

**Dedicated Freight Corridor Corporation of India Limited**

(A Government of India Enterprise)

**ADDENDUM NO. 7 Dated 22/12/2017**

**ADDENDUM /AMENDMENTS TO THE BIDDING DOCUMENTS FOR**

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

**ICB No.: HQ/SYS/EC/D-B/Dadri - Khurja**

Following Amendments are hereby made to the Bidding Document, issued on 14.06.2017 for submission of Stage-1 (Technical Proposal) Bids for 2x25kV, 2x25 kV AC Traction Electrification, Signalling & Telecommunication, E&M and Associated Works (Contract Packages 105), in accordance with ITB 8:

| S. No. | Part No.                | Vol. No. | Page No. | Clause No. | Item                                 | Addendum/Amendment to Bid Documents   |
|--------|-------------------------|----------|----------|------------|--------------------------------------|---|
| 1.     | Part – 1, Section – II  | -        | 44– 45   | ITB 29.8   | Bid Data Sheet                       | <p><b>Delete ITB 29.8 and replace as under:</b></p> <p>“Add the following after ITB 29.8:<br/>The bidders may note that this DFCC project being funded by the World Bank, qualifies for exemption from payment of Customs 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 (read with all subsequent amendments)</p> <p>However, while quoting the bid price, bidders are advised to ascertain exemptions of custom duty and / or availability of deemed export benefits for goods required as inputs for completion of the Works under the World Bank Funded Projects. The bidders are also advised to ascertain the availability of the custom exemptions for the goods supplied by their subcontractors used as input for the construction of Works.<br/>In this regard bidders’ attention is also drawn to sub-clause 4.11 of the Particular Conditions.”, Section VIII, Part 3 of the Bidding Documents.”</p> |
| 2.     | Part – 1, Section – III | -        | 51-95    | 2.3        | Personnel/Note:<br>Personnel#/Notes: | <p><b>Add the following at the end of the Note: under Para 2.3 in Section III and at end of Note (ii) under Notes: in Section IV:</b></p> <p>“However, there is no restriction in using same CV for Key Personnel by more than one bidder.”</p>   |

| S. No. | Part No.           | Vol. No. | Page No. | Clause No.     | Item   | Addendum/Amendment to Bid Documents  |
|--------|--------------------|----------|----------|----------------|--|--|
|        | &<br>Section<br>IV | -        |          |                |  |  |
| 3.     | 2                  | 1        | 266      | 8.2.5.1        | Quality Assurance and Controls                     | <b>Replace “ISO 9001-2008 standards” with “ISO 9001 standard, latest edition”,</b>   |
| 4.     | 2                  | 1        | 273      | 8.12.9         | Testing & Commissioning                            | <b>Replace the contents of sub clause 8.12.9 with the following:</b><br>“All costs associated with the testing shall be borne by the Contractor. The Contractor shall also bear the cost of any special test required and the cost of any expert/specialist as required for testing. However, this shall not include allowances for hotel and travel expenses for the persons witnessing/certifying the tests on behalf of the Engineer/Employer representative and the cost of inspection charges of third party (if any) engaged by the Employer for witnessing unless otherwise specified in Particular Specification. The Contractor shall bear all expenses including hotel/travel/cost of witnessing if any incurred due to retesting caused by defects or failure of equipment to meet the requirements of the Contract in the first instance.” |
| 5.     | 2                  | 2        | 433      | 2.2.1          | Power Supply For The Dadri –Khurja Section Of EDFC | <b>Add the following at the end of sub-clause 2.2.1:</b><br>“and 132 kV D/C Transmission line being constructed by PGCIL”  |
| 6.     | 2                  | 2        | 438      | 3.3.1(1)(v)(a) | Configuration of traction power supply system      | <b>Replace the word “PGCIL” from 2<sup>nd</sup> line of the 2<sup>nd</sup> Paragraph of sub-clause 3.3.1(1)(v)(a) with the following:</b><br>“132 kV D/C Transmission line being constructed by PGCIL”   |
| 7.     | 2                  | 2        | 439      | 3.3.1(6)       | SCOPE  | <b>Add the following at the end of sub-clause 3.3.1(6):</b><br>“In case of any modification required for existing Indian Railways Track, the Employer shall decide the agency through which such measures are to be taken up”  |
| 8.     | 2                  | 2        | 454      | 4.6.1(1)(e)    | Electric Traction System design                    | <b>Replace 3<sup>rd</sup> sentence of sub clause 4.6.1(1)(e) with the following:</b><br>“Works of Earthing & Bonding required on the adjacent Railway network of the Indian Railways of both electrified and non-electrified systems, in proximity to the Freight Corridor, against induced current from 25kV AT   |

| S. No. | Part No. | Vol. No. | Page No. | Clause No.      | Item                            | Addendum/Amendment to Bid Documents   |
|--------|----------|----------|----------|-----------------|---------------------------------|---|
|        |          |          |          |                 |                                 | Feeding System shall be implemented as per sub clause 3.3.1(6), so as to provide a safe environment”  |
| 9.     | 2        | 2        | 454      | 4.6.1(1)(e)(iv) | Electric Traction System design | <b>Replace the contents of sub clause 4.6.1(1)(e)(iv) with the following:</b><br><br>“The Contractor shall develop Earthing and Bonding Plans covering all the buildings, structures and adjacent Indian Railway tracks or any other Utilities or metallic structures in proximity belonging to other independent authorities to provide protective provisions against EMI from 25kV traction currents and to limit touch potentials as a result of Simulation study so as to provide a safe environment. In case of any modification required for existing Indian Railways Track, the Employer shall decide the agency through which such measures are to be taken up” |
| 10.    | 2        | 2        | 468      | 6.1.3(1)        | Traction Substation (TSS)       | <b>Add the following at the end of 1<sup>st</sup> sentence of sub-clause 6.1.3(1):</b><br><br>“and 132 kV D/C Transmission line being constructed by PGCIL”   |
| 11.    | 2        | 2        | 472      | 6.3(2)(c)       | Design of Earth System          | <b>Delete Sub clause 6.3(2) (c).</b>  |
| 12.    | 2        | 2        | 478      | 6.12            | Outdoor Switchyard for TSS      | <b>Replace the contents of Clause 6.12 with the following:</b><br><br>“The layout shall be designed and constructed based on <b>CBIP/RDSO</b> guideline as applicable and other requirements specified in this PS.”   |
| 13.    | 2        | 2        | 489      | 7.4.6           | Auto Transformers               | <b>Add New Sub clause 7.4.6 as under:</b><br>“The Auto Transformers shall be provided with Nitrogen Injection Fire Suppression system. Fire load / Nitrogen volume with rate of flow shall be calculated to ascertain adequacy of gas to quench the possible fire.”   |

| S. No.                              | Part No.                        | Vol. No.         | Page No.  | Clause No.      | Item  | Addendum/Amendment to Bid Documents  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
|-------------------------------------|---------------------------------|------------------|---|-----------------|---|--|-----------|---------------------------------|----------|---------|----------|-----|------------------|---|--------------|-----|---------------|---|-------------------------------------|-----|------|---|------------------------------|---|------|---|------------------------|---|----|---|
| 14.                                 | 2                               | 2                | 502   | Table No. 8.4.1 | OHE Conductors  | <p><b>Replace table no. 8.4.1 with the following:</b></p> <p><b>Table: No 8.4.1: OHE Conductors</b></p> <table border="1"> <thead> <tr> <th>Conductor</th> <th>Nominal Size (mm<sup>2</sup>)</th> <th>Material</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Catenary</td> <td>120</td> <td>Copper magnesium</td> <td>Material having temperature range minimum 100°C as per EN50119 shall be used.</td> </tr> <tr> <td>Contact wire</td> <td>150</td> <td>Copper Silver</td> <td>Material having temperature range minimum 100°C as per EN50119 shall be used.</td> </tr> <tr> <td>25 kV Feeder Wire (Negative Feeder)</td> <td>288</td> <td>AAAC</td> <td>Material having temperature range up to 80°C as per EN 50119 shall be used.</td> </tr> <tr> <td>Aerial Earth Wire /Conductor</td> <td>-</td> <td>ACSR</td> <td>Material having temperature range up to 80°C as per EN 50119 shall be used.</td> </tr> <tr> <td>Buried Earth Conductor</td> <td>-</td> <td>GS</td> <td>Material having temperature range up to 80°C shall be used.</td> </tr> </tbody> </table> | Conductor | Nominal Size (mm <sup>2</sup> ) | Material | Remarks | Catenary | 120 | Copper magnesium | Material having temperature range minimum 100°C as per EN50119 shall be used. | Contact wire | 150 | Copper Silver | Material having temperature range minimum 100°C as per EN50119 shall be used. | 25 kV Feeder Wire (Negative Feeder) | 288 | AAAC | Material having temperature range up to 80°C as per EN 50119 shall be used. | Aerial Earth Wire /Conductor | - | ACSR | Material having temperature range up to 80°C as per EN 50119 shall be used. | Buried Earth Conductor | - | GS | Material having temperature range up to 80°C shall be used. |
| Conductor                           | Nominal Size (mm <sup>2</sup> ) | Material         | Remarks   |                 |   |  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| Catenary                            | 120                             | Copper magnesium | Material having temperature range minimum 100°C as per EN50119 shall be used. |                 |   |  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| Contact wire                        | 150                             | Copper Silver    | Material having temperature range minimum 100°C as per EN50119 shall be used. |                 |   |  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| 25 kV Feeder Wire (Negative Feeder) | 288                             | AAAC             | Material having temperature range up to 80°C as per EN 50119 shall be used.   |                 |   |  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| Aerial Earth Wire /Conductor        | -                               | ACSR             | Material having temperature range up to 80°C as per EN 50119 shall be used.   |                 |   |  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| Buried Earth Conductor              | -                               | GS               | Material having temperature range up to 80°C shall be used.                   |                 |   |  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| 15.                                 | 2                               | 2                | 502   | 8.4 (2) (a)     | OHE Conductors  | <p><b>Replace the contents of sub-clause 8.4(2)(a) with the following:</b></p> <p>“The contact wire of size 150 sq.mm shall be manufactured out of continuous cast rods by any process conforming to EN-50119, EN-50149, or any other equivalent international standard.”</p>  |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |
| 16.                                 | 2                               | 2                | 576   | 13.3            | Special Testing and Diagnostic Equipment and Measuring Tools, and | <p><b>Replace the existing Table 13.3.1: List of Special Tools and Instrument with the following Table 13.3.1:</b></p>   |           |                                 |          |         |          |     |                  |   |              |     |               |   |                                     |     |      |   |                              |   |      |   |                        |   |    |   |

| S. No. | Part No.  | Vol. No.         | Page No. | Clause No. | Item        | Addendum/Amendment to Bid Documents   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
|--------|---|------------------|----------|------------|-------------|---|-------|-------------|------------------|---|---------------------|-------|---|------------------------|--------|---|-----------------------|--------|---|-------------------------------|--------|---|-------------------------------------|--------|---|--------------------------------------|--------|---|----------------------------|-------|---|------------------------------|-------|---|--------------------|-------|----|-------------------------------------|--------|----|--|-------|----|---|--------|--------------------------------------|--------|----|--------------|-------|----|---|-------|----|----------------------------|--------|----|--|--------|----|-------------------------------|-------------|----|-------------------------------|-------------|----|--|------------------|----|--|---------|----|---|--------|
|        |   |                  |          |            | Instruments | <p align="center"><b>Table 13.3.1: List of Special Tools and Instrument</b></p> <table border="1"> <thead> <tr> <th>S. No</th> <th>Description</th> <th>Quantity in No's</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Cable Fault Locator</td> <td>1 set</td> </tr> <tr> <td>2</td> <td>AC Power Line Analyzer</td> <td>2 nos.</td> </tr> <tr> <td>3</td> <td>Digital earth testers</td> <td>3 nos.</td> </tr> <tr> <td>4</td> <td>Earth Leakage Detector 1000 V</td> <td>2 nos.</td> </tr> <tr> <td>5</td> <td>Digital Insulation Tester 2.5/ 5 kV</td> <td>2 nos.</td> </tr> <tr> <td>6</td> <td>Digital Insulation Tester 0 – 1000 V</td> <td>2 nos.</td> </tr> <tr> <td>7</td> <td>Primary injection test kit</td> <td>1 no.</td> </tr> <tr> <td>8</td> <td>Secondary injection test kit</td> <td>1 no.</td> </tr> <tr> <td>9</td> <td>Relay Testing Kits</td> <td>1 no.</td> </tr> <tr> <td>10</td> <td>Infra-red remote temperature sensor</td> <td>3 nos.</td> </tr> <tr> <td>11</td> <td>Fully automatic Oil dielectric test kit with printer</td> <td>1 no.</td> </tr> <tr> <td rowspan="2">12</td> <td>i) Thermal Imaging Camera capable of being mounted on Tower Wagon /loco</td> <td>1 nos.</td> </tr> <tr> <td>ii) Hand held Thermal Imaging camera</td> <td>2 nos.</td> </tr> <tr> <td>13</td> <td>Video Camera</td> <td>1 no.</td> </tr> <tr> <td>14</td> <td>Height and Stagger gauge (instrument laser based)</td> <td>2 set</td> </tr> <tr> <td>15</td> <td>Dissolved Gas Analyzer set</td> <td>1 nos.</td> </tr> <tr> <td>16</td> <td>Hydraulic Compressor for Aluminum conductor Splicing Zig (all sizes)</td> <td>2 sets</td> </tr> <tr> <td>17</td> <td>Turfers all weight categories</td> <td>5 each type</td> </tr> <tr> <td>18</td> <td>Pull lift all weight category</td> <td>5 each type</td> </tr> <tr> <td>19</td> <td>Come-along clamps for different conductors</td> <td>10 for each size</td> </tr> <tr> <td>20</td> <td>Discharge Rod complete including earthing cable and connectors</td> <td>20 nos.</td> </tr> <tr> <td>21</td> <td>Aluminum Ladders ( 5 m and 11 m extendable)</td> <td>5 each</td> </tr> </tbody> </table> | S. No | Description | Quantity in No's | 1 | Cable Fault Locator | 1 set | 2 | AC Power Line Analyzer | 2 nos. | 3 | Digital earth testers | 3 nos. | 4 | Earth Leakage Detector 1000 V | 2 nos. | 5 | Digital Insulation Tester 2.5/ 5 kV | 2 nos. | 6 | Digital Insulation Tester 0 – 1000 V | 2 nos. | 7 | Primary injection test kit | 1 no. | 8 | Secondary injection test kit | 1 no. | 9 | Relay Testing Kits | 1 no. | 10 | Infra-red remote temperature sensor | 3 nos. | 11 | Fully automatic Oil dielectric test kit with printer | 1 no. | 12 | i) Thermal Imaging Camera capable of being mounted on Tower Wagon /loco | 1 nos. | ii) Hand held Thermal Imaging camera | 2 nos. | 13 | Video Camera | 1 no. | 14 | Height and Stagger gauge (instrument laser based) | 2 set | 15 | Dissolved Gas Analyzer set | 1 nos. | 16 | Hydraulic Compressor for Aluminum conductor Splicing Zig (all sizes) | 2 sets | 17 | Turfers all weight categories | 5 each type | 18 | Pull lift all weight category | 5 each type | 19 | Come-along clamps for different conductors | 10 for each size | 20 | Discharge Rod complete including earthing cable and connectors | 20 nos. | 21 | Aluminum Ladders ( 5 m and 11 m extendable) | 5 each |
| S. No  | Description   | Quantity in No's |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 1      | Cable Fault Locator   | 1 set            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 2      | AC Power Line Analyzer  | 2 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 3      | Digital earth testers   | 3 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 4      | Earth Leakage Detector 1000 V   | 2 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 5      | Digital Insulation Tester 2.5/ 5 kV                                     | 2 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 6      | Digital Insulation Tester 0 – 1000 V                                    | 2 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 7      | Primary injection test kit  | 1 no.            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 8      | Secondary injection test kit  | 1 no.            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 9      | Relay Testing Kits  | 1 no.            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 10     | Infra-red remote temperature sensor                                     | 3 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 11     | Fully automatic Oil dielectric test kit with printer                    | 1 no.            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 12     | i) Thermal Imaging Camera capable of being mounted on Tower Wagon /loco | 1 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
|        | ii) Hand held Thermal Imaging camera                                    | 2 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 13     | Video Camera  | 1 no.            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 14     | Height and Stagger gauge (instrument laser based)                       | 2 set            |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 15     | Dissolved Gas Analyzer set  | 1 nos.           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 16     | Hydraulic Compressor for Aluminum conductor Splicing Zig (all sizes)    | 2 sets           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 17     | Turfers all weight categories   | 5 each type      |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 18     | Pull lift all weight category   | 5 each type      |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 19     | Come-along clamps for different conductors                              | 10 for each size |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 20     | Discharge Rod complete including earthing cable and connectors          | 20 nos.          |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |
| 21     | Aluminum Ladders ( 5 m and 11 m extendable)                             | 5 each           |          |            |             |   |       |             |                  |   |                     |       |   |                        |        |   |                       |        |   |                               |        |   |                                     |        |   |                                      |        |   |                            |       |   |                              |       |   |                    |       |    |                                     |        |    |  |       |    |   |        |                                      |        |    |              |       |    |   |       |    |                            |        |    |  |        |    |                               |             |    |                               |             |    |  |                  |    |  |         |    |   |        |

| S. No. | Part No. | Vol. No. | Page No. | Clause No. | Item | Addendum/Amendment to Bid Documents |  |        |
|--------|----------|----------|----------|------------|------|-------------------------------------|--|--------|
|        |          |          |          |            |      | 22                                  | Portable petrol/ kerosene DG set 1.5 KVA   | 3 nos. |
|        |          |          |          |            |      | 23                                  | Vehicle mounted Oil filtration plant 1 phase 3000 liters per hour capacity                           | 1 nos. |
|        |          |          |          |            |      | 24                                  | Portable diesel Generating set 3 kVA 230 V.A.C.  | 2 nos. |
|        |          |          |          |            |      | 25                                  | 150 sq.mm Contact wire Cutter 36"  | 5 nos. |
|        |          |          |          |            |      | 26                                  | Wire Cutter 12"  | 5 nos. |
|        |          |          |          |            |      | 27                                  | "D" Shackle set (1",3/4", 5/8", &1" One Each)  | 5 nos. |
|        |          |          |          |            |      | 28                                  | Single sleeve Pulley Block 3.5" x 5/8" Groove Fiber for drawl of contact. &catenary wire             | 5 nos. |
|        |          |          |          |            |      | 29                                  | Portable rail drill machine.   | 2 nos. |
|        |          |          |          |            |      | 30                                  | Siren 3 phase Range 5 Km and 1 phase Range 1 Km  | 1 each |
|        |          |          |          |            |      | 31                                  | DE and Ring Spanner sets suitable for Fittings being supplied  | 5 nos. |
|        |          |          |          |            |      | 32                                  | Chain pulley block all weight category as required for erection                                      | 1 no.  |
|        |          |          |          |            |      | 33                                  | Hydraulic insulator testing jig  | 1 no.  |
|        |          |          |          |            |      | 34                                  | Copper Hammer  | 4 nos. |
|        |          |          |          |            |      | 35                                  | Nonmetallic Hammer   | 3 nos. |
|        |          |          |          |            |      | 36                                  | Micro Meter  | 5 nos. |
|        |          |          |          |            |      | 37                                  | Fiber measuring Tape 30 mtr. & 15 mtr. Each  | 5 nos. |
|        |          |          |          |            |      | 38                                  | Isolator pad lock  | 5 nos. |
|        |          |          |          |            |      | 39                                  | Neutral Section inspection Jig   | 1 no.  |
|        |          |          |          |            |      | 40                                  | Nylon rope 20 meters length  | 5 nos. |
|        |          |          |          |            |      | 41                                  | Diagnostic kit(LAPTOP) along with software capable of testing all type of modules to identify faults | 1 no.  |
|        |          |          |          |            |      | 42                                  | Digital Multi-meter  | 3 nos. |

| S. No. | Part No.   | Vol. No. | Page No. | Clause No.       | Item  | Addendum/Amendment to Bid Documents   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
|--------|--|----------|----------|------------------|---|---|----|-------------------------------|--------|----|-----------------------|-------|----|---|--------|----|--------------------------------------|--------|----|---------------------------|--------|----|------------------------|--------|----|---------------|---------|----|----------------|---------|----|-------------|--------|----|----------------|--------|----|--|--------|----|-----------------|--------|----|--|-------|----|-------------------|-------|----|--|--------|----|---|--------|----|--|--------|----|-----------------------|--------|
|        |  |          |          |                  |   | <table border="1"> <tr> <td>43</td> <td>Portable operated tree pruner</td> <td>5 nos.</td> </tr> <tr> <td>44</td> <td>Motorised Earth Augur</td> <td>1 no.</td> </tr> <tr> <td>45</td> <td>Crimping Tools for droppers/<br/>conductors ( all types)</td> <td>5 nos.</td> </tr> <tr> <td>46</td> <td>Operating rod for DO fuse (Pull Rod)</td> <td>6 nos.</td> </tr> <tr> <td>47</td> <td>Inflatable lighting tower</td> <td>3 nos.</td> </tr> <tr> <td>48</td> <td>Portable Power hacksaw</td> <td>2 nos.</td> </tr> <tr> <td>49</td> <td>Safety Helmet</td> <td>25 nos.</td> </tr> <tr> <td>50</td> <td>Safety Harness</td> <td>10 nos.</td> </tr> <tr> <td>51</td> <td>Hand blower</td> <td>4 nos.</td> </tr> <tr> <td>52</td> <td>Vacuum Cleaner</td> <td>2 nos.</td> </tr> <tr> <td>53</td> <td>Vehicle mounted Oil filtration plant 1<br/>phase 300 liters per hour capacity</td> <td>1 nos.</td> </tr> <tr> <td>54</td> <td>Box spanner set</td> <td>4 nos.</td> </tr> <tr> <td>55</td> <td>Portable Tan Delta &amp; Capacitance<br/>Measuring Bridge</td> <td>1 no.</td> </tr> <tr> <td>56</td> <td>Capacitance meter</td> <td>1 no.</td> </tr> <tr> <td>57</td> <td>Portable grinder Electrically operated</td> <td>2 nos.</td> </tr> <tr> <td>58</td> <td>Steel sling with eye each end 1 m, 2 m<br/>and 3 m</td> <td>5 each</td> </tr> <tr> <td>59</td> <td>Steel sling with eye each end 5 m, 10<br/>m</td> <td>4 each</td> </tr> <tr> <td>60</td> <td>Twister cum bender 6"</td> <td>5 nos.</td> </tr> </table> | 43 | Portable operated tree pruner | 5 nos. | 44 | Motorised Earth Augur | 1 no. | 45 | Crimping Tools for droppers/<br>conductors ( all types) | 5 nos. | 46 | Operating rod for DO fuse (Pull Rod) | 6 nos. | 47 | Inflatable lighting tower | 3 nos. | 48 | Portable Power hacksaw | 2 nos. | 49 | Safety Helmet | 25 nos. | 50 | Safety Harness | 10 nos. | 51 | Hand blower | 4 nos. | 52 | Vacuum Cleaner | 2 nos. | 53 | Vehicle mounted Oil filtration plant 1<br>phase 300 liters per hour capacity | 1 nos. | 54 | Box spanner set | 4 nos. | 55 | Portable Tan Delta & Capacitance<br>Measuring Bridge | 1 no. | 56 | Capacitance meter | 1 no. | 57 | Portable grinder Electrically operated | 2 nos. | 58 | Steel sling with eye each end 1 m, 2 m<br>and 3 m | 5 each | 59 | Steel sling with eye each end 5 m, 10<br>m | 4 each | 60 | Twister cum bender 6" | 5 nos. |
| 43     | Portable operated tree pruner  | 5 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 44     | Motorised Earth Augur  | 1 no.    |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 45     | Crimping Tools for droppers/<br>conductors ( all types)                      | 5 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 46     | Operating rod for DO fuse (Pull Rod)   | 6 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 47     | Inflatable lighting tower  | 3 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 48     | Portable Power hacksaw   | 2 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 49     | Safety Helmet  | 25 nos.  |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 50     | Safety Harness   | 10 nos.  |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 51     | Hand blower  | 4 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 52     | Vacuum Cleaner   | 2 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 53     | Vehicle mounted Oil filtration plant 1<br>phase 300 liters per hour capacity | 1 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 54     | Box spanner set  | 4 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 55     | Portable Tan Delta & Capacitance<br>Measuring Bridge                         | 1 no.    |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 56     | Capacitance meter  | 1 no.    |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 57     | Portable grinder Electrically operated                                       | 2 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 58     | Steel sling with eye each end 1 m, 2 m<br>and 3 m                            | 5 each   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 59     | Steel sling with eye each end 5 m, 10<br>m                                   | 4 each   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 60     | Twister cum bender 6"  | 5 nos.   |          |                  |   |   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 17.    | 2  | 2        | 609      | 18.4.1<br>(1)(d) | Interface With<br>Civil, Building &<br>Track Contractor<br>(CST)                    | <b>Replace the contents of sub-clause 18.4.1(1)(d) with the following:</b><br>"The System Contractor may please note that no movement of men and material will be permitted on the embankment unless & until the blanket layer upto the designed thickness is finished"   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |
| 18.    | 2  | 2        | 627      | Table<br>18.4.4  | Indicative<br>Interfacing Matrix<br>with Indian<br>Railways-cum-<br>PGCIL for Power | <b>Replace the contents of Item No.1 under the table 18.4.4 with the following:</b>   |    |                               |        |    |                       |       |    |   |        |    |                                      |        |    |                           |        |    |                        |        |    |               |         |    |                |         |    |             |        |    |                |        |    |  |        |    |                 |        |    |  |       |    |                   |       |    |  |        |    |   |        |    |  |        |    |                       |        |

| S. No.  | Part No.  | Vol. No. | Page No. | Clause No.   | Item                         | Addendum/Amendment to Bid Documents  |  |  |   |         |       |                                     |      |  |         |   |
|---------|---|----------|----------|--------------|------------------------------|--|--|--|---|---------|-------|-------------------------------------|------|--|---------|---|
|         |   |          |          |              |                              | Item No  | Item Description   | Systems Works Contractor (CP-105)  | Indian Railways / PGCIL   | Remarks |       |                                     |      |  |         |   |
|         |   |          |          |              | Supply                       |  |  |  |   |         |       |                                     |      |  |         |   |
|         |   |          |          |              |                              | 1  | Termination of 132 KV (LILO) feeders of IR & PGCIL at DFCC's Traction Sub-station. | Shall interface with Indian Railways & PGCIL and ascertain the provision of incoming gantry structure(s) for termination of LILO feeders <b>and 132 kV D/C Transmission line being constructed by PGCIL.</b><br>Shall provide 132 kV incoming gantry(s) to allow IR to terminate double circuit three phase transmission lines as per LILO arrangement <b>and 132 kV D/C Transmission line being constructed by PGCIL.</b> | Shall assist the DFCC and the System Contractor (CP-105) for requirement of LILO feeder termination at the TSS Gantry provided by CP 105. | TSS     |       |                                     |      |  |         |   |
| 19.     | 2   | 3        | 735      | 1.4.1 (2)    | Scope of Works               | <b>Add the following before last sentence of the Para:</b><br>"The SM's Control Terminal at New Khurja station shall also be suitably modified to provide display and control of New Khurja – New Boraki block section".   |  |  |   |         |       |                                     |      |  |         |   |
| 20.     | 2   | 3        | 741      | 2.2          | List of Abbreviations        | <b>In the table, Delete and replace:</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">SSDAC</td> <td>Single Section Digital Axle Counter</td> </tr> <tr> <td colspan="2" style="text-align: center;">with</td> </tr> <tr> <td style="text-align: center;">HASSDAC</td> <td>High Availability Single Section Digital Axle Counter</td> </tr> </table> |  |  |   |         | SSDAC | Single Section Digital Axle Counter | with |  | HASSDAC | High Availability Single Section Digital Axle Counter |
| SSDAC   | Single Section Digital Axle Counter                   |          |          |              |                              |  |  |  |   |         |       |                                     |      |  |         |   |
| with    |   |          |          |              |                              |  |  |  |   |         |       |                                     |      |  |         |   |
| HASSDAC | High Availability Single Section Digital Axle Counter |          |          |              |                              |  |  |  |   |         |       |                                     |      |  |         |   |
| 21.     | 2   | 3        | 744      | 3.2.2 (1)(h) | Signals, System Requirements | <b>Delete and replace the contents of the Para with the following:</b><br>"Calling-ON signal shall be provided in the station section below all reception and despatch signals, except the last stop signals."   |  |  |   |         |       |                                     |      |  |         |   |



| S. No. | Part No. | Vol. No. | Page No. | Clause No.   | Item   | Addendum/Amendment to Bid Documents   |
|--------|----------|----------|----------|--------------|--|---|
| 22.    | 2        | 3        | 744      | 3.2.2 (2)(b) | Signals, Technical requirements                        | <b>Delete and replace the contents of the Para with the following:</b><br>“All Main Signals shall use Light Emitting Diode Signal lighting unit as per RDSO specification No. RDSO/SPN/199/2010 and all Subsidiary Signals shall use Light Emitting Diode Signal lighting unit as per RDSO specification No. RDSO/SPN/153/2011. LED Signal lighting unit shall work on 110V 50 Hz AC. ECRs as per RDSO specification STS/E/Relays/AC Lit LED Signal/09-2002 shall only be used with LED Signal lighting units”.   |
| 23.    | 2        | 3        | 747      | 3.2.3(4) (f) | Interlocking Design                                    | In second line of the Para, add “cards” after “I/O”   |
| 24.    | 2        | 3        | 750      | 3.2.5(2)(c)  | Track Vacancy Detection System, Technical requirements | In first line of the Para, delete and replace “Single Section Digital Axle Counter (SSDAC)” with “High Availability Single Section Digital Axle Counter (HASSDAC)”.   |
| 25.    | 2        | 3        | 750      | 3.2.5 (2)(g) | Track Vacancy Detection System, Technical requirements | <b>In first sentence of the Para, delete the following:</b><br>“and Up and down lines connecting New Boraki Junction Station to Point zone controlling movement to/from Dadri ICD yard-Dadri area”.   |
| 26.    | 2        | 3        | 750      | 3.2.5 (2)(h) | Track Vacancy Detection System, Technical requirements | <b>Delete and replace the contents of the Para with the following:</b><br>“The Track vacancy detection system in the Station section at New Boraki Junction station shall have Main and Supervisory system on the continuous stretch of UP & DN Main lines, including extended UP & DN lines up to the Point zone controlling movement to/from Dadri ICD yard-Dadri area. The Supervisory system shall have a track section for every Main system track section. In case the track section of the Main system fails with its corresponding track section of Supervisory system showing clear or vice versa, it will automatically reset the failed track section. All the other lines/portions of the New Boraki Junction Station section shall have only Main system with suitable resetting arrangement.” |
| 27.    | 2        | 3        | 752      | 3.2.6        | Points and Points Machine                              | <b>Add New sub Para 3.2.6 (4) as under:</b><br>“The CST Contractor of CP -302 may design and provide turnouts with back drive arrangement. The safety of the integrated system, including point machine, ground connections and back drive, if any shall be the responsibility of the Contractor. The Contractor shall arrange for independent safety assessment of the integrated system.”   |

| S. No.            | Part No.  | Vol. No. | Page No. | Clause No. | Item                              | Addendum/Amendment to Bid Documents  |                   |                                     |      |  |                   |   |
|-------------------|---|----------|----------|------------|-----------------------------------|--|-------------------|-------------------------------------|------|--|-------------------|---|
| 28.               | 2   | 3        | 755      | 3.2.8 (10) | Power Supply                      | <b>Delete and replace the contents of Para with the following:</b><br>“The battery backup shall be provided with Valve Regulated Lead Acid Maintenance Free cells conforming to RDSO specifications IRS S93-96 (A) with latest amendments for capacities up to and including 500 AH and to TEC Specifications No.GR/BAT-01/03 March 2004 with latest amendments for capacities beyond 500 AH. All Battery Cells shall be procured as per Para 5.2 of this Particular Specifications for Signalling Works. Battery bank shall have adequate capacity to provide a backup time of minimum 4 hours with maximum depth of discharge of the battery as 70%. The batteries shall be installed on battery racks.”   |                   |                                     |      |  |                   |   |
| 29.               | 2   | 3        | 755      | 3.2.8 (11) | Power Supply                      | In first line of the Para, delete and replace, “Four” with “Five”.   |                   |                                     |      |  |                   |   |
| 30.               | 2   | 3        | 762      | 3.2.10     | Train Management System           | <b>Add New sub Para 3.2.10 (24) &amp; (25) as under:</b><br>“(24) A TMS terminal for Station master at Station and TMS Terminals at Station and IMSD for Signal Maintenance shall be provided under the contract. The contractor shall also keep provision of 5 Nos. of Miscellaneous User TMS Terminals at important offices/locations like IR junction station, IR Divisional & Zonal office, DFCCIL Regional and Corporate offices etc., as decided by the Engineer. The functional and hardware configuration of these TMS Terminals shall be similar to the one provided under CP 104 and as detailed under Para 3 (19), (20) & (21) of Appendix-7. The TMS terminals provided under the contract shall display complete information of CP 105 and CP 104 contracts”<br>“(25) The TMS terminals of CP 104 contract shall be suitably modified/updated as required to additionally display the complete information of CP 105 contract.” |                   |                                     |      |  |                   |   |
| 31.               | 2   | 3        | 781      | 5.1.2.(3)  | Design Standards                  | <b>In the table, Delete and replace:</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">RDSO/SPN/177/2012</td> <td>Single Section Digital Axle Counter</td> </tr> <tr> <td colspan="2" style="text-align: center;">with</td> </tr> <tr> <td>RDSO/SPN/177/2012</td> <td>High Availability Single Section Digital Axle Count</td> </tr> </table>   | RDSO/SPN/177/2012 | Single Section Digital Axle Counter | with |  | RDSO/SPN/177/2012 | High Availability Single Section Digital Axle Count |
| RDSO/SPN/177/2012 | Single Section Digital Axle Counter                 |          |          |            |                                   |  |                   |                                     |      |  |                   |   |
| with              |   |          |          |            |                                   |  |                   |                                     |      |  |                   |   |
| RDSO/SPN/177/2012 | High Availability Single Section Digital Axle Count |          |          |            |                                   |  |                   |                                     |      |  |                   |   |
| 32.               | 2   | 3        | 788      | 6.2.4 (1)  | Equipment Cabinets and Enclosures | In 2 <sup>nd</sup> line of the Para, delete and replace “IP 54” with “IP 31”.  |                   |                                     |      |  |                   |   |

| S. No. | Part No. | Vol. No. | Page No. | Clause No.              | Item  | Addendum/Amendment to Bid Documents  |
|--------|----------|----------|----------|-------------------------|---|--|
| 33.    | 2        | 3        | 789      | 6.3.2 (5)               | Cable core allocation                       | <b>Add the following at the end of the Para:</b><br>“The detection function shall not be carried in the same cable that is used for operation of point/crossover.”   |
| 34.    | 2        | 3        | 807      | 7.3                     | Factory Acceptance Tests                    | <b>Add new Sub-Para 7.3.8:</b><br>“FAT of all the items shall be witnessed by the Engineer and/or Employer’s Personnel, RDSO/RITES/Third Party as approved in the FAT procedure. All the items procured against RDSO/IRS specifications from RDSO approved vendors shall be witnessed by RDSO, unless approved otherwise. The Third party Independent Inspecting Agencies/Testing Laboratories shall also be engaged by the Contractor and involved in inspection /testing of items sourced from outside India.” |
| 35.    | 2        | 3        | 818      | 9.3.9(3)                | Training Courses for Signalling Sub Systems | <b>Delete and replace the contents of Para with the following:</b><br>“Multi Section Digital Axle Counters (MSDAC) and High Availability Single Section Digital Axle Counters (HASSDAC)”.  |
| 36.    | 2        | 3        | 828      | 11.2.1 (6) Table        | Interface with CST Contractor (CP 302)      | <b>In S. No. 6, 4<sup>th</sup> column of the table, delete the following:</b><br>“, and shall provide Cable Ducts on culverts”.  |
| 37.    | 2        | 3        | 836      | Appendix-1 Clause 5 (9) | Battery Banks & Sizing                      | In first line of the Para, delete and replace, “Four” with “Five”.   |
| 38.    | 2        | 4        | 928      | 5.3.3.2                 | Optical Fiber: 48 Fiber                     | <b>Replace “48 Fibre OF Cables” with “2 x 24 Fibre OF Cables” in Para 5.3.3.2</b>  |
| 39.    | 2        | 4        | 933      | 5.3.9.11(7)             | Alarm and Status Monitoring                 | <b>Delete sub para 5.3.9.11(7).</b><br>And further update the numbering of sub para 5.3.9.11(8) as 5.3.9.11(7).  |
| 40.    | 2        | 4        | 938      | 5.5.3.4(5)              | Network Management System Specification     | <b>Delete the words “and F interface of V.24 / V.28 type” from para 5.5.3.4(5)</b>   |

| S. No. | Part No. | Vol. No. | Page No. | Clause No. | Item                             | Addendum/Amendment to Bid Documents  |
|--------|----------|----------|----------|------------|----------------------------------|--|
| 41.    | 2        | 4        | 942      | 6.4.3.3    | Availability Requirements        | <b>Delete the words “ Resilient Ethernet Protocol” from para 6.4.3.3</b>   |
| 42.    | 2        | 4        | 944      | 6.6.1      | Security                         | <b>Add the following after</b> Authorized Users only <b>In para 6.6.1:</b><br>“ <b>If feasible</b> , Contractor may upgrade/augment Access Control Mechanisms provided under Contract Package CP-104/CP-203 to meet the requirements of this Particular Specification.”                |
| 43.    | 2        | 4        | 944      | 6.6.3      | Security                         | <b>Add the following at the end of para 6.6.3:</b><br>“If feasible, Contractor may upgrade/augment NPF (Network Perimeter firewall) provided under Contract Package CP-104/CP-203 to meet the requirements of this Particular Specification.”  |
| 44.    | 2        | 4        | 946      | 7.1.7      | Telephone System General         | <b>Replace “Automatic Signals” in Para 7.1.7 with “Automatic Signals and Reception Signals”</b>  |
| 45.    | 2        | 4        | 949      | 7.3.5.13   | Administrative Telephone Network | <b>Replace in para 7.3.5.13 the following:</b><br>“ <b>three telephone sets</b> ” with “ <b>three Analogue telephone sets</b> ”  |
| 46.    | 2        | 4        | 954      | 7.3.12.1   | Emergency Communication System   | <b>Replace “Automatic Signals” in Para 7.3.12.1 with “Automatic Signals and Reception Signals”</b>   |
| 47.    | 2        | 4        | 954      | 7.3.12.2   | Emergency Communication System   | <b>Replace “Automatic Signals” in Para 7.3.12.2 with “Automatic Signals and Reception Signals”</b>   |
| 48.    | 2        | 4        | 956      | 7.5.1.9    | PBX Network                      | <b>Replace “The extension line interface” in the first line of para 7.5.1.9:</b><br>with “The analog extension line interface”<br><b>Replace “Loop resistance of subscriber” in the first line of para 7.5.1.9 (1)</b><br><b>with “Loop resistance of analog telephone subscriber”</b> |

| S. No. | Part No. | Vol. No. | Page No. | Clause No. | Item   | Addendum/Amendment to Bid Documents   |
|--------|----------|----------|----------|------------|--|---|
| 49.    | 2        | 4        | 958      | 7.5.4.1    | Voice Recording System   | <b>Delete the words “and Mobile Train Radio Communication System” from para 7.5.4.1.</b>  |
| 50.    | 2        | 4        | 972      | 8.4.6.2.1  | Interoperability Requirements (MTRCS)                              | <b>Delete and replace the contents of Para with the following:</b><br>BSS being provided under this contract shall be inter operable with Network Sub System (NSS) being provided for EDFC under Contract Package CP-304 and for WDFC under Contract Package STP-5.   |
| 51.    | 2        | 4        | 993      | 11.5.2.2.2 | LED Backlit Color Monitor  | <b>Delete</b> item no. 4 from the <b>para 11.5.2.2.2</b>  |
| 52.    | 2        | 4        | 995      | 11.5.2.6.5 | Layer 2 switch for field   | <b>Add</b> “/ RJ45 / USB” after RS-232 in <b>para 11.5.2.6.5:</b>   |
| 53.    | 2        | 5        | 1070     | 4.2.8      | Provision of all Electrical Luminaires and Gadgets/ Equipments     | Replace the last sentence of clause 4.2.8 “All out door Luminaries shall be of minimum IP65 class and Indoor shall be of IP54 class” with the following:<br>“All out door Luminaries shall be of minimum IP65 class and Indoor shall be of IP54 class except for Residential Quarters, where indoor luminaries shall be of minimum IP20 class.”   |
| 54.    | 2        | 5        | 1075     | 4.5 (9)    | General Design criteria for service buildings and other structures | <b>Replace the contents of the Sub Clause 4.5(9) with the following:</b><br>“Construction of additional room for installation of DG Set at station building shall preferably be on extreme corner of building to keep vibrations and exhaust at one end. The DG Cum Solar Room in Station Building as provided by CST Contractor shall be utilised for Solar equipment and Metering purpose.” |
| 55.    | 2        | 5        | 1109     | 9.1.1 (3)  | Illumination levels  | Replace the first sentence of clause no. 9.1.1(3) with the following:<br>“All indoor fittings shall be IP54 compliant, except for Residential Quarters, where indoor fittings shall be of minimum IP20 compliant.”  |

| S. No. | Part No.         | Vol. No.         | Page No.                       | Clause No.           | Item  | Addendum/Amendment to Bid Documents  |                                   |            |                  |                                |                      |      |                |                                   |    |                  |   |                              |    |                              |    |   |
|--------|------------------|------------------|--------------------------------|----------------------|---|--|-----------------------------------|------------|------------------|--------------------------------|----------------------|------|----------------|-----------------------------------|----|------------------|---|------------------------------|----|------------------------------|----|---|
| 56.    | 2                | 5                | 1120                           | 11.2 (1)             | DG Set with Acoustic Enclosure for Essential Power Supply | <p><b>Replace the 1<sup>ST</sup> Sentence of the 2<sup>nd</sup> paragraph of the Sub Clause 11.2(1) with the following:</b></p> <p>“The DG Set shall be able to start automatically in all climatic conditions and shall take full load within 20 seconds of failure of the normal supply through an automatic change over switch.”</p>  |                                   |            |                  |                                |                      |      |                |                                   |    |                  |   |                              |    |                              |    |   |
| 57.    | 2                | 5                | 1148                           | 17.7.1               | Foundation Work   | <p><b>Replace the 2<sup>nd</sup> sentence of sub-clause 17.7.1 with the following:</b></p> <p>“The Contractor shall provide such road &amp; rail system adjacent to the DFCCIL track for easy transportation of the Transformers and heavy equipment through rail transport as per the requirements of ACTM”</p>   |                                   |            |                  |                                |                      |      |                |                                   |    |                  |   |                              |    |                              |    |   |
| 58.    | 2                | 5                | 1168                           | Attachment 20.4      | Matrix of Required Facilities at Various Locations        | <p><b>Replace the contents of S.N. 6 of the Table under Attachment 20.4 with the following:</b></p> <p style="text-align: center;"><b>FACILITIES AT VARIOUS LOCATIONS BY CP 105 CONTRACTOR</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SN</th> <th>Parameters</th> <th>Station Building</th> <th>Control Room Building(TSS/SSP)</th> <th>Auxiliary Substation</th> <th>IMSD</th> <th>Staff Quarters</th> <th>S&amp;T Equip. rooms in block section</th> </tr> </thead> <tbody> <tr> <td>6.</td> <td>Air-conditioning</td> <td style="text-align: center;">✓</td> <td>TSS – Telecom equipment room</td> <td style="text-align: center;">NA</td> <td>Only in control room/T<br/>ER</td> <td style="text-align: center;">NA</td> <td style="text-align: center;">✓</td> </tr> </tbody> </table> | SN                                | Parameters | Station Building | Control Room Building(TSS/SSP) | Auxiliary Substation | IMSD | Staff Quarters | S&T Equip. rooms in block section | 6. | Air-conditioning | ✓ | TSS – Telecom equipment room | NA | Only in control room/T<br>ER | NA | ✓ |
| SN     | Parameters       | Station Building | Control Room Building(TSS/SSP) | Auxiliary Substation | IMSD  | Staff Quarters   | S&T Equip. rooms in block section |            |                  |                                |                      |      |                |                                   |    |                  |   |                              |    |                              |    |   |
| 6.     | Air-conditioning | ✓                | TSS – Telecom equipment room   | NA                   | Only in control room/T<br>ER                              | NA   | ✓                                 |            |                  |                                |                      |      |                |                                   |    |                  |   |                              |    |                              |    |   |
| 59.    | 3                | -                | 1190 – 1191                    | Sub Clause 4.11      | Particular Conditions                                     | <p><b>Delete Sub – Clause 4.11 and replace as under:</b></p> <p>“Add the following after Sub Clause 4.11<br/>“DFCC project being funded by the World Bank, qualifies for exemption from payment of custom 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 (read along with all subsequent amendments), provided the goods brought in to the project are not withdrawn by the supplier or the Contractor.<br/>Under various notifications of the Department of Customs, Government of</p>   |                                   |            |                  |                                |                      |      |                |                                   |    |                  |   |                              |    |                              |    |   |

| S. No. | Part No. | Vol. No. | Page No.       | Clause No.            | Item   | Addendum/Amendment to Bid Documents  |
|--------|----------|----------|----------------|-----------------------|--|--|
|        |          |          |                |                       |  | <p>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 duties and / or are eligible for Deemed Export Benefits, provided the said goods are not withdrawn by the supplier or Contractor.</p> <p>The certificates required for claiming exemption of customs duty and / or for claiming deemed export benefits on goods by the Contractor shall be issued by the Employer. The Contractor shall be solely responsible for obtaining such duty exemptions and / or deemed export benefits and in case of failure to avail such benefits for any reasons whatsoever; the Employer shall not reimburse any such duties.</p> <p>The above stated certificate(s) shall be issued for the bonafide and reasonable quantities of goods to be used as input in the construction of Works, on the recommendations of the Engineer taking in to account the Work Programme [Sub-Clause 8.3 of the Conditions of Contract] and approved methodology.</p> <p>Any delay in procurement of the goods as a result of any delay, in the issuing of the above mentioned certificates and / or availing the exemptions, shall not be entertained as a reason for granting any Extension of Time for Completion and / or additional cost.</p> <p>No customs duty or any tax, fee, royalty etc. will be reimbursed by the Employer.</p> <p>The Bidders may please note that at present, there is no notification from Govt. of India regarding exemption of GST for this Project.”</p> |
| 60.    | 3        | -        | 1208 –<br>1210 | Sub<br>Clause<br>20.6 | Particular<br>Conditions                             | <p><b>Replace the contents of Paragraph (b)(i) with the following:</b></p> <p>“In accordance with rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi or such other rule as may be mutually agreed by the parties and shall be subject to the provision of The Arbitration And Conciliation (Amendment) Act, 2015 (An Act to amend the Arbitration and Conciliation Act, 1996)”</p>   |
| 61.    | 4        |          |                |                       | Access<br>Schedule for<br>“Formation<br>and Track of | <p><b>Add new item 9 in Part 4 Reference Document:</b><br/>“Access Schedule for Formation and Track of CP-302”</p>   |

| S. No. | Part No. | Vol. No. | Page No. | Clause No. | Item  | Addendum/Amendment to Bid Documents   |
|--------|----------|----------|----------|------------|---|---|
|        |          |          |          |            | CP-302”   |   |
| 62.    | 4        |          |          |            | “Curve & Gradient details and Chainages of adjoining TSS, SP & SSP of CP-104” | <b>Add new item 1.5 in Part 4 Reference Document.</b><br><ul style="list-style-type: none"> <li>➤ “Curve and Gradient Details of Bhaupur-Khurja Section (CP-104)”</li> <li>➤ “Chainages of adjoining TSS, SP &amp; SSP (CP-104)”</li> </ul> |
| 63.    | 4        |          |          |            | General Supply Diagram  | <b>Replace</b> the “Drawing no. <b>GC/DFCC/PS/GSD/401</b> ” with the revised “Drawing no. <b>GC/DFCC/PS/GSD/401 Rev.01</b> ”.   |
| 64.    | 4        |          |          |            | BEC Arrangement of OHE Mast on Embankment                                     | <b>Replace</b> the “Drawing no. <b>GC/DFCC/OHE/EMBKT/TYP/501-1</b> ” with the revised “Drawing no. <b>GC/DFCC/OHE/EMBKT/TYP/501-1 Rev.01</b> ”.   |
| 65.    | 4        |          |          |            | Schematic Diagram of 132/54 KV Wair Traction Sub Station.                     | <b>Replace</b> the “Drawing no. <b>GC/DFCC/PS/TSS/SCH/TYP/101</b> ” with the revised “Drawing no. <b>GC/DFCC/PS/TSS/SCH/TYP/101 Rev.01</b> ”.   |
| 66.    | 4        |          |          |            | General Arrangement Block Diagram of Traction SCADA                           | <b>Replace Drawing No. “GC/DFCC/TR/SCADA/701” with the revised Drawing No. “GC/DFCC/TR/SCADA/701 Rev.01”</b>  |
| 67.    | 4        |          |          |            | General Arrangement Block Diagram of Auxiliary SCADA                          | <b>Replace Drawing No. “GC/DFCC/TR/SCADA/702” with the revised Drawing No. “GC/DFCC/TR/SCADA/702 Rev.01”</b>  |