

## **5. FORM OF CONTRACT AGREEMENT**

## 5. Form of Contract Agreement

THIS CONTRACT AGREEMENT is made the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_..

BETWEEN

(1) *[Name of Employer]*, a corporation incorporated under the laws of *[country of Employer]* and having its principal place of business at *[address of Employer]* (hereinafter called “the Employer”), and (2) *[name of Contractor]*, a corporation incorporated under the laws of *[country of Contractor]* and having its principal place of business at *[address of Contractor]* (hereinafter called “the Contractor”)

WHEREAS the Employer desires to engage the Contractor to design, manufacture, test, deliver, install, complete and commission certain Facilities, viz. *[list of facilities]* (“the Facilities”) and the Contractor have agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

### **Article 1. Contract Documents**

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|-----|---|
| 1.1 | <b>Contract Documents</b> (Reference GCC Clause 2)<br>The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:  |
|     | <ul style="list-style-type: none"><li>(a) This Contract Agreement and the Appendices hereto</li><li>(b) Notification of Award read in conjunction with Amendments/ Erratas, if any</li><li>(c) Special Conditions of Contract read in conjunction with Amendments/ Erratas, if any</li><li>(d) General Conditions of Contract read in conjunction with Amendments/ Erratas, if any</li><li>(e) Technical Specifications and Drawings read in conjunction with Amendments/ Erratas, if any</li><li>(f) The Bid and Price Schedules submitted by the Contractor</li><li>(g) Form and Procedures (as listed) read in conjunction with Amendments/ Erratas, if any</li><li>(h) Integrity Pact</li></ul> |
| 1.2 | <b>Order of Precedence</b> (Reference GCC Clause 2)<br>In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.  |
| 1.3 | <b>Definitions</b> (Reference GCC Clause 1)<br>Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions of Contract.  |

### **Article 2. Contract Price and Terms of Payment**

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|-----|---|
| 2.1 | <b>Contract Price</b> (Reference GCC Clause 11)<br>The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be the aggregate of: <i>[amount of local currency in words]</i> , <i>[amount</i> |
|-----|---|

*in figures*], or such other sums as may be determined in accordance with the terms and conditions of the Contract.

- 2.2        **Terms of Payment** (Reference GCC Clause 12)  
The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in Appendix 1 (Terms and Procedures of Payment) hereto.

**Article 3. Effective  
Date for Determining  
Time for Completion**

3.1        **Effective Date** (Reference GCC Clause 1)  
The Time of Completion of the Facilities shall be determined from the date of Notification of Award provided all of the following conditions have been fulfilled within a period of two (2) months from the date of said Notification of Award:

- (a)       This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor;
- (b)       The Contractor has submitted to the Employer the performance security, security towards faithful performance of the Deed(s) of Joint Undertaking (if applicable) and the advance payment security;
- (c)       The Employer has paid the Contractor the Advance Payment.

Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.

- 3.2       If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of Notification of Award because of reasons attributable to the Employer, the Contract would become effective only from the date of fulfillment of all the above mentioned conditions and, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.

- 3.3       However, if any of the conditions listed under 3.1 above are not fulfilled within two (2) months from the date of Notification of Award because of reasons attributable to the Contractor, the Contract will be effective from the date of Notification of Award. In this case, Contract price and/or time for completion shall not be adjusted.

**Article 4.**

It is expressly understood and agreed by and between the Contractor and the Employer that the Employer is entering into this Agreement solely on its own behalf and not on behalf of any other person or entity. In particular it is expressly understood and agreed that the Government of India is not a party to this Agreement and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that the Employer is an Independent legal entity with power and authority to enter into contracts solely on its own behalf under the applicable laws of India and the general principles of Contract Law. The Contractor expressly agrees, acknowledges and understands that the Employer is not an Agent, Representative or Delegate of the Govt.

of India. It is Further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Contract. Accordingly, the Contractor expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Government of India arising out of this Contract and covenants not to sue the Government of India as to any manner, claim, cause of action or thing whatsoever arising of or under this Agreement.

#### **Article 5. Appendices**

The Appendices listed in the attached list of Appendices shall be deemed to form an integral part of this Contract Agreement.

Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by for and on behalf of the Employer

\_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Title]

in the presence of \_\_\_\_\_

Signed by for and on behalf of the Contractor

\_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Title]

in the presence of \_\_\_\_\_

CONTRACT AGREEMENT

dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

BETWEEN

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*["the Employer"]*

and

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*["the Contractor"]*

## APPENDICES

Appendix 1	Terms and Procedures of Payment
Appendix 2	Price Adjustment
Appendix 3	Insurance Requirements
Appendix 4	Time Schedule
Appendix 5	List of Approved Subcontractors
Appendix 6	Scope of Works and Supply by the Employer
Appendix 7	List of Documents for Approval or Review
Appendix 8	Functional Guarantees

## APPENDIX-1

### TERMS AND PROCEDURES OF PAYMENT

*In accordance with the provisions of GCC Clause 12 (Terms of Payment), the Employer shall pay the Contractor in the following manner and at the following times, on the basis of the Price Break down given in the Section on Price Schedules. Payments will be made in the currencies quoted by the Bidder unless otherwise agreed between the parties. Application for payment in respect of part deliveries may be made by the Contractor as work proceeds.*

#### TERMS OF PAYMENT

**A. Schedule No. 2: Plant and Equipment (excluding Mandatory Spares and Type Tests) supplied from within the Employer's country**

In respect of Plant and Equipment supplied from within the Employer's country the following payment shall be made:

**A1. For Ex-works Price component of Plant and Equipment:**

**(I)(a) Seven and Half Percent (7.5%)** of the total Ex-works price component as Initial Advance Payment on:

- (i) Signing of the Contract Agreement.
- (ii) Submission of an unconditional Bank Guarantee covering the advance amount plus GST if applicable on the advance payment to be paid to the contractor which shall be initially kept valid upto (ninety) 90 days beyond the schedule date of Completion of all the Facilities under the package. However, in case of delay in completion of facilities, the validity of this Bank Guarantee shall be extended by the period of such delay. Proforma of Bank Guarantee is enclosed in Section - VII - Bank Guarantee Form for Advance Payment.
- (iii) Submission by the Main Contractor of an unconditional Bank Guarantee(s) /Insurance Surety Bonds(s) towards Performance Security(s) in respect of all Contracts, initially valid up to ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However in case of delay in Defect Liability Period, the validity of these Bank Guarantees/Insurance Surety Bond(s) shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.

- (iv) In case Deed(s) of Joint Undertaking by the Contractor along with his Associate form part of the contract, then submission of unconditional Bank Guarantee/Insurance Surety Bond from such Associate towards faithful performance of the Deed of Joint Undertaking for the amount specified in the respective Deed of Joint Undertaking and valid up to ninety (90) days after end of Defect Liability Period of all equipment covered under the contract. The proforma of Bank Guarantee/Insurance Surety Bond shall be as enclosed in Section-VII-Form of Bank Guarantee by Associate.
- (v) Submission of a detailed PERT Network/ L2 Schedule based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.

**(I) (b) Seven and Half Percent (7.5%) of Total Ex-Works Supply Price Component of Contract Price as Interim Advance Payment on:**

- (i) Fulfilment of conditions mentioned at A1 (I)(a)(i) to (v) above.
- (ii) Submission of an unconditional Bank Guarantee covering the advance amount plus GST if applicable on the advance payment to be paid to the contractor, which shall be initially kept valid up to (ninety) 90 days beyond the schedule date for successful Completion of the Facilities under the Package. However, in case of delay in completion of facilities, the validity of this Bank Guarantee shall be extended by the period of such delay. Proforma of Bank Guarantee is enclosed in Section-VII - Bank Guarantee Form for Advance Payment.
- (iii) Completion of ordering of following Systems and Submission of copy of unpriced purchase order(s) placed by Contractor: -

Placement of PO to CO2 technology licensor and CO2 columns fabrication	2.5%
Placement of PO/acceptance of design document of Carbonation Reactors	2.5%
Placement of PO/acceptance of design document of Hydraulic Brick Press	2.5%

Note: In case contractor is manufacturer/ designer of above and placement of order to sub-contractor is not applicable, corresponding advance shall be paid upon declaration from the contractor.

- (II) **Fifty Percent (50%)** of Ex-Works Price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon dispatch of equipment from manufacturer's works on pro-rata basis on production of invoices and satisfactory evidence of shipment which shall be

original Good Receipt/Rail Receipt including Material Dispatch Clearance Certificate (MDCC) issued by the Employer.

- (III) **Twenty Percent (20%)** of the Ex-works price component of the Contract Price for each identified equipment shall be paid progressively on pro-rata basis on receipt of equipment at site and physical verification and certification by the Project Manager of having the equipment received and stored at site.
- (IV) **Three Percent (3%)** of the Ex-works price component of contract price will be made on successful commissioning of CO2 block and on certification by the Project Manager.
- (V) **Three Percent (3%)** of the Ex-works price component of contract price will be made on successful commissioning of Autoclave and on certification by the Project Manager.
- (VI) **Four Percent (4%)** of the Ex-works price component of contract price will be made on successful commissioning of Integrated System and on certification by the Project Manager.
- (VII) **Five Percent (5%)** of the Total Ex-works price component of the Contract price to be paid on pro-rata basis on Completion of the Facilities (or part thereof), functional guarantee test and operational Acceptance certificate including all associated auxiliaries and ancillary works.

Note: (1) The basis for pro-rata payment at (II) and (III) above shall be the billing break-up, to be mutually discussed and agreed upon.

The Billing Break Up shall be generally on item rate basis. However, for the items which are generally supplied and billed on weight (tonnage) basis, the Billing Break-Up may be considered on weight (tonnage) basis.

- (2) In case Installation Price (excluding Civil/Structural works price) is less than **15%** of Ex-works Price of Main Equipment, the amount by which it is lower shall be retained proportionately from Ex-works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager.
- @(3) In case the Civil Works Price (including Site Fabricated Structural works price) is less than **15%** of the Ex-works Price of Main Equipment, the amount by which it is lower shall be retained proportionately from the Ex-Works component of Contract price while releasing payments due on dispatch of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of Civil Works including Structural works (if any) corresponding to the respective equipment and its certification by the Project Manager.



- (4) In case the Contractor decides not to take advance payment mentioned at (I) above, 90% of the advance amount shall be paid progressively on pro-rata basis along with the receipt payment, as specified in para (III) above.
- (5) The release of pro-rata payment at (III) above shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.

B. ~~Schedule 2 & 6: Payment Terms for Mandatory Spares and Recommended Spares (When ordered) on Ex-Works (India) basis~~

~~The Ex-works price component of spares shall be paid as under:~~

- ~~(i) **Seventy five percent (75%)** of Ex-works price component of the spares to be paid on pro-rata basis: upon despatch to site and against invoices and shipping documents along with Material Despatch Clearance Certificate (MDCC) issued by the Employer.~~
- ~~(ii) **Twenty five percent (25%)** of Ex-works price component of the spares to be paid on pro-rata basis: on receipt and storage at site and on physical verifications by the Project Manager of having received and stored the spares at site.~~

C. **Schedule No. 3: Local Transportation**

- a) **All Plant & Equipment including Mandatory Spares & Recommended spares (if ordered): One Hundred Percent (100%)** Local Transportation (including inland transit insurance charges) for the **Plant & Equipment including Mandatory Spares & Recommended spares (if ordered)** shall be paid to the Contractor pro-rata to the value of the equipment received at site and on production of invoices by the Contractor. The aggregate of all such prorata payments shall, however, not exceed the total amount identified in the Contract for Local Transportation. However, wherever equipment wise local transportation charges (including inland transit insurance charges) have been identified by the Contractor, the payment shall be made after receipt of equipment at site based on the charges so identified in the Contract.

D. **Schedule No. 4: Installation Services**

The Installation Services component shall be paid as under:

- (I)(a) **Two and Half Percent (2.5%)** of the total installation services component of the Contract Price will be paid to the Contractor as **interest bearing** advance payment on:
  - (i) Signing of Contract Agreement(s).
  - (ii) Establishing their office at site preparatory to mobilisation of their erection establishment.
  - (iii) Submission of an unconditional Bank Guarantee for an amount equal to 110% of the advance plus GST, if applicable on the advance amount, which shall be initially kept valid up to ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in Completion of Facilities the validity of this advance Bank Guarantee

shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.

- (iv) Submission by the Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts and initially valid up to ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
- (v) In case Deed of Joint Undertaking by the Contractor along with his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate / Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid up to ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract.

However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.

- (vi) Submission of a detailed PERT Network/ L2 Schedule based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
- (vii) Advance Payment for Installation services price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipment & Safety Personal Protective Equipment as per minimum quantity specified in the Bidding Documents.

In case the Contractor decides not to take interest bearing advance payment, the first progressive payment for Installation services price component shall be released after certification of Engineer-in-Charge that the Contractor has brought to the site the Safety equipment & Safety Personal Protective equipment as per minimum quantity specified in the Bidding Documents.

- (I)(b) **Two and Half Percent (2.5%)** of the total installation services component of the Contract Price (excluding Civil & Structural works) will be paid to the Contractor as **interest bearing** advance payment on:

- (i) Fulfilment of conditions mentioned at Clause D(I)(a) - (i) to (vii) above.
- (ii) T&P and manpower mobilization as identified along with PERT Network for start of erection and certification thereof by the Engineer-in-Charge.

(iii) Submission of an unconditional Bank Guarantee for an amount equal to 110% of the advance plus GST, if applicable on the advance amount, which shall be initially kept valid up to ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in Completion of Facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.

(I)(c) The recovery of the interest component on the advance amount shall be made from the progressive payments released to the Contractor as per Clause D(II) of APPENDIX-I to Form of Contract Agreement, Section-VII. The amount of interest to be recovered from a particular bill shall be calculated @ “[SBI 1-year MCLR as on 01st April of applicable year + 100 bps] per annum” on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payments under the contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.

**Note:** 1. The release of first progressive payment for installation services shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.

2. In case the contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payment (i.e. in the progressive payment indicated at (II) below).

(II) **Seventy Percent (75%)** of the Installation Services component of contract price will be made on pro-rata basis against progressive erection of the equipment on certification by the Project Manager for the quantum of work completed and by the Project Manager's field quality assurance & surveillance representative for the successful completion of quality check points involved in the quantum of work billed.

**Note:** In case the Installation Price (excluding Civil/Structural works price) is more than **25%** of the Ex-works Price of Main Equipment, the amount by which it is higher shall be retained while releasing progressive payments due on installation of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities indicated at (III) below.

- (II.a) Three Percent (3%) of the Ex-works price component of contract price will be made on successful commissioning of CO2 block and on certification by the Project Manager.
- (II.b) Three Percent (3%) of the Ex-works price component of contract price will be made on successful commissioning of Autoclave System and on certification by the Project Manager.
- (II.c) Four Percent (4%) of the Ex-works price component of contract price will be made on successful commissioning of Integrated System
- (III) Ten Percent (10%) of the total installation services component of the Contract price to be paid on pro-rata basis on Completion of the Facilities (or part thereof) functional guarantee test and operational Acceptance certificate including all associated auxiliaries and ancillary works.

**Note:** The basis for the pro-rata payments at Sl. No. (II) above shall be the Billing Break up to be finalised subsequently.

The Billing Break Up shall be generally on item rate basis. However, for the items which are generally supplied and billed on weight (tonnage) basis, the Billing Break-Up may be considered on weight (tonnage) basis.

#### **E. Schedule No. 4: Civil Works**

The Civil Works Price Component of the Contract Price shall be paid as under:

- (I)(a) **Two and Half Percent (2.5%)** of the total Civil Works Price component of the Contract Price will be paid to the Contractor as **interest bearing** advance payment on:
  - (i) Signing of Contract Agreement.
  - (ii) Establishment their office at site in preparatory to commencement of Civil Works.
  - (iii) Submission of an unconditional Bank Guarantee for an amount equal to 110% of the advance plus GST, if applicable on the advance amount, which shall be initially kept valid up to ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in Completion of Facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
  - (iv) Submission by the Contractor of an unconditional Bank Guarantee(s)/ Insurance Surety Bond(s) towards Performance Security(s) in respect of all Contracts, and initially valid up to ninety (90) days after the end of Defects Liability Period of all equipment

covered under the Contract. The proforma of Bank Guarantee/ Insurance Surety Bond is enclosed in Section-VII-Form of Performance Security. enclosed in Section-VII of Bidding Documents. The proforma of Bank Guarantee(s)/ Insurance Surety Bond(s) shall be as enclosed in Section - VII.

- (v) Submission of a detailed PERT Network/ L2 Schedule based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
- (vi) Submission of unconditional Bank Guarantee(s)/ Insurance Surety Bond(s) from all executants of Deed(s) of Joint Undertaking other than Contractor towards faithful performance of the Deed(s) of Joint Undertaking for amount(s) and validity specified in the respective Deed(s) of Joint Undertaking enclosed in Section-VII of Bidding Documents. The proforma of Bank Guarantee(s) shall be as enclosed in Section – VII.
- (vii) Advance Payment for Civil works price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipment & Safety Personal Protective Equipment as per minimum quantity specified in the Bidding Documents.

In case the Contractor decides not to take advance payment, the first progressive payment for Civil works price component shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipment & Safety Personal Protective Equipment as per minimum quantity specified in the Bidding Documents.

(I)(b) Further, **Two and Half Percent (2.5%)** of the total Civil Works Price component of the Contract Price will be paid to the Contractor as **interest bearing** advance payment on:

- (i) Fulfilment of conditions mentioned at E(I) (a)(i) to (vii) above.
- (ii) Submission of an unconditional Bank Guarantee for an amount equal to 110% of the advance plus GST, if applicable on the advance amount, which shall be initially kept valid up to ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in Completion of Facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
- (iii) T&P mobilization as identified along with PERT Network for start of Civil works and certificate thereof by the Engineer-in-Charge.

(I)(c) The recovery of the interest component on the above advance amount shall be made from the progressive payments released to the contractor as per

clause E(II) of Appendix-1 to Form of Contract Agreement, Book 3 of 3, Section-VII. The amount of interest to be recovered from a particular bill shall be calculated @ “[SBI 1-year MCLR as on 01<sup>st</sup> April of applicable year + 100 bps] per annum” on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payments under the contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.

**Note: In case the contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the Progressive payment at II below).**

- (II) **Seventy Five Percent (75%)** of the total Civil Works Price Component of Contract Price shall be paid progressively on certification by the Project Manager for the quantum of work completed and by Project Manager's field quality surveillance representative for the successful completion of quality check points involved in the quantum of work billed.

Note: (1) In case the Civil Works Price (including Site Fabricated Structural Works Price) is more than **25 %** of the Ex-works Price of Main Equipment, the amount by which it is higher shall be retained while releasing progressive payments due on completion of civil works (including Site Fabricated Structural works), and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities.

- (2) The release of first progressive payment for civil works shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.**

(II.a) Three Percent (3%) of the Ex-works price component of contract price will be made on successful commissioning of Co2 block system and on certification by the Project Manager.

(II.b) Three Percent (3%) of the Ex-works price component of contract price will be made on successful commissioning of Autoclave System and on certification by the Project Manager.

(II.c) Four Percent (4%) of the Ex-works price component of contract price will be made on successful commissioning of Integrated system and on certification by the Project Manager.

(III) **Ten Percent (10%)** of the Total Ex-works price component of the Contract price to be paid on pro-rata basis on Completion of the Facilities (or part thereof), functional guarantee test and operational Acceptance certificate including all associated auxiliaries and ancillary works.

(IV) Secured advance against materials (Cement & Reinforcement Steel) shall be paid to the Contractor on the certificate of Project Manager. The contractor shall be paid material secured advance up to maximum limit of 75% (exact percent of material secured advance shall be decided by Project Manager based on total requirement of Cement and Reinforcement Steel for the complete work and total cost of Civil Construction works as provided in the Contract) of the cost of Cement & Reinforcement Steel which in the opinion of Project Manager is reasonably required in accordance with the Contract and the same has been brought to site for incorporation in the works and are safeguarded against loss due to any cause whatsoever and stored as per requirement of Technical specification.

Total amount of secured advances against material (i.e., Cement & Reinforcement Steel) payable as per the above provision however, shall not exceed 10% of the cost of total Civil Construction works for cement & 25% of the cost of total Civil Construction works for Reinforcement Steel.

(V) The material secured advance payment under clause (V) above shall be fully adjusted from the payments due to contractor for the works done against clause (II) above as and when materials are utilised in the same.

(VI) On completion of works as per requirement of specification, if any balance materials (i.e. Cement and Reinforcement Steel) are available in the contractor's store after full adjustment of material secured advance from the payments due under clause (II) above, contractor shall be allowed by the Employer to take out the balance material (Cement & Reinforcement Steel) from the plant.

(VII) The Contractor store shall be opened, for supervision and verification by the Project Manager or his authorised representatives, at any time, in case he so desires.

#### **F. Schedule No. 4 : Site Fabricated Structural Works**

The Site Fabricated Structural Works Price Component of the Contract Price shall be paid as under:

(I)(a) **Two and Half Percent (2.5%)** of the total Site Fabricated Structural Works Price component of the Contract Price will be paid to the Contractor as **interest bearing** advance payment on:

(i) Signing of Contract Agreement.

- (ii) Establishment their office at site in preparatory to commencement of Site Fabricated Structural Works.
- (iii) Submission of an unconditional Bank Guarantee for an amount equal to 110% of the advance plus GST, if applicable on the advance amount, which shall be initially kept valid up to ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in Completion of Facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
- (iv) Submission by the Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s)/ Insurance Surety Bond(s) in respect of all Contracts, and initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under the Contract. The proforma of Bank Guarantee/ Insurance Surety Bond is enclosed in Section-VII-Form of Performance Security. enclosed in Section-VII of Bidding Documents. The proforma of Bank Guarantee(s)/ Insurance Surety Bond(s) shall be as enclosed in Section - VII.
- (v) Submission of a detailed PERT Network/ L2 Schedule based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
- (vi) Submission of unconditional Bank Guarantee(s)/ Insurance Surety Bond(s) from all executants of Deed(s) of Joint Undertaking other than Contractor towards faithful performance of the Deed(s) of Joint Undertaking for amount(s) and validity specified in the respective Deed(s) of Joint Undertaking enclosed in Section-VII of Bidding Documents. The proforma of Bank Guarantee(s)/ Insurance Surety Bond(s) shall be as enclosed in Section – VII.
- (vii) Advance Payment for Site Fabricated Structural Works components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipment & Safety Personal Protective Equipment as per minimum quantity specified in the Bidding Documents.

In case the Contractor decides not to take advance payment, the first progressive payment for Site Fabricated Structural Works component shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipment & Safety Personal Protective Equipment as per minimum quantity specified in the Bidding Documents.

- (I)(b) Further, **Two and Half Percent (2.5%)** of the total Site Fabricated Structural Works Price component of the Contract Price will be paid to the Contractor as **interest bearing** advance payment on:



- (i) Fulfilment of conditions mentioned at F(I) (a)(i) to (vii) above.
  - (ii) Submission of an unconditional Bank Guarantee for an amount equal to 110% of the advance plus GST, if applicable on the advance amount, which shall be initially kept valid up to ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in Completion of Facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
  - (iii) T&P mobilization as identified along with PERT Network for start of Civil works and certificate thereof by the Engineer-in-Charge.
- (I)(c) The recovery of the interest component on the above advance amount shall be made from the progressive payments released to the contractor as per clause F(II) of Appendix-1 to Form of Contract Agreement, Book 3 of 3, Section-VII. The amount of interest to be recovered from a particular bill shall be calculated @ “[SBI 1-year MCLR as on 01<sup>st</sup> April of applicable year + 100 bps] per annum” on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payments under the contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.

**Note: In case the contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the Progressive payment at II below).**

- (II) **Seventy Five Percent (75%)** of the total Site Fabricated Structural Works Price component of Contract Price shall be paid progressively on certification by the Project Manager on erection and final alignment, bolting or welding etc. including primer coats of painting for the quantum of work completed and by Project Manager's field quality surveillance representative for the successful completion of quality check points involved in the quantum of work billed.

**Note:** (1) In case the Civil Works Price (including Site Fabricated Structural Works Price) is more than **25%** of the Ex-works Price of Main Equipment, the amount by which it is higher shall be retained while releasing progressive payments due on completion of civil works (including Site Fabricated Structural works), and no interest shall be payable on the retained

amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities.

- (2) **The release of first progressive payment for Site Fabricated Structural works shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy (ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.**

(II.a) Three Percent (3%) of the Ex-works price component of contract price will be made on successful commissioning of CO2 block System and on certification by the Project Manager.

(II.b) Three Percent (3%) of the Ex-works price component of contract price will be made on successful commissioning of Autoclave System and on certification by the Project Manager.

(II.c) Four Percent (4%) of the Ex-works price component of contract price will be made on successful commissioning of Integrated system and on certification by the Project Manager.

- (III) **Ten Percent (10%)** of the Total Ex-works price component of the Contract price to be paid on pro-rata basis on Completion of the Facilities (or part thereof), functional guarantee test and operational Acceptance certificate including all associated auxiliaries and ancillary works.

**G. Schedule No. 4: Amount linked to Safety Aspects/ compliance to Safety Rules**

- I. The amount linked to Safety Aspects/ compliance to Safety Rules shall be paid in two parts, viz,**

- A) 10% amount (calculated as 0.1 Y of the service portion amount of RA bill) shall be linked to Fatal/Major Accidents, and
- B) 90% amount (calculated as 0.9 Y of the service portion amount of RA bill) shall be linked to various Safety Aspects specified in Safety Rules of NTPC.

**NOTE:**

**Amount linked to Safety Aspects/ Compliance to Safety Rules specified in Price Schedule**

**Y = ----- X 100**

**Total amount for Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works**

- II. While raising each RA Bill, Contractor shall claim Amount linked to Safety Aspects/ Compliance to Safety Rules in such a manner that amount claimed is equal to Y% of the service portion (Civil + Installation/ Erection + Structural Works) of RA Bill.
- III. The amount as elaborated at para G. I. shall be withheld from first and second monthly RA bill of the respective quarter/three month period and shall be released in part or full based on safety compliance duly certified by Project Manager and Safety-in-charge on quarterly basis. The amount for the entire quarter (i.e. RA bills raised during a 3 month period) shall be paid to the Contractors at the end of that three months period along with 3<sup>rd</sup>/last RA Bill for the quarter/three months period upon complying the following conditions:

**A) Amount of RA Bill linked to Fatal/ Major Accidents (0.1Y as elaborated above at para G.I.A)**

Aforesaid amount (on quarterly basis) shall be payable to Contractor only in case, there is

- i) No fatal injury or accident causing death in that three months period and
- ii) No Major injury or accident causing 25% or more permanent disablement to workmen or employees in that three months period. Permanent disablement shall have the same meaning as indicated in The Workmen's Compensation Act' 1923.

In case of any fatal injury or accident as elaborated above occurs during that three month period, the stipulated amount (0.1Y) subject to minimum of **Rs 10 Lakh per fatality** shall be forfeited and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.

In case of any Major injury or accident causing 25% or more permanent disablement to workmen or employees occurs during that three month period, **Rs 4 lakh per Major injury** shall be deducted from the amount (0.1Y) linked to Fatal/ Major Accidents and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be

recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.

Further, in case, Contractor doesn't raise RA Bills in any three month period/quarter and if any fatal injury and/or major accident takes place in that period, Project Manager shall deduct the amount [Rs 10 Lakh per fatality and Rs 4 lakh per Major injury] pertaining to this particular quarter from his next RA bill/due payment. In case, the amount to be deducted/forfeited exceeds the amount linked to Safety, the same shall be recovered from any other payments immediately due to the Contractor under the Contract.

The amount deducted/forfeited as mentioned above shall be in addition to the compensation payable to the workmen / employees under the relevant provisions of the Workmen's Compensation Act' 1923 and rules framed there under or any other applicable laws as applicable from time to time.

**B) Amount of RA Bill linked to Compliance of Safety Rules (0.9Y i.e. 90% of amount as elaborated above at para G.I.B )**

Aforesaid amount (on quarterly basis) shall be payable to Contractor in five equal parts under five heads as under:

**(i) Amount payable on deployment of required Safety Personnel**

One fifth of the amount specified at G.III.B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager in consultation with Safety dept. that required number of Safety personnel as per Clause 2.3 of 'NTPC Safety Rules for Construction and Erection of Power Plants' [as enclosed with GCC/SCC] have been deployed. The aforesaid amount linked to deployment of requisite safety personnel shall be paid as under:

- a) 50% of the amount referred at G.III.B.(i), for deployment of Safety Supervisors shall be paid on pro-rata basis depending upon the actual no. of Safety Supervisors deployed vis-à-vis actual requirement :

$$\text{Amount to be paid} = 0.09Y \times \text{Service portion of RA bill amount} \times \frac{a}{b}$$

Where 'a' is actual no. of Safety supervisors deployed

and

'b' is required no. of Safety supervisors as per Safety Rules.

In case, actual no. of Safety supervisors deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.

- b) 50% of the amount referred at G.III.B.(i), for deployment of Safety Officers shall be paid on pro-rata basis depending upon the actual no. of Safety Officers deployed vis-à-vis actual requirement :

Amount to be paid =  $0.09Y \times \text{Service portion of RA bill amount} \times \frac{a}{b}$

Where 'a' is actual no. of Safety Officers deployed

and

'b' is required no. of Safety Officers as per Safety Rules.

In case, actual no. of Safety Officers deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.

- c) In case aforesaid requisite no. of Safety personnel are not deployed by Contractor, amount not to be paid as calculated above for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(ii) Amount payable on providing requisite Personal Protective Equipment & Safety Equipment

One fifth of the amount specified at G.III.B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 4 (Personal Protective Equipment) of 'NTPC Safety Rules for Construction and Erection of Power Plants' and the provisions of the Bidding Documents with regards to number of Safety Equipment/PPEs to be provided by the Contractor.

In case of non-compliance by Contractor, warning letter/Non-compliance shall be issued by Project Manager /Safety Officer of NTPC as per clause 22.3.3 (ii) of GCC. Further, if more than two such warning letters/Non Compliance Memos are issued in a quarter/three monthly period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(iii) Amount payable on providing requisite Safety Induction and Training

One fifth of the amount specified at G.III.B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager in consultation with Safety dept. that Contractor has adhered to the requirements of imparting Safety training as per Clause 8.0 (Safety Induction and Training) of 'NTPC Safety Rules for Construction and Erection of Power Plants to at least 90% of its employees/workmen (who have not been previously provided with requisite training) in a quarter/ three months period.

In case Contractor fails in meeting the aforesaid requirement, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(iv) Amount payable on providing requisite Medical and First Aid Amenities

One fifth of the amount specified at G.III.B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 13 (Medical and First Aid Amenities) of 'NTPC Safety Rules for Construction and Erection of Power Plants'.

In case Contractor fails to provide Medical and first aid amenities as per requirement of aforesaid Clause 13 even on one incidence in any quarter/three month period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

(v) Amount payable on compliance to Work Permit System

One fifth of the amount specified at G.III.B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Project Manager in consultation with Safety dept. that Contractor has adhered to the requirements of Clause 17 (Work Permit System) of 'NTPC Safety Rules for Construction and Erection of Power Plants'.

In case of non-compliance by Contractor, warning letters/Non Compliance Memos shall be issued by Project Manager /Safety Officer of NTPC as per clause 22.3.3 (v) of GCC. In case of issuance of more than two such warning letters/Non Compliance Memos in a quarter/three monthly period, above mentioned amount for that particular quarter/three month period shall be forfeited and shall not be payable to the Contractor under the contract.

- IV.** In case 'Amount linked to Safety Aspects / compliance to Safety Rules' is less than **2.5%** of the cumulative total of Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works, the amount by which it is lower shall be retained proportionately from the other components of Schedule-4 of the Contract price while releasing payments of each RA bill. No interest shall be payable on the amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount. The amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by Project Manager and Safety-in-charge on quarterly basis.

**H Payment terms for Price Adjustment Amount**

Any addition due to adjustment to the Contract Price shall be payable in the similar manner as provided in the clauses A, B, D, E , F & N. The price adjustment amount corresponding to advance payment shall be clubbed with the first progressive payment of that equipment. Reduction to the Contract Price, if any, due to price adjustment provisions, shall be effected by recovering 100% of the reduction amount (including advance) from any of the Contractor's bills falling immediately due for payment.

**I. Schedule - 7: Payment Terms for Taxes & Duties**

100% of applicable Taxes and Duties which are payable by the Employer under the Contract shall be paid/reimbursed to the Contractor upon despatch of equipment/spares and on production of satisfactory documentary evidence by the Contractor, as applicable.

For Services, 100% of applicable Taxes and Duties which are payable by the Employer under the Contract shall be paid/reimbursed to the Contractor upon receipt of services and on production of satisfactory documentary evidence by the Contractor, as applicable.

However, GST if applicable on Advance payment shall be paid to the Contractor along with the Advance sanctioned. The GST paid along with advance shall be adjusted prorata against the tax due upon supply of goods/services, based on the value of the respective goods/services.

Further, subject to GCC clause 14.4, payment against GST shall be restricted to total amount specified in Schedule 7.

**J. Schedule - 8: Not Applicable**

**K. Schedule- 4 - Payment terms for Training (if applicable)**

100% of amount for each training module shall be paid upon completion of the corresponding module on certification by the Employer.

The basis for the pro-rata payments at S. No. K above shall be the Billing Break-up (BBU) to be finalised subsequently after award of Contract.

**L. Schedule - 4 : Payment Terms for Annual Maintenance Contract (AMC) (if applicable)**

The payment for AMC shall be made on monthly prorata basis on certification by Employer's site representative regarding successful maintenance of the system by the Contractor.

**M. Additional Advance Payment**

An Additional Advance up to 5% of the Ex-works / Installation Services (including Civil and Site Fabricated Structural Steel Works) price component, apart from the Advance already provided for in the specified Terms of Payment, may be paid to the Contractor which shall be interest bearing and against Bank Guarantee of 110% of the advance requested and covering the interest charges. The advance amount shall be provided during various phases of Contract execution to meet the requirement of payment by the Contractor to the contractor's sub-vendors / sub-contractors but in aggregate shall not exceed 5% of the Ex- works / Installation Service (including Civil and Site Fabricated Structural Steel Works) Price Component. The advance amount shall be released in Indian Rupees only and Tax implication, if any, shall be to the account of the Contractor.

While applying for advance under this provision, the contractor shall provide a statement of past payment utilization evidencing the need for cash flow support and also plan for utilization of the amount requested as per above. The advance shall be provided in exceptional circumstances to enable work to be carried out.

The advance amount shall be transferred to an ESCROW account (to be opened by the Contractor in any Scheduled Bank of India under intimation to the Employer) and after availing the advance, the contractor will be required to submit proof of utilization, as per the recovery plan submitted to Employer.

The advance amounts shall be interest bearing and rate of interest to be notified by Employer from time to time. This advance shall not be lumpsum advance, but shall be provided in phases to tide over the financial constraints being faced by the contractor, along with the progress of work. The requirement of this advance shall be with the approval of the Head of Project.

The recovery of the interest component on the advance amount shall be made from subsequent progressive payments to be released to the contractor.

The period for which the interest to be calculated, shall be reckoned from the date of release of the Additional Advance(s) to the actual date of release of subsequent progressive payments as per the Plan to be agreed with the Contractor.

The advance Amount shall be recovered from the milestone payments to be agreed between Employer and the Contractor.



The format of Tri-Partite Escrow Agreement (between Employer, Contractor and Escrow Bank) is enclosed herewith as **Annexure-3 to APPENDIX-1**.

**N. Schedule - 4: Payment Terms for Operation & Maintenance (O&M) including Lime Supply**

**Comprehensive Operation and Maintenance shall include following:**

- a. O&M of 50 TPD CO<sub>2</sub> Block –including manpower, consumable, tertiary amine, spares, T&P and any other goods and services for safe and successful O&M.
- b. O&M of C-Brick Plant inclusive of 50 TPD CO<sub>2</sub> Block –including manpower, consumable, spares, loader with driver and fuel, fly ash bulker with driver and fuel, Palfinger (Truck mounted fly ash brick grabber) with driver and fuel, T&P and any other goods and services for safe and successful O&M of C-Brick Plant excluding Hydrated Lime as mentioned above.
- c. **The O&M payment will be made on monthly basis.**

**Supply of Hydrated Lime**

- a. For O&M, contractor shall supply the Hydrated lime as per the specifications mentioned in the contract.
- b. The contractor shall supply a total of 14,850 MT of Hydrated Lime during the course of one year plant operations (330 running days) with production rate of 2 Lakh C-Bricks /day.
- c. The contractor has to unload lime into the silos for the production of C-Brick. In case contractor is unable to do the same, the contractor has to make its own arrangement and provision for safe & proper storage of lime within the battery limits of plant.
- d. 100% Payment against supply of Hydrated Lime, including that used in trial operation and PG test, **shall be made upon receipt of lime on monthly basis as per actual quantity received at NTPC Site.**
- e. The Contractor shall ensure staggered delivery of Hydrated Lime on a monthly basis, or as directed by the Project Manager (NTPC).
- f. In the event that the total quantity of Hydrated Lime supplied vary to 14,850 MT, the quantity from 0% to 120% shall be paid at the same unit rate as quoted for the initial 14,850 MT.

## PAYMENT PROCEDURES

The Procedures to be followed in making application for, certifying and making payments shall be as follows:

### 1. **Payment Schedule/Price Break-up for Payments**

- 1.1 The Contractor shall prepare and submit to the Project Manager for approval, a break-up of the Contract Price. The Contract Price break-up shall be interlinked with the agreed detailed PERT network of the Contractor setting forth his starting and completion dates for the various key phases of works prepared as per condition in Clause 18 of GCC, Section- IV. Any payment under the Contract shall be made only after the Contractor's price break-up is approved by the Project Manager. The aggregate sum of the Contractor's price break-up shall be equal to the lump sum Contract Price.
- 1.2 The Billing Breakup for Mandatory Spares shall be submitted to the Employer for approval as per the format enclosed as **Annexure-1 to Appendix-1** indicating therein the details such as Make, Model number, Drawing/ Datasheet number and Part number of all spare items. The relevant drawings/ documents shall be submitted along with the Billing Break up.
- 1.3 The Contractor shall, by the 15th April of every year, furnish the BBU value of supplies sourced from Micro and Small Enterprises (MSEs) along with the total BBU value of supplies dispatched by it during the preceding financial year as per the format enclosed as **Annexure-2 to this Appendix-1**.

### 2. **Currency of Payment**

- 2.1 The Contract Price shall be paid in Indian currency only.

### 3. **Application for Payment**

- 3.1 The Contractor shall submit application for the payment in the proforma enclosed.
- 3.2 Every interim payment certificate shall certify the Contract Value of the Facilities executed up to the date mentioned in the application for the payment certificate, provided that no sum shall be included in any interim payment certificate in respect of the Facilities that according to the decision of the Project Manager, does not comply with the Contract, or has been performed, at the date of certificate prematurely.
- 3.3\* The Employer has established a Vendor Payment portal where Vendor/Contractor shall submit their digital bill/invoice and may track its status. The Application for Payment along with all the supporting documents (for direct payment cases as mentioned in Para 5.2 below) shall be submitted by the Vendor/Contractor in digital form i.e. digitally signed with Class-2/3 digital Signature and must be uploaded in the Employer's Vendor Payment Portal. No hard/physical copy of such documents will be accepted by the Employer unless otherwise asked for in the PO or instructed by Employer.

- 3.4 FAQ (Frequently asked questions with answers) regarding Invoice submission in digital mode is available at [https://pradip.ntpc.co.in/VendorFinal/FAQ\\_VPP.pdf](https://pradip.ntpc.co.in/VendorFinal/FAQ_VPP.pdf) .

#### 4. **Due Dates for Payment**

- 4.1 The advance payment amount shall be payable after fulfillment of all the conditions laid down in the Terms of Payment (Appendix 1 to the Contract Agreement) and receipt of the Contractor's invoice along with all necessary supporting documents for such advance payment. Employer will make progressive payment as and when the payment is due as per the Terms of Payment set forth in Appendix 1 to the Contract Agreement. Progressive payment other than that under the letter of credit will become due and payable by the Project Manager within thirty (30) days from the date of receipt of Contractor's bill/invoice/debit note by the Employer, provided the documents submitted are complete in all respects.
- 4.2 In cases of any discrepancy observed by the Employer in Contractor's bill, clarifications shall be sought in writing by the Employer within ten (10) days from the date of receipt of Contractor's bill/invoice/debit note by the Employer. The Contractor shall be required to submit the requisite clarifications within ten (10) days from the date of issuance of queries by the Employer. In case, no mutual agreement is reached between the Employer and the Contractor on any part of the bill/invoice, within ten (10) days of submission of clarification by the Contractor, the Contractor shall issue a revised bill/invoice to avoid mismatch in GST returns of the Employer and the Contractor. Payment against agreed and admissible part shall be processed as per payment procedure within ten (10) days after receipt of the revised bill/invoice. The bill/invoice for the balance amount under question may be separately submitted for consideration of the Employer after resolution of issues of payment by the Employer. In case of non-submission of satisfactory clarification by the Contractor within the stipulated period, NTPC shall not be liable for the delay in making payment. If the bill submitted by Contractor is incorrect and has gross discrepancies, the bill shall be summarily rejected and returned to the Contractor. In the event of dispute, the same shall be settled as per GCC Clause (Settlement of Disputes).
- 4.3 Vendor/Contractor can track the status of their digitally submitted Bill/Invoice in the NTPC Vendor Payment Portal.

#### 5. **Mode of Payment**

- 5.1 The Employer will establish an irrevocable Letter of Credit (L/C) in favor of the Contractor through the Employer's Bank in Employer's country for payments due, as per Terms of Payment, on dispatch of equipment including Mandatory Spares i.e. Ex-works dispatch of equipment including Mandatory Spares. The value of L/C will be as per payment schedule for each quarter and valid for a quarter. It will be the responsibility of the Contractor to utilize the L/C to the fullest extent. In case

L/C has been established by the Employer and not utilized by the Contractor, for reasons of delay attributable to him, all reinstatement charges for the L/C for further period necessitated due to non-utilization of L/C will be to the account of the Contractor.

- 5.2 The payment of the advance amount, Type Test Charges if any, price adjustment amounts, all other supply payments, taxes and duties (wherever admissible) inland transportation insurance, Installation Portion of the Facilities and Civil, structural and allied works (if any) shall be made direct to the Contractor by the Employer and no L/C shall be established by the Employer for such payments. However, L/C amount shall be inclusive of taxes and duties (i.e. GST) due for payments upon despatch of equipment/spares. Wherever technically feasible, such payments shall be made electronically only as per details of Bank Account indicated in the contract. In case of any changes to the bank account indicated in the contract, the contractor shall immediately inform the employer. The Contractor shall hold the employer harmless and employer shall not be liable for any direct, indirect or consequential loss or damage sustained by the bidder on account of any error in the information or change in Bank details provided to the employer in the prescribed form without information to employer duly acknowledged.

5.3 **Alternate Mode of Payment for Micro Small & Medium Enterprises (MSMEs):**

Trade Receivables e-Discounting System (TReDS) is a regulatory framework put in place by the Reserve Bank of India under the Payment and Settlement Systems Act 2007 (PSS Act) to facilitate the financing of trade receivables (invoices) of MSMEs through invoice financing by multiple financiers.

The Reserve Bank of India has granted approval to (i) Mynd Solutions Pvt Limited, (ii) A.TReDS Ltd. and (iii) Receivables Exchange of India Ltd to set up and operate TReDS platform. The name of respective TReDS platform of the above-mentioned entities are M1xchange, Invoicemart and RXIL.

Presently, NTPC Limited is transacting with M1xchange and RXIL TReDS platforms. MSME Vendors may choose from the aforesaid TReDS platforms as an alternate payment mechanism.

For queries/ details, the vendor may directly contact M1xchange or RXIL at:-

- (i) M1XCHANGE:- URL: <https://m1xchange.com> Toll free No.: 1800-103-7261
- (ii) RXIL:- URL: <https://www.rxil.in/Home/Index> Phone: 022-40771424, 40771426 Toll free No.: 1800 1038 311

**The aforesaid provision at 5.3 above shall not be applicable for payments envisaged through “Letter of Credit (LC)” or “Escrow Account” or “A separate account with a Scheduled Bank at Site”**

6. **For payments related to Erection / Civil / Site Fabricated Structural works**

A single designated ESCROW account shall be opened by the Contractor in any Scheduled Bank of India under intimation to Employer. All payments related to Erection / Civil / Site Fabricated Structural works by the Employer due under the contract to the Contractor shall be released into above-mentioned ESCROW account set up as per the Tri-Partite Escrow Agreement between Employer, Contractor and Escrow Bank. The payment shall be disbursed in accordance with the mechanism set out in the Contract and Escrow Agreement. The purpose of the Escrow Account would be to ensure that payments received under the contract are solely used for implementation of the Contract. Under Tri-partite Escrow Agreement, the Escrow Bank will agree to ensure that amounts received in the ESCROW Account are utilized for making payments only to suppliers of goods and services, statutory authorities, establishment expenses etc. as may be required in the performance of the contract.

All expenses/charges for opening /operation (including Annual Fee) of the Escrow Account shall be paid by the Contractor.

The draft agreement is annexed as Annexure-3 to this Appendix-1, which shall be followed for executing Escrow Account Agreement.

The Detailed Operative Procedure and Terms and Conditions of Escrow Account (Schedule III of draft agreement) shall be finalized between the Employer, Contractor and the Escrow Bank within 15 days of the placement of award.

## FORM OF APPLICATION FOR PAYMENTS

Project :  
Equipment Package : Date :  
Name of Contractor : Contract No. :  
Contract Value : Contract Name :  
Unit Reference : Applicable Serial  
Number :  
To.

.....\*

(Name of Employer)

Dear Sir

## APPLICATION FOR PAYMENT

1. Pursuant to the above referred Contract Agreement dated..... the undersigned hereby applies for payment of the sum of ..... (Specify amount and currency in which claim is made).
2. The above amount is on account of : (check whichever applicable)  
  
Advance payment (Schedule \*\*)  
  
Interim payment as advance (Schedule \*\*)  
  
Progressive payment against dispatch of equipment (Schedule \*\*)  
  
Progressive payment against receipt of equipment (Schedule \*\*)  
  
Progressive payment against Installation (Schedule \*\*)  
  
Inland transportation (Schedule \*\*)  
Inland insurance  
  
Price adjustment  
  
Extra work not specified in contract  
(Ref. Contract change order No.....)  
  
Others (specify)  
  
Final payment (Schedule \*\*)  
  
as detailed in the attached schedule(s) which form an integral part of this application.
3. The payment claimed is as per item(s) No.(s)..... of the payment schedule annexed to the above mentioned Contract.
4. The application consists of this page, a summary of claim statement (Schedule \*\*), and the following signed schedules  
  
1 .....  
  
2 .....  
  
3 .....

The following documents are also enclosed :

- 1 .....
- 2 .....
- 3 .....

Signature of Contractor/  
Authorised Signatory

\* Application for payment will be made to 'Project Manager' as to be designated for this purpose at the time of Notification of Award.

\*\* Proforma for the Schedules will be mutually discussed and agreed to during the finalization of the Contract Agreement.



### **Annexure-1 to Appendix-1**

**PROJECT :** ..... **CLIENT :** .....

**PACKAGE:** .....

**TITLE : BILLING BREAK UP FOR MANDATORY CONTRACTOR .....**  
**SPARES :**

**NOA REF : CS.....**

## BILLING

## BREAKUP (BBU)

**NO. :**

[illegible]

**Annexure-2 to APPENDIX-1**

**Proforma for details to be furnished by the Contractor by 15<sup>th</sup> April of every financial year of supplies sourced from MSEs dispatched during the preceding financial year.**

Package Name:

Project Name:

Name of the Contractor:

COA No.:

Details of BBU value of supplies dispatched during the preceding financial year ..... are furnished here below:

BBU value of total supplies dispatched (A)  (in eqvt INR)	Out of the total supplies dispatched, BBU value of supplies sourced from MSEs (B) (in eqvt INR)	Percentage of supplies sourced from MSEs wrt total supplies dispatched (C = $B*100/A$ ) (%)
.....	.....	.....

In case of no supplies sourced from MSEs, mention 'NIL'.

I, on behalf of M/s ..... (*Contractor*) hereby declare that the information furnished above is correct.

Signature.....

Name.....

Designation and Seal.....

**Annexure-3 to Appendix-1**

**Escrow Account**

**Format enclosed with Section VII Book 2 of 2**

## PRICE ADJUSTMENT

- (i) The Contract price shall be subject to price adjustment during performance of the Contract to reflect changes in the cost of labour and material components etc. in accordance with the provisions described below:
- (ii) The price adjustment provisions shall be applicable separately for price components relating to Supply of Equipment including spare parts, Installation, Civil and allied Works, as per price break-up furnished by the Contractor in Schedule-2/ Schedule-6 and Schedule-4. **The Price Adjustment shall be without any Ceiling.**
- (iii) Only following components of the Contract Price will be subject to Price adjustment:
  - (a) Ex-Works (India) Price of Plant and Equipment including Mandatory Spares manufactured within the Employer's Country, but excluding Type Tests Charges (covered in Schedule 2)
  - (b) Installation Price Component of Contract Price (covered in Schedule 4) consisting of Erection portion.
  - (c) Civil Works price component of Contract Price (covered in Schedule-4) excluding Demolition of existing structures (if applicable) price.
  - (d) Site Fabricated Structural Works price component of Contract Price (covered in Schedule-4).
  - (e) Ex-Works (India) Price of Recommended Mandatory Spares manufactured within the Employer's Country (covered in Schedule-6).
  - (f) **O&M services and Lime Supply for O&M services**
- (iv) Price adjustment amounts towards aforesaid components of Contract Price shall be paid in the respective currencies of Contract.
- (v) The indices for price adjustment shall necessarily be of the country of origin of goods/labour and shall be well established and nationally recognised in that country. Preferably Government indices shall be used. For the purpose of this contract, country of origin shall be India.
- (vi) The price adjustment formula for the components of the Contract Price, as mentioned at Sl.No. (iii) above shall be as stipulated hereinafter.
- (vii) **Ex-Works Price Component of Plant and Equipments including spares, but excluding Type Tests Charges**

It is understood that the price component of the equipments for any shipment/despatch comprises of a fixed portion (designated as 'F' and the value of which is specified hereunder) and a variable portion linked with the indices for various materials and labour (description and co-efficients as enumerated below).

The amount of price adjustment towards variable portion payable/recoverable on each shipment/despatch shall be computed as under :

$$EC = EC_1 - EC_0$$

$EC_1$  will be computed as follows :

$$EC_1 = EC_0 \left\{ F + a \times \frac{A_1}{A_0} + b \times \frac{B_1}{B_0} + c \times \frac{C_1}{C_0} + \dots + L_b \times \frac{L_1}{L_0} \right\}$$

Where

$EC$  = Adjustment to Ex-Works Price Component expressed in the currency of the Contract payable to the contractor for each shipment/despatch.

$EC_1$  = Adjusted Amount of Ex-Works Price Component expressed in the currency of the Contract payable to the Contractor for each shipment/despatch.

$EC_0$  = Ex-Works Price for the plant and equipments in the currency of the Contract, shipment/despatch wise.

- The fixed portion of the Ex-Works Component of the Contract Price (F) shall be 0.15
- a,b,c etc. shall be co-efficients of major materials/items involved in the Ex-Works Component of the Contract Price. The sum of these co-efficients shall be between 0.50 to 0.60.
- A,B,C etc. shall be published price indices of corresponding major materials/items. Such indices shall necessarily be of the country of origin of goods.
- ' $L_b$ ' shall be co-efficient for labour component in the Ex-Works Component of the Contract Price which shall be between 0.25 to 0.35
- 'L' shall be labour index.
- Sum of all the material co-efficients and the labour co-efficient shall be 0.85

For the indices, subscript 'o' refers to indices as on 30 days prior to date of opening of Techno-Commercial bids.

Subscript '1' refers to indices as of :

- (a) three months prior to the date of shipment/despatch for labour, and
- (b) at the expiry of two third (2/3) period from the date of Notification of Award to the date of shipment/despatch, for material.

For the purpose of this clause the date of shipment/despatch shall mean the schedule date of shipment/despatch or actual date of shipment/despatch, whichever is earlier. The schedule date of shipment/despatch shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

In case of shipments/dispatches which are delayed beyond the schedule date of shipment/despatch for reasons attributable to the Contractor the price adjustment provision shall not be applicable for the period of time between the schedule date of shipment/despatch and the actual date of shipment/despatch. For this purpose, the schedule date of shipment/despatch shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

(viii)

**For Installation Price Component (excluding Civil Works and Site Fabricated Structural Works component) of the Contract:**

It is understood that the price component for erection portion of Installation Services comprises a fixed portion and variable portion linked with the index of labour (description and co-efficients as enumerated).

The monthly price adjustment amount for the erection portion of Installation Services component will be computed as per the formula given below :

$$ER = ER_1 - ER_0$$

ER<sub>1</sub> will be computed as follows :

$$ER_1 = ER_0 \left( F^* + 0.5 \times L_b^* \times \frac{L_1}{L_0} + 0.5 \times L_b^* \times \frac{W_1}{W_0} \right)$$

Where :

ER = Adjustment to Installation Price component expressed in Indian Rupees payable to the contractor for each billing.

ER<sub>1</sub> = Adjusted amount of Installation services component of Contract Price expressed in Indian Rupees payable to the Contractor.

ER<sub>0</sub> = Value of the Installation work done in the billing period, which shall be calculated as under :

For the purpose of computing  $ER_o$ , each installation bill (which is excluding Initial Advance and amount payable on completion of Guarantee Test) during the Installation period upto the 'Completion of the Facilities' shall be divided by a factor as indicated below:

$$\frac{\text{Installation component of the Contract Price} - [\text{Initial Advance amount} + \text{Installation component of the Contract Price payable on successful completion of Guarantee Test}]}{\text{Installation component of the Contract Price}}$$

The payment of price adjustment amount so computed shall be made against a separate invoice, linking the corresponding invoice for Installation payment after retaining the pro-rata amount due on completion of the Guarantee Test. The amounts so retained shall be paid on successful completion of Guarantee Tests.

$F$  = Fixed Price component = 0.15

$L_b$  = Coefficient of labour (for all categories) = 0.85

$L$  = Indian field labour index Namely, All India Consumer Price Index for Industrial Workers (All India Monthly Average) as published by Labour Bureau, Shimla, Government of India.

$W$  = Arithmetical average of Minimum Wages for Unskilled, Skilled, Semi-skilled and Highly skilled workers notified by the Central Government for the particular classified Area in which the project site is located or notified by the State Government of the state in which the project site is located, whichever is higher

Subscript 'o' refers to indices / minimum wages as on 30 days prior to deadline set for opening of Envelope-I (Techno-commercial) Bids.

Subscript '1' refers to the indices / minimum wages as applicable for the month of execution of the Installation work.

In case there is a revision in the applicable minimum wages during a month, calculation of 'W1' would take into consideration the weighted average of the applicable wages (wage before revision and wage after revision) and the number of days of applicability of such wages in the month.

For the purpose of this clause, month of execution of installation work shall mean

the schedule month of execution of the installation work or actual month of execution of the installation work, whichever is earlier. The schedule date for completion of a particular installation activity shall be as identified in line with provisions of Time schedule, Appendix-4 to the Contract Agreement.

In case of installation activities which are delayed beyond the schedule date for reasons attributable to the contractor, the price adjustment provision shall not be applicable for the period of time between the schedule date of completion and actual date of completion of the respective installation activity. For this purpose, the schedule date for completion of a particular installation activity shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

(ix) **Site Fabricated Structural Works Price Component**

**Price adjustment for Structural Works component of the Contract Price**

It is understood that the Structural Works Price Component comprises a fixed portion (designated as 'F' and the value of which is specified hereunder) and variable portion linked with the indices for various materials and labour (description and coefficients as enumerated below).

The amount of price adjustment towards variable portion payable/recoverable shall be computed as follows :

$$ESW = ESW_1 - ESW_0$$

ESW<sub>1</sub> will be computed as follows :

$$ESW_1 = ESW_0 \{F + a \times (A_1 / A_0) + b \times (B_1 / B_0) + c \times (C_1 / C_0) + d \times (D_1 / D_0) + 0.5 \times L_b \times (L_1 / L_0) + 0.5 \times L_b \times (W_1 / W_0)\}$$

Where,

ESW = Adjustment to Structural Works Price Component expressed in the currency of the Contract.

ESW<sub>1</sub> = Adjusted amount of Structural Works Price Component expressed in the currency of the Contract.

For the purpose of computing ESW<sub>0</sub>, each structural bill (which is excluding initial advance and amount payable on completion of Guarantee test) during the structural work period upto the completion of the facilities' shall be divided by a factor as indicated below :

Structural Component of the contract price	-	{Initial Advance amount + structural component of the contract price payable after successful completion of Guarantee Test}
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### Structural Component of the Contract Price

The payment of price adjustment amount so computed shall be made against a separate invoice, linking the corresponding invoice for Structural Work Portion of Installation payment after retaining the pro-rata amount due on Completion of the Guarantee Tests. The amount so retained shall be paid on successful completion of the Guarantee Tests.

- F = The fixed portion of the Structural Works Price Component shall be 0.20
- a, b, c & d shall be co-efficient of major materials/items involved in the Structural Works Price Component of the Contract Price.
  - A, B, C, D shall be published price indices of corresponding major material/items.
  - "Lb" shall be co-efficient for labour component for Structural Works Price Component of Contract Price which shall be 0.15
  - L shall be Labour Index, namely, Consumer Price Index for Industrial Workers (Gen.) applicable to "All India" as published by Labour Bureau. Shimla of the Govt. of India.
  - W shall be Arithmetical average of Minimum Wages for Unskilled, Skilled, Semi-skilled and Highly skilled workers notified by the Central Government for the particular classified Area in which the project site is located or notified by the State Government of the state in which the project site is located, whichever is higher.

Subscript '0' refers to indices/minimum wages as on 7 days prior to deadline set for opening of Envelope-I (Techno-commercial) Bids.

Subscript '1' refers to the indices/minimum wages as applicable for one month prior to the month of execution of the structural work except "Structural Steel". For structural steel the index, '1' refers to the indices as applicable for 90 days prior to the month of execution of the structural work.

In case there is a revision in the applicable minimum wages during a month, calculation of 'W1' would take into consideration the weighted average of the applicable wages (wage before revision and wage after revision) and the number of days of applicability of such wages in the month.

For the purpose of this clause, month of execution of structural work shall mean the schedule month of execution of the structural work or actual month of execution of Structural Work, whichever is earlier. The schedule date for completion shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

In case of Structural Works activities which are delayed beyond the schedule date for

reasons attributable to the contractor, the price adjustment provision shall not be applicable for the period of time between the schedule date of completion and actual date of completion of the respective Structural activity. For this purpose, the schedule date for completion of a particular Structural activity shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

(x) **Price adjustment for Civil Works component of the Contract Price (including construction materials)**

The prices quoted by the bidder shall be base price, which will be subjected to price adjustment in accordance with the conditions and formula prescribed herein and further subject to satisfying the requirement specified in this clause.

A fixed percentage of the civil works component of the contract price shall be firm and shall not be subject to any price adjustment. The balance portion of the civil works component of the contract price shall be subject to price adjustment on account of changes in materials and labour as detailed below:

$$CV = CV_1 - CV_0$$

$CV_1$  will be computed as follows :

$$CV_1 = CV_0 \{F + m \times (M_1 / M_0) + d \times (D_1 / D_0) + s \times (S_1 / S_0) + c \times (C_1 / C_0) + 0.5 \times L_b \times (L_1 / L_0) + 0.5 \times L_b \times (W_1 / W_0)\}$$

Where,

$CV$  = Adjustment to civil works component expressed in the currency of the contract payable to the contractor for each billing period.

$CV_1$  = Adjusted contract price i.e. value of work done after application of above price adjustment formula in the billing period.

$CV_0$  = Base contract price, subject to price adjustment, i.e. the value of the work done in the billing period as per the monthly billing schedule for which the price adjustment is to be calculated.

$CV_0$  shall be calculated as under :

Each Civil Works bill (which is excluding initial advance and amount payable on completion of Guarantee test) during the Civil Works period upto the completion of the facilities' shall be divided by a factor as indicated below :

Civil Works Component of the contract price	-{Initial Advance amount + Civil Works component of the contract price payable after
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successful completion of  
Guarantee Test}

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Civil Works Component of the Contract Price

The payment of price adjustment amount so computed shall be made against a separate invoice, linking the corresponding invoice for Civil Works Portion of Installation payment after retaining the pro-rata amount due on Completion of the Guarantee Tests. The amount so retained shall be paid on successful completion of the Guarantee Tests.

F = Fixed portion of the contract price which will not be subjected to any adjustment under this formula or otherwise which will be 0.20.

m = Coefficient of material (excluding cement & steel) content in the cost of civil portion of the work which will be 0.15

d = Coefficient of High Speed Diesel Oil (P.O.L) content in the cost of civil portion of the work which will be 0.05.

s = Coefficient of steel content in the cost of civil portion of work which will be 0.25.

c = Coefficient of cement content in the cost of civil portion of work which will be 0.10

Lb = Coefficient of labour (for all categories) content in the cost of civil portion of the work which will be 0.25

M = Material Index, namely, Index No. of wholesale price under group. "All commodities" as published by office of the Economic Adviser, Government of India.

D = High Speed Diesel Oil price, namely price of High Speed diesel oil, at Pump Station of India Oil Corporation nearest to the project site. (selling price inclusive of taxes and duties as per litre of H.S.D. Oil).

S = Index for steel content shall be **“Mild Steel-Long Products”/ “Mild Steel-Flat Products”**, as published by Ministry of Commerce and Industry, GOI .

C = Index for cement content shall be **“Pozzolana cement”**, as published by Ministry of Commerce and Industry, GOI.

L = Labour Index, namely, Consumer Price Index for Industrial Workers (Gen.) applicable to "All India" as published by Labour Bureau. Shimla of the Govt. of India.

W = Arithmetical average of Minimum Wages for Unskilled, Skilled, Semi- skilled and Highly skilled workers notified by the Central Government for the

particular classified Area in which the project site is located or notified by the State Government of the state in which the project site is located, whichever is higher.

#### Subscript

'o' = Refers, to the values of above mentioned minimum wages, labour / material/steel/cement indices, or diesel price as on 7 days prior to deadline set for opening of Envelope-I (Techno-commercial) Bids.

'1' = Refers to values of corresponding minimum wages, labour / material/steel/cement indices, or diesel price as applicable for the month prior to month in which the work is executed.

In case there is a revision in the applicable minimum wages during a month, calculation of 'W1' would take into consideration the weighted average of the applicable wages (wage before revision and wage after revision) and the number of days of applicability of such wages in the month.

For the purpose of this clause, month of execution of civil work shall mean the schedule month of execution of Civil work or actual month of execution of Civil Work, whichever is earlier. The schedule date for completion shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

In case of Civil Works activities which are delayed beyond the schedule date for reasons attributable to the contractor, the price adjustment provision shall not be applicable for the period of time between the schedule date of completion and actual date of completion of the respective Civil Work activity. For this purpose, the schedule date for completion of a particular Civil Work activity shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

(xi)

**For O&M Services (Excluding Lime Supply) of the Contract:**

It is understood that the price component for O&M services comprises a fixed portion and variable portion linked with the index of labour (description and coefficients as enumerated).

The monthly price adjustment amount for the O&M Services component will be computed as per the formula given below :

$$ER = ER_1 - ER_0$$

ER<sub>1</sub> will be computed as follows :

$$ER_1 = ER_0 \left( F^* + 0.5 \times L_b^* \times \frac{L_1}{L_0} + 0.5 \times L_b^* \times \frac{W_1}{W_0} \right)$$

Where :

ER = Adjustment to O&M services Price component expressed in Indian Rupees payable to the contractor for each billing.

ER<sub>1</sub> = Adjusted amount of O&M services component of Contract Price expressed in Indian Rupees payable to the Contractor.

ER<sub>0</sub> = Value of the O&M Services done in the billing period, which shall be calculated as under :

For the purpose of computing ER<sub>0</sub>, each O&M bill during the O&M period shall be divided by a factor as indicated below:

Installation component of the Contract Price	- [Initial Advance amount + Installation component of the Contract Price payable on successful completion of Guarantee Test]
Installation component of the Contract Price	

The payment of price adjustment amount so computed shall be made against a separate invoice, linking the corresponding invoice for O&M.

F = Fixed Price component = 0.15

$L_b$  = Coefficient of labour (for all categories) = 0.85

L = Indian field labour index Namely, All India Consumer Price Index for Industrial Workers (All India Monthly Average) as published by Labour Bureau, Shimla, Government of India.

W = Arithmetical average of Minimum Wages for Unskilled, Skilled, Semi- skilled and Highly skilled workers notified by the Central Government for the particular classified Area in which the project site is located or notified by the State Government of the state in which the project site is located, whichever is higher

Subscript 'o' refers to indices / minimum wages as on 30 days prior to deadline set for opening of Envelope-I (Techno-commercial) Bids.

Subscript '1' refers to the indices / minimum wages as applicable for the month of O&M work.

In case there is a revision in the applicable minimum wages during a month, calculation of 'W1' would take into consideration the weighted average of the applicable wages (wage before revision and wage after revision) and the number of days of applicability of such wages in the month.

For the purpose of this clause, month of O&M shall mean the schedule month O&M or actual month of O&M, whichever is earlier. The schedule date for O&M shall be as identified in line with provisions of Time schedule, Appendix-4 to the Contract Agreement.

In case of O&M activities which are delayed beyond the schedule date for reasons attributable to the contractor, the price adjustment provision shall not be applicable for the period of time between the schedule date of completion and actual date of completion of the respective O&M activity. For this purpose, the schedule date for completion of a particular O&M activity shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

**(xii) Lime Supply for O&M services**

It is understood that the price component of the Lime supply comprises of a fixed portion (designated as 'F' and the value of which is specified hereunder) and a variable portion linked with the indices for various materials (description and coefficients as enumerated below).

The amount of price adjustment towards variable portion payable/recoverable on each shipment/despatch shall be computed as under :

$$EC = EC_1 - EC_0$$

EC<sub>1</sub> will be computed as follows :

$$EC_1 = EC_0 \left\{ F + a \times \frac{A_1}{A_0} \right\}$$

Where

- EC = Adjustment to Lime Price Component expressed in the currency of the Contract payable to the contractor for each shipment/despatch.
- EC<sub>1</sub> = Adjusted Amount of Lime Price Component expressed in the currency of the Contract payable to the Contractor for each shipment/despatch.
- EC<sub>0</sub> = Lime Price in the currency of the Contract, shipment/despatch wise.
- The fixed portion of the Ex-Works Component of the Contract Price (F) shall be 0.15
  - 'a' shall be co-efficient of 'Lime and calcium carbonate' and its value shall be 0.85.
  - A shall be published price indices of Index for " Lime and calcium carbonate" as published by Office of Economic Advisor , Ministry of Commerce and Industry, GOI.

For the indices, subscript 'o' refers to indices as on 30 days prior to date of opening of Techno-Commercial bids.

Subscript '1' refers to indices as of :

- (a) Deleted
- (b) at the expiry of two third (2/3) period from the date of Notification of Award to the date of shipment/despatch, for material.

For the purpose of this clause the date of shipment/despatch shall mean the schedule date of shipment/despatch or actual date of shipment/despatch, whichever is earlier. The schedule date of shipment/despatch shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

In case of shipments/dispatches which are delayed beyond the schedule date of shipment/despatch for reasons attributable to the Contractor the price adjustment provision shall not be applicable for the period of time between the schedule date of shipment/despatch and the actual date of shipment/despatch. For this purpose, the schedule date of shipment/despatch shall be as identified in line with provisions of Time Schedule, Appendix-4 to the Contract Agreement.

- (xiii) The value of co-efficients and the source of applicable indices and their base values for the purpose of computing price adjustment under the contract shall be as under:

**A. Ex-Works Price Component of Plant and Equipments including spares, but excluding Type Tests Charges**

S.No.	Item	Value of Coefficient	Name of published index and its origin	Value of Base Date Indices (as on 30 days prior to date of opening of Technical bids)
<b>Material</b>				
1.	....	a =	.....	.....
2.	....	b =	.....	.....
3.	.....	c=	.....	.....
	<b>Labour</b>	lb =	.....	.....
	Fixed Complement	F = 0.15	.....	.....

- i) Sum of all material coefficients a,b, c indicated above shall be between 0.50 to 0.60.
- ii) The labour coefficient "l" shall be between 0.25 to 0.35.
- iii) Sum of all material coefficients and labour coefficients shall be 0.85
- iv) Sum of F, a,b, c & l should be equal to 1.0.

**B. Installation Price Component and O&M Services\***

Sl. No.	Item	Value of Co-efficient	Name of Published Index and its origin	Value of Indices as on 30 days prior to date of submission of Envelope-II (Price) Bid.
1.	Fixed Portion	F = 0.15	-----	-----
2.	Indian Field	0.85	All India Consumer	-----



Labour (F) :	Price Index for Industrial workers (All Indian average) published by Labour Bureau, Shimla, Govt. of India.
Labour (W):	Arithmetical average of ----- Minimum Wages for Unskilled, Skilled, Semi-Skilled and highly skilled Workers notified by the Central Government for the particular classified Area in which the project site is located or notified by the State Government of the state in which the project site is located, whichever is higher.

### C. Civil Works Price Component\*

Item	Index	Value of Coefficients	Name of published index and its origin	Value of Base date Indices (as on 7 days) prior to date of opening of Techno-Commercial Bids
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*Fixed Portion F = 0.20*

#### 1. Labour

- (i) **0.5 x Lb = 0.5 x 0.25** Consumer price index for industrial workers (All India General) as published by Labour Bureau, Shimla.
- (ii) **0.5 x Lb = 0.5 x 0.25** Arithmetical average of Minimum Wages for Unskilled, Skilled, Semi-skilled and Highly skilled workers notified by the Central Government for the particular classified Area in which the project site is located or notified by the State Government of the state in which the

- project site is located, whichever is higher
2. Material m = 0.15  
(excluding published cement & steel)  
Index no. of wholesale Price under group "All Commodities" as by Ministry of Commerce and Industry, GOI
  3. High d = 0.05  
per Speed  
Corpn. outlet  
Diesel  
Price of high speed diesel oil litre at the Indian Oil nearest to the project (selling price inclusive of taxes & duties, if any)
  4. Steel s = 0.25  
Index for " MS Wire Rods " under sub-group of " Mild Steel -Long Products " under Group of " Manufacture of Basic Metals " as published by Ministry of Commerce and Industry, GOI.
  5. Cement c = 0.10  
sub- group of  
Index for " Pozzolana Cement " under " Manufacture of cement, lime and plaster " under Group of "Manufacture of other Non-Metallic Mineral Products" as published by Ministry of Commerce and Industry, GOI.

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**D Site Fabricated Structural Works Price Component\***

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Item	Coefficient	Value of Coefficients	Name of published index and its origin	Value of Base Indices (as on 7 days prior to date of opening of Techno-Commercial Bids)
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Material :

- |    |                           |     |      |   |
|----|---------------------------|-----|------|---|
| a) | Hot Rolled Coils & Sheets | (a) | 0.50 | Index for "Hot Rolled (HR) Coils & Sheets, including Narrow Strip" under sub-group of "Mild Steel -Flat Products" under Group of "Manufacture of Basic Metals" as published by Ministry of Commerce and |
|----|---------------------------|-----|------|---|

				Industry, GOI
b)	Manufacture of of fabricated Metal products" Products-Structural Metal Product	(b)	0.15	Index for "Manufacture structural metal  under Group of "Manufacture of Fabricated metal products, except Machinery and Equipment" as published by Ministry of Commerce and Industry, GOI
<i>c) Labour :</i>				
(i)		$0.5 \times I = 0.5 \times 0.15$		Consumer price index for industrial workers (All India General) as published by Labour Bureau, Shimla.
(ii)		$0.5 \times I = 0.5 \times 0.15$		Arithmetical average of Minimum Wages for Unskilled, Skilled, Semi-skilled and Highly skilled workers notified by the  <b>Central Government for the particular classified Area in which the project site is located or notified by the State Government of the state in which the project site is located, whichever is higher</b>
d)	<b>Fixed Component :</b>	$F_s$	<b>0.20</b>	

**(E) Lime Supply for O&M services**

Index for " **Lime and calcium carbonate**" as published by Ministry of Commerce  
and Industry, GOI As on 7 days prior to deadline set for opening of Techno-  
Commercial bids .....\*

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\* The above information shall be filled in at the time of Contract Agreement signing based  
on price adjustment data offered by the bidder in **Attachment-4P** to Bid Form of Price  
Bids and/or as mutually discussed and agreed upon.

## INSURANCE REQUIREMENTS

**(I) Insurance to be taken by the Contractor :**

In accordance with the provisions of GCC Clause 34, the Contractor shall at his expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified herein. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.

Insurance	Amount insured	Deductible	Conditions
A. Marine Cargo	<p>(i) 110% of Ex-works value in case of plant &amp; equipment and Type Tests Charges including all spare parts manufactured within the Employer's Country. Not applicable</p> <p>(ii) Applicable taxes and duties</p> <p>(iii) Escalation 5% on (i) &amp; (ii)</p>		<p>(i) Employer to be named as coinsured</p> <p>(ii) Open policy</p> <p>(iii) All risk institute cargo clause 'A'</p> <p>(iv) War, SRCC, terrorism.</p> <p>(v) Institute replacement clause, special replacement clause (Air duty) and deferred unpacking clause</p> <p>(vi) Insurers right of subrogation against all parties (excluding carrier) waived.</p> <p>(vii) Warehouse to warehouse basis.</p>
B. Installation all risk	<p>(i) 110% of Ex-works value of plant &amp; equipment including Type Test Charges</p> <p>(ii) Applicable taxes and duties</p> <p>(iii) Cost of indigenous procurement and free issue materials</p> <p>(iv) Cost of erection works</p> <p>(iv) Cost of Civil, Structural &amp; Allied works</p> <p>(iv) 10% escalation on (i) (ii), (iii), (iv) &amp; (v)</p>	Minimum as per insurance policy	<p>(i) Installation risk, RSMTD, including Earthquake cover</p> <p>(ii) Air freight cover.</p> <p>(iii) Extra charge cover.</p> <p>(iv) Maintenance cover</p> <p>(v) Contractor's plant &amp; machinery - Rs. 100 lakhs.</p> <p>(vi) Cross liability.</p> <p>(vii) Additional custom duty for imported machine (if any) for adequate value.</p> <p>(viii) Employer &amp; Contractor's Sub-Contractor to be named as co-insured.</p>
C. Third Party liability (Extension of MCE/EAR Policy)	For any one occurrence Rs. 50.00 lakhs	Nil	<p>(i) Contractors, sub-contractors to be named as co-insured.</p>

Insurance	Amount insured	Deductible	Conditions
D. Automobile liability			
(i) M.V. policy for motor vehicles, private cars & commercial vehicles		-----	As per local M.V. Act.
(ii) CPM policy for heavy construction equipment	Anything above Rs.100 lakhs covered under erection all risk policy		
E. Workmen's Compensation _____ As per statute _____			
F. Employer's liability	_____ As per statute _____		Cumulative to workmen's compensation to cover liability not covered thereby.
G. Group personal insurance, for contractor's & sub-contractor's employees			

**Note :**

1. The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC 34.1 except for Third Party Liability, Workman's Compensation and Employer's Liability Insurances and the Contractor's Sub-Contractors shall be named as co-insured under all insurances policies taken out by the Contractor pursuant to GCC 34.1, except for the Cargo insurance during transport, Workman's Compensation and Employer's Liability Insurances. All insurers rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.
2. Notwithstanding the insurance requirements mentioned above, it would be the Contractor's responsibility to take adequate insurance cover as may be pertinent to protect his interest and interest of the Employer. If at any point of time during execution of the Contract, the insurance policies are found to be inadequate, the Contractor shall take fresh insurance policies meeting aforesaid requirements. The Employer reserves the right to make suitable recovery from the Contractor, if any.

3. Any loss or damage to the plant and equipment during handling, transportation, storage, installation, commissioning, and all activities to be performed till the "Completion of Facilities" shall be to the account of the contractor. The contractor shall be responsible for preference of all claims and make good the damages or loss by way of repairs and/or replacement of plant and equipment damaged or lost. Notwithstanding the extent of insurances cover and the amount of claim available from the underwriter, the contractor shall be liable to make good the full replacement/rectification of all the equipment/materials and to ensure their availability as per project requirement without additional financial liability to the Employer.

The insurance should be in the Indian currency and insurance policy to be taken should be on replacement value basis and/or incorporating appropriate insurance clause.

The Contractor shall follow local acts and laws as may be prevalent for insurance.

4. Upon grant of extension of time for completion by Employer, the Contractor shall promptly furnish documentary evidence to Project Manager towards extension of insurance policies for the period of time extension.

**II) Insurances to be taken by the Employer.**

The Employer shall take the insurance for its own employees, its stores and its machinery.

## TIME SCHEDULE

- 1.0 It is clearly understood and agreed that time is the essence of this Contract and shall be strictly adhered to by the Contractor. The program of furnishing, erecting, testing, commissioning and completion of facilities identifying the key phases in various areas of work like design, procurement, manufacture, field activities shall be as per detailed PERT Network/L2 Schedule enclosed as Annexure-I. As per this detailed PERT Network, the key milestones for completion of facilities are as under:

SR. NO.	ACTIVITIES / MILESTONE	PERIOD IN MONTHS FROM NOA	
		START	FINISH
1.	Submission of Engineering drawing & documents after detailed engineering	0	4
2.	Site Mobilization	2	6
3.	Foundation and Civil works	2	10
4.	Supply of Equipment & BOP	2	14
5.	Completion of Erection	4	15
6.	Commissioning & PG Test	16	18

Time to Complete all facilities from date of Notification of Award: 18 months.

- 2.0 After the Notification of Award, the contractor shall plan the sequence of work of manufacture and erection to meet the above stated dates of successful completion of facilities and shall ensure all work, manufacture, shop testing, inspection and shipment of the equipment in accordance with the required construction/erection sequence.
- 3.0 Within one month of the Notification of Award, the Contractor shall submit to the Employer for his review and approval two copies (one reproducible and one print) of detailed PERT Network/L2 Schedule with master network activities further exploded based on the Master Network mutually agreed by the employer and contractor, showing the logic and duration of the activities covered in both the First and Second Contracts in the following areas:

Engineering, procurement, manufacturing and supply, detailed engineering, procurement (including brought out items), manufacturing, despatch, shipment, receipt at site and activities related to civil works, erection, commissioning and completion of facilities.

#### 4.0 Detailed Manufacturing Program

Detailed Manufacturing PERT Network for all the manufacturing activities and Contractor/sub-Contractors works shall also be furnished within 60 days of Notification of award. The manufacturing network shall be supported by detailed procurement program for critical bought out item/raw materials.

#### 5.0 Pre-Erection Activity Program

The erection network will be supported by detailed Pre-erection activity program covering the following:

- A) Manpower Deployment
- B) T&P Mobilization
- C) Detailed Site Mobilization Plant

Any Tools & Plants (T&P) required for satisfactory execution of the Contract and to meet the time schedule specified in this Appendix-4 shall be mobilised by the Contractor as per direction of the Project Manager without any extra cost to the Employer. (The list of such essential Tools & Plants (T&P) to be deployed by the Contractor, if any finalised before Notification of Award, shall be enclosed as Appendix-II to this Appendix-4).

- 6.0 Within one week of approval of the network schedule, the Contractor shall forward to the Project Manager, copies of the Computer Initial run-Data. The type of outputs and number of copies of each type to be supplied by the Contractor shall be determined by the Project Manager.
- 7.0 All the networks shall be updated every month or at a frequency mutually agreed upon. Within seven days following the Monthly Review, a progress meeting shall be held, whenever possible at the works, wherein the major items of the plant or equipment are being produced. The meeting will be attended by the Project Manager and responsible representative of Contractor that the Project Manager consider necessary for the meeting.
- 8.0 Access to the Contractor's and Sub-Contractor's work shall be granted to the Project Manager at all reasonable times for the purpose of ascertaining the progress.





## **ANNEXURE - I TO APPENDIX - 4**

### **MASTER NETWORK**

The Master Network as per para 1.0 of Appendix-4  
shall be enclosed as Annexure-I to Appendix-4

**ANNEXURE - II TO APPENDIX - 4**

**LIST OF TOOLS & PLANT TO BE DEPLOYED BY THE CONTRACTOR**

Sl. No.	Description of T&P	Qty. to be deployed (nos.)
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**LIST OF SAFETY PLANT AND EQUIPMENT AND PPE TO BE DEPLOYED BY THE CONTRACTOR**

<b>Sl. No.</b>	<b>Suggested List of Safety Equipment and Safety Personal Protective Equipment</b>	<b>Minimum Quantity#</b>
1.	<p><b>Safety Net (Conforming IS 11057:1984)</b></p> <p>Safety Net (Net Size: 10m x 5m, Mesh Size: 25 mm, Mesh Rope: 2mm double cord, Border/Tie Cord: 12mm diameter polypropylene rope (tested as per IS: 5175).Two metres length shall be provided at all four corners.</p>	
2.	<p><b>Fall Arrestor ‘Rope grab fall arrester’ &amp; anchorage line.</b></p> <p>Anchorage Line: 14mm- 16 mm diameter, three strand twisted Polyamide rope.</p> <p>Rope Grab fall arrester: Openable &amp; Guided type Fall Arrestor (on flexible line) conforming EN 353-2 &amp; works on 14-16 mm diameter polyamide rope. Material: Nickel Chrome plated Steel</p> <p>Connector: Karbiner conforming to EN 362 (Minimum Strength 22 KN), material: Steel</p>	
3.	<p><b>Horizontal life line</b></p> <p>Stainless Steel Wire rope of 8mm diameter. Minimum six nos. of steel U-bolt clips are required for clamping each wire rope to a rigid support (03 nos. of U-bolt clips at each end).</p>	
4.	<p><b>Ladders on column</b></p> <p>The minimum design live load on metallic ladder shall be a single concentrated load of 100 kilo grams. All rungs shall have a minimum diameter of 1.90 centimeters, and minimum clear length of rungs shall be 40.6 centimeters. The distance between rungs shall not exceed 30.5 centimeters. Each ladder shall have maximum height of 9.0 metre.</p> <p>The ladder shall have proper fastenings for attaching it to a column using positive means such as bolt, weld or other type of fasteners.</p>	
5.	<p><b>Safety PPEs ( Industrial Safety helmet &amp; Industrial Safety Shoes)</b></p>	

Sl. No.	Suggested List of Safety Equipment and Safety Personal Protective Equipment	Minimum Quantity#
	<p>Industrial Safety Helmet (IS:2925-1984 marked).</p> <p>Industrial Safety/Electrical Shoes (IS:15298-2002 marked).</p> <p>Full body Safety Harness (conforming IS:3521)</p>	

**# Safety Equipment and Safety Personal Protective Equipment shall be deployed by contractor to meet the safety requirement. Quantity shall be deployed as per direction of Project Manager.**

## LIST OF SUB-CONTRACTORS

### PART 1. **Nominated Sub-Contractors**

In the event that the employer wishes to nominate any particular Sub-Contractors for the undertaking of any part or parts of the Works, these shall be identified and named by the Employer in the following schedule prior to the issue of the Bidding Documents.

Full details shall be given of the part of the Works to be executed, and the names and addresses of the Sub-Contractors to whom the part of the Works is to be sub-contracted by the Bidder. Where more than one name is given for any part of the Work, the Bidder shall be free to select any of the named Sub-Contractors for that part.

Item of Work	Nominated Sub-Contractor
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NIL

### PART 2 **Approved Sub-Contractors**

*(Prior to award of Contract the following details shall be completed indicating those Sub-contractors proposed by the Bidder by Attachment to his Bid which are approved by the Employer for engagement by the Contractor during the performance of the Works).*

The following Sub-Contractors are approved for carrying out the item of work indicated. Where more than one Sub-contractor is listed, the Contractor is free to choose between them but he must notify the Employer of his choice in good time prior to appointing any selected Sub-Contractor. In accordance with Clause GCC 19.1, the Contractor is free to submit proposals for additional Sub-Contractors from time to time. No Sub-Contracts shall be placed with any such additional Sub-Contractors until they have been approved in writing by the Employer and their names added to this list of Approved Sub-Contractors.

Sl.No.	Item of Work	Approved Sub-Contractors	Nationality
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**SCOPE OF WORKS AND SUPPLY BY THE EMPLOYER**

The facilities, works, supplies and personnel to be provided/supplied by the Employer shall be as per Technical Specifications and the provisions of GCC Clauses 10, 21 and 24 shall apply as appropriate.

All facilities, works, supplies and personnel to be provided by the Employer shall be as described in Technical Specifications and the same will be provided by the Employer in good time so as not to delay the performance of the Contractor, in accordance with the approved Time Schedule and Program of Performance pursuant to GCC Sub-Clause 18.2.

**LIST OF DOCUMENTS FOR REVIEW AND APPROVAL**

A. Approval

1.

2.

3.

B. Review

1.

2.

3.



## **FUNCTIONAL GUARANTEES**

The functional guarantees shall be as per Section-VI (Technical Specifications).