

**Engineering, Procurement and Construction**

**of**

**Railway Electrification Projects**

**MODEL AGREEMENT**

**Ministry of Railways  
Government of India**



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Part I  
**Preliminary**



# ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT<sup>§</sup>

THIS AGREEMENT<sup>1</sup> is entered into on this the ..... day of ....., 20.....

## BETWEEN

1 [The President of India, represented by Chief Administrative Officer, Central Organisation for Railway Electrification] (hereinafter referred to as the “**Authority**” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of One Part;

## AND

2 ....., means the selected bidder having its registered office at ....., (hereinafter referred to as the “**Contractor**” which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the Other Part.

## WHEREAS:

- (A) The Authority has the responsibility to undertake electrification of the railway lines in the Indian Railways.
- (B) The Authority had resolved to undertake the electrification of the railway lines of approximately \*\*\*\*TKM length comprising Package \*\* in the \*\*\*\* Railway zone on

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### <sup>§</sup> Instructions for Bidders

The draft EPC Agreement issued to the Bidders may be customised for bid-specific purposes in accordance with the instructions below:

**Note 1:** The provisions in curly brackets are to be retained in the draft EPC Agreement forming part of Bidding Documents and shall be suitably modified by the Bidder after the issue of Letter of Award (LOA) in order to reflect the bid specific particulars in the EPC Agreement. (See Appendix-I)

**Note 2:** Blank spaces are to be retained in the draft EPC Agreement and shall be suitably filled by the Bidder after the issue of LOA in order to reflect bid specific particulars in the EPC Agreement. However, blank spaces shall be retained in all Schedules which contain formats that are to be used after the EPC Agreement is executed. (See Appendix-I)

**Note 3:** Footnotes marked “£” are to be retained in the draft EPC Agreement. These footnotes are for guidance of the selected Bidders and shall be omitted before executing the EPC Agreement. However, footnotes marked “\$” or “\$\$” shall be retained in the EPC Agreement as a part thereof. (See Appendix-I)

### <sup>1</sup> Instructions for project-specific customisation of this document

This EPC Agreement (the “EPCA”) may be customised for project-specific use in accordance with the instructions below:

**Note I:** Serially numbered footnotes in this EPCA are for guidance of the Authority and should be omitted from the draft EPC Agreement forming part of Bidding Documents. (See Appendix-II)

**Note II:** All project-specific provisions in this EPCA have been enclosed in square parenthesis and may be modified, as necessary, before issuing the draft EPC Agreement to Bidders. (See Appendix-II)

**Note III:** The asterisks in this EPCA should be substituted by project-specific particulars before issuing the draft EPC Agreement to Bidders. (See Appendix-II)

**Note IV:** Notes I, II, III and IV shall be omitted prior to issuing of the draft EPC Agreement.

Engineering, Procurement, Construction (“**EPC**”) basis in accordance with the terms and conditions to be set forth in an agreement to be entered into.

- (C) The Authority had accordingly invited proposals by its Request for Qualification No. \*\*\* dated \*\*\* (the “**Request for Qualification**” or “**RFQ**”) for short listing of bidders for EPC of the above referred railway line and had shortlisted certain bidders including, inter alia, the selected bidder.
- (D) The Authority had prescribed the technical and commercial terms and conditions, and invited bids (the “**Request for Proposals**” or “**RFP**”) from the bidders shortlisted pursuant to the RFQ for undertaking the Project.
- (E) After evaluation of the bids received, the Authority had accepted the bid of the selected bidder and issued its Letter of Acceptance No. \*\*\* dated \*\*\* (hereinafter called the “**LOA**”) to the selected bidder for construction of the above railway line at the contract price specified hereinafter, requiring the selected bidder to inter alia:
  - (i) deliver to the Authority a legal opinion from the legal counsel of the selected bidder with respect to the authority of the selected bidder to enter into this Agreement and the enforceability of the provisions thereof, within 10 (ten) days of the date of issue of LOA; and
  - (ii) execute this Agreement within 15 (fifteen) days of the date of issue of LOA.
- (F) The Contractor has fulfilled the requirements specified in Recital (E) above;

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, the Authority hereby covenants to pay the Contractor, in consideration of the obligations specified herein, the Contract Price or such other sum as may become payable under the provisions of the Agreement at the times and in the manner specified by the Agreement and intending to be legally bound hereby, the Parties agree as follows:

## ARTICLE 1

### DEFINITIONS AND INTERPRETATION

#### 1.1 Definitions

The words and expressions beginning with capital letters and defined in this Agreement (including those in Article 26) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

#### 1.2 Interpretation

1.2.1 In this Agreement, unless the context otherwise requires,

- (a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
- (b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
- (c) references to a “**person**” and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- (d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
- (e) the words “**include**” and “**including**” are to be construed without limitation and shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases;
- (f) references to “**construction**” or “**building**” include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of plant, materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Railway Project, including maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the construction and “**construct**” or “**build**” shall be construed accordingly;
- (g) references to “**development**” include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other

activities incidental thereto during the Construction Period, and “develop” shall be construed accordingly;

- (h) any reference to any period of time shall mean a reference to that according to Indian standard time;
- (i) any reference to day shall mean a reference to a calendar day;
- (j) reference to a “**business day**” shall be construed as reference to a day (other than a Sunday) on which banks in the State are generally open for business;
- (k) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;
- (l) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;
- (m) any reference to any period commencing “from” a specified day or date and “till” or “until” a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;
- (n) the words importing singular shall include plural and vice versa;
- (o) references to any gender shall include the other and the neutral gender;
- (p) “**lakh**” means a hundred thousand (100,000) and “**crore**” means ten million (10,000,000);
- (q) “**indebtedness**” shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
- (r) references to the “**winding-up**”, “**dissolution**”, “**insolvency**”, or “**reorganisation**” of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganisation, dissolution, arrangement, protection or relief of debtors;
- (s) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, licence or document of any description shall be construed as reference to that agreement, deed, instrument, licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-clause (s) shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;



- (t) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Authority's Engineer shall be valid and effective only if it is in writing under the hand of a duly authorised representative of such Party or the Authority's Engineer, as the case may be, in this behalf and not otherwise;
- (u) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
- (v) references to Recitals, Articles, Clauses, Sub-clauses, Provisos or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses, Provisos and Schedules of or to this Agreement; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appears;
- (w) the damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "**Damages**"); and
- (x) time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended for the reasons specified in the Agreement, such extended time shall also be of the essence.

1.2.2 Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Contractor to the Authority shall be provided free of cost and in three copies, and if the Authority is required to return any such Documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.

1.2.3 The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.

1.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

### **1.3 Measurements and arithmetic conventions**

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

#### **1.4 Priority of agreements and errors/discrepancies**

1.4.1 This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

- (a) this Agreement; and
- (b) all other agreements and documents forming part hereof or referred to herein,  
i.e. this Agreement at (a) above shall prevail over the agreements and documents at (b).

1.4.2 Subject to the provisions of Clause 1.4.1, in case of ambiguities or discrepancies within this Agreement, the following shall apply:

- (a) between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
- (b) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;
- (c) between any two Schedules, the Schedule relevant to the issue shall prevail;
- (d) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
- (e) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and
- (f) between any value written in numerals and that in words, the latter shall prevail.

#### **{1.5 Joint and several liability**

1.5.1 If the Contractor has formed a Consortium of two or more persons for implementing the Project:

- (a) these persons shall, without prejudice to the provisions of this Agreement, be deemed to be jointly and severally liable to the Authority for the performance of the Agreement; and
- (b) the Contractor shall ensure that no change in the composition of the Consortium is effected without the prior consent of the Authority.

1.5.2 Without prejudice to the joint and several liability of all the members of the Consortium, the Lead Member shall represent all the members of the Consortium and shall at all times be liable and responsible for discharging the functions and obligations of the Contractor. The Contractor shall ensure that each member of the

Consortium shall be bound by any decision, communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the Authority shall be entitled to rely upon any such action, decision or communication of the Lead Member. The Authority shall have the right to release payments solely to the Lead Member and shall not in any manner be responsible or liable for the *inter se* allocation of payments among members of the Consortium.)<sup>§</sup>

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<sup>§</sup> This Clause 1.5 may be omitted if the Contractor is not a Consortium. Even if the Contractor is a Consortium, the Authority may, at its discretion, delete this provision.



**Part II**  
**Scope of the Project**



ARTICLE 2  
**SCOPE OF THE PROJECT**

**2.1 Scope of the Project**

Under this Agreement, the scope of the Project (the “**Scope of the Project**”) shall mean and include:

- (a) construction of the Railway Project on the Site set forth in Schedule-A and as specified in Schedule-B together with provision of Project Facilities as specified in Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D; and
- (b) performance and fulfilment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.

## ARTICLE 3

### OBLIGATIONS OF THE CONTRACTOR

#### **3.1 Obligations of the Contractor**

- 3.1.1 Subject to and on the terms and conditions of this Agreement, the Contractor shall undertake the survey, investigation, design, engineering, procurement, and construction of the Railway Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 3.1.2 The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.
- 3.1.3 Save and except as otherwise provided in this Agreement or Applicable Laws, as the case may be, the Contractor shall, in discharge of all its obligations under this Agreement, conform with and adhere to Good Industry Practice at all times.
- 3.1.4 The Contractor shall remedy any and all loss or damage to the Railway Project, occurring on or after the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate and/or Completion Certificate, with respect to the Works referred to in the Punch List, at its own cost, save and except to the extent that any such loss or damage shall have arisen from any default of the Authority or on account of a Force Majeure Event in which case the provisions of Clause 19 shall apply.
- 3.1.5 The Contractor shall remedy any and all loss or damage to the Railway Project during the Defects Liability Period at its own cost, to the extent that such loss or damage shall have arisen out of the reasons specified in Clause 15.3.
- 3.1.6 The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:
- (a) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth in Schedule-E and obtain and keep in force and effect such Applicable Permits in conformity with Applicable Laws;
  - (b) procure, as required, the appropriate proprietary rights, licences, agreements and permissions for Materials, methods, processes, know-how and systems used or incorporated into the Railway Project;
  - (c) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;
  - (d) ensure and procure that its Sub-contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;



- (e) always act in a manner consistent with the provisions of this Agreement and not cause or fail to do any act, deed or thing, whether intentionally or otherwise, which may in any manner be violative of any of the provisions of this Agreement;
- (f) support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;
- (g) ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labour in accordance with Applicable Laws and Good Industry Practice;
- (h) keep, on the Site, a copy of this Agreement, publications named in this Agreement, the Drawings, Documents relating to the Project, Change of Scope Orders and other communications sent under this Agreement, and provide access to all these documents at all reasonable times to the Authority's Engineer and its authorised personnel;
- (i) cooperate with other contractors employed by the Authority and with personnel of any other public authority; and
- (j) not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all the existing facilities within the Right of Way, irrespective of whether they are public or in the possession of the Authority or of others.

3.1.7 The Contractor shall undertake all necessary superintendence to plan, arrange, direct, manage, inspect and test the Works.

### **3.2 Obligations relating to sub-contracts and any other agreements**

3.2.1 The Contractor shall not sub-contract Works comprising more than 70% (seventy per cent) of the Contract Price and shall carry out Works for at least 30% (thirty per cent) of the total Contract Price directly under its own supervision and through its own personnel. The Parties expressly agree that for the purposes of computing the value of sub-contracts under this Clause 3.2.1, the Contract Price shall exclude any sub-contract for the procurement of goods and equipment like overhead equipment, power supply installation equipment and signalling and telecommunication equipment. The Parties agree that all obligations and liabilities under this Agreement for the entire Railway Project shall at all times remain with the Contractor. {The Parties agree that the obligations of the Contractor to carry out Works equal to at least 30% (thirty per cent) of the Contract Price shall be discharged solely by the Lead Member.}<sup>§</sup>

3.2.2 In the event any sub-contract for Works, or the aggregate of such sub-contracts with any Sub-contractor, exceeds 5% (five per cent) of the Contract Price, the Contractor shall communicate the name and particulars, including the relevant experience of the sub-contractor, to the Authority prior to entering into any such sub-contract. Provided,

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<sup>§</sup> May be deleted if the Contractor is not a Consortium.

however, that in any event the Contractor shall communicate the name and particulars to the Authority for any sub-contract for signalling and/ or telecom including the relevant experience prior to entering into any such sub-contract. The Authority shall examine the particulars of the sub-contractor from the national security and public interest perspective and may require the Contractor, no later than 15 (fifteen) business days from the date of receiving the communication from the Contractor, not to proceed with the sub-contract, and the Contractor shall comply therewith.

- 3.2.3 Without prejudice to the provisions of Clause 3.2.2, in the event any sub-contract referred to in Clause 3.2.2 relates to a sub-contractor who has, over the preceding 3 (three) years, not undertaken at least one work of a similar nature with a contract value exceeding 40% (forty per cent) of the value of the sub-contract to be awarded hereunder and received payments in respect thereof for an amount equal to at least 80% (eighty per cent) of such contract, the Authority may, no later than 15 (fifteen) business days from the date of receiving the communication from the Contractor, require the Contractor not to proceed with such sub-contract, and the Contractor shall comply therewith.
- 3.2.4 It is expressly agreed that the Contractor shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the agreements with its Sub-contractors or any other agreement that may be entered into by the Contractor, and no default under any such agreement shall excuse the Contractor from its obligations or liability hereunder.

### **3.3 Obligations relating to employment of foreign nationals**

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and/or its Sub-contractors and their sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event, and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Agreement.

### **3.4 Obligations relating to Contractor's personnel**

- 3.4.1 The Contractor shall ensure and procure that the personnel engaged by it or by its Sub-contractors for performance of its obligations under this Agreement are at all times appropriately qualified, skilled and experienced in their respective functions including in conformity with Applicable Laws including the Indian Railway General and Subsidiary Rules, the Indian Electricity Rules, and Good Industry Practice.
- 3.4.2 The Authority's Engineer may, for reasons to be specified in writing, direct the Contractor to remove any member of the Contractor's or Sub-contractor's personnel from the Railway Project. Provided that any such direction issued by the Authority's Engineer shall specify the reasons for the removal of such person.

- 3.4.3 The Contractor shall, on receiving a direction from the Authority's Engineer under the provisions of Clause 3.4.2, ensure and procure the removal of such person or persons from the Railway Project with immediate effect. The Contractor shall further ensure that such persons have no further connection with the Railway Project.

### **3.5 Obligations relating to advertisement**

The Contractor shall not use the Railway Project or any part thereof in any manner for branding or advertising purposes including for advertising any commercial product or services or companies.

### **3.6 Obligations relating to Contractor's care of the Works**

The Contractor shall bear full risk in and take full responsibility for the care of Works, and of Materials, goods and equipment for incorporation therein, on and from the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate and/or Completion Certificate, with respect to the Works referred to in the Punch List, save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Authority.

### **3.7 Obligations relating to electricity, water and other services**

The Contractor shall be responsible for procuring of all power, water and other services that it may require for the Railway Project.

### **3.8 Unforeseeable difficulties**

Except as otherwise specified in the Agreement:

- (a) the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works;
- (b) the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and
- (c) the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs.

For the purposes of this Clause, unforeseeable difficulties include physical conditions like man-made or natural physical conditions including sub-surface and hydrological conditions which the Contractor encounters at the Site during execution of the Works.

### **3.9 Obligations relating to training of Authority's personnel**

- 3.9.1 The Contractor shall provide and complete the training to the personnel of the Authority in diagnostic, trouble shooting, repairing, operation and maintenance of the overhead equipment and power supply installations. The number of persons to be trained shall not exceed 10 (ten) and the period of training shall be for a period of 4

(four) weeks. The training shall be completed before the issuance of the Provisional Certificate/ Completion Certificate.

- 3.9.2 The Contractor shall provide training to the personnel of the Authority in SCADA. The number of persons to be trained shall not exceed 10 (ten) and the period of training shall be at least 2 (two) weeks. The training shall be completed before the issuance of the Provisional Certificate/ Completion Certificate.

### **3.10 Obligations relating to safety at work site**

The Contractor and its sub-contractors shall follow the safety instructions and take all safety measures for workmen and vehicles plying in the work area in accordance with Applicable Laws, Good Industry Practice and the provisions of this Agreement.

### **3.11 Obligations relating to information**

- 3.11.1 Without prejudice to the provisions of Applicable Laws and this Agreement, upon receiving a notice from the Authority for any information that it may reasonably require or that it considers may be necessary to enable it to perform any of its functions, the Contractor shall provide such information to the Authority forthwith and in the manner and form required by the Authority.
- 3.11.2 After receiving a notice from the Authority for reasoned comments on the accuracy and text of any information relating to the Contractor's activities under or pursuant to this Agreement which the Authority proposes to publish, the Contractor shall provide such comments to the Authority in the manner and form required by the Authority.

## ARTICLE 4

### OBLIGATIONS OF THE AUTHORITY

#### **4.1 Obligations of the Authority**

- 4.1.1 The Authority shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 4.1.2 The Authority shall be responsible for the correctness of the Scope of the Project, Project Facilities, Specifications and Standards and the criteria for Testing of the completed Works.
- 4.1.3 The Authority shall, upon receiving the Performance Security under Clause 7.1.1, provide to the Contractor the Right of Way in accordance with the provisions of Clauses 8.2 and 8.3 on no less than 90% (ninety per cent) of the total length of the Railway Project; and all environmental and forest clearances as required under Clause 4.3.
- 4.1.4 In the event that (i) the Authority does not procure fulfilment of any or all of the obligations set forth in Clause 4.1.3 within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Contractor or due to Force Majeure, the Authority shall pay to the Contractor Damages in a sum calculated in accordance with the provisions of Clause 8.3 of this Agreement and Time Extension in accordance with the provisions of Clause 10.4.
- 4.1.5 Notwithstanding anything to the contrary contained in this Agreement, the Parties expressly agree that the aggregate Damages payable under Clauses 4.1.4, 4.4.3, 8.3 and 9.2 shall not exceed 2.5% (two point five per cent) of the Contract Price. For the avoidance of doubt, the Damages payable by the Authority under the aforesaid Clauses shall not be additive if they arise concurrently from more than one cause but relate to the same part of the Railway Project.
- 4.1.6 The Authority agrees to provide support to the Contractor and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and Applicable Laws, the following:
- (a) upon written request from the Contractor, and subject to the Contractor complying with Applicable Laws, provide reasonable support to the Contractor in procuring Applicable Permits required from any Government Instrumentality for implementation of the Project;
  - (b) upon written request from the Contractor, provide reasonable assistance to the Contractor in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favourable than those generally available to commercial customers receiving substantially equivalent services;
  - (c) procure that no barriers that would have a material adverse effect on Works are erected or placed on or about the Railway Project by any Government

Instrumentality or persons claiming through or under it, except for reasons of Emergency, national security or law and order;

- (d) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
- (e) support, cooperate with and facilitate the Contractor in the implementation of the Project in accordance with the provisions of this Agreement; and
- (f) upon written request from the Contractor and subject to the provisions of Clause 3.3, provide reasonable assistance to the Contractor and any expatriate personnel of the Contractor or its Sub-contractors to obtain applicable visas and work permits for the purposes of discharge by the Contractor or its Sub-contractors of their obligations under this Agreement and the agreements with the Sub-contractors.

#### **4.2 Obligations relating to maintenance of existing facilities**

The Authority shall undertake the maintenance of the facilities existing prior to the Appointed Date including railway lines, bridges, structures, electrical, signalling and communications works within the Right of Way.

#### **4.3 Obligations relating to Environmental and Forest Clearances**

The Authority represents and warrants that the environmental and forest clearances required for construction of the Project have been procured by the Authority prior to the Bid Due Date, save and except for sections of the Railway Project which do not exceed 10% (ten per cent) of the total length thereof. The Authority agrees and undertakes that the environmental and forest clearances for such sections, if any, shall be procured by the Authority no later than 60 (sixty) days from the Appointed Date. In the event of any delay beyond such 60 (sixty) days, the Contractor shall be entitled to Time Extension for the period of such delay in accordance with the provisions of Clause 10.4 of this Agreement and shall also be entitled to Damages calculated as if the Right of Way for and in respect of such sections of the Railway Project has not been provided in accordance with the provisions of Clause 8.2 and as a consequence thereof, the Contractor shall be entitled to Damages under and in accordance with the provisions of Clause 8.3. For the avoidance of doubt, the present status of environmental and forest clearances is specified in Schedule-A.<sup>2</sup>

#### **4.4 Obligations relating to machinery and equipment**

- 4.4.1 The Authority shall upon receiving a request from the Contractor, provide the machinery and equipment specified in Schedule P on payment of hire charges at the monthly rates specified therein. The Parties agree that, save and except as provided in Schedule-P, the monthly rate for each machine or equipment shall be equal to 2%

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<sup>2</sup> Clause 4.3 may be suitably modified in the event that all the environmental/ forest clearances for the Project Railway have been received or are not required. It should be clearly specified that all the environmental/ forest clearances for the Railway Project has been received; or such environmental/ forest clearances for the Railway Project are not required.

(two per cent) of the cost of such machine or equipment, as published in the latest pink book of the Ministry of Railways and shall be inclusive of fuel and all other operating charges, which shall be converted into daily rates taking a month comprising 25 (twenty five) working days. The Parties also agree that if the cost of any machine or equipment has not been published in the latest pink book, then the last purchase price thereof, as per the records of the Ministry of Railways, shall be applicable for determining the charges for such machine or equipment. The Parties further agree that for each machinery or equipment:

- (a) The charges shall be payable for a day even if a machine or equipment is used for less than 8 (eight) hours, so long as it has been placed at the disposal of the Contractor and has not been withdrawn;
- (b) the daily rates shall be computed for a shift of 8 (eight) hours taken as one day. By way of illustration, if the machinery or equipment is used for 16 (sixteen) hours on any day, the charges payable shall be equal to twice the daily rate; and
- (c) for any machinery or equipment which can be used only during the period of a Power Block or Traffic Block, no payment shall be due or payable for the day on which such block is not provided to the Contractor. Open wagons and Ordinary passenger coaches for the purpose of formation of Reel Wagon and Deck Coach for the stringing of catenary and/or contact wire, will be provided free of cost. Time taken during transportation of material shall not be computed for the purpose of charges payable by Contractor as specified in sub clause (a) & (b) above.

4.4.2 The Contractor shall by notice of at least one week convey to the Authority particulars of the machinery and equipment required for each day of the following one month.

4.4.3 In the event that the Authority does not provide any machinery and equipment at the designated time in pursuance of the provisions of Clause 4.4.1, the Contractor shall be entitled to Damages in an amount equal twice the rates specified in Schedule P. Provided further that the Contractor shall be entitled to Time Extension in accordance with the provisions of Clause 10.4 if the number of days for which the machinery has not been provided continuously exceeds 7 (seven) and/ or the total number of days of not providing the machinery exceed 15 (fifteen) days.

#### **4.5 Obligations relating to electricity transmission lines**

The Authority shall procure the Applicable Permits and right of way for the erection, installation, and energisation of the transmission lines required for operating the Railway Project.

#### **4.6 Disconnection for modification of existing signalling and telecommunication works**

The Contractor shall upon completion and testing of a particular subsystem for modification in the existing signalling and telecommunication system at railway stations, level crossing gates and interlocked sections, inform the Authority's Engineer by notice of at least one week of its readiness for commissioning and the Authority's Engineer shall obtain the requisite approvals from the Authority for the

required disconnections within a period of 10 (ten) days of the notice. The Contractor shall ensure that there is no interruption/ disturbance to operational circuits in such cases of modification of signalling and telecom systems.

#### **4.7 Provision of Power Blocks and Traffic Blocks**

- 4.7.1 The Authority shall provide Power Block or Traffic Block or both to enable the Contractor to undertake the construction of overhead equipment, or such other work as may be determined by the Authority's Engineer.
- 4.7.2 The Contractor shall, in consultation with the Authority's Engineer, submit a weekly programme of Blocks, commencing from Monday, with a notice of at least 1 (one) week and the Authority's Engineer shall convey the approved weekly programme to the Contractor no less than 3 (three) days prior to the start of such week.
- 4.7.3 The minimum period for which a Power Block or Traffic Block shall be provided to the Contractor shall not be less than two hours, period being counted from the time the track is placed at the disposal of the Contractor and until it is cleared by the Contractor. Provided, however, that a Power Block or Traffic Block, as the case may be, of shorter duration may be provided with mutual consent of the Parties.
- 4.7.4 The aggregate period of Power Block and Traffic Block to be provided to the Contractor during the Construction Period is specified in Schedule O. The Contractor shall organise its work so as to complete all Construction Works within such aggregate period.
- 4.7.5 In the event of any change in the schedule of Power Block or Traffic Block or both, as the case may be, the Authority shall inform the Contractor by a notice of not less than 24 (twenty four) hours. Provided, however, that no such notice shall be required in case of a breakdown, accident, law and order disturbance, natural calamity or any other unusual occurrence or Emergency.
- 4.7.6 In the event a Power Block or Traffic Block, as the case may be, is not provided for any day in accordance with the confirmed programme, the Contractor shall be compensated by providing an additional Power Block or Traffic Block of equal time during the same week or the following week. The Parties expressly that in the event of any default in providing such additional blocks for compensating the Contractor, the Authority shall pay to the Contractor Damages at the rate of Rs.1,000 (Rupees one thousand) per day for each hour which has not been provided as required hereunder and until such hour is provided during any of the 6 (six) following weeks.
- 4.7.7 The Contractor shall be entitled to undertake the Construction Works within the aggregate period specified in Schedule O. Provided, however, that in the event the aggregate period utilised by the Contractor exceeds the period specified in Schedule O, the Contractor shall pay to the Authority hourly charges at the rate specified therein. Provided further that in the event the Contractor avails of an aggregate period less than the period specified in Schedule O, the Contractor shall be entitled to a bonus equivalent to 40% (forty per cent) of the hourly charges specified in Schedule O.



ARTICLE 5  
**REPRESENTATIONS AND WARRANTIES**

**5.1 Representations and warranties of the Contractor**

The Contractor represents and warrants to the Authority that:

- (a) it is duly organised and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (b) it has taken all necessary corporate and other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- (c) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;
- (d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- (e) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;
- (f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- (g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;
- (h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;

- (i) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;
- (j) no representation or warranty by it contained herein or in any other document furnished by it to the Authority or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;
- (k) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the contract or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection therewith;
- (l) all information provided by the {selected bidder/ members of the Consortium} in response to the Request for Qualification and Request for Proposals or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects;
- (m) all undertakings and obligations of the Contractor arising from the Request for Qualification and Request for Proposals or otherwise shall be binding on the Contractor as if they form part of this Agreement; and
- (n) nothing contained in this Agreement shall create any contractual relationship or obligation between the Authority and any Sub-contractors, designers, consultants or agents of the Contractor.

## **5.2 Representations and warranties of the Authority**

The Authority represents and warrants to the Contractor that:

- (a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;
- (b) it has taken all necessary actions under Applicable Laws to authorise the execution, delivery and performance of this Agreement;

- (c) it has the financial standing and capacity to perform its obligations under this Agreement;
- (d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (e) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Authority's ability to perform its obligations under this Agreement;
- (f) it has complied with Applicable Laws in all material respects;
- (g) it has good and valid right to the Site and has the power and authority to grant the Right of Way in respect thereof to the Contractor; and
- (h) it shall have procured, as on the Appointed Date, Right of Way and environment clearances such that the Contractor can commence construction forthwith on 90% (ninety per cent) of the total length of the Railway Project.

### **5.3 Disclosure**

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

ARTICLE 6  
**DISCLAIMER**

**6.1 Disclaimer**

- 6.1.1 The Contractor acknowledges that prior to the execution of this Agreement, the Contractor has, after a complete and careful examination, made an independent evaluation of the Request for Qualification, Request for Proposals, Scope of the Project, Specifications and Standards, Site, local conditions, physical qualities of ground, subsoil and geology, traffic volumes, suitability and availability of access routes to the Site and all information provided by the Authority or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in Clause 4.1.2 and Clause 5.2, the Authority makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Contractor confirms that it shall have no claim whatsoever against the Authority in this regard.
- 6.1.2 The Contractor acknowledges and hereby accepts to have satisfied itself as to the correctness and sufficiency of the Contract Price.
- 6.1.3 The Contractor acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Contractor, or any person claiming through or under any of them, and shall not lead to any adjustment of Contract Price or Scheduled Completion Date.
- 6.1.4 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above shall not vitiate this Agreement, or render it voidable.
- 6.1.5 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 6.1.1 above, that Party shall immediately notify the other Party, specifying the mistake or error.
- 6.1.6 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Contractor; and the Authority shall not be liable in any manner for such risks or the consequences thereof.

**Part III**  
**Construction**



## ARTICLE 7

### PERFORMANCE SECURITY

#### 7.1 Performance Security

- 7.1.1 The Contractor shall, for the performance of its obligations hereunder, provide to the Authority, within 15 (fifteen) days of the date of this Agreement, an irrevocable and unconditional guarantee, for an amount equal to 5% (five per cent) of the Contract Price, from a Bank in the form set forth in Annex-I of Schedule-F (the “**Performance Security**”). The Performance Security shall be valid until 60 (sixty) days of the expiry of the Defects Liability Period specified in Clause 15.1.1. Until such time the Performance Security is provided by the Contractor pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security, the Authority shall release the Bid Security to the Contractor.
- 7.1.2 Notwithstanding anything to the contrary contained in this Agreement, the Parties agree that in the event of failure of the Contractor to provide the Performance Security in accordance with the provisions of Clause 7.1.1 and within the time specified therein or such extended period as may be provided by the Authority, in accordance with the provisions of Clause 7.1.3, the Authority may encash the Bid Security and appropriate the proceeds thereof as Damages, and thereupon all rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and this Agreement shall be deemed to have been terminated by mutual agreement of the Parties.
- 7.1.3 In the event the Contractor fails to provide the Performance Security within 15 (fifteen) days of the date of this Agreement, it may seek extension of time for a period not exceeding a further 15 (fifteen) days on payment of Damages for such extended period in a sum calculated at the rate of 0.05% (zero point zero five per cent) of the Contract Price for each day until the Performance Security is provided.

#### 7.2 Extension of Performance Security

The Contractor may initially provide the Performance Security for a period of 2 (two) years; provided that it shall procure the extension of the validity of the Performance Security, as necessary, at least 2 (two) months prior to the date of expiry thereof. Upon the Contractor providing an extended Performance Security, the previous Performance Security shall be deemed to be released and the Authority shall return the same to the Contractor within a period of 7 (seven) business days from the date of submission of the extended Performance Security.

#### 7.3 Appropriation of Performance Security

- 7.3.1 Upon occurrence of a Contractor Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate from the Performance Security the amounts due to it as Damages for the Contractor Default.

7.3.2 Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 30 (thirty) days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Contractor shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Authority shall be entitled to terminate the Agreement in accordance with Article 21. Upon such replenishment or furnishing of a fresh Performance Security, as the case may be, the Contractor shall be entitled to an additional Cure Period of 30 (thirty) days for remedying the Contractor Default, and in the event of the Contractor not curing its default within such Cure Period, the Authority shall be entitled to encash and appropriate such Performance Security as Damages, and to terminate this Agreement in accordance with Article 21.

#### **7.4 Release of Performance Security**

The Authority shall release the Performance Security within 60 (sixty) days of the expiry of the Defects Liability Period under this Agreement. Notwithstanding the aforesaid, the Parties agree that the Authority shall not be obliged to release the Performance Security until all Defects identified during the Defects Liability Period have been rectified.

#### **7.5 Retention Money<sup>3</sup>**

7.5.1 From every payment for Works due to the Contractor in accordance with the provisions of Clause 17.5, the Authority shall deduct 6% (six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the “**Retention Money**”) subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.

7.5.2 Upon occurrence of a Contractor’s Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to appropriate the relevant amounts from the Retention Money as Damages for such Contractor’s Default.

7.5.3 The Contractor may, upon furnishing an irrevocable and unconditional bank guarantee substantially in the form provided at Annex-II of Schedule-F, require the Authority to refund the Retention Money deducted by the Authority under the provisions of Clause 7.5.1. Provided that the refund hereunder shall be made in tranches of not less than 1% (one per cent) of the Contract Price.

7.5.4 Within 15 (fifteen) days of the date of issue of the Completion Certificate, the Authority shall discharge the bank guarantees, if any, furnished by the Contractor

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<sup>3</sup> The Authority may, in its discretion, omit Clause 7.5 and in lieu thereof increase the Performance Security under Clause 7.1 from 5% (five per cent) to 7.5% (seven point five per cent).



under the provisions of Clause 7.5.3 and refund the balance of Retention Money remaining with the Authority after adjusting the amounts appropriated under the provisions of Clause 7.5.2 and the amounts refunded under the provisions of Clause 7.5.3.

- 7.5.5 The Parties agree that in the event of Termination of this Agreement, the Retention Money and the bank guarantees specified in this Clause 7.5 shall be treated as if they are Performance Security and shall be reckoned as such for the purposes of Termination Payment under Clause 21.6.

ARTICLE 8  
**RIGHT OF WAY**

**8.1 The Site**

The site of the Railway Project (the “**Site**”) shall comprise the site described in Schedule-A in respect of which the Right of Way shall be provided by the Authority to the Contractor. The Authority shall be responsible for:

- (a) acquiring and providing Right of Way on the Site in accordance with the electrification sectioning diagram finalised by the Authority, free from all encroachments and encumbrances, and free access thereto for the execution of this Agreement; and
- (b) obtaining environment clearance and forest clearance for the Railway Project.

**8.2 Procurement of the Site**

8.2.1 The Authority Representative and the Contractor shall, within 15 (fifteen) days of providing the Performance Security by the Contractor in accordance with the provisions of Clause 7.1, inspect the Site and prepare a memorandum containing an inventory of the Site including the vacant and unencumbered land, buildings, structures, road/ railway works, trees and any other immovable property on or attached to the Site. Subject to the provisions of Clause 8.2.3, such memorandum shall have appended thereto an appendix (the “**Appendix**”) specifying in reasonable detail those parts of the Site to which vacant access and Right of Way has not been given to the Contractor. Signing of the memorandum, in 2 (two) counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall be deemed to constitute a valid evidence of giving the Right of Way to the Contractor for discharging its obligations under and in accordance with the provisions of this Agreement and for no other purpose whatsoever.

For the avoidance of doubt, the Parties agree that subject to the provisions of Clauses 8.2.2 and 8.2.3, whenever the Authority is ready to provide Right of Way for any part or parts of the Site included in the Appendix, it shall by notice inform the Contractor, of the proposed date and time when the Authority Representative and the Contractor shall inspect the specified parts of the Site, and prepare a memorandum which shall be deemed to constitute a valid evidence of giving such Right of Way to the Contractor in accordance with the provisions of this Clause 8.2.1.

8.2.2 Notwithstanding anything to the contrary contained in this Clause 8.2, the Authority shall specify the parts of the Site, if any, for which Right of Way shall be provided to the Contractor on the dates specified in Schedule-A. Such parts shall also be included in the Appendix prepared in pursuance of Clause 8.2.1. For the avoidance of doubt, the Parties expressly agree that the Appendix shall in no event contain Sections of the Railway Project the cumulative length of which exceeds 10% (ten per cent) of the total length of the Railway Project.

8.2.3 The Authority shall provide the Right of Way to the Contractor, in respect of the land included in the Appendix, by the date specified in Schedule-A for each part of the Site referred to therein, but in no case later than 180 (one hundred and eighty) days of the Appointed Date, and in the event of delay for any reason other than Force Majeure or breach of this Agreement by the Contractor, it shall pay to the Contractor, Damages in a sum calculated in accordance with Clause 8.3.

### **8.3 Damages for delay in handing over the Site**

8.3.1 In the event the Right of Way to any part of the Site is not provided by the Authority on or before the date(s) specified in Clause 8.2 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Authority shall pay Damages to the Contractor in a sum calculated in accordance with the following formula for and in respect of those parts of the Site to which the Right of Way has not been provided:

$$\text{Amount of Damages in Rs. per day per metre} = 0.10 \times C \times 1/L \times 1/N$$

Where

C = the Contract Price; L = length of the Railway Project in metres; and N = Completion period in days (Appointed Date to Scheduled Completion Date)

In the event that any Damages are due and payable to the Contractor under the provisions of this Clause 8.3.1 for delay in providing the Right of Way, the Contractor shall, subject to the provisions of Clause 10.4, be entitled to Time Extension equal to the period for which the Damages have become due and payable under this Clause 8.3.1, save and except that:

- (a) if any delays involve time overlaps, the overlaps shall not be additive; and
- (b) such Time Extension shall be restricted only to the Works which are affected by the delay in providing the Right of Way.

For the avoidance of doubt, the Parties expressly agree that the Damages specified hereunder and the Time Extension specified in Clause 10.4 shall be restricted only to failure of the Authority to provide the Right of Way for and in respect of the width of the Site required for Works in accordance with the Good Industry Practice.

8.3.2 Notwithstanding anything to the contrary contained in this Agreement, the Contractor expressly agrees that Works on all parts of the Site for which Right of Way is granted within 180 (one hundred and eighty) days of the Appointed Date, or with respect to the parts of the Site provided in Schedule-A, no later than the date(s) specified therein, as the case may be, shall be completed before the Scheduled Completion Date and shall not qualify for any Time Extension under the provisions of Clause 8.3.1.

8.3.3 Notwithstanding anything to the contrary contained in this Agreement, the Authority may at any time withdraw any part of the Right of Way and the Works forming part of this Agreement, subject to such Works not exceeding an aggregate value, such value to be determined in accordance with Schedule-G, equal to 10% (ten per cent) of the Contract Price.

Provided that if Right of Way has not been provided within 240 (two hundred and forty) days of the Appointed Date, for commencing construction on any part of the Site included in the Appendix, the affected Works shall be deemed to be withdrawn under the provisions of this Clause 8.3.3 unless the Parties agree to the contrary, and such Works shall not be computed for the purposes of the aforesaid ceiling of 10% (ten per cent) of the Contract Price hereunder. For the avoidance of doubt, the Parties agree that such deemed withdrawal of Works hereunder shall be without prejudice to the Contractor's entitlement to Damages under Clauses 4.1.4, 8.3 and 9.2.

- 8.3.4 In the event of withdrawal of Works under Clause 8.3.3, including deemed withdrawal of Works, the Contract Price shall be reduced by an amount equal to 90% (ninety per cent) of the value of the Works withdrawn and the Contractor shall not be entitled to any other compensation or Damages for the withdrawal of Works, including their deemed withdrawal, save and except for Damages as provided under Clause 4.3.

Provided that if any Works are withdrawn after commencement of the Construction of such Works, the Authority shall pay to the Contractor 110% (one hundred and ten per cent) of the fair value of the work done, as assessed by the Authority's Engineer:

#### **8.4 Site to be free from Encumbrances**

Subject to the provisions of Clause 8.2, the Site shall be made available by the Authority to the Contractor pursuant hereto free from all Encumbrances and occupations and without the Contractor being required to make any payment to the Authority on account of any costs, compensation, expenses and charges for the acquisition and use of such Site for the duration of the Project Completion Schedule. For the avoidance of doubt, it is agreed that the existing rights of way, easements, privileges, liberties and appurtenances to the Site shall not be deemed to be Encumbrances. It is further agreed that, unless otherwise specified in this Agreement, the Contractor accepts and undertakes to bear any and all risks arising out of the inadequacy or physical condition of the Site.

#### **8.5 Protection of Site from encroachments**

On and after signing the memorandum and/or subsequent memorandum referred to in Clause 8.2.1, and until the issue of the Provisional Certificate, the Contractor shall maintain a round-the-clock vigil over the Site and shall ensure and procure that no encroachment thereon takes place. During the Construction Period, the Contractor shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Sub-contractor or other person claiming through or under the Agreement to place or create any Encumbrance or security interest over all or any part of the Site or the Project Assets, or on any rights of the Contractor therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement. In the event of any encroachment or occupation on any part of the Site, the Contractor shall report such encroachment or occupation forthwith to the Authority and undertake its removal at its own cost and expenses.

## **8.6 Temporary Right of Way**

The Contractor shall bear all costs and charges for any special or temporary right of way required by it in connection with access to the Site. The Contractor shall obtain at its cost such facilities on or outside the Site as may be required by it for the purposes of the Railway Project and the performance of its obligations under this Agreement.

## **8.7 Access to the Authority and the Authority's Engineer**

8.7.1 The Right of Way given to the Contractor hereunder shall always be subject to the right of access of the Authority and the Authority's Engineer and their employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.

8.7.2 The Contractor shall ensure, subject to all relevant safety procedures, that the Authority has unrestricted access to the Site during any Emergency.

## **8.8 Geological and archaeological finds**

It is expressly agreed that mining, geological or archaeological rights do not form part of this Agreement with the Contractor for the Works, and the Contractor hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in and belong to the Authority or the concerned Government Instrumentality. The Contractor shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform the Authority forthwith of the discovery thereof and comply with such instructions as the Authority or the concerned Government Instrumentality may reasonably give for the removal of such property. For the avoidance of doubt, it is agreed that any reasonable expenses incurred by the Contractor hereunder shall be reimbursed by the Authority. It is also agreed that the Authority shall procure that the instructions hereunder are issued by the concerned Government Instrumentality within a reasonable period so as to enable the Contractor to continue its Works with such modifications as may be deemed necessary.

**ARTICLE 9**  
**UTILITIES AND TREES**

**9.1 Existing utilities and roads**

Notwithstanding anything to the contrary contained herein, the Contractor shall ensure that the respective entities owning the existing roads, right of way, level crossings, structures, or utilities on, under or above the Site are enabled by it to keep them in continuous satisfactory use, if necessary, by providing suitable temporary diversions with the authority of the controlling body of that road, right of way or utility.

**9.2 Shifting of obstructing utilities**

9.2.1 The Contractor shall, in accordance with Applicable Laws and with assistance of the Authority, cause shifting of any utility (including electric lines, water pipes and telephone cables) to an appropriate location or alignment, if such utility or obstruction adversely affects the execution of Works in accordance with this Agreement. The actual cost of such shifting, as approved and communicated by the entity owning the utility, shall be paid by the Contractor and reimbursed by the Authority to the Contractor. In the event of any delay in such shifting by the entity owning the utility beyond a period of 180 (one hundred and eighty) days from the date of notice by the Contractor to the entity owning the utility and to the Authority, the Contractor shall be entitled to Damages in a sum calculated in accordance with the formula specified in Clause 8.3.1 for the period of delay, and to Time Extension in accordance with Clause 10.4 for and in respect of the part(s) of the Works affected by such delay; provided that if the delays involve any time overlaps, the overlaps shall not be additive.

9.2.2 For the existing utilities owned by Railways, where the shifting thereof can take place only after certain works for its shifting have been completed by the Contractor, the Authority shall, undertake and complete its shifting within 180 (one hundred and eighty) days after the Contractor has notified the Authority of the completion of the works. In the event of delay in shifting the utility, beyond the aforesaid period of 180 (one hundred and eighty) days, the Contractor shall be entitled to Damages for the period of delay in accordance with the provisions of this Clause 9.2.1.

**9.3 New utilities**

9.3.1 The Contractor shall allow, subject to such conditions as the Authority may specify, access to, and use of the Site for laying telephone lines, water pipes, electric cables or other public utilities. Where such access or use causes any financial loss to the Contractor, it may require the user of the Site to pay compensation or damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Site under this Clause 9.3 shall not in any manner relieve the Contractor of its obligation to construct and maintain the Railway Project in accordance with this Agreement and any damage caused by such use shall be restored forthwith at the cost of the Authority.

9.3.2 In the event the construction of any Works is affected by a new utility or works undertaken in accordance with this Clause 9.3, the Contractor shall be entitled to a

reasonable Time Extension as determined by the Authority's Engineer in accordance with the provisions of Clause 10.4.

#### **9.4 Felling of trees**

The Authority shall assist the Contractor in obtaining the Applicable Permits for felling of trees to be identified by the Authority for this purpose if and only if such trees cause a Material Adverse Effect on the construction of the Railway Project. The cost of such felling and of the compensatory plantation of trees, if any, shall be borne by the Authority. In the event of any delay in felling thereof for reasons beyond the control of the Contractor; it shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. The Parties hereto agree that the felled trees shall be deemed to be owned by the Authority and shall be disposed in such manner and subject to such conditions as the Authority may in its sole discretion deem appropriate. For the avoidance of doubt, the Parties agree that if any felling of trees hereunder is in a forest area, the Applicable Permit thereof shall be procured by the Authority within the time specified in the Agreement; and for any period of delay in providing the Applicable Permits, the Contractor shall be entitled to Damages and Time Extension as provided under Clause 9.2.1.

## ARTICLE 10

### DESIGN AND CONSTRUCTION OF THE RAILWAY PROJECT

#### 10.1 Obligations prior to commencement of Works

10.1.1 Within 20 (twenty) days of the Appointed Date, the Contractor shall:

- (a) appoint its representative, duly authorised to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement;
- (b) appoint a design director (the “**Design Director**”) who will head the Contractor’s design unit and shall be responsible for surveys, investigations, collection of data, and preparation of preliminary and detailed designs;
- (c) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement, Applicable Laws and Applicable Permits; and
- (d) make its own arrangements for quarrying and procurement of materials needed for the Railway Project under and in accordance with Applicable Laws and Applicable Permits.

10.1.2 The Authority shall, within 15 (fifteen) days of the date of this Agreement, appoint an engineer (the “**Authority’s Engineer**”) to discharge the functions and duties specified in this Agreement, and shall notify to the Contractor the name, address and the date of appointment of the Authority’s Engineer forthwith.

10.1.3 Within 30 (thirty) days of the Appointed Date, the Contractor shall submit to the Authority and the Authority’s Engineer a programme (the “**Programme**”) for construction of Works, developed using networking techniques and giving the following details:

*Part I* Contractor’s organisation for the Project, the general methods and arrangements for design and construction, environmental management plan, Quality Assurance Plan including design quality plan, traffic management and safety plan covering safety of users and workers during construction, Contractor’s key personnel, and equipment.

*Part II* Programme for completion of all stages of construction given in Schedule-G and Project Milestones of the Works as specified in Project Completion Schedule set forth in Schedule-I. The Programme shall include:

- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of design and stages of Works;
- (b) the periods for reviews under Clause 10.2; and
- (c) the sequence and timing of inspections and tests specified in this Agreement.



The Contractor shall submit a revised programme whenever its previous Programme is inconsistent with the actual progress or with the Contractor's obligations.

*Part III Monthly cash flow forecast for the Project*

The Contractor acknowledges and agrees that the Authority may, within a period of 15 (fifteen) days of receipt of the Programme, convey its comments to the Contractor stating the modifications, if any, required for compliance with the provisions of this Agreement, and the Contractor shall carry out such modifications, to the extent required for conforming with the provisions of this Agreement.

- 10.1.4 The Contractor shall compute, on the basis of the Drawings prepared in accordance with Clause 10.2.7, and provide to the Authority's Engineer, the length, area and numbers, as the case may be, in respect of the various items of work specified in Schedule-G and comprising the Scope of the Project. The Parties expressly agree that these details shall form the basis for estimating the interim payments for the Works in accordance with the provisions of Clause 17.3. For the avoidance of doubt, the sum of payments to be computed in respect of all the items of work shall not exceed the Contract Price, as may be adjusted in accordance with the provisions of this Agreement.
- 10.1.5 The Contractor shall appoint a safety consultant (the "**Safety Consultant**") to carry out safety audit at the design stage of the Railway Project in accordance with Applicable Laws and Good Industry Practice. The Safety Consultant shall be appointed after proposing to the Authority a panel of 3 (three) names of qualified and experienced firms from which the Authority may choose 1 (one) to be the Safety Consultant. Provided, however, that if the panel is not acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of 3 (three) names for obtaining the consent of the Authority. The Authority shall, within 15 (fifteen) days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Safety Consultant. For the avoidance of doubt, the Parties agree that no firm or person having any conflict of interest shall be engaged hereunder. The Parties further agree that any assignments completed at least 3 (three) years prior to the appointment hereunder shall not be reckoned for the purposes of conflict of interest.
- 10.1.6 The safety audit pursuant to Clause 10.1.5 shall be carried out by the Safety Consultant in respect of all such design details that have a bearing on safety of Users as well as pedestrians and animals involved in or associated with accidents. The recommendations of the Safety Consultant shall be incorporated in the design of the Railway Project and the Contractor shall forward to the Authority's Engineer a certificate to this effect together with the recommendations of the Safety Consultant. In the event that any works required by the Safety Consultant shall fall beyond the scope of Schedule-B, Schedule-C or Schedule-D, the Contractor shall make a report thereon and seek the instructions of the Authority for Change in Scope. For the avoidance of doubt, the Safety Consultant to be engaged by the Contractor shall be independent of the design and implementation team of the Contractor.

## 10.2 Design and Drawings

10.2.1 Design and Drawings shall be developed in conformity with the Specifications and Standards set forth in Schedule-D. In the event, the Contractor requires any relaxation in design standards due to restricted Right of Way in any section, the alternative design criteria for such section shall be provided for review of the Authority's Engineer.

10.2.2 The Contractor shall appoint a proof check consultant (the "**Proof Consultant**") after proposing to the Authority a panel of 3 (three) names of qualified and experienced firms from whom the Authority may choose 1 (one) to be the Proof Consultant. Provided, however, that if the panel is not acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of 3 (three) names for obtaining the consent of the Authority. The Contractor shall also obtain the consent of the Authority for two key personnel of the Proof Consultant who shall have adequate experience and qualifications with respect to the main elements of the Railway Project. The Authority shall, within 15 (fifteen) days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Proof Consultant. For the avoidance of doubt, the Parties agree that no firm or person having any conflict of interest shall be engaged hereunder. The Parties further agree that any assignments completed at least three years prior to the appointment hereunder shall not be reckoned for the purposes of conflict of interest.

10.2.3 The Proof Consultant shall:

- (a) evolve a systems approach with the Design Director so as to minimise the time required for final designs and construction drawings; and
- (b) proof check the detailed calculations, drawings and designs, which have been approved by the Design Director.

10.2.4 In respect of the engineering scale plan, signalling interlocking plan and route control chart, the following shall apply:

- (a) Engineering scale plan:
  - (i) The Contractor shall prepare and submit to the Authority's Engineer an engineering scale plan within a period of 2 (two) months from the Appointed Date in accordance with Good Industry Practice;
  - (ii) The Authority's Engineer shall review the engineering scale plan within two weeks and submit it along with its suggested additions and revisions to the Authority for its approval; and
  - (iii) The Authority shall communicate the engineering scale plan as approved by it within a period not exceeding 4 (four) months from the date of submission of the engineering scale plan by the Contractor. Such period of four months shall exclude any time that is taken by the

Contractor in providing clarifications or modifications in response to any communication from the Authority.

- (b) Signalling interlocking plan and route control chart
  - (i) The Contractor shall prepare and submit to the Authority's Engineer a signalling interlocking plan and route control chart within a period of 2 (two) months from the date of receipt of the approved engineering scale plan under this Clause 10.2.4;
  - (ii) The Authority's Engineer shall review the signalling interlocking plan route control chart within two weeks and submit it with its comments to the Authority for its approval; and
  - (iii) The Authority shall communicate the signalling interlocking plan and route control chart as approved by it within a period not exceeding 4 (four) months from the date of submission of the signalling interlocking plan route control chart by the Contractor. Such period of four months shall exclude any time that is taken by the Contractor in providing clarifications or modifications in response to any communication from the Authority.

10.2.5 In the event of delay by the Contractor in submitting the engineering scale plan, signalling interlocking plan or route control chart, as the case may be, within the period specified in Clause 10.2.4 for any reason other than Force Majeure or breach of this Agreement by the Authority, the Contractor shall pay Damages to the Authority in a sum equal to 0.2% (zero point two per cent) of the Performance Security for each day of delay.

10.2.6 In the event of delay by the Authority in providing to the Contractor the approved engineering scale plan, signalling interlocking plan or route control chart, as the case may be, within the period specified in Clause 10.2.4 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Authority shall pay Damages to the Contractor in a sum equal to 0.2% (zero point two per cent) of the Performance Security for each day of delay, and shall also grant Time Extension in accordance with the provisions of Clause 10.4.

10.2.7 In respect of the Contractor's obligations with respect to the design and Drawings of the Railway Project as set forth in Schedule-H, the following shall apply:

- (a) The Contractor shall prepare and submit, with reasonable promptness and in such sequence as is consistent with the Project Completion Schedule, 3 (three) copies each of the design and Drawings, duly certified by the Proof Consultant, to the Authority's Engineer for review. Provided, however, that in respect of Important Bridges, Major Bridges, Structures, railway stations and yards, the Authority's Engineer may require additional drawings for its review in accordance with Good Industry Practice;
- (b) by submitting the Drawings for review to the Authority's Engineer, the Contractor shall be deemed to have represented that it has determined and verified that the design and engineering, including field construction criteria

related thereto, are in conformity with the Scope of the Project, Specifications and Standards, Applicable Laws and Good Industry Practice;

- (c) within 15 (fifteen) days of the receipt of the Drawings, the Authority's Engineer shall review the same and convey its observations to the Contractor with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. The Contractor shall not be obliged to await the observations of the Authority's Engineer on the Drawings submitted pursuant hereto beyond the said period of 15 (fifteen) days and may begin or continue Works at its own discretion and risk; Provided, however, that in case of interlocking and telecom switching equipment the aforesaid period of 15 (fifteen) days may be extended upto 30 (thirty) days;
- (d) if the aforesaid observations of the Authority's Engineer indicate that the Drawings are not in conformity with the Scope of the Project or the Specifications and Standards, such Drawings shall be revised by the Contractor in conformity with the provisions of this Agreement and resubmitted to the Authority's Engineer for review. The Authority's Engineer shall give its observations, if any, within 10 (ten) days of receipt of the revised Drawings. In the event the Contractor fails to revise and resubmit such Drawings to the Authority's Engineer for review as aforesaid, the Authority's Engineer may cause the payment for the affected works to be withheld under and in accordance with the provisions of Clause 17.5.4. If the Contractor disputes any decision, direction or determination of the Authority's Engineer hereunder, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure;
- (e) no review and/or observation of the Authority's Engineer and/or its failure to review and/or convey its observations on any Drawings shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Authority's Engineer or the Authority be liable for the same in any manner; and if errors, omissions, ambiguities, inconsistencies, inadequacies or other Defects are found in the Drawings, they shall, along with the affected Works, be corrected at the Contractor's cost, notwithstanding any review under this Article 10;
- (f) the Contractor shall be responsible for delays in submitting the Drawings, as set forth in Schedule-H, caused by reason of delays in surveys and field investigations, and shall not be entitled to seek any relief in respect thereof from the Authority; and
- (g) the Contractor warrants that its designers, including any third parties engaged by it, shall have the required experience and capability in accordance with Good Industry Practice and it shall indemnify the Authority against any damage, expense, liability, loss or claim, which the Authority might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty as set out in this Clause.

10.2.8 Any cost or delay in construction arising from review by the Authority's Engineer shall be borne by the Contractor.

- 10.2.9 Works shall be executed in accordance with the Drawings provided by the Contractor in accordance with the provisions of this Clause 10.2 and the observations of the Authority's Engineer thereon as communicated pursuant to the provisions of Clause 10.2.7. Such Drawings shall not be amended or altered without prior written notice to the Authority's Engineer. If a Party becomes aware of an error or defect of a technical nature in the design or Drawings, that Party shall promptly give notice to the other Party of such error or defect.
- 10.2.10 Within 90 (ninety) days of the Project Completion Date, the Contractor shall furnish to the Authority and the Authority's Engineer a complete set of as-built Drawings, in 2 (two) hard copies and in its editable digital format or in such other medium or manner as may be acceptable to the Authority, including an as-built survey illustrating the layout of the Railway Project and setback lines, if any, of the buildings and structures forming part of Project Facilities, and shall hand them over to the Authority against receipt thereof.

### **10.3 Construction of the Railway Project**

- 10.3.1 The Contractor shall construct the Railway Project as specified in Schedule-B and Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. The [900<sup>th</sup> (nine hundredth) day] from the Appointed Date shall be the scheduled completion date (the "**Scheduled Completion Date**") and the Contractor agrees and undertakes that the construction shall be completed on or before the Scheduled Completion Date, including any extension thereof.
- 10.3.2 The Contractor shall construct the Railway Project in accordance with the Project Completion Schedule set forth in Schedule-I. In the event that the Contractor fails to achieve any Project Milestone or the Scheduled Completion Date within a period of 30 (thirty) days from the date set forth in Schedule-I, unless such failure has occurred due to Force Majeure or for reasons attributable to the Authority, it shall pay Damages to the Authority in a sum calculated at the rate of 0.05% (zero point zero five per cent) of the Contract Price for delay of each day reckoned from the date specified in Schedule - I and until such Project Milestone is achieved or the Works are completed; provided that if the period for any or all Project Milestones or the Scheduled Completion Date is extended in accordance with the provisions of this Agreement, the dates set forth in Schedule-I shall be deemed to be modified accordingly and the provisions of this Agreement shall apply as if Schedule-I has been amended as above; provided further that in the event the Works are completed within or before the Scheduled Completion Date including any Time Extension, the Damages paid under this Clause 10.3.2 shall be refunded by the Authority to the Contractor, but without any interest thereon. For the avoidance of doubt, it is agreed that recovery of Damages under this Clause 10.3.2 shall be without prejudice to the rights of the Authority under this Agreement including the right of Termination thereof. The Parties further agree that Time Extension hereunder shall only be reckoned for and in respect of the affected Works as specified in Clause 10.4.2.
- 10.3.3 The Authority shall notify the Contractor of its decision to impose Damages in pursuance of the provisions of this Clause 10.3. Provided, however, that no deduction on account of Damages shall be effected by the Authority without taking into

consideration the representation, if any, made by the Contractor within 20 (twenty) days of such notice. The Parties expressly agree that the total amount of Damages under Clause 10.3.2 shall not exceed 10% (ten per cent) of the Contract Price.

#### **10.4 Extension of time for completion**

10.4.1 Without prejudice to any other provision of this Agreement for and in respect of extension of time, the Contractor shall be entitled to extension of time in the Project Completion Schedule (the “**Time Extension**”) to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:

- (a) delay in providing the Right of Way, environmental/ forest clearances, or approved engineering scale plan, signalling interlocking plan and route control chart in accordance with the provisions of this Agreement;
- (b) Change of Scope, unless an adjustment to the Scheduled Completion Date has been agreed under Article 13;
- (c) occurrence of a Force Majeure Event;
- (d) any delay, impediment or prevention caused by or attributable to the Authority, the Authority’s personnel or the Authority’s other contractors on the Site; and
- (e) any other cause or delay which entitles the Contractor to Time Extension in accordance with the provisions of this Agreement.

10.4.2 The Contractor shall, no later than 15 (fifteen) business days from the occurrence of an event or circumstance specified in Clause 10.4.1, inform the Authority’s Engineer by notice in writing, with a copy to the Authority, stating in reasonable detail with supporting particulars, the event or circumstances giving rise to the claim for Time Extension in accordance with the provisions of this Agreement:

Provided that the period of 15 (fifteen) business days shall be calculated from the date on which the Contractor became aware, or should have become aware, of the occurrence of such an event or circumstance:

Provided further that notwithstanding anything to the contrary contained in this Agreement, Time Extension shall be due and applicable only for the Works which are affected by the aforesaid events or circumstances and shall not in any manner affect the Project Completion Schedule for and in respect of the Works which are not affected thereby.

10.4.3 In the event of the failure of the Contractor to issue to the Authority’s Engineer a notice in accordance with the provisions of Clause 10.4.2 within the time specified therein, the Contractor shall not be entitled to any Time Extension and shall forfeit its right to any such claims in future. For the avoidance of doubt, in the event of failure of the Contractor to issue notice as specified in this Clause 10.4.3, the Authority shall be discharged from all liability in connection therewith.

10.4.4 The Authority’s Engineer shall, on receipt of a claim in accordance with the provisions of Clause 10.4.2, examine the claim expeditiously within the time frame

specified herein. In the event the Authority's Engineer requires any clarifications to examine the claim, the Authority's Engineer shall seek the same within 15 (fifteen) days from the date of receiving the claim. The Contractor shall, on the receipt of the communication of the Authority's Engineer requesting for clarification, furnish the same to the Authority's Engineer within 10 (ten) days thereof. The Authority's Engineer shall, within a period of 30 (thirty) days from the date of receipt of such clarifications, forward in writing to the Contractor its determination of Time Extension. For the avoidance of doubt, the Parties agree that the Authority's Engineer shall, in accordance with the provisions of this Agreement, notify the Contractor of the aforesaid Time Extension no later than 60 (sixty) days from the date of receipt of the Contractor's claim for Time Extension.

Provided that when determining each extension of time under this Clause 10.4, the Authority's Engineer shall review previous determinations and may increase, but shall not decrease, the total Time Extension.

10.4.5 If the event or circumstance giving rise to the notice has a continuing effect:

- (a) the detailed claim shall be considered as interim;
- (b) the Contractor shall, no later than 10 (ten) days after the close of each month, send further interim claims specifying the accumulated delay, the extension of time claimed, and such further particulars as the Authority's Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 30 (thirty) days after the effect of the event or the circumstance ceases.

Upon receipt of the claim hereunder, the Authority's Engineer shall examine and determine the same in accordance with the provisions of Clause 10.4.4 within a period of 60 (sixty) days of the receipt thereof.

## **10.5 Incomplete Works**

In the event the Contractor fails to complete the Works in accordance with the Project Completion Schedule, including any Time Extension granted under this Agreement, the Contractor shall endeavour to complete the balance work expeditiously and shall pay Damages to the Authority in accordance with the provisions of Clause 10.3.2 for delay of each day until the Works are completed in accordance with the provisions of this Agreement. Recovery of Damages under this Clause shall be without prejudice to the rights of the Authority under this Agreement including the right to termination under Clause 21.1.

## **10.6 Equipment specific Maintenance Manual**

No later than 90 (ninety) days prior to the Project Completion Date, the Contractor shall, in consultation with the Authority's Engineer, evolve an equipment specific maintenance manual for equipment based on a new technology not currently in use in the Railways (the "**Maintenance Manual**") for the regular operation and maintenance of such equipment in conformity with safety requirements, Good Industry Practice and manufacturer's manuals and instructions and shall provide 10 (ten) hard copies and 2 (two) compact discs thereof to the Authority's Engineer.

## ARTICLE 11

### QUALITY ASSURANCE AND SUPERVISION

#### 11.1 Quality of Materials and workmanship

11.1.1 The Contractor shall ensure that the Construction, Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Good Industry Practice.

11.1.2 The Contractor warrants that all Materials shall be new, unused, not reconditioned and in conformity with Specification and Standards, Applicable Laws and Good Industry Practice, and that the Contractor shall not use any materials which are generally recognised as being deleterious under Good Industry Practice.

#### 11.2 Quality control system

11.2.1 The Contractor shall establish a quality control mechanism to ensure compliance with the provisions of this Agreement (the “**Quality Assurance Plan**” or “**QAP**”) in accordance with ISO-9001.

11.2.2 The Contractor shall, within 30 (thirty) days of the Appointed Date, submit to the Authority’s Engineer its Quality Assurance Plan which shall include the following:

- (a) organisation, duties and responsibilities, procedures, inspections and documentation;
- (b) quality control mechanism including sampling and testing of Materials, test frequencies, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, check list for site activities, and proforma for testing and calibration in accordance with the Specifications and Standards and Good Industry Practice; and
- (c) internal quality audit system.

11.2.3 The Authority’s Engineer shall convey its comments to the Contractor within a period of 21 (twenty-one) days of receipt of the QAP stating the modifications, if any, required, and the Contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of this Clause 11.2.

11.2.4 The Contractor shall procure all documents, apparatus and instruments, fuel, consumables, water, electricity, labour, Materials, samples, and qualified personnel as are necessary for examining and testing the Works, Materials and workmanship in accordance with the Quality Assurance Plan.

11.2.5 The cost of testing of Construction, Materials and workmanship under this Article 11 shall be borne by the Contractor.



### **11.3 Methodology**

The Contractor shall, at least 15 (fifteen) days prior to the commencement of construction, submit to the Authority's Engineer for review the methodology proposed to be adopted for executing the Works, giving details of equipment to be deployed, traffic management and measures for ensuring safety. The Authority's Engineer shall complete the review and convey its comments, if any, to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor. For the avoidance of doubt, the Parties agree that the methodology for executing critical works such as laying foundations and erection of masts and conductors shall ordinarily rely on mechanised means.

### **11.4 Inspection and review by the Authority**

The Authority or any representative authorised by the Authority in this behalf may inspect and review the progress and quality of the construction of Works and issue appropriate directions to the Authority's Engineer and the Contractor for taking remedial action in the event the Works are not in accordance with the provisions of this Agreement.

### **11.5 External technical audit**

At any time during construction, the Authority may appoint an external technical auditor to conduct an audit of the quality of the Works. The findings of the audit, to the extent accepted by the Authority, shall be notified to the Contractor and the Authority's Engineer for taking remedial action in accordance with this Agreement. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder.

### **11.6 Inspection of records**

The Authority shall have the right to inspect the records of the Contractor relating to the Works.

### **11.7 Inspection of Works**

11.7.1 The Authority's Engineer and its authorised representative shall at all times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained for use in the Works; and
- (b) during production, manufacture and construction at the Site and at the place of production, be entitled to examine, inspect, measure and test the Materials and workmanship, and to check the progress of manufacture of Materials.

11.7.2 The Contractor shall give the Authority's Engineer and its authorised agents access, facilities and safety equipment for carrying out their obligations under this Agreement.

11.7.3 The Authority's Engineer shall submit a monthly inspection report (the "**Inspection Report**") to the Authority and the Contractor bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies.

For the avoidance of doubt, such inspection or submission of Inspection Report by the Authority's Engineer shall not relieve or absolve the Contractor of its obligations and liabilities under this Agreement in any manner whatsoever.

### **11.8 Monthly progress reports**

During the Construction Period, the Contractor shall, no later than 10 (ten) days after the close of each month, furnish to the Authority and the Authority's Engineer a monthly report on the progress of Works and shall promptly give such other relevant information as may be required by the Authority's Engineer.

### **11.9 Samples**

The Contractor shall submit the following samples of Materials and relevant information to the Authority's Engineer for review:

- (a) manufacturer's test reports and standard samples of manufactured Materials; and
- (b) samples of such other Materials as the Authority's Engineer may require.

### **11.10 Tests**

11.10.1 For determining that the Works conform to the Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out or cause to be carried out tests, at such time and frequency and in such manner as specified in this Agreement, and in accordance with Good Industry Practice for quality assurance. The Contractor shall, with due diligence, carry out all the tests in accordance with the Agreement and furnish the results thereof to the Authority's Engineer. Of the total tests for each category or type to be undertaken by the Contractor under the provisions of this Agreement and Good Industry Practice, the Authority's Engineer shall (a) carry out or cause to be carried out, test checks equal to about 10% (ten per cent) of the number of the tests required to be undertaken by the Contractor; and (b) witness or participate in at least 10% (ten per cent) of the number of such tests conducted or caused to be conducted by the Contractor.

11.10.2 In the event that results of any tests conducted under this Clause 11.10 establish any Defects or deficiencies in the Works, the Contractor shall carry out remedial measures at its own cost and furnish a report to the Authority's Engineer in this behalf. The Authority's Engineer shall require the Contractor to carry out or cause to be carried out tests to determine that such remedial measures have brought the Works into compliance with the Specifications and Standards, and the procedure shall be repeated until such Works conform to the Specifications and Standards.

### **11.11 Examination of work before covering up**

In respect of the work which the Authority's Engineer is entitled to examine, inspect, measure or test before it is covered up or put out of view or any part of the work is placed thereon, the Contractor shall give notice to the Authority's Engineer whenever any such work is ready and before it is covered up. The Authority's Engineer shall then either carry out the examination, inspection or testing without unreasonable

delay, or promptly give notice to the Contractor that the Authority's Engineer does not require to do so. Provided, however, that if any work is of a continuous nature where it is not possible or prudent to keep it uncovered or incomplete, the Contractor shall notify the schedule of carrying out such work to give sufficient opportunity, not being less than 3 (three) business days' notice, to the Authority's Engineer to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Authority's Engineer within a period of 3 (three) business days from the date on which the Contractor's notice hereunder is delivered to the Authority's Engineer, the Contractor shall be entitled to assume that the Authority's Engineer would not undertake the said inspection.

## **11.12 Rejection**

11.12.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Material, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Authority's Engineer may reject such Plant, Material, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the Defect and ensure that the rejected item complies with the requirements of this Agreement.

11.12.2 If the Authority's Engineer requires a Plant, Material, design or workmanship to be retested, the tests shall be repeated on the same terms and conditions, as applicable in each case. If the rejection and retesting cause the Authority to incur any additional costs, such costs shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.

11.12.3 The Contractor shall not be entitled to any extension of time on account of rectifying any Defect or retesting as specified in this Clause 11.12.

11.12.4 No examination, inspection, measurement or testing of any Plant, Material, design or workmanship by the Authority's Engineer or its failure to convey its observations or to examine, inspect, measure or test shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Authority be liable for the same in any manner.

## **11.13 Remedial work**

11.13.1 Notwithstanding any previous test or certification, the Authority's Engineer may instruct the Contractor to:

- (a) remove from the Site and replace any Plant or Materials which are not in accordance with the provisions of this Agreement;
- (b) remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and
- (c) execute any work which is urgently required for the safety of the Railway Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work which is required on account of a Force Majeure Event, the provisions of Clause 19.6 shall apply.

11.13.2 If the Contractor fails to comply with the instructions issued by the Authority's Engineer under Clause 11.13.1, within the time specified in the Authority's Engineer's notice or as mutually agreed, the Authority's Engineer may advise the Authority to have the work executed by another agency. The cost so incurred by the Authority for undertaking such work shall, without prejudice to the rights of the Authority to recover Damages in accordance with the provisions of this Agreement, be recoverable from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.

#### **11.14 Delays during construction**

Without prejudice to the provisions of Clause 10.3.2, in the event the Contractor does not achieve any of the Project Milestones within the time period stipulated in Schedule I or the Authority's Engineer shall have reasonably determined that the rate of progress of Works is such that Completion of the Railway Project is not likely to be achieved by the end of the Scheduled Completion Date, it may notify the same to the Contractor, and the Contractor shall, within 15 (fifteen) days of such notice, by a communication inform the Authority's Engineer in reasonable detail about the steps it proposes to take to expedite progress and the period within which it shall achieve the Project Completion Date.

#### **11.15 Quality control records**

The Contractor shall hand over to the Authority's Engineer a copy of all its quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.2.

#### **11.16 Video recording**

During the Construction Period, the Contractor shall provide to the Authority for every calendar quarter, a video recording, which will be compiled into a 3 (three) hour digital video disc or any substitute thereof, covering the status and progress of Works in that quarter. The video recording shall be provided to the Authority no later than 15 (fifteen) days after the close of each quarter after the Appointed Date.

#### **11.17 Suspension of unsafe Construction Works**

11.17.1 Upon recommendation of the Authority's Engineer to this effect, or on its own volition in cases of emergency or urgency, the Authority may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Authority's Engineer or the Authority, as the case may be, such work threatens the safety of the Users and or other persons on or about the Railway Project.

11.17.2 The Contractor shall, pursuant to the notice under Clause 11.17.1, suspend the Works or any part thereof for such time and in such manner as may be specified by the Authority and thereupon carry out remedial measures to secure the safety of suspended works, the Users, other persons and vehicles on or about the Railway Project. The Contractor may by notice require the Authority's Engineer to inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked. Upon receiving the

recommendations of the Authority's Engineer, the Authority shall either revoke such suspension or instruct the Contractor to carry out such other and further remedial measures as may be necessary and reasonable, and the procedure set forth in this Clause 11.17 shall be repeated until the suspension hereunder is revoked.

11.17.3 Subject to the provisions of Clause 19.6, all reasonable costs incurred for maintaining and protecting the Works or part thereof during the period of suspension (the "**Preservation Costs**"), shall be borne by the Contractor; provided that if the suspension has occurred as a result of any breach of this Agreement by the Authority, the Preservation Costs shall be borne by the Authority.

11.17.4 If suspension of Works is for reasons not attributable to the Contractor, the Authority's Engineer shall determine any Time Extension to which the Contractor is reasonably entitled in accordance with the provisions of Clause 10.4.

## ARTICLE 12

### COMPLETION CERTIFICATE

#### 12.1 Tests on completion

12.1.1 No later than 30 (thirty) days prior to the likely completion of the Railway Project, the Contractor shall prepare and submit to the Authority's Engineer the documents required for seeking approval of the Commissioner of Railway Safety in accordance with the provisions of the Railways Opening for Public Carriage of Passenger Rules, the Indian Railway Permanent Way Manual or the Indian Railways Manual of A.C. Traction, as the case may be, and notify the Authority's Engineer of its intent to subject the Railway Project to Tests. After ensuring and procuring that the documents required to be submitted to the Commissioner for Railway Safety meet the requirements of Applicable Laws, the date and time of each of the Tests shall be determined by the Authority's Engineer in consultation with the Contractor, and notified to the Authority who may designate its representative to witness the Tests. The Contractor shall provide such assistance as the Authority's Engineer may reasonably require for conducting the Tests. In the event of the Contractor and the Authority's Engineer failing to mutually agree on the dates for conducting the Tests, the Contractor shall fix the dates by giving not less than 10 (ten) days' notice to the Authority's Engineer, and in the event the Authority's Engineer delays the Tests hereunder, the Authority shall impose exemplary penalties on the Authority's Engineer and shall ensure that Tests are completed in time either by the Authority's Engineer or any substitute thereof.

12.1.2 All Tests shall be conducted in accordance with Schedule-J at the cost and expense of the Contractor; provided, however, that the trial running on railway track shall be undertaken at the cost and expense of the Authority. The Authority's Engineer shall observe, monitor and review the results of the Tests to determine compliance of the Railway Project with Specifications and Standards and if it is reasonably anticipated or determined by the Authority's Engineer during the course of any Test that the performance of the Railway Project or Section or any part thereof, does not meet the Specifications and Standards, it shall have the right to suspend or delay such Test and require the Contractor to remedy and rectify any Defect or deficiency. Upon completion of each Test, the Authority's Engineer shall provide to the Contractor and the Authority copies of all Test data including detailed Test results. For the avoidance of doubt, the Parties expressly agree that the Authority's Engineer may require the Contractor to carry out or cause to be carried out additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Railway Project thereof with the Specifications and Standards.

#### 12.2 Provisional Certificate

12.2.1 Upon completion of Tests, the Authority's Engineer shall satisfy itself that the Tests have been successful and the Railway Project is fit for opening to traffic. Upon such determination, the Authority's Engineer shall issue to the Contractor and the Authority a certificate substantially in the form set forth in Schedule -K (the "**Provisional Certificate**"). The Authority's Engineer may issue a Provisional Certificate even if certain works forming part of the Railway Project are not yet completed and in such an event, the Provisional Certificate shall have appended

thereto a list of outstanding items signed jointly by the Authority's Engineer and the Contractor (the "**Punch List**"). For the avoidance of doubt and by way of illustration, the Punch List may include muffing, back filling, broken insulators and tree trimming.

- 12.2.2 Upon issuance of the Provisional Certificate, the Authority's Engineer shall forward to the Authority (i) copies of all Test data including Test results, and (ii) the documents submitted by the Contractor for seeking approval of the Commissioner of Railway Safety in accordance with the provisions of the Railways Opening for Public Carriage of Passenger Rules, the Indian Railway Permanent Way Manual/ or the Indian Railways Manual of A.C. Traction, as the case may be, for obtaining authorisation from the Commissioner for Railway Safety.
- 12.2.3 The Contractor shall assist the Authority during inspection and tests to be conducted by the Commissioner of Railway Safety for determining compliance of the Railway Project with Applicable Laws and the provisions of this Agreement.
- 12.2.4 The Defects Liability Period for the Railway Project or any Section thereof shall commence from the date of issue of the Provisional Certificate for the Railway Project or Section thereof.
- 12.2.5 The Parties hereto expressly agree that the Authority's Engineer may, upon request of the Authority to this effect, issue a Provisional Certificate for Section of the Railway Project and the provisions of Clauses 12.1 and 12.2 shall apply *mutatis mutandis* to such Provisional Certificate. For the avoidance of doubt, it is further agreed that the issuance of Provisional Certificate for any Section of the Railway Project shall not absolve the Contractor of its obligations to complete the remaining Sections of the Railway Project in accordance with the terms of this Agreement
- 12.2.6 The risk of loss or damage to any Materials, Plant or Works in the Railway Project or Section thereof, as the case may be, and the care and custody thereof shall pass from the Contractor to the Authority upon issuance of Provisional Certificate for the Railway Project or Section thereof.

### **12.3 Completion of Punch List items**

All items in the Punch List shall be completed by the Contractor within 90 (ninety) days of the date of issuance of the Provisional Certificate and for any delay thereafter, other than for reasons solely attributable to the Authority or due to Force Majeure, the Authority shall be entitled to recover Damages from the Contractor to be calculated and paid for each day of delay until all items are completed, at the lower of (a) 0.1% (zero point one per cent) of the Performance Security, and (b) 0.2% (zero point two per cent) of the cost of completing such items as estimated by the Authority's Engineer. Subject to payment of such Damages, the Contractor shall be entitled to a further period not exceeding 120 (one hundred and twenty) days for completion of the Punch List items. For the avoidance of doubt, it is agreed that if completion of any item in the Punch List is delayed for reasons attributable to the Authority or due to Force Majeure, the completion date thereof shall be determined by the Authority's Engineer in accordance with Good Industry Practice, and such completion date shall be deemed to be the date of issue of the Provisional Certificate for the purposes of Damages, if any, payable for such item under this Clause 12.3.

## **12.4 Completion Certificate**

- 12.4.1 Upon completion of all items in the Punch List and issuance of authorisation by the Commissioner of Railway Safety, the Authority's Engineer shall issue forthwith to the Contractor and the Authority a completion certificate substantially in the form set forth in Schedule-K (the "**Completion Certificate**") separately for and in respect of each Provisional Certificate issued.
- 12.4.2 Upon receiving the Completion Certificate, the Contractor shall remove its equipment, materials, debris and temporary works from the Site within a period of 15 (fifteen) days thereof, failing which the Authority may remove or cause to be removed, such equipment, materials, debris and temporary works and recover from the Contractor an amount equal to 120% (one hundred and twenty per cent) of the actual cost of removal incurred by the Authority.

## **12.5 Rescheduling of Tests**

If the Authority's Engineer certifies to the Authority and the Contractor that it is unable to issue the Completion Certificate or Provisional Certificate, as the case may be, because of events or circumstances on account of which the Tests could not be held or had to be suspended, the Contractor shall be entitled to re-schedule the Tests and hold the same as soon as reasonably practicable.

## **12.6 Delayed authorisation**

In the event of delay in issuance of authorisation by the Commissioner of Railway Safety beyond a period of 60 (sixty) days from the date of issue of the Provisional Certificate, the Contractor shall be entitled to interest for the period of delay at a rate equal to 3% (three per cent) above the Bank Rate on the payment due for integrated testing and commissioning as specified in Schedule G.



ARTICLE 13  
**CHANGE OF SCOPE**

**13.1 Change of Scope**

13.1.1 The Authority may, notwithstanding anything to the contrary contained in this Agreement, require the Contractor to make modifications or alterations to the Works (“**Change of Scope**”) before the issue of the Completion Certificate either by giving an instruction or by requesting the Contractor to submit a proposal for Change of Scope involving additional cost or reduction in cost. Any such Change of Scope shall be made and valued in accordance with the provisions of this Article 13.

13.1.2 Change of Scope shall mean:

- (a) change in specifications of any item of Works;
- (b) omission of any work from the Scope of the Project except under Clause 8.3.3; provided that, subject to Clause 13.5, the Authority shall not omit any work under this Clause in order to get it executed by any other entity; or
- (c) any additional work, Plant, Materials or services which are not included in the Scope of the Project, including any associated Tests on completion of construction.

13.1.3 If the Contractor determines at any time that a Change of Scope will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Authority of executing, maintaining or operating the Railway Project, (iii) improve the efficiency or value to the Authority of the completed Railway Project, or (iv) otherwise be of benefit to the Authority, it shall prepare a proposal with relevant details at its own cost. The Contractor shall submit such proposal, supported with the relevant details including the amount of reduction in the Contract Price, if any, to the Authority to consider such Change of Scope. The Authority shall, within 15 (fifteen) days of receipt of such proposal, either accept such Change of Scope with modifications, if any, and initiate proceedings therefor in accordance with this Article 13 or reject the proposal and inform the Contractor of its decision. For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without a Change of Scope Order being issued by the Authority, save and except any Works necessary for meeting any Emergency.

**13.2 Procedure for Change of Scope**

13.2.1 In the event of the Authority determining that a Change of Scope is necessary, it may direct the Authority’s Engineer to issue to the Contractor a notice specifying in reasonable detail the works and services contemplated thereunder (the “**Change of Scope Notice**”).

13.2.2 Upon receipt of a Change of Scope Notice, the Contractor shall, with due diligence, provide to the Authority and the Authority’s Engineer such information as is necessary, together with preliminary documentation in support of:

- (a) the impact, if any, which the Change of Scope is likely to have on the Project Completion Schedule if the works or services are required to be carried out during the Construction Period; and
- (b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof, including the following details:
  - (i) break down of the quantities, unit rates and cost for different items of work;
  - (ii) proposed design for the Change of Scope; and
  - (iii) proposed modifications, if any, to the Project Completion Schedule of the Railway Project.

For the avoidance of doubt, the Parties expressly agree that, subject to the provisions of Clause 13.4.2, the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

13.2.3 The Contractor's quotation of costs for the Change of Scope shall be determined on the following principles:

- (a) For works of similar nature compared to the Works being executed, the quotation shall be based on the rate for the work inclusive of all labour, Materials, equipment, incidentals, overheads and profit derived in accordance with the provisions of Clause 17.3; and the price adjustment in accordance with Clause 17.8 shall apply to the rates so worked out.
- (b) For works not similar in nature to the Works being executed, the cost of work shall be derived on the basis of applicable schedule of rates for the relevant zone of the Railways, and such rates shall be indexed with reference to the WPI once every year at the commencement of the financial year, with the base being the month and year of the publication of the said schedule of rates; provided, however, that for any item not included in the schedule of rates, the prevailing market rates as determined in accordance with Good Industry Practice by the Authority's Engineer shall apply.

13.2.4 Upon reaching an agreement, the Authority shall issue an order (the "**Change of Scope Order**") requiring the Contractor to proceed with the performance thereof. In the event that the Parties are unable to agree, the Authority may:

- (a) issue a Change of Scope Order requiring the Contractor to proceed with the performance thereof at the rates and conditions approved by the Authority till the matter is resolved in accordance with Article 24; or
- (b) proceed in accordance with Clause 13.5.

13.2.5 The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works undertaken by the Contractor under this Article 13.

### **13.3 Payment for Change of Scope**

Payment for Change of Scope shall be made in accordance with the payment schedule specified in the Change of Scope Order.

### **13.4 Restrictions on Change of Scope**

13.4.1 No Change of Scope shall be executed unless the Authority has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.

13.4.2 Unless the Parties mutually agree to the contrary, the total value of all Change of Scope Orders shall not exceed 10% (ten per cent) of the Contract Price.

13.4.3 Notwithstanding anything to the contrary in this Article 13, no change arising from any default of the Contractor in the performance of its obligations under this Agreement shall be deemed to be Change of Scope, and shall not result in any adjustment of the Contract Price or the Project Completion Schedule.

### **13.5 Power of the Authority to undertake works**

13.5.1 In the event the Parties are unable to agree to the proposed Change of Scope Orders in accordance with Clause 13.2, the Authority may, after giving notice to the Contractor and considering its reply thereto, award such works or services to any person on the basis of open competitive bidding from amongst bidders who are pre-qualified for undertaking the additional work; provided that the Contractor shall have the option of matching the first ranked bid in terms of the selection criteria, subject to payment of 2% (two per cent) of the bid amount to the Authority<sup>§</sup>, and thereupon securing the award of such works or services. For the avoidance of doubt, the Parties agree that the Contractor shall be entitled to exercise such option only if it has participated in the bidding process and its bid does not exceed the first ranked bid by more than 10% (ten per cent) thereof. It is also agreed that the Contractor shall provide assistance and cooperation to the person who undertakes the works or services hereunder, but shall not be responsible for rectification of any Defects in works carried out by other agencies. The Authority further acknowledges and agrees that it shall not undertake any works or services under this Clause 13.5.1 if such works or services cause a Material Adverse Effect on the Contractor.

13.5.2 The works undertaken in accordance with this Clause 13.5 shall conform to the Specifications and Standards and shall be carried out in a manner that minimises disruption to the Project. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works carried out under this Clause 13.5.

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<sup>§</sup> The Authority shall transfer 75% (seventy five per cent) of the amount so received to the first ranked bidder whose bid shall have been matched by the Contractor.

ARTICLE 14  
**TRAFFIC REGULATION**

**14.1 Traffic regulation by the Contractor**

- 14.1.1 The Contractor shall take all the required measures and make arrangements for the safety of any persons and vehicles on or about the Site during the construction of the Railway Project or a Section thereof in accordance with Good Industry Practice, and Applicable Laws. It shall provide, erect and maintain all such barricades, signs, markings, flags, and lights as may be required by Good Industry Practice for the safety of the traffic using any public roads or access along or across the Section under construction.
- 14.1.2 All works shall be carried out in a manner creating least interference to traffic passing along or across the Railway Project or a Section thereof. The Contractor shall ensure that proper passage is provided for the traffic. Where it is not possible or safe to allow traffic on the existing road or passage, a temporary diversion of proper specifications shall be constructed by the Contractor at its own cost. The Contractor shall take prior approval of the Authority's Engineer for any proposed arrangement for traffic regulation during Construction, which approval shall not be unreasonably withheld.
- 14.1.3 In the event any construction work is required to be executed in close proximity of an existing operating system of Railways, the Contractor shall make arrangements for the safety of such system in accordance with the provisions of the 'Compendium of Instructions on Safety at work Sites' issued by the Authority and Good Industry Practice.

ARTICLE 15  
**DEFECTS LIABILITY**

**15.1 Defects Liability Period**

The Contractor shall be responsible for all the Defects and deficiencies, except usual wear and tear in the Railway Project or any part thereof, till the expiry of a period of 2 (two) years commencing from the date of Provisional Certificate or expiry of a period 18 (eighteen) months from the date of Completion Certificate, whichever is later (the “**Defects Liability Period**”). For the avoidance of doubt, the Defects Liability Period shall include the Defects Liability Period, as may be extended in accordance with the provisions of this Agreement.

**15.2 Remedy and rectification of Defects and deficiencies**

15.2.1 Without prejudice to the provisions of Clause 15.2.2, the Contractor shall repair or rectify all Defects and deficiencies observed by the Authority’s Engineer during the Defects Liability Period within a period of 15 (fifteen) days from the date of notice issued by the Authority’s Engineer in this behalf, or within such reasonable period as may be determined by the Authority’s Engineer at the request of the Contractor, in accordance with Good Industry Practice.

15.2.2 During a period of 2 (two) months from the date of issuance of Completion Certificate, the Contractor shall retain sufficient staff and spares at Project for procuring prompt replacement, installation or re-installation of any defective parts of (a) the SCADA system; and (b) traction sub-stations and switching posts.

**15.3 Cost of remedying Defects**

For the avoidance of doubt, any repair or rectification undertaken in accordance with the provisions of Clause 15.2, including any additional tests, shall be carried out by the Contractor at its own risk and cost, to the extent that such rectification or repair is attributable to:

- (a) the design of the Project;
- (b) Works, Plant, Materials or workmanship not being in accordance with this Agreement and the Specifications and Standards;
- (c) improper maintenance during construction of the Railway Project by the Contractor; or
- (d) failure by the Contractor to comply with any other obligation under this Agreement.

**15.4 Contractor’s failure to rectify Defects**

In the event that the Contractor fails to repair or rectify such Defect or deficiency within the period specified in Clause 15.2, the Authority shall be entitled to get the same repaired, rectified or remedied at the Contractor’s cost so as to make the

Railway Project conform to the Specifications and Standards and the provisions of this Agreement. All costs consequent thereon shall, after due consultation with the Authority and the Contractor, be determined by the Authority's Engineer. The cost so determined, and an amount equal to 20% (twenty per cent) of such cost as Damages, shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to the Contractor.

#### **15.5 Contractor to search cause**

- 15.5.1 The Authority's Engineer may instruct the Contractor to examine the cause of any Defect in the Works or part thereof before the expiry of the Defects Liability Period.
- 15.5.2 In the event any Defect identified under Clause 15.5.1 is attributable to the Contractor, the Contractor shall rectify such Defect within the period specified by the Authority's Engineer, and shall bear the cost of the examination and rectification of such Defect.
- 15.5.3 In the event such Defect is not attributable to the Contractor, the Authority's Engineer shall, after due consultation with the Authority and the Contractor, determine the costs incurred by the Contractor on such examination and notify the same to the Contractor, with a copy to the Authority, and the Contractor shall be entitled to payment of such costs by the Authority.

#### **15.6. Extension of Defects Liability Period**

- 15.6.1 The Defects Liability Period shall be deemed to be extended till the identified Defects under Clause 15.2 have been remedied.
- 15.6.2 Any Materials or Works with Defects identified under Clause 15.2 and replaced or repaired during the Defects Liability Period or the extended Defects Liability Period, as the case may be, would be further warranted for a period of twelve (12) months from the date of completion of such repair or replacement.
- 15.6.3 The Contractor shall upon termination or expiry of this Agreement or upon expiry of the Defects Liability Period, assign any outstanding benefit in respect of any subcontract or any warranty, to the Authority or to such other person as the Authority may direct.

## ARTICLE 16

### AUTHORITY'S ENGINEER

#### 16.1 Appointment of the Authority's Engineer

- 16.1.1 The Authority shall appoint a consulting engineering firm substantially in accordance with the selection criteria set forth in Schedule-L, to be the engineer under this Agreement (the "**Authority's Engineer**").
- 16.1.2 The appointment of the Authority's Engineer shall be made no later than 15 (fifteen) days from the date of this Agreement. The Authority shall notify the appointment or replacement of the Authority's Engineer to the Contractor forthwith.
- 16.1.3 The staff of the Authority's Engineer shall include suitably qualified engineers and other professionals who are competent to assist the Authority's Engineer to carry out its duties.

#### 16.2 Duties and functions of the Authority's Engineer

- 16.2.1 The Authority's Engineer shall perform its duties and discharge its functions in accordance with the provisions of this Agreement, and substantially in accordance with the terms of reference ("**Terms of Reference**" or "**TOR**") set forth in Annex 1 of Schedule L, but subject to obtaining prior written approval of the Authority before determining:
- (a) any Time Extension;
  - (b) any additional cost to be paid by the Authority to the Contractor;
  - (c) the Termination Payment;
  - (d) providing Power Block or Traffic Block to the Contractor;
  - (e) approval of engineering scale plan, and signalling plan and route control chart;
  - (f) approval of disconnections for modification of signalling and telecom works, or
  - (g) any other matter which is not specified in (a) to (f) above and which creates an obligation or liability on either Party for a sum exceeding Rs. 5,000,000 (Rs. fifty lakh).
- 16.2.2 No decision or communication of the Authority's Engineer shall be effective or valid unless it is accompanied by an attested true copy of the approval of the Authority for and in respect of any matter specified in Clause 16.2.1.
- 16.2.3 The Authority's Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Authority's Engineer within 10 (ten) days of the beginning of every month. For the avoidance of doubt, the Authority's Engineer

shall include in its report compliance of the recommendations of the Safety Consultant.

16.2.4 A true copy of all communications sent by the Authority to the Authority's Engineer and by the Authority's Engineer to the Authority shall be sent forthwith by the Authority's Engineer to the Contractor.

16.2.5 A true copy of all communications sent by the Authority's Engineer to the Contractor and by the Contractor to the Authority's Engineer shall be sent forthwith by the Authority's Engineer to the Authority.

### **16.3 Authorised signatories**

The Authority shall require the Authority's Engineer to designate and notify to the Authority and the Contractor up to 2 (two) persons employed in its firm to sign for and on behalf of the Authority's Engineer, and any communication or document required to be signed by the Authority's Engineer shall be valid and effective only if signed by any of the designated persons; provided that the Authority's Engineer may, by notice in writing, substitute any of the designated persons by any of its employees.

### **16.4 Instructions of the Authority's Engineer**

16.4.1 The Authority's Engineer may issue to the Contractor instructions for remedying any Defect. The Contractor shall take such instructions from the Authority's Engineer only.

16.4.2 The instructions issued by the Authority's Engineer shall be in writing. However, if the Authority's Engineer issues any oral instructions to the Contractor, it shall confirm in writing the oral instructions within 2 (two) working days of issuing such oral instructions.

16.4.3 In case the Contractor does not receive the confirmation of the oral instructions within the time specified in Clause 16.4.2, the Contractor shall seek the written confirmation of the oral instructions from the Authority's Engineer and shall obtain acknowledgement from the Authority's Engineer of the communication seeking written confirmation. In case of failure of the Authority's Engineer to reply to the Contractor within 2 (two) days of the receipt of the communication from the Contractor, the Contractor may not carry out the instruction.

### **16.5 Determination by the Authority's Engineer**

16.5.1 The Authority's Engineer shall consult with each Party in an endeavour to reach agreement wherever this Agreement provides for the determination of any matter by the Authority's Engineer. If such agreement is not achieved, the Authority's Engineer shall make a fair determination in accordance with this Agreement having due regard to all relevant circumstances. The Authority's Engineer shall give notice to both the Parties of each such agreement or determination, with supporting particulars.

16.5.2 Each Party shall give effect to each agreement or determination made by the Authority's Engineer in accordance with the provisions of this Agreement. Provided, however, that if any Party disputes any instruction, decision, direction or



determination of the Authority's Engineer, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

#### **16.6 Remuneration of the Authority's Engineer**

The remuneration, cost and expenses of the Authority's Engineer shall be paid by the Authority.

#### **16.7 Termination of appointment of the Authority's Engineer**

16.7.1 The Authority may, in its discretion, replace the Authority's Engineer at any time, but only upon appointment of another Authority's Engineer in accordance with Clause 16.1.

16.7.2 If the Contractor has reasons to believe that the Authority's Engineer is not discharging its duties and functions in accordance with the provisions of this Agreement, it may make a written representation to the Authority and seek termination of the appointment of the Authority's Engineer. Upon receipt of such representation, the Authority shall hold a tripartite meeting with the Contractor and Authority's Engineer and make best efforts for an amicable resolution of the Dispute. In the event that the appointment of the Authority's Engineer is terminated hereunder, the Authority shall appoint forthwith another Authority's Engineer in accordance with Clause 16.1.

#### **16.8 Interim Arrangement**

In the event that the Authority has not appointed an Authority's Engineer, or the Authority's Engineer so appointed has relinquished its functions or defaulted in discharge thereof, the Authority may, in the interim, designate and authorise any person to discharge the functions of the Authority's Engineer in accordance with the provisions of this Agreement, save and except that such person shall not exercise any functions relating to review, comment, approval or inspection as specified in this Agreement for and in respect of the Authority's Engineer, and such functions shall be discharged as and when an Authority's Engineer is appointed in accordance with the provisions of this Agreement. Provided, however, that nothing contained in this Clause 16.8 shall in any manner restrict the rights of the Authority to enforce compliance of the provisions of this Agreement.



Part IV  
**Financial Covenants**



ARTICLE 17  
PAYMENTS

**17.1 Contract Price**

- 17.1.1 The Authority shall make payments to the Contractor for the Works on the basis of the lump sum price accepted by the Authority in consideration of the obligations specified in this Agreement for an amount of Rs. \*\*\*\*\* (Rs. \*\*\*\*\*) (the “**Contract Price**”), which shall be subject to adjustments in accordance with the provisions of this Agreement. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.
- 17.1.2 The Contract Price includes all duties, taxes, royalty, and fees that may be levied in accordance with the laws and regulations in force as on the Base Date on the Contractor’s equipment, Plant, Materials and supplies acquired for the purpose of this Agreement and on the on the Works undertaken under this Agreement. Nothing in this Agreement shall relieve the Contractor from its responsibility to pay any tax including any tax that may be levied in India on profits made by it in respect of this Agreement.
- 17.1.3 The Contract Price shall not be adjusted for any change in duties, taxes etc. specified in Clause 17.1.2 above, save and except as specified in Clauses 17.8 and 17.13.
- 17.1.4 The Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs, unless otherwise provided for in this Agreement.
- 17.1.5 Unless otherwise specified in this Agreement, the Contract Price covers all the Contractor’s obligations for the Works under this Agreement and all things necessary for the Construction thereof and for the rectification of any Defects in the Railway Project.
- 17.1.6 All payments under this Agreement shall be made in Indian Rupees.

**17.2 Advance Payment**

- 17.2.1 The Authority shall make an advance payment (the “**Advance Payment**”), equal to 10% (ten per cent)<sup>4</sup> of the Contract Price, for mobilisation expenses and for acquisition of equipment. The Advance Payment shall carry simple interest at the rate of 9.5% (nine point five per cent) per annum and shall be made in two equal instalments.
- 17.2.2 The Contractor may apply to the Authority for the 1<sup>st</sup> (first) instalment of the Advance Payment at any time after the Appointed Date, along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such instalment, substantially in the form provided at Annex-III

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<sup>4</sup> For large value and complex projects, the Advance Payment may be increased from 10% (ten per cent) to up to 15% (fifteen per cent) of the Contract Price.

of Schedule-F, to remain effective till the complete and full repayment of such instalment and any interest thereon.

- 17.2.3 At any time, after 60 (sixty) days from the Appointed Date, the Contractor may apply to the Authority for the 2<sup>nd</sup> (second) instalment of the Advance Payment along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such instalment, substantially in the form provided at Annex-III of Schedule-F, to remain effective till the complete and full repayment of such instalment and any interest thereon.
- 17.2.4 The instalments of Advance Payment shall be paid by the Authority to the Contractor within 15 (fifteen) days of the receipt of its respective requests in accordance with the provisions of this Clause 17.2.
- 17.2.5 The Advance Payment shall be recovered through proportionate deductions to be made in the Interim Payments Certificates issued in accordance with the provisions of Clause 17.5.2. Deductions of Advance Payment shall commence from the Interim Payment Certificate in which the cumulative interim payments certified shall have reached 50% (fifty per cent) of the Contract Price. The total amount recovered in each Interim Payment Certificate shall not exceed 30% (thirty per cent) of the amount due and payable under such Interim Payment Certificate, which shall include interest on the amount being recovered hereunder. For the avoidance of doubt, the Parties agree that in the event the total payment specified in any Interim Payment Certificate exceeds the limit of 50% (fifty per cent) of the Contract Price, the proportion of recovery hereunder shall be restricted to the amount exceeding 50% (fifty per cent) of the Contract Price. By way of illustration, the Parties agree that if the first recovery of say, Rupees 'x' is made after 20 (twenty) months from the date of 1<sup>st</sup> (first) instalment of the Advance Payment, interest on Rupees 'x' shall be due and payable for a period of 20 (twenty) months; and when the next recovery is made in the following month for say, Rupees 'y', interest on Rupees 'y' shall be due and payable for a period of 21 (twenty one) months. The Parties further agree that no payments in excess of 90% (ninety per cent) of the Contract Price shall be released to the Contractor until the Advance Payment, including interest thereon, has been fully recovered.
- 17.2.6 If the Advance Payment has not been fully repaid prior to Termination under Clause 19.7 or Article 21, as the case may be, the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Authority. In the event of Termination for Contractor Default, the Advance Payment shall be deemed to carry interest at an annual rate of 3% (three per cent) above the Bank Rate from the date of Advance Payment to the date of recovery thereof. For the avoidance of doubt, the aforesaid interest shall be payable on each instalment of the Advance Payment, regardless of whether the instalment or any part thereof has been repaid to the Authority prior to Termination.

### **17.3 Procedure for estimating the payment for the Works**

- 17.3.1 The Authority shall make interim payments to the Contractor, as certified by the Authority's Engineer on completion of a stage, for a length, number or area as specified, and valued in accordance with the proportion of the Contract Price assigned to each item and its stage and payment procedure in Schedule-G.

- 17.3.2 The Contractor shall make its claim for interim payment for the stages completed till the end of the month for which the payment is claimed, valued in accordance with Clause 17.3.1, and supported with necessary particulars and documents in accordance with this Agreement.
- 17.3.3 Any reduction in the Contract Price arising out of Change of Scope or the Works withdrawn under Clause 8.3, as the case may be, shall not affect the amounts payable for the items or stage payments thereof which are not affected by such Change of Scope or withdrawal. For the avoidance of doubt and by way of illustration, the Parties agree that if the amount assigned to Traction Sub-Stations is reduced from Rs. 100 crore to Rs. 80 crore owing to Change of Scope or withdrawal of Works, as the case may be, the reduction in payment shall be restricted to the relevant payments for Important Bridges and/ or Major Bridges and the payment due in respect of all other stage payments under the item Important Bridges and/ or Major Bridges shall not be affected in any manner. The Parties further agree that the adjustments arising out of the aforesaid modifications shall be carried out in a manner that the impact of such modifications is restricted to the said Change of Scope or withdrawal, as the case may be, and does not alter the payments due for and in respect of items or stage payments which do not form part of such Change of Scope or withdrawal.

#### **17.4 Stage Payment Statement for Works**

The Contractor shall submit a statement (the “**Stage Payment Statement**”), in 3 copies, by the 7<sup>th</sup> (seventh) day of a month to the Authority’s Engineer in the form set forth in Schedule-M, showing the amount calculated in accordance with Clause 17.3 to which the Contractor considers itself entitled for the completed stage(s) of Works. The Stage Payment Statement shall be accompanied with the progress reports and any other supporting documents. The Contractor shall not submit any claim for payment of incomplete stages of work. In the event that there is no claim for a month in accordance with the provisions of this Clause 17.4, the Contractor shall submit a ‘Nil’ claim to the Authority’s Engineer.

#### **17.5 Stage Payment for Works**

- 17.5.1 Within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 17.4, the Authority’s Engineer shall broadly determine the amount due to the Contractor and recommend the release of 90 (ninety) per cent of the amount so determined as part payment against the Stage Payment Statement, pending issue of the Interim Payment Certificate by the Authority’s Engineer. Within 10 (ten) days of the receipt of recommendation of the Authority’s Engineer, the Authority shall make an electronic payment thereof directly to the Contractor’s bank account.
- 17.5.2 Within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in Clause 17.4, the Authority’s Engineer shall determine and shall deliver to the Authority and the Contractor, an IPC certifying the amount due and payable to the Contractor, after adjusting the payments already released to the Contractor against the said statement. For the avoidance of doubt, the Parties agree that the IPC shall specify all the amounts that have been deducted from the Stage Payment Statement and the reasons therefor.

17.5.3 In cases where there is a difference of opinion as to the value of any stage, the opinion of the Authority's Engineer shall prevail and interim payments shall be made to the Contractor on that basis; provided that the foregoing shall be without prejudice to the Contractor's right to raise a Dispute.

17.5.4 The Authority's Engineer may, for reasons to be recorded, withhold from payment:

- (a) the estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and in respect of which the Authority's Engineer had notified the Contractor; and
- (b) the estimated cost of rectification of any Works which have not been constructed in accordance with this Agreement.

17.5.5 Payment by the Authority hereunder shall be deemed to be provisional and shall not be construed as the Authority's acceptance, approval, consent or satisfaction with the work done.

17.5.6 In the event the amounts released by the Authority under Clause 17.5.1 exceed the amount finally determined by the Authority's Engineer pursuant to Clauses 17.5.2 to 17.5.4, the difference thereof shall be accounted for in the next IPC.

## **17.6 Payment of Damages**

17.6.1 The Contractor may claim Damages due and payable to it in accordance with the provisions of this Agreement.

17.6.2 The Authority's Engineer shall issue the IPC within 15 (fifteen) days of the receipt of the claim under Clause 17.6.1, after making adjustments in accordance with the provisions of this Agreement. The Authority shall pay to the Contractor the amount due under such IPC within a period of 30 (thirty) days from the date of the submission of the claim under this Clause 17.6.

## **17.7 Time of payment and interest**

17.7.1 The Authority shall pay to the Contractor any amount due under any payment certificate issued by the Authority's Engineer in accordance with the provisions of this Article 17, or in accordance with any other clause of this Agreement as follows:

- (a) Payment shall be made no later than 30 (thirty) days from the date of submission of the Stage Payment Statement by the Contractor to the Authority's Engineer for certification in accordance with the provisions of Clause 17.4; provided, however, that in the event the IPC is not issued by the Authority's Engineer within the aforesaid period of 30 (thirty) days, the Authority shall pay the amount shown in the Contractor's Stage Payment Statement and any discrepancy therein shall be adjusted in the next IPC; and
- (b) payment shall be made no later than 30 (thirty) days from the date of submission of the Final Payment Certificate for Works along with the discharge submitted to the Authority's Engineer for certification in accordance with the provisions of Clause 17.12.



17.7.2 In the event of failure of the Authority to make payment to the Contractor within the time period specified in this Clause 17.7, the Authority shall be liable to pay to the Contractor interest at a rate equal to the Bank Rate plus 3% (three per cent), calculated at quarterly rests, on all sums remaining unpaid from the date by which the same should have been paid and till the date of actual payment.

17.7.3 The Parties expressly agree that in the event the Authority makes payment of the amount due and payable under the provisions of Clause 17.5.1, on or before the 7<sup>th</sup> (seventh) day of submission of the Stage Payment Statement, it shall be entitled to deduct 0.5% (zero point five per cent) of such amount by way of discount for early payment.

## **17.8 Price adjustment for Works**

17.8.1 The amounts payable to the Contractor for Works shall be adjusted in accordance with the provisions of this Clause 17.8.

17.8.2 Subject to the provisions of Clause 17.8.3, the amounts payable to the Contractor for and in respect of Works shall be adjusted for any increase or decrease in the index cost of inputs, by the addition or subtraction of the amounts determined in accordance with the formulae specified in Clause 17.8.4.

17.8.3 To the extent that any compensation or reimbursement for increase or decrease in costs is not covered by the provisions of this Agreement, the costs and prices payable under this Agreement shall be deemed to include the contingency of such increase or decrease in costs.

17.8.4 The Contract Price shall be adjusted for increase or decrease in rates and prices of labour, Materials, fuel and lubricants, equipment, Machinery, Plant and other Materials or inputs in accordance with the principles, procedures and formulae specified below:

- (a) Price adjustment shall be applied on completion of the specified stage of the respective item of work in accordance with Schedule-G;
- (b) Adjustment for each item of work/stage shall be made separately;
- (c) The following expressions and meanings are assigned to the value of the work done for electrification works:

OHE = Value of work done for the completion of a stage under the item Overhead Equipment Work;

SP = Value of work done for the completion of a stage under the item Switching Posts;

TRANSBOO = Value of work done for the completion of a stage under the item Booster Transformer;

TRANSAUX = Value of work done for the completion of a stage under the item Auxiliary Transformer;

TSS = Value of work done for the completion of a stage under the item Traction Sub Station;

TLOH = Value of work done for the completion of a stage under the item High Voltage Transmission Line Overhead including monopole;

TLUG = Value of work done for the completion of a stage under the item Underground High Tension Cable Transmission Line;

BAY = Value of work done for the completion of a stage under the item Bay Augmentation work at Grid Sub-Station/Terminal arrangement at TSS;

SCADA = Value of work done for the completion of a stage under the item SCADA;

ELEGWK = Value of work done for the completion of a stage under the item various electrical general services works;

MODHTPWRLINE = Value of work done for the completion of a stage under the item modification of HT power lines and crossings (raising of height);

MODHTLTOUG = Value of work done for the completion of a stage under the item modification of HT power lines and crossings to underground (replacement by underground cabling);

MODLTLTOUG = Value of work done for the completion of a stage under the item modification of LT power lines and crossings to under ground (replacement by underground cabling);

EXTNLTPWRSPLY = Value of work done for the completion of a stage under the item extension/augmentation of power supply for CLS work;

EXTNPWRSUPLY = Value of work done for the completion of a stage under the item extension/augmentation of general power supply;

MODELECTRICAL = Value of work done for the completion of a stage under the item modification to existing electrical works;

INVELECTRICAL = Value of work done for the completion of a stage under the item inventory electrical;

SIGMOD = Value of work done for the completion of a stage under the item Signalling System Modification;

INVSIG = Value of work done for the completion of a stage under the item signalling inventory;

TESTSIG = Value of work done for the completion of a stage under the item integrated testing and commissioning;

COMMOD = Value of work done for the completion of a stage under the item Telecommunications modifications;

INVCOM = Value of work done for the completion of a stage under the item telecommunication inventory;

TESTCOM = Value of work done for the completion of a stage under the item integrated testing and commissioning; and

CIVENG = Value of work done for the completion of a stage under the item Civil Engineering works.

- (d) Price adjustment for changes in cost for electrification works shall be paid in accordance with the following formula:
- (i)  $VOHE = 0.85 OHE \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PC \times (C_i - C_o)/C_o + PSST \times (SST_i - SST_o)/SST_o + PCU \times (C_{Ui} - C_{Uo})/C_{Uo} + PINS \times (INS_i - INS_o)/INS_o]$ ;
  - (ii)  $VSP = 0.85 SP \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PC \times (C_i - C_o)/C_o + PSWGR \times (SWGR_i - SWGR_o)/SWGR_o]$ ;
  - (iii)  $VTRANSBOO = 0.85 TRANSBOO \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PSST \times (SST_i - SST_o)/SST_o + PTR \times (TR_i - TR_o)/TR_o]$ ;
  - (iv)  $VTRANSAUX = 0.85 TRANSAUX \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PSST \times (SST_i - SST_o)/SST_o + PTR \times (TR_i - TR_o)/TR_o]$ ;
  - (v)  $VTSS = 0.85 TSS \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PTR \times (TR_i - TR_o)/TR_o + PC \times (C_i - C_o)/C_o + PSST \times (SST_i - SST_o)/SST_o + PSWGR \times (SWGR_i - SWGR_o)/SWGR_o]$ ;
  - (vi)  $VTLOH = 0.85 TLOH \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PSST \times (SST_i - SST_o)/SST_o + PCOND \times (COND_i - COND_o)/COND_o + PC \times (C_i - C_o)/C_o + PINS \times (INS_i - INS_o)/INS_o + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (vii)  $VTLUG = 0.85 TLUG \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PIC \times (IC_i - IC_o)/IC_o]$ ;
  - (viii)  $VBAY = 0.85 BAY \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PSST \times (SST_i - SST_o)/SST_o + PC \times (C_i - C_o)/C_o + PCU \times (C_{Ui} - C_{Uo})/C_{Uo}]$ ;
  - (ix)  $VSCADA = 0.85 SCADA \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PELEX \times (ELEX_i - ELEX_o)/ELEX_o]$ ;
  - (x)  $VELEGWK = 0.85 ELEGW \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xi)  $VMODHTPWRLINE = 0.85 MODHTPWRLINE \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PSST \times (SST_i - SST_o)/SST_o + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xii)  $VMODHTLTOUG = 0.85 MODHTLTOUG \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PIC \times (IC_i - IC_o)/IC_o + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xiii)  $VMODLTLTOUG = 0.85 MODLTLTOUG \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PIC \times (IC_i - IC_o)/IC_o + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xiv)  $VEXTNLTPWRSPLY = 0.85 EXTNLTPWRSPLY \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xv)  $VEXTNPWRSUPLY = 0.85 EXTNPWRSUPLY \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xvi)  $VMODELETRICAL = 0.85 MODELETRICAL \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xvii)  $INVELECTRICAL = 0.85 INVELECTRICAL \times [POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xviii)  $VSIGMOD = 0.85 SIGMOD \times [PLB \times (L_{Bi} - L_{Bo})/L_{Bo} + PELEX \times (ELEX_i - ELEX_o)/ELEX_o + PIC \times (IC_i - IC_o)/IC_o + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
  - (xix)  $VINVSIG = 0.85 INVSIG \times [POTH \times (OTH_i - OTH_o)/OTH_o]$ ;

- (xx)  $VTESTSIG = 0.85 TESTSIG \times [PLB \times (LBi - LBo)/LBo + POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
- (xxi)  $VCOMMODO = 0.85 COMMODO \times [PLB \times (LBi - LBo)/LBo + PELEX \times (ELEX_i - ELEX_o)/ELEX_o + POFC \times (OFC_i - OFC_o)/OFC_o]$ ;
- (xxii)  $VINVCOM = 0.85 INVCOM \times [POTH \times (OTH_i - OTH_o)/OTH_o]$ ;
- (xxiii)  $VTESTCOM = 0.85 TESTCOM \times [PLB \times (LBi - LBo)/LBo + POTH \times (OTH_i - OTH_o)/OTH_o]$ ; and
- (xxiv)  $VCIVENG = 0.85 \times VCIVENG \times [PLB \times (LBi - LBo)/LBo + PS \times (Si - So)/So + PC \times (Ci - Co)/Co + POTH \times (OTH_i - OTH_o)/OTH_o]$ .

Where

VOHE = Increase or decrease in the cost of Over Head Equipment and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VSP = Increase or decrease in the cost of Switch Post and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTRANSBOO = Increase or decrease in the cost of booster transformer and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTRANSAUX = Increase or decrease in the cost of auxiliary transformer and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTSS = Increase or decrease in the cost of Traction Sub-Station and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTLOH = Increase or decrease in the cost of overhead transmission line and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTLUG = Increase or decrease in the cost of underground high voltage transmission line and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VBAY = Increase or decrease in the cost of bay augmentation work at grid sub-station/ terminal arrangement at TSS and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VSCADA = Increase or decrease in the cost of SCADA and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VELEGWK = Increase or decrease in the cost of various electrical general services works and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VMODHTPWRLINE = Increase or decrease in the cost of modification of HT power lines and crossings (raising of height) and related works during the period under

consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VMODHTLTOUG = Increase or decrease in the cost of modification of HT power lines and crossings to under ground (replacement by underground cabling) and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VMODLTLTOUG = Increase or decrease in the cost of modification of LT power lines and crossings to under ground (replacement by underground cabling) and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VEXTNLTPWRSPLY = Increase or decrease in the cost of extension/augmentation of power supply for CLS work and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VEXTNPWRSUPLY = Increase or decrease in the cost of extension/augmentation of general power supply and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VMODELETRICAL = Increase or decrease in the cost of modification to existing electrical works and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VINVELECTRICAL = Increase or decrease in the cost of inventory electrical during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VSIGMOD = Increase or decrease in the cost of signalling system modification and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VINVSIG = Increase or decrease in the cost of signalling inventory during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTESTSIG = Increase or decrease in the cost of SCADE and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VCOMMODO = Increase or decrease in the cost of communication and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VINVCOM = Increase or decrease in the cost of telecommunication inventory during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VTESTCOM = Increase or decrease in the cost of integrated testing and commissioning and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VCIVENG = Increase or decrease in the cost of civil engineering and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

PC, PCOND, PCU, PELEX, PINS, PLB, POFC, PSWGR, PPC, and PSST are the percentages of cement, conductor, copper wire, electronic items, insulators, labour, fibre optic cables, electrical switch gears, PVC insulated cable and structural steel respectively for the relevant item as specified in sub-paragraph (e);

Co = The wholesale price index as published by the Ministry of Commerce & Industry, Government of India (hereinafter called “WPI”) for grey cement for the month of the Base Date;

Ci = The WPI for grey cement for the month three months prior to the month to which the IPC relates;

CONDo = the WPI conductors for the month of the Base Date;

CONDi = The WPI for conductors for the month three months prior to the month to which the IPC relates;

CUo = The WPI for copper (all types) for the month of the Base Date;

CUi = The WPI for copper (all types) for the month three months prior to the month to which the IPC relates;

ELEXo = The WPI for electronic items for the month of the Base Date;

ELEXi = The WPI for electronic items for the month three months prior to the month to which the IPC relates;

INSo = The WPI for insulators for the month of the Base Date;

INSi = The WPI for insulators for the month three months prior to the month to which the IPC relates;

LBo = The consumer price index for industrial workers for the [circle \*\*\*\* in the State of \*\*\*] published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called “CPI”) for the month of the Base Date;

LBi = The CPI for the month three months prior to the month to which the IPC relates;

OFCo = The WPI for optical fibre cables for the month of the Base Date;

OFCi = The WPI for optical fibre cables for the month three months prior to the month to which the IPC relates;

Oo = The WPI for all commodities for the month of the Base Date;

Oi = The WPI for all commodities for the month three months prior to the month to which the IPC relates;

PCo = The WPI for PVC insulated cable for the month of the Base Date;

PCi = The WPI for PVC insulated cable for the month three months prior to the month to which the IPC relates;

So = The WPI for steel (rods) for the month of the Base Date;

Si = The WPI for steel (rods) for the month three months prior to the month to which the IPC relates;

SSTo = The WPI for structural steel for the month of the Base Date;

SST<sub>i</sub> = The WPI for structural steel for the month three months prior to the month to which the IPC relates;

SWGR<sub>o</sub> = The WPI for electric switch gears for the month of the Base Date;

SWGR<sub>i</sub> = The WPI for electric switch gears for the month three months prior to the month to which the IPC relates;

TR<sub>o</sub> = The WPI for transformers for the month of the Base Date; and

TR<sub>i</sub> = The WPI for transformers for the month three months prior to the month to which the IPC relates.

(e) The following percentages shall govern the price adjustment of the Contract Price for electrification works:

(i) For OHE, TSS, SP, Booster Transformer stations, Auxiliary transformer stations:

| Component                             | Over Head Equipment except other work                    |  | Switching Posts except commissioning and charging, | Booster Transformer Station | Traction sub stations except Commissioning and charging |                               | Auxiliary transformer stations | OHE other works, commissioning and charging of TSS, SP, Booster Transformer stations, auxiliary transformer stations |
|---------------------------------------|--|--|--|-----------------------------|---|-------------------------------|--------------------------------|--|
|                                       | Foundation, mast erection, bracket, erection, insulators | Stringing of catenary and contact wire |  |                             | Transformers  | All works except transformers |                                |  |
| <b>Labour (PLB)</b>                   | ***%   | ***%                                   | ***%   | ***%                        | ***%  | ***%                          | ***%                           | 100%   |
| <b>Cement (PC)</b>                    | ***%   | -                                      | ***%   | -                           | -   | ***%                          | -                              | -  |
| <b>Structural steel (PSST)</b>        | ***%   | -                                      | -  | ***%                        | -   | ***%                          | ***%                           | -  |
| <b>Insulators (PINS)</b>              | ***%   | -                                      | -  | -                           | -   | -                             | -                              | -  |
| <b>Copper wire (PCU)</b>              | -  | ***%                                   | -  | -                           | -   | -                             | -                              | -  |
| <b>Transformer (PTR)</b>              | -  | -                                      | -  | ***%                        | ***%  |                               | ***%                           | -  |
| <b>Electrical Switch Gear (PSWGR)</b> | -  | -                                      | ***%   | -                           | -   | ***%                          | -                              | -  |
| <b>Total</b>                          | 100%   | 100%                                   | 100%   | 100%                        | 100%  | 100%                          | 100%                           | 100%   |



(ii) For transmission lines overhead, underground high tension cable transmission line, bay augmentation work at Grid Sub-station etc., various electrical general services works and modification of HT power lines and crossings (raising of height):

| <b>Component</b>                 | <b>Transmission lines overhead including monopole except commissioning</b> | <b>Underground high tension cable transmission line except commissioning</b> | <b>Bay augmentation work at grid sub-station/ terminal arrangement at TSS</b> | <b>Various electrical general services works</b> | <b>Modification of HT power lines and crossings (raising of height)</b> | <b>Commissioning of transmission lines overhead, underground high tension cable transmission line, bay augmentation work.</b> |
|----------------------------------|--|--|---|--|---|---|
| <b>Labour (PLB)</b>              | ***%   | ***%   | ***%  | ***%   | ***%  | 100%  |
| <b>Structural steel</b>          | ***%   | -  | ***%  | -  | ***%  | -   |
| <b>Cement (PC)</b>               | ***%   | -  | ***%  | -  | -   | -   |
| <b>Conductor (PCOND)</b>         | ***%   | -  | -   | -  | -   | -   |
| <b>PVC Insulated Cable (PIC)</b> | -  | ***%   | -   | -  | -   | -   |
| <b>Copper wire (PCU)</b>         | -  | -  | ***%  | -  | -   | -   |
| <b>Insulators (PINS)</b>         | ***%   | -  | -   | -  | -   | -   |
| <b>Other items (POTH)</b>        | ***%   | -  | -   | ***%   | ***%  | -   |
| <b>Total</b>                     | 100%   | 100%   | 100%  | 100%   | 100%  | 100%  |

(iii) For SCADA, modification of HT power lines and crossings to underground (replacement by underground cabling), modification of LT power lines and crossings to underground (replacement by underground cabling) except commissioning, Extension/ augmentation of power supply for CLS work, extension/augmentation of general power supply, modification to existing electrical works:

| <b>Component</b>                    | <b>SCADA except commissioning for the Division</b> | <b>Modification of HT power lines and crossings to underground (replacement by underground cabling) except commissioning</b> | <b>Modification of LT power lines and crossings to underground (replacement by underground cabling) except commissioning</b> | <b>Extension/ augmentation of power supply for CLS work except commissioning</b> | <b>Extension/ augmentation of general power supply</b> | <b>Modification to existing electrical works</b> | <b>Commissioning of SCADA, Modification of HT power lines, Modification of LT power lines, and Extension/ augmentation of power supply for CLS work</b> |
|-------------------------------------|--|--|--|--|--|--|---|
| <b>Labour (PLB)</b>                 | ***%   | ***%   | ***%   | ***%   | ***%   | ***%   | 100%  |
| <b>Electronics (PELEX)</b>          | **%  | -  | -  | -  | -  | -  | -   |
| <b>PVC Insulated Cable (PIC)</b>    | -  | ***%   | ***%   | *  | *  | *  | -   |
| <b>Fibre Cable (POFC)</b>           | -  | -  | -  | -  | -  | -  | -   |
| <b>All other commodities (POTH)</b> | ***%   | ***%   | ***%   | ***%   | ***%   | ***%   | -   |
| <b>Total</b>                        | 100%   | 100%   | 100%   | 100%   | 100%   | 100%   | 100%  |

(iv) For modification of signalling works, modification of telecommunications works, inventory for electrification. Signalling and telecommunication works; and integrated testing and commissioning of the electrification, signalling and telecommunication works:

| <b>Component</b>                    | <b>Modification of signalling works</b> | <b>Modification of telecommunications works</b> | <b>Inventory for electrification. signalling and telecommunication works</b> | <b>Integrated testing and commissioning of electrification. signalling and telecommunication works</b> |
|-------------------------------------|---|---|--|--|
| <b>Labour (PLB)</b>                 | ***%                                    | ***%  | -  | ***%   |
| <b>Electronics (PELEX)</b>          | ***%                                    | ***%  | -  | -  |
| <b>PVC Insulated Cable (PIC)</b>    | ***%                                    | ***%  | -  | -  |
| <b>Fibre Cable (POFC)</b>           | -                                       | ***%  | -  | -  |
| <b>All other commodities (POTH)</b> | ***%                                    | ***%  | ***%   | ***%   |
| <b>Total</b>                        | 100%                                    | 100%  | 100%   | 100%   |

(v) For Civil Engineering Works:

| <b>Component</b>                    | <b>Civil Engineering Works</b> |
|-------------------------------------|--------------------------------|
| <b>Labour (PLB)</b>                 | ***%                           |
| <b>Steel (PS)</b>                   | ***%                           |
| <b>Cement (PC)</b>                  | ***%                           |
| <b>All other commodities (POTH)</b> | ***%                           |
| <b>Total</b>                        | 100%                           |

17.8.5 In case an IPC relates to a month which is within 3 (three) months from the Base Date, no price adjustment shall be applicable.

## **17.9 Restrictions on price adjustment**

Price adjustment shall be due and payable only in respect of the stages of Works for which the Stage Payment Statement has been submitted by the Contractor no later than 30 (thirty) days from the date of the applicable Project Milestone, including any Time Extension granted therefor in accordance with the provisions of this Agreement. For the avoidance of

doubt, in the event of submission of any Stage Payment Statement after the period specified herein, price adjustment shall be applicable only until the date of the respective Project Milestone.

## **17.10 Final Payment Statement**

17.10.1 Within 60 (sixty) days of receiving the Completion Certificate under Clause 12.4, the Contractor shall submit to the Authority's Engineer six copies of a final payment statement (the "**Final Payment Statement**"), with supporting documents, in the form prescribed by the Authority's Engineer in respect of:

- (a) the summary of Contractor's Stage Payment Statements as submitted in accordance with Clause 17.4;
- (b) the amounts received from the Authority against each claim; and
- (c) any further sums which the Contractor considers due to it from the Authority.

17.10.2 If the Authority's Engineer disagrees with or cannot verify any part of the Final Payment Statement, the Contractor shall submit such further information as the Authority's Engineer may reasonably require.

17.10.3 The Authority's Engineer shall deliver to the Authority:

- (i) an IPC for those parts of the Final Payment Statement which are not in dispute, along with a list of disputed items which shall then be settled in accordance with the provisions of Article 24; or
- (ii) a Final Payment Certificate in accordance with Clause 17.15, if there are no disputed items.

17.10.4 In the event that the Authority's Engineer does not prescribe the form referred to in Clause 17.10.1 within 15 (fifteen) days of the issue of a Completion Certificate, the Contractor shall submit the statement in such form as it may reasonably deem fit.

## **17.11 Discharge**

Upon submission of the Final Payment Statement under Clause 17.10, the Contractor shall give to the Authority, with a copy to the Authority's Engineer, a written discharge confirming that the total of the Final Payment Statement represents full and final settlement of all monies due to the Contractor in respect of this Agreement for all the Works arising out of this Agreement, except for any monies due to either Party on account of any Defect. Provided that such discharge shall become effective only after the payment due has been made in accordance with the Final Payment Certificate issued pursuant to Clause 17.12.

## **17.12 Final Payment Certificate**

17.12.1 Within 30 (thirty) days after receipt of the Final Payment Statement under Clause 17.10, and the written discharge under Clause 17.11, and there being no disputed items of claim, the Authority's Engineer shall deliver to the Authority, with a copy to the Contractor, a final payment certificate (the "**Final Payment Certificate**") stating the amount which, in the opinion of the Authority's Engineer, is finally due under this Agreement or otherwise. For the avoidance of doubt, before issuing the Final Payment Certificate, the Authority's Engineer shall ascertain from the Authority all amounts previously paid by the Authority, all sums due to the Authority, and the balance, if any, due from the Authority to the Contractor or from the Contractor to the Authority, as the case may be.

17.12.2 The Authority shall, in accordance with the provisions of Clause 17.7, pay to the Contractor the amount which is specified as being finally due in the Final Payment Certificate.

## **17.13 Change in law**

17.13.1 If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15 (fifteen) days from the date it becomes reasonably aware of such addition in costs, notify the Authority with a copy to the Authority's Engineer of such additional costs due to Change in Law.

17.13.2 If as a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall, within 15 (fifteen) days from the date it becomes reasonably aware of such reduction in costs, notify the other Party with a copy to the Authority's Engineer of such reduction in costs due to Change in Law.

17.13.3 The Authority's Engineer shall, within 15 (fifteen) days from the date of receipt of notice from the Contractor or the Authority, as the case may be, determine any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.

## **17.14 Correction of Interim Payment Certificates**

The Authority's Engineer may by an Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate issued by it.

## **17.15 Authority's claims**

If the Authority considers itself to be entitled to any payment from the Contractor under any Clause of this Agreement, it shall give notice and particulars to the Contractor 20 (twenty) days before making the recovery from any amount due to the Contractor, and shall take into consideration the

representation, if any, made by the Contractor in this behalf, before making such recovery.

**17.16 Bonus for early completion**

In the event that the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus equivalent to 0.03% (zero point zero three per cent) of the Contract Price for each day by which the Project Completion Date precedes the Scheduled Completion Date, but subject to a maximum of 3% (three per cent) of the Contract Price. Provided, however, that the payment of bonus, if any, shall be made only after the issue of the Completion Certificate. For the avoidance of doubt, the Parties agree that for the purpose of determining the bonus payable hereunder, the Contract Price shall always be deemed to be the amount specified in Clause 17.1.1, and shall exclude any revision thereof for any reason.

**ARTICLE 18**  
**INSURANCE**

**18.1 Insurance for Works**

18.1.1 The Contractor shall effect and maintain at its own cost the insurances specified in Schedule-N and as per the requirements of Applicable Laws.

18.1.2 Subject to the provisions of Clause 19.6, the Contractor shall, in accordance with the provisions of this Agreement, be liable to bear the cost of any loss or damage that does not fall within the scope of this Article 18 or cannot be recovered from the insurers.

18.1.3 Save and except as provided in Clause 18.1.4, the Contractor shall fully indemnify, hold harmless and defend the Authority from and against any and all losses, damages, costs, charges and/or claims with respect to:

- (a) the death of or injury to any person; or
- (b) the loss of or damage to any property;

that may arise out of or in consequence of any breach by the Contractor of this Agreement during the execution of the Works or the remedying of any Defects therein.

18.1.4 Notwithstanding anything in Clause 18.1.3, the Authority shall fully indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims arising out of or with respect to:

- (a) the use or occupation of land or any part thereof by the Authority;
- (b) the damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any Defects therein, in accordance with this Agreement; and
- (c) the death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Authority, its agents, servants or other contractors, not being employed by the Contractor.

Provided, however, that in the event of any injury or damage as a result of the contributory negligence of the Contractor, the Authority shall be liable to indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims to the extent proportionate to the liability of the Authority, its servants or agents or other contractors not associated with the Contractor in such injury or damage.

18.1.5 Without prejudice to the provisions of Clauses 18.1.3 and 18.1.4, the Contractor shall maintain or effect such third party insurances as may be required under Applicable Laws.

18.1.6 The Contractor shall provide to the Authority, within 30 days of the Appointed Date, evidence of professional liability insurance maintained by its Design Director and/or consultants to cover the risk of professional negligence in the design of Works. The professional liability cover shall be for a sum of not less than 3% (three per cent) of the Contract Price and shall be maintained until the end of the Defects Liability Period.

## **18.2 Notice to the Authority**

No later than 15 (fifteen) days after the date of this Agreement, the Contractor shall by notice furnish to the Authority, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article 18. Within 15 (fifteen) days of receipt of such notice, the Authority may require the Contractor to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

## **18.3 Evidence of Insurance Cover**

18.3.1 All insurances obtained by the Contractor in accordance with this Article 18 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Contractor shall furnish to the Authority notarised true copies of the certificate(s) of insurance, copies of insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty-five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Contractor to the Authority.

18.3.2 The Contractor shall procure and ensure the adequacy of the insurances at all times in accordance with the provisions of this Agreement.

## **18.4 Remedy for failure to insure**

If the Contractor shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Authority shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Contractor, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Contractor.

## **18.5 Waiver of subrogation**

All insurance policies in respect of the insurance obtained by the Contractor pursuant to this Article 18 shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, the Authority, and its assigns, successors, undertakings and their subsidiaries, Affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by



attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

#### **18.6 Contractor's waiver**

The Contractor hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, the Authority and its assigns, undertakings and their subsidiaries, Affiliates, employees, successors, insurers and underwriters, which the Contractor may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Contractor pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

#### **18.7 Cross liabilities**

Any such insurance maintained or effected in pursuance of this Article 18 shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Authority as separately insured.

#### **18.8 Accident or injury to workmen**

Notwithstanding anything contained in this Agreement, it is hereby expressly agreed between the Parties that the Authority shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or Sub-contractor, save and except as for death or injury resulting from any act, omission or default of the Authority, its agents or servants. The Contractor shall indemnify and keep indemnified the Authority from and against all such claims, proceedings, damages, costs, charges, and expenses whatsoever in respect of the above save and except for those acts, omissions or defaults for which the Authority shall be liable.

#### **18.9 Insurance against accident to workmen**

The Contractor shall effect and maintain during the Agreement such insurances as may be required to insure the Contractor's personnel and any other persons employed by it on the Railway Project from and against any liability incurred in pursuance of this Article 18 Provided that for the purposes of this Clause 18.9, the Contractor's personnel/any person employed by the Contractor shall include the Sub-contractor and its personnel. Provided further that in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this Clause 18.9 shall be discharged if the Sub-contractor shall have insured against any liability in respect of such persons in such manner that the Authority is indemnified under the policy. The Contractor shall require such Sub-contractor to produce before the Authority, when required, such policy of insurance and the receipt for payment of the current premium within 10 (ten) days of such demand being made by the Authority.

**18.10 Application of insurance proceeds**

The proceeds from all insurance claims, except for life and injury, shall be applied for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Railway Project and the provisions of this Agreement in respect of construction of Works shall apply *mutatis mutandis* to the Works undertaken out of the proceeds of insurance.

**18.11 Compliance with conditions of insurance policies**

The Contractor expressly acknowledges and undertakes to fully indemnify the Authority from and against all losses and claims arising from the Contractor's failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.

Part V  
**Force Majeure and Termination**



## ARTICLE 19

### **FORCE MAJEURE**

#### **19.1 Force Majeure**

As used in this Agreement, the expression “**Force Majeure**” or “**Force Majeure Event**” shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined in Clauses 19.2, 19.3 and 19.4 respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the “**Affected Party**”) of its obligations under this Agreement and which act or event (a) is beyond the reasonable control of the Affected Party, and (b) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (c) has Material Adverse Effect on the Affected Party.

#### **19.2 Non-Political Event**

A Non-Political Event shall mean one or more of the following acts or events:

- (a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- (b) strikes or boycotts (other than those involving the Contractor, Sub-contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Railway Project for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 10 (ten) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 19.3;
- (c) any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;
- (d) any judgement or order of any court of competent jurisdiction or statutory authority made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority; or (v) breach of its obligations by the Contractor under its sub-contracts;
- (e) the discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or

- (f) any event or circumstances of a nature analogous to any of the foregoing.

### **19.3 Indirect Political Event**

An Indirect Political Event shall mean one or more of the following acts or events:

- (a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- (b) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 10 (ten) days in an Accounting Year;
- (c) any civil commotion, boycott or political agitation which prevents construction of the Railway Project by the Contractor for an aggregate period exceeding 10 (ten) days in an Accounting Year;
- (d) failure of the Authority to permit the Contractor to continue with its Construction Works, with or without modifications, in the event of stoppage of such work after discovery of any geological or archaeological finds;
- (e) any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;
- (f) any Indirect Political Event that causes a Non-Political Event; or
- (g) any event or circumstances of a nature analogous to any of the foregoing.

### **19.4 Political Event**

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- (a) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Clause 17.13;
- (b) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub-Contractors;
- (c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub-contractor's inability or

failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit;

- (d) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event; or
- (e) any event or circumstances of a nature analogous to any of the foregoing.

## **19.5 Duty to report Force Majeure Event**

19.5.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

- (a) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article 19 with evidence in support thereof;
- (b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
- (c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
- (d) any other information relevant to the Affected Party's claim.

19.5.2 The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.

19.5.3 For so long as the Affected Party continues to claim to be affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause 19.5.1, and such other information as the other Party may reasonably request the Affected Party to provide.

## **19.6 Effect of Force Majeure Event on the Agreement**

19.6.1 Upon the occurrence of any Force Majeure

- (a) prior to the Appointed Date, both Parties shall bear their respective Force Majeure costs.

- (b) after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the “**Force Majeure costs**”) shall be allocated and paid as follows:
- (i) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;
  - (ii) upon occurrence of an Indirect Political Event, all Force Majeure costs attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Contractor, and to the extent Force Majeure costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Authority to the Contractor for the Force Majeure events; and
  - (iii) upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the Authority to the Contractor.

For the avoidance of doubt, Force Majeure costs may include costs directly attributable to the Force Majeure Event, but shall not include debt repayment obligations, if any, of the Contractor.

- 19.6.2 Save and except as expressly provided in this Article 19, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.
- 19.6.3 Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor’s obligations is affected on account of the Force Majeure Event or its subsisting effects, as may be determined by the Authority’s Engineer.
- 19.6.4 Force Majeure costs for any event which results in any offsetting compensation being payable to the Contractor by or on behalf of its sub-contractors shall be reduced by such amounts that are payable to the Contractor by its Sub-contractors.

## **19.7 Termination Notice for Force Majeure Event**

If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 19, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before



issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

### **19.8 Termination Payment for Force Majeure Event**

19.8.1 In the event of this Agreement being terminated on account of a Non-Political Event, the Termination Payment shall be an amount equal to the sum payable under Clause 21.5.

19.8.2 If Termination is on account of an Indirect Political Event, the Termination Payment shall include:

- (a) any sums due and payable under Clause 21.5; and
- (b) the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for use in Construction, only if such Plant and Materials are in conformity with the Specifications and Standards;

19.8.3 If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Contractor in an amount that would be payable under Clause 21.6.2 as if it were an Authority Default.

### **19.9 Dispute resolution**

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/ or excuse on account of such Force Majeure Event.

### **19.10 Excuse from performance of obligations**

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

- (a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
- (b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and

- (c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

## ARTICLE 20

### **SUSPENSION OF CONTRACTOR'S RIGHTS**

#### **20.1 Suspension upon Contractor Default**

Upon occurrence of a Contractor Default, the Authority shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (a) suspend carrying out of the Works or any part thereof, and (b) carry out such Works itself or authorise any other person to exercise or perform the same on its behalf during such suspension (the “**Suspension**”). Suspension hereunder shall be effective forthwith upon issue of notice by the Authority to the Contractor and may extend up to a period not exceeding 90 (ninety) days from the date of issue of such notice.

#### **20.2 Authority to act on behalf of the Contractor**

During the period of Suspension hereunder, all rights and liabilities vested in the Contractor in accordance with the provisions of this Agreement shall continue to vest in the Contractor and all things done or actions taken, including expenditure incurred by the Authority for discharging the obligations of the Contractor under and in accordance with this Agreement shall be deemed to have been done or taken for and on behalf of the Contractor and the Contractor undertakes to indemnify the Authority for all costs incurred during such period. The Contractor hereby licences and sub-licences respectively, the Authority or any other person authorised by it under Clause 20.1 to use during Suspension, all Intellectual Property belonging to or licenced to the Contractor with respect to the Railway Project and its design, engineering, construction and maintenance, and which is used or created by the Contractor in performing its obligations under the Agreement.

#### **20.3 Revocation of Suspension**

20.3.1 In the event that the Authority shall have rectified or removed the cause of Suspension within a period not exceeding 60 (sixty) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Authority may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

20.3.2 Upon the Contractor having cured the Contractor Default within a period not exceeding 60 (sixty) days from the date of Suspension, the Authority shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement.

## **20.4 Termination**

- 20.4.1 At any time during the period of Suspension under this Article 20, the Contractor may by notice require the Authority to revoke the Suspension and issue a Termination Notice. The Authority shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 21 as if it is a Contractor Default under Clause 21.1.
- 20.4.2 Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90 (ninety) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, *mutatis mutandis*, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Contractor Default.

ARTICLE 21  
**TERMINATION**

**21.1 Termination for Contractor Default**

21.1.1 Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Contractor fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 (sixty) days, the Contractor shall be deemed to be in default of this Agreement (the “**Contractor Default**”), unless the default has occurred as a result of any breach of this Agreement by the Authority or due to Force Majeure. The defaults referred to herein shall include the following:

- (a) The Contractor fails to provide, extend or replenish, as the case may be, the Performance Security in accordance with this Agreement;
- (b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with Clause 7.3, the Contractor fails to cure, within a Cure Period of 30 (thirty) days, the Contractor Default for which the whole or part of the Performance Security was appropriated;
- (c) the Contractor does not achieve the latest outstanding Project Milestone due in accordance with the provisions of Schedule-I, subject to any Time Extension, and continues to be in default for 45 (forty five) days;
- (d) the Contractor abandons or manifests intention to abandon the construction of the Railway Project without the prior written consent of the Authority;
- (e) the Contractor fails to proceed with the Works in accordance with the provisions of Clause 10.1 or stops Works for 30 (thirty) days without reflecting the same in the current programme and such stoppage has not been authorised by the Authority’s Engineer;
- (f) the Project Completion Date does not occur within the period specified in Schedule-I for the Scheduled Completion Date, or any extension thereof;
- (g) failure to complete the Punch List items within the periods stipulated therefor in Clause 12.3;
- (h) the Contractor fails to rectify any Defect, the non rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Authority’s Engineer;
- (i) the Contractor subcontracts the Works or any part thereof in violation of this Agreement or assigns any part of the Works without the prior approval of the Authority;
- (j) the Contractor creates any Encumbrance in breach of this Agreement;

- (k) an execution levied on any of the assets of the Contractor has caused a Material Adverse Effect ;
- (l) the Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Contractor or for the whole or material part of its assets that has a material bearing on the Project;
- (m) the Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect;
- (n) a resolution for winding up of the Contractor is passed, or any petition for winding up of the Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Contractor is ordered to be wound up by a court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Contractor are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Contractor under this Agreement; and provided that:
  - (i) the amalgamated or reconstructed entity has the capability and experience necessary for the performance of its obligations under this Agreement; and
  - (ii) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and has a credit worthiness at least as good as that of the Contractor as at the Appointed Date;
- (o) any representation or warranty of the Contractor herein contained which is, as of the date hereof, found to be materially false or the Contractor is at any time hereafter found to be in breach thereof;
- (p) the Contractor submits to the Authority any statement, notice or other document, in written or electronic form, which has a material effect on the Authority's rights, obligations or interests and which is false in material particulars;
- (q) the Contractor has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement;
- (r) the Contractor has failed to make any payment to the Authority within the period specified in this Agreement;
- (s) the Contractor issues a Termination Notice in violation of the provisions of this Agreement; or
- (t) the Contractor commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the Authority.

- 21.1.2 Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Contractor Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Contractor; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Contractor of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Contractor to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.
- 21.1.3 After termination of this Agreement for Contractor Default, the Authority may complete the Works and/or procure its completion through any other entity. The Authority and such entity may, for this purpose, use any Materials, Plant and equipment, Contractor's documents and other design documents made by or on behalf of the Contractor.

## **21.2 Termination for Authority Default**

- 21.2.1 In the event that any of the defaults specified below shall have occurred, and the Authority fails to cure such default within a Cure Period of 90 (ninety) days or such longer period as has been expressly provided in this Agreement, the Authority shall be deemed to be in default of this Agreement (the "**Authority Default**") unless the default has occurred as a result of any breach of this Agreement by the Contractor or due to Force Majeure. The defaults referred to herein shall include:
- (a) the Authority commits a material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Contractor;
  - (b) the Authority has failed to make payment of any amount due and payable to the Contractor within the period specified in this Agreement;
  - (c) the Authority has failed to provide, within a period of 180 (one hundred and eighty) days from the Appointed Date, the environmental clearances and forest clearances required for construction of the Railway Project;
  - (d) the Authority repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement; or
  - (e) the Authority's Engineer fails to issue the relevant Interim Payment Certificate within 60 (sixty) days after receiving a statement and supporting documents.
- 21.2.2 Without prejudice to any other right or remedy which the Contractor may have under this Agreement, upon occurrence of an Authority Default, the Contractor shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority; provided that before issuing the Termination Notice, the Contractor shall by a notice inform the Authority of its intention to issue the Termination Notice and grant 15 (fifteen) days to the

Authority to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

### **21.3 Termination for Authority's convenience**

Notwithstanding anything hereinabove, the Authority may terminate this Agreement for its own convenience. The termination shall take effect 30 (thirty) days from the date of notice hereunder and shall be deemed to be Termination on account of Authority Default.

### **21.4 Requirements after Termination**

Upon Termination of this Agreement in accordance with the provisions of this Article 21, the Contractor shall comply with and conform to the following:

- (a) deliver to the Authority all Plant and Materials which shall have become the property of the Authority under this Article 21;
- (b) deliver all relevant records, reports, Intellectual Property and other licences pertaining to the Works, other design documents and in case of Termination occurring after the Provisional Certificate has been issued, the “**as built**” Drawings for the Works;
- (c) transfer and/or deliver all Applicable Permits to the Authority to the extent permissible under Applicable Laws; and
- (d) vacate the Site within 15 (fifteen) days.

### **21.5 Valuation of Unpaid Works**

21.5.1 Within a period of 45 (forty-five) days after Termination under Clause 21.1, 21.2 or 21.3, as the case may be, has taken effect, the Authority's Engineer shall proceed in accordance with Clause 16.5 to determine as follows the valuation of unpaid Works (the “**Valuation of Unpaid Works**”):

- (a) value of the completed stage of the Works, less payments already made; and
- (b) reasonable value of the partially completed stages of works as on the date of Termination, only if such works conform with the Specifications and Standards.

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement; and (ii) all taxes due to be deducted at source.

21.5.2 The Valuation of Unpaid Works shall be communicated to the Authority, with a copy to the Contractor, within a period of 45 (forty five) days from the date of Termination.



## **21.6 Termination Payment**

21.6.1 Upon Termination on account of Contractor Default under Clause 21.1, the Authority shall:

- (a) encash and appropriate the Performance Security or Retention Money, whichever is more, and in the event the Contractor has failed to replenish or extend the Performance Security, claim the amount stipulated in Clause 7.1.1, as agreed pre-determined compensation to the Authority for any losses, delays and cost of completing the Works, if any;
- (b) encash and appropriate the bank guarantee, if any, to the extent of the outstanding Advance Payment and interest thereon; and
- (c) pay to the Contractor, by way of Termination Payment, an amount equivalent to the Valuation of Unpaid Works after adjusting any other sums payable or recoverable, as the case may be, in accordance with the provisions of this Agreement,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all taxes due to be deducted at source.

21.6.2 Upon Termination on account of an Authority Default under Clause 21.2 or for Authority's convenience under Clause 21.3, the Authority shall:

- (a) return the Performance Security and Retention Money forthwith;
- (b) encash and appropriate the bank guarantee, if any, to the extent of the outstanding Advance Payment, including interest thereon; and
- (c) pay to the Contractor, by way of Termination Payment, an amount equal to:
  - (i) Valuation of Unpaid Works;
  - (ii) the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for its use, only if such Plant and Materials are in conformity with the Specifications and Standards;
  - (iii) the reasonable cost of temporary works, as determined by the Authority's Engineer; and
  - (iv) 10% (ten per cent) of the cost of the Works that are not commenced or not completed,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all taxes due to be deducted at source.

21.6.3 Termination Payment shall become due and payable to the Contractor within 30 (thirty) days of a demand being made by the Contractor to the Authority with the necessary particulars, after the Valuation of Unpaid Works has been

communicated by the Authority's Engineer, and in the event of any delay, the Authority shall pay interest at the Bank Rate plus 3% (three per cent), calculated at quarterly rests, on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Authority of its payment obligations in respect thereof hereunder.

21.6.4 The Contractor expressly agrees that Termination Payment under this Article 21 shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

## **21.7 Other rights and obligations of the Parties**

Upon Termination for any reason whatsoever

- (a) the property and ownership in all Materials, Plant and Works and the Railway Project shall, as between the Contractor and the Authority, vest in the Authority in whole, free from any and all Encumbrances; provided that the foregoing shall be without prejudice to Clause 21.6;
- (b) the risk of loss or damage to any Materials, Plant or Works and the care and custody thereof shall pass from the Contractor to the Authority; and
- (c) the Authority shall be entitled to restrain the Contractor and any person claiming through or under the Agreement from entering upon the Site or any part of the Project except for taking possession of materials, stores, implements, construction plants and equipment of the Contractor, which have not been vested in the Authority in accordance with the provisions of this Agreement.

## **21.8 Survival of rights**

Notwithstanding anything to the contrary contained in this Agreement any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

Part VI  
**Other Provisions**



## ARTICLE 22

### ASSIGNMENT AND CHARGES

#### **22.1 Restrictions on assignment and charges**

This Agreement shall not be assigned by the Contractor to any person, save and except with the prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.

#### **22.2 Hypothecation of Materials or Plant**

Notwithstanding the provisions of Clause 22.1, the Contractor may pledge or hypothecate to its lenders, any Materials or Plant prior to their incorporation in the Works. Further, the Contractor may, by written notice to the Authority, assign its right to receive payments under this Agreement either absolutely or by way of charge, to any person providing financing to the Contractor in connection with the performance of the Contractor's obligations under this Agreement. The Contractor acknowledges that any such assignment by the Contractor shall not relieve the Contractor from any obligations, duty or responsibility under this Agreement. For the avoidance of doubt, all Materials and Plants shall, upon their incorporation into Works, be free from any and all Encumbrances without the Authority being required to make any payment to any person on account of any costs, compensation, expenses and charges for such Materials, Plants and Works.

## ARTICLE 23

### LIABILITY AND INDEMNITY

#### 23.1 General indemnity

The Contractor shall indemnify, defend, save and hold harmless the Authority and its officers, servants, agents, Government Instrumentalities and Government owned and/or controlled entities/enterprises, (the “**Authority Indemnified Persons**”) against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Contractor of any of its obligations under this Agreement or from any negligence under the Agreement, including any errors or deficiencies in the design documents, or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Authority Indemnified Persons.

#### 23.2 Indemnity by the Contractor

23.2.1 Without limiting the generality of Clause 23.1, the Contractor shall fully indemnify, hold harmless and defend the Authority and the Authority Indemnified Persons from and against any and all loss and/or damages arising out of or with respect to:

- (a) failure of the Contractor to comply with Applicable Laws and Applicable Permits;
- (b) payment of taxes required to be made by the Contractor in respect of the income or other taxes of the Sub-contractors, suppliers and representatives; or
- (c) non-payment of amounts due as a result of Materials or services furnished to the Contractor or any of its Sub-contractors which are payable by the Contractor or any of its Sub-contractors.

23.2.2 Without limiting the generality of the provisions of this Article 23, the Contractor shall fully indemnify, hold harmless and defend the Authority Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Authority Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other Intellectual Property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Contractor or by the Sub-contractors in performing the Contractor’s obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Contractor shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure

the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Railway Project, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Contractor shall promptly make every reasonable effort to secure for the Authority a licence, at no cost to the Authority, authorising continued use of the infringing work. If the Contractor is unable to secure such licence within a reasonable time, the Contractor shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

### **23.3 Notice and contest of claims**

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Agreement (the “**Indemnified Party**”) it shall notify the other Party (the “**Indemnifying Party**”) within 15 (fifteen) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

### **23.4 Defence of claims**

- 23.4.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Agreement, the Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.
- 23.4.2 If the Indemnifying Party has exercised its rights under Clause 23.3, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the

Indemnifying Party (which consent shall not be unreasonably withheld or delayed).

23.4.3 If the Indemnifying Party exercises its rights under Clause 23.3, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Indemnified Party, when and as incurred, unless:

- (a) the employment of counsel by such party has been authorised in writing by the Indemnifying Party;
- (b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defence of such action;
- (c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defence of such action and shall have been so notified by the Indemnified Party; or
- (d) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
  - (i) that there may be specific defences available to it which are different from or additional to those available to the Indemnifying Party; or
  - (ii) that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this Clause 23.4.3 shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defence of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

### **23.5 No consequential claims**

Notwithstanding anything to the contrary contained in this Article 23, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

### **23.6 Survival on Termination**

The provisions of this Article 23 shall survive Termination.



ARTICLE 24  
**DISPUTE RESOLUTION**

**24.1 Dispute Resolution**

24.1.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “**Dispute**”) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 24.2.

24.1.2 The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

**24.2 Conciliation**

In the event of any Dispute between the Parties, either Party may call upon an officer of the Authority, not below the rank of General Manager, or such other person as the Parties may mutually agree upon (the “**Conciliator**”) to conciliate and assist the Parties in arriving at an amicable settlement thereof. Failing conciliation by the Conciliator or without the intervention of the Conciliator, either Party may require such Dispute to be referred to the Member of the Authority and the Chairman of the Board of Directors of the Contractor for amicable settlement, and upon such reference, the said persons shall meet no later than 7 (seven) business days from the date of reference to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the 7 (seven) business day period or the Dispute is not amicably settled within 15 (fifteen) business days of the meeting or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) business days of the notice in writing referred to in Clause 24.1.1 or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 24.3.

**24.3 Arbitration**

24.3.1 Any Dispute which is not resolved amicably by conciliation, as provided in Clause 24.2, shall be finally decided by reference to arbitration by an arbitral tribunal constituted in accordance with Clause 24.3.2. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the “**Rules**”), or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996. The place of such arbitration shall be the capital of the State and the language of arbitration proceedings shall be English.

- 24.3.2 There shall be an arbitral tribunal comprising three arbitrators, of whom each Party shall select one, and the third arbitrator shall be appointed by the two arbitrators so selected and in the event of disagreement between the two arbitrators, the appointment shall be made in accordance with the Rules.
- 24.3.3 The arbitral tribunal shall make a reasoned award (the “**Award**”). Any Award made in any arbitration held pursuant to this Article 24 shall be final and binding on the Parties as from the date it is made, and the Contractor and the Authority agree and undertake to carry out such Award without delay.
- 24.3.4 The Contractor and the Authority agree that an Award may be enforced against the Contractor and/or the Authority, as the case may be, and their respective assets wherever situated.
- 24.3.5 This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.
- 24.3.6 In the event the Party against whom the Award has been granted challenges the Award for any reason in a court of law, it shall make an interim payment to the other Party for an amount equal to 75% (seventy five per cent) of the Award, pending final settlement of the Dispute. The aforesaid amount shall be paid forthwith upon furnishing an irrevocable Bank Guarantee for a sum equal to the aforesaid amount. Upon final settlement of the Dispute, the aforesaid interim payment shall be adjusted and any balance amount due to be paid or returned, as the case may be, shall be paid or returned with interest calculated at the rate of 10% (ten per cent) per annum from the date of interim payment to the date of final settlement of such balance.

#### **24.4 Adjudication by a tribunal**

In the event of constitution of a statutory tribunal or other forum with powers to adjudicate upon disputes between the Contractor and the Authority, all Disputes arising after such constitution shall, instead of reference to arbitration under Clause 24.3, be adjudicated upon by such tribunal or other forum in accordance with Applicable Laws and all references to Dispute Resolution Procedure shall be construed accordingly.

ARTICLE 25  
**MISCELLANEOUS**

**25.1 Governing law and jurisdiction**

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts in the State shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

**25.2 Waiver of immunity**

Each Party unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

**25.3 Delayed payments**

The Parties hereto agree that payments due from one Party to the other Party under the provisions of this Agreement shall be made within the period set forth therein, and if no such period is specified, within 30 (thirty) days of receiving a demand along with the necessary particulars. In the event of delay beyond such period, the defaulting Party shall pay interest for the period of delay calculated at a rate equal to Bank Rate plus 3% (three per cent), save and except as otherwise specified in this Agreement. All interest payment under this Agreement shall, save and except as otherwise specified, be calculated at quarterly rests, and recovery thereof shall be without prejudice to the rights of the Parties under this Agreement including Termination thereof.

## **25.4 Waiver**

25.4.1 Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:

- (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
- (c) shall not affect the validity or enforceability of this Agreement in any manner.

25.4.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

## **25.5 Liability for review of Documents and Drawings**

Except to the extent expressly provided in this Agreement:

- (a) no review, comment or approval by the Authority or the Authority's Engineer of any Document or Drawing submitted by the Contractor nor any observation or inspection of the construction of the Railway Project nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Agreement, Applicable Laws and Applicable Permits; and
- (b) the Authority shall not be liable to the Contractor by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

## **25.6 Exclusion of implied warranties etc.**

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

## **25.7 Survival**

25.7.1 Termination shall:

- (a) not relieve the Contractor or the Authority, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

25.7.2 All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

## **25.8 Entire Agreement**

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the Request for Qualification or Request for Proposals and bid submissions, as the case may be, shall be deemed to form part of this Agreement and treated as such.

## **25.9 Severability**

If for any reason whatsoever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

## **25.10 No partnership**

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

### **25.11 Third parties**

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

### **25.12 Successors and assigns**

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

### **25.13 Notices**

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- (a) in the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside the city specified in Sub-clause (b) below may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the person as the Contractor may from time to time designate by notice to the Authority;

{ Attention:  
Designation:  
Address:  
Fax No:  
Email; }

- (b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the person named below with a copy delivered to the Authority Representative or such other person as the Authority may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in the same city as the Authority, it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier;

{ Designation:  
Address:  
Fax No:  
Email; }

- (c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in

the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

#### **25.14 Language**

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

#### **25.15 Counterparts**

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

#### **25.16 Confidentiality**

The Parties shall treat the details of this Agreement as private and confidential, except to the extent necessary to carry out obligations under it or to comply with Applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous consent of the Authority.

#### **25.17 Copyright and Intellectual Property rights**

25.17.1 As between the Parties, the Contractor shall retain the copyright and other Intellectual Property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor. The Contractor shall be deemed (by signing this Agreement) to give to the Authority a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by this Agreement, including replacements of any computers supplied by the Contractor:

25.17.2 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used,

copied or communicated to a third party by (or on behalf of) the Authority for purposes other than those permitted under this Clause 25.17.

25.17.3As between the Parties, the Authority shall retain the copyright and other Intellectual Property rights in this Agreement and other documents made by (or on behalf of) the Authority. The Contractor may, at its cost, copy, use, and obtain communication of these documents for the purposes of this Agreement. They shall not, without the Authority's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the contract.

## **25.18 Limitation of Liability**

25.18.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Agreement.

25.18.2 The total liability of one Party to the other Party under and in accordance with the provisions of this Agreement, save and except as provided in Articles 21 and 23, shall not exceed the Contract Price. For the avoidance of doubt, this Clause shall not limit the liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.



ARTICLE 26  
**DEFINITIONS**

**26.1 Definitions**

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

**“Accounting Year”** means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

**“Advance Payment”** shall have the meaning as set forth in Clause 17.2.1;

**“Affected Party”** shall have the meaning as set forth in Clause 19.1;

**“Affiliate”** means, in relation to either Party {and/or Members}, a person who controls, is controlled by, or is under the common control with such Party {or Member} (as used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

**“Agreement”** means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

**“Applicable Laws”** means all laws, brought into force and effect by GOI or the State Government(s) including rules, regulations and notifications made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

**“Applicable Permits”** means all clearances, licences, permits, authorisations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the construction of the Railway Project during the subsistence of this Agreement;

**“Appointed Date”** means that date which is later of:

- (a) the 15<sup>th</sup> day of the date of this Agreement,
- (b) the date on which the Contractor has delivered the Performance Security in accordance with the provisions of Article 7;
- (c) the date on which the Authority has provided the Right of Way on at least 90% (ninety per cent) of the total length of the Railway Project in conformity

with the provisions of Clause 8.2; and

- (d) the date on which all Authority has provided to the Contractor the environmental and forest clearances for sections of the Railway Project comprising 90% of the length thereof in accordance with the provisions of Clause 4.3;

“**Arbitration Act**” means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

“**Authority**” shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

“**Authority Default**” shall have the meaning as set forth in Clause 21.2.1;

“**Authority’s Engineer**” shall have the meaning as set forth in Clause 16.1.1;

“**Authority Representative**” means such person or persons as may be authorised in writing by the Authority to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfil any obligations of the Authority under this Agreement;

“**Bank**” means a bank incorporated in India and having a minimum net worth of Rs. 1,000 crore (Rupees one thousand crore) or any other bank acceptable to the Authority;

“**Bank Rate**” means the rate of interest specified by the Reserve Bank of India from time to time in pursuance of section 49 of the Reserve Bank of India Act, 1934 or any replacement of such Bank Rate for the time being in effect;

“**Base Date**” means the last date of that calendar month, which date precedes the Bid Due Date by at least 28 (twenty eight) days;

“**Bid**” means the documents in their entirety comprised in the bid submitted by the selected bidder in response to the Request for Proposals in accordance with the provisions thereof and “**Bids**” shall mean the bids submitted by any and all pre-qualified bidders;

“**Bid Security**” means the bid security provided by the Contractor to the Authority in accordance with the Request for Proposals, and which is to remain in force until substituted by the Performance Security;

“**CPI (IW)**” means the Consumer Price Index for Industrial Workers as published by the Labour Bureau, Government of India and shall include any index which substitutes the CPI (IW), and any reference to CPI (IW) shall, unless the context otherwise requires, be construed as a reference to the CPI (IW) published for the period ending with the preceding month;

“**Change in Law**” means the occurrence of any of the following after the Base Date:

- (a) the enactment of any new Indian law;

- (b) the repeal, modification or re-enactment of any existing Indian law;
- (c) the commencement of any Indian law which has not entered into effect until the Base Date;
- (d) a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Base Date; or
- (e) any change in the rates of any of the Taxes or royalties that have a direct effect on the Project;

**“Change of Scope”** shall have the meaning as set forth in Article 13;

**“Change of Scope Notice”** shall have the meaning as set forth in Clause 13.2.1;

**“Change of Scope Order”** shall have the meaning as set forth in Clause 13.2.4;

**“Completion Certificate”** shall have the meaning as set forth in Clause 12.4;

{**“Consortium”** means the consortium of entities which have formed a joint venture for implementation of this Project;}<sup>§</sup>

**“Construction”** shall have the meaning as set forth in Clause 1.2.1 (f);

**“Construction Period”** means the period commencing from the Appointed Date and ending on the date of the Completion Certificate;

**“Contract Price”** means the amount as specified in Clause 17.1.1;

**“Contractor”** shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

**“Contractor Default”** shall have the meaning as set forth in Clause 21.1;

**“Cure Period”** means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

- (a) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
- (b) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and

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<sup>§</sup> This definition may be omitted if the Contractor is not a Consortium.

(c) not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Contractor requires any reasonable action by the Contractor that must be approved by the Authority or the Authority's Engineer hereunder, the applicable Cure Period shall be extended by the period taken by the Authority or the Authority's Engineer to accord their approval;

**"Damages"** shall have the meaning as set forth in paragraph (w) of Clause 1.2.1;

**"Defect"** means any defect or deficiency in Construction of the Works or any part thereof, which does not conform with the Specifications and Standards;

**"Defects Liability Period"** shall have the meaning as set forth in Clause 15.1.1;

**"Dispute"** shall have the meaning as set forth in Clause 24.1.1;

**"Dispute Resolution Procedure"** means the procedure for resolution of Disputes as set forth in Article 24;

**"Drawings"** means all of the drawings, calculations and documents pertaining to the Railway Project as set forth in Schedule-H, and shall include 'as built' drawings of the Railway Project;

**"Document" or "Documentation"** means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

**"Emergency"** means a condition or situation that is likely to endanger the safety or security of the individuals on or about the Railway Project, including Users thereof, or which poses an immediate threat of material damage to the Works or any of the Project Assets;

**"Encumbrances"** means, in relation to the Railway Project, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Railway Project, where applicable herein but excluding utilities referred to in Clause 9.1;

**"EPC"** means engineering, procurement and construction;

**"Final Payment Certificate"** shall have the meaning as set forth in Clause 17.12.1;

**"Final Payment Statement"** shall have the meaning as set forth in Clause 17.10.1;

**"Force Majeure" or "Force Majeure Event"** shall have the meaning ascribed to it in Clause 19.1;

**"GOI" or "Government"** means the Government of India;

**"Good Industry Practice"** means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally

and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner;

**“Government Instrumentality”** means any department, division or sub-division of the Government or the State Government and includes any commission, board, authority, agency or municipal and other local authority or statutory body, including panchayat, under the control of the Government or the State Government, as the case may be, and having jurisdiction over all or any part of the Railway Project or the performance of all or any of the services or obligations of the Contractor under or pursuant to this Agreement;

**“Important Bridge”** means a bridge having a linear waterway of 300 metres or a total water way of 1000 sqm or more;

**“Indemnified Party”** means the Party entitled to the benefit of an indemnity pursuant to Article 23 ;

**“Indemnifying Party”** means the Party obligated to indemnify the other Party pursuant to Article 23;

**“Indirect Political Event”** shall have the meaning as set forth in Clause 19.3;

**“Insurance Cover”** means the aggregate of the maximum sums insured under the insurances taken out by the Contractor pursuant to Article 18, and includes all insurances required to be taken out by the Contractor under Clauses 18.1 and 18.9 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;

**“Intellectual Property”** means all patents, trade marks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

**“Interim Payment Certificate”** or **“IPC”** means the interim payment certificate issued by the Authority’s Engineer for payment to the Contractor in respect of Contractor’s claims for payment raised in accordance with the provisions of this Agreement;

**“LOA”** or **“Letter of Acceptance”** means the letter of acceptance referred to in Recital (E);

{**“Lead Member”** shall, in the case of a consortium, mean the member of such consortium who shall have the authority to bind the contractor and each member of

the Consortium; and shall be deemed to be the Contractor for the purposes of this Agreement; }<sup>s</sup>

“**Maintenance Manual**” shall have the meaning ascribed to it in Clause 10.6;

“**Major Bridge**” means a bridge having a linear waterway of 18 metres or more or which has a clear opening of 12 metres or more in spans;

“**Manuals**” shall mean the manuals specified in Schedule D

“**Material Adverse Effect**” means a material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

“**Materials**” are all the supplies used by the Contractor for incorporation in the Works or for the maintenance of the Railway Project;

“**Minor Bridge**” means a bridge not covered by the definition of Major Bridge or Important Bridge;

“**Non-Political Event**” shall have the meaning as set forth in Clause 19.2;

“**Parties**” means the parties to this Agreement collectively and “**Party**” shall mean any of the parties to this Agreement individually;

“**Performance Security**” shall have the meaning as set forth in Clause 7.1.1;

“**Plant**” means the apparatus and machinery intended to form or forming part of the Works;

“**Political Event**” shall have the meaning as set forth in Clause 19.4;

“**Power Block**” means the length of the railway line between two railway stations, on which the overhead equipment (OHE) is de-energised and earthed to enable the Contractor to execute construction or maintenance works;

“**Programme**” shall have the meaning as set forth in Clause 10.1.3;

“**Project**” means the construction and maintenance of the Railway Project in accordance with the provisions of this Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Project;

“**Project Assets**” means all physical and other assets relating to (a) tangible assets such as works and equipment including [electrical systems, communication systems, rest areas, relief centres, maintenance depots and administrative offices;] and (b) Project Facilities situated on the Site;

**“Project Completion Date”** means the date on which the last Provisional Certificate is issued;

**“Project Completion Schedule”** means the progressive Project Milestones set forth in Schedule-I for completion of the Railway Project on or before the Scheduled Completion Date;

**“Project Facilities”** means all the amenities and facilities to be constructed on the Site, as described in Schedule-C;

**“Project Milestone”** means the project milestone set forth in Schedule-I and includes the Scheduled Completion Date;

**“Proof Consultant”** shall have the meaning as set forth in Clause 10.2.2;

**“Provisional Certificate”** shall have the meaning as set forth in Clause 12.2.1;

**“Punch List”** shall have the meaning as set forth in Clause 12.2.1;

**“Quality Assurance Plan”** or **“QAP”** shall have the meaning as set forth in Clause 11.2.1;

**“Railway Project”** means the Works specified in this Agreement on the railway line from \*\*\* to \*\*\* having a length of \*\*\* kms in \*\*\* Zone;

**“Re.”**, **“Rs.”** or **“Rupees”** or **“Indian Rupees”** means the lawful currency of the Republic of India;

**“Request for Proposals”** or **“RFP”** shall have the meaning as set forth in Recital ‘D’;

**“Request for Qualification”** or **“RFQ”** shall have the meaning as set forth in Recital ‘C’;

**“Retention Money”** shall have the meaning set forth in Clause 7.5.1;

**“Right of Way”** means the constructive possession of the Site free from encroachments and encumbrances, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction of the Railway Project in accordance with this Agreement;

**“RKM”** means the Route Kilometer

**“Safety Consultant”** shall have the meaning as set forth in Clause 10.1.5;

**“Scheduled Completion Date”** shall be the date as set forth in Clause 10.3.1;

**“Scope of the Project”** shall have the meaning as set forth in Clause 2.1;

**“Section”** means the portion of the railway line between two block stations;

**“Site”** shall have the meaning as set forth in Clause 8.1;

**“Specifications and Standards”** means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Railway Project, as set forth in Schedule-D, and any modifications thereof, or additions thereto, as included in the design and engineering for the Railway Project submitted by the Contractor to, and expressly approved by, the Authority;

**“Stage Payment Statement”** shall have the meaning as set forth in Clause 17.4;

**“State”** means the State or the Union Territory, as the case may be, in which the headquarters of the Authority are situate and **“State Government”** means the government of that State or Union Territory;

**“Structures”** means an elevated railway line or a flyover, as the case may be;

**“Sub-contractor”** means any person or persons to whom a part of the Works has been subcontracted by the Contractor and the permitted legal successors in title to such person, but not an assignee to such person;

**“Suspension”** shall have the meaning as set forth in Clause 20.1;

**“Taxes”** means any Indian taxes including excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, Materials, equipment and services incorporated in and forming part of the Railway Project charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

**“Termination”** means the expiry or termination of this Agreement;

**“Termination Notice”** means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

**“Termination Payment”** means the amount payable by either Party to the other upon Termination in accordance with Article 21;

**“Terms of Reference” or “TOR”** shall have the meaning as set forth in Clause 16.2.1;

**“Tests”** means the tests set forth in Schedule-J to determine the completion of Works in accordance with the provisions of this Agreement;

**“Time Extension”** shall have the meaning as set forth in Clause 10.4.1;

**“TKM”** means the Track Kilometer

**“Traffic Block”** means the length of railway line between two railway stations, on which traffic is blocked and OHE is de-energised to enable construction or maintenance works to be undertaken.

**“User”** means a person who travels or intends to travel on the Railway Project or any part thereof on any train or vehicle;



**“Valuation of Unpaid works”** shall have the meaning as set forth in Clause 21.5.1;

**“WPI”** means the wholesale price index for various commodities as published by the Ministry of Commerce and Industry, GOI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding month, which WPI may be substituted by such alternative index or indices as the Parties may by mutual consent determine; and

**“Works”** means all works including survey and investigation, design, engineering, procurement, construction, Plant, Materials, temporary works and other things necessary to complete the Railway Project in accordance with this Agreement.

**IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.**

SIGNED, SEALED AND

SIGNED, SEALED AND

DELIVERED

DELIVERED

For and on behalf of

For and on behalf of

THE AUTHORITY by:

THE CONTRACTOR by:

(Signature)

(Signature)

(Name)

(Name)

(Designation)

(Designation)

In the presence of:

- 1.
- 2.

{ COUNTERSIGNED and accepted by:

Name and particulars of other members of the Consortium }



## **Schedules**



**SCHEDULE - A**  
*(See Clauses 2.1 and 8.1)*  
**SITE OF THE PROJECT**

**1 The Site**

- 1.1 Site of the Railway Project shall include the land, buildings, structures and track works as described in Annex-I of this Schedule-A.
- 1.2 The dates of handing over Right of Way to the Contractor are specified in Annex-II of this Schedule-A.
- 1.3 An inventory of the Site including the land, buildings, structures, track works, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority's Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2.1 of this Agreement.
- 1.4 The alignment plans of the Railway Project are specified in Annex-III.
- 1.5 The status of the environment clearances and forest clearances obtained or awaited is given in Annex IV.

Annex - I  
(Schedule-A)

**Site<sup>5</sup>**

[Note: Through suitable drawings and description in words, the land, buildings, structures and track works comprising the Site shall be specified briefly but precisely in this Annex-I.]

**1. Site**

The Site of the Railway Project comprises the Railway Lines as described below:

| <b>S. No</b>        | <b>Name of the Railway Line</b> | <b>Length in RKM</b> | <b>Length in TKM</b> | <b>Railway Zone</b> |
|---------------------|---------------------------------|----------------------|----------------------|---------------------|
| 1                   |                                 |                      |                      |                     |
| 2                   |                                 |                      |                      |                     |
| .....               |                                 |                      |                      |                     |
| <b>Total Length</b> |                                 |                      |                      |                     |

**2. Details of existing structures and facilities on adjoining railway track**

**2.1 Permanent Way**

Details of the Permanent Way on the Right of Way are:

| <b>S. No.</b> | <b>No. of railway line</b> | <b>km from</b> | <b>km to</b> | <b>Route km</b> | <b>Track km</b> | <b>Minimum and Maximum Implantation (if electrified)</b> | <b>Section</b> |
|---------------|----------------------------|----------------|--------------|-----------------|-----------------|--|----------------|
|               | <b>Double line</b>         |                |              |                 |                 |  |                |
|               | <b>Single Line</b>         |                |              |                 |                 |  |                |
|               |                            |                |              |                 |                 |  |                |

<sup>5</sup> The contents of this Annex-I may be suitably modified to reflect project-specific requirements.

## 2.2 Important Bridges

The Site includes the following Important Bridges:

| S. No. | Bridge No. and location (km) | Type of Structure |               |                | No. of Spans with span length (m) | Width (m) |
|--------|------------------------------|-------------------|---------------|----------------|-----------------------------------|-----------|
|        |                              | Foundation        | Sub-structure | Superstructure |                                   |           |
|        |                              |                   |               |                |                                   |           |

## 2.3 Major Bridges

The Site includes the following Major Bridges:

| S. No. | Bridge No. and location (km) | Type of Structure |               |                | No. of Spans with span length (m) | Width (m) |
|--------|------------------------------|-------------------|---------------|----------------|-----------------------------------|-----------|
|        |                              | Foundation        | Sub-structure | Superstructure |                                   |           |
|        |                              |                   |               |                |                                   |           |

## 2.4 Minor Bridges/culverts

The Site includes the following Minor Bridges and culverts:

| S. No. | Bridge No. and location (km) | Type of Structure |               |                | No. of Spans with span length (m) | Width of the bridge (m) |
|--------|------------------------------|-------------------|---------------|----------------|-----------------------------------|-------------------------|
|        |                              | Foundation        | Sub-structure | Superstructure |                                   |                         |
|        |                              |                   |               |                |                                   |                         |

## 2.5 Tunnels

| S. No. | Block Section | km from | km to | Remarks |
|--------|---------------|---------|-------|---------|
|        |               |         |       |         |

## 2.6 Railway Flyovers

The Site includes the following Railway Fly Over:

| S. No. | Block Section | Bridge No and location (Km) | Type of Structure |               |                 | No. of Spans with span length (m) | Width of the bridge (m) |
|--------|---------------|-----------------------------|-------------------|---------------|-----------------|-----------------------------------|-------------------------|
|        |               |                             | Foundati on       | Sub-structure | Super-structure |                                   |                         |
|        |               |                             |                   |               |                 |                                   |                         |

## 2.7 Road under-bridges (RUB)/ road over bridges (ROB)

The Site includes the following RUB (Road under railway line)/ ROB (road over railway line):

| S. No. | Block Section | Bridge No. and location (km) | Type of Structure |                 | No. of Spans with span length (m) | Width (m)/ height (m) | R O B / RUB |
|--------|---------------|------------------------------|-------------------|-----------------|-----------------------------------|-----------------------|-------------|
|        |               |                              | Foundati on       | Super-structure |                                   |                       |             |
|        |               |                              |                   |                 |                                   |                       |             |

## 2.8 Railway level crossings

The Site includes the following railway level crossings:

| S. No. | Block Section | Chainage | LC No | TVU's | L C Classification | Remarks |
|--------|---------------|----------|-------|-------|--------------------|---------|
|        |               |          |       |       |                    |         |

## 2.9 Railway stations on Railway Project

The Site includes the following railway stations



| S. No. | Station | C.L. km | Nos. of Lines | Station Building Area | Nos. of P.F. & Length | Remarks( Whether Jn. Station) |
|--------|---------|---------|---------------|-----------------------|-----------------------|-------------------------------|
|        |         |         |               |                       |                       |                               |

### 2.10 Railway yards

The Site includes the following railway yards:

| Sr. No. | Name of Yard | Number of Lines | Remarks |
|---------|--------------|-----------------|---------|
|         |              |                 |         |

### 2.11 Foot over bridges on Railway Project

The Site includes the following foot over bridges:

| S. No. | Station       | Chainage | Span/Nos. of Track | Remarks |
|--------|---------------|----------|--------------------|---------|
|        | Block Section |          |                    |         |
|        |               |          |                    |         |

### 2.12 Transmission lines crossing the Right of Way

The Site includes the following transmission lines crossing the Right of Way:

| S.No. | Block Section | Chainage | HT/LT (Specify KV) | OH/UG | Height above RL/ Depth below RL |
|-------|---------------|----------|--------------------|-------|---------------------------------|
|       |               |          |                    |       |                                 |

### 2.13 Underground power line crossing the Right of Way

The Site includes the following Underground Power Line Crossings

| Sr. No. | Location | System Voltage | Distance of Structure from centre of Track | Remarks |
|---------|----------|----------------|--|---------|
|         |          |                |  |         |

#### 2.14 Signalling infrastructure

The Site includes the following signalling infrastructure:

| S.No. | Station | Standard of Interlocking | Existing Signalling System (RRI/TB M Rly etc.) | Type of Signals (Single distant/ double distant/ colour light etc.) | Remarks |
|-------|---------|--------------------------|--|---|---------|
|       |         |                          |  |   |         |

#### 2.15 Telecommunication infrastructure

The Site includes the following telecommunication infrastructure:

| S.No. | Station | Control Phone | DOT | Any other Communication | Availability of OFC |
|-------|---------|---------------|-----|-------------------------|---------------------|
|       |         |               |     |                         |                     |

#### 2.16 [Any Other Structures]

[Provide details of other structures Feeding Post, Sub Station, SP, SSP etc., if any.]

Annex - II  
(Schedule-A)

**Dates for providing Right of Way**

The dates on which the Authority shall provide the Right of Way to the Contractor on different sections of the Site are specified below:

| Sl. No  | From km to km | Length<br>(km) | Width<br>(m) | Date of<br>Providing<br>Right of way |
|---|---------------|----------------|--------------|--------------------------------------|
| 1   | 2             | 3              | 4            | 5                                    |
| For OHE work<br>(a) Section<br>(b) Section<br>(c) Section                   |               |                |              |                                      |
| For Sub-Station work<br>(a)<br>(b)  |               |                |              |                                      |
| For Switching Posts<br>(a)<br>(b)   |               |                |              |                                      |
| For Signalling work<br>(a) Station....<br>(b) Station                       |               |                |              |                                      |
| Site for Service<br>Buildings, Tower<br>Wagon Sheds, Quarters<br>(a)<br>(b) |               |                |              |                                      |

Annex - III  
(Schedule-A)

**Sectioning Arrangement, Power Supply Diagram and Layout Plans**

The proposed sectioning arrangement of the Railway Electrification Project, Power Supply Diagram and Layout Plans are attached at the following pages of this Annex-III.

Annex - III  
(Schedule-A)

**Sectioning Arrangement**

The sectioning arrangement is given below:

Annex - III  
(Schedule-A)

**Power Supply Diagram**

The Power Supply Diagram is given below:

Annex - III  
(Schedule-A)

**Layout Plans**

The layout plans are given below:

Annex - IV  
(Schedule-A)

**Environment Clearances and Forest Clearances**

**1. Environment clearances<sup>6</sup>**

(a) The following environment clearances have been obtained:

\*\*\*

(b) The following environment clearances are awaited:

\*\*\*

**2. Forest clearances**

(a) The following forest clearances have been obtained:

\*\*\*

(b) The following forest clearances are awaited:

\*\*\*

—

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<sup>6</sup> If environmental clearance is not required, it may be clearly specified.



**SCHEDULE - B**

*(See Clause 2.1)*

**Development of the Railway Project**

**1 Development of the Railway Project**

Development of the Railway Project shall include design and construction of the Railway Project as described in Annex 1 to this Schedule-B and in Schedule-C.

**2 Specifications and Standards**

The Railway Project shall be designed and constructed in conformity with the Specifications and Standards specified in Schedule-D.

Annex - I  
(Schedule-B)

**Description of Railway Project<sup>7</sup>**

**Description of Railway Project**

*[Note: Description of the Project shall be given by the Authority in detail together with explanatory drawings (where necessary) to explain the Authority's requirements precisely in order to avoid subsequent changes in the Scope of the Project. The particulars that must be specified in this Schedule-B are listed below as per the requirements of the Specifications and Standards for construction and maintenance of Works, including signalling and telecommunication works and overhead equipment. If any standards, specifications or details are not given in the concerned manuals, the minimum design/construction requirements shall be specified in this Schedule. In addition to these particulars, all other essential project specific details, as required, should be provided in order to define the Scope of the Project clearly and precisely.]*

**1. Electrification of existing railway line**

**1.1 Overhead Equipment (OHE)**

[Specify scope of the OHE work]

**1.1.1 Regulated conventional type OHE with normal contact wire height 5.80 Metre**

| S.N. | From Station to Station | km to km | Total Track km | Remarks |
|------|-------------------------|----------|----------------|---------|
|      |                         |          |                |         |

**1.1.2 Regulated high rise type OHE with normal contact wire height 7.57 Metre**

| S.N. | From Station to Station | km to km | Total Track km | Remarks |
|------|-------------------------|----------|----------------|---------|
|      |                         |          |                |         |

---

<sup>7</sup> The contents of this Annex-I may be suitably modified to reflect project-specific requirements.

**1.1.3 Regulated Tramway type OHE with normal contact wire height 5.80 metre**

| S.N. | From Station to Station | km to km | Total Track km | Remarks |
|------|-------------------------|----------|----------------|---------|
|      |                         |          |                |         |

**1.1.4 Regulated tramway type high rise OHE with normal contact wire height 7.57 metre.**

| S.N. | From Station to Station | km to km | Total Track km | Remarks |
|------|-------------------------|----------|----------------|---------|
|      |                         |          |                |         |

**1.1.5 Unregulated conventional type OHE with normal contact wire height 5.85 metre.**

| S.N. | From Station to Station | km to km | Total Track km | Remarks |
|------|-------------------------|----------|----------------|---------|
|      |                         |          |                |         |

**1.1.6 Unregulated type OHE high rise with normal contact wire height 7.57 metre.**

| S.N. | From Station to Station | km to km | Total Track km | Remarks |
|------|-------------------------|----------|----------------|---------|
|      |                         |          |                |         |

**1.2 25 KV Sectioning post (SP) and sub-sectioning post (SSP) (Switching Post)**

| S.N. | Location | Type of Switching Post | Remarks |
|------|----------|------------------------|---------|
|      |          |                        |         |

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**1.3 25 KV Booster Transformer and return conductor arrangement**  
[Specify scope of booster transformer stations]

| S.N. | From Station to Station | km to km | Length of RC (Metres) | Remarks |
|------|-------------------------|----------|-----------------------|---------|
|      |                         |          |                       |         |

**1.4 25 KV Auxiliary transformer stations**

[Specify scope of auxiliary transformer stations]

| S.N. | Location | Capacity | Quantity | Remarks |
|------|----------|----------|----------|---------|
|      |          |          |          |         |

**1.5 Traction sub-stations (TSS)**

[Specify scope of TSS work]

| S. N. | Location of TSS | Input Voltage | Number of Transformers | Capacity of each Transformer | Remarks |
|-------|-----------------|---------------|------------------------|------------------------------|---------|
|       |                 |               |                        |                              |         |

**1.6 High voltage transmission line from grid sub-station to railway TSS**

[Specify scope of work]

**1.6.1 Overhead transmission line**

| S.N. | Location km to km | Total length in km | Nominal Voltage level | Single Circuit/ Double Circuit | 3-Phase/ 2- Phase | Remarks |
|------|-------------------|--------------------|-----------------------|--------------------------------|-------------------|---------|
|      |                   |                    |                       |                                |                   |         |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|

### 1.6.2 Monopole overhead transmission line

| S.N. | Location<br>km to km | Total<br>length<br>in km | Nominal<br>Voltage<br>level | Single<br>Circuit/<br>Double<br>Circuit | 3-Phase/<br>2- Phase | Remarks |
|------|----------------------|--------------------------|-----------------------------|---|----------------------|---------|
|      |                      |                          |                             |   |                      |         |

### 1.7 Underground high tension cable transmission

| S.N. | Location<br>km to km | Total<br>length<br>in km | Nominal<br>Voltage<br>level | Single<br>Circuit/<br>Double<br>Circuit | 3-Phase/<br>2- Phase | Remarks |
|------|----------------------|--------------------------|-----------------------------|---|----------------------|---------|
|      |                      |                          |                             |   |                      |         |

### 1.8 Bay augmentation work at grid sub-station [Specify scope of work]

| S.N. | Location | Nominal Voltage<br>level | Number of<br>bays | Remarks |
|------|----------|--------------------------|-------------------|---------|
|      |          |                          |                   |         |

### 1.9 Supervisory control and data acquisition system (SCADA).

[Specify scope of work]

| S.N. | Item   | Quantity | Remarks |
|------|--|----------|---------|
| 1.   | Remote Control Centre with SCADA Hardware and software |          |         |
| 2.   | Modification of existing SCADA System                  |          |         |
| 3    | SCADA Equipment at Traction Sub-Station                |          |         |

|          |   |  |  |
|----------|---|--|--|
| <b>4</b> | SCADA Equipment at Switching Posts (SP/SSP) |  |  |
|----------|---|--|--|

**1.10 Various electrical general services works**

[Specify scope of work]

**1.11 Modification of HT power lines and crossings (raising of height)**

[Specify scope of work]

| <b>Serial No.</b> | <b>Item</b>            | <b>Nominal Voltage level</b> | <b>Single Circuit / Double Circuit</b> | <b>No of Phases</b> | <b>Designated current carrying capacity</b> | <b>Quantity</b> | <b>Remarks</b> |
|-------------------|------------------------|------------------------------|--|---------------------|---|-----------------|----------------|
| <b>1.</b>         | <b>Track crossing</b>  |                              |  |                     |   |                 |                |
| <b>2.</b>         | <b>Along the Track</b> |                              |  |                     |   |                 |                |

**1.12 Modification of HT power lines and crossings (replacement by UG cabling)**

| <b>S.N</b> | <b>Item</b>            | <b>Nominal Voltage level</b> | <b>Single Circuit / Double Circuit</b> | <b>No of Phases</b> | <b>Designated current carrying capacity</b> | <b>Quantity</b> | <b>Remarks</b> |
|------------|------------------------|------------------------------|--|---------------------|---|-----------------|----------------|
| <b>1.</b>  | <b>Track crossing</b>  |                              |  |                     |   |                 |                |
| <b>2.</b>  | <b>Along the track</b> |                              |  |                     |   |                 |                |

**1.13 Modification of LT power lines and crossings (replacement by UG cabling) :**

| <b>S.N</b> | <b>Item</b> | <b>Nominal Voltage</b> | <b>Single Circuit /</b> | <b>No of Phases</b> | <b>Designated current carrying</b> | <b>Quantity</b> | <b>Remarks</b> |
|------------|-------------|------------------------|-------------------------|---------------------|------------------------------------|-----------------|----------------|
|------------|-------------|------------------------|-------------------------|---------------------|------------------------------------|-----------------|----------------|

|    |                       | level | Double<br>Circuit |  | capacity |  |  |
|----|-----------------------|-------|-------------------|--|----------|--|--|
| 1. | Track<br>crossin<br>g |       |                   |  |          |  |  |
| 2. | Along<br>the<br>track |       |                   |  |          |  |  |

#### 1.14 Extension of LT power supply for CLS Work:

| S.N. | Location | Current capacity/<br>size of conductor | Quantity | Remarks |
|------|----------|--|----------|---------|
|      |          |  |          |         |

#### 1.15 Extension/Augmentation of electrical power supply arrangements and associated works

| S.N. | Location | Load (KWH) | Remarks |
|------|----------|------------|---------|
|      |          |            |         |

#### 1.16 Modifications of existing electrical works

1.16.1 List modifications to existing switching posts, if any.

1.16.2 List modifications to existing OHE, including dismantling of OHE, removal of brackets, cutting of masts, dismantling and removal of existing auxiliary transformer

1.16.3 List modifications to existing traction sub-station, such as augmentation of bay, addition or replacement of traction transformer, circuit breakers etc.

#### 1.17. Inventory electrical

[Specify details of tools, equipment, Materials for supply to stores]

#### 1.18 Signalling system

##### 1.18.1 Modification to existing PI/RR/IE systems and modification in signalling system of LC gates

All signalling works including design of signalling plan, route control chart or selection/control table, panel diagram, wiring/circuit diagram, application logic, interface details, cable route chart, cable core diagram, termination and equipment position diagram etc. as part of the modification to the existing

signalling system along with supply, installation, testing and commissioning shall be executed in accordance with the provision of IRSEM and signal and Interlocking principles issued in the form of typical designs.

In addition to above, augmentation of existing service buildings to accommodate additional signalling equipment/ racks etc shall be carried out.

The released materials shall be transported to the railway depot within the Site, as nominated by the Authority's Engineer.

**(a) Modification in existing PI/RRI/EI systems.**

| S<br>N | Description of work  | Details of modifications |             |                     |                                   |  |                   |                                       |   |                          |   |                         |              |               |                   |                       |  |
|--------|--|--------------------------|-------------|---------------------|-----------------------------------|--|-------------------|---------------------------------------|---|--------------------------|---|-------------------------|--------------|---------------|-------------------|-----------------------|--|
|        |  | Name of station          | No of Lines | Std of interlocking | Major (Junction)/ Wayside station | Relay type (metal to metal or metal to carbon) | Cables (Sig/Tele) | Type of Signal feed (local or remote) | Type of train detection system (relay, AC, AFTC Etc.) | Point Motor immunisation | Type of lifting barrier & locking arrangement | Earthing and protection | Power supply | Block working | Details of siding | Any other requirement |  |
| 1      | Survey, Design, Supply, Installation, Testing, supply of manuals for new technology equipment for each place, supply of completion drawings, and commissioning of  |                          |             |                     |                                   |  |                   |                                       |   |                          |   |                         |              |               |                   |                       |  |
| 2      | Supply of signalling spares:<br><br>2.1 Electronic Interlocking or Relay Interlocking equipment<br>2.2 Power supply system<br>2.3 Data logger system<br>2.4 Axle counter system<br>2.5 Signalling cables<br>2.6 Power cables<br>2.7 Relays<br>2.8 Point machines with accessories<br>2.9 Train Detection system<br>2.10 Any other item/items for functioning of Signalling system as per contract requirement.<br>2.11 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals | Name of station          |             |                     | Quantity with unit                |  |                   |                                       |   |                          |   |                         |              |               |                   |                       |  |
| 3      | Integrated testing and commissioning   |                          |             |                     |                                   |  |                   |                                       |   |                          |   |                         |              |               |                   |                       |  |



**(b) Modification in existing LC gate:**

| S<br>N | Description of work  | Details of modifications |   |                   |                                       |                         |              |                       |
|--------|--|--------------------------|---|-------------------|---------------------------------------|-------------------------|--------------|-----------------------|
|        |  | LC Gate No.              | Type of lifting barrier & locking arrangement | Cables (Sig/Tele) | Type of Signal feed (local or remote) | Earthing and protection | Power supply | Any other requirement |
| 1      | Survey, Design, Supply, Installation, Testing, supply of manuals for new technology equipment for each place, supply of completion drawings, and commissioning of  |                          |   |                   |                                       |                         |              |                       |
| 2      | Supply of signalling spares:<br><br>2.1 Electronic Interlocking or Relay Interlocking equipment<br>2.2 Power supply system<br>2.3 Data logger system<br>2.4 Axle counter system<br>2.5 Signalling cables<br>2.6 Power cables<br>2.7 Relays<br>2.8 Train Detection system<br>2.9 Any other item/items for functioning of Signalling system as per contract requirement.<br>2.10 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals | LC gate No.              |   |                   | Quantity with unit                    |                         |              |                       |
| 3      | Integrated testing and commissioning   |                          |   |                   |                                       |                         |              |                       |

**1.18.2 Commissioning of new Panel Interlocking/ Route Relay Interlocking**

All signalling works including design of signalling plan, route control chart or selection/control table, panel diagram, wiring/circuit diagram, application logic, interface details, cable route chart, c core diagram, termination and equipment position diagram etc. as part of the detail design along with supply, installation, testing and commissioning shall be executed in accordance with the provision of IRSEM and signal and interlocking principles issued in the form of typical designs. In addition to above, provision of new service buildings to accommodate signalling equipment, power supply equipment etc., shall be carried out.

Releasing and transporting the released materials to railway depot nominated by the Authority's Engineer.

| S<br>N | Description of work | Details of Major/Junction or Wayside stations |             |                      |                    |                                   |                       |                                |   |   |
|--------|---------------------|---|-------------|----------------------|--------------------|-----------------------------------|-----------------------|--------------------------------|---|---|
|        |                     | Name of station                               | No of Lines | Std. of interlocking | Type of Signalling | Junction (major)/ Wayside station | Type of block working | Type of train detection system | Type of point operation & locking arrangement | Type of lifting barrier & locking arrangement |

|   |  |                 |                    |  |  |  |  |  |  |  |  |
|---|--|-----------------|--------------------|--|--|--|--|--|--|--|--|
| 1 | Survey, Design, Supply, Installation, Testing, supply of manuals for new technology equipment for each place, supply of completion drawings, and commissioning of  |                 |                    |  |  |  |  |  |  |  |  |
| 2 | Supply of signalling spares:<br>2.1 Electronic Interlocking or Relay Interlocking equipment<br>2.2 Power supply system<br>2.3 Data logger system<br>2.4 Axle counter system<br>2.5 Signalling cables<br>2.6 Power cables<br>2.7 Relays<br>2.8 Point machines with accessories<br>2.9 Train Detection system<br>2.10 On Board (Cab) equipment for TPWS system<br>2.11 Line side equipment for TPWS system<br>2.12 TMS (with remote operation system)<br>2.13 Any other item/items for functioning of Signalling system as per contract requirement.<br>2.14 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals | Name of station | Quantity with unit |  |  |  |  |  |  |  |  |
|   |  |                 |                    |  |  |  |  |  |  |  |  |
| 3 | Integrated testing and commissioning   |                 |                    |  |  |  |  |  |  |  |  |

1.18.3 Diversion of utilities like cables, location boxes and huts and lifting barriers etc., wherever necessary shall be done prior to taking up of any work in the vicinity of existing Signalling and Telecom systems.

1.18.4 All other associated materials and works for completion not limited to items in the above table as required for execution of the signalling and telecom works to suit 25 KV has to be provided by the Contractor.

## 1.19 Telecommunication

### 1.19.1

#### a) Where optical fibre cable (OFC) and quad cable already exist in the section

Where optical fibre cable (OFC) and quad cable already exist in the section , scope of work includes supply , trenching and laying of 6 quad cables, jointing of quad

cables for provision of emergency sockets in the section and SP/SSP/TSS /LC gates etc., transferring the existing communication circuits including block on new cables, supply and installation of power supply equipment, batteries and other telecom equipment, supply and installation of SDH and PD MUX equipment and their networking with the existing OFC link for augmenting existing OFC equipment at stations in the section, supply, installation and testing and commissioning of HQ and way station control equipment for giving various control phones at stations, SP/SSP/TSS etc., augmentation of existing service buildings as required, provision of cable huts and service buildings, protection of telecom lines entering 25 KV sub-station /switching posts, and protection against surge and lightning. The scope also includes masonry works for erection and installation of signalling equipment and all types of painting as per Railway Telecom Manual and standard practices. Supply of spares to the extent of 10% (minimum 1) of each type of equipment like SDH, PDMUX, control phones, emergency sockets etc.

All the materials not limited to above as required for execution of the signalling works to suit 25 KV has to be provided by the Contractor in accordance with the Good Industry Practice. The Contractor shall transport the released materials railway depot nominated by the Authority's Engineer.

**b) Where OFC and quad cable does not exist in the section.**

Where OFC and quad cable does not exist in the section, scope of work includes supply , trenching and laying of OFC and 6 quad cables, jointing of quad cables, splicing of OFC cable, provision of emergency sockets in the section and SP/SSP/TSS /LC gates etc., transferring the existing communication circuits including block on new cables, supply and installation of power supply equipment , batteries and other telecom equipment, supply and installation of SDH and PD MUX equipment and their networking with the existing OFC link or forming new link if OFC is not existing in the section, commissioning of quad cable system , supply, installation and testing and commissioning of HQ and way station control equipment for giving various control phones at stations, SP/SSP/TSS etc., provision of cable huts and service buildings, protection of telecom lines entering 25 KV sub-station /switching posts, protection against surge and lightning . The scope also includes masonry works for erection and installation of signalling equipment and all types of painting as per Railway Telecom Manual and Good Industry Practice. Supply of spares to the extent of 10% (ten per cent) (minimum 1) of each type of equipment like SDH, PDMUX , control phones, emergency sockets, etc.

All the materials not limited to above as required for execution of the signalling works to suit 25 KV has to be provided by the Contractor.

On completion of above works, testing and commissioning of entire system in totality shall be carried out by the Contractor. The Contractor shall transport the released materials to railway depots nominated by the Authority's Engineer.

**1.19.2 Quad cable work**

The details of quad cable work are:

| S<br>N | Description of work | Details of 6 Quad telecom cable system |    |                  |             |                    |                   |
|--------|---------------------|--|----|------------------|-------------|--------------------|-------------------|
|        |                     | Chainage                               |    | Name of stations | LC gate No. | Loc of TSS/S P/SSP | Any other details |
|        |                     | From                                   | To |                  |             |                    |                   |
|        |                     |  |    |                  |             |                    |                   |

|   |  |                    |  |  |  |  |  |
|---|--|--------------------|--|--|--|--|--|
| 1 | <b>Survey, design, supply, installation, testing, supply of manuals for new technology equipment for each place, supply of completion drawings, and commissioning of 6 Quad telecom cable system</b>   |                    |  |  |  |  |  |
| 2 | <b>Supply of communication spares:</b><br><br>2.1 Six quad telecom cable and accessories<br>2.2 Emergency sockets with box and pins<br>2.3 Any other item/items for functioning of telecommunication system as per contract requirement<br>2.4 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals | Quantity with unit |  |  |  |  |  |
| 3 | <b>Integrated testing and commissioning</b>  |                    |  |  |  |  |  |

### 1.19.3 Optic Fibre Cable work

The details of optic fibre cable work are:

| S<br>N | Description of work  | Details of OFC system |    |                  |          |                       |           |                     |              |  |     |                             |                   |
|--------|--|-----------------------|----|------------------|----------|-----------------------|-----------|---------------------|--------------|--|-----|-----------------------------|-------------------|
|        |  | Chainage              |    | Name of stations | OF Cable | Type of STM equipment |           | Type of multiplexer | Power supply | Control office equipment with Power supply |     |                             | Any other details |
|        |  | From                  | To |                  |          | Short Haul            | Long haul |                     |              | Way station                                | H Q | Emergency control equipment |                   |
| 1      | Survey, design, supply installation, testing, supply of manuals for each place, supply of completion drawings, and commissioning of optical fibre cable communication system   |                       |    |                  |          |                       |           |                     |              |  |     |                             |                   |
| 2      | <b>Supply of communication spares:</b><br><br>2.1 Optical fibre cable with accessories<br>2.2 HDPE duct with accessories<br>2.3 Optical fibre Digital equipment's (STM with accessories)<br>2.4 Digital Multiplexer equipment's (PDH with accessories).<br>2.5 Power supply of STM/PDH with accessories<br>2.6 Control office equipment with accessories | Quantity with unit    |    |                  |          |                       |           |                     |              |  |     |                             |                   |

|   |  |  |
|---|--|--|
|   | (a) Way station<br>(b) HQ<br>© Power supply<br>2.7 Emergency communication system with accessories<br>2.8 Any other item/items for functioning of telecommunication system as per contract requirement.<br>2.9 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals |  |
| 3 | Integrated testing and commissioning   |  |

### 1.19.4 Modification in passenger amenity works

The details of modification in passenger amenity works are

| S<br>N | Description of work   | Details of telecommunication equipment |         |                                   |      |           |                                      |                     |               |                     |                           |                    |            |                    |                       |  |                   |
|--------|---|--|---------|-----------------------------------|------|-----------|--------------------------------------|---------------------|---------------|---------------------|---------------------------|--------------------|------------|--------------------|-----------------------|--|-------------------|
|        |   | Station                                | LC Gate | Mobile radio communication system | CCTV | PA system | Passenger information display system | Electronic exchange | Digital clock | Master Clock system | Video surveillance System | Telephone exchange | EC Sockets | LC Gate Telephones | Earthing arrangements | Power supply equipment with protection | Any other Details |
| 1      | Survey, Design, Supply, Installation, Testing, supply of manuals for new technology equipment for each place, supply of completion drawings, and commissioning of Telecommunication equipment |  |         |                                   |      |           |                                      |                     |               |                     |                           |                    |            |                    |                       |  |                   |
| 2      | Supply of communication spares:   | Quantity with unit                     |         |                                   |      |           |                                      |                     |               |                     |                           |                    |            |                    |                       |  |                   |

|   |   |                                  |
|---|---|----------------------------------|
|   | <p>2..1 Mobile Radio comm. system<br/>                 2.1 CCTV system<br/>                 2.4 Electronic Exchange system<br/>                 2.5 Public address system<br/>                 2.6 Passenger Information display system<br/>                 2.7 Digital Clock system<br/>                 2.8 Master clock system<br/>                 2.9 Video surveillance system<br/>                 2.10 Telephone exchange<br/>                 2.11 EC Sockets<br/>                 2.12 LC Gate telephones<br/>                 2.13 Any other item/items for functioning of telecommunication system as per contract requirement.<br/>                 2.14 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals.</p> |                                  |
| 3 | Integrated testing and commissioning  |                                  |
| 2 | <p><b>Inventory:<br/>                 Supply of communication spares:</b><br/>                 2..1 Optical fibre cable communication system<br/>                 2.2 Mobile Radio communication system<br/>                 2.3 CCTV system<br/>                 2.4 Electronic Exchange system<br/>                 2.5 Public address system<br/>                 2.6 Passenger Information display system<br/>                 2.7 Digital Clock system<br/>                 2.8 Control office</p>   | <p><b>Quantity with unit</b></p> |

|  |  |
|--|--|
| <p>equipment's with accessories</p> <p>2.9 Master switching centre equipment</p> <p>2.10 Base switching centre equipment</p> <p>2.11 DT/Cab radio/Handheld</p> <p>2.12 Dispatch/Control terminals</p> <p>2.13 OPH</p> <p>2.14 GPH</p> <p>2.15 GSM Set</p> <p>2.16 Cab radio</p> <p>2.17 Master clock system</p> <p>2.18 Any other item/items for functioning of telecommunication system as per contract requirement.</p> <p>2.19 Testing and measuring tools and equipment as determined in accordance with the manufacturer's manuals.</p> |  |
|--|--|

All other associated materials and works for completion not limited to items in the above table as required for execution of the signalling and telecom works to suit 25 KV has to be provided by the Contractor.

## **1.20 Civil works**

### **1.20.1 General**

Civil works include building works (staff quarters, service building, tower wagon shed and siding, platform shed) raising height of FOB/ROB and any other work necessary for completion of the electrification works.

### 1.20.2 Staff quarters

Construction and development of staff colony comprising of following types of staff quarters including electrical internal wiring with allied work, electrical power supply arrangement with transformer/main distribution supply, sewerage system, water supply arrangement, augmentation of water supply, provision of bore well with electrical pump and pump house, approach road, levelling and earth filling of land, barbed wire fencing, boundary wall, development of lawn, rain water harvesting, street lighting arrangement etc.

| S. N. | Location | Type of quarters | Single storey/multi-storey building | No. of quarters |
|-------|----------|------------------|-------------------------------------|-----------------|
|       |          | Type-II          |                                     |                 |
|       |          | Type-III         |                                     |                 |
|       |          | Type-IV          |                                     |                 |
|       |          | Type-V           |                                     |                 |

### 1.20.3 Tower wagon shed and siding:

Construction of tower wagon shed and siding including inspection pit, earthwork, approach road, water supply arrangement, ballast supply and its spreading, permanent way work with all Contractor's permanent way material for M+7 sleeper density with 60 Kg (90 UTS) rail and sleeper (Drg. No. T/2496), track connection with main line including thermit welding, insertion of glued joint, internal electrical wiring with allied works and electrical power supply arrangement with transformer/main distribution supply, as per the Schedule D.

**Description of permanent way associated with the above work is:**

| S. No. | Location | Length of track | No. of turnout and derailing switch with sleepers, rail components and fittings | No. of glued joint |
|--------|----------|-----------------|---|--------------------|
|        |          |                 |   |                    |

### 1.20.4 Service buildings

Construction of service buildings including electrical internal wiring with allied work, electrical power supply arrangement with transformer/main distribution supply, sewerage system, water supply arrangement, augmentation of water supply,



provision of bore well with electrical pump and pump house, approach road, levelling and earth filling of land, boundary wall, street lighting arrangement etc.

| <b>Sr. no.</b> | <b>Description of service building</b> | <b>Location</b> | <b>Plinth area</b> |
|----------------|--|-----------------|--------------------|
|                | Administrative Offices                 |                 |                    |
|                | Supervisor's office and store          |                 |                    |
|                | Remote Control Centre                  |                 |                    |
|                | OHE Depot                              |                 |                    |
|                | OHE and PSI depot                      |                 |                    |

### 1.20.5 Trip shed and siding:

Construction of trip shed and siding including inspection pit, earthwork, water supply arrangement, ballast supply and its spreading, Permanent way work with all Contractor's permanent way material for M+7 sleeper density with 60 Kg (90 UTS) rail and sleeper (Drg. No. T/2496), track connection with main line including thermit welding, insertion of glued joint, approach road, levelling and earth filling of land, street lighting arrangement, internal wiring with allied works and electrical power supply arrangement with transformer/main distribution supply.

Description of permanent way associated with the above work is:

| <b>S. No.</b> | <b>Location</b> | <b>Length of track</b> | <b>No. of turnout and derailing switch with sleepers, rail components and fittings</b> | <b>No. of glued joint</b> |
|---------------|-----------------|------------------------|--|---------------------------|
|               |                 |                        |  |                           |

### 1.20.6 Raising height of FOB

Raising height of FOB with running out of ramp up to specified height including material required for this work, design and drawings and temporary arrangement drawing adhering approved FOB drawing.

| <b>Sr. no.</b> | <b>Location</b> | <b>FOB no.</b> | <b>Existing height</b> | <b>Height to be raised</b> |
|----------------|-----------------|----------------|------------------------|----------------------------|
|                |                 |                |                        |                            |

### 1.20.7 Raising height of ROB

Raising height of ROB with running out of approach road up to specified height including material required for this work, design and drawings and Temporary arrangement drawing adhering approved ROB drawing.

| Sr. no. | Location | ROB no. | Existing height | Height to be raised |
|---------|----------|---------|-----------------|---------------------|
|         |          |         |                 |                     |

### 1.20.8 Modification of platform shed

Modification of platform shed up to specified height including material required for this work, adhering approved cover over platform drawing in connection with railway electrification works.

| Sr. no. | Location | Length of shed | Existing height | Height to be raised |
|---------|----------|----------------|-----------------|---------------------|
|         |          |                |                 |                     |

### 1.20.9 Other works

**Provide details of other works (sample list below)**

- (a) Service roads for traction sub-station and switching posts,
- (b) Tree plantation
- (c) Fencing
- (d) Bore wells
- (e) Pump house
- (f) General power supply sub-station
- (g) Number plates
- (h) [others (to be specified)]

SCHEDULE - C

(See Clause 2.1)

**PROJECT FACILITIES<sup>8</sup>**

**1 Project Facilities**

The Contractor shall construct the Project Facilities in accordance with the provisions of this Agreement. Such Project Facilities shall include:

**Railway electrification**

- a) Camp office for Authority
- b) Danger and caution boards
- c) Protective screens
- d) Earthing arrangement for structures

**2 Description of Project Facilities**

Each of the Project Facilities is described below:

| <b>S. No.</b> | <b>Project Facility</b> | <b>Location</b> | <b>Design Requirements</b> | <b>Other essential details</b> |
|---------------|-------------------------|-----------------|----------------------------|--------------------------------|
|               |                         |                 |                            |                                |

Note: Provide adequate details of each Project Facility to ensure their design and completion in accordance with the project-specific requirements and the provisions of the Manuals.

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<sup>8</sup> This Schedule may be suitably modified to reflect project-specific requirements.

## SCHEDULE - D

(See Clause 2.1)

### **SPECIFICATIONS AND STANDARDS**

#### **1 Construction**

The Contractor shall comply with the Specifications and Standards set forth in Annex-I of this Schedule-D for construction of the Railway Project. It includes verification and validation of system installed and independent certification for maintenance and operation system during its life cycle.

#### **2 Design Standards**

The Railway Project including Project Facilities shall conform to design requirements set out in the following documents:

[Indian Railways Permanent Way Manual, Indian Railway Bridge Manual, Indian Railway Schedule of Dimensions & relevant IRS Specifications referred in the Manual, Indian Railway Signalling Engineering Manual, Indian Railway Telecom Manual, AC Traction Manual, Rules for Opening Railways]

[Note: Specify the relevant Manual, Specifications and Standards]

#### **3 Latest Version**

Latest version of the Manuals, Specifications and Standards including the amendments notified/published by the Base Date shall be considered applicable.

#### **4 Terms used in Manuals**

The terms ['Inspector', 'AEE', 'DE'] used in the Manuals shall be deemed to be substituted by the term "**Authority's Engineer**"; to the extent it is consistent with the provisions of the Agreement.

#### **5 Absence of specific provision**

In the absence of any specific provision on any particular issue in the aforesaid Manuals, Specifications, or Standards, the following standards shall apply in order of priority

[Bureau of Indian Standards (BIS)]

Euro Codes or British Standards or American Standards

Any other specifications/standards proposed by the Contractor and reviewed by the Authority's Engineer.]

## **6 Alternative Specifications and Standards**

- 6.1 The requirements specified in the Manuals are the minimum. The Contractor shall, however, be free to adopt international practices, alternative specifications, materials and standards to bring in innovation in the design and construction provided they are better or comparable with the standards prescribed in the Manuals. The specifications and techniques which are not included in the Indian Railway Manuals/ RDSO specifications shall be supported with authentic specifications and standards specified in paragraph 5 above. Such a proposal shall be submitted by the Contractor to the Authority's Engineer. In case, the Authority's Engineer is of the opinion that the proposal submitted by the Contractor is not in conformity with any of the international standards or codes, then he shall record his reasons and convey the same to the Contractor for compliance.
- 6.2 For Signalling and Telecommunication system, in case the Contractor is offering alternative specifications, materials and standards, the same should be already in use on a passenger carrying service anywhere in the world at speed more than 100KMPH and are also in operation for more than 2 years. It shall be adopted on Indian Railway using the concept of Cross Approval/Cross acceptance, which form part of the type approval guidelines already being followed by RDSO. The process shall also require Validation from an Independent Safety Assessor (ISA). Further the safety Integrated requirement/level of the system being offered should be SIL 4.

Annex - I  
(Schedule-D)

**Specifications and Standards for Construction<sup>9</sup>**

**1 Specifications and Standards**

All Materials, works and construction operations shall conform to the following manuals:

**1.1 For civil works:**

- (a) Indian Railways Permanent Way Manual
- (b) Indian Railway Bridge Manual
- (c) Indian Railway Schedule of Dimensions
- (d) The relevant IRS Specifications referred to in the above documents listed at (i), (ii) and (iii)
- (e) Specifications of Works of concerned zonal railway
- (f) In case of any contradiction in the various codal provisions, the order of precedence shall be as follows:-
  - aa) Provisions of this Annex I.
  - bb) IRS Codal provisions
  - cc) IRC Codal provisions
  - dd) IS (BIS) Codal provisions

**1.2 For signalling and telecommunication works:**

- (a) Indian Railway Signal Engineering Manual for signalling; and
- (b) Indian Railway Telecom Manual for telecommunication works.

**1.3 For electrification works:**

- (a) Indian Railways Manual AC Traction, Volume-II Part-I and Volume-II Part-II.
- (b) Manual of Standards & Specification for Railway Electrification
- (c) Indian Railways Schedule of Dimensions

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<sup>9</sup> The contents of this Annex-I may be suitably modified to reflect project-specific requirements.

## **2 Deviations from the Specifications and Standards**

[Notwithstanding anything to the contrary contained in Paragraph 1 above, the following Specifications and Standards shall apply to the Railway Project, and for purposes of this Agreement, the aforesaid Specifications and Standards shall be deemed to be amended to the extent set forth below:]

[Specify the deviations, if any]

[**Note:** Deviations from the aforesaid Specifications and Standards shall be listed out here. Such deviations shall be specified only if they are considered essential in view of project-specific requirements.]

SCHEDULE - E

*(See Clause 3.1.6(a))*

**APPLICABLE PERMITS**

**1 Applicable Permits**

1.1 The Contractor shall obtain, as required under Applicable Laws, the following Applicable Permits:

- (a) Permission of the State Government for extraction of boulders from quarry;
- (b) Permission of Village Panchayats and Pollution Control Board for installation of crushers;
- (c) Licence for use of explosives;
- (d) Permission of the State Government for drawing water from river/reservoir;
- (e) Licence from inspector of factories or other competent Authority for setting up batching plant;
- (f) Clearance of Pollution Control Board for setting up batching plant;
- (g) Clearance of Village Panchayats and Pollution Control Board for setting up asphalt plant;
- (h) Permission of Village Panchayats and State Government for borrow earth; and
- (i) Any other permits or clearances required under Applicable Laws.

1.2 Applicable Permits, as required, relating to environmental protection and conservation shall have been or shall be procured by the Authority in accordance with the provisions of this Agreement.

1.3 Certain works, which are executed in the vicinity of a running track, may require prior sanction of Commissioner of Railway Safety (CRS) before execution of such works by the Contractor. Authority's Engineer shall indicate the details of such works to the Contractor who shall be responsible for preparing and submitting the required applications, complete in all respects, to Authority's Engineer for obtaining sanction of CRS at least 60 (sixty) days in advance of commencing a work that requires prior sanction of CRS. It shall be the responsibility of the Authority to secure the authorisation of CRS within the aforesaid period of 60 (sixty) days.

—



SCHEDULE - F

(See Clauses 7.1.1, 7.5.3 and 17.2)

**FORM OF BANK GUARANTEE**

Annex-I

(See Clause 7.1.1)

**Performance Security**

The General Manager,

....., ..... Railway,

.....

WHEREAS:

- (A) ..... (insert name and address of the contractor) (hereinafter called the “**Contractor**”) and [Chief Administrative Officer, Central Organisation for Railway Electrification], (hereinafter called the “**Authority**”) have entered into an agreement (hereinafter called the “**Agreement**”) for electrification of the railway lines of approximately \*\*\*\*TKM length comprising Package \*\* in the ..... Railway zone on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement
- (B) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period/ Defects Liability Period } (as defined in the Agreement) in a sum of Rs..... cr. (Rupees ..... crore) (the “**Guarantee Amount**”).
- (C) We, ..... through our branch at ..... (the “**Bank**”) have agreed to furnish this bank guarantee (*hereinafter called the “**Guarantee**”*) by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees and undertakes to pay to the Authority upon occurrence of any failure or default in the due and faithful performance of all or any of the Contractor’s obligations, under and in accordance with the provisions of the Agreement during the {Construction Period/ Defects Liability Period} on its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of ..... in the ..... Railway, that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the

Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect on .....<sup>§</sup>. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this ..... day of ....., 20..... at .....

**SIGNED, SEALED AND DELIVERED**

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

\_\_\_\_\_

<sup>§</sup> Insert date being 2 (two) years from the date of issuance of this Guarantee (in accordance with Clause 7.2 of the Agreement).

(ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Annex – II  
(Schedule - F)  
(See Clause 7.5.3)

**Form of Guarantee for Withdrawal of Retention Money**

General Manager, .....

....., ..... Railway,

.....

WHEREAS:

- (A) ..... (insert name and address of the contractor) (hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “**Agreement**”) with the [Chief Administrative Officer, Central Organisation for Railway Electrification] , (hereinafter called the “**Authority**”) for electrification of the railway lines of approximately \*\*\*\*TKM length comprising Package \*\* in the \*\*\*\* Railway zone on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) In accordance with Clause 7.5.3 of the Agreement, the Contractor may withdraw the retention money (hereinafter called the “**Retention Money**”) after furnishing to the Authority a bank guarantee for an amount equal to the proposed withdrawal.
- (C) We, ..... through our branch at ..... (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) for the amount of Rs. .... cr. (Rs. ....crore) (the “**Guarantee Amount**”).

NOW, THEREFORE, the Bank hereby unconditionally and irrevocably guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of ..... in the ..... Railway, that the Contractor has committed default in the due and faithful performance of all or any of its obligations for under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the

Contractor is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Retention Money and any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Retention Money.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect 15 (fifteen) days after the date of the Completion Certificate specified in Clause 12.4 of the Agreement.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Annex – III  
(Schedule - F)  
(See Clause 17.2)

**Form of Guarantee for Advance Payment**

.....,  
....., ..... Railway,  
.....

WHEREAS:

- (A) ..... (insert name and address of the contractor) (hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “**Agreement**”) with the [Chief Administrative Officer, Central Organisation for Railway Electrification] , (hereinafter called the “**Authority**”) for the electrification of the railway lines of approximately \*\*\*\*TKM length comprising Package \*\* in the ..... Railway zone on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement
- (B) In accordance with Clause 17.2 of the Agreement, the Authority shall make to the Contractor advance payment (herein after called “**Advance Payment**”) equal to 10% (ten per cent) of the Contract Price; and that the Advance Payment shall be made in two installments subject to the Contractor furnishing an irrevocable and unconditional guarantee by a scheduled bank for an amount equivalent to 110% (one hundred and ten per cent) of such installment to remain effective till the complete and full repayment of the installment of the Advance Payment as security for compliance with its obligations in accordance with the Agreement. The amount of {first/second} installment of the Advance Payment is Rs. ....cr. (Rupees .....crore) and the amount of this Guarantee is Rs. .... cr. (Rupees ..... crore) (the “**Guarantee Amount**”)<sup>§</sup>.
- (C) We, ..... through our branch at ..... (the “**Bank**”) have agreed to furnish this bank guarantee (*hereinafter called the “**Guarantee**”*) for the Guarantee Amount.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful repayment on time of the aforesaid instalment of the Advance Payment under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the

---

<sup>§</sup> The Guarantee Amount should be equivalent to 110% of the value of the applicable installment.



Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of ..... in the ..... Railway, that the Contractor has committed default in the due and faithful performance of all or any of its obligations for the repayment of the instalment of the Advance Payment under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Advance Payment or to extend the time or period of its repayment or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Advance Payment.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below

and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect on \*\*\*\*\*.<sup>§</sup> Unless a demand or claim under this Guarantee is made in writing on or before the aforesaid date, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this ..... day of ..... 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

(i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

(ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch. \_\_\_\_\_

<sup>§</sup> Insert a date being 90 (ninety) days after the end of one year from the date of payment of the Advance payment to the Contractor (in accordance with Clause 17.2 of the Agreement).

SCHEDULE - G  
(See Clauses 10.1.4 and 17.3)

**Contract Price Weightages**

1.1 The Contract Price for this Agreement is Rs. \*\*\*\*\*. It is assigned for different components of the Railway Project as follows

|                               |                            |
|-------------------------------|----------------------------|
| Electrification works         | ***% of the Contract Price |
| Signalling modification works | ***% of the Contract Price |
| Telecom modification works    | ***% of the Contract Price |
| Civil works                   | ***% of the Contract Price |

1.2 Proportions of the Contract Price for different stages of Construction of the Railway Project shall be as specified below:

|  |
|--|
| <b>1 Railway Electrification Works</b> |
|--|

| Item                              | Weightage in percentage to the Contract Price} | Stage for Payment  | Percentage weightage | Payment Procedure  |
|-----------------------------------|--|--|----------------------|--|
| 1                                 | 2  | 34   | 4                    | 5  |
| <b>1. Overhead Equipment Work</b> | ***%   | <b>1.1</b> Completion of foundation, mast erection, bracket erection including provision of insulators and all fittings complete for block sections including stations and yards | ***%                 | Payment for each stage shall be made after completion of a stage for a Section and its yards, measured in track kilo metre (TKM) pro rata with reference to the total TKM. |
|                                   |  | 1.2 Stringing of catenary and contact wire   | ***%                 |  |
|                                   |  | <b>1.3</b> Completion of all OHE work including final adjustment   | ***%                 |  |
|                                   |  | <b>Total</b>   | [100%]               |  |
| <b>2. Switching Posts</b>         | ***%   | 2.1 Completion of all works  | ***%                 | Payment shall be made for each stage after completion of all the   |

|   |      |  |      |   |
|---|------|--|------|---|
|   |      | 2.2 Commissioning and charging at 25 KV.   | **%  | switching posts work for a Section and its yards, measured in number of switching posts on pro rata basis with reference to the total switching posts for the Railway Project-  |
|   |      | <b>Total</b>   | 100% |   |
| <b>3.Booster Transformer and Return Conductor</b> | ***% | 3.1 Completion of all works including testing.   | **%  | Payment shall be made for each stage after completion of each booster transformer and related work on pro rata basis with reference to the total of the booster transformers for the Railway Project-                     |
|   |      | 3.2 Commissioning  | ***% |   |
|   |      | <b>Total</b>   | 100% |   |
| <b>4. Auxiliary Transformer Stations</b>          | ***% | 4.1 Completion of all works including testing.   | **%  | Payment shall be made for each stage after completion of each auxiliary transformer station and related work on pro rata basis with reference to the total of the auxiliary transformer stations for the Railway Project. |
|   |      | 4.2 Commissioning  | **%  |   |
|   |      | <b>Total</b>   | 100% |   |
| <b>5. Traction Sub-Station (TSS)</b>              |      | <b>5.1</b> Completion of all supply and erection works of TSS except supply and erection of Transformers | ***% | Payment for each stage shall be made after completion of all the TSS work measured in number of TSS on pro rata basis with reference to the total TSS for the Railway Project   |

|  |      |  |        |   |
|--|------|--|--------|---|
|  |      | 5.2 Supply and erection of transformers.                             | ***%   |   |
|  |      | 5.3 Completion and Commissioning of TSS and charging at 25 KV.       | ***%   |   |
|  |      | <b>Total</b>   | 100%   |   |
| <b>6. High voltage Transmission Line Overhead from grid sub-station to TSS</b> | ***% | 6.1 Completion of erection of all towers/poles associated with a TSS | ***%   | 6.1 Payment shall be made for each stage after completion of each transmission line overhead and related work. The unit of measurement is linear metre on pro rata basis with reference to the total length of all the transmission line overhead for the Railway Project.                            |
|  |      | 6.2 Stringing of conductors  | ***%   |   |
|  |      | 6.3 Commissioning  | ***%   |   |
|  |      | <b>Total</b>   | [100%] |   |
| <b>7. Underground High Tension Cable Transmission Line</b>                     | ***% | 7.1 Completion of cable trench and laying of cable                   | ***%   | 7.1 Payment shall be made for each stage after completion of each underground high tension cable transmission line. The unit of measurement is linear metre on pro rata basis with reference to the total length of all the underground high tension cable transmission line for the Railway Project. |
|  |      | 7.2 Commissioning  | ***%   |   |

|   |      |  |  |   |
|---|------|--|--|---|
|   |      | <b>Total</b>   | 100%                                     |   |
| <b>8. Bay Augmentation work at Grid Sub-Station/Terminal Arrangement at TSS</b> | ***% | <b>8.1</b> Completion of erection including testing<br><br><b>8.2</b> Commissioning  | ***%<br><br>***%                         | <b>8.1</b> Payment shall be made for each stage after completion of each bay augmentation work at grid sub-station/terminal arrangement at TSS. The unit of measurement is unit on pro rata basis with reference to the total of all the bay augmentation work at grid sub-station/terminal arrangement at TSS for the Railway Project. |
|   |      | <b>Total</b>   | 100%                                     |   |
| <b>9. SCADA</b>   | ***% | <b>9.1</b> Supply and erection of SCADA at remote control centre at division<br><b>9.2</b> Supply and erection of remote terminal units at switching post/ TSS.<br><b>9.3</b> Commissioning of SCADA per switching post/TSS<br><b>9.4</b> Final commissioning of SCADA system for the division | ***%<br><br>***%<br><br>***%<br><br>***% | Payment shall be made after completion of the work of each stage.   |
|   |      | <b>Total</b>   | [100%]                                   |   |
| <b>10. Various electrical general services works</b>                            | ***% | <b>10.1</b> Completion and commissioning of  | ***%                                     | Payment shall be made after the completion and commissioning  |

|   |      |   |              |  |
|---|------|---|--------------|--|
|   |      | various electrical general services.  |              | of works under this item of work.  |
|   |      |   |              |  |
| <b>11. Modification of HT power lines and crossings (raising of height)</b>         | ***% | <b>11.1</b> Completion of work including testing<br><b>11.2</b> Commissioning | ***%<br>***% | Payment shall be made after completion of all work of a HT power line crossing, on pro-rata basis with reference to the total number of HT power line crossings.   |
|   |      | <b>Total</b>  | 100%         |  |
| <b>12. Modification of HT power lines and crossings (replacement by UG cabling)</b> |      | <b>12.1</b> Completion of work including testing<br><b>12.2</b> Commissioning | ***%<br>***% | Payment shall be made after completion of all work of a replacement of HT power line crossing by UG cabling, on pro-rata basis with reference to the total number of replacements of HT power line crossing by UG cabling. |
|   |      | <b>Total</b>  | 100%         |  |
| <b>13. Modification of LT power lines and crossings (replacement by UG cabling)</b> | ***% | <b>13.1</b> Completion of work including testing<br><b>13.2</b> Commissioning | ***%<br>***% | Payment shall be made after completion of all work of a replacement of LT power line crossing by UG cabling, on pro-rata basis with reference to the total number of replacements of LT power line crossing by UG cabling. |
|   |      | <b>Total</b>  | 100%         |  |
| <b>14 Extension of LT</b>   | 100% | <b>14.1</b> Completion of   | ***%         | Payment shall be made after  |



|  |      |   |                              |  |
|--|------|---|------------------------------|--|
| <b>power supply for CLS Work</b>                         |      | work including testing<br><b>14.2 Commissioning</b>   | ***%                         | completion of all work at 5 locations, on pro-rata basis with reference to the total number of locations.  |
|  |      | <b>Total</b>  | 100%                         |  |
| <b>15 Extension/Augmentation of general power supply</b> | ***% | <b>15 Completion including commissioning</b>  | ***%                         | Payment shall be made after completion of the work..   |
|  |      | <b>Total</b>  | 100%                         |  |
| <b>16 Modifications of existing electrical works</b>     | ***% | 16.1 Modification of electrical works including all associated works and testing at existing<br>16.1.1 <b>Switching posts</b><br><br>16.1.2 <b>OHE works</b><br><br>16.1.3 <b>TSS</b> | ***%<br><br>***%<br><br>***% | Payment shall be made for completion of work at every 5 (five) locations on pro-rata basis with reference to the total number of locations. It will be made separately for SP, OHW, and TSS. |
|  |      |   | 100%                         |  |
| <b>17 Inventory electrical</b>                           | ***% | 17.1 Supply of tools, equipment, Materials for supply to stores   | 100%                         | 17.1 Payment shall be made on completion of the supply of the entire inventory items.  |
|  |      |   | 100%                         |  |
| <b>18. Signalling System Modification</b>                | ***% | <b>18.1</b> Modification of existing signalling   |                              | 18.1. Payment for each stage shall be made on completion of  |

|  |  |   |                                     |   |
|--|--|---|-------------------------------------|---|
|  |  | <p>system including survey, design, supply, installation, testing, supply of manuals for each place, supply of completion drawings, testing and measuring tools and equipment and commissioning at</p> <p><b>18.1.1 PI/RR/EI systems</b></p> <p><b>18.1.2 LC gate</b></p> <p><b>18.2 New Panel Interlocking/ Route Relay Interlocking</b> including survey, design, supply, installation, testing, supply of manuals for each place, supply of completion drawings, testing and measuring tools and equipment and commissioning at</p> <p><b>18.2.1 Way side stations</b></p> | <p>***%</p> <p>***%</p> <p>***%</p> | <p>work at a location on pro rata basis with respect to the total number of locations</p> <p>18.2.1. Payment for each stage shall be made on completion of work at [5 (five)] wayside</p> |
|--|--|---|-------------------------------------|---|

|   |      |   |      |  |
|---|------|---|------|--|
|   |      | <b>18.2.2 Major/Junction stations</b>   | ***% | stations on pro rata basis with respect to the total number of wayside stations<br>18.2.2. Payment for each stage shall be made on completion of work at [2 (two)] Major/Junction stations on pro rata basis with respect to the total number of Major/Junction stations |
|   |      | <b>18.3 Diversion of utilities</b>  | ***% | 18.3 Payment shall be made on completion of the entire work.   |
|   |      | <b>Total</b>  | 100% |  |
| <b>19. Signalling Inventory</b>                 | ***% | <b>19.1 Completion of the entire supply of inventory at nominated locations</b>   | 100% | 19.1 Payment shall be made after completion of the signalling work item 18 above. There will not be any payment for part supply of inventory.  |
|   |      | <b>Total</b>  | 100% |  |
| <b>20. Integrated testing and commissioning</b> | ***% | <b>20. Integrated testing and commission of the electrification works Project</b> | 100% | Payment shall be made after the Completion Certificate is issued.  |
|   |      | <b>Total</b>  | 100% |  |
| 21. Telecommunications modifications            | ***% | 21.1 Cable works  |      |  |

|  |  |  |   |   |
|--|--|--|---|---|
|  |  | <p>21.1.1 Sections with existing optical fibre cable and quad cable. Completion of the work specified in Schedule B, Annex I.</p> <p>21.1.2 Sections without optical fibre cable and quad cable. Completion of the work specified in Schedule B, Annex I.</p> <p>21.2 Quad cable work including survey, design, supply, installation, testing, supply of manuals for each place, supply of completion drawings, and commissioning of 6 Quad telecom cable system</p> <p>21.3 Optical fibre cable including Survey,</p> | <p>***%</p> <p>***%</p> <p>***%</p> <p>***%</p> | <p>21.1.1 Unit of measurement is section. Payment shall be determined on pro rata basis on track rout km completed on pro rata basis with respect to total route km to be completed as per the final design.</p> <p>21.1.2 Unit of measurement is section. Payment shall be determined on pro rata basis on track rout km completed on pro rata basis with respect to total route km to be completed as per the final design.</p> <p>21.2 Payment shall be made on completion of each set of [5 (five)] locations on pro rata basis with respect to the total number of locations.</p> <p>21.3 Payment shall be made on completion of each set of [5 (five)] locations on pro rata basis with respect to the total number of locations.</p> |
|--|--|--|---|---|

|   |      |  |      |  |
|---|------|--|------|--|
|   |      | design, supply installation, testing, supply of manuals for each place, supply of completion drawings, and commissioning of optical fibre cable communication system<br><br>21.4 Modification in passenger amenity works | ***% | 21.4 Payment shall be made on completion of the entire work.   |
|   |      | Total  | 100% |  |
| <b>22. Telecommunication inventory</b>          | ***% | 22.1 Completion of the entire supply of inventory at nominated locations   | 100% | 22.1 Payment shall be made after completion of the signalling work item 21 above. There will not be any payment for part supply of inventory.  |
|   |      | Total  | 100% |  |
| <b>23. Integrated testing and commissioning</b> | ***% | 23. Integrated testing and commissioning of the electrification works Project  | 100% | On issue of Completion Certificate. In case the Completion Certificate is for part of the Railway Project, the payment shall be made for the route km covered by the Completion Certificate pro rata to the total route km for the |

|                                    |     |   |      |  |
|------------------------------------|-----|---|------|--|
|                                    |     |   |      | Project.   |
|                                    |     | <b>Total</b>  | 100% |  |
| <b>24. Civil Engineering works</b> | [*] | 24.1 Completion of buildings (staff quarters, service buildings) including sanitation, electricity, water supply and final handing over of building:- | ***% | 24.1 Unit of measurement is plinth area in square metres. For the staff quarters having more than one storey, the total area shall be found out by adding the area of each storey.<br>Unit cost shall be determined on pro rata basis with respect to the total area of all staff quarters/service buildings. Payment shall be made on completion of staff quarters/service buildings at a station |
|                                    |     | 24.2 Completion of tower wagon shed including siding, sanitation, electricity, water supply and final handing over of building                        | ***% | 24.2, 24.3, Payment shall be made after completion of the work in all respects   |
|                                    |     | 24.3 Completion of trip shed including siding, sanitation, electricity,   | ***% |  |

|  |  |   |      |   |
|--|--|---|------|---|
|  |  | water supply and final handing over of building           |      |   |
|  |  | 24.4 Completion of FOB modification works in all respects | ***% | 24.4 Unit of measurement is linear length including landings and stairs. Payment shall be made on completion of modification work of a foot over bridge on pro rata basis with respect to total length of all foot over bridges   |
|  |  | 24.5 Completion of ROB modification works in all respects | ***% | 24.5 Cost of each ROB shall be determined on pro rata basis with respect to the total linear length (m) of the two lane ROBs including approaches. For ROBs other than two- lane, a multiplying factor in proportion to number of lanes shall be applied. Payment shall be made on completion of modification work of an ROB including approaches complete in all respects and fit for use. |
|  |  | <b>Total</b>  | 100% |   |

**SCHEDULE - H**  
*(See Clause 10.2.7)*

**DRAWINGS**

**1 Drawings**

In compliance of the obligations set forth in Clause 10.2 of this Agreement, the Contractor shall furnish to the Authority's Engineer, free of cost, all Drawings listed in Annex-I of this Schedule-H.

**2 Additional Drawings**

If the Authority's Engineer determines that for discharging its duties and functions under this Agreement, it requires any drawings other than those listed in Annex-I, it may by notice require the Contractor to prepare and furnish such drawings forthwith. Upon receiving a requisition to this effect, the Contractor shall promptly prepare and furnish such drawings to the Authority's Engineer, as if such drawings formed part of Annex-I of this Schedule-H.



Annex - I

(Schedule - H)

**List of Drawings<sup>10</sup>**

[1.1 General:

- (a) Index Plan and Sections prepared in accordance with the terms of the IR Engineering Code; and
- (b) Drawings of existing over ground utilities in Right of Way which need to be shifted.

1.2 Signal Engineering:

- (a) Signal interlocking plan (station/auto huts/gate huts);
- (b) Route Control table (station/auto huts/gate huts);
- (c) Panel/ VDU diagram (station/ gate huts);
- (d) Cable Core Chart;
- (e) Cable Route Plan (Separate for station & blocks sections);
- (f) Power Supply Diagram (station/auto huts/ control);
- (g) Equipment sizing (station/ auto huts/gate huts/control);
- (h) Equipment lay out and details including cable troughs required(station/ auto huts/gate huts/control);
- (i) Track circuit diagram (station/ auto huts/gate huts/control);
- (j) Bonding plan (station/ auto huts/gate huts/control);
- (k) Circuit Diagrams;
- (l) Station/Gate working Rule/Rule diagrams;
- (m) Equipment Rack details;
- (n) Cable Termination Rack Diagram;
- (o) Fuse Details;
- (p) Location/junction boxes lay out & wiring details; and
- (q) Lightning, surge protection & earthing plan.

1.3 Telecommunication Engineering:

- (a) Location and connectivity of all equipments and cables;
- (b) Schematic and wiring diagrams;
- (c) Cable core plan and numbering scheme;
- (d) Equipment mounting details;
- (e) Cable route drawings;
- (f) Layouts of equipment racks in equipment rooms, trackside and all other equipment locations; and
- (g) Channeling plan.]

1.4 Electrical Engineering (Traction):

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<sup>10</sup> Only the Drawings relevant to the Project may be retained in this Schedule.

- (a) General arrangement of the Traction substation for (25 KV) system single transformer and the double transformer with incoming as 220 KV or 132 KV 3 phase. (These substations will be remotely controlled and operated);
- (b) General arrangement of SP (Sectioning Post) with the autotransformer. (These substations will be remotely controlled and operated);
- (c) General arrangement of the SSP (Sub sectioning post) with the autotransformer. (These substations will be remotely controlled and operated);
- (d) Power supply arrangement for (25 KV) AT system and sectioning drawing for the traction arrangement;
- (e) Power supply arrangement for the signals at the stations (Auxiliary transformer and the arrangement of 230 volt supply);
- (f) Typical layout of the control room at the traction substation SP, SSP;
- (g) Typical layout of the remote control center;
- (h) General arrangement of the implementation of the SCADA system;
- (i) Earthing arrangement at the TSS, SP and SSP;
- (j) Typical arrangement of the regulated OHE for (25 KV) system with the feeder arrangement;
- (k) Power supply arrangement with IR at interface point; and
- (l) All drawings of Electrification works mentioned in Annexure-II of schedule-D.

1.5 Electrical Engineering (General power supply):

- (a) General arrangement of the 11/33/66 KV substations for the station and the service buildings; and
- (b) General arrangement of the distribution of the 415 V 50 Hz supply to various loads.

1.6 Brief particulars of tractions installations;

- (a) Power supply installation abstract;
  - (b) Traction maintenance depot abstract;
  - (c) Restricted overhead equipment clearance abstract; and
  - (d) Electrical crossing over railway track abstract;
-

SCHEDULE - I  
(See Clause 10.3.2)

**PROJECT COMPLETION SCHEDULE**

**1 Project Completion Schedule**

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-I for each of the Project Milestones and the **Scheduled Completion Date**. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Authority of such compliance along with necessary particulars thereof.

**2 Project Milestone-I**

2.1 Project Milestone-I shall occur on the date falling on the [240<sup>th</sup> (two hundred and fortieth)] day from the Appointed Date (the “**Project Milestone-I**”).

2.2 Prior to the occurrence of Project Milestone-I, the Contractor shall have commenced construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 10% (ten per cent) of the Contract Price.

**3 Project Milestone-II**

3.1 Project Milestone-II shall occur on the date falling on the [480<sup>th</sup> (four hundred and eightieth)] day from the Appointed Date (the “**Project Milestone-II**”).

3.2 Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 35% (thirty five per cent) of the Contract Price.

**4 Project Milestone-III**

4.1 Project Milestone-III shall occur on the date falling on the [700<sup>th</sup> (seven hundredth)] day from the Appointed Date (the “**Project Milestone-III**”).

4.2 Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 70% (seventy per cent) of the Contract Price.

**5 Scheduled Completion Date**

5.1 The Scheduled Completion Date shall be the [900<sup>th</sup> (nine hundredth)] day from the Appointed Date.

5.2 On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

**6 Extension of time**

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

—

## SCHEDULE - J

(See Clause 12.1.2)

### Tests on Completion

#### 1 Schedule for Tests

- 1.1 The Contractor shall, no later than 30 (thirty) days prior to the likely completion of construction, notify the Authority's Engineer and the Authority of its intent to subject the Railway Project to Tests, and no later than 10 (ten) days prior to the actual date of Tests, furnish to the Authority's Engineer and the Authority detailed inventory and particulars of all works and equipment forming part of Works.
- 1.2 The Contractor shall notify the Authority's Engineer of its readiness to subject the Railway Project to Tests at any time after 10 (ten) days from the date of such notice, and upon receipt of such notice, the Authority's Engineer shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Authority who may designate its representative to witness the Tests. The Authority's Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 12 and this Schedule-J.

#### 2 Tests

- 2.1 Visual and physical test: The Authority's Engineer shall conduct a visual and physical check of construction to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include all the tests required to be conducted after installation in accordance with the provisions of ACTM and Manufacturer's manual.
- 2.2 Integrated Testing of system followed by a period of trial running. The test sequence may be as shown below:-
  - a) Tests on Equipment
  - b) Installation Test and sub-system individually
  - c) System Integrated Test
  - d) Final Acceptance Test
  - e) Trial Running
- 2.3 Sanction of Commissioner of Railway Safety (CRS) is required before opening of track in terms of Chapter XIII of Indian Railway Permanent Way Manual.
- 2.4 Current collection test with loaded train will be arranged and run by the Authority to check the profile of OHE.
- 2.5 Other tests: The Authority's Engineer may require the Contractor to carry out or cause to be carried additional tests, in accordance with Good Industry Practice, for determining the compliance of the Railway Project with Specifications and Standards.

- 2.6 Environmental audit: The Authority's Engineer shall carry out a check to determine conformity of the Railway Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 2.7 Safety Audit: The Authority's Engineer shall carry out, or cause to be carried out, a safety audit to determine conformity of the Railway Project with the safety requirements and Good Industry Practice.

### **3 Agency for conducting Tests**

All Tests set forth in this Schedule-J shall be conducted by the Authority's Engineer or such other agency or person as it may specify in consultation with the Authority.

### **4 Completion Certificate**

Upon successful completion of Tests, the Authority's Engineer shall issue the Provisional Certificate in accordance with the provisions of Article 12. For the avoidance of doubt, the Completion Certificate shall not be issued by the Authority's Engineer unless authorisation of the Commissioner for Railway Safety has been obtained.

—

SCHEDULE - K  
(See Clause 12.2 and 12.4)

**PROVISIONAL CERTIFICATE**

- 1 I/We, ..... (Name of the Authority’s Engineer), acting as the Authority’s Engineer, under and in accordance with the Agreement dated ..... (the “**Agreement**”), for the electrification of the railway lines of approximately \*\*\*\*TKM length comprising Package \*\* in .....- ..... Railway (the “**Railway Project**”) on Engineering, Procurement and Construction (EPC) basis through ..... (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been undertaken to determine compliance of the Railway Project with the provisions of the Agreement.
- 2 Certain minor works are incomplete and these are not likely to cause material inconvenience to the Users of the Railway Project or affect their safety or the movement of rail traffic in any manner. These works have been specified in the Punch List appended hereto, and the Contractor has agreed and accepted that it shall complete all such works in the time and manner set forth in the Agreement.
- 3 In view of the foregoing, I/We am/are satisfied that the Railway Project from km ..... to km ..... can be safely and reliably placed in service of the Authority for railway freight and passenger traffic, subject to authorisation by the Commissioner of Railway Safety in accordance with Applicable Laws. In terms of the Agreement, the Railway Project is hereby provisionally declared fit for entry into operation on this the ..... day of ..... 20.....

ACCEPTED, SIGNED, SEALED  
AND DELIVERED  
For and on behalf of  
CONTRACTOR by:  
by:

SIGNED, SEALED AND  
DELIVERED  
For and on behalf of  
AUTHORITY’S ENGINEER

(Signature)

(Signature)

## COMPLETION CERTIFICATE

1 I/We, ..... (Name of the Authority's Engineer), acting as the Authority's Engineer, under and in accordance with the Agreement dated ..... (the "**Agreement**"), for the electrification of the railway lines of approximately \*\*\*\*TKM length comprising Package \*\* in.....- ..... Railway (the "**Railway Project**") on Engineering, Procurement and Construction (EPC) basis through ..... (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been successfully undertaken to determine compliance of the Railway Project with the provisions of the Agreement, and I/We am/are satisfied that the Railway Project can be safely and reliably placed in service of the Users thereof in pursuance of the authorisation by the Commissioner for Railway Safety under Applicable Laws..

2 It is certified that, in terms of the aforesaid Agreement, all works forming part of Railway Project have been completed, and the Railway Project is hereby declared fit for entry into operation on this the ..... day of ..... 20.....

SIGNED, SEALED AND DELIVERED

For and on behalf of

the Authority's Engineer by:

(Signature)

(Name)

(Designation)

(Address)



SCHEDULE - L  
(See Clause 16.1.1)

**SELECTION OF AUTHORITY'S ENGINEER**

**1 Selection of Authority's Engineer**

- 1.1 The provisions of the Model Request for Proposals for Selection of Technical "Consultants, issued by the Ministry of Finance, Government of India vide OM 24(23)/PF-II/2008 dated 21, May 2009, or any substitute thereof shall apply for selection of an experienced firm to discharge the functions and duties of an Authority's Engineer. Provided, however, that no entity which is owned or controlled by the Authority shall be eligible for appointment as the Authority's Engineer hereunder.
- 1.2 In the event of termination of the Technical Consultants appointed in accordance with the provisions of Paragraph 1.1, the Authority shall appoint another firm of Technical Consultants forthwith and may engage a government-owned entity in accordance with the provisions of Paragraph 3 of this Schedule-L.

**2 Terms of Reference**

The Terms of Reference for the Authority's Engineer (the "TOR") shall substantially conform with Annex 1 to this Schedule L.

**3 Appointment of Government entity as Authority's Engineer**

Notwithstanding anything to the contrary contained in this Schedule, the Authority may in its discretion appoint a government-owned entity as the Authority's Engineer; provided that such entity shall be a body corporate having as one of its primary functions the provision of consulting, advisory and supervisory services for engineering projects; provided further that a government-owned entity which is owned or controlled by the Authority shall not be eligible for appointment as Authority's Engineer.

Annex – I  
(Schedule - L)

**TERMS OF REFERENCE FOR AUTHORITY’S ENGINEER**

**1 Scope**

- 1.1 These Terms of Reference (the “**TOR**”) for the Authority’s Engineer are being specified pursuant to the EPC Agreement dated ..... (the “**Agreement**), which has been entered into between the [Chief Administrative Officer, Central Organisation for Railway Electrification] (the “**Authority**”) and ..... (the “**Contractor**”) for the Railway Project to undertake the electrification of the railway lines of approximately \*\*\*\*\*TKM length comprising Package in the ..... Railway zone through a contract on Engineering, Procurement, Construction (EPC) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.
- 1.2 The TOR shall apply to construction and maintenance of the Railway Project.

**2 Definitions and interpretation**

- 2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- 2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
- 2.3 The rules of interpretation contained in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, *mutatis mutandis*, to this TOR.

**3. General**

- 3.1 The Authority’s Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.
- 3.2 The Authority’s Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Authority before determining:
- (a) any Time Extension;
  - (b) any additional cost to be paid by the Authority to the Contractor;
  - (c) the Termination Payment;
  - (d) providing Power Block or Traffic Block to the Contractor;

- (e) approval of signalling plan and signalling plan and route control chart;
  - (f) approval of disconnections for modification of signalling and telecom works;
  - (g) any other matter which is not specified in (a) to (f) above and which creates an obligation or liability on either Party for a sum exceeding Rs. 5,000,000 (Rs. fifty lakh).
- 3.3 The Authority's Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Authority's Engineer within 10 (ten) days of the beginning of every month.
- 3.4 The Authority's Engineer shall aid and advise the Authority on any proposal for Change of Scope under Article 13.
- 3.5 In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Authority's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on Good Industry Practice and authentic literature.
- 3.6 The Authority's Engineer shall verify the as built drawings submitted by the Contractor after completion of the works. These drawings will be signed by the Authority's Engineer after due verification.

#### **4 Construction Period**

- 4.1 During the Construction Period, the Authority's Engineer shall review the Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Consultant in accordance with the provisions of Clause 10.1.6. The Authority's Engineer shall complete such review and send its observations to the Authority and the Contractor within 15 (fifteen) days of receipt of such Drawings; provided, however, that in case of an Important Bridge, a Major Bridge or Structure, and interlocking and telecom switching equipment the aforesaid period of 15 (fifteen) days may be extended up to 30 (thirty) days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
- 4.2 The Authority's Engineer shall review any revised Drawings sent to it by the Contractor and furnish its comments within 10 (ten) days of receiving such Drawings.
- 4.3 The Authority's Engineer shall review the Quality Assurance Plan submitted by the Contractor and shall convey its comments to the Contractor within a

period of 21 (twenty-one) days stating the modifications, if any, required thereto.

- 4.4 The Authority's Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works, and convey its comments to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor.
- 4.5 The Authority's Engineer shall grant written approval to the Contractor, where necessary, for interruption and diversion of the flow of traffic in the existing lane(s) of the Railway Project for purposes of maintenance during the Construction Period in.
- 4.6 The Authority's Engineer shall review the monthly progress report furnished by the Contractor and send its comments thereon to the Authority and the Contractor within 7 (seven) days of receipt of such report.
- 4.7 The Authority's Engineer shall inspect the Construction Works and the Railway Project and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. In particular, the Authority's Engineer shall include in its Inspection Report, the compliance of the recommendations made by the Safety Consultant in accordance with the provisions of Clause 10.1.6.
- 4.8 The Authority's Engineer shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Authority's Engineer may require.
- 4.9 For determining that the Works conform to Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 4.9, the tests specified in \*\*\*\*\* Manuals or any modification/substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance.
- 4.10 The Authority's Engineer shall test check at least 20% (twenty per cent) of the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor.
- 4.11 The timing of tests referred to in Paragraph 4.9, and the criteria for acceptance/ rejection of their results shall be determined by the Authority's Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.
- 4.12 In the event that results of any tests conducted under Clause 11.10 establish any Defects or deficiencies in the Works, the Authority's Engineer shall require the Contractor to carry out remedial measures.

- 4.13 The Authority's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Railway Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 19.6 shall apply.
- 4.14 In the event that the Contractor fails to achieve any of the Project Milestones, the Authority's Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Authority's Engineer shall determine that completion of the Railway Project is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Authority's Engineer shall review the same and send its comments to the Authority and the Contractor forthwith.
- 4.15 The Authority's Engineer shall obtain from the Contractor a copy of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.4.
- 4.16 Authority's Engineer may recommend to the Authority suspension of the whole or part of the Works if the work threatens the safety of the public and pedestrians. After the Contractor has carried out remedial measure, the Authority's Engineer shall inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked.
- 4.17 In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and the public, and requires the Authority's Engineer to inspect such works, the Authority's Engineer shall inspect the suspended works within 3 (three) days of receiving such notice, and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.
- 4.18 The Authority's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-J and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 4.18 and all matters incidental thereto, the Authority's Engineer shall act under and in accordance with the provisions of Article 12 and Schedule-J.

## **5 Determination of costs and time**

- 5.1 The Authority's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- 5.2 The Authority's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.

- 5.3 The Authority's Engineer shall consult each Party in every case of determination in accordance with the provisions of Clause 16.5.

## **6. Payments**

- 6.1 The Authority's Engineer shall withhold payments for the affected works for which the Contractor fails to revise and resubmit the Drawings to the Authority's Engineer in accordance with the provisions of Clause 10.2.7 (d).

- 6.2 Authority's Engineer shall -

- (a) within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 17.4, determine the amount due to the Contractor and recommend the release of 90 (ninety) per cent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and
- (b) within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in Clause 17.4, deliver to the Authority and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of Clause 17.11.

## **7. Other duties and functions**

The Authority's Engineer shall perform all other duties and functions as specified in the Agreement.

## **8 Miscellaneous**

- 8.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the Authority's Engineer to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the Authority's Engineer thereon, shall be furnished by the Authority's Engineer to the Authority forthwith.
- 8.2 The Authority's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- 8.3 Within 90 (ninety) days of the Project Completion Date, the Authority's Engineer shall obtain a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Authority, reflecting the Railway Project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Railway Project and setback lines, if any, of the buildings and structures forming part of Project Facilities; and shall hand them over to the Authority against receipt thereof.
- 8.4 The Authority's Engineer, if called upon by the Authority or the Contractor or both, shall mediate and assist the Parties in arriving at an amicable settlement of any Dispute between the Parties.

- 8.5 The Authority's Engineer shall inform the Authority and the Contractor of any event of Contractor's Default within one week of its occurrence.

SCHEDULE - M

(See Clauses 17.4.1, 17.6.1, and 17.6.1)

**Forms of Payment Statements**

**1. Stage Payment Statement for Works**

The Stage Payment Statement for Works shall state:

- (a) the estimated amount for the Works executed in accordance with Clause 17.3.1 subsequent to the last claim;
- (b) amounts reflecting adjustments in price for the aforesaid claim;
- (c) the estimated amount of each Change of Scope Order executed subsequent to the last claim;
- (d) amounts reflecting adjustment in price, if any, for (c) above in accordance with the provisions of Clause 13.2.3 (a);
- (e) total of (a), (b), (c) and (d) above;
- (f) Deductions:
  - (i) Amounts to be deducted in accordance with the provisions of the Agreement except taxes;
  - (ii) any amount payable by the Contractor to the Authority under the provisions of the Agreement; and
  - (iii) any amount towards deduction of taxes at source under Applicable Laws;
- (g) Net claim: (e) – (f);
- (h) the amounts received by the Contractor up to the last claim:
  - (i) for the Works executed (excluding Change of Scope orders);
  - (ii) for Change of Scope Orders, and
  - (iii) taxes deducted at source under Applicable Laws

**2. Contractor's claim for Damages**

**Note:** The Contractor shall submit its claims in a form acceptable to the Authority.

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SCHEDULE - N  
(See Clause 18.1)

**INSURANCE**

**1. Insurance during Construction Period**

1.1 The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the Completion Certificate, the following insurances for any loss or damage occurring on account of Non Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:

- (a) insurance of Works, Plant and Materials and an additional sum of 15% (fifteen per cent) of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and
- (b) insurance for the Contractor's equipment brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

1.2 The insurance under paragraph 1.1 (a) and (b) above shall cover the Authority and the Contractor against all loss or damage from any cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

**2. Insurance for Contractor's Defects Liability**

The Contractor shall effect and maintain insurance cover for the Works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and which arises from a cause occurring prior to the issue of the Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under Applicable Laws and in accordance with Good Industry Practice.

**3. Insurance against injury to persons and damage to property**

3.1 The Contractor shall insure against its liability for any loss, damage, death or bodily injury, or damage to any property (except things insured under Paragraphs 1 and 2 of this Schedule) or to any person (except persons insured under Clause 18.9), which may arise out of the Contractor's performance of this Agreement. This insurance shall be for a limit per occurrence of not less than the amount specified below with no limit on the number of occurrences.

The insurance cover shall be not less than: Rs. 10,00,00,000 (Rupees ten crore only)

- 3.2 The insurance shall be extended to cover liability for all loss and damage to the Authority's property arising out of the Contractor's performance of this Agreement excluding:
- (a) the Authority's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and
  - (b) damage which is an unavoidable result of the Contractor's obligations to execute the Works.

4. **Insurance to be in joint names**

The insurance under paragraphs 1 to 3 above shall be in the joint names of the Contractor and the Authority.

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**SCHEDULE - O**

*(See Clauses 4.7)*

**Provision of Traffic Blocks and Power Blocks**

**1 Provision of Traffic Blocks and Power Blocks**

- 1.1 The authority shall provide Power Blocks or Traffic Blocks or Power Blocks, or both, during day or night, as the case may be, to enable the Contractor to execute the construction works of overhead equipment, or such other work as may be determined by the Authority's Engineer. The maximum aggregate duration of blocks for the Railway Project shall be [\*\*\*] hours.
- 1.2 The Contractor is entitled to execute the construction work within the block period specified in this Schedule O. The total duration of Power Block or Traffic Block or both, as the case may be, shall not exceed 20% of the period specified in this Agreement. In case such total duration exceeds 20%, the Contractor shall pay Damages at the rate of Rs.10,000 (Rupees ten thousand) per hour or part thereof for the exceeded Block periods.

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SCHEDULE - P

(See Clauses 4.4)

**Machinery and equipment**

1. The Authority shall provide the following machinery and equipment to the Contractor at the daily rates shown against each machinery and equipment:

| <b>Serial No.</b> | <b>Particulars of each type of machinery and equipment</b> | <b>Daily rate in rupees in rounded figures.</b> |
|-------------------|--|---|
| 1                 | 8 wheeler Tower Wagon                                      | 2,000   |
| 2                 | Diesel Loco  | 2,000   |
| 3                 | BRN wagon  | 1,000   |
| 4                 | Conventional non-ac coach                                  | 1,000   |
| 5                 | BRN mounted 5 MT Rail Crane                                | 1,000   |

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# **Appendices**



APPENDIX-I  
**LIST OF BID-SPECIFIC PROVISIONS<sup>£</sup>**

**A. Provisions with currency-based footnotes**

*Footnotes with “£” sign*

1. Appendix-I: List of Bid-specific provisions.

**Note:** The above footnotes marked “£” shall be removed prior to execution of the Concession Agreement.

*Footnotes with “\$” sign*

1. Heading of the EPC Agreement
2. Clause 1.5: Joint and several liability.
3. Clause 3.2.1: Obligations relating to sub-contracts and any other agreements.
4. Clause 13.5.1: Power of the Authority to undertake works.
5. Clause 26.1: Definitions of Consortium and Lead Member.
6. Schedule-F (Annex-I): Form of Bank Guarantee: Paragraph 8.
7. Schedule-F (Annex-III): Form of Bank Guarantee: Recital B and Paragraph

**Note:** Non-numerical footnotes marked “\$” shall not be deleted. They shall remain in the Concession Agreement to be executed between the Parties.

**B. Provisions where curly brackets are used**

1. Clause 1.5: Joint and several liability.
2. Clause 3.2.1: Obligations relating to sub-contracts and any other agreements.
3. Clause 5.1 (l): Representations and warranties of the Contractor.
4. Clause 25.13 (a) and (b): Notices.
5. Clause 26.1: Definitions of Affiliate, Consortium and Lead Member.
6. EPC Agreement: Signature page.
7. Schedule-F (Annex-I): Form of Bank Guarantee: Recital B and Paragraph 1.
8. Schedule-F (Annex-III): Form of Bank Guarantee: Recital B.

**C. Provisions with blank spaces**

1. Recitals: First line and Recital 2.

**Note:** All blank spaces in Schedules shall be retained in the EPC Agreement to be executed between the Parties. These shall be filled up as and when the format of the respective Schedule is used.

**Note:** The Table of Contents may also be suitably modified to reflect omission(s) and/or re-numbering of Bid-specific provisions.

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<sup>£</sup> This Appendix-I contains a list of provisions that would need to be suitably modified for reflecting bid-specific provisions after the Contractor has been selected. This Appendix-I may be included in the draft Concession Agreement forming part of the bid documents. It may however, be deleted when the Concession Agreement is to be executed.

APPENDIX-II  
**LIST OF PROJECT-SPECIFIC PROVISIONS<sup>11</sup>**

**A. Provisions with serially numbered Footnotes (Fn)**

1. Recital: First line of the EPC Agreement (Fn. 1).
2. Clause 4.3: Obligations relating to Environmental and Forest Clearances (Fn.2).
3. Clause 7.5: Retention Money (Fn.3): Also address Clause 7.1.
4. Clause 17.2.1: Advance Payment (Fn. 4).
5. Appendix-II: List of Project-specific provisions (Fn. 11).

**\*Note:** The provisions to which these Footnotes relate also include square parenthesis or asterisks, which may be addressed simultaneously. Such square parenthesis or asterisks have not been listed in (B) or (C) below.

**B. Provisions with square parenthesis**

1. Recitals: Recitals 1.
2. Clause 10.3.1: Construction of the Railway Project.
3. Clause 26.1: Project Assets.

**C. Provisions with asterisks**

1. Recitals: Recitals B, C and E.
2. Clause 17.1.1: Contract Price.
3. Clause 26.1: Definition of Railway Project.

**D. Schedules with Footnotes, square parenthesis and asterisks**

1. Schedules A, B, C, D and G relate to the physical and technical aspects of the Project and contain several Notes, Footnotes, square parenthesis and asterisks. These Schedules require a comprehensive and integrated scrutiny for Project-specific customisation.
2. Schedule-F (Annex-II): Form of Bank Guarantee: Recital A.
3. Schedule-F (Annex-III): Form of Bank Guarantee: Paragraph 8.
4. Schedule-H (Annex-I): Drawings
5. Schedule-I: Project Completion Schedule: Paragraphs 2.1, 3.1, 4.1 and 5.1.
6. Schedule-J: Tests on Completion: Paragraph 2.1.
7. Schedule-L (Annex-I): Terms of Reference for Authority's Engineer: Paragraphs 1.1 and 4.9.
8. Schedule-O: Provision of Traffic Blocks and Power Blocks: Paragraphs 1.1.

**Note:** The Table of Contents may also be suitably modified to reflect omission(s) and/or re-numbering of Project-specific provisions.

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<sup>11</sup> This Appendix-II contains a list of provisions that would need to be suitably modified prior to issue of bid documents for reflecting project-specific provisions. This Appendix-II should be omitted before issuing the draft Concession Agreement, forming part of the bid documents.



## The End of Schedules