
488.	Vol-5 Particular Specifications E&M and Associated Works, Attachment 20.7: Indicative Scheme for Auxiliary Power Supply Scheme System	Please confirm the listed below points in reference to the indicative Scheme for Auxiliary Power Supply Scheme system: 1. Only Single HT incomer would be available and One HT Incomer Breaker, no Outgoing HT breaker Shown. Please confirm the scheme 2. No AT from DN/UP track for critical load shown in the drawing 3. Street lighting up to how much KM approach road to be considered? 4. One No. ONAN transformer to be considered as per Scheme. 5. Is separate transformer for individual building to be considered In case location of IMD, IMSD, staff quarters & Guest house are far away from station?? please confirm.	Please refer the reply at S.No. 460
489	Crossing Station Building Plan Drg. No. - GC/DFCC/CS/201/REV.1 Junction Station Building Plan Drg. No. - GC/DFCC/CS/101/REV.1	Location of Auxiliary Substation is not marked on the station building plan. Hence, confirm the transformer Location	Please refer the reply at S.No. 461
490.	Attachment 20.2 Typical type of fittings & Illumination level at various locations	Emergency lux is not given in the table. Please provide the same	Please refer the reply at S.No. 462
491	Vol-5 Particular Specifications E&M and Associated Works, Chapter-6 HT/LT Switchgears and their Enclosures	Please clarify the below Queries pertaining to panel Control Supply: a. Control Supply for HT/LT panel shall be provided by the inbuilt Battery or through UPS. b. Voltage level of Control Supply	Please refer the reply at S.No. 463
492.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 8.5 S.no. (6) (6) power circuit shall be designed for only one outlet per circuit	Considering the 16Amp Power Socket outlet per circuit will increase the DB size unnecessary. Hence, We proposed to follow the CPWD/NBC in which two nos. 16A outlets per circuit can be considered.	Please refer the reply at S.No. 464
493.	Vol-5 Particular Specifications E&M and	Please specify the Diversity factor for each E&M system to be	Please refer the reply at S.No. 465

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Associated Works, Clause no. 4.2.2 Project Data parameters/Performance requirement	considered while deciding the rating of 11KV/433V power Transformer. Hence, request to mention Diversity factor for Lighting, Small Power socket, AC load, Water pump, S&T load, etc. and overall diversity of buildings like Station, IMD, IMSD ,Staff Quarters ,Guest house etc.	
494.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 8.5 S.no. (5) (5) Not more than 800W connected load or more than 10 points on any single circuit shall be provided	It may be suggested that While designing DBs, efforts shall be made in such a way that each circuit shall have not more than 800 Watts connected load. However, In case of LED Points where load per point may be less, number of points may be suitably increased. Please confirm .	Please refer the reply at S.No. 466
495.	Vol-5 Particular Specifications E&M and Associated Works, Clause no. 11.1 S.no. (2) (2) The DG set shall be working as single unit for catering to mixed load comprising electrical power and for charging battery (Average Power factor of load being 0.8 lagging).The contractor shall properly calculate the backup power requirement at each place of installation and obtain approval from the engineer. The contractor shall provide DG sets of same rating for all stations/locations.	Please clarify; Can we consider separate DG for each location in case respective buildings are far away from the DG Supply location??	Please refer the reply at S.No. 467
496.	Vol-5 Particular Specifications E&M and Associated Works, Chapter-15 Air Conditioning & Ventilation System	We understand that there is no AC requirement in IMSD	Please refer the reply at S.No. 468
497.	Vol-5 Particular Specifications E&M and Associated Works, Chapter 20 ATTACHMENTS, Attachment 20.1 : Schedule of Electrical Fixtures-Junction Station Schedule of Electrical Fixtures-Crossing Station	As there is no furniture layout, so we understand that the general purpose Switched socket outlet shall be provided as per the Attachment 20.1 & 20.5.Please confirm And if same is to be provided as per furniture layout, then request to share the furniture layout of respective buildings.	Please refer the reply at S.No. 469

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Schedule of Electrical Fixtures-IMD Schedule of Electrical Fixtures-IMSD Schedule of Electrical Fixtures-Guest house Attachment 20.5 Scale of Fittings for Staff Quarters		
498.	Vol-5 Particular Specifications E&M and Associated Works, Attachment 20.3 & 20.7 Attachment 20.3 : Power Supply Arrangement Attachment 20.7: Indicative Scheme for Auxiliary Power Supply System	As per Attachment 20.3, showing junction & Crossing Station shall have Aux. AT Supply but the same is not shown in the indicative scheme for auxiliary power supply system(Attachment 20.7)Please clarify.	Please refer the reply at S.No. 470
499.	PS Vol 2 Electrification 3.3.1 (1) (v)a i. page 456 and 6.1.3 (1)(a) page 484 Typical indicative TSS arrangement of JAGADHARI TSS is enclosed in Part-4 Reference Documents	Reference Drawing is missing. Please provide Tentative SLD of Jagadhari TSS cum RSS. Without Single line diagram we cannot know whether the 220kV and 132kV Bus is double busbar scheme or single bus bar scheme?	Electrical Drawings under Part-4 reference document for CP-304 has been re-uploaded on DFCCIL website and are now available. Earlier there was some error.
500.	PS Vol 2 Electrification 3.3.1 (1) (v)a ii. page 456 and 6.1.3 (1)(b) page 484 Typical indicative TSS arrangement of NEW SIRHIND TSS is enclosed in Part-4 Reference Documents	Reference Drawing is missing. Please provide Tentative SLD of NEW SIRHIND TSS. Without Single line diagram we cannot know whether the 220kV Bus is double busbar scheme or single bus bar scheme?	Please refer our reply at Sr. No.499.
501.	PS Vol 2 Electrification 3.3.1 (1) (v)B page 456 One (1) Sectioning Posts (SP)	Tentative SLD of SP needs to be provided.	Please refer our reply at Sr. No.499.
502.	PS Vol 2 Electrification 3.3.1 (1) (v)C page 456 Nine (9) Sub Sectioning Posts (SSP)	Tentative SLD of SSP needs to be provided	Please refer our reply at Sr. No.499
503.	PS Vol 2 Electrification 3.3.1 (1) page 455 Indicative General Arrangement Diagram (GAD) for Traction Power supply system and power supply installations are shown in	Reference Drawing is missing. Please provide General Power Supply Diagram from Sahnewal-Pilkhani. How the power supply arrangement has been done for 9 SSP's with only 2 TSS and 1 SP?	Please refer our reply at Sr. No. 499.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	the General Power Supply Diagram, Part 4 reference Document		
504.	PS Vol 2 Electrification 7.1.1 page 501 The contractor shall make his own General Traction Supply Diagram based on details of locations of TSS and Traction supply posts as shown in reference Drawing (GC/DFCC/PS/GSD/402) in part 4	Reference Drawing is missing. Please provide General Power Supply Diagram from Sahnewal-Pilkhani. How the power supply arrangement has been done for 9 SSP's with only 2 TSS and 1 SP?	Please refer our reply at Sr. No. 499.
505.	PS Vol2 Electrification 3.2.4 (6) Page 454 PS Vol2 Electrification 6.7.1 page 492 Voltage imbalance and THD imposed at PCC with power supply authorities at normal rated capacity as well as extended feed scenario in full load conditions For connectivity to the grid substation of power supply authorities, following power quality limits have been laid at the point of common coupling (PCC)	PCC means Grid Substation end or our TSS. Please confirm. Please confirm the existing short circuit level of feeding grid substation and approximate distance between grid substation and TSS.	Please refer sub-clause 6.5, Vol.2, Part-2 of the bidding document. The Provisions of the bidding document shall prevail.
506.	PS Vol2 Electrification 5.2. Page 480 Rolling Stock Characteristics and Train Operation Data	Rolling Stock Harmonic Spectrum Data needs to be provided by Client else please give confirmation of using the data of Electric Locomotive of Indian Railway to be manufactured in Madhepura.	Please refer table 18.4.3(3), Vol.2, Part-2 of the bidding document. The Provisions of the bidding document shall prevail.
507.	PS Vol2 Electrification 6.3 (4) Page 490 In all traction power supply posts, MS Rods, GI Flats and pipes allowing adequate margin against corrosion shall be used as per EN 50522/IS 3043	Corrosion factor should considered as per IS or RSDO. Please confirm.	The Provisions of the bidding document shall prevail.
508.	PS Vol2 Electrification 6.5 Page 491 Table 6.5.1 Design short circuit levels for 132kV, 220kV	Based on MVA levels provided, Calculated fault level for 220kV is 52.48 kA & for 132 kV is 43.74 kA. Generally 220kV equipment's are available with 40kA for 1 sec short circuits withstand capability and for 132kV equipment's it would be 31.5kA & 40kA for 1 sec short circuit capability.	The Provisions of the bidding document shall prevail.

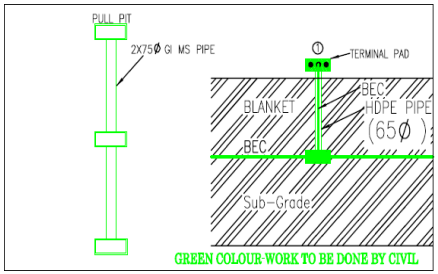
Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		Please confirm the short circuit level of the equipment?	
509.	PS Vol2 Electrification 6.5 Page 491 Table 6.5.1 Design short circuit levels for 132kV, 220kV	Rail potential will be calculated in simulation study based on system fault level based on power simulation results. Please confirm.	The Provisions of the bidding document shall prevail.
510.	PS Vol2 Electrification 6.9.8 (a) Page 494 220kV Incoming feeder from grid substation of PGCIL or Power Supply Authority to TSS	Distance Protection is missing in the list of 220kV incoming feeder protections. If Distance protection needs to be provided by bidder then how many distance protection relays per feeder to be implemented?	Being a design & build contract Functional Performance requirements have been specified. The detailed design is in the scope of the contractor. For Distance protection of incoming feeder, approval of protection scheme is to obtained from Engineer after interface with supply authority/PGCIL and detailed survey. However, it is clarified that as per the clause no. 3.3.5, the transmission line is not in the scope of the contractor. As such PLCC is not in the scope of the contractor.
511.	PS Vol2 Electrification 7.9.3	Height of Cable Trench bottom from the HFL to finalise the FGL is missing. Please clarify the heights of FGL, FFL from HFL and NGL.	The Provisions of the bidding document shall prevail.
512.	PS Vol2 Electrification 6.1.3 (4) (C) Metering Bays with Check meters, Metering CT, PT and the associated insulation, protection and monitoring arrangement as per utility's specification with required communication ports on the 220kV incoming side in a separate cubicle at each TSS which should have communication with OCC through SCADA	We presume main metering and associated CT, PT, LA for incoming lines and main metering room at TSS is not in scope of bidder. Please confirm .	The Provisions of the bidding document shall prevail.
513.	PS Vol2 Electrification 3.2 Design By Computer Simulation	We will not consider IR network data in simulation studies. Simulation will be conducted for DFCCIL part. Please confirm.	The Provisions of the bidding document shall prevail.
514.	PS Vol2 Electrification 2.3	Please provide electrical details of Track (like resistance etc.)	This is an interface item. Please

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	The civil structure and Track work has been planned to be assigned to other contractor through Contract CP 301	to be laid. So that these details will be useful in simulation studies.	refer clause no. 18.4.1 and table no. 18.4.1.
515.	PS Vol2 Electrification 4.6.2 (5)b(v) Architectural Control Room layout of TSS, SP & SSP	Please provide tentative dimensional layout drawing of control room of TSS, SSP & SP pertaining to CP304	Please refer Part – 4, Reference Documents of the Bidding Document.
516	PS Vol2 Electrification 6.1.3 (4) y Fault Locator	No separate fault locator will be provided. Fault location is in build features of distance protection relay. Please confirm.	The Provisions of the bidding document shall prevail.
517.	PS Vol2 Electrification 6.1.4 (11) Fault Locator	No separate fault locator will be provided. Fault location is in build features of distance protection relay. Please confirm.	The Provisions of the bidding document shall prevail.
518.	PS Vol2 Electrification 6.1.5 (11) Fault Locator	No separate fault locator will be provided. Fault location is in build features of distance protection relay. Please confirm.	The Provisions of the bidding document shall prevail.
519.	PS Vol2 Electrification 6.9.8 (a) Page 494 220kV Incoming feeder from grid substation of PGCIL or Power Supply Authority to TSS	No separate fault locator will be provided. Fault location is in build features of distance protection relay. Please confirm.	The Provisions of the bidding document shall prevail.
520.	Part 2, Section VI, Volume 1, General specifications/Clause 3.8.5 It is anticipated that System Work Contractor shall be in place within one year after the Commencement Date of CST Works. Contractor shall plan his interfacing requirements accordingly.	The Civil Contractor may have developed the alignment as well as performed soil investigation. It is requested to share these details as 'reference documents' with Bidders. Availability of these details will result in better understanding of current situation and hence optimized bids.	Please refer Part-4 reference document.
521.	Part 4	It is requested to provide CAD version of all alignment and schematic drawings.	Request not accepted.
522.	Part 2, section VI, Volume 2, PS- Elec works, Sr.No 5.2.2, Specification for 12000hp locomotive In Notes it is mentioned that trains in the Initial period will be generally hauled by WAG-5, WAG-7 and WAG-9 and 9000 HP locos of Indian Railways.	It is requested to provide pantograph dynamic characteristics and locomotive characteristics for WAG-5, WAG-7 and WAG-9 and 9000 HP locos of Indian Railways.	Please refer Part-4 reference document.
523.	Part 4, Reference Drawings	The general power supply diagram, schematic of SP, SSP and	Please refer our reply at Sr.No.1.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	2. Power supply distribution…..	TSS provided is for double line section. The project is single line. Please provide the correct drawings for CP 304	
524.	Part 4, Reference Drawings Yard plans	Kindly share the detail of OCS layout plan & drawings at merging with IR locations.	Please refer Part-4 reference document.
525.	Part 4 reference documents In the drawing for Earthing & bonding of OHE structure along the bridge girders (RCC) & Piers, the connection of bridge mast to AEW, BEC and also connection to lug plate from piers reinforcement for connection to BEC.	BEC is required. Please confirm.	The Provisions of the bidding document are self-explanatory and shall prevail.
526.	Part 4, Reference Drawings	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.	Please refer Part-4 reference document.
527.	Part 2, section VI Volume 2, clause 8.18.2 para 1 The Section Insulator (SI) is a device installed in the contact – catenary wires system for electrical separation of two elementary electrical fields while allowing for the passage of a vehicle pantograph, such as in a cross over between two adjacent tracks.	Electrical field is similar to electrical section. Please confirm.	The Provisions of the bidding document shall prevail.
528.	Part 2, section VI Volume 2, clause 8.20.3 The contractor shall demonstrate the potential rise in all possible OHE/Power fault case scenarios remains lower than the permissible limit at any point as per relevant standards including step and touch potential while on going discontinuity in Rails unnoticed like hair cracks etc. and discontinuity of AEW due to failure/theft if any in two independent systems.	Failure scenarios can be simulated however simulation of theft scenarios is not possible. Please clarify on the requirement regarding theft.	The Provisions of the bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
529.	Part 2, section VI Volume 2, clause 8.20.5 (4) The earthing connections shall be through fasteners for exposed connections or shall use exothermic welding procedure.	CST interface does not exist at present. Is the drilling of holes in running rails allowed? Please confirm.	Please refer Sub-Clause 18.4.1, Vol.2 Part-2 of the bidding document.
530.	Part 2, section VI Volume 2, clause 8.1.1 (2) Overhead contact line shall also be designed; constructed and **maintained** in such a way that due regard is given to safety of the public, durability, robustness, maintainability and **environmental considerations** as per EN 50119	Maintenance is in our scope. Please confirm. Environmental conditions shall be as given at para 4.2 of Part 2, section VI Volume 2, PS – Elec works. En 50119 does not specify environmental conditions. Please confirm.	The Provisions of the bidding document shall prevail.
531.	Part 2, section VI Volume 2, clause 8.1.1 (3) (g) 25 kV OHE system for yard lines at the stations and for the connecting chords of IR.	As the locomotive is not expected to draw heavy currents as compared on the running single main line. IR type 65 sqmm catenary and 107 sqmm contact wire in loop lines in yards can be used. Please confirm.	The Provisions of the bidding document shall prevail.
532.	Part 2, section VI Volume 2, clause 8.1.1 (3) (g) 25 kV OHE system for yard lines at the stations and for the connecting chords of IR.	The linking track between EDFC and IR will be with OCS of 65 sqmm catenary and 107 sqmm contact wire. Please confirm.	The Provisions of the bidding document shall prevail.
533.	Part 2, section VI Volume 2, clause 4.2 Basic wind pressure * For long bridges (more than 150m) and within 100m from their abutments on either side and on banks, where the height of the catenary above surrounding mean retarding surface is more than 30 meters, the specified 25% reduction in wind pressure shall not be reckoned for purposes of design.	The latest available version i.e. IS: 875 - Part 3: 2015 allows for 25% reduction in wind pressure where the height of catenary above surrounding mean retarding surface is more than 30 meters except for long bridges (more than 150m) and within 100m from their abutments on either side and on banks. Please confirm.	The Provisions of the bidding document shall prevail.
534.		NTP+30 days, track of 10-20 kms will be made available for	The Provisions of the bidding

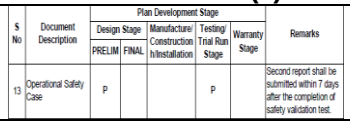
Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		construction works to systems contractor. Please confirm.	document shall prevail.
535.		Please share the milestones of Civil work and track work. This is needed for our purpose of planning and prioritising design delivery among the sections where track will be made available first to start work.	Please refer to Addendum No. 08 at Sr. No. 70.
536.	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.	Please refer Part-4 reference document.
537.	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.	The Provisions of the bidding document shall prevail.
538.		Is there any area in the project length where TC between IR and EDFC is less than 6.25 m. Please provide.	Please refer Part-4 reference document.
539		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.	The Provisions of the bidding document shall prevail.
540.		Please provide the list of track crossing pipes, civil structures, permanent structures, transmission tower or pier in close proximity to project alignment.	Please refer Part-4 reference document.
541.	Bridges, FOR and ROB	Earthing Scope and diameter of bars/rod to be used in bridges, FOR 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.
542		Classification of transmission lines crossings which are below 33kV and above 33kV is required along with their chainages. Please provide the requested classification	Please refer Part-4 reference document.
543.	Vol 2 , Sub clause 18.4.1/1(d) / Interface With Civil, Building & Track Contractor (CST) Vol 2 , Sub clause 18.4 / Table.18.4.1/ 2 Indicative Interfacing Matrix with Civil, Buildings and Track Works Contractors (CP 302 and 303) Sr No 2 Vol 2 , Sub clause 18.4 / Table.18.4.1/ 2 Indicative Interfacing Matrix with Civil, Buildings and Track Works Contractors (CP 302 and 303) Sr No 4 The System Contractor may please note that no movement of men and material will be permitted on the embankment after the	Both the clauses are contradictory and needs clarification whether System Contractor will have access to Embankment before track is laid. If case yes, then the clauses being referred to be modified accordingly. In case no, then the access the track completion milestone of CST contractor may be clarified and included in the appropriate clause.	Please refer to Addendum No. 08 at Sr. No. 22.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	blanket layer up to the designed thickness is finished. Shall Coordinate with the CST contractor and shall maintain a coordinator to continuous liaise with them, conduct meetings and seek information and keep the Engineer informed regarding completion of Blanket layer, Track fit for movement of Tower Wagon, Mechanized wiring Train and Material Train, stabling lines and Plan for Construction activities as per the delivery schedule. Shall take the access to the Blanket layer, Rail track and stabling siding for execution Of the work. Shall complete all the activities i.e. Blanket layer and Track laying etc. in coordination with the construction activities of System Contractor (CP-105) to meet the timeline.		
544.	Vol 2 , Sub clause 18.4 / Table.18.4.1/ 7 Indicative Interfacing Matrix with Civil, Buildings and Track Works Contractors (CP 302 and 303) Sr No 4 Shall supply and install (continuous) Buried Earth Conductor (BEC) as required all along the alignment buried in soil within formation including crossing under the Track (wherever required) and bring out Connections with terminals above ground. Shall provide connections/extensions through welded lap joints/ exothermic joints as approved by The Engineer. Shall provide schematic drawings and designs showing	As per Drawing (Refer extract below) GC/DFCC/OHE/EMBKT/TYP/501-1, it shows BEC work will be carried out by CST Contractor which is in contradictory and with the clause referred here  	This drawing is not part of the Bidding Document of CP – 304.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	profile/ size & Material Specifications of BEC as required, Typical laying arrangement longitudinal to the alignment, brought out Connections above ground with terminals, crossing under the track including earthing & bonding Joints, connection with Rails. Shall coordinate with the Civil contractor so that the BEC is installed while the formation work is in the progress by the Civil Contractor and formation is not required to be excavated for laying of BEC.		
545.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.1.1. Point (8) RAMS requirements of the Systems have been identified, apportioned to various subsystems and elements of the works and the associated designs for these have been demonstrated to be capable of meeting their allocated performance targets.	The bidder will consider the Systems RAMS requirements and their performance target; as detailed in their particular specifications (PS) i.e. Vol 2 for Traction Electrification, Vol 3 for Signaling and Vol 4 for Telecom to demonstrate the System performance as per PS. Please confirm the Definition of SYSTEM RAMS, whether is it at Rail System Level OR Rail Sub System Level as specified in the above reference clauses in Volume 2 ,3& 4.	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.
546.	Part 2/ Section VI Vol 1/ GS/ CH12/ 12.23- System Assurance Submissions Vol 2/ PS- Electrification/ CH14/ 14.5.13- System Assurance Submissions Vol 3/ PS- Signaling/ CH7/ 7.2.4- System Assurance Submissions	With Reference to the clause [1], please confirm the System Level Submissions expected to be submitted during project execution phase. This is to ensure no duplication of the submissions for clauses [2] & [3].	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.
547.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.2.4 This System Assurance Plan will describe the RAM and Safety Assurance activities throughout the project lifecycle, comprising: (1) Preliminary Design	Please Elaborate the difference between point 2 & 3 i.e. Detail Design and Final Design. This is also contradicting with the "Plan development Stage" in Clause 12.23.1, as well.	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.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	(2) Detailed Design (3) Final Design (4) Manufacturing and Production (5) Testing and Commissioning (6) Operation		
548.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.3 & 12.4 COMPLIANCE MANAGEMENT & VERIFICATION & VALIDATION	Please elaborate, how Compliance Management is different than the Verification and Validation??	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.
549.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.8.1 **(2) Construction and Installation Phase - The RAM activities shall include:** c. Preparation of Reliability, Maintainability and Availability Demonstration Plans	The mentioned point is contradicting about the preparations of RAM Demo Plan, with the clause 12.23 / Table SNo. 9. Please confirm the correct phase to produce the RAM Demo Plan.	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.
550.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.9.4 (5) The Risk Classes are defined as follows: Class III | Tolerable | Tolerable risk if the cost of risk reduction would exceed the improvement gained. Acceptable with adequate control and with the agreement of the Railway Authority.	Please confirm Who will be the Railway Authorities here. Is it DFCC or someone else?	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.
551	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.11.1 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.	As per the Tender requirement RAM demonstration shall be done for the RAM targets, which is in terms MTBSAF(Mean Time Between Service Affecting Failures) As per Part 2/ Section VI/ Volume-2/ PS/ CH 14/ 14.2 / Point (4), Service Failure has been define. Thus, you are requested to confirm, that the chargeable failure can be defined as a Service Failure as per the definition and tender requirement. Mentioned Point 7 is contradicting with the above mentioned tender clauses.	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.
552.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.11.1	Please define the primary failure as referred in the mentioned clause.	Being a design & build contract General/Functional/ Performance

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Point -8: Non chargeable failures in the RAM Demonstration are: (b) A failure occurrence in equipment of another subsystem, due to the **primary failure.**		requirements have been specified. The detailed design is in the scope of the contractor. The Provisions of the bidding document shall prevail.
553.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.11.2 Point(2): In the event that the availability target is not achieved, the determination of availability achievement in the preceding six month period shall be continued at monthly intervals until the target is achieved.	Please elaborate the clause.	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.
554.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.11.3 Point (2) Maintainability Demonstration Test Plan (MDTP) shall be provided before the Final Design Review.	Is Maintainability Demonstration Test Plan is a separate document from RAM Demonstration Plan? 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.
555.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.13.1 Point (7) Classification of the incident (relevant independent failure or **dependent failure**);	Please define the dependent failure as referred in the mentioned clause.	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.
556.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.18.3 Point s: (3) System Operating Safety Plan; (4) System Operating Plan;	Please elaborate the difference between and Customer expectation from the mentioned two plans.	The Provisions of the bidding document shall prevail.
557.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.23.1 Point 13: Operation Safety Case	Why the Operating Safety Case has been asked to produce twice? As per International practice, usually the Operating Safety case shall be produced after final Trial Run or before the start of revenue service. 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

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
			document shall prevail.
558.	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.	Both the referred clauses are contradicting; Please confirm which shall need to refer for designing.	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.
559.	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.	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.	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.
560.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.3 AVAILABILITY Point (19)/ iii The availability shall be worked out on the basis of the formula given during the preceding six months…..	Please Elaborate the preceding six months of??	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.
561.	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**	Please Elaborate the type of Test groups as mentioned in the referred clause.	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

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	test group in proportion to their expected failure occurrence and in accordance with the MTBF.		document shall prevail.
562.	Part 2/ Section VI/ Volume-2/ PS/ CH 14. 14.5.13 Deliverable Documents Point 4- Safety Policy	Will the Safety Policy be the separate document or can be a part of Safety Plan? 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.
563.	Part 2 Section VI Volume 1 General Specifications THE Proposed contract is titled "… System contract…" Definition proposed for "System" are in points 75 and 76 below (75) "System Contractor "means the Contractor engaged by the Employer to carry out Works related to Systems part of the project. (76) "System Works "means the works to be carried out by the Contractor(s) engaged by the Employer to carry out Works related to 'Design, Construct/Install, Manufacture, Procure/Supply, Build, Testing and Commissioning of 2x25kV AC Electrification, Signalling & Telecommunication, E&M and associated woks' as part of the project for the EDFC Railway line under construction on Design-Build lump sum basis from Sahnewal - Pilkhani Section of Eastern Dedicated Freight Corridor including removal of any temporary works as included in the scope of Work of the Employer's Requirement.	The rail system on a technical and functional point of view is more than the scope included by in the proposed contract as to obtain certification for operation others elements as well - Infrastructure - Track component - Operation - Maintenance - And rolling stock Needs to be integrated Could you precise the role of the contractor as a System Integrator in particular that role exist also in various subcontract like CP104 /CP101/ etc. and will be certainly found in future RFP to be issued?	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.
564.	Part 2, Section VI, Volume 2, Page 11 of	For this design by computer simulation we need to get all the	Electrical Drawings under Part-4

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	334 SrNo.3.2 DESIGN BY COMPUTER SIMULATION	inputs for Simulation, Approved ESP, Track Alignment Latest, and CW Location as Coordinates. Please provide all required inputs.	reference document for CP-304 has been re-uploaded on DFCCIL website and are now available. Earlier there was some error.
565.	Part 2, Section VI, Volume 2, Page 8 of 334 SrNo.2.2 POWER SUPPLY FOR THE EASTERN FREIGHT CORRIDOR	LILO requirement is a change from Earlier DFC Tenders; please pprovide all the electrical drawings related to CP 304.	Please refer our reply at Sr.No.1.
566.	Part 2, Section VI, Volume 5, Page 10 of 135 SrNo.3.2 SCOPE OF E&M AND ASSOCIATED WORK	For E & M planning we need access dates for buildings for all locations. Please provide these access dates.	Please refer Addendum No. 08, Sr. No. 70.
567.	Part 2, Section VI, Volume 2, Page 22 of 334 SrNo.3. 3.3.59(a) Items of work excluded from the scope	We need to know the Track access Date for Open route and Station Yard for Planning purpose? Please provide that.	Please refer Addendum No. 08, Sr. No. 70.
568.	Part 2, Section VI, Volume 2	Define PCC, TL conductor size, Short circuit level at GSS & at TSS location wise.	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.
569.	Part 2, Section VI	Being DB contract, Bidder should have liberty to design as per EN Guidelines and RDSO requirements should not be insisted.	The Provisions of the bidding document shall prevail
570.	Part 2, Section VI, Volume 1, General Specifications 3.3.2 The Mobilization Plan shall include but not be limited to Setting up of Design Office, Site office, mobilization of Contractor's Key and support personnel, Procurement of facilities, Information required by the Contractor and deliverables to be submitted	Please confirm that Land can be provided by DFCCIL in RoW for Storage cum site Office, which will be handed over to DFCC on completion of work.	The Provisions of the bidding document shall prevail

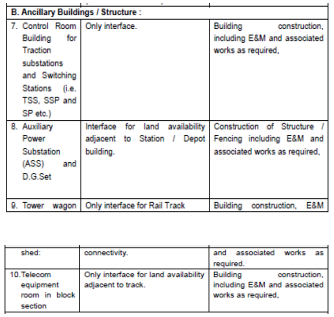
Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
571.	General Query	Can the surplus material on adjacent ongoing DFCC contract be allowed to use.	No, this is not permitted.
572.	Part 2, Section VI, Volume 2, General Specifications 3.18.6.b The procurement of materials and ensuring they comply with the requirements of the Specification, including purchasing documentation and specific Verification arrangements for Contractor/Employer's Personnel / the Engineer inspection of material or manufactured product prior to release for use/installation;	Equipment/ Material already approved in Previous DFCC Project can be used, subject to technical compliance? Please Confirm.	The Provisions of the bidding document shall prevail.
573.	Part 3 Section VIII Particular Conditions – Appendix to Tender 1.1.3.3 Time for Completion The Contractor shall complete the whole of the Works within 900 (Nine Hundred) days from the Commencement Date and each of the Milestones shall be achieved as per Sub-clause 8.2 of the Particular Conditions of Contract.	What is the complete Integration readiness of aside this Project namely CP-104, WDFC, CP-305, as the delay in adjacent Project will hamper the integration of This Project. The Project Progress depends on Continuous readiness (even as shared if necessary) of Embankment & Track access fit for this Project works. The delay in adjacent/other project/ EOT awarded to other associated Section, automatically call for EOT of this project, as its goes without saying.	The interfaces required for successful integration have been highlighted in Chapter 18 of Vol – 2 , Part – 2 of the Bidding Document for Electrical portion of the work and in Chapter – 17 of Vol – 4, Part – 2 for Telecom portion of the work and in Chapter – 10 of Vol – 3, Part – 2 for Signalling portion of the work. Further, extension of time if any, will be decided by the Engineer as per the merit of the case considering the issues in question.
574.	Part 2, Section VI, Volume 2, Page 11 of 334 SrNo.3.2 DESIGN BY COMPUTER SIMULATION	Details on Simulation (ex: 12000 HP Loco details, Utilities details) inputs, Approved ESP, Master Plan shall be to be issued, as this is the basis of offer. If not, the same should be issued not later than one week from NTP issuance.	Please refer Part-4 reference document.
575.	Part 2, Section VI, Volume 1 General Specifications, Page 15 of 250 1.5.5 Approvals / Clearance And Certification	The time line for Comments / Approval on Design documents and submission shall be once only and the Time includes review of PMC, DFCC & Indian railways as necessary. Any delay in approval cycle will have impact on Project & cost.	Please refer Sub-Clause 6.20,Vol.1 Part-2 of the bidding document. The Provisions of the bidding

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		Please confirm	document shall prevail.
576.		System Integration to be led by CW & Track contractor & PMC. Bidder will extend the required compliance as per tender.	The contractor's responsibility for interface management and coordination with Other contractors has been well laid down in the bidding documents. The Contractor shall follow the same for proper completion and testing of their part of work and Integrated testing thereafter of the complete system, including completed works of all the contractors.
577.	General Query	Confirm clearly the boundary of work of adjacent contract. 1. OCS 2. Link of Communication from TSS at boundary. 3. Boundary/Scope allocation / Boundary at OCC 4. Signal works & associated Cables. 5. IR works at merging location 6. Termination of Transmission line to TSS Gantry will be TL contractor scope. 7. HFL information of CW be shared in Bid for TSS-SP-SSP location.	The Provisions of the bidding document shall prevail.
578.	General Query	Confirm that this project does not have any work under Power block.	The Provisions of the bidding document shall prevail.
579.	General Query	Please clarify the requirements & Contents of Inception Report.	Please refer sub-clause 3.3.3(3)(a)(i),Vol.2 Part-2 of the bidding document.
580.	General Query	Please share the P6 Base line schedule of CW/Track contractor, as that will be the basis of Planning for CP 304.	The Provisions of the bidding document shall prevail.
581.	General Query	Please share the soft CAD copy of Alignment, Curve, Gradient, Permanent Structure details.	Request not accepted.
582.	Part 2, Section VI, Volume 1 General Specifications, Sr No 2.9 PROJECT MANAGEMENT INFORMATION SYSTEM (PMIS)	Please clarify the Scope of PMIS in this contract.	Please refer Appendix-7 of chapter-15,Vol.1 Part-2 of the bidding document.
583.	Part 2, Section VI, Volume 1 General Specifications Sr.No 1.5.5	Please Confirm that all correspondence, submissions, approvals are to be done and dealt with PMC only.	Please refer our reply at Sr.No.12 above.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Approvals / Clearance And Certification		
584.		Please clarify the list of documents required for Vendor & Subcontractor approval, as this activity often delayed due to approval process.	The Provisions of the bidding document are self-explanatory and shall prevail.
585.	Part 3 Section VIII Particular Conditions Sub-Clause 14.7 Payments Payment of the amount due in each currency shall be made in to the bank account of the Contractor (Sole/JV/JVA) or its individually authorised member(s), nominated by the Contractor in the payment country (for this currency) Specified in the Contract. However, in respect of foreign currency payments, copies of supporting documents evidencing the import of goods /services shall be submitted by the Contractor."	Please confirm Offshore and onshore entities of consortium can directly bill in INR+ USD, Euro, and GBP.	No, the Offshore and onshore entities of consortium cannot directly bill in INR+ USD, Euro, and GBP.
586.	Part 1 Section II BDS ITB 30.1 The currency(ies) of the bid and the payment currency (ies) shall be as described below: ---------- - The rates of exchange as mentioned above shall apply for all payments under the Contract so that no exchange risk will be borne by the successful bidder.	Please Announce the currency exchange rates officially (28 days before submission) before Stage-2, so that bidders will have clarity.	Request not Accepted. The Bidder is required to ascertain the currency exchange rates.
587.		LD to be sole & exclusive remedy. Clarify.	The Bidder is requested to refer to the General Conditions of Contract as included in the FIDIC Yellow Book 1999 Edition which describes in detail the damages which the Employer would be entitled to in the event of Breach of Contract by the Contractor.
588.	Part 3 Section VIII Particular Conditions Sub-clause 4.4	Subcontract Limit shall be enhanced to 40% of Contract Price. This is in line with APL-1/CP-104. Contractor cannot share any	Request not accepted. The Provisions of the Bidding

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Subcontractors The Contractor shall not subcontract Works of value more than 30% of the Accepted Contract Amount in addition to the Works for which Specialized Subcontractor(s) are named in the Contract." Add the following at the end of the Sub-Clause: "The Employer at his discretion may permit the replacement of Specialized Subcontractors, named in the Contract, provided new Specialized Subcontractor(s) have required qualification."	PO, which is a confidential document.	Document shall prevail.
589.	Part 1 Section II BDS ITB 54.1 Part 3 Section VIII Particular Conditions Sub-Clause 1.1.6.6 The Performance Security and Environmental, Social, Health and Safety Performance Security shall be in the form of unconditional guarantee issued by a Scheduled Bank in India (included in the second schedule to Reserve Bank of India Act 1934) or the corresponding financial institution of foreign bank located in India. Bond is not acceptable as Security. The amount required to be paid by the successful Bidder for each of the securities shall be as identified in Appendix to Tender, Part – 3 of the Bid Document of CP - 304. Performance Security" means the security as identified under Sub-Clause 4.2. "ESHS Performance Security" means the security for Environment, Social, Health and Security (ESHS) as identified under Sub-Clause 4.2.	Please clarify what will be the scope covered in this ESHS performance security. Please provide the clear EHS performance requirements which will require completion to get this ESHS performance security released.	The ESHS Performance Security would cover all the Environmental issues stipulated in Appendix – 6 of Volume – I (General Specifications), Part – 2 of the Bidding Document. It will also cover any other requirement for protection of Environment, Safety, and Health & Security as required in the Employer's Requirements.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	"		
590.	Part 1 Section IV Bidding Forms Price Schedule 2.0	The % allocation made in Tender for different price schedules inside Price Schedule 2.1, 2.2 and 2.3 cannot justifies the value of the material/Service for that particular part of price schedule. This will unnecessarily hamper the cash flow of the project. Bidder should be allowed to vary the % allo keeping the major group within 100% allocation.	Request not accepted. The Provisions of the Bidding Document shall prevail.
591.	Part 3 Section VIII Particular Conditions – Appendix to Tender Advance Payment 14.2 Mobilization Advance The Employer shall pay, on written request from the Contractor, an interest free Mobilization Advance up to (Ten) 10per cent of the Contract Price. The Mobilization Advance shall be released in two instalments as under: (a) Up to (Five) 5 per cent: On Submission of Performance Security and commencement of *mobilization process*; and	Please elaborate the meaning of Mobilization process in case of advance payment.'" What are the key activities included in this mobilization process which will require completion enabling contractor to get the 5 % advance payment.	The Engineer shall determine the commencement of mobilization process based on review of activites generally covered in Para 3.3 of General Specifications of Part 2, Section VI, Vol. 1.
592.		All expenses pertaining to the Project Mobilization will be considered for Stage-2 ADP. This is often disputed.	Inclusion or otherwise of an expenditure towards mobilization will only be decided by the Engineer at the material time during execution of the Project.
593.		Per TKM prorate payable Milestone to be derived from Total Executed/Total BOQ required for Project TKM. This work done need not be continuous 1 TKM only payable.	The provisions of Bidding document are sufficiently clear.
594.		Please clarity the modality of handing over the work completed Section, when some of the section/Land is inaccessible to Contractor, for reasons beyond his control.	The Taking Over of Works will be in accordance with Clause 10.1 of Conditions of Contract. The Bidder may also note that there will be no Taking Over of Part of the Works.
595.	General	Please clarify that what will be the responsibility of the CP 304 Contractor if CP 304 work is completed but adjacent section of EDFC are not completed and Integration work is pending.	The provisions of the Bidding Document are sufficiently clear. The matter will be dealt in accordance with clause 10.3, 8.3

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
			and other relevant clauses of Conditions of Contract.
596.	General	Please specify who will be in charge to handle the disputes during interface works of CP 304?	The Engineer will be in charge for handling such disputes.
597.	General	Please Confirm that CW/Track contractor owns the responsibility of developing CIIP/TRIP.	The Contractor shall liaise with the other contractors in the preparation of CIIP.
598.	Vol-5 Particular Specifications E&M and Associated Works, clause no.3.3.1  **B. Ancillary Buildings / Structure :** 7. Control Room Building for Traction substations and Switching Stations (i.e. TSS, SSP and SP etc.) — Only interface. — Building construction, including E&M and associated works as required, 8. Auxiliary Power Substation (ASS) and D.G.Set — Interface for land availability adjacent to Station / Depot building. — Construction of Structure / Fencing including E&M and associated works as required, 9. Tower wagon shed: — Only interface for Rail Track connectivity. — Building construction, E&M and associated works as required. 10. Telecom equipment room in block section — Only interface for land availability adjacent to track. — Building construction, including E&M and associated works as required.	We understand that Building Construction scope is limited to Control Room for Traction Sub-stations (i.e. TSS,SSP & SP), Auxiliary Power Sub-station (ASS) and DG Set , Tower Wagon Shed and Telecom equipment room in block section.	The Provisions of the bidding document shall prevail.
599.	Vol-5 Particular Specifications E&M and Associated Works, clause no.4.5 GENERAL DESIGN CRITERIA FOR ANCILLARY BUILDINGS AND OTHER STRUCTURES (3) The foundations of buildings shall be designed for at least one storey more than the present day requirement.	We understand that only foundation shall be designed for one storey more than the present day requirement as indicated in building plans given in the bid documents.	The Provisions of the bidding document shall prevail.
600.	Vol-5 Particular Specifications E&M and Associated Works, clause no.4.5 (5) The Plinth level of Control room	We understand that only these two criteria shall be applicable for finalizing Plinth Level of Control room buildings.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	buildings like SSP, SP and TSS in proximity of Railway alignment shall be 900mm above natural ground level or 600mm above Highest Flood Level (HFL) whichever is higher.		of the contractor.
601.	Vol-5 Particular Specifications E&M and Associated Works, clause no.4.5 (7) The enclosed area between the boundary walls / fencing for the buildings constructed by the Contractor shall then be filled with earth and well compacted by a suitable method as decided by the Engineer. (8) Chain link fencing shall be provided around TSS, SSP, SP, ASS and D.G.Set as per Drg No. DFCC/CHAIN LINK FENCING/TYP-001.	Chain Link fencing as Drg. No. DFCC/CHAIN LINK FENCING/TYP-001 shall be enclose the building constructed and shall be filled with designed slope.	The Provisions of the bidding document shall prevail.
602.	Vol-5 Particular Specifications E&M and Associated Works, clause no.4.5 (10) The ceiling height of Control Room buildings (TSS, SP, SSP) shall be minimum 4.2 m (including clear head room below beams if any) above floor level.	We understand that ceiling height above the floor shall be 4.2 m below the beams. The Plans given GC/DFCC/SP-SSP-504 needs to be corrected that indicated 5.5 m floor to floor height with shed. There will be No Shed but RCC roof slab..	The Provisions of the bidding document shall prevail.
603.	Vol-5 Particular Specifications E&M and Associated Works, clause no.4.5 (11) The ceiling height of Signalling & Telecom Equipment Rooms shall be minimum (Three) 3.0 m above floor level;	We understand that ceiling height of Signalling & Telecom Equipment Rooms shall be 3.0 m above floor level	The Provisions of the bidding document shall prevail.
604.	Vol-5 Particular Specifications E&M and	We understand that Backfilled earth shall be compacted at	The Provisions of the bidding

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Associated Works, clause no.17.4.2 The density of filled materials shall be compacted as per relevant IS : 2720 (latest version) including chemical treatment as per direction of the Engineer. Backfilled earth shall be compacted at Optimum Moisture Content ("OMC"). The sub-grade for the roads and embankment filling shall also be compacted at OMC.	Optimum Moisture Content ("OMC"). The sub-grade for the roads and embankment filling shall also be compacted at OMC. Unless compaction at OCM is not feasible chemical treatment will not be resorted to.	document shall prevail.
605.	Vol-5 Particular Specifications E&M and Associated Works, clause no.17.16.2 Adequate provision for road drainage including protection of embankment and slopes of roads shall be made. All the culverts and allied structures (required for road/rail, drain trench crossings etc.) shall be designed as per IRC standard / IS code and should be checked for loading.	We understand that scope of road drainage shall be limited within ROW of DFCC/IR.	The Provisions of the bidding document shall prevail.
606.	Vol-5 Particular Specifications E&M and Associated Works, clause no.17.5.5 The TERs and Telecom Power Supply Equipment Rooms are requires to be designed so that there is proper ventilation and temperature inside the rooms does not raise much above the ambient temperature. These Rooms should also be dust resistant so that the performance of the equipment does not degrade during its rated life cycle.	We understand that TER & Telecom Control Power Supply Equipment Rooms are requires to be designed so that there is proper ventilation and temperature inside the rooms does not raise much above the ambient temperature and there is no requirement of Air Conditioning.	The Provisions of the bidding document shall prevail.
607.	Vol-5 Particular Specifications E&M and Associated Works, clause no.17.17.3	We understand that Control Room Buildings shall be provided with Ventilation and there is no requirement of Air Conditioning.	The Provisions of the bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	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□C.		
608.	Vol-5 Particular Specifications E&M and Associated Works, Chapter-4, clause no. 4.6 S.no. (5) (5)Guest House It is proposed to construct One (1) number Guest House by the CST contractor (CP-301) at Ambala / Chandigarh.Civil work of Guest house (not less than 500 m2 plinth area) is carried out by CST Contractor including concealed conduits in Contract Package CP 301. However electrical works in these buildings are included in present scope of work under Contract Package CP 304.	1. Request to provide the Guest house Building layout Plan 2. As per the Attachment 20.7 Indicative scheme for Auxiliary Power Supply system, there is no outgoing feeder for Guest House is considered .Hence Request to clarify whether the Supply to Guest House is to be Fed by ASS or Separate Power Transformer to be considered.	Please refer Sr.No.4 in table under Sub-Clause 3.3.1, Vol.5, Part-2 of the bidding document. The Provisions of the bidding document shall prevail.
609.	Vol-5 Particular Specifications E&M and Associated Works, Chapter 20 ATTACHMENTS, Attachment 20.1 : Schedule of Electrical Fixtures-Junction Station Schedule of Electrical Fixtures-IMSD	As there is no furniture layout, so we understand that the general purpose Switched socket outlet shall be provided as per the Attachment 20.1 & 20.5. Beyond that additional variation shall be considered. Please confirm And if same is to be provided as per furniture layout, then	The Provisions of the bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Attachment 20.5 Scale of Fittings for Staff Quarters	please share the furniture layout of respective buildings.	
610.	Vol-5 Particular Specifications E&M and Associated Works, clause no. 11.2, *The DG Set shall be able to start automatically in all climatic conditions and shall take full load within 10 seconds of failure of the normal supply through an automatic change over switch.* On resumption of the supply, the change over to the normal supply shall initiate automatic shutdown. DG set shall also include acoustic enclosure, LT XLPE insulated unarmoured single core aluminum conductor cable of approved size and all other accessories including foundation & supply of High Speed Diesel oil, lube oil etc. as required for testing & commissioning at Site are indicated in scope.	"*DG Set shall be able to start automatically in all climatic conditions and shall take full load within 10 seconds of failure of the normal supply*" This clause is difficult to comply.	The Provisions of the bidding document shall prevail.
611.	Vol-5 Particular Specifications E&M and Associated Works, Clause 17.17.2 Doors and windows **(1) Windows to each room shall be of an area, about 20% of the room floor area.** Windows must be so arranged that they can be opened and closed without any personnel coming dangerously close to any live parts. All windows of the ground floor building shall be fitted with burglar bars firmly attached to the structure of the building. **All opening windows shall be fitted with locks.** Internal doors shall be 2 hours fire rated and shall be fitted with door closers, lever latches, **mortise lock and keys**.	1. 20% of floor area for Windows in each room is on excessive and will be source of dust affecting performance of equipment. 2. For service buildings like TSS/SP/SSP Control Rooms, ASS and Signal and Telecom Equipment Rooms the windows should be provided as per the system requirements. 3. Signalling Equipment Rooms and Telecom Equipment Rooms in mid-sections – in between the stations will be unmanned and to make them Dust Proof – windows were eliminated in other DFCC project.	The Provisions of the bidding document shall prevail.
612.	Vol-5 Particular Specifications E&M and Associated Works, Clause 4.9 ,Anciliary	Station Building Plan (Junction Station Drawing No. GC/DFCC/JS/101 & Crossing Station building Drawing No. –	This drawing is not relevant to Contract Package CP-304.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Buildings Construction **List of Drawings** (Included in part-4 Reference Documents)	GC/DFCC/JS/102) Showing DG Set room and ASS Drawing no GC/DFCC/ASS/506 also Showing DG Set room. The purpose of DG in ASS and in Station is not clear. If the Essential Supply to Station Building is provided by the Station DG only and then role of DG in ASS is not clear. Kindly Clarify the same.	
613.	Vol-5 Particular Specifications E&M and Associated Works, Chapter-4, clause no. 4.6 S.no. (5) (5)Guest House It is proposed to construct One (1) number Guest House by the CST contractor (CP-301) at Ambala / Chandigarh.Civil work of Guest house (not less than 500 m2 plinth area) is carried out by CST Contractor including concealed conduits in Contract Package CP 301. However electrical works in these buildings are included in present scope of work under Contract Package CP 304.	1. Request to provide the Guest house Building layout Plan 2. As per the Attachment 20.7 Indicative scheme for Auxiliary Power Supply system, there is no outgoing feeder for Guest House is considered .Hence Request to clarify whether the Supply to Guest House is to be Fed by ASS or Separate Power Transformer to be considered.	Please refer our reply at Sr.No. 608 above.
614.	Vol-5 Particular Specifications E&M and Associated Works, Chapter 20 ATTACHMENTS, Attachment 20.1 : Schedule of Electrical Fixtures-Junction Station Schedule of Electrical Fixtures-IMSD Attachment 20.5 Scale of Fittings for Staff Quarters	As there is no furniture layout, so we understand that the general purpose Switched socket outlet shall be provided as per the Attachment 20.1 & 20.5. Beyond that additional variation shall be considered. Please confirm And if same is to be provided as per furniture layout, then please share the furniture layout of respective buildings.	The Provisions of the bidding document shall prevail.
615.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel Minimum Education Qualification	Please specify if Diploma with sufficient relevant work experience can also be considered for these positions. In general Diploma Holder with 7-10 Years relevant should be equivalent to BE Engg. Please confirm	Request not accepted, the provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	B.E. (Electrical / Electronics) or Equivalent B.E. (Electrical / Electronics / Telecommunication) or Equivalent ----------		
616.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel Minimum Education Qualification B.E / B.Tech or equivalent Sr. No 1 to S r. No 20	As per our understanding Government/UPSC and other govt. organizations considers AMIE equivalent to Degree in engineering. Please confirm that our understanding is correct. This is as per Law of Land also.	AMIE in the relevant field will be considered equivalent to engineering graduate degree.
617.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel Total Work Experience Minimum 15/20 years mentioned	Please confirm that it is possible to submit a CV with marginal lesser year of work experience but having expertise in similar works as required in this project. Years of General /Specific Experience shall be relaxed and that will not be a Rigid criteria.	Request not accepted, the provisions of the Bidding Document shall prevail.
618.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel Minimum Education Qualification Degree documents	Please confirm the documents required to be submitted regarding Qualification of Key personnel that will be required for approval purpose by PMC only at project stage. And please confirm that there is no extra validation required by specific authority.	This will be decided by the Engineer and cannot be spelt out at this stage.
619.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel Key Position CV	Please confirm that CV's of shortlisted candidates can be shared for this tender; On declaration of Successful preferred bidder, the candidates will be placed in Role. This is because we are at bid stage only.	It is permissible to share the CV's of the Key personnels at bidding stage among the bidders. Please refer Addendum No. 08, Sr. No. 77 &78.
620.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel Total Work Experience Sr. No 1,2,3,,5,6,7, and 12 International Experience	We insist that there may be resources with required technical expertise and experience of Electrification and Signaling projects in India without required international experience, as many projects of International nature & Competitive Bidding projects (like DFCC, DMRC, Other Metros) are executed in INDIA by Indian experts. In our view International experience should not be a mandatory requirement for these positions. Please confirm that it is possible to submit CV with experience in International Competitive bidding Projects of INDIA.	Request not accepted. The provisions of the Bidding Document shall prevail.
621.	Part 1 Section III Evaluation & Qualification Criteria 2.3 Personnel	You have only allowed B. E. for these 5 positions related to Design. However BE and B-TECH are similar qualifications and	B. E. and B. Tech, both are acceptable.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Minimum Education Qualification For Sr. No. 2 to Sr. No. 6 Minimum Education Qualification : B.E. (Electrical / Electronics) or Equivalent B.E. (Electrical / Electronics / Telecommunication) or Equivalent B.E. (Electrical / Mechanical) or Equivalent - ---------- B.E. (Electrical / Electronics) or Equivalent	allowed for all other positions. Please clarify.	
622.	PART-2, SECTION-VI, VOLUME – 3 **/** 3.13.3 para 2 The Signalling Equipment Rooms and Signalling Power Supply Equipment Rooms in the Block section and at all LC gates for DFC, to be built by this contractor and Signalling Power supply Equipment rooms at the Stations, LC gate huts for IR, being built by 'Other contractors' shall normally have following Environment classifications: (1) Signalling Equipment Rooms in Block section: Class B2 (2) Power Supply Equipment Rooms at Stations and in Block sections: Class B2 The contractor shall provide in the above rooms, suitable ventilation system with redundancy (1+1) to regulate temperature and maintain air circulation within limits. The contractor shall provide Air-conditioning of these rooms/equipment racks, for environment control or for	The signalling equipment in the Signalling equipment room and power supply room does not warrant Air-conditioning and hence suggested to re look into the requirements as this may result in additional equipment, power consumption and maintenance related issues.	Signalling Equipment Rooms and Power Supply Equipment room in the Block Section shall have 'B2' Environment classification.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	improvement of reliability of specific Signalling equipment or its power supply.		
623.	PART-2, SECTION-VI, VOLUME – 5 **/** Attachment 20.3 Power supply arrangement for S&T installation	The table provided here does not mention about Signaling Equipment room in block section. Please amend the table to include Signaling equipment room	Please refer to Addendum No. 08, S. No. 17 and 67.
624.	PART-2, SECTION-VI, VOLUME – 5 **/** Attachment 20.4 Attachment 20.4: Matrix of Required Facilities at Various Locations FACILITIES AT VARIOUS LOCATIONS BY CP 304 CONTRACTOR	As per PART-2, SECTION-VI, VOLUME – 3 **/** 3.13.3 para 2 Air-Conditioning is to be provided for signalling equipment room and Power supply room in block section however The table provided does not mention about Signaling Equipment room / Power supply room in block section. Please amend the table to include the same.	Signalling Equipment Rooms and Power Supply Equipment room in the Block Section shall have 'B2' Environment classification.
625.	PART-2, SECTION-VI, VOLUME – 1 **/** General Specifications 1.3 PROJECT INFORMATION FOR SAHNEWAL - PILKHANI SECTION	The chainage 360.200km is provided as END of DFC line. Please confirm does it connect to any IR or DFC station further to provide the signalling arrangement. In New Chawapail ESP the connectivity towards Ludhiana is not clearly visible.	Please refer Part – 4, Reference Documents.
626.	Contents of Yard Plan 301	Please provide clear ESP for the following Yard plans. - New Jagadhari Workshop, ESP is not clearly visible. - In New Sarai Banjara towards khurja side the further rail connectivity is not shown. - New Sirhind Yard, ESP is not clearly visible. - New MandiGovindgarh,ESP is not clearly visible. - New Chawapail, ESP is not clearly visible.	May please collect from DFCCIL Office.
627.	Part 2, Section VI, Volume 1 General Specifications / 2.16.5 (1) Class B1: Equipment Rooms with air-conditioning with possibility of failure of air-conditioning for duration of 2 hours or more at a time.	Please specify the upper limit on duration of failure of air-conditioning equipment.	Therefore provisions of Bidding document shall prevail.
628.	Part 2, Section VI, Volume 1 General Specifications / 2.16.5 (2) (a) Requirements for Class A: Temperature Min 5°C to Max 35°C,	Typically Telecom and IT infrastructure rooms are air-conditioned such that humidity is well maintained much below the specified 95%. IT equipment being installed in Equipment room typically supports 80% humidity. Hence, 95% Humidity limit clause may be reduced to 80% non-condensing and also	Provisions of Bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Humidity Minimum 0%, Nominal 65%, Maximum 95% (Non Condensing)	Most of the OEM's do not meet the Minimum Relative Humidity of 0% of Class A, Kindly amend the range accordingly.	
629.	Part 2, Section VI, Volume 1 General Specifications / 2.16.5 (2) (b) Requirements for Class B: Temperature Min -2.5°C to Max 45°C, Humidity Maximum 100% (Non Condensing)	Class B1 is defined as Air-conditioned Telecom Equipment Room. Hence, Humidity in the equipment room is well controlled. In addition, none of the Telecom and Switching equipment meant for deployment in Indoor Telecom Equipment Room support 100% Humidity (meant for Outdoor or Buried environment – Class-C and Class-D respectively). Hence, the Maximum Humidity requirement may be reduced to 90% Non-Condensing for Air-conditioned rooms.	Provisions of Bidding document shall prevail.
630.	Part 2, Section VI, Volume 1 General Specifications / 8.6.11 All the equipment shall be installed in accordance with OEM's installation checklist. A certificate shall also be required to be issued by the OEM that the installation has been done in accordance with the Installation checklist and Earthing and surge protection arrangements are in accordance with latest RDSO specification. The equipment shall not be commissioned unless such a certificate has been issued by the OEM.	We understand that this clause is not applicable for Telecom Subsystem installation as the equipment used in Telecom are COTS products. Please confirm.	For Products having RDSO Specification shall be installed as per OEM check list.
631.	Part 2, Section VI, Volume 1 General Specifications / 13.1.1 (5) (5) The training instructors, for training courses, shall be qualified, competent, with sufficient years of practical experience and possess good communication skills in the relevant fields. The training shall be in the English / Hindi languages as required. All training material for these courses shall be in English / Hindi as required.	Telecom Subsystem Training material are prepared in English language only, please amend the clause.	Provisions of Bidding document shall prevail.
632.	Part 2, Section VI, Volume 1 General Specifications / 14.3.1 (2) (2) The Contractor shall deploy adequate,	We understand that Support based on call-out – services is required only and for that required team will be deployed. Please confirm.	Provisions of Bidding document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	committed and competent resources for providing desired level Support and Call-out-services. As a minimum, the expert of each sub-system shall be provided by the contractor at every IMD/IMSD location. All the resources shall be trained before deployment.		
633.	Part 2, Section VI, Volume 1 General Specifications / 14.5.2 (3) (3) The Operating / User Manuals and Maintenance Manuals of Systems/Sub Systems suitable for use at technician level, shall be prepared in both English and Hindi languages unless otherwise instructed by the Engineer.	Telecom Subsystem Operating / User Manuals and Maintenance Manuals are provided only in English language, please amend the clause.	Provisions of Bidding document shall prevail.
634.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 3.1.6 Wherever the equipment, being provided under Contract Packages CP-104 for EDFC Phase-1 is upgraded / augmented / reconfigured under this Contract, the service life of these upgraded / augmented / reconfigured equipment shall be minimum 15 years from date of commissioning of this upgradation/augmentation/reconfiguration.	We understand that clause related to service life is applicable only for upgraded/augment Hardware part or Software only and not applicable for whole equipment. Please confirm.	This clause refers to whole equipment and not for upgraded part.
635.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 4.6.2 Unless otherwise specified, all indoor Telecommunication Equipment installations shall be designed for operation continuously in environmental temperatures range of -5°C to +55°C.	Typically Telecom Switching equipment is installed in air-conditioned environment and supported temperature rating is from 0 to +40°C. IT equipment (Servers etc.) requires even more stringent +35°C. Hence getting all telecom equipment to support -5°C to +55°C is not practically feasible. This requirement may be restricted to only Outdoor installed equipment.	Provisions of Bidding document shall prevail.
636.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.3.2	Please clarify if "All Works" include Augmenting / installing RCIL Equipment? Please clarify the interface point and scope of work of the contractor and RCIL respectively.	Provisions of Bidding Document are sufficiently clear.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	The First Network shall be formed by two optical fibre cables 24F (min),preferably one laid along the up-track and the other laid along the down-track ensuring route diversity, from Sahnewal to Pilkhani and terminated on Optical Distribution Frames (ODFs) in TERs at Stations. Employer shall hire from M/S RCIL required STM-16 Bandwidth for the section between Pilkhani POP of RCIL and Khurja POP of RCIL. All works from New Pilkhani TER to RCIL POP at Pilkhani shall be carried out by Contractor. Further all works from M/s RCIL POP at Khurja to TER at New Khurja station shall be carried out by the Contractor.		
637.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.4.4 Each SDH Node of the First Network shall be at least STM-16 level or higher in the SDH hierarchy. The exact level of SDH Node in SDH hierarchy shall be determined by the Contractor to meet the bandwidth requirements for sub-systems under this Contract with 50% Spare Capacity. SDH Node of First Network shall be equipped with minimum 2XSTM-16o and 4XSTM-4o Interfaces. For providing connectivity between New Pilkhani station and RCIL POP at Pilkhani, STM-16 nodes shall also be required to be provide that RCIL POP at Pilkhani by the contractor. This STM -16 nodes shall be integrated with RCIL equipment at RCIL POP at Pilkhani for carrying over the STM-16 traffic to RCIL POP at Khurja. Further STM -16 Nodes shall also be	Please clarify if it is necessary to provide the STM-16 Nodes at RCIL POP at Pilkhani and Khurja. Instead it may be possible to extend the connectivity over Optical fiber link from New Pilkhani and New Khurja. If it is necessary to provide STM-16 Nodes at RCIL POPs, please share clear interface requirements between RCIL and the contractor in terms of power availability, Air-conditioning, Rack space, etc.	Provisions of Bidding Document are sufficiently clear. Employer will ensure power availability, Air-conditioning, Rack space, etc. at RCIL POP to the successful bidder.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	required to be provided by the contractor at RCIL POP at Khurja. These STM-16 nodes shall be integrated with RCIL equipment at RCIL POP at Khurja and with STM-16 nodes provided at New Khurja station under Contract Package CP-104 & Contract Package CP-105. These SDH nodes of RCIL POP at Khurja and New Khurja station shall be connected to each other in redundant architecture with linear multiplex section protection or SNCP by extending ring being provided under Contract Packages CP -104 & CP-105. With above integration it shall be possible to make provisioning of VC4 and VC12 across SDH node provided under this Contract as well as under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of various systems/subsystems under this contract.		
638.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.9.13 (2) (2) The NMS shall allow the user to configure all existing and new circuits with the following functions: (a) frame position allocation (b) interface port allocation; (c) low speed (64 kbps & lower) interface cards configuration; (d) lower order multiplex time slot allocation and routing; (e) higher order multiplex/cross-connect switch configuration; (f) logging of circuit routing data logged into configuration database; (g) operator's configuration checks function prior to main and backup database update; and (h) the OFC links from junction stations to	Most of these features correspond to NMS of SDH equipment. Do all of these configurations also apply to NMS of Flexible Access Multiplexer?	Only applicable functions shall apply to NMS of Flexible Access multiplexer while designing the Telecom System.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	the adjacent station of IR		
639.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.3.9.13 (2) (h) the OFC links from junction stations to the adjacent station of IR	SDH NMS cannot monitor the OFC links from junction stations to the adjacent station of IR unless there is an SDH connectivity established. Please clarify the type of monitoring required	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
640.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.5.3.3 (6) (6) Adequate numbers of Primary Multiplexers shall be provided so that there is no loss of Communication at any point of time.	Normally, loss of communication is prevented by building Controller card and Power supply redundancy in the equipment. Please clarify how "Adequate number of Primary Multiplexers" shall be computed.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
641.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 5.5.3.3 (8) (8) The optical line interfaces shall conform to ITU-T Rec. G.957.	The Flexible Access Multiplexer is required to interface with SDH equipment at E1 level (Electrical interface). Similarly, it is required to provide sub-2Mbps interfaces (Voice interfaces, RS232, etc.). All of these are Electrical interfaces. Hence, there is no requirement for Optical Interfaces and requirement for ITU-T G.957 is not relevant. Please clarify under what circumstances, this standard will be applicable for Flexible Access Multiplexer.	Only applicable standards shall be used for Flexible Access multiplexer while designing the Telecom System.
642.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 6.4.3.3 To improve the availability of Data Networking System various measure such as Resilient Ethernet Protocol, Pseudo wire Redundancy, Link Aggregation (IEEE 802.3ad) on Network/Access Ports, Rapid Spanning Tree Protocol (IEEE 802.1w), Multiple Spanning Tree Protocol (IEEE 802.1s), MPLS-TE Fast Reroute etc. as required shall be implemented.	Resilient Ethernet Protocol is CISCO proprietary protocol and is not an open standard protocol. Hence this requirement is in conflict with requirement mentioned in Clause 4.1.2 (2). Please clarify.	Please refer Addendum No. 08, Sr. No. 45.
643.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 7.5.4.1	Kindly confirm if new VRS system needs to proposed for CP 304 or existing VRS system of CP-104, CP-105 & CP-203 can be expanded to cater to CP 304 requirement as well. Please confirm the subscriber count and Active subscriber ratio	Refer Clauses 7.3.9.1 & 7.3.9.2 of PS/Telecommunication Works. Also, please refer Addendum No.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	The VRS shall provide recording of stipulated voice conversations over Telephone System and Mobile Train Radio Communication System.	in case new VRS system needs to be proposed	08, Sr. No. 52.
644.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.2.6.1 (2) (2) Network and Switching Sub-system (NSS) and its Sub system including Intelligent Network (IN) as per latest EIRENE Standards (FRS & SRS).	Kindly confirm if IN needs to supply as part of CP-304 package. If yes, please provide detailed dimensioning parameters for the IN dimensioning	Bidder's understanding is correct. Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
645.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.2.6.1 (4) (4) General Packet Radio Service (GPRS) : Hardware & Software;	Kindly confirm GPRS needs to be supplied as part of CP-304 package. If yes, please provide detailed dimensioning parameters and sub components to be provided as part of GPRS network (SGSN, GGSN, FW, DNS, DHCP etc)	Bidder's understanding is correct. Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
646.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.2.6.1 (5) (5) Short Message Service Center (SMSC): Hardware & Software;	Kindly provide Number of subscribers, BHSM, Storage requirements for SMSC dimensioning.	Being a Design build contract, the design shall be proposed by the Contractor and approved by the Engineer at design stage after award of contract.
647.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.3.6.5 (3) The following call related services are to be supported for each type of mobile radio: Restriction of display of user identity	This is a network feature and should be removed from mobile handsets	Provisions of Bidding Document shall prevail.
648.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.5.1.1 (6) Voice Recording System (VRS) interfaced to above Network Sub-Systems (NSS) for recording voice communications taking place on RDC, Cab Radio and OPH. All	We understand VRS need not be supplied as part of Package 304 supply. Existing VRS needs to be integrated with new Network elements being proposed as part of Package 304. Kindly confirm	Please refer Addendum No. 08, Sr. No. 55.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	voice communications of Radio Dispatcher Console, Cab Radio and Operation Radio shall be recorded by the Voice Recording System (VRS) being provided under this Contract. The Contractor shall be responsible for integration/reconfiguration, of Voice Recording System (VRS) being provided under Contract Packages CP-104, CP-105 & CP-203 to meet the requirement of this contract.		
649.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 8.6.4 Wherever the equipment of MTRC System being provided under Contract Packages CP- 104, CP-105 & CP-203 are being upgraded/augmented/reconfigured, this upgradation/augmentation/reconfiguration shall not in any way utilize available provision of expansion.	We understand complete new MTRC system needs to be proposed for CP-304 package. Kindly confirm	Provisions of Bidding Document are sufficiently clear.
650.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 9.1.2 This Synchronized Time Information shall be used to synchronize slave clocks which shall be located at Stations, Depots & Offices in Sahnewal – Pilkhani of EDFC Phase-III.	Please clarify the location of offices since there is no mention of "Offices" in Clock Schedule mentioned in PS Clause 9.3.5	The location of offices shall be decided by the Engineer.
651.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 9.5.3.9 The Master Clock System shall be capable of working from 230 Volts +/- 10% AC 50 Hz Power Supply.	The Master Clock Unit and Sub-Master Clock Units will be deployed in the TERs and stable battery backed up -48V DC supply is present at TER. Therefore, DC may be permitted as a source for Master Clock System. Similarly, the Clocks may be powered by POE. Hence, these options may be permitted.	Provisions of Bidding Document shall prevail. Also refer Addendum No. 08, Sr. No. 58.
652.	Part 2, Section VI, Volume 4 Particular Specification	Responsibility of Telecom Contractor is not clear since E&M interface is not defined. Please clarify.	Please refer Part 2, Vol. 5: E&M and Associated Works of Bidding

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Telecommunication Works / 13.3.6 Provision of Lighting, Power Outlets, Fans, Ventilator and Air-Circulation shall be made in accordance with Interface Requirements as mentioned in Chapter-10 of General Specification.		Document.
653.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 13.3.13 Smoke and Fire Detection System as per details in Chapter- 4 of this Particular Specification shall be provided in Telecom Equipment Rooms and Telecom Power Supply Equipment Rooms, with facility of Alarm Generation at station and OCC.	Responsibility of Telecom Contractor is not clear since E&M interface is not defined. Please clarify.	Please refer Part 2, Vol. 5: E&M and Associated Works of Bidding Document.
654.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 13.7.6 Outdoor Signalling Cables and Outdoor Telecommunication Cables shall not be laid in same trench. If it is inescapable to lay Signalling Cables and Outdoor Telecommunication Cables in same trench, suitable separation shall be provided between the two as per the requirement of PS-Signalling Works, IRSEM and Indian Railway Telecommunication Manual and approved by the Engineer.	Most of the time, separate trenches for Signaling and Telecom are not feasible due to lack of space availability. Hence, It is suggested that to maintain uniformity across project, the outdoor Signalling and Telecom Cables in same trench may be permitted at all locations.	Provisions of Bidding document shall prevail. Also Please refer Part 2, Vol.3: Signalling Works of Bid Document.
655.	Part 2, Section VI, Volume 4 Particular Specification Telecommunication Works / 13.11.2.5 The earthing methods, design and details shall be submitted to the Engineer for review and approval.	Though mentioned in the PS Telecom, this shall be the responsibility of E&M contractor. Please clarify.	The provisions of the Bidding Document are sufficiently clear.
656.	Part 2, Section VI, Volume 1 General Specifications	We request you to be clear in terms of requirements whether it is related to quantity or measurement or number of documents	The provisions of the Bidding Document are self – explanatory

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Particular Specifications 3.17.6 4.3.6 There are many clauses in Tender document where minimum requirement has been mentioned without any upper limit. Due to which this requirement can be open ended. There are few clause mentioned below for example The FAT Plan shall include details of inspection, testing and witnessing of the Contractor's and subcontractor's procurement and manufacturing activities at OEM's Factory. ***As a minimum***, it shall include: a. First Article Inspection; b. Quality Hold Points; c. Type Tests; and d. Routine tests. The Works Program shall include activities for all the phases and stages of the Works, clearly showing all logical interdependencies and stages in the development of the Contractors design, procurement, installation, commissioning and setting to work. ***As a minimum,*** it shall include ---------- Many more clauses	to avoid the ambiguity at project stage.	and shall prevail.
657.	General Third Party Involvement: Inspection	Third party involvement in the inspection process should be clearly stated in Bidding document and should not be based on the industry practices. Please clarify.	The provisions of the Bidding Document are self – explanatory and shall prevail.
658.	Part 3 General Conditions /Particular Conditions	EOT and Cost due to shortage of material caused by the authority / Government Resolution / Judicial Judgements should be allowed under change in the law / delay caused by	Request not accepted. The provisions of the Bidding Document shall prevail.

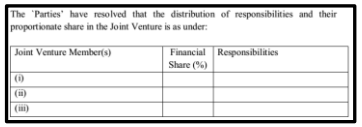
Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	13.7 Adjustments for Changes in Legislation The Contract Price shall be adjusted to take account of any increase or decrease in Cost after the Base Date resulting from: a. a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws); or b. in the judicial or official governmental interpretation of such Laws, or c. the commencement of any Indian law which has not entered into effect until the Base Date; or d. any change in the rates of any of the Taxes or royalties on Materials and Services that have a direct effect on the Project which affect the Contractor in the performance of its obligations under the Contract. **Insert at the end of the Sub-Clause:** If as a result of change in law, interpretation, or rates of taxes or royalties, the Contractor benefits from any reduction in costs for the execution of this Contract, save and except as expressly provided for in this Sub-Clause or in accordance	authority.	
659.	Part 3 General Conditions / Sub-Clause 10.2 Particular Conditions Sub-Clause 10.2 Taking Over of Parts of the Works	As progress of CP 304 will depend on many external factors like Civil /Track access , Local authorities , Govt. institutions responses time we request you to have a provision to take over the permanent works in parts . Customer (PMC/DFCCIL) shall issue the Taking over certificate for the parts which have been completed by CP 304 contractor.	Request not accepted. The Bidder may please note that the project would be taken over in its totality in one go.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	10.2 Taking Over of Parts of the Works The Engineer may, at the sole discretion of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works. Delete the Sub-Clause 10.2 in its entirety.	The sections which are completed by CP 304 contractor	
660.	Part 3 General Conditions / 16.2 Termination by Contractor (d) Sub-Clause 16.2 Particular Conditions The Contractor shall be entitled to terminate the Contract if: (d) the Employer substantially fails to perform his obligations under the Contract, Delete the Sub-Clause 16.2 (d) Delete the following words from 16.2 (e) " or Sub-clause 1.7 [Assignment]"	In our view it is just and fair for a CP 304 contractor to have right to terminate the contract in case Employer fails to perform his obligation for CP 304 project. We request you to amend the Sub-Clause 16.2 Particular Conditions accordingly.	Request not accepted, provisions in the Bidding Document shall prevail.
661.	Part 2/ Section VI [1]- Vol 1/ GS/ CH12/ 12.23- System Assurance Submissions [2]- Vol 2/ PS- Electrification/ CH14/ 14.5.13- System Assurance Submissions	The list of deliverables mentioned with Reference to the clause [1 & 2]; are the only deliverables which will be submitted during project execution phase? Or some other documentation will be added as published in Chapter 12 of GS and Chapter 14 of PS of the referred clauses. ?	
662.	Part 2/ Section VI/ Vol 2/ PS- Electrification/ CH10/ 10.8.2 Availability Requirement: Point (b):-The availability figures for Traction Power functionality and the Traction power decision support system shall be 99.97%.	With Reference to the clause, please elaborate, what are the sub-systems of SCADA shall be considered under Traction Power Decision Support System?	
663.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.16 ON-SITE TESTING AND INTEGRATED SYSTEM TESTING	Refer to the mentioned clause; please provide the complete list of requirement covering General, Main or Conclusive etc…etc… So that, the project execution will be on time as per the Contractual Requirements.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	General Requirement The On-site Testing and Integrated System Testing shall demonstrate as a minimum the following requirements: ……below 10 point to accomplish….		The Provisions of the Bidding Document shall prevail.
664.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.16 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.	• Please elaborate the expectation from the procedures to address failure mode through the test cases? • What are these test cases? • What are the "Sensitive Analysis" and "other means", Please elaborate and explain?	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.
665	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.19 12.19 "Proof of Safety"	As per our understanding the Operational Safety Case is considered as a "Proof of safety ". 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.
666.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.20 SYSTEM ASSURANCE DURING TRIAL RUNNING	System Assurance during Trial Run is Subject to the availability and performance of all the sub-system including Employers' input; other than CP-105. 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.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
667.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.20 Point (3) Evaluation of the effectiveness of system fault reporting, fall back systems, operating procedures and maintenance responses in the event of a number of system failures and degraded operating scenarios by simulating such scenarios during simulated revenue service.	Stimulated Revenue Service is Subject to the availability and performance of all the sub-system including Employers' input; other than CP-105. 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.
668.	Part 2/ Section VI/ Volume-1/ GS/ CH 12/ 12.20 SYSTEM ASSURANCE DURING TRIAL RUNNING The period of Trial Running shall include as a minimum the following activities:	Refer to the mentioned clause, please provide the complete list of requirement covering General, Main or Conclusive etc…etc… So that, the project execution will be on time as per the Contractual Requirements.	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.
669.	Part 2/ Section VI/ Volume-1/ GS/ CH 12 12.21 SYSTEM ASSURANCE DURING REVENUE SERVICE RUNNING "The Contractor shall continue to implement system assurance activities during and after the transition to revenue service including, but not limited to, the following requirements".	As per GC, Contract shall provide the warranty support during the DNP period. Thus, Contractor shall comply for the system assurance during the DNP. The GC requirement is contradicting with the mentioned Clause 12.16 of GS which is an open ended requirement.	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.
670.	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	Please confirm, the Reference of Return of Experiences of the contractor against the allocation of Maintainability.	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.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	the standards by which these allocations are made.		
671.	Part 2/ Section VI/ Volume-2/ PS/ CH 14. 14.5.12 RAM Demonstration (iii) The requirements relating to Reliability and Availability shall be demonstrated throughout Trial Running Period	Reliability & Availability demonstration through Trial Run is subject to the availability and performance of all the sub-system including Employers' input; other than CP-304. 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.
672.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 /14.2 Reliability Requirement Point (5): The system design shall ensure that the subsystems providing redundancy for failures are truly independent to minimize the risk of common mode faults.	As per our understanding, Traction transformer and Auto transformer will have truly independent through redundancy for failures. However, for other components' redundancy will be achieved through sub-system (TPS) redundancy i.e. n-1 scenario. Please confirm our understanding.	The Provisions of the Bidding Document shall prevail.
673.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.4: Maintainability Point (6): Built-in self-diagnostics, power-up self-test and sufficient test points shall be provided in the System to minimize the time required to locate a fault.	As per our understanding, Relays are having the built-in self-diagnostics as per its functionality. Other components don't have such facility as per their functionality. Please confirm our understanding.	The Provisions of the Bidding Document shall prevail.
674.	Part 2/ Section VI/ Volume-2/ PS/ CH 14 14.4: Maintainability Point (7) All components, material, software and supports required for repair and servicing of the System shall be available during the entire lifetime of the System.	For the respective mentioned Clause, Client needs to develop service contract for entire lifetime of the system. Thus the requirement mentioned in the clause doesn't respect the Tender baseline. As per our understanding, for CP 304 Contractor shall be obliged to the requirement till the DLP as per contract condition. Please confirm our understanding.	The Provisions of the Bidding Document shall prevail.
675.	Part 2/ Section VI/ Volume-1/ PS/ CH 12/ 12.21.1 Point (1) (1) Revenue Service shall not commence until the "Proof of Safety" has received the approval of the Employer.	As per our understanding, Delay in the Approval of the document shall not be attributed to the contractor. It is Employer's internal process. Please confirm.	The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
676.	Part 1 Section IV Bidding Forms Form MOU Clause 4  The 'Parties' have resolved that the distribution of responsibilities and their proportionate share in the Joint Venture is as under: Joint Venture Member(s) | Financial Share (%) | Responsibilities (i) (ii) (iii)	As this is just a Technical Submission stage, It will be very difficult to calculate Financial % Share for the JV Members for the Contract Package CP 304. We request you to modify the format of Memorandum of Understanding by deleting requirement of Financial share at this stage.	Request not accepted. The provisions of the Bidding Document shall prevail.
677.	ITB 29.8 / Page no 44/1309 The bidders may note that this DFCC project being funded by the World Bank qualifies for exemption from payment of customs duty and excise duty on goods supplied /intended to be supplied to the project in terms of Govt. of India notification no 84/97 customs dated 11.11.1997 and Central Excise notification no 108/95 C E dated 28.8.95 (read with all subsequent amendment including amendment dated 1.3.2008) . Service Tax Dept vide their notification no 25/2012 Service Tax dated 20.6.2012 has exempted services by way of construction ,erection ,commissioning or installation of original works pertaining to railways.	While customs duty exemption is applicable after implementation of GST w.e.f July 1,2017 ,all taxes Excise Duty/VAT/CST/Entry tax/Service Tax have subsumed into GST and hence GST will be charged on all our invoices Please confirm whether GST will be reimbursed on all the invoices submitted to DFC Since this is World Bank funded project , we would like to go for advance license . Hence we need Project Authority certificate (PAC) for availing customs duty exemption . Further, we would like to know whether the names of our sub vendors supplying for this project would be included in PAC. Please confirm Further we need payment certificate to close advance license. Please confirm whether payment certificate will be issued.	Since the contract price is inclusive of duties, taxes and other levies payable by the Contractor under the contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the total Bid Price submitted by the Bidder as per ITB 29.8 of Bid Data Sheet. With introduction of GST from 1st July, 2017, the contract price will include GST. The total bid price covers all the Contractor's obligations mentioned in or to be reasonably inferred from the bidding document in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation and completion of the Works as per ITB 29.1.
678.	Sub- Clause 14.2 –Mobilization advance .Pg 1291/1309 As per this clause mobilization advance is made.	With the implementation of GST w.e.f July 1,2017, as per clause 279A (83),whenever an advance is paid , the law authorizes imposition of GST on advance paid , which will be adjusted at the time of invoicing. Please confirm whether GST amount will be paid along with advance amount by DFC.	Please refer to the response at Srl. No. 448.
679.	Part – 3, Particular Conditions	Please confirm whether GST will be paid on price variation.	Please refer to response of query at S. No. 449 above.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Clause 13.3 Variation Procedure For varied works of items of due to variations as per sub-clause 1.1.6.9 .		
680.	There will be interstate supplies to this projects , which will require road permits	Since DFFC will be placing purchase orders of some items of interstate nature thereby causing entry into state , road permits to be issued by DFFC . . Please confirm whether road permits will be issued by DFFC	Please refer to response of query at S. No. 450 above.
681	For Civil works , Erection & Installation works we will be charging applicable GST rate	Please confirm whether TDS will be deducted or not	Yes, TDS (Income Tax) will be deducted. GST TDS will also be deducted, if DFCCIL is liable to deduct.
682	BOCW cess on services (Civil & Erection & Installation)	Please confirm whether BOCW cess is applicable on services(both civil, erection works & installation). If so , please confirm applicable rate of deduction .	This is part of the Bid submission process, the responsibility of which devolves on the Bidder.
683	PS Vol2 Electrification 6.1.3 (r) Auxiliary Transformers 100kVA and 10kVA for 25kV/240V single phase supply at TSS	In the Single Line Diagram of Jagadhari S/S & New Sirhind S/S, 25kVA and 100kVA auxiliary transformers are provided. In clause no. 6.1.3 (r), 100kVA and 10kVA ratings are mentioned for auxiliary transformers. Please confirm the auxiliary transformer rating in the TSS.	Please refer Addendum No. 08 at Sr. No. 12.
684.	PS Vol2 Electrification 4.4.2 (4.b) Items which has not been adopted in IR/Metro rail and DFCC	We presume that if the items are approved in Metro Rail, it will be accepted in CP 304 in similar line as followed for RDSO equipment (By providing the respective documents for credential approval). 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.
685.	PS Vol2 Electrification 6.9.8 (d) Line Differential Protection	Please elaborate the protection. We presume that, differential relay will be in the scope of bidder and associated cables and cables laying to the other end of substation for differential protection are not in the scope of bidder. Please confirm.	The Provisions of the Bidding Document shall prevail.
686	PS Vol2 Electrification 6.12 Outdoor Switchyard for TSS	We understand that the layout shall be designed based on RDSO guidelines/CBIP guidelines/Any other state utility guidelines. Please confirm.	Please refer to Addendum No. 08 at S. No. 13.
687.	PS Vol2 Electrification 7.2.2 The point of interface will be at the TSS	Please provide the details up to which point is bidder's scope. Please represent in diagrammatic view in all the single line diagrams. And which are the equipment's in scope of work for	The Provisions of the Bidding Document are self- explanatory and shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Incomer gantry between the PGCIL/IR/utility authority and the contractor.	metering.	
688.	PS Vol2 Electrification 10.6.1 Table 10.5.1: Indicative List of Equipment to be monitored and controlled at Remote locations. Lightning arrestor	Lightning arrestors with potential free contacts will be provided. With the potential free contacts, number of surges that are being discharged to ground can be counted & monitored through SCADA algorithm. 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.
689.	PS Vol2 Electrification 3.3.1 (1) d Auto-Transformers shall be provided at the TSS (as required as per design), SP, SSP and ATS if any.	If bidder can prove that the with V-Connected Traction transformer scheme, Auto transformer requirement is not there in Traction Substation through simulation, then bidder has to provide the Auto Transformer or not in TSS. Please clarify.	The Provisions of the Bidding Document are self- explanatory and shall prevail.
690.	PS Vol2 Electrification 6.1.3 (4.q) Auto Transformers (as required by design); stand by auto transformer is to be provided which can be connected to either side of the neutral section in case of failure of the existing auto Transformer	If we have to provide the auto transformer as query mentioned above, Please elaborate the scheme for connecting the Stand by Auto Transformer with the outgoings.	Please refer Part-4 Reference Document
691.	PS Vol2 Electrification 6.9.8 (j) Special distance protection for regeneration operations	Please elaborate this protection.	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.
	4-PS- Schematic SSP	In the outgoing catenary and negative feeders, Interrupters are provided. Please elaborate How protection scheme to be implemented in outgoings of SSP and elaborate the protections required.	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.
692.	PS Vol2 Electrification 6.9.8 (a)	PLCC is available or not in 220kV incoming lines. If yes, We presume that it is not in bidder's scope.	As per the clause no. 3.3.5, the transmission line is not in the

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	220kV Incoming feeder from grid substation of PGCIL or Power Supply Authority to TSS		scope of the contractor. As such PLCC is not in the scope of the contractor.
693.	PS Vol2 Electrification 5.1.2 (a) The Traction Substation (TSS) at Jagadhari shall include three phase double circuits of on2 220kV incoming bays (from PGCIL), one 220kV outgoing bays (to Indian Railway) and 132kV outgoing feeder arrangement for IR: comprising of incomer CB's, Bus coupler circuit breakers and outgoing circuit breakers. In addition to the bays, a set of 220/132kV Power Transformers and 132/2x25kV Traction Transformers along with associated switchgears are planned to be installed at Jagadhari TSS shall also have provision of 220kV and 132kV, 3 Phase double circuit including associated switchgears for feeding Indian Railways TSS and IR's transmission line network with outgoing feeder arrangement respectively.	As per single line diagram of Jagadhari TSS, following bays will be implemented: 1. 220kV Incoming double circuit line from PGCIL. (only associated switchgear is in the scope of bidder) 2. 2 x 220kV/132kV, 150MVA transformers for stepping down the voltage. 3. 2 x 132kV/2x25kV Traction Transformer bays for locomotives 4. 132kV double circuit for connecting to IR. (Only associated switchgear and 132kV gantry is in the scope of bidder) Please clarify where the 220kV outgoing bay for IR has to be connected which is not available in Single Line Diagram.	Please refer Addendum No. 08, Sr. No. 72.
694.	1- PS- Schematic Jagadhari TSS	We presume that for 132kV IR Transmission line to Sahnewal circuit 1 & 2 (Future) sufficient space will be provided only. Bidder's scope will be associated switchgear and gantry for 132kV IR Transmission line to meerut circuit 1 & 2. Please confirm.	The Provisions of the Bidding Document are self- explanatory and shall prevail.
695.	1- PS- Schematic Jagadhari TSS	In the single line diagram there are 3 firm 25kV outgoing circuits and 1 dotted 25kV outgoing circuit. Bidder's scope will be only 3 firm 25kV outgoing circuits only and for 1 dotted 25kV outgoing circuit sufficient space will be provided. Please confirm.	The Provisions of the Bidding Document are self- explanatory and shall prevail.
696.	1- PS- Schematic Jagadhari TSS	We presume that coupling equipment's (25kV double pole isolators and 25kV double pole interrupters) in the outgoing feeders is in the scope of bidder till the double pole isolator only. Please confirm.	The Provisions of the Bidding Document are self- explanatory and shall prevail.
697.	2- PS- Schematic New Sirhind TSS	In the single line diagram there are 3 firm 25kV outgoing circuits and 1 dotted 25kV outgoing circuit. Bidder's scope will be only 3 firm 25kV outgoing circuits only and for 1 dotted 25kV	The Provisions of the Bidding Document are self- explanatory and shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		outgoing circuit sufficient space will be provided. Please confirm.	
698.	2PS- Schematic New Sirhind TSS	We presume that coupling equipment's (25kV double pole isolators and 25kV double pole interrupters) in the outgoing feeders is in the scope of bidder till the double pole isolator only. Please confirm.	The Provisions of the Bidding Document are self- explanatory and shall prevail.
699.	PS Vol2 Electrification 7.4.2 Table 7.3.2: Connection Type	Bidder's scheme will be Two single phase transformers connected in "V-connection". One transformer will be feeding left hand side and the other will be feeding right hand side. The middle transformer will be feeding left or right when the respective transformer is under maintenance/outage. The scheme is in line with CP-104. Please confirm the acceptability.	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.
700.	Part 2 volume 2 Clause No 10.13 , Network Management System	Network Management system which is the newly added in the contract CP 304 & CP 105. Same is not shown in the GENERAL ARRANGEMENT BLOCK DIAGRAM FOR TRACTION SCADA CONTROL of CP 304 & CP 105. But it is the part of the network architecture diagram.	The Provisions of the Bidding Document shall prevail.
701.	Part 2 volume 2 Clause No 10.13 , Network Management System	NMS system is used for complete LAN network but they are indicating in both contract. Is it use for contract wise or full network? Not clearly mentioned in the contract.	The Provisions of the Bidding Document shall prevail.
702.	Part 2 volume 2 Drg. No.GC/DFCC/TR/SCADA/701	In the GENERAL ARRANGEMENT BLOCK DIAGRAM FOR TRACTION SCADA CONTROL is showing same LAN network for all the contracts. But DATA interchangeability is not clearly mentioned.	Please refer Addendum No. 08 at Sr. No. 74.
703.	Part 2 volume 2 Drg. No.GC/DFCC/TR/SCADA/701	Purpose of Fault factor and Modem is not clearly mention in the document. It is showing in the Drawing only. It is also newly added in the contract.	Fault locator is a special device provided at the Traction Sub-stations, Switching Stations (SSP/SP) and at Auto Transformer Station (ATSs) for locating catenaries/feeder to earth fault on the OHE. RTU shall interface with these devices for collection information related to the fault.

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(1)	(2)	(3)	(4)
			However, being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.
704.	General Query	Alstom Iconis SCADA is approved by DFCCIL in CP 104 project. Is it applicable for CP 304 & CP 105.	Request not accepted. The Provisions of the Bidding Document shall prevail.
705.	General Query	RTU vendor which we will get the approval in CP104, same can be used for CP 304 & CP 105 also.	Request not accepted. The Provisions of the Bidding Document shall prevail.
706.	Section VIII, Particular Conditions, Page 9 of 52 Clause 4.2 Performance Security	Please clarify whether the performance security for ESHS will also be linked to the other contractual non-performance of the Contractor and can be encashed for the same.	The ESHS Performance Security would cover all the Environmental issues stipulated in Appendix – 6 of Volume – I (General Specifications), Part – 2 of the Bidding Document. It will also cover any other requirement for protection of Environment, Safety, and Health & Security as required in the Employer's Requirements. However, in the event of termination as per sub – clause 15.2, both the securities shall be forfeited.
707.	Section VIII, Particular Conditions, Page 17 of 52 Clause 8.7 Delay Damages	Please clarify that the LD shall be the only remedy in case of delay by the contractor and the contractor can exercise its other rights under the contract once this remedy is exhausted.	The clause in question is for Delay Damages and not for Liquidated Damages. The Delay Damages are not the only damages which the Employer is entitled to resort to. The Bidder is requested to refer to Conditions of Contract in this regard.
708.	PS Vol2 Electrification 6.1.4 (1) Double pole circuit breakers for 2x25kV AT system with protection relays as required to	1. All the 25kV equipment's will be as per RDSO and from RDSO approved vendor, which means, all the RDSO equipment's Max. Voltage and BIL will be either on 27.5kV or 55kV.	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope

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(1)	(2)	(3)	(4)
	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.	2. RDSO Standards are with Max Voltage stds with 27.5kv / 55 kv only. 3. Please provide clarification on this whether bidder can comply this clause with the RDSO approved equipment, which will have the Make in INDIA Edge. Confirm amendment the Max Voltage Limits of 60KV & 30KV to 55kv & 27.5kv.	of the contractor and shall be approved by the Engineer.
709.	PS Vol2 Electrification 6.1.5 (1) Double pole 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.	1. All the 25kV equipment's will be as per RDSO and from RDSO approved vendor, which means, all the RDSO equipment's Max. Voltage and BIL will be either on 27.5kV or 55kV. 2. RDSO Standards are with Max Voltage stds with 27.5kv / 55 kv only. 3. Please provide clarification on this whether bidder can comply this clause with the RDSO approved equipment, which will have the Make in INDIA Edge. Confirm amendment the Max Voltage Limits of 60KV & 30KV to 55kv & 27.5kv.	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.
710.	PS Vol2 Electrification 4.4.2 (5.d.ii) \ Considering the environmental conditions as specified in this PS	1. Equipment procured from vendor outside INDIA, complies Type Test to the Environment specified in IEC and applicable standards. 2. Some of the Equipment used in DFCC are already Type tested and witnessed by Engineer of DFCC & DFCC. 3. We presume that Equipment's which are procured type tested as per applicable standards or by RDSO or from RDSO approved vendor or from the vendor whose Type Tests are already accepted by DFC are valid for this contract as well. Please confirm our understanding for all the above.	The Provisions of the Bidding Document are self- explanatory and shall prevail.
711.	Elec PS 7.6 Operating Mechanism for 25kv CBs, Interrupters.	25kv DP - CB & Interrupters with Spring mechanism are monopolised. Please confirm, to avoid Monopoly on this mechanism based	The Provisions of the Bidding Document shall prevail.

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(1)	(2)	(3)	(4)
		vendor, to also go for Magnetic actuators based Mechanism acceptability in case of development vendors, under Cross acceptance Criteria.	
712.	Elec PS 4.4.2 (5) (f) Cross Acceptance Criteria – New India Vendor 50% supply from INDIA and balance from OEM	In order to motivate and more Localise as a MAKE IN INDIA Policy, the 2x25kv Transformer Manufacturing under Cross acceptance Criteria, we request to accept 85% Qty be permitted for manufacturing in INDIA unit. Minimum one qty shall be accepted as enough to bring it from OEM outside INDIA. Such relaxation only can motivate to localise the critical Equipment, especially POS & OCS eqpt…etc., Pl Confirm.	Request not accepted. The Provisions of the Bidding Document shall prevail.
713.	Part 2/ Section VI/ Volume-1/ GS/ CH 14 /14.4 14.4 EXTENSION OF DEFECT NOTIFICATION PERIOD In case of failure of the Contractor to achieve the RAMS Targets specified in the Employer Requirement: (1) The Defects Notification Period shall stand extended for a further period corresponding to period of failure.	As per our understanding, DLP will not be extended if System RAMS targets as specified in Particular Specification will be achieved; irrespective of component predicted rates. Please confirm.	The Provisions of the Bidding Document shall prevail.
714	Part 2/ Section VI/ Volume-1/ GS/ CH 12 /12.22 12.22 The Defect Liability /Notification shall be of minimum 24 Months from the date of Commercial operations and shall be monitored for RAMS compliance. The Failures and Performance shall be monitored on monthly basis and the result should meet the acceptable criterions. If the results of 6 months average do not meet RAM specifications than the DNP period shall be extended with full DNP obligations of the	If the initial six month average meets the RAMS compliance then will the extension of DLP will be applicable or not? Please confirm. As per our understanding, here the 6 month period is applicable from 19th to 24th month of DLP. Please confirm.	The Provisions of the Bidding Document shall prevail.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
	Contractors. The same may be extended with /without penalty for further period similarly.		
715	Part 2/ Section VI/ Volume-2/ PS/ CH 14 /14.2 Reliability Modelling: Failure Definition of Pattern failure	Please elaborate the definition of Pattern failure: will it be 3 or more succeeding repeated occurrences? What is time gap in between these failures	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.
716	PS Vol2 Electrification 6.9.8 (a) 220kV Incoming feeder from grid substation of PGCIL or power supply authority to TSS	AS per Tender Single Line Diagram of Jagadhari TSS, there are no 220kV circuit breakers and current transformers in 220kV incoming line. Please clarify how protections should be implemented without any circuit breaker in 220kV incoming line bay.	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.
717	PS Vol2 Electrification 6.9.8 (a) 6.9.8 (a) 220kV Incoming feeder from grid substation of PGCIL or power supply authority to TSS	AS per Tender Single Line Diagram of New Sirhind TSS, there are no 220kV circuit breakers in 220kV incoming line. Please clarify how protections should be implemented without any circuit breaker in 220kV incoming line bay.	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.
718	1. PS-Schematic JAGADHARI TSS	Please elaborate Bus Bar Protection scheme in 220kV bus. As per Tender Single Line Diagram, there are circuit breakers only in Transformer Feeder bay only. We presume, During normal operation 220kV Bus coupling isolator will be in OPEN condition, it will be closed only during the outage of one of the incomer. Bidder requests customer to kindly elaborate the bus bar protection scheme and it equipment's which are involved.	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.
719	2. PS-Schematic New Sirhind TSS	Please elaborate Bus Bar Protection scheme in 220kV bus. As per Tender Single Line Diagram, there are circuit breakers only in Transformer Feeder and bus coupling feeder. We presume, During normal operation 220kV Bus coupling section will be in OPEN condition, it will be closed only	Being a design & build contract General/Functional/ Performance requirements have been specified. The detailed design is in the scope of the contractor.

Sr No.	Reference to Bid Document	Clarification Sought by the Bidders	DFCCIL's Response
(1)	(2)	(3)	(4)
		during the outage of one of the incomer. Bidder requests customer to kindly elaborate the bus bar protection scheme and it equipment's which are involved.	The Provisions of the Bidding Document shall prevail.
720.	PS Vol2 Electrification 6.1.3 (4.d, 4.f, 4.m) 220kV and/or 132kV Incomer Isolators with/without earthing heels. 220kV and/or 132kV AC, 3 Pole Bus coupler breaker with Manual isolator	We presume that all the isolators will be manual operated. Please confirm.	Request not Accepted. The Provision of the Bidding Document shall prevail.
721	1. PS-Schematic JAGADHARI TSS	As per Tender single line diagram, there is no current transformer in 132kV bus coupling section. We presume that the bus coupling section will operate as a simple load breaking switch and no protections will be implemented. 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.
722.	PS Vol2 Electrification 6.5 Table 6.5.1 Design short circuit levels for 132kV, 220kV	Based on MVA levels provided, Calculated fault level for 220kV is 52.48kA & 132 kV is 43.74 kA. Generally for - 220kV RDSO approved equipment's short circuit capacity would be 40kA for 1 sec. - 132kV RDSO approved equipment's short circuit capacity would be either 31.5kA for 1 sec or 40kA for 1 sec. Please amend the short circuit levels of: - 220kV equipment's as 40 kA (i.e. 15242 MVA) - 132kV equipment's as 31.5 kA (i.e. 7201MVA) or 40kA (i.e. 9145MVA) So that bidder can procure RDSO approved equipment's and adhere to "MAKE IN INDIA" policy.	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.